

SECURITIES AND EXCHANGE COMMISSION

FORM S-1

General form of registration statement for all companies including face-amount certificate companies

Filing Date: **1999-09-10**
SEC Accession No. **0000891618-99-004128**

([HTML Version](#) on [secdatabase.com](#))

FILER

ONDISPLAY INC

CIK: **1093513** | IRS No.: **680391052** | Fiscal Year End: **1231**
Type: **S-1** | Act: **33** | File No.: **333-86889** | Film No.: **99709467**

Business Address
12667 ALCOSTA BLVD
SUITE 300
SAN RAMON CA 94583

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON SEPTEMBER 10, 1999

REGISTRATION NO. -

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ONDISPLAY, INC.
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

<TABLE>				
<CAPTION>				
<S>	DELAWARE	<C>	7372	<C>
	(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)		(PRIMARY STANDARD INDUSTRIAL CLASSIFICATION CODE NUMBER)	(I.R.S. EMPLOYER IDENTIFICATION NUMBER)
</TABLE>				

ONDISPLAY, INC.
12667 ALCOSTA BOULEVARD, SUITE 300
SAN RAMON, CA 94583
925-355-3200
(ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF
REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

MARK PINE
CHIEF EXECUTIVE OFFICER
ONDISPLAY, INC.
12667 ALCOSTA BOULEVARD, SUITE 300
SAN RAMON, CA 94583
925-355-3200
(NAME, ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE,
OF AGENT FOR SERVICE)

COPIES TO:

<TABLE>		<C>
<S>	MARIO M. ROSATI, ESQ. ADAM D. LEVY, ESQ. ROSE ANN ROTANDARO, ESQ. WILSON SONSINI GOODRICH & ROSATI PROFESSIONAL CORPORATION 650 PAGE MILL ROAD PALO ALTO, CA 94304 650-493-9300	CURTIS L. MO, ESQ. J. OMAR MAHMUD, ESQ. ALAN C. WANG, ESQ. BROBECK, PHLEGER & HARRISON LLP TWO EMBARCADERO PLACE 2200 GENG ROAD PALO ALTO, CA 943034 650-424-0160
</TABLE>		

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:
As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. []

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement

for the same offering. []

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. []

CALCULATION OF REGISTRATION FEE

<TABLE>

<S>	<C>	<C>	<C>	<C>
TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED (1)	PROPOSED MAXIMUM OFFERING PRICE PER SHARE (2)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE (2)	AMOUNT OF REGISTRATION FEE
Common stock, \$0.001 par value.....		\$	\$46,000,000	\$12,788.00

</TABLE>

- (1) Includes _____ shares which the underwriters have the option to purchase to cover over-allotments, if any.
- (2) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(c) under the Securities Act of 1933.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

2

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL SECURITIES, AND WE ARE NOT SOLICITING OFFERS TO BUY THESE SECURITIES, IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED SEPTEMBER 10, 1999

LOGO

SHARES

COMMON STOCK

OnDisplay, Inc. is offering _____ shares of our common stock. This is our initial public offering, and no public market currently exists for our shares. Our common stock have been approved for quotation on the Nasdaq National Market under the symbol "ONDS," subject to official notice of issuance. We anticipate that the initial public offering price will be between \$ _____ and \$ _____ per share.

INVESTING IN OUR COMMON STOCK INVOLVES RISKS. SEE "RISK FACTORS" BEGINNING ON PAGE 7.

<TABLE>
<CAPTION>

<S>	PER SHARE	TOTAL
<S>	<C>	<C>
Public Offering Price.....	\$	\$
Underwriting Discounts and Commissions.....	\$	\$
Proceeds to OnDisplay, Inc.....	\$	\$

</TABLE>

THE SECURITIES AND EXCHANGE COMMISSION AND STATE SECURITIES REGULATORS HAVE NOT APPROVED OR DISAPPROVED THESE SECURITIES, OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

OnDisplay has granted the underwriters a 30-day option to purchase up to an additional shares of common stock to cover over-allotments.

BANCOSTON ROBERTSON STEPHENS

SG COWEN

DEUTSCHE BANC ALEX. BROWN

The date of this prospectus is , 1999

3

ONDISPLAY
GRAPHICS

FRONT COVER:

FOLD: table of contents

INSIDE FOLD: as follows:

Written in bold at the top of the diagram/graphic:

AUTOMATING THE E-BUSINESS COMMUNITY

The diagram is as follows:

Two rectangular computer servers are centered on the page back to back with arrows pointing to each other: the left computer server has: E-BUSINESS PORTAL written below the graphic: The right computer server has: E-MARKETPLACE written above graphic.

From the E-BUSINESS PORTAL computer server = five arrows (with two points <->) lead to four smaller servers and a computer screen and are as follows from top to bottom in a crescent shape:

1(st) computer server has the word: AFFILIATE written to the left of the server

2(nd) computer server has the word: TRADING PARTNER written to the left of the server

3(rd) is a computer screen which has the word: SUPPLIER written to the left of the computer screen

4(th) is a computer server with the word: CUSTOMER written to the left of the computer server

5(th) is a computer server with the word: E-MARKETPLACE written to the left of the computer

From the E-MARKETPLACE computer server = four arrows (with two points <->) lead to three smaller computer servers and a computer screen and are as follows from top to bottom in a crescent shape:

1(st) computer server has the word: BUYER written to the right of the server

2(nd) computer server has the word: SUPPLIER written to the right of the server

3(rd) is a computer screen and has the word: SUPPLIER written to the right of the computer screen

4(th) computer server has the word: BUYER written to the right of the computer server

Underneath the diagram will read as follows:

OnDisplay's CenterStage(R) product suite enables e-business portals and e-marketplaces to exchange information and services automatically and seamlessly. Using CenterStage, e-Business entities in both business-to-business (B2B and business-to-consumer (B2C) markets can:

- Slash their time-to-market for delivery of rich, relevant information and services
- Engage and retain customers by building strong lasting relationships with personalized services (one line for each bullet)
- Increase revenues and expand their market share with superior Internet services
- Scale their e-Businesses effectively to meet market demand

OnDisplay's CenterStage product suite enables e-Business portals and e-Marketplaces to:

- Aggregate rich, relevant content and services for diverse communities of customers, suppliers, affiliates, and trading partners
- Integrate e-Business applications with back-office operational systems
- Personalize content of interest to customers proactively

4

- Exchange complex business transactions with partners using XML
- Share customized information with partners and affiliates

ONDISPLAY
GRAPHICS

BACK COVER:

INSIDE BACK COVER:

Centered on the top of the inside back cover page reads:

ONDISPLAY E-BUSINESS CUSTOMERS

And the following customer logos are floating around on the top half of the page:

ClubComputer.com
Fastxchange
Grainger.com
Travelocity.com
Trip.com

Centered on the second half of the inside back cover page reads:

ONDISPLAY E-BUSINESS PARTNERS

And the following business partners logos are floating around on the bottom half of the page:

Ariba
IBM
Microsoft
BroadVision
Vignette
Commerce One

OUTSIDE BACK COVER:

Centered on the back cover page is the OnDisplay Logo with the address written to the left of the logo:

12667 Alcosta Blvd.
Suite 300
San Ramon, CA 94583

5

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS PROSPECTUS. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE YOU WITH INFORMATION DIFFERENT FROM THAT CONTAINED IN THIS PROSPECTUS. WE ARE OFFERING TO SELL, AND SEEKING OFFERS TO BUY, SHARES OF COMMON STOCK ONLY IN JURISDICTIONS WHERE OFFERS AND SALES ARE PERMITTED. THE INFORMATION CONTAINED IN THIS PROSPECTUS IS ACCURATE ONLY AS OF THE DATE OF THIS PROSPECTUS, REGARDLESS OF THE TIME OF DELIVERY OF THIS PROSPECTUS OR OF ANY SALE OF THE COMMON STOCK. IN THIS PROSPECTUS, REFERENCES TO "ONDISPLAY," "WE," "US" AND "OUR" REFER TO ONDISPLAY, INC.

UNTIL _____, 1999, ALL DEALERS THAT BUY, SELL OR TRADE OUR COMMON STOCK, WHETHER OR NOT PARTICIPATING IN THIS OFFERING, MAY BE REQUIRED TO DELIVER A PROSPECTUS. THIS REQUIREMENT IS IN ADDITION TO THE DEALERS' OBLIGATION TO DELIVER A PROSPECTUS WHEN ACTING AS UNDERWRITERS AND WITH RESPECT TO THEIR UNSOLD ALLOTMENTS OR SUBSCRIPTIONS.

TABLE OF CONTENTS

<TABLE>
<CAPTION>

	PAGE
<S>	<C>
Summary.....	4
Risk Factors.....	7
Use of Proceeds.....	18
Dividend Policy.....	18
Capitalization.....	19
Dilution.....	20
Selected Financial Data.....	21
Management's Discussion and Analysis of Financial Condition and Results of Operations.....	23
Business.....	33
Management.....	45
Certain Transactions.....	53
Principal Stockholders.....	55
Description of Capital Stock.....	57
Shares Eligible For Future Sale.....	60
Underwriting.....	62
Legal Matters.....	64
Experts.....	64
Where You Can Find Additional Information.....	65
Index to Financial Statements.....	F-1

</TABLE>

CenterStage(R) and the OnDisplay(R) name and logo and the names of products and services offered by us (including those referred to in "Business") are trademarks, registered trademarks, service marks or registered service marks of OnDisplay. Other service marks, trademarks and trade names referred to in this prospectus are the property of their respective owners.

3

6

SUMMARY

Because this is only a summary, it does not contain all the information that may be important to you. You should read the entire prospectus, especially "Risk Factors" and the Financial Statements and notes to those statements appearing elsewhere in this prospectus, before deciding to invest in our common stock. Except as described in the financial statements or as otherwise specified in this prospectus, all information in this prospectus: (1) assumes no exercise of the underwriters' over-allotment option; and (2) reflects the conversion of all of our outstanding preferred stock into common stock upon the effectiveness of the registration statement related to this offering.

We provide a comprehensive suite of e-business infrastructure applications for powering e-business portals and e-marketplaces.

As the Internet has emerged as the fastest growing global communications medium in history, companies across multiple industries have been forced to leverage the ubiquity and openness of the Web to remain competitive. Nearly every company in the world today faces the strategic imperative of re-creating itself into an electronic commerce, or e-commerce, company, augmenting or even replacing its traditional distribution, supply chain and customer-service channels with Internet-based channels. Although the first generation of e-commerce consisted primarily of basic Web sites offering product information for marketing purposes, today the stakes are higher. Successful companies now need to create value-added relationships with partners and suppliers and offer differentiated and unique online services to customers. This next generation of e-commerce, often referred to as e-business, is transforming the way business is done and has given rise to the "Internet economy."

In the Internet economy, businesses must deliver comprehensive online services and information to offer enhanced value to their customers, partners and suppliers. In particular, companies seek to participate in two complementary e-business channels -- e-business portals and e-marketplaces -- as distinct ways to capitalize on the Internet, expand their businesses and protect their revenue opportunities. An e-business portal is an online destination site where vendors create value-added relationships with their customers or business partners by offering an expanded set of information and services. An e-marketplace is a comprehensive trading hub designed to efficiently broker transactions and services among multiple buyers and sellers. According to Forrester Research, the volume of business-to-business e-commerce transacted through e-business portals, e-marketplaces and other e-business offerings will grow from \$43 billion in 1998 to \$1.3 trillion in 2003.

There are many demands placed on the infrastructure of e-business portals

and e-marketplaces. Companies deploying e-business portals and e-marketplaces must be able to offer a broad range of dynamic information and services from a large, diverse set of partners, suppliers and customers, and do so faster than their competitors. Compounding this challenge is the fact that these e-business relationships require agility in terms of flexible, adaptable connections that accommodate rapid change. To successfully address these business requirements, e-business portals and e-marketplaces must meet complicated technical requirements for aggregating, exchanging, integrating, personalizing and syndicating a diverse array of critical information and services among a broad range of business partners. Given the complexity of meeting these demands, e-business portals and e-marketplaces face significant challenges in effectively scaling their businesses to fully capitalize on the opportunities created by the Internet.

We provide a comprehensive suite of e-business infrastructure applications for powering e-business portals and e-marketplaces. Our CenterStage product suite addresses the unique challenges faced by e-business portals and e-marketplaces in both business-to-business and business-to-consumer e-commerce. We provide an integrated solution for enabling the rapid aggregation, exchange, integration, personalization, and syndication of critical e-business information and services for e-business portals and e-marketplaces. We believe our solution enables these customers to: achieve rapid time-to-market, engage and retain customers, increase revenues and market share, and enable scalable and agile e-business.

4

7

Our objective is to become the leading provider of comprehensive e-business infrastructure applications for powering e-business portals and e-marketplaces. Key elements of our strategy to achieve this objective include:

- targeting e-business portal and e-marketplace markets;
- leveraging customer network effects;
- extending our technology leadership;
- building upon our network of relationships; and
- expanding our international presence.

We market our CenterStage products and related services primarily through a direct sales organization. Our direct sales organization focuses on recently formed companies that are creating e-business portals and e-marketplaces and larger corporate customers building or improving their Web presence. Our e-business portal and e-marketplace customers include: Aspect Development, ClubComputer.com, FASTXchange, Harbinger Corporation, Impulse! Buy Network, The Trip.com, Sabre/Travelocity.com and telstreet.com.

CORPORATE INFORMATION

OnDisplay, Inc. was incorporated in Delaware in August 1996. Our principal executive offices are located at 12667 Alcosta Boulevard, Suite 300, San Ramon, California 94583. Our telephone number at this location is (925) 355-3200. Our corporate Internet address is www.ondisplay.com. The information contained on our website is not a part of this prospectus.

THE OFFERING

Common stock to be offered by OnDisplay.....	shares
Common stock outstanding after the offering.....	shares
Use of proceeds.....	See "Use of Proceeds."
Nasdaq National Market Symbol.....	ONDS

5

8

SUMMARY FINANCIAL DATA
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

<TABLE>
<CAPTION>

	PERIOD FROM	YEAR ENDED	SIX MONTHS ENDED
--	-------------	------------	------------------

	AUGUST 14, 1996 (DATE OF INCEPTION) TO DECEMBER 31, 1996	DECEMBER 31,		JUNE 30,	
		1997	1998	1998	1999
				(UNAUDITED)	
<S>	<C>	<C>	<C>	<C>	<C>
License revenues.....	\$ --	\$ 265	\$ 2,229	\$ 876	\$ 1,937
Service revenues.....	--	--	1,114	276	1,718
Total revenues.....	\$ --	\$ 265	\$ 3,343	\$ 1,152	\$ 3,655
Loss from operations.....	(617)	(5,689)	(8,479)	(3,616)	(6,076)
Net loss.....	(572)	(5,534)	(8,348)	(3,581)	(6,074)
Net loss per share -- basic and diluted.....	\$ (0.17)	\$ (1.62)	\$ (2.34)	\$ (1.04)	\$ (1.56)
Shares used in per share calculation -- basic and diluted.....	3,400,000	3,410,313	3,572,353	3,432,260	3,881,291
Pro forma net loss per share -- basic and diluted.....			\$ (0.75)		\$ (0.48)
Shares used in pro forma net loss per share -- basic and diluted.....			11,174,494		12,772,845

</TABLE>

<TABLE>

<CAPTION>

	JUNE 30, 1999		
	ACTUAL	PRO FORMA	PRO FORMA AS ADJUSTED
<S>	<C>	<C>	<C>
(UNAUDITED)			
BALANCE SHEET DATA:			
Cash and cash equivalents.....	\$ 2,970	\$ 2,970	\$
Working capital.....	1,337	1,337	
Total assets.....	6,975	6,975	
Long-term debts, net of current portion.....	2,367	2,367	2,367
Mandatorily redeemable convertible preferred stock.....	18,982	--	
Accumulated deficit.....	(20,528)	(20,528)	
Total stockholders' equity (deficit).....	(18,835)	147	

</TABLE>

6

9

RISK FACTORS

You should consider the risks described below before making an investment decision. The risks and uncertainties described below are not the only ones facing our company. Additional risks that we are unaware of or that we currently believe are immaterial may become important factors that affect our business. Our business, operating results or financial condition could be materially adversely affected by any of the following risks. The trading price of our common stock could decline due to any of the following risks, and you might lose all or part of your investment.

WE HAVE A HISTORY OF LOSSES AND EXPECT LOSSES IN THE FUTURE. IF WE DO NOT ACHIEVE OR SUSTAIN PROFITABILITY OUR BUSINESS WILL SUFFER AND OUR STOCK PRICE MAY DECLINE.

We were incorporated in August 1996 and first recognized revenues in the fourth quarter of 1997. As of June 30, 1999, we had an accumulated deficit of approximately \$20.5 million. To date, we have not had a profitable quarter and do not expect to have a profitable quarter in 2000. If we do achieve profitability, we cannot be certain that we can sustain or increase profitability on a quarterly or annual basis in the future. To date, we have funded our operations from the sale of equity securities and have not generated cash from operations. We expect to continue to incur significant costs developing and introducing enhancements to our suite of e-business infrastructure applications and related services and on expanding our direct sales and marketing activities, leading to losses at least through 2001. These losses could harm our business and cause a decrease in the market price of our common stock. Although our revenues have grown in recent quarters, we do not

believe that we can sustain these growth rates, or that these growth rates are indicative of future revenue growth rates. See "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

OUR QUARTERLY OPERATING RESULTS ARE VOLATILE AND DIFFICULT TO PREDICT AND IF WE FAIL TO MEET THE EXPECTATIONS OF PUBLIC MARKET ANALYSTS AND INVESTORS, THE MARKET PRICE OF OUR COMMON STOCK MAY DECREASE SIGNIFICANTLY.

Our quarterly operating results have varied in the past and may vary significantly in the future. Because our business is evolving rapidly and we have a limited operating history, we have little experience in forecasting our revenues. Since our operating results are volatile and difficult to predict, we believe that period-to-period comparisons of our operating results are not a good indication of our future performance. Our future quarterly operating results may be below the expectations of public market analysts and investors. In this event, the market price of our common stock may decrease significantly. Our future quarterly operating results may vary for several reasons, including:

- demand for and the timing of sales of our CenterStage products and related services;
- actions taken by our competitors, including new product introductions and enhancements;
- changes in the rapidly evolving market for e-business infrastructure applications;
- our ability to develop, introduce and market e-business infrastructure applications and enhancements to our existing CenterStage products on a timely basis;
- changes in our pricing policies and those of our competitors; and
- our inability to complete large sales on schedule.

Historically, we have recognized a substantial portion of our revenues in the last few days of a quarter. Accordingly, we cannot accurately predict our financial results for any quarter until very late in that quarter. A delay in an anticipated sale near the end of a quarter can seriously harm our operating results for that quarter. In addition, we derive a significant portion of our revenues from the license of our CenterStage products in each quarter from a small number of large orders. Although we do not believe that the loss of any particular customer would have an adverse effect on our business, our operating results could be adversely affected if we are unable to complete one or more substantial license sales in any future period.

7

10

Our expense levels are relatively fixed in the short term and are based, in part, on our expected future revenues. We cannot be certain that our revenues expectations will be accurate or that we will be able to adjust spending in a timely manner to compensate for any unexpected revenue shortfall. As a result, any delay in generating or recognizing revenues could cause significant variations in our operating results from quarter to quarter and could result in increased operating losses.

WE HAVE RELIED AND EXPECT TO CONTINUE TO RELY ON OUR CENTERSTAGE PRODUCT SUITE FOR OUR REVENUES, INCLUDING NEW PRODUCTS WITH WHICH WE HAVE LIMITED EXPERIENCE SELLING.

Most of our revenues in 1998 were derived from software license and service fees from one suite of products, CenterStage, which until recently has consisted of CenterStage eContent and CenterStage eIntegrate. We have recently introduced three new products to our CenterStage product suite, CenterStage eNotify, CenterStage eBizXchange and CenterStage eSyndicate. Given our limited experience selling these three new products, we cannot forecast the level and timing of their market acceptance.

We expect that this suite of products will continue to account for the substantial majority of our total revenues for at least the next several quarters. However, we may not receive these revenues if:

- broad standards for conducting e-business emerge and become widely adopted, thus reducing the need for our infrastructure products;
- information services departments of companies choose to create their e-business portals and e-marketplaces internally or use third-party professional developers to create and maintain their sites;

- competitors develop products, technologies or capabilities that render our CenterStage products and related services obsolete or noncompetitive or that shorten the life cycles of these products and services;
- our CenterStage products do not meet customer performance needs or fail to remain free of significant software defects or bugs; or
- we are unable to recruit and retain the additional sales personnel needed to effectively market our CenterStage products.

Furthermore, to remain competitive, software products like ours typically require frequent updates that add new features. There can be no assurance that we will succeed in creating and selling updated or new versions of our CenterStage products. A decline in demand for, or in the average selling price of, our CenterStage products, may significantly hurt our business and cause our stock price to fall.

THE MARKET FOR E-BUSINESS PORTALS AND E-MARKETPLACES IS NEW AND EMERGING AND IF IT DOES NOT GROW AS RAPIDLY AS WE ANTICIPATE OR FAILS TO EMERGE AT ALL, OUR BUSINESS WILL SUFFER.

Our success is dependent on the emergence of the market for e-business portals and e-marketplaces. We are planning to dedicate all of our sales, marketing and product development efforts toward e-business portals and e-marketplaces and if these markets do not develop as rapidly as we expect, our business will be harmed. A number of factors could prevent or hinder the emergence of these markets, including the following:

- the unwillingness of customers to change their traditional method of conducting commerce;
- the failure of the Internet network infrastructure to keep pace with substantial growth; and
- adverse publicity and consumer concern about the security of electronic commerce transactions.

IT IS DIFFICULT TO PREDICT THE TIMING OF INDIVIDUAL ORDERS BECAUSE OUR CENTERSTAGE PRODUCTS HAVE LONG AND VARIABLE SALES CYCLES.

Variations in the length of our sales cycles could cause our revenues to fluctuate widely from period to period. Because our operating expenses are relatively fixed over the short term, these fluctuations could cause our operating results to suffer in some future periods. To date, the average sales cycle for our CenterStage products has been three to six months and has required pre-purchase evaluation by a significant number of decision makers, including senior management. Our sales cycles can be much longer for larger opportunities with new customers. Since a number of factors influence the sales process, the period between our initial contact with a new customer and the time we recognize revenues from that customer varies widely. We spend significant time educating and providing information to our prospective customers regarding the use and benefits of our CenterStage products. Even after purchase, our customers tend to deploy our solution slowly and deliberately. Deployment schedules depend on the specific technical capabilities of each customer, the size of the deployment, the complexity of each customer's network environment, and the quantity of hardware and the degree of hardware configuration required.

WE FACE COMPETITION PRIMARILY FROM COMPANIES DEVELOPING THEIR OWN INTERNAL E-BUSINESS INFRASTRUCTURE SYSTEMS AND OTHER PROVIDERS OF E-BUSINESS INFRASTRUCTURE SOLUTIONS AND IF WE ARE UNABLE TO COMPETE SUCCESSFULLY, OUR BUSINESS WILL BE SERIOUSLY HARMED.

The market for e-business infrastructure applications and services is intensely competitive, evolving and subject to rapid technological change. We expect the intensity of our competition to increase in the future. We may not be able to compete successfully against current and future competitors. Competitors vary in size and in the scope and breadth of the products and services offered. To date, we have faced competition from the internal information technology departments of current and potential customers that have developed or may develop in-house e-business infrastructure systems that may substitute for those we offer. We expect that internally developed e-business infrastructure systems will continue to be a principal source of competition in the future. With regard to the license of e-business infrastructure applications, we primarily encounter competition from webMethods. If we are successful, we expect to encounter many additional competitors in the future. In addition, because there are relatively low barriers to entry in the e-business infrastructure applications market, we expect additional competition from other established and emerging companies as

this market continues to develop and expand. In particular, we believe we may face competition from IBM, Microsoft, Oracle and Sun Microsystems if they perceive entry into our market segment as strategic. We may also face competition from established companies in the enterprise application integration, enterprise application, procurement software and e-business platform software markets, any of whom could move into the Web exchange market or build and market products. Competition could also emerge from established companies in the application server market or from companies that specialize in creating and distributing content over the Web.

Many of our competitors have longer operating histories, significantly greater financial, technical, marketing and other resources, significantly greater name recognition and a larger installed base of customers than we have. In addition, many of our competitors have well-established relationships with current and potential customers of ours, have extensive knowledge of our industry and are capable of offering alternative solutions. As a result, our competitors may be able to respond more quickly to new or emerging technologies and changes in customer requirements, or to devote greater resources to the development, promotion and sale of their products and services than we can. In addition, many of our current and potential competitors have established or may establish cooperative relationships among themselves or with third parties that may improve their ability to address customer needs. Accordingly, it is possible that new competitors or alliances among competitors may emerge and rapidly acquire significant market share. Increased competition is likely to result in price reductions, reduced gross margins and loss of market share, any of which could harm our business, operating results and financial condition.

9

12

WE NEED TO EXPAND OUR DIRECT SALES OPERATIONS IF WE ARE TO INCREASE MARKET AWARENESS AND SALES OF OUR CENTERSTAGE PRODUCTS AND RELATED SERVICES AND MAINTAIN GROWTH.

If we fail to increase our direct sales capabilities as we have planned, our business, operating results and financial condition will be harmed. Our CenterStage products and related services require a sophisticated sales effort targeted at senior management of our prospective customers. We have recently expanded our direct sales force and plan to hire additional sales personnel. Competition for qualified sales personnel is intense in each of the locations we plan to expand, and we might not be able to hire and retain the type and number of sales personnel we are targeting. New hires will require extensive training and typically take several months to achieve productivity. We cannot be certain that our recent hires will be as productive as necessary.

OUR BUSINESS MAY BE HARMED IF WE ARE UNABLE TO RETAIN OUR KEY PERSONNEL OR ATTRACT ADDITIONAL KEY PERSONNEL, PARTICULARLY SINCE EXPERIENCED PERSONNEL AND NEW SKILLED PERSONNEL ARE IN SHORT SUPPLY.

We have experienced difficulties attracting, hiring, training and retaining new personnel in the past, and all of our personnel, including members of our management team, may terminate their employment with us or decide to work for one of our competitors at any time for any reason. Currently, we are particularly dependent upon the services of our founder, President and Chief Executive Officer, Mark Pine, and founder and Chief Technical Officer, Trung Dung. The loss of Mr. Pine's or Mr. Dung's services would materially impede the operation and growth of our business.

Competition for key personnel is intense, particularly in the San Francisco Bay Area, where our headquarters is located, and we may fail to retain our key employees, or attract, assimilate or retain other highly qualified personnel in the future. If so, our business, operating results and financial condition could be seriously harmed. In addition, we expect to face greater difficulty attracting these personnel with equity incentives as a public company than we did as a privately-held company. We do not maintain key person life insurance for any of our personnel.

OUR BUSINESS WILL SUFFER IF WE FAIL TO SUCCESSFULLY MANAGE OUR GROWTH.

Our ability to offer our CenterStage products and related services in a quickly evolving market requires an effective planning and management process. Therefore, we have expanded our operations rapidly since inception, and we intend to continue to expand them in the foreseeable future. This rapid growth places significant demand on our managerial and operational resources and our internal training capabilities. In addition, we have recently hired a significant number of employees and plan to further increase our total headcount. We also plan to expand the geographic scope of our operations, both domestically and internationally. This expansion will continue to substantially burden our management team. To manage growth effectively, we must:

- implement and improve our operational, financial and other systems, procedures and controls on a timely basis;
- expand, train and manage our workforce, particularly our sales and marketing and support organizations; and
- identify and move into suitable office space to expand our facilities.

We cannot be certain that our systems, procedures or controls will be adequate to support our current or future operations or that our management will be able to manage expansion and still achieve the rapid execution necessary to meet our growth expectations. Failure to manage our growth effectively could harm our business.

10

13

IF WE FAIL TO ADEQUATELY RESPOND TO RAPID TECHNOLOGICAL CHANGES, OUR EXISTING PRODUCTS WILL BECOME OBSOLETE OR UNMARKETABLE.

New approaches to aggregate, exchange, integrate, personalize and syndicate information over the Internet based on new technologies and industry standards could render our CenterStage products obsolete and unmarketable. We believe that to succeed we must enhance our CenterStage products, develop new products on a timely basis to keep pace with technological developments and satisfy the increasingly sophisticated requirements of our customers. Therefore, we cannot be certain that we will successfully respond to technological change, evolving industry standards or customer requirements. If we are unable to adequately respond to these changes, our revenues and market share could rapidly decline. In addition, we have experienced development delays and related cost overruns on occasion, and we cannot be certain that we will not encounter these problems in the future. Any delays in developing and releasing new products or enhancements to our CenterStage products could result in:

- customer dissatisfaction;
- cancellation of orders and license agreements;
- negative publicity;
- loss of revenues;
- slower market acceptance; and
- legal action by customers against us.

Our CenterStage products are designed to work on a variety of hardware and software platforms used by our customers. However, these products may not operate well with future versions of hardware and software platforms, programming languages, database environments, accounting and other systems that our customers use. We must constantly modify and improve our technology to keep pace with changes made to these platforms and to operational applications and other Internet-related applications. This may result in uncertainty relating to the timing and nature of new product announcements, introductions or modifications, which may harm our business. If we fail to modify or improve our CenterStage products in response to evolving industry standards, they could rapidly become obsolete or unmarketable, which would harm our business.

OUR BUSINESS WILL SUFFER IF OUR CENTERSTAGE PRODUCTS CONTAIN ERRORS.

Our e-business infrastructure applications are complex and may contain undetected errors or result in system failures, especially when first introduced or when new versions or enhancements are released. Despite extensive testing, errors could occur in any of our current or future product offerings after commencement of commercial shipments. Testing of our CenterStage products is particularly challenging because it is difficult to simulate the wide variety of computer environments into which they are deployed. The implementation of our CenterStage products typically involves working with sophisticated software, computing and communications systems. If our software contains undetected errors or we fail to meet our customers' expectations in a timely manner we could experience:

- loss of or delay in revenues and loss of market share;
- loss of customers;
- failure to achieve market acceptance;
- diversion of development resources;

- diversion of customer support resources;
- negative publicity;
- increased service and warranty costs;

11

14

- legal actions by customers against us; and
- increased insurance costs.

Our licenses with customers generally contain provisions designed to limit our exposure to potential product liability claims such as disclaimers of warranties and limitations on liability for special, consequential and incidental damages. In addition, our license agreements generally limit the amounts recoverable for damages to the amounts paid by our customers to us for the products or services giving rise to the damages. We cannot be certain that the limitations of liability we include in our contracts will be enforceable since existing or future laws or unfavorable judicial decisions could negate these liability limiting provisions. The successful assertion of one or more large claims that exceed contractual limitations on our liability, could cause our revenues to decrease and our stock price to fall.

Because our customers use our CenterStage products for mission-critical applications, errors or defects in or other performance problems associated with these products could result in financial or other damages to our customers. Our customers may then seek damages for losses from us. We have not experienced any product liability claims to date. However, a product liability claim brought against us, even if not successful, would likely be time-consuming and costly and could harm our business.

IF WE FAIL TO ADEQUATELY PROTECT OUR INTELLECTUAL PROPERTY RIGHTS OR FACE A CLAIM OF INTELLECTUAL PROPERTY INFRINGEMENT BY A THIRD PARTY, WE COULD LOSE OUR INTELLECTUAL PROPERTY RIGHTS OR BE LIABLE FOR SIGNIFICANT DAMAGES.

Our success depends in large part on our ability to adequately protect our intellectual property rights. We require our customers to enter into license agreements, which impose restrictions on our customers' ability to utilize our CenterStage products. In addition, we seek to avoid disclosure of our trade secrets by, among other methods, restricting access to our source code and requiring those persons with access to our proprietary information to execute confidentiality agreements with us. However, some of these confidentiality agreements contain provisions that may permit these persons, in certain circumstances, to develop products based on our proprietary information as a result of their access to our source code. If these persons develop products based on our proprietary information, the value of our proprietary information will be adversely impacted. We seek to protect our source code, documentation and other written materials under trade secret and copyright laws, which afford only limited protection. We also seek to protect our trademarks, but our actions may be inadequate to prevent misappropriation or infringement or to prevent others from claiming violations of their trademarks by us.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our technology or to obtain and use information that we regard as proprietary. Policing unauthorized use of our technology is difficult, and while we are unable to determine the extent to which piracy of our CenterStage products exists, software piracy can be a persistent problem. In addition, as we expand our operations globally, we become increasingly exposed to intellectual property infringement since the laws of some foreign countries do not protect our proprietary rights to as great an extent as the laws of the United States. Our means of protecting our proprietary rights may not be adequate and our competitors may independently develop similar technology, duplicate our CenterStage products or design around our other intellectual property. There has been a substantial amount of litigation in the software industry regarding intellectual property rights. It is possible that in the future third parties may claim that our current or future products infringe their intellectual property. We expect that software developers will increasingly be subject to infringement claims as the number of products and competitors in our industry segment grows and the functionality of products in different industry segments overlaps. Any intellectual property claims, with or without merit, could be time-consuming, result in costly litigation, cause product shipment delays or require us to enter into royalty or licensing agreements. Any royalty or licensing agreements, if required, may not be available on terms acceptable to us, or at all, which could seriously harm our business, operating results and financial condition.

12

THERE IS SUBSTANTIAL RISK THAT FUTURE REGULATIONS COULD BE ENACTED THAT EITHER DIRECTLY RESTRICT OUR BUSINESS OR INDIRECTLY IMPACT OUR BUSINESS BY LIMITING THE GROWTH OF INTERNET COMMERCE.

As Internet commerce evolves, we expect federal, state or foreign agencies to adopt regulations covering many issues, including user privacy, pricing, content and quality of products and services. If enacted, these laws, rules or regulations could limit the market for our CenterStage products and related services, which could adversely affect our business, operating results and financial condition. Although many of these regulations may not apply to our business directly, we expect that laws regulating the solicitation, collection or processing of personal/consumer information could indirectly affect our business. The Telecommunications Act of 1996 prohibits certain types of information and content from being transmitted over the Internet. The prohibition's scope and the liability associated with a Telecommunications Act violation are currently unsettled. In addition, although substantial portions of the Communications Decency Act were held to be unconstitutional, we are unsure whether similar legislation will be enacted and upheld in the future. It is possible that legislation could expose companies involved in Internet commerce to liability, which could limit the growth of Internet commerce generally. Legislation like the Telecommunications Act and the Communications Decency Act could dampen the growth of Internet usage and decrease its acceptance as a commercial medium. Moreover, the applicability to the Internet of existing laws in various jurisdictions governing issues such as property ownership, sales tax, libel and personal privacy is uncertain and may take years to resolve. Our costs could increase and our growth could be harmed by any new legislation or regulation, the application of laws and regulations from jurisdictions whose laws do not currently apply to our business, or the application of existing laws and regulations to the Internet and on-line businesses.

OUR PLANNED INTERNATIONAL OPERATIONS MAY NOT BE SUCCESSFUL AND WILL MAKE US SUSCEPTIBLE TO RISKS FROM INTERNATIONAL OPERATIONS.

We intend to begin our international operations during the fourth quarter of 1999. Any expanded international operations will be subject to a variety of risks associated with conducting business internationally that could adversely affect our business, including:

- little or no protection of our intellectual property rights in some foreign countries;
- difficulties in staffing and managing international operations;
- expenses associated with customizing products for foreign countries;
- protectionist laws and business practices that favor local competition;
- multiple, conflicting and changing governmental laws and regulations;
- slower adoption of the Internet for e-commerce infrastructure applications;
- longer sales and payment cycles;
- greater difficulties in collecting accounts receivable;
- fluctuations in currency exchange rates;
- political and economic instability;
- potentially adverse tax consequences;
- seasonal reductions in business activity during the summer months in Europe and other parts of the world; and
- increases in tariffs, duties, price controls or other restrictions on foreign currencies or trade barriers imposed by foreign countries.

We expect international revenues to account for a significant percentage of our total revenues in the future and we believe that we must expand our international sales activities in order to be successful. This will require significant management attention and financial resources and could harm our financial

performance by increasing our costs. We have very limited experience in marketing, selling and distributing our CenterStage products and related

services internationally. We currently have no employees located outside of the United States. The establishment and growth of our international operations will be limited if we are unable to establish additional foreign operations, launch and expand international sales channel management and support organizations, hire personnel, customize products and services for local markets and develop relationships with international service providers. Even if we are able to successfully establish and expand international operations, we cannot be certain that we will be able to create, maintain or increase international market demand for our CenterStage products and related services. The acceptance and use of the Internet for conducting commerce in international markets are in earlier stages of development than in the United States. Furthermore, our international revenues will be denominated in U.S. dollars. Therefore, a strengthening of the dollar versus other currencies could make our products less competitive in foreign markets. We do not currently engage in currency hedging activities. If the Internet or e-commerce fail to gain sufficient acceptance in international markets or we fail to establish and expand our international operations in a timely manner, our business, operating results and financial condition could be harmed.

ACQUISITIONS OF COMPANIES OR TECHNOLOGIES MAY RESULT IN DISRUPTIONS TO OUR BUSINESS AND MANAGEMENT DUE TO DIFFICULTIES IN ASSIMILATING PERSONNEL AND OPERATIONS.

In the future we may make acquisitions of, or large investments in products, technologies or businesses that offer products, services and technologies that we believe would help expand our product offerings. Although we have not made acquisitions of, or investments in products, technologies or other companies in the past, this may become an important part of our strategy. Any future acquisitions or investments would present risks, including the difficulty of combining the technology, operations or workforce of the acquired business with our own, disruption of our ongoing businesses and difficulty in realizing the anticipated financial or strategic benefits of the transaction. We may be unable to maintain uniform standards, controls, procedures and policies if we fail in these efforts. Similarly, acquisitions may cause disruptions in our operations and divert management's attention from day-to-day operations, which could impair our relationships with our current employees, customers and strategic partners.

To make these acquisitions or large investments we might use cash, common stock or a combination of cash and common stock. If we use common stock, these acquisitions could further dilute existing stockholders. Amortization of goodwill or other intangible assets resulting from acquisitions could materially impair our business, operating results and financial condition. Furthermore, there can be no assurance that we will be able to obtain acquisition financing, or that any acquisition, if consummated, will be smoothly integrated into our business. If we make acquisitions or large investments and are unable to surmount these risks, our business could be harmed, our revenues could decrease and our stock price could fall.

PROBLEMS RELATED TO THE "YEAR 2000 ISSUE" COULD ADVERSELY AFFECT OUR BUSINESS.

The "year 2000 issue" refers generally to the problems that some software may have in determining the correct century for the year. For example, software with date-sensitive functions that is not year 2000 compliant may not be able to distinguish whether "00" means 1900 or 2000, which may result in failures or the creation of erroneous results. We designed our CenterStage products to be year 2000 compliant provided that the underlying operating system of the host machine and any other software used with our products are year 2000 compliant. We are exposed to various risks arising out of year 2000 issues which could adversely affect our business and operating results. Risks are posed if, despite our investigation and remediation efforts, one or more of the following occurs:

- our own CenterStage software products contain undetected errors or defects associated with the year 2000 problem;
- third party hardware and software used with our CenterStage products experiences problems which are wrongly attributed to us;

- our suppliers, internal information technology systems or non-information technology systems, including telecommunications systems and utilities, experience problems; and
- our customers experience year 2000 problems.

The occurrence of any of the foregoing problems could result in delays or losses of revenues, diversion of our development resources, damage to our reputation, increased service and warranty costs and litigation costs. We do not

currently have any information concerning the year 2000 compliance status of our customers. Our current or future customers may incur significant expenses to achieve year 2000 compliance. If our customers are not year 2000 compliant, they may experience material costs to remedy problems, they may face litigation costs and they may delay purchases or implementation of our CenterStage products. Year 2000 issues could reduce or eliminate the budgets that current or potential customers could have for purchases of our CenterStage products and related services. As a result, our business, operating results and financial condition could be seriously harmed. Regardless of whether we experience year 2000 problems, enterprises may reduce their spending on software and systems during the latter part of 1999 and into 2000 in connection with the potential effects of the year 2000 or to concentrate their resources on remediation. In addition, we may experience material problems and costs with year 2000 compliance that could adversely affect our business, operating results, and financial condition. We have established a year 2000 compliance team, whose purpose is to evaluate any year 2000 risks that we face and to remedy any year 2000 problems. Our year 2000 compliance team is in process of completing its assessment of our internal systems or our suppliers' systems or products. Although it is the duty of this team to identify and correct any year 2000 problems, it may fail to identify material year 2000 problems that we face. Further, even if this team successfully identifies year 2000 problems, it may not be able to adequately remedy any year 2000 problems. See "Management's Discussion and Analysis of Financial Condition and Results of Operations -- Year 2000 Compliance." We have not yet fully developed a contingency plan to address situations that may result if we are unable to achieve year 2000 readiness of our critical operations. The cost of developing and implementing a year 2000 contingency plan may be material.

WE MAY SPEND A PORTION OF THE NET PROCEEDS OF THIS OFFERING IN WAYS WITH WHICH YOU MAY NOT AGREE.

We have not designated any specific use for a significant amount of the net proceeds from this offering. We intend to use the net proceeds from this offering for general corporate purposes, including working capital to fund anticipated operating losses and capital expenditures. Accordingly, management will have significant flexibility in applying the remaining net proceeds from this offering. We cannot predict that investment of the net proceeds of this offering will generate a favorable or any return. The failure of management to apply the net proceeds from this offering effectively could cause our revenues to decrease and our stock price to fall.

WE MAY NEED TO RAISE ADDITIONAL CAPITAL THAT MAY NOT BE AVAILABLE ON TERMS FAVORABLE TO US, IF AT ALL.

We expect that the net proceeds from this offering will be sufficient to meet our working capital and capital expenditure needs for at least the next twelve months. After that, we may need to raise additional capital and we cannot be certain that we will be able to obtain additional financing on favorable terms, if at all. If we cannot raise additional capital on acceptable terms, we may not be able to develop or enhance our products and services, take advantage of future opportunities or respond to competitive pressures or unanticipated requirements, which could seriously harm our business, operating results and financial condition. See "Management's Discussion and Analysis of Financial Condition and Results of Operations -- Liquidity and Capital Resources."

15

18

THERE HAS BEEN NO PRIOR PUBLIC MARKET FOR OUR COMMON STOCK, AND THE PRICE OF OUR COMMON STOCK MAY BE VOLATILE.

Prior to this offering, you could not buy or sell our common stock publicly. An active public market for our common stock may not develop or be sustained after this offering. We negotiated and determined the initial public offering price of the common stock in this offering with the representatives of the underwriters based on several factors. However, this price may vary from the market price of our common stock after this offering. The market price of our common stock may fluctuate significantly in response to the following factors, some of which are beyond our control:

- variations in quarterly operating results;
- failure to meet the expectations of industry analysts;
- changes in financial estimates by securities analysts;
- changes in market valuations of Internet software companies;
- announcements by us, or our competitors, of significant contracts, acquisitions, strategic partnerships, joint ventures or capital

commitments;

- the loss of a major client or failure to complete significant license transactions;
- increased price competition;
- additions or departures of key personnel;
- sales of our common stock in the future; and
- fluctuations in stock market price and volume, which are particularly common among highly volatile securities of Internet software companies.

OUR BUSINESS MAY BE ADVERSELY AFFECTED BY CLASS ACTION LAWSUITS DUE TO STOCK PRICE VOLATILITY.

In the past, securities class action lawsuits have often been brought against companies similar to ours following periods of volatility in the market price of its securities. We may be the target of similar lawsuits in the future. A securities class action lawsuit could result in substantial costs and divert our management's attention and resources, which could have a material adverse effect on our business, operating results and financial condition.

A THIRD PARTY COULD BE PREVENTED FROM ACQUIRING YOUR SHARES OF COMMON STOCK AT A PREMIUM TO THE MARKET PRICE BECAUSE OF OUR ANTI-TAKEOVER PROVISIONS.

Our current stockholders will own approximately % of our outstanding stock immediately following this offering, assuming conversion of all outstanding warrants and no exercise of outstanding options. This ownership interest in addition to provisions of our charter, bylaws and Delaware law could make it more difficult for a third party to acquire us, even if a change in control would result in the purchase of your shares of common stock at a premium to the market price. These anti-takeover provisions are further described in "Certain Transactions" and "Description of Capital Stock."

FUTURE SALES OF OUR COMMON STOCK COULD ADVERSELY AFFECT OUR STOCK PRICE.

If our stockholders sell substantial amounts of our common stock, including shares issued upon the exercise of outstanding options and warrants, in the public market after this offering, the market price of our common stock could be adversely affected. In addition, the sale of these shares could impair our ability to raise capital through the sale of additional equity securities.

Upon completion of this offering, we will have _____ shares of common stock outstanding or _____ shares if the underwriters' over-allotment option is exercised in full and _____ shares subject to currently exercisable options and warrants. The _____ shares sold in this offering, or

16

19

_____ shares if the underwriters' over-allotment option is exercised in full, will be freely tradable without restriction or further registration under the Federal securities laws unless purchased by "affiliates" of OnDisplay as that term is defined in Rule 144. The remaining _____ shares of common stock outstanding upon completion of this offering will be "restricted securities" as that term is defined in Rule 144. Our directors, executive officers, and stockholders have executed lock-up agreements that limit their ability to sell common stock. These stockholders have agreed not to sell or otherwise dispose of any shares of common stock for a period of at least 180 days after the date of this prospectus without the prior written approval of BancBoston Robertson Stephens. When these lock-up agreements expire, these shares and the shares underlying the options will become eligible for sale, in some cases only pursuant to the volume, manner of sale and notice requirements of Rule 144. See "Shares Eligible for Future Sale."

YOU WILL EXPERIENCE IMMEDIATE AND SUBSTANTIAL DILUTION IN THIS OFFERING.

The initial public offering price is expected to be substantially higher than the book value per share of our outstanding common stock immediately after this offering. Accordingly, if you purchase common stock in the offering, you will incur immediate dilution of approximately \$ _____ in the book value per share of our common stock from the price you pay for our common stock.

THIS PROSPECTUS CONTAINS FORWARD-LOOKING STATEMENTS; THESE STATEMENTS ARE NOT GUARANTEES OF FUTURE PERFORMANCE AND ARE SUBJECT TO CERTAIN RISKS, UNCERTAINTIES AND OTHER FACTORS, SOME OF WHICH ARE BEYOND OUR CONTROL.

This prospectus contains forward-looking statements that involve risks and uncertainties. We use the words "anticipates," "believes," "plans," "expects," "future," "seeks," "estimates" and "intends" and similar expressions to identify forward-looking statements. This prospectus also contains forward-looking statements attributed to certain third parties relating to their estimates regarding the growth of e-commerce and the use of the Internet for engaging in purchasing transactions. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including the risks faced by us described in "Risk Factors" and elsewhere in this prospectus.

17

20

USE OF PROCEEDS

Our proceeds from the sale of the _____ shares of Common Stock we are offering are estimated to be \$ _____ million (\$ _____ million if the underwriters' over-allotment option is exercised in full) assuming a public offering price of \$ _____ per share and after deducting the underwriting discount and our estimated offering expenses.

We plan to use the proceeds for general corporate purposes, including working capital, increases in our sales and marketing operations, product development and international expansion. We may also use some of the proceeds to acquire other companies, technology or products that complement our business, although we are not currently planning any of these transactions. Pending these uses, the net proceeds of this offering will be invested in short-term, interest-bearing securities.

The principal purposes of this offering are to obtain additional capital, to create a public market for the Common Stock, to facilitate future access to public equity markets and to provide increased visibility and credibility in a marketplace where many of our current and potential competitors are or are likely to become publicly-held companies.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently expect to retain our future earnings, if any, for use in the operation and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. Under an agreement with a secured lender we may not pay dividends without prior approval.

18

21

CAPITALIZATION

The following table sets forth:

- The actual capitalization of OnDisplay at June 30, 1999;
- The pro forma capitalization of OnDisplay after giving effect to the conversion of all outstanding shares of preferred stock into 8,891,554 shares of common stock immediately prior to the completion of this offering.
- The pro forma as adjusted capitalization, which gives effect to the sale in this offering of _____ shares of common stock at an estimated initial public offering price of \$ _____ per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses.

<TABLE>
<CAPTION>

	JUNE 30, 1999		
	ACTUAL	PRO FORMA	PRO FORMA AS ADJUSTED
	(IN THOUSANDS)		
<S>	<C>	<C>	<C>
Long-term debt, less current portion.....	\$ 2,367	\$ 2,367	\$ 2,367
Mandatorily redeemable convertible preferred stock, Series A, B and C, \$0.001 par value; 9,500,000 shares authorized, actual 8,891,554 shares issued and outstanding, proforma none.....	18,982	--	--
Stockholders' equity (deficit):			
Common stock, \$0.001 par value; 20,000,000 shares			

authorized, shares issued and outstanding, at amount paid in(1):			
Actual: 4,592,978 shares;			
Pro forma: 13,484,532 shares; and			
Pro forma as adjusted:	shares(1).....	1	10
Additional paid-in capital.....		4,882	23,855
Deferred stock-based compensation.....		(3,190)	(3,190)
Accumulated deficit.....		(20,528)	(20,528)
		-----	-----
Total stockholders' deficit.....		(18,835)	147
		-----	-----
Total capitalization.....	\$ 2,514	\$ 2,514	
	=====	=====	=====

</TABLE>

This table excludes the following shares:

- Shares issuable upon exercise of stock options outstanding as of June 30, 1999;
- Shares available for future grant or issuance under of stock option and stock purchase plans as of June 30, 1999; and
- Shares issuable upon exercise of warrants outstanding as of June 30, 1999

See Notes 8 and 9 to the Financial Statements.

19

22

DILUTION

Our net tangible book value as of June 30, 1999 was approximately \$ million, or approximately \$ per share of common stock. Net tangible book value per share represents the amount of tangible assets less total liabilities, divided by the number shares of common stock outstanding, assuming the conversion of all outstanding shares of preferred stock into common stock.

Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of our common stock in this offering and the pro forma net tangible book value per share of our common stock immediately after this offering. After giving effect to our sale of shares of common stock in this offering at an assumed public offering price of \$ per share and after deduction of the underwriting discount and estimated offering expenses, our pro forma net tangible book value as of June 30, 1999 would have been approximately \$ million, or \$ per share. This represents an immediate increase in pro forma net tangible book value of \$ per share to existing stockholders and an immediate dilution in pro forma net tangible book value of \$ per share to purchasers of common stock in this offering.

<TABLE>		
<S>	<C>	<C>
Public offering price per share.....		
Net tangible book value per share before offering.....		
Increase per share attributable to new investors.....		
Pro forma net tangible book value per share after offering.....		
Net tangible book value dilution per share to new investors.....		
</TABLE>		

This table excludes all options and warrants that will remain outstanding upon completion of this offering. See Note of Notes to Financial Statements. The exercise of outstanding options and warrants having an exercise price less than the offering price would increase the dilutive effect to new investors.

The following table sets forth as of June 30, 1999 the total consideration paid and the average price per share paid by the existing stockholders and by new investors, before deducting estimated underwriting discounts and commissions and offering expenses payable by the Company at an assumed public offering price of \$ per share.

<TABLE>					
<CAPTION>					
	SHARES PURCHASED		TOTAL CONSIDERATION		AVERAGE PRICE PER SHARE
	-----		-----		
	NUMBER	PERCENT	NUMBER	PERCENT	
	-----	-----	-----	-----	-----

<S> Existing stockholders..... <C> <C> <C> <C> <C> <C>
 New investors.....
 Total.....
 </TABLE>

SELECTED FINANCIAL DATA

You should read the following selected financial data in conjunction with our financial statements and notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus. The statement of operations data for the period from inception to December 31, 1996, and the years ended December 31, 1997 and 1998 and the balance sheet data as of December 31, 1997 and 1998 are derived from our Financial Statements that have been audited by PricewaterhouseCoopers LLP, independent auditors, and are included elsewhere in this prospectus. The balance sheet data for the year ended December 31, 1996 is derived from our Financial Statements audited by PricewaterhouseCoopers LLP, that are not included in this prospectus. The statement of operations data for the six months ended June 30, 1998 and 1999 and the balance sheet data as of June 30, 1999 are derived from unaudited financial statements included elsewhere in this prospectus. The results of operations for the six months ended June 30, 1999 are not necessarily indicative of the results to be expected for the entire year. The pro forma net loss per share data assume conversion of all outstanding shares of preferred stock into common stock. See Note 11 of Notes to Financial Statements.

<TABLE>
 <CAPTION>

	PERIOD FROM				
	AUGUST 14, 1996 (DATE OF INCEPTION) TO DECEMBER 31, 1996	YEAR ENDED DECEMBER 31,		SIX MONTHS ENDED JUNE 30,	
		1997	1998	1998	1999
	(UNAUDITED)				
	(IN THOUSANDS EXCEPT SHARE AND PER SHARE DATA)				
<S>	<C>	<C>	<C>	<C>	<C>
STATEMENT OF OPERATIONS DATA					
License revenues.....	\$ --	\$ 265	\$ 2,229	\$ 876	\$ 1,937
Service revenues.....	--	--	1,114	276	1,718
Total revenues.....	--	265	3,343	1,152	3,655
Cost of revenues.....	--	--	1,620	470	1,981
Gross profit.....	--	265	1,723	682	1,674
Operating expenses:					
Sales and marketing.....	42	2,810	5,747	2,388	4,093
Research and development.....	393	1,986	2,636	1,355	1,638
General and administrative.....	182	1,158	1,201	361	1,250
Amortization of deferred stock-based compensation.....	--	--	618	194	769
Total operating expenses....	617	5,954	10,202	4,298	7,750
Loss from operations.....	(617)	(5,689)	(8,479)	(3,616)	(6,076)
Interest income and other, net.....	45	155	131	35	2
Net loss.....	\$ (572)	\$ (5,534)	\$ (8,348)	\$ (3,581)	\$ (6,074)
Net loss per share -- basic and diluted.....	\$ (0.17)	\$ (1.62)	\$ (2.34)	\$ (1.04)	\$ (1.56)
Shares used in per share calculation -- basic and diluted.....	3,400,000	3,410,313	3,572,353	3,432,260	3,881,291
Pro forma net loss per share -- basic and diluted.....			\$ (0.75)		\$ (0.48)
Shares used in pro forma net loss per share calculation -- basic and diluted.....			11,174,494		12,772,845

</TABLE>

<TABLE>
<CAPTION>

	DECEMBER 31,		JUNE 30, 1999
	1997	1998	
			(UNAUDITED)
<S>	<C>	<C>	<C>
BALANCE SHEET DATA (IN THOUSANDS)			
Cash and cash equivalents.....	\$ 3,900	\$ 4,648	\$ 2,970
Working capital.....	3,748	4,584	1,337
Total assets.....	4,710	8,253	6,975
Long-term debt, less current portion.....	128	240	2,367
Mandatorily redeemable convertible preferred stock.....	10,200	18,982	18,982
Accumulated deficit.....	(6,106)	(14,454)	(20,528)
Total stockholders' deficit.....	(6,098)	(13,729)	(18,835)

</TABLE>

MANAGEMENT'S DISCUSSION AND ANALYSIS OF
FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements based upon current expectations that involve risks and uncertainties. When used in this prospectus, the words "intend," "anticipate," "believe," "estimate," "plan" and "expect" and similar expressions as they relate to OnDisplay are included to identify forward-looking statements. The following discussion should be read in conjunction with the Financial Statements and Notes thereto included elsewhere in this prospectus. Our actual results and the timing of certain events could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those set forth under "Risk Factors" and elsewhere in this prospectus.

OVERVIEW

We provide a comprehensive suite of e-business infrastructure applications for powering e-business portals and e-marketplaces. Our solution addresses the unique challenges faced by e-business portals and e-marketplaces in both business-to-business and business-to-consumer e-commerce. Our product suite provides an open, scalable, adaptable solution to enable the rapid aggregation, exchange, integration, personalization and syndication of e-business information and services from a broad range of partners, suppliers and customers. Our products enable our e-business portal and e-marketplace customers to: achieve rapid time-to-market, engage and retain customers, increase revenues and marketshare, and attain scalable and agile e-business relationships.

We were incorporated and commenced operations in August 1996. At that time, we began developing our CenterStage technology platform and shipped our first applications, now known as CenterStage eContent and CenterStage eIntegrate, in the fourth quarter of 1997. These products were used to help customers rapidly migrate from legacy systems to enterprise applications as well as to aggregate content for emerging e-business applications. In the second quarter of 1999, in response to evolving business requirements from our customers, we released and shipped three new products, CenterStage eNotify, CenterStage eBizXchange and CenterStage eSyndicate, to complete our CenterStage suite of e-business products.

We sell our CenterStage products and related services primarily through a direct sales force based in the United States. In addition, we have entered into strategic relationships to enhance our indirect sales channels. In the future, we expect that the majority of our revenues will continue to be derived from our direct sales force.

We expect that the significant majority of our revenues will continue to be derived from our CenterStage product suite and related services for the foreseeable future. Our revenues, which consist of software license revenues and service revenues, totaled \$265,000 and \$3.3 million for the years ended December 31, 1997 and 1998, and \$3.7 million for the six months ended June 30, 1999. Substantially all of our revenues since inception have been derived from the license of applications based on our CenterStage technology platform and related services. Our product pricing is principally based on the number of computer servers on which our software resides and content sources used by each customer.

Service revenues consist of fees received for consulting, maintenance, customer support and training.

Revenues from software license agreements are recognized upon shipment or upon notification to the customer of the downloadable software location, provided that a signed contract exists, the fee is fixed and determinable and collection of the resulting receivable is probable and, if applicable, acceptance criteria are met. Service revenues are recognized as services are performed or, with respect to maintenance, ratably over the contract term, typically over one year.

Our cost of revenues includes costs associated with the electronic transmission of software and royalties for third party embedded software, which are not material, salaries and related expenses for our consulting and training services and customer support organizations, cost of third parties contracted to provide consulting services to customers and an allocation of our facilities and depreciation expenses.

23

26

Our operating expenses are classified into three general categories: sales and marketing, research and development and general and administrative. We classify all charges to these operating expense categories based on the nature of the expenditures. Although each category includes expenses that are unique to the category type, there are commonly recurring expenditures that are typically included in these categories in our operating expenses such as salaries, employee benefits, incentive compensation, bonuses, sales commissions, facilities, communications, third party consultant fees, and travel and entertainment. The sales and marketing category also includes expenses related to marketing programs such as public relations, trade shows, marketing collateral and informational seminars.

We allocate the total costs for facilities to each functional area that uses the overhead and facilities services based on their headcount. These allocated charges include facility rent for the corporate office, communication charges, and depreciation expense for office furniture and equipment.

Since inception, we have incurred substantial research and development costs and invested heavily in the expansion of our sales, marketing and professional services organizations to build an infrastructure to support our long-term growth strategy. The number of our full-time employees increased from 39 as of December 31, 1997, to 65 as of December 31, 1998, representing an increase of 66.7%. As a result of investments in our infrastructure, we have incurred net losses in each fiscal quarter since inception and, as of June 30, 1999, had an accumulated deficit of \$20.5 million. We anticipate that our operating expenses will increase substantially for the foreseeable future as we expand our product development, sales and marketing and professional services staff. In addition, we expect to incur substantial expenses associated with marketing programs and expanding our sales channels internationally in future periods. In order to manage this significant growth we must invest and implement scalable operational systems, procedures and controls. Accordingly, we expect to incur net losses for the foreseeable future.

We have recorded aggregate deferred stock-based compensation of \$4.6 million. Deferred stock-based compensation is amortized over the life of the options, generally four years. During fiscal 1998, we recorded amortization of deferred stock-based compensation of \$618,000 and during the first six-months of fiscal 1999, we recorded amortization of deferred stock-based compensation of \$769,000.

We believe that period-to-period comparisons of our operating results are not meaningful and should not be relied upon as indicative of future performance. Our prospects must be considered in light of the risks, expenses and difficulties frequently encountered by companies in early stages of development, particularly companies in new and rapidly evolving markets. There can be no assurance we will be successful in addressing such risks and difficulties. Although we have experienced significant revenue growth recently, this trend may not continue. In addition, we may not achieve or maintain profitability in the future.

24

27

RESULTS OF OPERATIONS

The following table sets forth certain statement of operations data as a percentage of total revenues for the periods indicated:

<TABLE>
<CAPTION>

	YEAR ENDED DECEMBER 31, 1998	SIX MONTHS ENDED JUNE 30,	
		1998	1999
		(UNAUDITED)	
<S>	<C>	<C>	<C>
License revenues.....	66.7%	76.0%	53.0%
Service revenues.....	33.3	24.0	47.0
	-----	-----	-----
Total revenues.....	100.0	100.0	100.0
Cost of revenues.....	48.5	40.8	54.2
	-----	-----	-----
Gross profit.....	51.5	59.2	45.8
	-----	-----	-----
Operating expenses			
Sales and marketing.....	171.9	207.3	112.0
Research and development.....	78.9	117.6	44.8
General and administrative.....	35.9	31.3	34.2
Amortization of stock-based compensation.....	18.5	16.8	21.0
	-----	-----	-----
Total operating expenses.....	305.2	373.0	212.0
Loss from operations.....	(253.6)	(313.8)	(166.2)
Interest income and other, net.....	3.9	3.0	0.1
	-----	-----	-----
Net loss.....	(249.7) %	(310.8) %	(166.2) %
	=====	=====	=====

</TABLE>

SIX MONTHS ENDED JUNE 30, 1998 AND 1999

Revenues

Our revenues are derived from software licenses and related services. Our revenues were \$1.2 million and \$3.7 million for the six months ended June 30, 1998 and 1999. In the six months ended June 30, 1998 three customers accounted for more than 10.0% of our total revenues, and in the six months ended June 30, 1999 one customer accounted for more than 10.0% of our total revenues.

License Revenues. Our license revenues were \$876,000 and \$1.9 million for the six months ended June 30, 1998 and 1999. License revenues represented 76.0% and 53.0% of total revenues for the six months ended June 30, 1998 and 1999. This increase reflected the increased market acceptance of our CenterStage application suite, and an increase in the size and productivity of the sales force.

Service Revenues. Our service revenues were \$276,000 and \$1.7 million for the six months ended June 30, 1998 and 1999. Service revenues consist primarily of fees received for consulting and implementation, maintenance, customer support and training services. Service revenues represented 24.0% and 47.0% of total revenues for the six months ended June 30, 1998 and 1999. The increase in service revenues for the six months ended June 30, 1999 over the six months ended June 30, 1998 was primarily due to the increase in our customer base and service contracts performed during this period. We believe that the percentage of total revenues represented by service revenues in prior fiscal periods may not be indicative of levels to be expected in future periods. Due to our limited experience selling our CenterStage product suite, there can be no assurance that continued increases in our license revenues will result in increased service revenues. In addition, we expect that the proportion of our service revenues to total revenues will fluctuate in the future, depending in part on our customers' breadth and scope of implementation and the mix of products implemented.

Cost of Revenues

Cost of revenues includes personnel and other costs related to consulting and implementation, customer support and training. Our cost of revenues was \$470,000 and \$2.0 million for the six months ended June 30, 1998 and 1999. Cost of revenues was 40.8% and 54.2% of revenues for the six months

ended June 30, 1998 and 1999. This increase was primarily due to an increase in professional service support personnel to manage and support our growing customer base. To date, cost of service revenues has exceeded service revenues primarily due to our investment in our consulting and training services and customer support organizations. Cost of revenues as a percentage of revenues may vary between periods due to the mix of services we provide.

Operating Expenses

Sales and Marketing. Our sales and marketing expenses increased 71.4% from \$2.4 million in the six months ended June 30, 1998 to \$4.1 million in the six months ended June 30, 1999. This increase was primarily due to increased sales commissions, an increase in the number of sales and marketing employees, and increases in marketing program spending. We believe that a significant increase in our sales and marketing efforts is essential for us to maintain our market position and further increase acceptance of our CenterStage products and related services. Accordingly, we believe sales and marketing will increase in future periods as we continue to invest significantly in these functions.

Research and Development. Our research and development expenses increased 20.9% from \$1.4 million in the six months ended June 30, 1998 to \$1.6 million in the six months ended June 30, 1999. This increase was primarily due to increased charges for consulting services. We believe that continued investment in our research and development efforts is essential for us to improve our market position, expand our product line and enhance the common technology platform for our suite of products. Accordingly, we anticipate that we will continue to significantly invest in research and development for the foreseeable future, and research and development expenses are likely to increase in future periods. Technological feasibility of our software is generally not established until substantially all product development is complete. Historically, software development costs eligible for capitalization have been insignificant, and all costs related to research and development have been expensed as incurred.

General and Administrative. Our general and administrative expenses were \$361,000 and \$1.3 million for the six months ended June 30, 1998 and 1999. This increase was primarily due to the addition of finance and administrative personnel to support the growth of our business, an increase of outside service expenses associated with increased recruiting efforts and human resource programs, and an increase in the allowance for doubtful accounts related to our increase in revenues. We believe that our general and administrative expenses will continue to increase as a result of the expansion of our administrative staff and expenses associated with being a public company, including annual and other public reporting costs, directors' and officers' liability insurance, investor relations programs and professional services fees.

Amortization of Stock-Based Compensation. Amortization of stock-based compensation was \$194,000 and \$769,000 for the six months ended June 30, 1998 and 1999. Deferred stock-based compensation is based on the estimated value of common stock as of the date of grant based on our decision to undertake this offering, compared to the option exercise price, which was deemed to be the fair market value as of the date of grant. Deferred stock-based compensation is amortized over the vesting period of such options, usually four years. The increase in amortization of stock-based compensation in 1999 is primarily due to the increased number of option grants and the estimated fair value of our common stock.

Interest Income and Other, Net. Net interest income and other, net was \$35,000 and \$2,000 for the six months ended June 30, 1998 and 1999. This decrease was primarily due to higher interest expense incurred from additional borrowings and higher capital lease obligations during the six months ended June 30, 1999, including the expense related to the valuation of warrants granted to a lender as part of these borrowings.

26

29

THE PERIOD FROM INCEPTION TO DECEMBER 31, 1996 AND THE YEARS ENDED DECEMBER 31, 1997 AND 1998

Revenues

Our revenues were \$265,000 and \$3.3 million for 1997 and 1998. In 1997, three customers accounted for more than 10.0% of total revenues, and in 1998 two customers accounted for more than 10.0% of our total revenues.

License Revenues. Our license revenues were \$265,000 and \$2.2 million in 1997 and 1998. This increase in license revenues was attributable to an increase in sales to new customers resulting from increased headcount in our sales force.

Service Revenues. Our service revenues were \$1.1 million in 1998, which was the first year we offered consulting, implementation, maintenance, training and customer support services. We began recognition of revenues from maintenance contracts in 1998. Service revenues represented 33.3% of our total revenues in 1998.

Cost of Revenues

Our cost of revenues was \$1.6 million in 1998, which was the first year we offered consulting, implementation, maintenance, training and customer support services. In 1998 we invested in establishing a consulting and customer support organization, which required hiring and training of personnel prior to selling and recognizing revenues for such services. We will continue to build our consulting and customer support organization in the future to support growing customer volume.

Operating Expenses

Sales and Marketing. Our sales and marketing expenses were \$42,000, \$2.8 million and \$5.7 million in 1996, 1997 and 1998. These increases were primarily due to our continuing investment in our sales and marketing infrastructure, which included significant personnel-related expenses such as salaries, benefits and commissions, recruiting fees, travel and entertainment expenses, marketing programs, and related costs of hiring sales management, sales representatives, sales engineers and marketing personnel.

Research and Development. Our research and development expenses were \$393,000, \$2.0 million and \$2.6 million in 1996, 1997 and 1998. These increases were primarily due to the increase in the number of software developers and quality assurance personnel and outside contractors to support our product development and testing activities related to the development and release of our CenterStage suite of products.

General and Administrative. Our general and administrative expenses were \$182,000, \$1.2 million and \$1.2 million in 1996, 1997 and 1998. The increase from 1996 through 1997 was primarily due to our efforts to increase administrative infrastructure to support our operations, including personnel-related expenses and outside services. Expenses remained flat from 1997 to 1998, primarily due to our efforts to increase infrastructure in revenue related functions during this period, which resulted in no growth in general and administrative expenses.

Amortization of Stock-Based Compensation. We have recorded aggregate deferred stock-based compensation of \$2.2 million through December 31, 1998. Deferred stock-based compensation is amortized over the vesting period of the options, generally four years. During 1998, we recorded amortization of deferred stock-based compensation of \$618,000.

Interest Income and Other, Net. Our interest income and other, net were \$45,000, \$155,000 and \$131,000 in 1996, 1997 and 1998. This increase in interest income and other, net from 1996 to 1997 was primarily due to the net impact of an increase in proceeds received from the issuance of series B and series C preferred stock. The decrease in interest income and other, net, from 1997 to 1998 was primarily due to the combination of interest income as noted previously, offset by an increase in interest expense resulting from a financing agreement established in June 1997 to purchase equipment.

QUARTERLY RESULTS OF OPERATIONS

The following table sets forth unaudited statement of operations data for the six quarters in the 18-month period ended June 30, 1999 and data expressed as a percentage of our total revenues for the periods indicated. This data has been derived from our unaudited Financial Statements that have been prepared on the same basis as the audited Financial Statements and, in the opinion of our management, include all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation of the information when read in conjunction with the Financial Statements and Notes thereto. Our quarterly results have been in the past and may in the future be subject to significant fluctuations. As a result, we believe that results of operations for interim periods should not be relied upon as any indication of the results to be expected in any future period.

<TABLE>
<CAPTION>

	QUARTER ENDED					
	MAR. 31, 1998	JUN. 30, 1998	SEPT. 30, 1998	DEC. 31, 1998	MAR. 31, 1999	JUN. 30, 1999
	(IN THOUSANDS)					
<S>	<C>	<C>	<C>	<C>	<C>	<C>
STATEMENT OF OPERATIONS						
License revenues.....	\$ 445	\$ 431	\$ 692	\$ 661	\$ 628	\$ 1,309
Service revenues.....	87	189	376	462	922	796

Total revenues.....	532	620	1,068	1,123	1,550	2,105
Cost of revenues:.....	114	356	485	665	878	1,103
	-----	-----	-----	-----	-----	-----
Gross profit.....	418	264	583	458	672	1,002
	-----	-----	-----	-----	-----	-----
Operating expenses:						
Sales and marketing.....	1,092	1,296	1,737	1,622	1,600	2,493
Research and development.....	673	682	648	633	738	900
General and administrative.....	194	167	324	516	564	686
Amortization of deferred stock-based compensation.....	77	117	182	242	322	447
	-----	-----	-----	-----	-----	-----
Total operating expenses.....	2,036	2,262	2,891	3,013	3,224	4,526
Loss from operations.....	(1,618)	(1,998)	(2,308)	(2,555)	(2,552)	(3,524)
Interest income (expenses) and other, net.....	29	6	48	48	73	(71)
	-----	-----	-----	-----	-----	-----
Net loss.....	\$(1,589)	\$(1,992)	\$(2,260)	\$(2,507)	\$(2,479)	\$(3,595)
	=====	=====	=====	=====	=====	=====
AS A PERCENTAGE OF TOTAL REVENUES						
License revenues.....	83.6%	69.5%	64.8%	58.9%	40.5%	62.2%
Service revenues.....	16.4	30.5	35.2	41.1	59.5	37.8
	-----	-----	-----	-----	-----	-----
Total revenues.....	100.0	100.0	100.0	100.0	100.0	100.0
Cost of revenues:.....	21.4	57.4	45.4	59.2	56.6	52.4
	-----	-----	-----	-----	-----	-----
Gross profit.....	78.6	42.6	54.6	40.8	43.4	47.6
	-----	-----	-----	-----	-----	-----
Operating expenses:						
Sales and marketing.....	205.3	209.0	162.6	144.4	103.2	118.4
Research and development.....	126.5	110.0	60.7	56.4	47.6	42.8
General and administrative.....	36.5	26.9	30.3	45.9	36.4	32.6
Amortization of deferred stock-based compensation.....	14.5	18.9	17.0	21.5	20.8	21.2
	-----	-----	-----	-----	-----	-----
Total operating expenses.....	382.7	364.8	270.7	268.3	208.0	215.0
Loss from operations.....	(304.1)	(322.3)	(216.1)	(227.5)	(164.6)	(167.4)
Interest income and other, net.....	5.5	1.0	4.5	4.3	4.7	(3.4)
	-----	-----	-----	-----	-----	-----
Net loss.....	(298.7)%	(321.3)%	(211.6)%	(223.2)%	(159.9)%	(170.8)%
	=====	=====	=====	=====	=====	=====

</TABLE>

Our quarterly operating results have fluctuated significantly in the past, and will continue to fluctuate in the future, as a result of a number of factors, many of which are outside our control. These factors include:

- demand for and timing of the sales of our CenterStage products and related services;
- actions taken by our competitors, including new product introductions and enhancements;
- changes in the rapidly evolving market for e-business infrastructure applications;
- our ability to develop, introduce and market e-business infrastructure applications and enhancements to our existing CenterStage products on a timely basis;
- changes in our pricing policies and those of our competitors; and
- our inability to complete large sales on schedule.

We have experienced delays in the planned release dates of our new software products or upgrades in the past, and have discovered software defects in our new products after their introduction. Our new products or upgrades may not be released according to schedule, or when released may contain defects. Either of these situations could result in adverse publicity, loss of revenues, delay in market acceptance and claims by customers brought against us, any of which could harm our business. In addition, the timing of individual sales has been difficult for us to predict, and large individual sales have, in some cases, occurred in quarters subsequent to those anticipated by us. The loss or deferral of one or more significant sales may harm our quarterly operating results.

Although our first quarter 1999 license revenues were higher than those for the fourth quarter of 1998, in future periods, we expect that seasonal trends

may cause first quarter revenues to be lower than the level achieved in the preceding fourth quarter.

LIQUIDITY AND CAPITAL RESOURCES

Through June 30, 1999, we have funded our operations primarily through sales of equity securities, with net proceeds of \$19.0 million, and, to a lesser extent, the use of long-term debt and equipment leases. We had raised \$3.0 million from the issuance of long-term debt, and had financed equipment purchases totaling approximately \$690,000. Our sources of liquidity, as of June 30, 1999, consisted principally of cash and cash equivalents of \$3.0 million. In August 1999, we sold equity securities through the issuance of series D preferred stock, with net proceeds of \$16.4 million.

Net cash used in operating activities was \$488,000, \$5.4 million and \$7.8 million for 1996, 1997 and 1998, and \$4.4 million for the six months ended June 30, 1999. For these periods, net cash used by operating activities was primarily a result of funding ongoing operations.

To date, our investing activities have consisted of purchases of property and equipment. Capital expenditures, including those under capital leases, totaled \$137,000, \$624,000 and \$556,000 for 1996, 1997 and 1998, and \$438,000 in the six months ended June 30, 1999. We finance the acquisition of property and equipment, which consists mainly of computer hardware and software for our increasing employee base as well as for our management information systems, primarily through capital leases. We expect to experience an increase in our capital expenditures and lease commitments consistent with our anticipated growth in operations, infrastructure and personnel. We do not expect to incur significant costs to make our products or internal information systems year 2000 compliant, because we believe our products and information systems are designed to function properly through and beyond the year 2000.

Net cash from financing activities was \$3.4 million, \$7.0 million and \$8.8 million in 1996, 1997 and 1998, and \$3.0 million for the six months ended June 30, 1999. For 1997, proceeds from financing activities were primarily received from the private sale of preferred stock of \$6.8 million and \$200,000 from the sale and lease back of property and equipment. In 1998, proceeds provided by financing activities were primarily from the sale of preferred stock of \$8.8 million. For the six months ended June 30, 1999,

29

32

cash provided by financing activities consisted primarily of \$3.0 million from long-term borrowings offset in part by principal payments on capital lease obligations and long-term debt of \$108,000.

We expect to experience significant growth in our operating expenses in the future, particularly in sales and marketing and research and development in order to execute our business plan. As a result, we anticipate that these operating expenses, as well as planned capital expenditures, will constitute a material use of our cash resources. In addition, we may utilize cash resources to fund acquisitions or investments in complementary businesses, technologies or product lines. We believe that the net proceeds from the sale of common stock in this offering will be sufficient to meet our working capital and operating resource expenditure requirements for at least the next twelve months. Thereafter, we may find it necessary to obtain additional equity or debt financing. In the event additional financing is required, we may not be able to raise it on acceptable terms or at all.

YEAR 2000 COMPLIANCE

Background of Year 2000 Issues

Many currently installed computer systems and software products are unable to distinguish between twentieth century dates and twenty-first century dates because these systems were developed using two digits rather than four to determine the applicable year. For example, computer programs that have date-sensitive software may recognize a date using "00" as the year 1900 rather than the year 2000. This error could result in system failures or miscalculations causing disruptions of operations, including, among other things, a temporary inability to process transactions, send invoices or engage in similar normal business activities. As a result, many companies' software and computer systems may need to be upgraded or replaced to comply with year 2000 requirements.

State of Readiness

Our business is dependent on the operation of numerous systems that could potentially be affected by year 2000-related problems. Those systems include,

among others:

- software products sold to customers;
- hardware and software systems used by us to deliver products and services to customers, including our proprietary software systems as well as software supplied by third parties;
- communications networks such as the Internet and private Intranets;
- the internal systems of our customers and suppliers;
- the hardware and software systems used internally by us in the management of our business; and
- non-information technology systems and services, such as power, telephone systems and building systems.

We have tested our software products and have determined that current versions of all of our software products are year 2000 compliant by ensuring our products support the use, output, storage, entry and creation of all dates before, on, and after January 1, 2000. This assumes that all other hardware and software products used in conjunction with our products can properly exchange accurate date data. We are evaluating the year 2000 compliance of our products currently under development.

We have established a year 2000 compliance team, composed of high-level representatives of the product, information systems, and general administrative departments to evaluate our internal and external systems. The team has been charged with the responsibility of formulating and implementing our year 2000 readiness and is applying a phased approach to analyzing our operations and relationships as they relate to the year 2000 problem. The phases of our year 2000 program are as follows:

Phase 1: establishment of a year 2000 team;

Phase 2: assignment of responsibility for external issues, such as products licensed by us, internal issues, such as systems, facilities, equipment, software and legal audit;

30

33

Phase 3: inventory of all aspects of our operations and relationships subject to the year 2000 problem; and

Phase 4: remediation and testing.

We plan to complete testing of our internal and external systems by October 1999. We have completed Phases 1 and 2 of our program and are currently in the process of completing Phase 3.

Risks Related to Year 2000 Issues

Based on our assessment to date, we believe the current versions of our software products are year 2000 compliant. However, our products are generally integrated into enterprise and other systems involving sophisticated hardware and complex software products which may not be year 2000 compliant. In addition, in some cases, certain earlier year 2000 compliant versions of our software, while compatible with earlier, non-year 2000 compliant versions of other software products with which our software is integrated, are not compatible with certain more recent year 2000 compliant versions of other software providers. While we do not believe we have any obligation under these circumstances given that these customers are using our older versions of our software products, there can be no assurance that we will not be subject to claims or complaints by our customers. Our year 2000 compliance efforts may depend on our customers' ability to manage their own year 2000 issues. We sell our products to companies in a variety of industries, each of which is experiencing different year 2000 compliance issues. Customer difficulties with year 2000 issues might require us to devote additional resources to resolve underlying problems.

Although we have not been a party to any litigation or arbitration proceeding related to year 2000 compliance issues to date involving our products or services, there can be no assurance that we will not be required to defend our products or services in such proceedings, or to negotiate resolutions of claims based on year 2000 issues. The costs of defending and resolving year 2000-related disputes, regardless of the merits of such disputes, and any liability for year 2000-related damages, including consequential damages, would have a material adverse effect on our business, operating results and financial condition. In addition, we believe that purchasing patterns of customers and

potential customers may be affected by year 2000 issues as companies expend significant resources to correct or upgrade their current software systems for year 2000 compliance or defer additional software purchases until after 2000. To the extent year 2000 issues cause significant delay in, or cancellation of, decisions to purchase our products or services, our business would be adversely affected.

We are also reviewing our internal management information and other external systems in order to identify any products, services or systems that are not year 2000 compliant. To date, we have not encountered any material year 2000 problems with our computer systems or any other equipment that might be subject to such problems. Our plan for the year 2000 calls for compliance verification of external vendors supplying software and information systems to us and communication with significant suppliers to determine the readiness of third parties' remediation of their own year 2000 issues. In the event that any such third parties' products, services or systems do not meet year 2000 requirements on a timely basis, our business could be adversely affected. We could also experience adverse effects on our business if we fail to identify all year 2000 dependencies in our systems and in the systems of our suppliers, customers and financial institutions. Therefore, we plan to develop contingency plans for continuing operations in the event such problems arise, but do not presently have a contingency plan for handling year 2000 problems that are not detected and corrected prior to their occurrence. We have not completed our year 2000 investigation, and there can be no assurance that the total cost of our year 2000 compliance efforts will not be material to our business. We may not identify and remediate all significant year 2000 problems on a timely basis, remediation efforts may involve significant time and expense, and unremediated problems may have an adverse effect on our business.

31

34

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

In March 1998, the American Institute of Certified Public Accountants issued Statement of Position ("SOP") No. 98-1, Software for Internal Use, which provides guidance on accounting for the cost of computer software developed or obtained for internal use. SOP No. 98-1 is effective for financial statements for fiscal years beginning after December 15, 1998. The Company is in the process of evaluating the impact of this pronouncement.

In April 1998, the Accounting Standards Executive Committee released Statement of Position No. 98-5, "Reporting on the Costs of Start-Up Activities." SOP No. 98-5 is effective for fiscal years beginning after December 15, 1998 and requires companies to expense all costs incurred or unamortized in connection with start-up activities. The adoption of this SOP is not expected to have any significant effect on the Company's results of operations as the Company had expensed such start-up costs in prior years.

In June 1998, the FASB issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," which establishes accounting and reporting standards for derivative instruments and hedging activities and will be adopted in the year 2000. It requires that an entity recognize all derivatives as either assets or liabilities in the balance sheet and measure those instruments at fair value. The Company is in process of evaluating the impact of this pronouncement.

In December 1998, the Accounting Standards Executive Committee ("AcSEC") issued Statement of Position 98-9, modification of SOP 97-2, "Software Revenue Recognition," with Respect to Certain Transactions. SOP 98-9 will be effective for transactions that are entered into in fiscal years beginning after March 15, 1999. Retroactive application is prohibited. The Company is in process of evaluating the impact of this pronouncement.

32

35

BUSINESS

OVERVIEW

We provide a comprehensive suite of e-business infrastructure applications for powering e-business portals and e-marketplaces. Our solution addresses the unique challenges faced by e-business portals and e-marketplaces in both business-to-business and business-to-consumer e-commerce. Our product suite provides an open, scalable, adaptable solution to enable the rapid aggregation, exchange, integration, personalization and syndication of e-business information and services from a broad range of partners, suppliers and customers. Our products enable our e-business portal and e-marketplace customers to: achieve rapid time-to-market, engage and retain customers, increase revenues and

marketshare, and attain scalable and agile e-business relationships. Our customers include: Aspect Development, ClubComputer.com, FASTXchange, Harbinger Corporation, Impulse! Buy!, The Trip.com, Sabre/Travelocity.com and telstreet.com.

INDUSTRY BACKGROUND

As the Internet has emerged as the fastest growing global communications medium in history, companies across multiple industries have been forced to leverage the ubiquity and openness of the Web to remain competitive. Nearly every company in the world today faces the strategic imperative of re-creating itself into an electronic commerce, or e-commerce, company, augmenting or even replacing its traditional distribution, supply chain, and customer-service channels with Internet-based channels. Although the first generation of e-commerce consisted primarily of basic Web sites offering product information for marketing purposes, today the stakes are higher. Successful companies now need to create value-added relationships with partners and suppliers and offer differentiated and unique online services to customers. By extending core business processes over the Internet and integrating systems with partners, suppliers, and customers, these companies seek to achieve significant competitive advantage, increased customer satisfaction and new sources of revenues. This next generation of e-commerce, often referred to as e-business, is transforming the way business is done and has given rise to the "Internet economy."

With the evolution of the Internet as a primary means of conducting business, both in business-to-business and business-to-consumer markets, competitive pressures have driven new and more sophisticated forms of e-commerce to emerge. In the Internet economy, companies find it increasingly difficult to differentiate their offerings on the basis of products, price or location. As a result, vendors must deliver comprehensive business services and information to offer enhanced value to their partners, suppliers and customers. In particular, companies seek to participate in two complementary e-business channels -- e-business portals and e-marketplaces -- as distinct ways to capitalize on the Internet, expand their businesses and protect their revenue opportunities. These channels are complementary since many vendors will create their own e-business portal to directly sell their own goods and services in addition to offering those goods and services through participation in an e-marketplace.

E-BUSINESS PORTALS. An e-business portal is an online destination site where vendors create value-added relationships with their customers or business partners by offering an expanded set of information and services. For example, a business-to-consumer, travel-oriented e-business portal enables visitors to gain information about all aspects of the travel experience, including airfare, hotel availability, cultural activities, weather and current events, and then purchase all of the goods and services for a particular trip without having to leave the portal at any point in the process.

E-MARKETPLACES. An e-marketplace is a comprehensive trading hub designed to efficiently broker transactions and services among multiple buyers and sellers. For example, a business-to-business e-marketplace acts as an intermediary to enable businesses to interact with potentially thousands of discrete vendors, compare parts, prices and configurations among those vendors, and then purchase all of the goods and services from one or several vendors without having to leave the e-marketplace at any point in the process.

33

36

The Internet economy is poised for rapid growth, across both business-to-business and business-to-consumer markets. According to Forrester Research, the volume of business-to-business e-commerce transacted through e-business portals, e-marketplaces and other e-business offerings will grow from \$43 billion in 1998 to \$1.3 trillion in 2003.

There are many demands placed on the infrastructure of e-business portals and e-marketplaces. Companies deploying e-business portals and e-marketplaces must be able to offer a broad range of dynamic information and services from a large, diverse set of partners, suppliers and customers, and do so faster than their competitors. Compounding this challenge is the fact that these e-business relationships require agility in terms of flexible, adaptable connections that accommodate rapid change. No single standard can be imposed on all suppliers of information and services offered by e-business portals and e-marketplaces.

To successfully address these business requirements, e-business portals and e-marketplaces must meet complicated technical requirements. Key technical requirements include:

- Aggregation -- capturing and transforming diverse information from a broad range of sources and in multiple formats;

- Exchange -- enabling the exchange of business documents, including purchase orders, for secure, real-time process automation among business partners;
- Integration -- integrating e-business portals and e-marketplaces with operational systems to synchronize and automate services and transactions;
- Personalization -- offering proactive notification of the availability of new information and events based on criteria defined by the end user; and
- Syndication -- enabling businesses to package and publish critical information in a broad range of formats to their customers and business partners.

Given these requirements, e-business portals and e-marketplaces face significant challenges in effectively scaling their businesses to fully capitalize on the opportunities created by the Internet. Existing approaches for addressing these challenges are limited. The most common approaches consist of manual, custom systems, which may be adequate initially, but tend to break down as the e-business portals and e-marketplaces expand to provide additional services and information from an ever-increasing number of partners, suppliers and customers. Many of these custom approaches incorporate single-function products that address particular infrastructure needs but do not offer a comprehensive solution that spans each of the important requirements. These custom approaches often lack:

- Speed of deployment;
- Scalability to accommodate growth to thousands of discrete participants;
- Agility to accommodate rapid change; and
- Comprehensiveness to meet the demands of a broad range of e-business relationships and interactions.

As a result, there is a need for e-business infrastructure applications that provide a comprehensive solution for powering e-business portals and e-marketplaces. This solution must be open, scalable and adaptable to enable the rapid aggregation, exchange, integration, personalization and syndication of dynamic information and services from a broad range of partners, suppliers, and customers.

ONDISPLAY SOLUTION

We provide a comprehensive suite of e-business infrastructure applications for powering e-business portals and e-marketplaces. Our solution addresses the unique challenges faced by e-business portals and e-marketplaces in both business-to-business and business-to-consumer e-commerce. Our product suite spans each of the key infrastructure requirements: aggregation and syndication of diverse content and

34

37

information; automation of critical business-to-business transactions; integration with operational systems; and proactive notification to enhance customer loyalty.

Our solution enables our e-business portal and e-marketplace customers to:

- **ACHIEVE RAPID TIME-TO-MARKET.** Our products enable our customers to rapidly deploy e-business portals and e-marketplaces. We provide a comprehensive application suite that eliminates the need for months of custom programming and that reduces the customer's reliance on complex systems integration. As a result, we enable our customers to dramatically shrink their time-to-market.
- **ENGAGE AND RETAIN CUSTOMERS.** By automating the aggregation of a wide variety of rich, relevant, and timely information and services, our solution enables e-business portals and e-marketplaces to transform their Web sites into highly convenient destination locations for their customers. In addition to aggregating diverse information and services, we offer a personalization product that enables our customers to automatically notify their participants of newly available information. These personalization and rich content capabilities enable e-business portals and e-marketplaces to turn temporary visitors into buyers and to then build high-quality relationships with those buyers over time.
- **INCREASE REVENUES AND MARKET SHARE.** Our products enable our customers to

create superior Internet revenue channels through the rapid delivery of high quality information and services, and through achieving efficient interactions with suppliers and other business partners. These superior Internet revenue channels may, in turn, drive market share expansion as our customers are able to enhance their competitive position and extend their market leadership.

- ENABLE SCALABLE AND AGILE E-BUSINESS. Our solution enables our customers to be more agile in responding to the rapid pace of change associated with the Internet economy. By delivering an easy-to-use and highly flexible product suite, we provide our customers with the ability to handle a broad range of rapidly changing business relationships. Our solution is scalable to support thousands of participants and partners, flexible to accommodate rapidly changing relationships and industry standards, and adaptable to manage disparate systems and ways of doing business.

ONDISPLAY STRATEGY

Our objective is to become the leading provider of comprehensive, e-business infrastructure applications for powering e-business portals and e-marketplaces. Key elements of our strategy to achieve this objective are:

- TARGET E-BUSINESS PORTAL AND E-MARKETPLACE MARKETS. We intend to establish our brand and expand market share in two large and growing e-business markets: e-business portals and e-marketplaces. In the e-business portal market we will target both traditional and Internet-based businesses across specific markets with critical and urgent e-business needs. Our strategy is to pursue industries that have a large number of fragmented buyers and sellers and conduct large amounts of commerce. At the same time, we intend to aggressively expand our presence in the e-marketplace market, which we believe represents a huge opportunity as e-marketplace businesses become pioneers in the use of automated, robust and scalable information exchange solutions.
- LEVERAGE CUSTOMER NETWORK EFFECTS. As our customers use our solution across their network of suppliers, buyers and other trading partners, numerous other e-business participants become aware of our products and their features and are continually exposed to our products with subsequent exchanges of critical business information. This allows parties throughout the e-business community to experience the benefits that our products deliver first hand, which creates a powerful network effect that drives more rapid product recognition and adoption. We intend to leverage this visibility across our targeted markets in order to drive increased sales, which in turn should further accelerate the network effect.

35

38

- EXTEND OUR TECHNOLOGICAL LEADERSHIP. We intend to continue to innovate comprehensive e-business infrastructure solutions based on our technology and emerging industry standards. Our core CenterStage technology provides a powerful foundation for seamless information exchange between e-business participants. With each succeeding generation of our technology, we have extended this foundation and added features that increase the range of functions and ease-of-use of our solutions. For example, as the Internet becomes the preferred medium for business transactions of all types, companies are increasingly using extensible markup language (XML) as the standard upon which to base their interactions with customers and trading partners. We intend to take advantage of this trend by continuing to offer a highly automated, easy-to-use XML solution.
- BUILD UPON OUR NETWORK OF RELATIONSHIPS. We are building strategic relationships with a variety of industry leading independent software vendors, platform providers and systems integrators. We intend to utilize and extend this network to reach target markets, accelerate the adoption of our technologies, and test and validate our next-generation product and technology. These relationships enable us to focus on our core competencies, while offering our customers highly complementary technologies from industry leaders and innovators. We believe that these relationships, in addition to others that we intend to pursue, will help validate and accelerate the widespread adoption of our e-business infrastructure solutions.
- EXPAND OUR INTERNATIONAL PRESENCE. We intend to penetrate global markets through aggressive expansion of our worldwide field sales, marketing, and services organizations. We are currently establishing and staffing international headquarters and field sales offices in Europe. We also

expect to establish relationships with international distributors and systems integrators.

PRODUCTS

We provide an integrated solution for enabling the rapid aggregation, exchange, integration, personalization and syndication of critical information and services for e-business portals and e-marketplaces. Our products are complementary, but can be purchased separately, so that online businesses can select the individual products they need to meet their immediate business objectives and then add additional CenterStage products as their requirements evolve.

Each CenterStage product is sold based on the number of servers and content sources. The CenterStage product suite includes:

- CENTERSTAGE ECONTENT. Our CenterStage eContent application enables the rapid aggregation and preparation of disparate content for e-business portals and e-marketplaces. Whether the source format is HTML, XML, flat file, database, real-time feed or application, CenterStage eContent lets users load, update and manage diverse content rapidly and easily.
- CENTERSTAGE EBIZXCHANGE. Our CenterStage eBizXchange application takes advantage of XML technologies to enable the rapid and transparent exchange of business transactions across a web of trading partners. This can be accomplished across corporate firewalls using both "tight" and "loose" collaboration models. CenterStage eBizXchange's tight collaboration model allows business partners to define a standard approach for business-to-business commerce exchange, using XML or another chosen format. CenterStage eBizXchange provides the ability to prepare and deliver formatted transactions to such business partners, and also to receive transactions and transform them into the appropriate format for internal use. This product's loose collaboration model, meanwhile, enables the e-business to complete a transaction by automatically "driving" a partner's Web site without the need for explicit format agreement.
- CENTERSTAGE EINTEGRATE. Our CenterStage eIntegrate product provides a complete solution for creating and deploying comprehensive interfaces to tie the e-business portal or e-marketplace with existing internal applications, behind the corporate firewall. This integration enables the portal's customers, partners, and suppliers to perform functions such as placing an order or checking

36

39

inventory availability, with the source data accessible from an internal enterprise resource planning or other operational system including applications from SAP, PeopleSoft, and Oracle.

- CENTERSTAGE ENOTIFY. Our CenterStage eNotify product allows e-businesses to offer personalized updates to customers through e-mail or pager, to foster long-lasting, profitable relationships. Unlike many existing personalization programs that track behavior patterns to implement targeted sales offers, CenterStage eNotify enables online visitors to enter their own preferences on the e-business Web site to receive personalized alerts. CenterStage eNotify can support large numbers of concurrent subscriptions.
- CENTERSTAGE ESYNDICATE. Our CenterStage eSyndicate product enables real-time content exchange among trading partners, leveraging a powerful publish-and-subscribe engine. CenterStage eSyndicate intelligently brokers and routes content among trading partners and can be configured to deliver content using any electronic format, open standard or industry protocol. CenterStage eSyndicate is capable of continuously routing a wide range of dynamic, heterogeneous content.

37

40

<TABLE>
<CAPTION>

PRODUCT	FEATURES	BENEFITS
CenterStage eContent	- Rapid, automated content aggregation from diverse	- Quick access to rich, relevant content from the most

- | | |
|--|---|
| sources | appropriate source available |
| - Dynamic access to structured and unstructured data | - Fresh content delivered automatically |
| - Easy-to-use interface | - Reduces deployment cost by not requiring programmer support |
| - Scalable execution | - Supports high volumes of data and large numbers of concurrent users |

-
- | | | |
|-------------------------|---|--|
| CenterStage eBizXchange | - Automated transaction exchange with business partners | - Time and cost savings from elimination of manual processes |
| | - Support for "loose" collaboration | - Exchange transactions with multiple trading partners without requiring changes to the partner's infrastructure |
| | - Support for "tight" collaboration models using industry standards | - Rapidly facilitates business transactions using reliable, highly secure connections |
| | - Scalable, high-volume execution environment | - Quick and reliable business exchange processing |

-
- | | | |
|------------------------|--|---|
| CenterStage eIntegrate | - Automated, rapid integration of e-business portal with internal applications | - Reduces manual integration processes |
| | - Scalable, real-time execution | - Support for high transaction volumes with complex business process routing |
| | - Integration with industry leading message brokers | - Flexibility to route transactions and messages while leveraging existing enterprise infrastructures |
| | - PeopleSoft, Oracle and SAP Integration Toolkits | - Tight integration with leading Enterprise Resource Planning applications |

-
- | | | |
|---------------------|--|--|
| CenterStage eNotify | - Personalized subscription-based notification | - Proactive, permission-based interaction to engage and retain customers |
| | - Event-based execution environment | - Notifications based on fresh, relevant content |
| | - Delivery of alerts via email and pager | - Immediate, reliable notification using customer's preferred medium |

-
- | | | |
|------------------------|--|---|
| CenterStage eSyndicate | - Automated, rules-based content publication based upon user subscriptions | - Customized information based on partner-specific requirements |
| | - Content publishing in multiple formats | - Flexibility to syndicate content to a wide range of business partners |
| | - Continuous routing of dynamic data using industry standards | - Automatic support for fast-changing information |

</TABLE>

LOGO

Using the CenterStage application suite, an e-business portal can rapidly automate and continuously manage the flow of information among its customers, suppliers and other business partners. In the diagram above, the e-business portal uses CenterStage eContent to quickly gather and transform diverse product and other information from a large community of suppliers, regardless of source format. In addition, the e-business portal uses CenterStage eBizXchange to automate business transactions with suppliers and also with e-marketplaces and other trading partners, including affiliates. CenterStage eIntegrate is used to synchronize internal information with the e-business portal. The e-business portal may use CenterStage eNotify to proactively deliver personalized notifications to customers, while it uses CenterStage eSyndicate to publish customized product catalogs and price lists to affiliates and e-marketplaces.

LOGO

An e-marketplace may use the CenterStage product suite to automate and

seamlessly manage the flow of information and transactions among multiple buyers, suppliers and trading partners. The e-marketplace is able to leverage CenterStage eContent to aggregate and transform diverse data from multiple suppliers, while using CenterStage eBizXchange to handle multiple simultaneous transactions among buyers, affiliates and suppliers. CenterStage eSyndicate can be used to proactively syndicate content of interest to buyers and affiliates using a variety of formats. Concurrently, participant buyers and suppliers can use CenterStage eIntegrate to synchronize their internal applications with their e-business operations.

Each of the participants in the e-business value chain are able to use our CenterStage product suite to exchange information and services with other participants. For example, suppliers may use CenterStage eSyndicate to publish information to multiple e-marketplaces simultaneously, just as an e-business portal is able to publish information to its customers. Similarly, corporate buyers may use CenterStage eIntegrate to link their Web-based procurement applications to operational systems.

SERVICES

Our professional services organization works with customers to ensure that they meet their business objectives and achieve their expected return on investment. We focus on the rapid deployment of e-business solutions by taking advantage of an experienced team of consultants. Our professional services organization brings a diverse set of skills and experiences -- combining both business and technical expertise to quickly meet our customers' requirements. Our professional services include:

- On-site training;
- Installation and implementation;
- System and application design;
- Data transformation;

40

43

- Interface development; and
- Maintenance and support.

ARCHITECTURE

Our CenterStage product suite is based on the CenterStage technology platform. This platform provides a means to develop and execute agents for accessing, harvesting, transforming and distributing content and transactions using multiple approaches. Our CenterStage technology platform provides easy application customization capabilities along with a high-performance execution engine for run-time environments.

The CenterStage architecture provides the following environments:

- Rapid development environment -- graphical development environment for creating CenterStage agents and for tailoring the resulting information display; and
- Execution/routing environment -- featuring a high-volume, scalable execution server for processing information agents.

CENTERSTAGE ARCHITECTURE GRAPHIC

Rapid Development Environment

At the core of our CenterStage technology platform is a graphical development environment to create and test information retrieval and transformation agents. These agents have the ability to access information from multiple sources in many different formats. Some of these sources include the Web, databases, software applications and various information systems. Formats supported include Internet

41

44

communication standards, including HTML, XML and EDI, reports, tables and application data. Once this data is accessed, a parsing and query engine retrieves the appropriate information and provides it to the user in an easy-to-use manner for transformation and mapping into one or more outputs. The

retrieved data can also be output in various formats, including HTML, XML, text, tables, EDI and as application data into vendor-delivered application interfaces.

Flexible Execution/Routing Environment

Our flexible CenterStage technology architecture can process agents in three ways:

- The Agent Engine processes large batches of information on a one-time or regularly scheduled basis;
- The Agent Server handles multiple requests simultaneously and also includes a load balancing feature, which distributes requests across multiple servers; and
- The Content Broker enables the publishing of agents based on user-defined events. These agents can be published through a wide variety of delivery mechanisms, including message brokers, application interfaces, Internet connections, e-mail and pagers.

CUSTOMERS

The following is a list of our customers as of August 31, 1999 who have purchased CenterStage products for use in e-business portal or e-marketplace applications.

<TABLE>	<C>
<S>	
Aspect Development	International eCommerce
Bridge Information Systems	MARS Music
Carlson Travel Group	Micro Warehouse
Classified Ventures	Orlando Sentinel Communications
ClubComputer.com	RMI.NET
FASTXchange	Sabre/Travelocity.com
Harbinger Corporation	telstreet.com
Impulse! Buy Network	TheTrip.com

SALES AND MARKETING

We market our CenterStage products and related services primarily through a direct sales organization. Our direct sales organization focuses on sales to recently formed companies that are creating e-business portals and e-marketplaces and larger corporate customers building or improving their Web presence. We maintain a sales office in our headquarters in San Ramon, CA and in offices located in the following metropolitan areas: Atlanta, Boston, Denver, Houston, Indianapolis, Los Angeles, Mt. Laurel, NJ and New York. We intend to increase our North American sales force by opening additional field sales offices and adding sales representatives to our existing territories. Additionally, we intend to expand our presence in international markets by building an international sales force.

Since our inception, we have invested substantial resources in a broad range of marketing activities to generate demand, gain corporate brand identity, establish the e-business portal and e-marketplace product category and educate the market about our products and services. These activities have included advertising, including both print and online, direct marketing, including direct mail and e-mail and online seminars, public relations, participating in trade shows and conferences and providing product information through our Web site.

In addition to the direct sales channel, we have also entered into several marketing and referral agreements with industry leading software companies. As part of these agreements our partners introduce our products and services to prospective customers to generate qualified sales leads. These agreements enable us to expand our potential market and help to validate our solution.

As part of our sales and service offerings, we provide comprehensive product support through a variety of methods. Our experienced support team members understand the problems our customers face and work closely with them to help provide solutions. This comprehensive support enables us to ensure our customers' satisfaction and increases opportunities for repeat sales and positive customer references.

COMPETITION

The market for our products and services is intensely competitive, evolving

and subject to rapid technological change. We expect the intensity of competition to increase in the future. Competitors vary in size and in the scope and breadth of the products and services offered. To date, we have faced competition and sales resistance from the internal information technology departments of current and potential customers that have developed or may develop in-house systems that may substitute for those we offer. We expect that internally developed infrastructure systems will continue to be a principal source of competition for the foreseeable future. In the license of e-commerce products, we primarily encounter competition from webMethods. If we are successful, we expect to encounter many additional competitors in the future. In addition, because there are relatively low barriers to entry in the software market, we expect additional competition from other established and emerging companies as the Internet software market continues to develop and expand. In particular, we believe we may face competition from IBM, Microsoft, Oracle and Sun Microsystems as those companies may perceive entry into our market segment as strategic. We also may face competition from established companies in the enterprise application integration and e-business platform markets, any of which could build and market products that would reduce or eliminate the need for our technology.

We believe that the principal competitive factors affecting our market include core technology, product features, product quality and performance and customer service. Although we believe that our products and services currently compete favorably with respect to these factors, our market is relatively new and is rapidly evolving. We may not be able to maintain our competitive position against current and potential competitors, especially those with significantly greater financial, marketing, service, support, technical and other resources.

Many of our competitors have longer operating histories, significantly greater financial, technical, marketing and other resources, significantly greater name recognition and a larger installed base of customers than we have. In addition, many of our competitors have well-established relationships with current and potential customers of ours, have extensive knowledge of our industry and are capable of offering a comparable solution. As a result, our competitors may be able to respond more quickly to new or emerging technologies and changes in customer requirements, or to devote greater resources to the development, promotion and sale of their products and services than we can. In addition, current and potential competitors have established or may establish cooperative relationships among themselves or with third parties to increase the ability of their products and services to address customer needs. Accordingly, it is possible that new competitors or alliances among competitors may emerge and rapidly acquire significant market share. We also expect that competition will increase as a result of software industry consolidations.

Increased competition is likely to result in price reductions, reduced gross margins and loss of market share, any of which could seriously harm our business, operating results and financial condition. We may not be able to compete successfully against current and future competitors.

INTELLECTUAL PROPERTY AND PROPRIETARY RIGHTS

Our success and ability to compete are substantially dependent on our internally developed technologies and trademarks, which we seek to protect through a combination of copyright, trade secret and trademark law. We also enter into confidentiality or license agreements with our employees and consultants, and corporate and strategic partners and generally seek to control access to and distribution of our documentation and other proprietary information. Despite these precautions, it may be possible for a third party to copy or otherwise obtain and use our proprietary information without authorization or to

develop similar technology independently. We pursue the registration of our trade and service marks in the United States and internationally, and we have registered the trademarks OnDisplay and CenterStage in the United States. Effective trademark, service mark, copyright and trade secret protection may not be available in every country in which our services are distributed or made available through the Internet, and policing unauthorized use of our proprietary information is difficult.

Legal standards relating to the validity, enforceability and scope of protection of certain proprietary rights in Internet-related businesses are uncertain and still evolving. We cannot give any assurance as to the future viability or value of any of our proprietary rights. In addition, we cannot give any assurance that the steps taken by us will prevent misappropriation or infringement of our proprietary information. Any intellectual property infringement or misappropriation, should it occur, could have a material adverse effect on our business, operating results and financial condition.

In addition, litigation may be necessary in the future to enforce our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. Any intellectual property litigation would result in substantial costs and diversion of resources and management attention and could have a material adverse effect on our business, operating results and financial condition. Our business activities may infringe upon the proprietary rights of others, and other parties may assert infringement claims against us. Any claim and resultant litigation, should it occur, might subject us to significant liability for damages and might result in invalidation of our proprietary rights and even if not meritorious, would be time consuming and expensive to defend and would result in the diversion of management time and attention, any of which might have a material adverse effect on our business, operating results and financial condition.

EMPLOYEES

As of August 31, 1999, we employed 80 persons. Our success will depend in large part upon our ability to attract and retain employees. We face competition in this regard from other companies, but we believe that we maintain good relations with our employees.

FACILITIES

We sublease approximately 20,000 square feet of office space in two office locations in San Ramon, California and smaller sales offices located in the following metropolitan areas: Atlanta, Boston, Denver Houston, Indianapolis, Los Angeles, Mt. Laurel, NJ and New York. We believe that our San Ramon facilities will meet our space requirements for the next year. The sublease for the San Ramon facilities expire in July 2000 and July 2002 with no option to extend.

LEGAL PROCEEDINGS

We are not presently a party to any material legal proceeding.

MANAGEMENT

EXECUTIVE OFFICERS AND DIRECTORS

The following table sets forth, as of August 31, 1999, certain information concerning our executive officers and directors:

<TABLE>
<CAPTION>

NAME	AGE	POSITION
----	---	-----
<S>	<C>	<C>
Mark Pine.....	45	President and Chief Executive Officer, Director
Carol Richwood.....	38	Vice President, Corporate Controller
Trung Dung.....	32	Chief Technology Officer
Mark Deppe.....	47	Vice President, Software Development
Olivier Sermet.....	34	Vice President, Worldwide Field Operations
Timothy Barrows(1).....	42	Director
Promod Haque(1)(2).....	51	Director
John Mandile.....	38	Director
Christopher Spray.....	43	Director
Margaret Taylor.....	48	Director
Carmine Villani(2).....	56	Director

</TABLE>

(1) Member of the Compensation Committee

(2) Member of the Audit Committee

Mark Pine is a founder of OnDisplay and has served as our President and Chief Executive Officer and as a member of our board of directors since August 1996. From 1994 to 1996, Mr. Pine served as a part-time consultant to various software companies. From 1990 to 1994, Mr. Pine was the Vice President of Engineering and Senior Vice President of Sybase, Inc. overseeing Sybase's largest product division. Prior to joining Sybase, Mr. Pine was a part of the founding management team of ARIX Corporation and Parallel Computers. Mr. Pine holds a B.A. from University of California, San Diego.

Carol Richwood has served as our Vice President, Corporate Controller since April 1999. From June 1997 to April 1999, Ms. Richwood served in various positions at PeopleSoft, Inc, including Controller of PeopleSoft Select. From

October 1989 to June 1997, she served in various capacities, including Group Controller of the software services division of VeriFone, Inc. Ms. Richwood holds a B.S. from San Francisco State University and is a certified public accountant.

Trung Dung is a founder of OnDisplay and has served as our Chief Technology Officer since August 1996. Prior to joining OnDisplay, from August 1995 to June 1996, Mr. Dung held several senior software development positions at Open Market, Inc. From 1991 to July 1995, Mr. Dung held various technical positions with GTE Laboratories and Software Emancipation Technology. Mr. Dung holds a B.S. from University of Massachusetts and attended graduate school at Boston University from 1988 to 1993.

Mark Deppe has served as our Vice President Software Development since October 1996. From August 1990 to October 1996, Mr. Deppe served in various technical positions, including Senior Director of Engineering, at Sybase, Inc. Prior to joining Sybase, Mr., Deppe held senior management positions at Hewlett-Packard, Apple Computer, Software Publishing Corporation and Cooperative Solutions. Mr. Deppe holds a B.S.E. and M.S.E. from University of Michigan.

Olivier Sermet has served as our Vice President, Worldwide Field Operations since May 1997. From June 1995 to May 1997, Mr. Sermet served as Vice President of Operations and General Manager for Dun & Bradstreet Software. From 1994 to June 1995 Mr. Sermet served as Regional Sales Manager at Racal Datacom. Mr. Sermet holds a Baccalaureate from Ecole de Provence (Marseille France) and an M.B.A. from Northern Illinois University.

Timothy A. Barrows has served as one of our directors since September 1996. Since 1985, Mr. Barrows has been a general partner of Matrix Partners. Mr. Barrows serves as director of

45

48

SilverStream, Inc., Sycamore Networks, Inc. and several private companies. Mr. Barrows holds a B.A. from Williams College and an M.B.A. from Stanford University.

Promod Haque has served as one of our directors since August 1997. Dr. Haque joined Norwest Venture Partners, a venture capital firm, in November 1990 and is currently managing general partner of the general partner of Norwest Venture Partners. Dr. Haque is a director of Showcase Corporation, Extreme Networks, Inc., Primus Knowledge Solutions, Cerent Corporation, Siara Systems, Transaction Systems Architects, Inc. and several privately held companies. Dr. Haque holds a Ph.D.E.E. degree and an M.S.E.E. degree from Northwestern University, an M.M. degree from the J.L. Kellogg Graduate School of Management, Northwestern University, and a B.S.E.E. degree from the University of Delhi, India.

John Mandile has served as one of our directors since August 1996. Since September 1996, Mr. Mandile has been a General Partner of Sigma Partners. From August 1995 to April 1996, Mr. Mandile was the President & CEO of Vermeer Technologies, Inc., a Web authoring company that was acquired by Microsoft. From 1988 to 1992 Mr. Mandile was Vice President of Engineering of SQL Solutions, which was acquired by Sybase and after the acquisition served as Vice President of System Management at Sybase from 1992 to July 1995. Mr. Mandile holds a B.S.E. in Engineering Science from Tufts University and an MS in Computer Science from Worcester Polytechnic State University.

Christopher Spray has served as one of our directors since September 1996. Since 1986, Mr. Spray has been a general partner of Atlas Venture. Mr. Spray holds a B.A. from Oxford University and an M.B.A. from INSEAD.

Margaret Taylor has served as one of our directors since March 1999. Since 1989, Ms. Taylor has been a Senior Vice President of Operations for PeopleSoft, Inc. Ms. Taylor holds a B.A. from Lone Mountain College.

Carmine Villani has served as one of our directors since April 1997. Since 1992, Mr. Villani has been Senior Vice President and Chief Information Officer of McKessonHBOC, Inc. Mr. Villani holds a B.A. from Rutgers University.

COMMITTEES OF THE BOARD OF DIRECTORS

Our compensation committee consists of Messrs. Barrows and Haque. The compensation committee makes recommendations regarding our various incentive compensation and benefit plans and determines salaries for our executive officers and incentive compensation for our employees and consultants.

Our audit committee consists of Messrs. Haque and Villani. The audit committee makes recommendations to the board of directors regarding the

selection of our independent auditors, reviews the results and scope of the audit and other services provided by our independent auditors and reviews and evaluates our control functions.

BOARD COMPOSITION

Our bylaws currently authorize seven directors. Our certificate of incorporation and bylaws that become effective upon the completion of this offering provide that our Board will be divided into three classes, Class I, Class II and Class III, with each class serving staggered three-year terms. The Class I directors, Messrs. Mandile and Spray will stand for reelection at the 2000 annual meeting of stockholders. The Class II directors, Messrs. Barrows and Haque will stand for reelection at the 2001 annual meeting of stockholders. The Class III directors, Messrs. Pine and Villani and Ms. Taylor, will stand for reelection at the 2002 annual meeting of stockholders. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This staggered classification of the board of directors may have the effect of delaying or preventing changes in control or management. There are no family relationships among any of our directors, officers or key employees.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

None of the members of our compensation committee was, at any time since our formation, an officer or employee of OnDisplay. None of our executive officers serves as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee. See "Certain Transactions" for a description of transactions between OnDisplay and entities affiliated with members of our compensation committee.

DIRECTOR COMPENSATION

Directors currently do not receive any cash compensation from OnDisplay for their services as members of the board of directors, although members are reimbursed for expenses in connection with attendance at board of directors and committee meetings. At times in the past we have granted our outside directors options to purchase shares of our common stock under the 1996 Stock Plan. In October 1996, we granted John Mandile an option to purchase 42,500 shares at a per share exercise price of \$0.10. In April 1997, we granted Carmine Villani an option to purchase 20,000 shares at per share exercise price of \$0.10 and in January 1999, we granted Mr. Villani an option to purchase an additional 20,000 shares at a per share exercise price of \$0.40. In March 1999, we granted Margaret Taylor an option to purchase 30,000 shares at per share exercise price of \$0.40.

EXECUTIVE COMPENSATION

The following table sets forth the compensation paid by us during the year ended December 31, 1998, to our Chief Executive Officer and to our other most highly compensated executive officers during our last fiscal year. This prospectus refers to these executives as the Named Executive Officers.

SUMMARY COMPENSATION TABLE

<TABLE>
<CAPTION>

NAME AND PRINCIPAL POSITION	ANNUAL COMPENSATION		LONG TERM COMPENSATION AWARDS
	SALARY (\$)	BONUS (\$)	SECURITIES UNDERLYING OPTIONS
<S>	<C>	<C>	<C>
Mark Pine..... President and Chief Executive Officer, Director	175,002	5,000	--
Olivier Sermet..... Vice President, Worldwide Field Operations	150,002	68,581	--
Mark Deppe..... Vice President, Software Development	150,001	--	--
Trung Dung..... Chief Technology Officer	96,667	--	--

</TABLE>

OPTION GRANTS IN LAST FISCAL YEAR

No stock options were awarded to our Named Executive Officers during the year ended December 31, 1998.

In 1998, we granted options to purchase an aggregate of 781,750 shares of common stock to our employees, directors and consultants. Generally, we grant options at an exercise price equal to the fair market value of the underlying common stock on the date of grant, as determined by our board of directors, and the options vest over four years from the date of grant. In determining the fair market value of our common stock, our board of directors considers valuations of comparable companies, valuations at which we have issued preferred stock, valuation reports and analyses prepared by third parties, the relative rights and preferences of our preferred stock as compared to our common stock, and the lack of liquidity of our securities. Once we become a publicly-held company, the fair market value of our stock will equal its trading market price.

In accordance with the rules of the Securities and Exchange Commission, the above table sets forth the potential realizable value over the ten-year period from the grant date to the expiration date, assuming rates of stock appreciation of 5% and 10%, compounded annually. These amounts do not represent our estimate of future stock price performance. Actual realizable values, if any, of stock options will depend on the future performance of our common stock.

AGGREGATE OPTION EXERCISES IN LAST FISCAL YEAR AND FISCAL YEAR-END OPTION VALUES

The following table set forth for each of the Named Executive Officers the number of shares of common stock acquired and the dollar value realized upon exercise of options during the year ended December 31, 1998 and the number and value of securities underlying unexercised options held at December 31, 1998.

The "Value of Unexercised In-the-Money Options at December 31, 1998" is based on a value of \$0.40 per share, the fair market value of our common stock as of December 8, 1998, as determined by the board of directors, less the per share exercise price, multiplied by the number of shares issued upon exercise of the option. All options were granted under our 1996 Stock Plan.

<TABLE>
<CAPTION>

NAME	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT DECEMBER 31, 1998		VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT DECEMBER 31, 1998	
	EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE
<S>	<C>	<C>	<C>	<C>
Mark Pine.....	--	--	--	--
Olivier Sermet.....	54,688	--	\$ 16,406.40	--
Trung Dung.....	--	--	--	--
Mark Deppe.....	382,500	--	\$114,750.00	--

INCENTIVE STOCK PLANS

1996 STOCK PLAN

The Board of Directors adopted the 1996 Stock Plan (the "1996 Plan") on August 13, 1996 and the stockholders initially approved the 1996 Plan on September 17, 1996. The 1996 Plan provides for the grant of incentive stock options within the meaning of Section 422 of the Internal Revenue Code (the "Code") to employees, and for the grant of nonstatutory stock options and stock purchase rights ("SPRs") to employees, directors and consultants.

Number of Shares of Common Stock Available under the 1996 Plan

As of August 31, 1999, a total of 3,475,000 shares of common stock were reserved for issuance pursuant to the 1996 Plan, of which options to acquire 3,278,250 shares were issued and outstanding as of that date. The 1996 Plan provides for annual increases in the number of shares available for issuance thereunder, on the first day of each new fiscal year, effective beginning with fiscal year 2001, equal to the lesser of % of the outstanding shares of common stock on the first day of the fiscal year, shares or a lesser amount as the Board may determine.

Administration of the 1996 Plan

The Board of Directors or a committee of the Board (as applicable, the "Administrator") administers the 1996 Plan. In the case of options intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Code, the committee will consist of two or more "outside directors" within the meaning of Section 162(m) of the Code. The Administrator has the power to determine the terms of the options or SPRs granted, including the exercise price, the number of shares subject to each option or SPR, the exercisability of the options and the form of consideration payable upon exercise.

48

51

Options

The Administrator determines the exercise price of nonstatutory stock options granted under the 1996 Plan, but with respect to nonstatutory stock options intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Code, the exercise price must at least be equal to the fair market value of the common stock on the date of grant. The exercise price of all incentive stock options granted under the 1996 Plan must be at least equal to the fair market value of the common stock on the date of grant and the term of such option may not exceed ten years. With respect to any participant who owns stock possessing more than 10% of the voting power of all classes of the our outstanding capital stock, the exercise price of any incentive stock option granted must equal at least 110% of the fair market value on the grant date and the term of such incentive stock option must not exceed five years. The Administrator determines the term of all other options.

No optionee may be granted an option to purchase more than shares in any fiscal year. In connection with his or her initial service, an optionee may be granted an option to purchase up to an additional shares, which shall not count against the yearly limit set forth in the previous sentence.

An optionee generally must exercise an option granted under the 1996 Plan at the time set forth in the optionee's option agreement after termination of the optionee's status as an employee, director or consultant. Generally, in the case of the optionee's termination by death or disability, the option will remain exercisable for twelve months. In all other cases, the option will generally remain exercisable for a period of three months. However, an option may never be exercised later than the expiration of the option's term.

Stock Purchase Rights ("SPRs")

The Administrator determines the exercise price of SPRs granted under the 1996 Plan. In the case of SPRs, unless the Administrator determines otherwise, the restricted stock purchase agreement entered into in connection with the exercise of the SPR shall grant us a repurchase option that we may exercise upon the voluntary or involuntary termination of the purchaser's service with the us for any reason (including death or disability). The purchase price for shares we repurchase pursuant to restricted stock purchase agreements shall generally be the original price paid by the purchaser and may be paid by cancellation of any indebtedness of the purchaser to us. The repurchase option shall lapse at a rate that the Administrator determines.

Transferability of Options and SPRs

An optionee generally may not transfer options and SPRs granted under the 1996 Plan and only the optionee may exercise an option and SPR during his or her lifetime.

Adjustments upon Merger or Asset Sale

The 1996 Plan provides that in the event of a merger, sale or reorganization of OnDisplay with or into any other corporation or the sale of all or substantially all of the assets or outstanding stock of OnDisplay, in which transaction our stockholders immediately prior to such transaction own immediately after such transaction less than 50% of the equity securities of the surviving corporation, 18 months worth of vesting of outstanding options shall accelerate and become exercisable. The 1996 Plan also provides that in the event of a merger of OnDisplay with or into another corporation, the successor corporation shall assume or substitute each option or SPR. If the outstanding options or SPRs are not assumed or substituted, the Administrator shall provide notice to the optionee that he or she has the right to exercise the option or SPR as to all of the shares subject to the option or SPR, including shares which would not otherwise be exercisable, for a period of 15 days from the date of the notice. The option or SPR will terminate upon the expiration of the 15-day period.

Amendment and Termination of the 1996 Plan

Unless terminated sooner, the 1996 Plan will terminate automatically in 2006. In addition, the Board of Directors has the authority to amend, suspend or terminate the 1996 Plan, provided that no such action may affect any share of common stock previously issued and sold or any option previously granted under the 1996 Plan.

1999 EMPLOYEE STOCK PURCHASE PLAN

Concurrently with the offering, we intend to establish an Employee Stock Purchase Plan (the "Purchase Plan").

Number of Shares of Common Stock Available under the Purchase Plan

A total of _____ shares of common stock will be made available for sale. In addition, the Purchase Plan provides for annual increases in the number of shares available for issuance under the Purchase Plan on the first day of each fiscal year, beginning with the fiscal year _____, equal to the lesser of _____ % of the outstanding shares of common stock on the first day of the fiscal year, _____ shares, or such other amount as may be determined by the Board.

Administration of the Purchase Plan

The Board of Directors or a committee appointed by the Board of Directors administers the Purchase Plan. The Board of Directors or its committee has full and exclusive authority to interpret the terms of the Purchase Plan and determine eligibility.

Eligibility to Participate

Employees are eligible to participate if they are customarily employed by us or any participating subsidiary for at least 20 hours per week and more than five months in any calendar year. However, an employee may not be granted an option to purchase stock under the Purchase Plan if such employee:

- immediately after grant owns stock possessing 5% or more of the total combined voting power or value of all classes of the capital stock of OnDisplay, or
- whose rights to purchase stock under all employee stock purchase plans of OnDisplay accrues at a rate that exceeds \$25,000 worth of stock for each calendar year.

Offering Periods and Contributions

The Purchase Plan, which is intended to qualify under Section 423 of the Internal Revenue Code, contains consecutive, overlapping 24-month offering periods. Each offering period includes four 6-month purchase periods. The offering periods generally start on the first trading day on or after _____ and _____ of each year, except for the first such offering period which will commence on the first trading day on or after the effective date of this offering and will end on the last trading day on or before _____.

The Purchase Plan permits participants to purchase common stock through payroll deductions of up to _____ % of the participant's eligible compensation which includes the participant's base salary, wages, overtime pay, commissions, bonuses and other compensation remuneration paid directly to the employee. The maximum number of shares a participant may purchase during a six-month purchase period is _____ shares.

Purchase of Shares

Amounts deducted and accumulated by the participant are used to purchase shares of common stock at the end of each six-month purchase period. The price of stock purchased under the Purchase Plan is 85% of the lower of the fair market value of the common stock at the beginning of an offering period or

after a purchase period end. In the event the fair market value at the end of a purchase period is less than the fair market value at the beginning of the offering period, participants will be withdrawn from the current offering period

following their purchase of shares on the purchase date and will be automatically re-enrolled in a new offering period. Participants may end their participation at any time during an offering period, and they will be paid their payroll deductions to date. Participation ends automatically upon termination of employment with us.

Transferability of Rights

A participant may not transfer rights granted under the Purchase Plan other than by will, the laws of descent and distribution or as otherwise provided under the Purchase Plan.

Adjustments upon Merger or Asset Sale

The Purchase Plan provides that, in the event of a merger of OnDisplay with or into another corporation or a sale of all or substantially all of our assets, a successor corporation may assume or substitute for each outstanding option. If the successor corporation refuses to assume or substitute for the outstanding options, the offering period then in progress will be shortened, and a new exercise date will be set.

Amendment and Termination of the Purchase Plan

The 1999 Purchase Plan will terminate in 2009. However, the board of directors has the authority to amend or terminate the Purchase Plan, except that, subject to certain exceptions described in the Purchase Plan, no such action may adversely affect any outstanding rights to purchase stock under the Purchase Plan.

CHANGE OF CONTROL ARRANGEMENTS

Under our 1996 Stock Plan, in the event of a merger, sale or reorganization of OnDisplay into another corporation which results in a change of control of OnDisplay, options that would have become vested within 18 months after the closing date of the merger transaction will accelerate and become fully vested upon the closing of the transaction.

LIMITATIONS OF LIABILITY AND INDEMNIFICATION MATTERS

Our certificate of incorporation limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except liability for any of the following:

- any breach of their duty of loyalty to the corporation or its stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

This limitation of liability does not apply to liabilities arising under the federal securities laws and does not affect the availability of equitable remedies, including injunctive relief or rescission.

Our bylaws provide that we shall indemnify our directors and executive officers and may indemnify our other officers and employees and other agents to the fullest extent permitted by law. We believe that indemnification under our bylaws covers at least negligence and gross negligence on the part of indemnified parties. Our bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in such capacity, regardless of whether the bylaws would permit indemnification.

We have entered into agreements to indemnify our directors and executive officers, in addition to indemnification provided for in our bylaws. These agreements, among other things, indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by any person in any action or proceeding, including any action by us arising out of that person's services as our director or executive officer, any of our subsidiaries or any other company or enterprise to which the

person provides services at our request. We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and executive officers.

CERTAIN TRANSACTIONS

OUR FORMATION

In connection with our incorporation in August 1996, we issued 1,554,525 shares of common stock to Mark Pine, 1,554,525 shares of common stock to Trung Dung and 85,000 shares to Thang Tran at a purchase price of \$.001 per share, paid in cash. These founders' shares are subject to a right of repurchase by us at the original purchase of \$.001 per share. This repurchase right lapsed as to one-fourth of the shares upon the one year anniversary of the vesting start date (which in the case of Messrs. Pine and Dung was August 1996) and lapses as to the remaining shares on a cumulative monthly basis over a period of 36 months from the one year anniversary of the vesting start date.

PREFERRED STOCK FINANCINGS

In September 1996 and June 1997, OnDisplay issued to various investors a total of 3,500,000 shares of series A preferred stock at a purchase price of \$1.00 per share. In June 1997 and January 1998, OnDisplay issued to various investors a total of 3,202,381 shares of series B preferred stock at a purchase price of \$2.10 per share. In July 1998 and October 1998, OnDisplay issued to various investors a total of 2,189,173 shares of series C preferred stock at a purchase price of \$4.00 per share. In August 1999, OnDisplay issued to various investors 1,723,739 shares of series D preferred stock at a purchase price of \$9.52 per share.

Pursuant to our series C preferred stock financing, we agreed to offer ATGF II the opportunity to purchase a number of shares in this offering sufficient to maintain their percentage ownership.

The holders of our preferred stock include, among others, the following directors and holders of more than 5% of our outstanding stock:

<TABLE>
<CAPTION>

PREFERRED STOCKHOLDER	PREFERRED STOCK			
	SERIES A	SERIES B	SERIES C	SERIES D
<S>	<C>	<C>	<C>	<C>
HOLDERS OF MORE THAN 5%:				
ATGF II.....	--	--	945,000	52,521
Matrix Partners IV, L.P.(1).....	1,800,000	629,870	340,909	137,214
Atlas Venture Fund II, L.P.....	1,500,000	524,892	284,091	52,521
Norwest Venture Partners VI, LP.....	--	1,904,762	500,000	119,088
DIRECTORS:				
Timothy Barrows(2).....	1,800,000	629,870	340,909	137,214
Christopher Spray(3).....	1,500,000	524,892	284,091	52,521
Promod Haque(4).....	--	1,904,762	500,000	119,088
John Mandile.....	100,000	11,905	--	--
Margaret Taylor.....	--	--	25,000	--

</TABLE>

-
- (1) Includes 145,400 shares held by the Matrix IV Entrepreneurs Fund, L.P.
 - (2) Includes shares held by Matrix Partners IV, L.P and Matrix IV Entrepreneurs Fund, L.P. Mr. Barrows, a general partner of Matrix Partners IV, L.P and Matrix IV Entrepreneurs Fund, L.P., disclaims beneficial ownership of the shares held by Matrix Partners IV, L.P and Matrix IV Entrepreneurs Fund, L.P., except to the extent of his proportionate pecuniary interest therein. Mr. Barrows is a member of our board of directors.
 - (3) Includes shares held by Atlas Venture Fund II, L.P. Mr. Spray, a general partner of Atlas Venture Fund II, L.P., disclaims beneficial ownership of the shares held by Atlas Venture Fund II, L.P., except to the extent of his proportionate pecuniary interest therein. Mr. Spray is a member of our board of directors.
 - (4) Includes shares held by Norwest Venture Partners VI, LP. Mr. Haque, a general partner of Norwest Venture Partners VI, LP, disclaims beneficial ownership of the shares held by Norwest Venture

56

Partners VI, LP, except to the extent of his proportionate pecuniary interest therein. Mr. Haque is a member of our board of directors.

POLICY REGARDING TRANSACTIONS WITH AFFILIATES

All future transactions with affiliates, including any loans we make to our officers, directors, principal stockholders or other affiliates, will be approved by a majority of our Board of Directors, including a majority of the independent and disinterested members or, if required by law, a majority of disinterested stockholders, and will be on terms no less favorable to us than we could have obtained from unaffiliated third parties.

54

57

PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding the beneficial ownership of our common stock as of August 31, 1999, by the following individuals or groups:

- each person, or group of affiliated persons, whom we know beneficially owns more than 5% of our outstanding stock;
- each of our executive officers;
- each of our directors; and
- all of our directors and executive officers as a group.

Unless otherwise indicated, the address for each stockholder on this table is c/o OnDisplay, Inc., 12667 Alcosta Boulevard, Suite 300, San Ramon, CA 94583. Except as otherwise noted, and subject to applicable community property laws, to the best of our knowledge, the persons named in this table have sole voting and investing power with respect to all of the shares of common stock held by them.

This table lists applicable percentage ownership based on 15,313,026 shares of common stock outstanding as of August 31, 1999, as adjusted to reflect the conversion of all outstanding shares of preferred stock upon the closing of this offering, and also lists applicable percentage ownership based on shares of common stock outstanding after completion of this offering. Options to purchase shares of our common stock that are exercisable within 60 days of August 31, 1999 are deemed to be beneficially owned by the persons holding these options or warrants for the purpose of computing percentage ownership of that person, but are not treated as outstanding for the purpose of computing any other person's ownership percentage.

<TABLE>
<CAPTION>

BENEFICIAL OWNER	SHARES BENEFICIALLY OWNED		
	NUMBER	PERCENT BEFORE OFFERING	PERCENT AFTER OFFERING
<S>	<C>	<C>	<C>
Matrix Partners IV, L.P.(1)..... Bay Colony Corporate Center 1000 Winter Street, Suite 4500 Waltham, MA 02154	2,907,993	19.0%	%
Norwest Venture Partners VI, LP..... 245 Lytton Avenue, Suite 250 Palo Alto, CA 94111	2,523,850	16.5	
Atlas Venture Fund II, L.P..... 222 Berkeley Street Boston, MA 02116	2,361,504	15.4	
ATGF II..... c/o Amerindo Investment Advisors One Embarcadero, Suite 2300 San Francisco, CA 94111	997,521	6.5	
Mark Pine (2).....	1,473,275	9.6	
Trung Dung.....	1,090,775	7.1	
Mark Deppe (3).....	406,406	2.6	
Olivier Sermet (4).....	160,312	1.0	
Timothy Barrows (5).....	2,907,993	19.0	
Promod Haque (6).....	2,523,850	16.5	

John Mandile (7)	144,665	1.0
Christopher Spray (8)	2,361,504	15.4
Margaret Taylor	25,000	*
Carmine Villani (9)	40,000	*
All directors and executive officers as a group (10 persons)	11,133,780	

</TABLE>

 * Less than 1% of the outstanding shares of common stock.

- (1) Includes 145,400 shares held by the Matrix IV Entrepreneurs Fund, L.P.
- (2) Includes 249,000 shares beneficially held by trusts for the benefit of Mr. Pine's minor children and other family members.
- (3) Includes 278,906 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of August 31, 1999.
- (4) As of August 31, 1999, 58,229 of the shares held by Mr. Sermet are subject to OnDisplay's right of repurchase in the event Mr. Sermet's employment is terminated.
- (5) Includes shares held by Matrix Partners IV, L.P and Matrix IV Entrepreneurs Fund, L.P. Mr. Barrows, a general partner of Matrix Partners IV, L.P and Matrix IV Entrepreneurs Fund, L.P., disclaims beneficial ownership of the shares held by Matrix Partners IV, L.P and Matrix IV Entrepreneurs Fund, L.P., except to the extent of his proportionate pecuniary interest therein.
- (6) Includes shares held by Norwest Venture Partners VI, LP. Mr. Haque, a general partner of Norwest Venture Partners VI, LP, disclaims beneficial ownership of the shares held by Norwest Venture Partners VI, LP, except to the extent of his proportionate pecuniary interest therein.
- (7) Includes 32,760 shares of common stock issuable upon the exercise of stock options exercisable within 60 days of August 31, 1999.
- (8) Includes shares held by Atlas Venture Fund II, L.P. Mr. Spray, a general partner of Atlas Venture Fund II, L.P., disclaims beneficial ownership of the shares held by Atlas Venture Fund II, L.P., except to the extent of his proportionate pecuniary interest therein.
- (9) As of August 31, 1999, 28,333 of the shares held by Mr. Villani are subject to OnDisplay's right of repurchase in the event Mr. Villani service to the corporation as a director or consultant is terminated.

DESCRIPTION OF CAPITAL STOCK

Our certificate of incorporation that becomes effective upon the closing of this offering authorizes the issuance of up to 100,000,000 shares of common stock, \$0.001 par value, and authorizes the issuance of 10,000,000 shares of undesignated preferred stock, \$0.001 par value. From time to time, our board of directors may establish the rights and preferences of the preferred stock. As of August 31, 1999, 4,697,733 shares of common stock were issued and outstanding and held by 92 stockholders, and 10,615,293 shares of preferred stock were issued and outstanding and held by 29 stockholders. Upon the closing of this offering, all outstanding shares of preferred stock will convert into an aggregate of 10,615,293 shares of common stock. The following description of our capital stock is, by necessity, not complete. We encourage you to refer to our certificate of incorporation and bylaws, which are included as exhibits to the registration statement of which this prospectus forms a part, and applicable provisions of Delaware law for a more complete description.

COMMON STOCK

Each holder of common stock is entitled to one vote for each share held on all matters to be voted upon by the stockholders and there are no cumulative voting rights. Subject to preferences that may be applicable to any outstanding preferred stock, holders of common stock are entitled to receive ratably dividends, if any, as may be declared time to time by the board of directors out of funds legally available for that purpose. See "Dividend Policy." In the event of a liquidation, dissolution or winding up of OnDisplay, the holders of common stock are entitled to share in our assets remaining after the payment of

liabilities and the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by the rights of the holders of shares of any series of preferred stock which we may designate in the future.

PREFERRED STOCK

The board of directors has the authority, without action by the stockholders, to designate and issue preferred stock in one or more series and to designate the rights, preferences and privileges of each series, which may be greater than the rights of the common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of the common stock until the board of directors determines the specific rights of the holders of preferred stock. However, the effects might include, among other things:

- restricting dividends on the common stock;
- diluting the voting power of the common stock;
- impairing the liquidation rights of the common stock; or
- delaying or preventing a change in control of OnDisplay without further action by the stockholders.

Upon the closing of this offering, no shares of preferred stock will be outstanding, and OnDisplay has no present plans to issue any shares of preferred stock.

WARRANTS AND OTHER OBLIGATIONS TO ISSUE CAPITAL STOCK

As of August 31, 1999, we have outstanding warrants to purchase an aggregate of 85,537 shares of series C preferred stock at an exercise price of \$6.05 per share. This warrant is currently exercisable in full and will expire on the third anniversary of the effective date of this offering. Upon the closing of this offering, this warrant will become exercisable for shares of common stock, based on the conversion rate applicable at the closing.

57

60

REGISTRATION RIGHTS OF CERTAIN HOLDERS

After this offering, holders of 10,615,293 shares of common stock and 85,537 shares of common stock issuable upon exercise of outstanding warrants (the "registrable securities") or their transferees are entitled to certain rights with respect to the registration of shares under the Securities Act. These rights are provided under the terms of an agreement between OnDisplay and the holders of the registrable securities. Beginning six months following the date of this prospectus, holders of the registrable securities may require on two occasions, that we use our best efforts to register the registrable securities for public resale. On the first occasion holders of at least 10% may request a registration and on the second occasion holders of 40% may request a registration. OnDisplay is obligated to register these shares only if the outstanding registrable securities have an anticipated public offering price of at least \$5,000,000. Also, holders of 10% of the registrable securities may require, no more than once during any twelve-month period, that OnDisplay register their shares for public resale on Form S-3 or similar short-form registration if the value of the securities to be registered is at least \$1,000,000. Furthermore, in the event OnDisplay elects to register any of its shares of common stock for purposes of effecting any public offering (with the exception of our initial public offering), the holders of registrable securities are entitled to include their shares of common stock in the registration, but OnDisplay may reduce the number of shares proposed to be registered in view of market conditions. OnDisplay will bear all expenses in connection with any registration, other than underwriting discounts and commissions. All registration rights will terminate five years following the consummation of this offering.

CERTAIN CHARTER AND BYLAW PROVISIONS AND DELAWARE LAW

Certain provisions of Delaware law and OnDisplay's certificate of incorporation and bylaws could make the following more difficult:

- the acquisition of OnDisplay by means of a tender offer;

- acquisition of OnDisplay by means of a proxy contest or otherwise; or
- the removal of OnDisplay's incumbent officers and directors.

These provisions, summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of OnDisplay to first negotiate with OnDisplay's board. OnDisplay believes that the benefits of increased protection of its potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure OnDisplay outweigh the disadvantages of discouraging proposals because negotiation of these proposals could result in an improvement of their terms.

Election And Removal Of Directors.

Our board of directors is divided into three classes. The directors in each class will serve for a three-year term, with OnDisplay's stockholders electing one class each year. See "Management-Board Composition." This system of electing and removing directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of OnDisplay, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Stockholder Meetings.

Under our bylaws, only the board of directors, the chairman of the board and the president may call special meetings of stockholders.

Requirements For Advance Notification Of Stockholder Nominations And Proposals.

Our bylaws establish advance notice procedures for stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board.

58

61

Delaware Anti-takeover Law.

OnDisplay is subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years following the date the person became an interested stockholder, unless the "business combination" or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns or within three years prior to the determination of interested stockholder status, did own, 15% or more of a corporation's voting stock. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Elimination Of Stockholder Action By Written Consent.

Our certificate of incorporation eliminates the right of stockholders to act by written consent without a meeting.

No Cumulative Voting.

Our certificate of incorporation does not provide for cumulative voting in the election of directors.

Undesignated Preferred Stock.

The authorization of undesignated preferred stock makes it possible for the board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of OnDisplay. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of OnDisplay.

Amendment Of Charter Provisions.

The amendment of any of the above provisions would require approval by holders of at least 66 2/3% of the outstanding common stock.

The transfer agent and registrar for the common stock is ChaseMellon Shareholder Services.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no market for our common stock, and we cannot assure you that a significant public market for the common stock will develop or be sustained after this offering. Future sales of substantial amounts of common stock, including shares issued upon exercise of outstanding options and warrants, in the public market following this offering could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through sale of our equity securities. As described below, no shares currently outstanding will be available for sale immediately after this offering because of certain contractual restrictions on resale. Sales of substantial amounts of our common stock in the public market after the restrictions lapse could adversely affect the prevailing market price and our ability to raise equity capital in the future.

Upon completion of this offering, we will have outstanding _____ shares of common stock based upon shares outstanding as of August 31, 1999, assuming no exercise of the underwriters' over-allotment option and no exercise of outstanding options or warrants that do not expire prior to completion of this offering. Of these shares, the _____ shares sold in this offering will be freely tradable without restriction under the Securities Act, except for any shares purchased by our "affiliates" as Rule 144 under the Securities Act defines that term. The remaining 15,313,026 shares of common stock held by existing stockholders are "Restricted Shares" as Rule 144 defines that term. All Restricted Shares are subject to lock-up agreements providing that, with certain limited exceptions, the stockholder will not offer, sell, contract to sell or otherwise dispose of any common stock or any securities that are convertible into common stock for a period of 180 days after the date of this prospectus without the prior written consent of BancBoston Robertson Stephens. As a result of these lock-up agreements, notwithstanding possible earlier eligibility for sale under the provisions of Rules 144, 144(k) and 701, none of these shares will be resellable until 181 days after the date of this prospectus. Beginning 181 days after the date of this prospectus, approximately _____ Restricted Shares will be eligible for sale in the public market, all of which are subject to volume limitations under Rule 144, except _____ shares eligible for sale under Rule 144(k) and _____ shares eligible for sale under Rule 701 (subject in some cases to repurchase rights in favor of OnDisplay). In addition, as of August 31, 1999, there were 1,160,426 outstanding options and warrants to purchase preferred stock convertible into _____ shares of common stock, some of which will be exercised prior to this offering. All options and warrants are subject to lock-up agreements. BancBoston Robertson Stephens may, in their sole discretion and at any time without notice, release all or any portion of the securities subject to lock-up agreements, however any release shall apply pro-rata to all stockholders subject to lock-up agreements.

In general, under Rule 144 as currently in effect, beginning 90 days after the date of this prospectus, a person who has beneficially owned Restricted Shares for at least one year including the holding period of any prior owner except an affiliate would be entitled to sell within any three-month period a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding which will equal approximately _____ shares immediately after this offering; or
- the average weekly trading volume of the common stock during the four calendar weeks preceding the filing of a Form 144 with respect to a sale.

Sales under Rule 144 are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about OnDisplay. Under Rule 144(k), a person who is not deemed to have been an affiliate of OnDisplay at any time during the three months preceding a sale, and who has beneficially owned the shares proposed to be sold for at least two years including the holding period of any prior owner except an affiliate, is entitled to sell shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144.

Rule 701, as currently in effect, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions, including the holding period requirement, of Rule 144. Any employee, officer or director of or consultant to OnDisplay who purchased shares pursuant to a written compensatory

plan or contact may be entitled to rely on the resale provisions of Rule 701. Rule 701 permits affiliates to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. Rule 701 further provides that non-affiliates may sell shares in reliance on Rule 144 without having to comply with the holding period, public information, volume limitation or notice provisions of Rule 144. All holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling shares. However, all Rule 701 shares are subject to lock-up agreements and will only become eligible for sale at the earlier of the expiration of the 180-day lock-up agreements or no sooner than 90 days after the offering upon obtaining the prior written consent of BancBoston Robertson Stephens.

After this offering, we intend to file a registration statement on Form S-8 registering shares of common stock subject to outstanding options or reserved for future issuance under our stock plans. As of August 31, 1999, options to purchase a total of 1,160,426 shares were outstanding and 1,036,084 shares were reserved for future issuance under our stock plans. Common stock issued upon exercise of outstanding vested options or issued pursuant to our Employee Stock Purchase Plan, other than common stock issued to our affiliates is available for immediate resale in the open market.

Also beginning six months after the date of this offering, holders of Restricted Shares and holders of warrants to purchase preferred stock convertible into shares of common stock will be entitled to certain rights with respect to registration of shares for sale in the public market. See "Description of Capital Stock -- Registration Rights of Certain Holders." Registration of shares under the Securities Act would result in those shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates, immediately upon the effectiveness of the registration statement.

UNDERWRITING

The underwriters named below, acting through their representatives, BancBoston Robertson Stephens Inc., Deutsche Banc Alex. Brown and SG Cowen Securities Corporation, have severally agreed with OnDisplay, subject to the terms and conditions of the underwriting agreement, to purchase the number of shares of common stock set forth opposite their respective names below. The underwriters are committed to purchase and pay for all shares, if any are purchased.

<TABLE>
<CAPTION>

UNDERWRITERS -----	NUMBER OF SHARES -----
<S>	<C>
BancBoston Robertson Stephens Inc.....	
Deutsche Banc Alex. Brown.....	
SG Cowen Securities Corporation.....	

Total.....	=====

</TABLE>

The representatives have advised us that the underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover page of this prospectus and to certain dealers at a price less a concession of not more than \$ per share, of which \$ may be reallocated to other dealers. After the completion of this offering, the public offering price, concession and reallocation to dealers may be reduced by the representatives. No reduction shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus.

The following table sets forth the items of compensation considered to be underwriting compensation under the rules of the National Association of Securities Dealers:

<TABLE>
<CAPTION>

Total

	Per Share	Without Over- Allotment	With Over- Allotment
<S>	<C>	<C>	<C>
Underwriting fees paid by us.....			
Expenses payable by us.....			
Deemed compensation paid by us.....			
Total.....			

</TABLE>

Over-Allotment Option

We have granted to the underwriters an option, exercisable during the 30-day period after the date of this prospectus, to purchase up to additional shares of common stock at the same price per share as we will receive for the shares that the underwriters have agreed to purchase from us. To the extent that the underwriters exercise the option, each of the underwriters will have a firm commitment to purchase approximately the same percentage of additional shares that the number of shares of common stock to be purchased by it shown in the above table represents as a percentage of the total number of shares offered hereby. If purchased, the additional shares will be sold by the underwriters on the same terms as those on which the shares are being sold.

62

65

Indemnity

The underwriting agreement contains covenants of indemnity among the underwriters and OnDisplay against certain civil liabilities, including liabilities under the Securities Act and liabilities arising from breaches of representations and warranties contained in the underwriting agreement.

Lock-Up Agreements

The Company's shareholders and option holders have agreed, for a period of 180 days after the date of this Prospectus (the "Lock-Up Period"), not to offer, pledge, sell, offer to sell, contract to sell, sell any option or contract to purchase, purchase any option to sell, grant any option right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any of the shares of common stock or any securities convertible into, or exercisable or exchangeable for, common stock, owned as of the date of this prospectus or thereafter acquired directly by the holders or with respect to which they have or hereafter acquire the power of disposition, without the prior written consent of the underwriters. However, the underwriters may, in their sole discretion and at any time without notice, release all or any portion of the securities subject to lock-up agreements. There are no agreements between the underwriters and any of our shareholders providing consent by the underwriters to the sale of shares prior to the expiration of the Lock-Up Period. In addition, we have agreed that during the Lock-Up Period, we will not, subject to certain exceptions, issue, sell, contract to sell, or otherwise dispose of, any shares of common stock, any options or warrants to purchase any shares of common stock or any securities convertible into, exercisable for or exchangeable for shares of common stock other than OnDisplay's sale of shares in this offering, the issuance of common stock upon the exercise of outstanding options or warrants, and our issuance of option and shares under existing employee stock option and stock purchase plans, without the prior written consent of the underwriters.

Future Sales

In addition, we have agreed that until 180 days after the date of this prospectus, we will not, without prior written consent of BancBoston Robertson Stephens Inc., subject to certain exceptions, offer, sell, contract to sell or otherwise dispose of any shares of common stock, any options to purchase any share of common stock or any securities convertible into, exercisable for or exchangeable for shares of common stock other than our sale of shares in this offering, the issuance of shares of common stock upon the exercise of outstanding options and the grant of options to purchase shares of common stock under existing employee stock option or stock purchase plans. See "Shares Eligible For Future Sale."

The underwriters do not intend to confirm sales to any accounts over which they exercise discretionary authority.

Reserved Shares

At our request, some of the underwriters have reserved up to % of the shares of common stock for sale at the initial public offering price to our

directors, officers or employees, and to persons who are otherwise associated with us and our affiliates, and who have advised us of their desire to purchase shares in the offering. In addition, the underwriters will reserve, at the initial public offering price, up to \$ _____ million of common stock offered in this offering for entities affiliated with Omega Ventures and Amerindo Investment Advisors, all of which are existing stockholders. As a result, the number of shares of common stock available for sale to the general public in the offering will be reduced to the extent of sales of shares to any of the persons for whom they have been reserved. Any shares not so purchased will be offered by the underwriters to the general public on the same basis as all other shares of common stock in the offering. We have agreed to indemnify those underwriters against certain liabilities and expenses, including liabilities under the Securities Act, in connection with the sales of these reserved shares.

63

66

No Prior Public Market

Prior to this offering, there has been no public market for our common stock. Consequently, the initial public offering price for the common stock offered hereby will be determined through negotiations between us and the representatives. Among the factors to be considered in such negotiations are prevailing market conditions, certain of our financial information, market valuations of other companies that we and the Representatives believe to be comparable to us, estimates of our business potential, the present state of our development and other factors deemed relevant.

Stabilization

The representatives have advised us that, pursuant to Regulation M under the Exchange Act, certain persons participating in the offering may engage in transactions, including stabilizing bids, syndicate covering transactions or the imposition of penalty bids which may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market. A "stabilizing bid" is a bid for or the purchase of the common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of the common stock. A "syndicate covering transaction" is the bid for or the purchase of the common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. A "penalty bid" is an arrangement permitting the representatives to reclaim the selling concession otherwise accruing to an underwriter or syndicate member in connection with the offering if the common stock originally sold by the underwriter or syndicate member is purchased by the representatives in a syndicate covering transaction and has therefore not been effectively placed by the underwriter or syndicate member. The representatives have advised us that these transactions may be effected on the Nasdaq National Market or otherwise and, if commenced, may be discontinued at any time.

LEGAL MATTERS

The validity of the common stock offered hereby will be passed upon for OnDisplay by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Certain legal matters with this offering will be passed upon for the underwriters by Brobeck, Phleger & Harrison LLP, Palo Alto, California. As of August 31, 1999, a certain investment partnership and members of Wilson Sonsini Goodrich & Rosati, Professional Corporation, beneficially owned an aggregate of 43,155 shares of common stock of OnDisplay. Mario M. Rosati, our secretary, is a member of Wilson Sonsini Goodrich & Rosati.

EXPERTS

The financial statements of OnDisplay, Inc. at December 31, 1997 and 1998, for each of the two years in the period ended December 31, 1998 and for the period from August 14, 1996 to December 31, 1996 included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers, LLP, independent accountants, given upon the authority of said firm as experts in accounting and auditing.

64

67

WHERE YOU CAN FIND ADDITIONAL INFORMATION

OnDisplay has filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act with respect to the common stock offered hereby. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. For further information with respect to OnDisplay and our

common stock, reference is made to the registration statement and the exhibits and schedules filed as a part thereof. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete. In each instance, reference is made to the copy of the contract or document filed as an exhibit to the registration statement, and each statement is qualified in all respects by that reference. Copies of the registration statement, including exhibits and schedules thereto, may be inspected without charge at the Securities and Exchange Commission's principal office in Washington, D.C., or obtained at prescribed rates from the Public Reference Section of the Securities and Exchange Commission at 450 Fifth Street, N.W., Washington, D.C. 20549. The Securities and Exchange Commission maintains a World Wide Web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The address of the site is <http://www.sec.gov>.

ONDISPLAY, INC.

INDEX TO FINANCIAL STATEMENTS

<TABLE> <CAPTION>	PAGE

<S>	<C>
Independent Accountants' Report.....	F-2
Balance Sheets as of December 31, 1997, 1998 and June 30, 1999 (Unaudited).....	F-3
Statements of Operations for the period from inception to December 31, 1996, Years ended December 31, 1997 and 1998 and the Six Months ended June 30, 1998 and 1999 (Unaudited).....	F-4
Statements of Changes in Stockholders' deficit for the period from inception to December 31, 1996, Years ended December 31, 1997 and 1998 and the Six Months ended June 30, 1999 (Unaudited).....	F-5
Statements of Cash Flows for the period from inception to December 31, 1996, Years ended December 31, 1997 and 1998 and the Six Months ended June 30, 1998 and 1999 (Unaudited).....	F-6
Notes to Consolidated Financial Statements.....	F-7

</TABLE>

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Stockholders of
OnDisplay, Inc.

In our opinion, the accompanying balance sheets and the related statements of operations, changes in stockholders' deficit and cash flows present fairly, in all material respects, the financial position of OnDisplay, Inc. at December 31, 1997 and 1998 and the results of its operations and its cash flows for the period from August 14, 1996 (date of inception) to December 31, 1996 and the years ended December 31, 1997 and 1998, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

PricewaterhouseCoopers LLP
San Jose, California
July 2, 1999

ONDISPLAY, INC.

BALANCE SHEETS
(IN THOUSANDS EXCEPT SHARE DATA)<TABLE>
<CAPTION>

	DECEMBER 31,		JUNE 30, 1999	PRO FORMA STOCKHOLDERS' EQUITY AT JUNE 30, 1999
	1997	1998		
			(UNAUDITED)	(UNAUDITED)
<S>	<C>	<C>	<C>	<C>
ASSETS				
Current assets:				
Cash and cash equivalents.....	\$ 3,900	\$ 4,648	\$ 2,970	
Trade accounts receivable, net of allowance for doubtful accounts of \$0 in 1997, \$250 in 1998 and \$330 in 1999.....	189	2,600	2,683	
Prepaid and other current assets.....	139	96	145	
Total current assets.....	4,228	7,344	5,798	
Property and equipment, net.....	482	720	941	
Deposits and other assets.....	--	189	236	
Total assets.....	\$ 4,710	\$ 8,253	\$ 6,975	
LIABILITIES, MANDATORILY REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT				
Current liabilities:				
Accounts payable.....	\$ 220	\$ 386	\$ 996	
Accrued liabilities.....	196	823	1,110	
Deferred revenue.....	11	1,402	1,288	
Current portion of long term debts.....	53	149	1,067	
Total current liabilities.....	480	2,760	4,461	
Long term debts, net of current portion.....	128	240	2,367	
Commitments (Note 4)				
Mandatorily redeemable convertible preferred stock, Series A, B and C, \$0.001 par value: Authorized: 9,500,000 shares; issued and outstanding: 6,690,476 shares at December 31, 1997 and 8,891,554 shares at December 31, 1998 and June 30, 1999.....	10,200	18,982	18,982	
(Liquidation value: \$18,981,693 as of June 30, 1999)				
Stockholders' equity (deficit):				
Common stock, \$0.001 par value: Authorized: 20,000,000 shares; issued and outstanding: 3,420,625, 4,133,751 and 4,592,978 (unaudited) at December 31, 1997 and 1998 and June 30, 1999.....	--	1	1	\$ 10
Additional paid-in capital.....	8	2,328	4,882	23,855
Deferred stock-based compensation.....	--	(1,604)	(3,190)	(3,190)
Accumulated deficit.....	(6,106)	(14,454)	(20,528)	(20,528)
Total stockholders' equity (deficit).....	(6,098)	(13,729)	(18,835)	\$ 147
Total liabilities, mandatory redeemable convertible preferred stock and stockholders' deficit.....	\$ 4,710	\$ 8,253	\$ 6,975	

</TABLE>

The accompanying notes are an integral part of these financial statements.

F-3

ONDISPLAY, INC.

STATEMENTS OF OPERATIONS

<TABLE>
<CAPTION>

	PERIOD FROM AUGUST 14, 1996 (DATE OF INCEPTION) TO DECEMBER 31, 1996		YEAR ENDED DECEMBER 31,		SIX MONTHS ENDED JUNE 30,	
			1997	1998	1998	1999
					(UNAUDITED)	(UNAUDITED)
<S>	<C>	<C>	<C>	<C>	<C>	<C>
License revenues.....	\$ --	\$ 265	\$ 2,229	\$ 876	\$ 1,937	
Service revenues.....	--	--	1,114	276	1,718	
Total revenues.....	--	265	3,343	1,152	3,655	
Cost of revenues.....	--	--	1,620	470	1,981	
Gross profit.....	--	265	1,723	682	1,674	
Operating expenses:						
Sales and marketing.....	42	2,810	5,747	2,388	4,093	
Research and development.....	393	1,986	2,636	1,355	1,638	
General and administrative.....	182	1,158	1,201	361	1,250	
Amortization of deferred stock-based compensation.....	--	--	618	194	769	
Total operating expenses....	617	5,954	10,202	4,298	7,750	
Loss from operations.....	(617)	(5,689)	(8,479)	(3,616)	(6,076)	
Interest income.....	46	163	194	97	73	
Interest expense and other.....	(1)	(8)	(63)	(62)	(71)	
Net loss.....	\$ (572)	\$ (5,534)	\$ (8,348)	\$ (3,581)	\$ (6,074)	
Net loss per share -- basic and diluted.....	\$ (0.17)	\$ (1.62)	\$ (2.34)	\$ (1.04)	\$ (1.56)	
Shares used in per share calculation -- basic and diluted.....	3,400,000	3,410,313	3,572,353	3,432,260	3,881,291	
Pro forma net loss per share -- basic and diluted (unaudited).....			\$ (0.75)		\$ (0.48)	
Shares used in pro forma net loss per share calculation -- basic and diluted (unaudited).....			11,174,494		12,772,845	

</TABLE>

The accompanying notes are an integral part of these financial statements.

F-4

72

ONDISPLAY, INC.

STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT
(IN THOUSANDS, EXCEPT SHARE DATA)

<TABLE>
<CAPTION>

	COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	DEFERRED STOCK-BASED COMPENSATION	ACCUMULATED DEFICIT	TOTAL STOCKHOLDERS' DEFICIT
	SHARES	AMOUNT				
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Changes in the period from August 14, 1996 (date of inception) to December 31, 1996:						
Issuance of common stock in exchange for services rendered.....	3,400,000	\$--	\$ 8	\$ --	\$ --	\$ 8
Net loss.....	--	--	--	--	(572)	(572)
BALANCES, DECEMBER 31, 1996.....	3,400,000	--	8	--	(572)	(564)
Issuance of common stock in exchange for services rendered.....	20,000	--	--	--	--	--
Issuance of common stock in connection with						

option exercises.....	625	--	--	--	--	--
Net loss.....	--	--	--	--	(5,534)	(5,534)
	-----		-----	-----	-----	-----
BALANCES, DECEMBER 31, 1997.....	3,420,625	--	8	--	(6,106)	(6,098)
Issuance of common stock in connection with options exercised.....	754,520	1	106	--	--	107
Repurchase of unvested common stock.....	(41,394)	--	(8)	--	--	(8)
Deferred compensation related to stock options granted.....	--	--	2,222	(2,222)	--	--
Amortization of deferred stock-based compensation.....	--	--	--	618	--	618
Net loss.....	--	--	--	--	(8,348)	(8,348)
	-----		-----	-----	-----	-----
BALANCES, DECEMBER 31, 1998.....	4,133,751	1	2,328	(1,604)	(14,454)	(13,729)
Issuance of common stock in connection with options exercised.....	520,343	--	127	--	--	127
Repurchase of unvested common stock.....	(67,366)	--	(12)	--	--	(12)
Issuance of common stock in connection with services rendered.....	6,250	--	38	--	--	38
Amortization of discount related to warrants issued in connection with long term loan.....	--	--	46	--	--	46
Deferred compensation related to stock options granted.....	--	--	2,355	(2,355)	--	--
Amortization of deferred stock-based compensation.....	--	--	--	769	--	769
Net loss.....	--	--	--	--	(6,074)	(6,074)
	-----		-----	-----	-----	-----
BALANCES, JUNE 30, 1999 (UNAUDITED).....	4,592,978	\$1	\$4,882	\$(3,190)	\$(20,528)	\$(18,835)
	=====	==	=====	=====	=====	=====

</TABLE>

The accompanying notes are an integral part of these financial statements.

F-5

73

ONDISPLAY, INC.

STATEMENTS OF CASH FLOWS
(IN THOUSANDS)

<TABLE>
<CAPTION>

	PERIOD FROM				
	(DATE OF INCEPTION) TO DECEMBER 31, 1996	YEAR ENDED DECEMBER 31,		SIX MONTHS ENDED JUNE 30,	
	1996	1997	1998	1998	1999
	-----	-----	-----	(UNAUDITED)	(UNAUDITED)
	<C>	<C>	<C>	<C>	<C>
CASH FLOWS FROM OPERATING ACTIVITIES:					
Net loss.....	\$ (572)	\$ (5,534)	\$ (8,348)	\$ (3,581)	\$ (6,074)
Adjustments to reconcile net loss to net cash used in operating activities:					
Depreciation and amortization.....	8	123	306	101	217
Loss (gain) from sale of property and equipment.....	(4)	--	9	--	--
Provision for doubtful accounts.....	--	--	250	--	80
Amortization of deferred stock compensation.....	--	--	618	194	769
Amortization of warrants issued in connection with long term loan received.....	--	--	--	--	46
Issuance of common stock in connection with services rendered.....	8	--	--	--	38
Change in operating assets and liabilities					
Trade accounts receivable.....	(2)	(187)	(2,661)	(589)	(163)
Prepaid and other current assets.....	(46)	(96)	43	(18)	(49)
Accounts payable.....	87	125	166	333	610
Accrued liabilities.....	33	163	627	186	287
Deferred revenue.....	--	11	1,391	242	(114)
Other long term assets.....	--	--	(189)	--	(47)
	-----	-----	-----	-----	-----
Net cash used in operating activities.....	(488)	(5,395)	(7,788)	(3,132)	(4,400)
	-----	-----	-----	-----	-----
CASH FLOWS FROM INVESTING ACTIVITIES:					
Acquisition of property and equipment.....	(133)	(428)	(219)	(64)	(285)
Proceeds from sales of property and equipment.....	7	--	3	--	--
	-----	-----	-----	-----	-----
Net cash used in investing activities.....	(126)	(428)	(216)	(64)	(285)

CASH FLOWS FROM FINANCING ACTIVITIES:

Proceeds from sales and lease back of property and equipment.....	--	200	--	--	--
Proceeds from issuance of Series A preferred stock.....	3,400	100	--	--	--
Proceeds from issuance of common stock.....	--	--	107	26	127
Proceeds from issuance of Series B preferred stock.....	--	6,700	25	25	--
Principal payments under capital lease obligations.....	--	(11)	(129)	(41)	--
Proceeds from borrowings under long term loan received....	--	--	--	--	3,000
Repayment of long term loan.....	--	--	--	--	(108)
Repayment of note issued for capital equipment.....	(35)	(17)	--	--	--
Proceeds from issuance of Series C preferred stock.....	--	--	8,757	--	--
Repurchases unvested common stock.....	--	--	(8)	--	(12)
Net cash provided by financing activities.....	3,365	6,972	8,752	10	3,007
Net increase (decrease) in cash and cash equivalents.....	2,751	1,149	748	(3,186)	(1,678)
Cash and cash equivalents at beginning of period.....	--	2,751	3,900	3,900	4,648
Cash and cash equivalents at end of period.....	\$2,751	\$ 3,900	\$ 4,648	\$ 714	\$ 2,970

NONCASH INVESTING AND FINANCING ACTIVITY:

Property and equipment acquired under capital lease obligations.....	\$ 4	\$ 196	\$ 337	\$ 196	\$ 153
Property and equipment financed under notes payable.....	\$ 52	\$ --	\$ --	\$ --	\$ --
Deferred stock-based compensation.....	\$ --	\$ --	\$ 2,222	\$ 1,048	\$ 2,355

</TABLE>

The accompanying notes are an integral part of these financial statements.

F-6

74

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS

(INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

NOTE 1. FORMATION AND BUSINESS OF THE COMPANY:

OnDisplay, Inc. (the "Company") was incorporated under the laws of the state of Delaware in August 1996 to develop and market applications for powering e-business portals and e-marketplaces in both business-to-business and business-to-consumer e-commerce. The Company's product suite provides an open, scalable, adaptable solution to enable the rapid aggregation, exchange, integration, personalization and syndication of e-business information and services from a broad range of partners, suppliers and customers. Through the use of the Internet, customers are able to link information systems with business allies without modification to existing applications or to migrate rapidly from their existing systems to new enterprise applications. The Company has determined that it operates in a single business segment and does not have any separately reportable business segments as of December 31, 1998.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

UNAUDITED INTERIM FINANCIAL INFORMATION

The accompanying financial statements at June 30, 1999 and for the six month periods ended June 30, 1998 and 1999, together with the related notes, are unaudited but include all adjustments, consisting only of normal recurring adjustments which, in the opinion of management, are necessary for a fair presentation, in all material respects, of the financial position and the operating results and cash flows for the interim date and periods presented. Results for the interim period ended June 30, 1999 are not necessarily indicative of results for the entire fiscal year or future periods.

MANAGEMENT ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. These estimates include levels of allowances for accounts receivable, valuation of deferred tax assets and value of the Company's capital stock. Actual results could differ from these estimates.

CASH AND CASH EQUIVALENTS

The Company considers all investments purchased with an original or remaining maturity of three months or less to be cash equivalents.

CONCENTRATION OF CREDIT RISK

The Company maintains its cash and cash equivalents in accounts with two major financial institutions in the United States. The Company has not experienced any losses on its deposits of cash and cash equivalents.

The Company performs ongoing credit evaluations of its customers, and collateral is not required. The Company records an allowance for doubtful accounts for credit losses at the end of each period based on an analysis of individual aged accounts receivable balances. As a result of this analysis, the Company believes that its allowance for doubtful accounts is adequate but not excessive at December 31, 1997 and 1998 and June 30, 1999.

F-7

75

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
(INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

At December 31, 1997, two customers accounted for 35% and 55% of accounts receivable and at December 31, 1998 two different customers accounted for 24% and 12% of accounts receivable. No customer accounted for more than 10% of accounts receivable at June 30, 1999.

The Company derives most of its license service and support revenues from one suite of products. The following table sets forth customers comprising 10% or more of the revenue for each of the periods reported:

<TABLE>
<CAPTION>

Table with columns: CUSTOMER, YEAR ENDED DECEMBER 31 (1997, 1998), SIX MONTHS ENDED JUNE 30 (1998, 1999). Rows A-H showing percentages.

</TABLE>

FAIR VALUE OF FINANCIAL INSTRUMENTS

The carrying amounts of certain of the Company's financial instruments, including cash, cash equivalents, trade accounts receivable, accounts payable and accrued liabilities approximate fair value due to their short maturities. Based on borrowing rates currently available to the Company for loans with similar terms, the carrying value of its long-term debts approximates fair value.

PROPERTY AND EQUIPMENT

Property and equipment are stated at cost. Depreciation is computed using the straight-line method over the estimated useful life of the related assets of three years. Leasehold improvements and leased assets are amortized on a straight line basis over the lesser of their estimated useful life or the lease term. Gains and losses from the disposal of property and equipment are taken into income in the year of disposition. Repairs and maintenance costs are expensed as incurred.

REVENUE RECOGNITION

Revenue consists of revenue earned under software license agreements, service agreements, and maintenance agreements. Revenue from software license agreements is recognized upon shipment or upon notification to the customer of

the downloadable software location, provided that a signed contract exists, the fee is fixed and determinable and collection of the resulting receivable is probable and, if applicable, acceptance criteria are met.

For contracts with multiple obligations (e.g., deliverable and undeliverable products, maintenance, installation and other services), revenue is allocated to each component of the contract based on objective evidence of its fair value, which is specific to the Company, or for products not being sold separately, the price established by management. The Company recognizes revenue allocated to undelivered products when the criteria for product revenue set forth above are met. The Company recognizes revenue from maintenance fees, including amounts allocated from product revenues for ongoing customer support and product updates ratably over the period of the maintenance contract. Payments for maintenance fees are generally made in advance and are non-refundable. For revenue allocated to consulting services, such as

F-8

76

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
(INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

installation and training and for such services sold separately, the Company recognizes revenues as the related services are performed.

Deferred revenue consists of payments received prior to delivery of licenses, fulfillment of acceptance criteria, or performance of services.

RESEARCH AND DEVELOPMENT EXPENDITURES

Expenditures for research and development are charged to expense as incurred. Under Statement of Financial Accounting Standards ("SFAS") No. 86, "Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed" certain software development costs are capitalized after technological feasibility has been established. Development costs incurred in the period between achievement of technological feasibility, which the Company defines as the establishment of a working model, until the general availability of such software to customers, has been short and software development costs qualifying for capitalization have been insignificant. Accordingly, the Company has not capitalized any software development costs to date.

STOCK-BASED COMPENSATION

Pursuant to SFAS No. 123, "Accounting for Stock-Based Compensation," the Company accounts for employee stock options under Accounting Principles Board Opinion ("APB") No. 25 and follows the disclosure-only provisions of SFAS 123. Under APB No. 25, compensation expense is based on the difference, if any, on the date of the grant, between the estimated fair value of the Company's stock and the exercise price of options to purchase that stock.

INCOME TAXES

Deferred income tax assets and liabilities are computed for differences between the financial statement and tax bases of assets and liabilities that will result in taxable or deductible amounts in the future based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

NET LOSS PER SHARE

Basic net loss per share is computed by dividing net loss available to common stockholders by the weighted average number of vested common shares outstanding for the period. Diluted net loss per share is computed giving effect to all dilutive potential common stock, including options, warrants and preferred stock. Options, warrants, non vested common stock and preferred stock were not included in the computation of diluted net loss per share in the periods reported because the effect would be antidilutive.

F-9

77

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
(INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

Antidilutive securities not included in net loss per share calculation for the periods:

<TABLE>
<CAPTION>

	PERIOD FROM AUGUST 14, 1996 (DATE OF INCEPTION) TO DECEMBER 31, 1996	YEAR ENDED DECEMBER 31,		SIX MONTHS JUNE 30,	
		1997	1998	1998	1999
				(UNAUDITED)	
<S>	<C>	<C>	<C>	<C>	<C>
Non vested common stock.....	--	--	148,792	3,293	429,840
Common stock options.....	77,430	65,531	562,450	714,529	307,222
Warrants.....	--	--	--	--	57,025
Convertible Preferred Stock.....	3,400,000	4,787,698	7,602,141	4,787,698	8,891,554
	3,477,430	4,853,229	8,313,383	5,505,520	9,685,641
	=====	=====	=====	=====	=====

</TABLE>

PRO FORMA NET LOSS PER SHARE (UNAUDITED)

Pro forma net loss per share for the year ended December 31, 1998 and the six months ended June 30, 1999 is computed using the weighted average number of common shares outstanding, including the pro forma effects of the automatic conversion of the Company's Series A, Series B and Series C mandatorily redeemable preferred stock into shares of the Company's common stock as contemplated upon the closing of the Company's initial public offering (See Note 12 -- Subsequent Events) as if such conversion occurred on January 1, 1998, or at the date of original issuance, if later. The resulting pro forma adjustment results in an increase in the weighted average shares used to compute basic and diluted net loss per share of 7,602,141 shares for the year ended December 31, 1998. Pro forma common equivalent shares, composed of unvested restricted common stock and incremental common shares issuable upon the exercise of stock options and warrants, are not included in pro forma diluted net loss per share because they would be anti-dilutive.

PRO FORMA STOCKHOLDERS' EQUITY (UNAUDITED)

As contemplated upon the closing of the Company's initial public offering, the outstanding shares of Series A, Series B and Series C mandatorily redeemable preferred stock will convert into 8,891,554 shares of common stock. The pro forma effects of these transactions are unaudited and have been reflected in the accompanying pro forma balance sheet at June 30, 1999 (see Note 12 -- Subsequent Events).

COMPREHENSIVE INCOME

Effective January 1, 1998, the Company adopted the provisions of SFAS No. 130, "Reporting Comprehensive Income." SFAS No. 130 establishes standards for reporting comprehensive income and its components in financial statements. Comprehensive income, as defined, includes all changes in equity (net assets) during a period from non-owner sources. The Company has no comprehensive income components other than its net loss.

RECENT ACCOUNTING PRONOUNCEMENTS

In March 1998, the American Institute of Certified Public Accountants issued Statement of Position ("SOP") No. 98-1, "Software for Internal Use," which provides guidance on accounting for the cost of computer software developed or obtained for internal use. SOP No. 98-1 is effective for financial statements for fiscal years beginning after December 15, 1998. The Company is in process of evaluating the impact of this pronouncement.

F-10

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
(INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

In April 1998, the Accounting Standards Executive Committee released Statement of Position No. 98-5, "Reporting on the Costs of Start-Up Activities." SOP No. 98-5 is effective for fiscal years beginning after December 15, 1998 and requires companies to expense all costs incurred or unamortized in connection with start-up activities. The adoption of this SOP did not have any significant

effect on the Company's results of operations as the Company had expensed such start-up costs in prior years.

In June 1998, the FASB issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," which establishes accounting and reporting standards for derivative instruments and hedging activities and will be adopted in the year 2000. It requires that an entity recognize all derivatives as either assets or liabilities in the balance sheet and measure those instruments at fair value. The Company is in process of evaluating the impact of this pronouncement.

In December 1998, the Accounting Standards Executive Committee issued Statement of Position 98-9, modification of SOP 97-2, "Software Revenue Recognition," with Respect to Certain Transactions. SOP 98-9 will be effective for transactions that are entered into in fiscal years beginning after March 15, 1999. Retroactive application is prohibited. The Company is in process of evaluating the impact of this pronouncement.

NOTE 3. BALANCE SHEET ACCOUNTS

<TABLE>
<CAPTION>

PROPERTY AND EQUIPMENT (IN THOUSANDS)	DECEMBER 31,		JUNE 30,
	1997	1998	1999
			(UNAUDITED)
	<C>	<C>	<C>
Computer hardware.....	\$ 463	\$ 869	\$1,007
Computer software.....	82	177	340
Furniture and fixtures.....	68	93	222
Leasehold improvements.....	--	13	21
	613	1,152	1,590
Less accumulated depreciation and amortization.....	(131)	(432)	(649)
	\$ 482	\$ 720	\$ 941
	=====	=====	=====

</TABLE>

Included in property and equipment at December 31, 1997 and 1998 and June 30, 1999 is approximately \$200,000, \$537,000 and \$690,000 of computer equipment purchased under capital leases. Accumulated amortization of assets acquired under capital leases is approximately \$28,000, \$241,000 and \$402,000 at December 31, 1997 and 1998 and June 30, 1999.

<TABLE>
<CAPTION>

ACCRUED LIABILITIES (IN THOUSANDS)	DECEMBER 31,		JUNE 30,
	1997	1998	1999
			(UNAUDITED)
	<C>	<C>	<C>
Accrued commissions.....	\$ 16	\$275	\$ 425
Accrued professional fees.....	--	132	241
Accrued vacation.....	94	190	249
Accrued bonuses.....	67	226	85
Other.....	19	--	110
	\$196	\$823	\$1,110
	=====	=====	=====

</TABLE>

F-11

79

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
(INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

NOTE 4. COMMITMENTS:

OPERATING LEASES

The Company leases various facilities under operating leases expiring through 2002. Under these leases, the Company is responsible for maintenance and insurance.

The minimum lease payments, net of sublease income, required under these

operating leases as of December 31, 1998 are as follows (in thousands):

<TABLE>	
<S>	<C>
1999.....	\$ 466
2000.....	392
2001.....	315
2002.....	184

	\$1,357
	=====

</TABLE>

Rent expense, net of sublease income, for the years ended December 31, 1997 and 1998 and the six months ended June 30, 1999, was approximately \$186,000, \$270,000 and \$237,000 (unaudited).

CAPITAL LEASE OBLIGATIONS

In June 1997, the Company entered into a capital lease agreement which was amended March 16, 1998 under which the Company had \$550,000 available to acquire equipment. As of December 31, 1998, the Company had drawn a total of approximately \$535,000 under this line. Borrowings under this agreement are collateralized by the assets purchased under this equipment facility and are included in the capital lease obligations at December 31, 1998. In February 1999, the Company entered into another financing agreement under which the Company has \$1,350,000 available to purchase equipment. The draw down period under this agreement expires on August 19, 2000.

Future minimum lease payments under the capital lease agreements as of December 31, 1998 are as follows (in thousands):

<TABLE>	
<S>	<C>
1999.....	\$ 184
2000.....	182
2001.....	82

Total minimum lease payments.....	448
Less amount representing interest.....	(59)

Present value of minimum lease payments.....	389
Less current portion.....	(149)

	\$ 240
	=====

</TABLE>

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
 (INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
 THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

NOTE 5. LONG TERM DEBTS:

Long term debts consist of (in thousands):

<TABLE>			
<CAPTION>			
	DECEMBER 31,		JUNE 30,
	1997	1998	1999
	-----	-----	-----
<S>	<C>	<C>	<C>
Long term loan.....	\$ --	\$ --	\$ 2,928
Capital lease obligations (see Note 4).....	181	389	506
	-----	-----	-----
	181	389	3,434
Less current portion.....	(53)	(149)	(1,067)
	-----	-----	-----
	\$ 128	\$ 240	\$ 2,367
	=====	=====	=====

</TABLE>

In February 1999 the Company entered into a loan agreement which allows for borrowings of \$3,000,000 bearing interest at 12.5% per annum. The Company

borrowed the full amount in May 1998 and is required to make monthly payments of principal and interest of approximately \$100,000 in 36 installments commencing June 1, 1999 through May 1, 2002. Long-term debt is collateralized by substantially all of the Company's assets. Dividends declared by the Company are subject to the approval of the lender under this loan agreement.

Annual maturities under the loan as of June 30, 1999 are as follows (in thousands):

<TABLE>	
<S>	<C>
FISCAL YEAR ENDING DECEMBER 31,	
1999.....	\$ 429
2000.....	943
2001.....	1,068
2002.....	488

Total.....	\$ 2,928
	=====

</TABLE>

NOTE 6. 401(k) SAVINGS PLAN:

In February 1997, the Company established a 401(k) Savings Plan (the "Plan") that covers substantially all employees. Under the Plan, employees are permitted to contribute a portion of gross compensation not to exceed standard limitations provided by the Internal Revenue Service. The Company maintains the right to match employee contributions, but for the year ended December 31, 1997 and 1998 and for the six months ended June 30, 1999, no Company matching contributions were made.

NOTE 7. MANDATORILY REDEEMABLE CONVERTIBLE PREFERRED STOCK:

As of December 31, 1998 the convertible preferred stock comprises:

<TABLE>				
<CAPTION>				
	NUMBER	NUMBER		LIQUIDATION
	OF SHARES	OF SHARES	DIVIDEND	VALUE
	AUTHORIZED	ISSUED AND	PER SHARE	PER SHARE
	-----	OUTSTANDING	-----	-----
<S>	<C>	<C>	<C>	<C>
Series A.....	3,500,000	3,500,000	\$0.08	\$1.00
Series B.....	3,500,000	3,202,381	\$0.17	\$2.10
Series C.....	2,500,000	2,189,173	\$0.32	\$4.00
	-----	-----		
	9,500,000	8,891,554		
	=====	=====		

</TABLE>

F-13

81

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
(INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

DIVIDENDS

The holders of Series A, Series B, Series C and preferred stock are entitled to receive the above annual dividends, when and if declared by the Board of Directors. After payment of any required dividends to the Series A, Series B and Series C stockholders, declared dividends shall be distributed among all holders of common stock and all holders of Series A, Series B or Series C preferred stock in proportion to the number of shares of common stock which would be held by each such holder if all shares of Series A, Series B and Series C preferred stock were converted to common stock.

LIQUIDATION

In the event of any liquidation, dissolution, or winding up of the Company, either voluntary or involuntary, the holders of Series A, Series B and Series C preferred stock are entitled to receive, prior and in preference to any distribution of any of the assets of the Company to the holders of common stock by reason of their ownership, an amount equal to the sum of \$1.00, \$2.10, and \$4.00 for each outstanding share of Series A, Series B, and Series C preferred stock, (as adjusted for any stock dividends, combinations or splits) plus any declared but unpaid dividends on such shares. If upon the occurrence of such

event, the assets distributed among the holders of preferred stock are insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire assets of the Company legally available for distribution are to be distributed first ratably among the holders of the preferred stock in proportion to the aggregate liquidation preference of the shares of preferred stock then held by them.

After payment has been made to the holders of preferred stock, any remaining assets and funds are to be distributed pro rata among the holders of the preferred stock and the common stock on a per share basis, treating all shares of preferred stock convertible into shares of common stock as if converted; provided, however, that after the receipt by each share of preferred stock of distributions equal to two times the original purchase price for the preferred stock, then all remaining assets shall be distributed equally among the holders of the common stock on a per-share basis.

CONVERSION

Each share of preferred stock, at the option of the holder thereof, shall be convertible into such number of fully paid and nonassessable shares of common stock which results from dividing the issuance price per share by the conversion price per share in effect for the shares of preferred stock at the time of conversion. The issuance price per share and initial conversion price per share of Series A, B and C preferred stock are \$1.00, \$2.10, and \$4.00. The number of shares of common stock into which a share of a series of preferred stock is convertible is referred to as the conversion rate of such series. The initial conversion price of Series A, B, and C preferred stock is subject to adjustment from time to time, as described in the Company's Restated Articles of Incorporation. At December 31, 1998 and June 30, 1999 the conversion ratio was one to one.

Conversion is automatic at the then effective conversion price of such series immediately prior to the closing of a qualified initial public offering or at any time upon the affirmative election of the holders of at least 66 2/3% of the outstanding shares of preferred stock.

VOTING

The holders of Series A, Series B and Series C preferred stock are entitled to voting rights equal to the number of shares of common stock into which each share of preferred stock could be converted at the

F-14

82

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
(INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

record date for a vote or consent of stockholders, except as otherwise required by law, and have voting rights and powers equal to the voting rights and powers of the shares of common stock.

REDEMPTION

Preferred stock shall be redeemable at the option of the holders of a majority of the outstanding shares of preferred stock at any time after September 30, 2001 if the Company has not completed a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of common stock for the account of the Corporation with an aggregate offering price to the public of not less than \$20,000,000 defined hereafter as a "Qualified IPO." Such redemption right may be exercised by giving at least 120 day notice prior to the date of commencement of the redemption. After receipt of such notice of a redemption, the Company shall redeem all of the outstanding shares of preferred stock in three equal annual installments on the last day of each fiscal year (commencing with the first fiscal year ending after the 120 day notice period). The redemption price of the preferred stock shall be the original purchase price per share (as adjusted for any stock dividends, combinations or splits) plus any accrued but unpaid dividends. Any redemption of only a part of the outstanding preferred stock by the Company shall be pro rata as among all holders of preferred stock in proportion to the aggregate redemption price to be paid to such holders.

NOTE 8. STOCK OPTION PLAN:

The Company adopted the 1996 Stock Plan (the "Plan") under which 1,700,000 shares of common stock were reserved for issuance to employees, directors and consultants of the Company. The number of shares reserved for issuance under the

Plan was increased by 450,000 and 400,000 in 1997 and 1998. The Plan expires in 2006, or if earlier, upon approval of the Board of Directors.

Under the Plan, incentive options to purchase the Company's common stock may be granted to employees at prices not lower than the fair market value per share on the date of grant, as determined by the Board of Directors. Nonstatutory options may be granted to key employees, including directors and consultants, at prices not lower than 85% of the fair market value (110% for qualified incentive stock options in certain cases) at the date of grant, as determined by the Board of Directors. The Board also has the authority to set the term of the options (no longer than ten years from date of grant and no more than five years in certain instances). Options granted generally vest over four years. Holders of options granted under the Plan may exercise their options prior to complete vesting of shares, subject to the Company's right of repurchase, such that, in the event of a termination of the optionee's employment or consulting relationship, any unvested shares may be repurchased at a price per share equal to the original exercise price per share for the option. Unexercised vested options expire three months after termination of employment with the Company. Shares repurchased by the Company were none and 41,394 in 1997 and 1998.

At December 31, 1997 and 1998 and June 30, 1999 none, 377,732 and 627,930 shares of common stock outstanding were subject to the Company's repurchase rights.

F-15

83

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
 (INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
 THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

Activity under the Plan is set forth below:

<TABLE>
 <CAPTION>

	NUMBER OF SHARES AUTHORIZED	NUMBER OF OPTIONS ISSUED AND OUTSTANDING	WEIGHTED AVERAGE EXERCISE PRICE	AGGREGATE PRICE
<S>	<C>	<C>	<C>	<C>
Balances, January 1, 1997.....	933,000	767,000	\$0.10	\$ 76,700
Shares reserved.....	450,000	--	--	--
Options granted.....	(1,080,000)	1,080,000	\$0.12	131,540
Options exercised.....	--	(625)	\$0.10	(62)
Options cancelled.....	243,625	(243,625)	\$0.10	(24,363)
Balances, December 31, 1997.....	546,625	1,602,750	\$0.11	183,815
Shares reserved.....	400,000	--	--	--
Options granted.....	(781,750)	781,750	\$0.27	213,948
Options exercised.....	--	(754,520)	\$0.14	(107,366)
Options repurchased.....	41,394	--	--	--
Options cancelled.....	263,792	(263,792)	\$0.17	(45,575)
Balances, December 31, 1998.....	470,061	1,366,188	\$0.18	244,822
Options granted.....	(557,750)	557,750	\$0.51	283,200
Options exercised.....	--	(520,343)	\$0.24	(126,912)
Options repurchased.....	67,366	--	--	--
Options cancelled.....	197,969	(197,969)	\$0.21	(41,258)
Balances, June 30, 1999 (unaudited).....	177,646	1,205,626	\$0.30	\$ 359,852

</TABLE>

For financial reporting purposes, the Company has determined that the estimated value of common stock determined in anticipation of this offering was in excess of the exercise price, which was deemed to be the fair market value as of the date of grant for 781,750 options issued in 1998 and 557,750 options issued in the six month period ended June 30, 1999. In connection with the grants of such options, the Company has recognized deferred compensation of approximately \$2,222,000 in 1998 and \$2,355,000 during the six month period ended June 30, 1999. Deferred stock-based compensation will be amortized over the vesting period which is generally 48 months from the date of grant; approximately \$618,000 was expensed in the year ended December 31, 1998 and \$769,000 in the six month period ended June 30, 1999. Future amortization based on options granted through June 30, 1999 is expected to be \$1,012,000 for the six months ended December 31, 1999, and \$1,243,000, \$634,000, \$263,000 and \$38,000 in the years 2000, 2001, 2002 and 2003.

The options outstanding and currently exercisable by exercise price at December 31, 1998 are as follows:

<TABLE> <CAPTION>					
OPTIONS OUTSTANDING			OPTIONS CURRENTLY EXERCISABLE		
EXERCISE PRICE	NUMBER OUTSTANDING	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE	WEIGHTED AVERAGE EXERCISE PRICE	NUMBER EXERCISABLE	WEIGHTED AVERAGE EXERCISE PRICE
<S>	<C>	<C>	<C>	<C>	<C>
\$0.10	766,438	7.8 years	0.10	381,707	\$0.10
\$0.21	342,750	8.2 years	0.21	3,327	\$0.21
\$0.40	257,000	9.5 years	0.40	--	--
	1,366,188			385,034	
	=====			=====	

</TABLE>

F-16

84

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
(INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

The Company has adopted the disclosure-only provisions of Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation." Had compensation cost for the Plan been determined based on the fair value at grant date for all awards consistent with the provisions of SFAS No. 123, the impact on the Company's financial statements would be (in thousands) as follows:

<TABLE> <CAPTION>	PERIOD FROM		
	AUGUST 14, 1996 TO DECEMBER 31, 1996	YEAR ENDED DECEMBER 31,	
		1997	1998
<S>	<C>	<C>	<C>
Net loss:			
As reported.....	\$ (572)	\$ (5,534)	\$ (8,348)
Pro forma.....	\$ (572)	\$ (5,542)	\$ (8,364)
Basic and diluted net loss per share:			
As reported.....	\$ (0.17)	\$ (1.62)	\$ (2.34)
Pro forma.....	\$ (0.17)	\$ (1.62)	\$ (2.34)

</TABLE>

The fair value of each option grant is estimated on the date of grant using the minimum value method with the following weighted average assumptions:

<TABLE> <CAPTION>	1996	1997	1998
<S>	<C>	<C>	<C>
Risk-free interest rate.....	5.85%	6.31%	5.0%
Expected life.....	5 years	5 years	5 years
Expected dividends.....	\$ --	\$ --	\$ --

</TABLE>

The weighted average per share fair value of common stock options granted during 1996, 1997 and 1998 were \$0.04, \$0.10 and \$0.27.

NOTE 9. WARRANTS:

As part of a long-term borrowing agreement entered into in February 1999, the Company is committed to issue warrants to purchase 85,537 shares of Series C preferred stock at an exercise price of \$6.05 per share. The warrants are exercisable immediately upon grant and expire in January 2009.

NOTE 10. INCOME TAXES:

At December 31, 1998, the Company had net operating loss carryforwards of

approximately \$11,800,000 and \$12,300,000 for Federal and California purposes, respectively, available to reduce future taxable income, if any. These carryforwards expire through 2011 and 2004 for Federal and California purposes, respectively, if not utilized beforehand.

At December 31, 1998, the Company had research and development credit carryforwards of approximately \$372,000 and \$176,000 for Federal and California income tax purposes, respectively. The research and development credit carryforwards expire beginning in the year 2004.

The Tax Reform Act of 1986 limits the use of net operating loss and tax credit carryforwards in certain situations where changes occur in the stock ownership of a company. In the event the Company has had a change in ownership, utilization of the carryforwards could be restricted.

F-17

85

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
 (INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
 THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

Temporary differences which gave rise to significant portions of deferred tax assets and liabilities are as follows (in thousands):

<TABLE>
 <CAPTION>

	DECEMBER 31,	
	1997	1998
<S>	<C>	<C>
Net operating losses.....	\$ 2,312	\$ 4,761
Research and development credits.....	272	548
Depreciation and amortization.....	(3)	(10)
Other.....	47	467
	-----	-----
	2,628	5,766
Valuation allowance.....	(2,628)	(5,766)
	-----	-----
	\$ --	\$ --
	=====	=====

</TABLE>

Due to uncertainty of realizing the benefits of the deferred tax assets, the Company has provided a valuation allowance against the net deferred tax assets.

The difference between the Company's effective income tax rate and the federal statutory rate is as follows:

<TABLE>
 <CAPTION>

	PERIOD FROM AUGUST 14, 1996 (DATE OF INCEPTION) TO DECEMBER 31, 1996	YEAR ENDED DECEMBER 31,		SIX MONTHS ENDED JUNE 30,	
		1997	1998	1998	1999
<S>	<C>	<C>	<C>	<C>	<C>
Statutory tax benefit.....	(194)	(1,882)	(2,838)	(1,218)	(2,065)
Permanent differences -- non-deductible expenses.....	1	79	364	182	447
State taxes, net of federal tax benefit.....	(33)	(327)	(510)	(220)	(385)
Research and development experimentation credit.....	--	(273)	(276)	(138)	(170)
Change in valuation allowance.....	226	2,402	3,138	1,394	2,533
Other.....	--	1	122	--	(360)
	-----	-----	-----	-----	-----
Net tax provision.....	\$ --	\$ --	\$ --	\$ --	\$ --
	=====	=====	=====	=====	=====

</TABLE>

NOTE 11. UNAUDITED PRO FORMA LOSS PER SHARE AND PRO FORMA STOCKHOLDERS' EQUITY (DEFICIT):

Pro forma basic net loss per share has been computed as described in Note 2 and also gives effect to common equivalent shares from preferred stock that will convert upon the closing of the Company's initial public offering (using the as-if-converted-method).

ONDISPLAY, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
 (INFORMATION WITH RESPECT TO JUNE 30, 1999 AND FOR
 THE TWO SIX MONTH PERIODS ENDED JUNE 30, 1998 AND 1999 IS UNAUDITED)

A reconciliation of the numerator and denominator used in the calculation of pro forma basic and diluted net loss per share follow:

<TABLE>
 <CAPTION>

	YEAR ENDED DECEMBER 31, 1998	SIX MONTHS ENDED JUNE 30, 1999
	-----	-----
		(UNAUDITED)
<S>	<C>	<C>
PRO FORMA NET LOSS PER SHARE, BASIC AND DILUTED:		
Net loss.....	\$ (8,348,000)	\$ (6,074,000)
	-----	-----
Shares used in computing net loss per share, basic and diluted.....	3,572,353	3,881,291
Adjustment to reflect the effect of the assumed conversion of mandatorily redeemable convertible preferred stock.....	7,602,141	8,891,554
Shares used in computing pro forma net loss per share, basic and diluted.....	11,174,494	12,772,845
	-----	-----
Pro forma net loss per share, basic and diluted.....	\$ (0.75)	\$ (0.48)
	=====	=====

</TABLE>

If the offering contemplated by this Prospectus is consummated as contemplated, all of the convertible preferred stock outstanding as of the closing date will be converted into an aggregate of approximately 8,891,554 shares of common stock based on the shares of mandatorily redeemable convertible preferred stock outstanding at June 30, 1999. Unaudited pro forma stockholders' equity at June 30, 1999, as adjusted for the conversion of preferred stock, is disclosed on the balance sheet.

NOTE 12. SUBSEQUENT EVENTS (UNAUDITED):

SERIES D PREFERRED STOCK

In August 1999 the Company issued 1,723,739 shares of Series D mandatorily redeemable convertible preferred stock for proceeds of approximately \$16,400,000. The Company is authorized to issue 2,100,000 shares of Series D preferred stock, which bear dividends at \$0.76 per share, when and if declared by the Board of Directors, and have a liquidation value of \$9.52 per share. Series D preferred stock is convertible into the number of common stock shares equal to the issuance price of \$9.52 divided by the conversion price of \$9.52, subject to adjustment from time to time. The holders of Series D preferred stock are entitled to voting rights equal to the number of shares of common stock into which each share of preferred stock could be converted.

INITIAL PUBLIC OFFERING

In September 1999, the Company's Board of Directors authorized the Company to file a registration statement with the Securities and Exchange Commission for the purpose of an initial public offering of the Company's common stock. Upon the completion of this offering, if requirements set forth in its Certificate of Incorporation are met, the Company's preferred stock will be converted into common stock, and all outstanding shares of preferred stock will be cancelled and retired. Upon the conversion of the preferred stock, all rights to accrued and unpaid dividends will be waived.

EMPLOYEE STOCK PURCHASE PLAN

In September 1999, the Company adopted an employee stock purchase plan (the "Purchase Plan"), which will become effective upon the closing of the initial public offering. 1,500,000 shares of common stock have been reserved for issuance under the Purchase Plan (subject to an annual increase), none of which

have been issued.

STOCK OPTION PLAN

Through September 1999, the Company's Board of Directors authorized an additional 925,000 shares for grant under the Company's stock option plan.

F-19

87

LOGO

88

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth all fees and expenses payable by OnDisplay in connection with the registration of the common stock hereunder. All of the amounts shown are estimates except for the SEC registration fee, NASD filing fee and the Nasdaq National Market listing fees.

<TABLE>
<CAPTION>

	AMOUNT TO BE PAID -----
<S>	<C>
SEC Registration Fee.....	12,788
NASD Filing Fee.....	7,500
Nasdaq National Market Listing Fee.....	100,000
Printing and Engraving Expenses.....	250,000
Legal Fees and Expenses.....	300,000
Accounting Fees and Expenses.....	250,000
Transfer Agent and Registrar Fees and Expenses.....	25,000
Miscellaneous Expenses.....	54,712

Total.....	1,000,000 =====

</TABLE>

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law allows for the indemnification of officers, directors and any corporate agents in terms sufficiently broad to indemnify such persons under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act. Our Amended and Restated Certificate of Incorporation and our Amended and Restated Bylaws provide for indemnification of our directors, officers, employees and other agents to the extent and under the circumstances permitted by the Delaware General Corporation Law. We have also entered into agreements with our directors and executive officers that require OnDisplay among other things to indemnify them against certain liabilities that may arise by reason of their status or service as directors and executive officers to the fullest extent permitted by Delaware law. We have also purchased directors and officers liability insurance, which provides coverage against certain liabilities including liabilities under the Securities Act.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

(a) Since our formation in August 1996, and through August 1999, we have issued and sold the following unregistered securities:

(1) In August 1996, we issued and sold an aggregate of 3,300,000 shares of common stock to the founding officers and directors of OnDisplay, Inc. and to certain other individuals for an aggregate purchase price of \$3,300.00

(2) Since our inception, we have granted options to purchase 3,278,250 shares of common stock to employees, directors and consultants under our 1996 stock plan at exercises prices ranging from \$0.10 to \$1.20 per share. Of the 3,278,250 shares granted, 1,160,426 remain outstanding, 1,391,438 shares of common stock have been purchased pursuant to exercises of stock options and 839,334 shares have been cancelled and returned to the 1996 stock plan.

(3) In September of 1996, we sold an aggregate of 3,400,000 shares of series A preferred stock at a price of \$1.00 per share to a total of four investors.

(4) In June of 1997, we sold an aggregate of 100,000 shares of series A preferred stock at a price of \$1.00 per share to a total of three investors.

II-1

89

(5) Between June 1997 and January 1998, we sold an aggregate of 3,202,381 shares of series B preferred stock at a price of \$2.10 per share to a total of eight investors.

(6) Between July 1998 and October 1998, we sold an aggregate of 2,189,173 shares of series C preferred stock at a price of \$4.00 per share to a total of thirteen investors. On February 25, 1999 in conjunction with entering into an equipment lease, we issued warrants for the purchase of 85,537 shares of series C preferred stock at an exercise price of \$6.05 per shares.

(7) In August 1999, we sold an aggregate of 1,723,739 shares of series D preferred stock at a price of \$9.52 per share to a total of seventeen investors. All of these investors qualified as "accredited investors" under Securities and Exchange Commission Rule 501.

The sales and issuances of securities in the transactions described above were deemed to be exempt from registration under the Securities Act in reliance upon Section 4(2) of the Securities Act, Regulation D promulgated thereunder or Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions by an issuer not involving any public offering or transactions pursuant to compensatory benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of securities in each transaction represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in such transactions. All recipients had adequate access, through their relationship to OnDisplay, Inc. to information about us.

(b) There were no underwritten offerings employed in connection with any of the transactions set forth in Item 15(a).

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Exhibits

<TABLE>
<CAPTION>

EXHIBIT NUMBER -----	DESCRIPTION OF DOCUMENT -----
<C>	<S>
1.1	Form of Underwriting agreement
3.1(a)	Amended and Restated Certificate of Incorporation, as in effect upon filing of the registration statement
3.1(b)	Certificate of Incorporation to be filed upon completion of the offering
4.1(a)	Bylaws of the registrant as currently in effect
4.1(b)	Bylaws of the registrant as in effect upon completion of the offering
4.2	Form of Lock-Up Agreements
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation
10.1(a)	Third Restated Investor Rights Agreement dated August 2, 1999
10.1(b)*	Amendment to Third Restated Investor Rights Agreement dated
10.2	1996 Stock Plan and forms of agreements thereunder
10.3	1999 Employee Stock Purchase Plan
10.4	Form of Director and Executive Officer Indemnification Agreement
10.5	Sublease between the registrant and Irwin Home Equity Corporation dated December 2, 1998 for office space located at 12667 Alcosta Boulevard, San Ramon, California
10.6	Sublease between registrant and Knutson Mortgage Corporation dated September 17, 1996 for office space located at 2682 Bishop Drive, San Ramon, California
10.7	Master Equipment Lease Agreement dated February 25, 1999 between registrant and Comdisco, Inc.
10.8	Senior Loan and Security Agreement dated June 2, 1997 between the registrant and Phoenix Leasing, Inc.
23.1	Consent of PricewaterhouseCoopers LLP, independent accountants
23.2	Consent of Counsel (included in exhibit 5.1)

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
24.1	Power of Attorney (see page II-4)
27.1	Financial Data Schedule

* To be filed by amendment.

(b) Financial Statement Schedules:

All schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore have been omitted.

ITEM 17. UNDERTAKINGS

Insofar as indemnification by OnDisplay for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of OnDisplay, we have been advised that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by OnDisplay of expenses incurred or paid by a director, officer or controlling person of OnDisplay in the successful defense of any action, suit or proceeding) is asserted by a director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by OnDisplay is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

We hereby undertake that:

(a) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of a registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by OnDisplay pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of the registration statement as of the time it was declared effective.

(b) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, OnDisplay has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Ramon, State of California, on the 10th day of September, 1999.

ONDISPLAY, INC.

By: /s/ MARK PINE

Mark Pine
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Mark Pine and Carol Richwood and each of them, his attorneys-in-fact, each with the power of substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all

amendments (including post-effective amendments) to this Registration Statement, and to sign any registration statement for the same Offering covered by this Registration Statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act of 1933, and all post-effective amendments thereto, and to file the same, with all exhibits thereto in all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every Act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that such attorneys-in-fact and agents or any of them, or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

<TABLE> <CAPTION>	SIGNATURE -----	TITLE -----	DATE -----
<C>	/s/ MARK PINE ----- Mark Pine	<S> Chief Executive Officer, President and Director	<C> September 10, 1999
	/s/ CAROL RICHWOOD ----- Carol Richwood	Vice President, Corporate Controller	September 10, 1999
	/s/ TIMOTHY BARROWS ----- Timothy Barrows	Director	September 10, 1999
	/s/ PROMOD HAQUE ----- Promod Haque	Director	September 10, 1999
	/s/ JOHN MANDILE ----- John Mandile	Director	September 10, 1999
	/s/ CHRISTOPHER SPRAY ----- Christopher Spray	Director	September 10, 1999
	/s/ MARGARET TAYLOR ----- Margaret Taylor	Director	September 10, 1999
	/s/ CARMINE VILLANI ----- Carmine Villani	Director	September 10, 1999

</TABLE>

II-4

92

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL SECURITIES, AND WE ARE NOT SOLICITING OFFERS TO BUY THESE SECURITIES, IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED SEPTEMBER 10, 1999

LOGO

SHARES

COMMON STOCK

OnDisplay, Inc. is offering _____ shares of our common stock. This is our initial public offering, and no public market currently exists for our shares. Our common stock have been approved for quotation on the Nasdaq National Market under the symbol "ONDS," subject to official notice of issuance. We anticipate that the initial public offering price will be between \$ _____ and \$ _____ per share.

additional shares of common stock at the same price per share as we will receive for the shares that the underwriters have agreed to purchase from us. To the extent that the underwriters exercise the option, each of the underwriters will have a firm commitment to purchase approximately the same percentage of additional shares that the number of shares of common stock to be purchased by it shown in the above table represents as a percentage of the total number of shares offered hereby. If purchased, the additional shares will be sold by the underwriters on the same terms as those on which the shares are being sold.

Indemnity

The underwriting agreement contains covenants of indemnity among the underwriters and OnDisplay against certain civil liabilities, including liabilities under the Securities Act and liabilities arising from breaches of representations and warranties contained in the underwriting agreement.

Lock-Up Agreements

The Company's shareholders and option holders have agreed, for a period of 180 days after the date of this Prospectus (the "Lock-Up Period"), not to offer, pledge, sell, offer to sell, contract to sell, sell any option or contract to purchase, purchase any option to sell, grant any option right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any of the shares of common stock or any securities convertible into, or exercisable or exchangeable for, common stock, owned as of the date of this prospectus or thereafter acquired directly by the holders or with respect to which they have or hereafter

EXHIBIT INDEX

<TABLE> <CAPTION> EXHIBIT NUMBER -----	DESCRIPTION OF DOCUMENT -----
<C>	<S>
1.1	Form of Underwriting agreement
3.1(a)	Amended and Restated Certificate of Incorporation, as in effect upon filing of the registration statement
3.1(b)	Certificate of Incorporation to be filed upon completion of the offering
4.1(a)	Bylaws of the registrant as currently in effect
4.1(b)	Bylaws of the registrant as in effect upon completion of the offering
4.2	Form of Lock-Up Agreements
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation
10.1(a)	Third Restated Investor Rights Agreement dated August 2, 1999
10.1(b)*	Amendment to Third Restated Investor Rights Agreement dated .
10.2	1996 Stock Plan and forms of agreements thereunder
10.3	1999 Employee Stock Purchase Plan
10.4	Form of Director and Executive Officer Indemnification Agreement
10.5	Sublease between the registrant and Irwin Home Equity Corporation dated December 2, 1998 for office space located at 12667 Alcosta Boulevard, San Ramon, California
10.6	Sublease between registrant and Knutson Mortgage Corporation dated September 17, 1996 for office space located at 2682 Bishop Drive, San Ramon, California
10.7	Master Equipment Lease Agreement dated February 25, 1999 between registrant and Comdisco, Inc.
10.8	Senior Loan and Security Agreement dated June 2, 1997 between the registrant and Phoenix Leasing, Inc.
23.1	Consent of PricewaterhouseCoopers LLP, independent accountants
23.2	Consent of Counsel (included in exhibit 5.1)
24.1	Power of Attorney (see page II-4)
27.1	Financial Data Schedule

* To be filed by amendment.

UNDERWRITING AGREEMENT

_____, 1999

BancBoston Robertson Stephens Inc.
Deutsche Banc Alex. Brown Incorporated
SG Cowen Securities Corporation
As Representatives of the several Underwriters
c/o BancBoston Robertson Stephens Inc.
555 California Street, Suite 2600
San Francisco, CA 94104

Ladies and Gentlemen:

INTRODUCTORY. OnDisplay, Inc., a Delaware corporation (the "Company"), proposes to issue and sell to the several underwriters named in Schedule A (the "Underwriters") an aggregate of [___] shares (the "Firm Shares") of its Common Stock, par value \$0.001 per share (the "Common Shares"). In addition, the Company has granted to the Underwriters an option to purchase up to an additional [___] Common Shares (the "Option Shares") as provided in Section 2. The Firm Shares and, if and to the extent such option is exercised, the Option Shares, are collectively called the "Shares". BancBoston Robertson Stephens Inc., Deutsche Banc Alex. Brown Incorporated and SG Cowen Securities Corporation have agreed to act as representatives of the several Underwriters (in such capacity, the "Representatives") in connection with the offering and sale of the Shares.

The Company has prepared and filed with the Securities and Exchange Commission (the "Commission") a registration statement on Form S-1 (File No. 333-[___]), which contains a form of prospectus to be used in connection with the public offering and sale of the Shares. Such registration statement, as amended, including the financial statements, exhibits and schedules thereto, in the form in which it was declared effective by the Commission under the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder (collectively, the "Securities Act"), including any information deemed to be a part thereof at the time of effectiveness pursuant to Rule 430A or Rule 434 under the Securities Act, is called the "Registration Statement". Any registration statement filed by the Company pursuant to Rule 462(b) under the Securities Act is called the "Rule 462(b) Registration Statement", and from and after the date and time of filing of the Rule 462(b) Registration Statement the term "Registration Statement" shall include the Rule 462(b) Registration Statement. Such prospectus, in the form first used by the Underwriters to confirm sales of the Shares, is called the "Prospectus"; provided, however, if the Company has, with the consent of BancBoston Robertson Stephens Inc., elected to rely upon Rule 434 under the Securities Act, the term "Prospectus" shall mean the Company's prospectus subject to completion (each, a "preliminary prospectus") dated [___] (such preliminary prospectus is called the "Rule 434 preliminary prospectus"), together with the applicable term sheet (the "Term Sheet") prepared

2

and filed by the Company with the Commission under Rules 434 and 424(b) under the Securities Act and all references in this Agreement to the date of the Prospectus shall mean the date of the Term Sheet. All references in this Agreement to the Registration Statement, the Rule 462(b) Registration Statement, a preliminary prospectus, the Prospectus or the Term Sheet, or any amendments or

supplements to any of the foregoing, shall include any copy thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System ("EDGAR").

The Company hereby confirms its agreements with the Underwriters as follows:

SECTION 1. REPRESENTATIONS AND WARRANTIES OF THE COMPANY. The Company hereby represents, warrants and covenants to each Underwriter as follows:

(a) Compliance with Registration Requirements. The Registration Statement and any Rule 462(b) Registration Statement have been declared effective by the Commission under the Securities Act. The Company has complied to the Commission's satisfaction with all requests of the Commission for additional or supplemental information. No stop order suspending the effectiveness of the Registration Statement or any Rule 462(b) Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the best knowledge of the Company, are contemplated or threatened by the Commission.

Each preliminary prospectus and the Prospectus when filed complied in all material respects with the Securities Act and, if filed by electronic transmission pursuant to EDGAR (except as may be permitted by Regulation S-T under the Securities Act), was identical to the copy thereof delivered to the Underwriters for use in connection with the offer and sale of the Shares. Each of the Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendment thereto, at the time it became effective and at all subsequent times, complied and will comply in all material respects with the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus, as amended or supplemented, as of its date and at all subsequent times, did not and will not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the two immediately preceding sentences do not apply to statements in or omissions from the Registration Statement, any Rule 462(b) Registration Statement, or any post-effective amendment thereto, or the Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with information relating to any Underwriter furnished to the Company in writing by the Representatives expressly for use therein. There are no contracts or other documents required to be described in the Prospectus or to be filed as exhibits to the Registration Statement which have not been described or filed as required.

(b) Offering Materials Furnished to Underwriters. The Company has delivered to each Representative one complete conformed copy of the Registration Statement and of each consent and certificate of experts filed as a part thereof, and conformed copies of the Registration Statement (without exhibits) and preliminary prospectuses and the Prospectus, as amended or supplemented, in such quantities and at such places as the Representatives have reasonably requested for each of the Underwriters.

(c) Distribution of Offering Material By the Company. The Company has not distributed and will not distribute, prior to the later of the Second Closing Date (as defined

2

3 below) and the completion of the Underwriters' distribution of the Shares, any offering material in connection with the offering and sale of the Shares other than a preliminary prospectus, the Prospectus or the Registration Statement.

(d) The Underwriting Agreement. This Agreement has been duly

authorized, executed and delivered by, and is a valid and binding agreement of, the Company, enforceable in accordance with its terms, except as rights to indemnification hereunder may be limited by applicable law and except as the enforcement hereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors or by general equitable principles.

(e) Authorization of the Shares. The Shares to be purchased by the Underwriters from the Company have been duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company pursuant to this Agreement, will be validly issued, fully paid and nonassessable.

(f) No Applicable Registration or Other Similar Rights. There are no persons with registration or other similar rights to have any equity or debt securities registered for sale under the Registration Statement or included in the offering contemplated by this Agreement, except for such rights as have been duly waived.

(g) No Material Adverse Change. Subsequent to the respective dates as of which information is given in the Prospectus: (i) there has been no material adverse change, or any development that could reasonably be expected to result in a material adverse change, in the condition, financial or otherwise, or in the earnings, business, operations or prospects, whether or not arising from transactions in the ordinary course of business, of the Company (any such change or effect, where the context so requires, is called a "Material Adverse Change" or a "Material Adverse Effect"); (ii) the Company has not incurred any material liability or obligation, indirect, direct or contingent, not in the ordinary course of business nor entered into any material transaction or agreement not in the ordinary course of business; and (iii) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of capital stock or repurchase or redemption by the Company of any class of capital stock.

(h) Independent Accountants. PricewaterhouseCoopers LLP, who have expressed their opinion with respect to the financial statements (which term as used in this Agreement includes the related notes thereto) and supporting schedules filed with the Commission as a part of the Registration Statement and included in the Prospectus, are independent public or certified public accountants as required by the Securities Act.

(i) Preparation of the Financial Statements. The financial statements filed with the Commission as a part of the Registration Statement and included in the Prospectus present fairly the financial position of the Company as of and at the dates indicated and the results of its operations and cash flows for the periods specified. The supporting schedules included in the Registration Statement present fairly the information required to be stated therein. Such financial statements and supporting schedules have been prepared in conformity with generally accepted accounting principles as applied in the United States applied on a consistent basis throughout the periods involved, except as may be expressly stated in the related notes thereto. No other financial statements or supporting schedules are required to be included in the Registration Statement. The financial data set forth in the Prospectus under the captions "Summary--Summary Selected Financial Data", "Selected Financial Data" and "Capitalization"

3

4

fairly present the information set forth therein on a basis consistent with that of the audited financial statements contained in the Registration Statement.

(j) Company's Accounting System. The Company maintains a system of accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific

authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles as applied in the United States and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

(k) Subsidiaries of the Company. The Company has no subsidiaries and does not own or control, directly or indirectly, any corporation, association or other entity.

(l) Incorporation and Good Standing of the Company. The Company has been duly organized and is validly existing as a corporation in good standing under the laws of the jurisdiction in which it is organized with full corporate power and authority to own its properties and conduct its business as described in the prospectus, and is duly qualified to do business as a foreign corporation, except for qualification in jurisdictions in which the failure to qualify as a foreign corporation could not reasonably be expected to result in a Material Adverse Effect, and is in good standing under the laws of each jurisdiction which requires such qualification.

(m) Capitalization and Other Capital Stock Matters. The authorized, issued and outstanding capital stock of the Company is as set forth in the Prospectus under the caption "Capitalization" (other than for subsequent issuances, if any, pursuant to employee benefit plans described in the Prospectus or upon exercise of outstanding options or warrants described in the Prospectus). The Common Shares (including the Shares) conform in all material respects to the description thereof contained in the Prospectus. All of the issued and outstanding Common Shares have been duly authorized and validly issued, are fully paid and nonassessable and have been issued in compliance with federal and state securities laws. None of the outstanding Common Shares were issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. There are no authorized or outstanding options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or debt securities convertible into or exchangeable or exercisable for, any capital stock of the Company other than those accurately described in the Prospectus. The description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, set forth in the Prospectus accurately and fairly presents the information required to be shown with respect to such plans, arrangements, options and rights.

(n) Stock Exchange Listing. The Shares have been approved for inclusion on the Nasdaq National Market, subject only to official notice of issuance.

(o) No Consents, Approvals or Authorizations Required. No consent, approval, authorization, filing with or order of any court or governmental agency or regulatory body is required in connection with the transactions contemplated herein, except such as have been obtained or made under the Securities Act and such as may be required (i) under the blue sky laws of any jurisdiction in connection with the purchase and distribution of the Shares by the

Underwriters in the manner contemplated here and in the Prospectus, (ii) by the National Association of Securities Dealers, LLC and (iii) by the federal and provincial laws of Canada.

(p) Non-Contravention of Existing Instruments Agreements. Neither the issue and sale of the Shares nor the consummation of any other of the transactions herein contemplated nor the fulfillment of the terms hereof will

conflict with, result in a breach or violation or imposition of any lien, charge or encumbrance upon any property or assets of the Company pursuant to, (i) the charter or by-laws of the Company, (ii) the terms of any indenture, contract, lease, mortgage, deed of trust, note agreement, loan agreement or other agreement, obligation, condition, covenant or instrument to which the Company is a party or bound or to which its property is subject or (iii) any statute, law, rule, regulation, judgment, order or decree applicable to the Company of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority having jurisdiction over the Company or any of its properties.

(q) No Defaults or Violations. The Company is not in violation or default of (i) any provision of its charter or by-laws, (ii) the terms of any material indenture, contract, lease, mortgage, deed of trust, note agreement, loan agreement or other agreement, obligation, condition, covenant or instrument to which it is a party or bound or to which its property is subject or (iii) any statute, law, rule, regulation, judgment, order or decree of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority having jurisdiction over the Company or any of its properties, except any such violation or default which would not, singly or in the aggregate, result in a Material Adverse Change except as otherwise disclosed in the Prospectus.

(r) No Actions, Suits or Proceedings. Except to the extent described in the Prospectus, no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or its property is pending or, to the best knowledge of the Company, threatened that (i) could reasonably be expected to have a Material Adverse Effect on the performance of this Agreement or the consummation of any of the transactions contemplated hereby or (ii) could reasonably be expected to result in a Material Adverse Effect.

(s) All Necessary Permits, Etc. Except to the extent described in the Prospectus, the Company possesses such valid and current certificates, authorizations or permits issued by the appropriate state, federal or foreign regulatory agencies or bodies necessary to conduct its business, and the Company has not received any notice of proceedings relating to the revocation or modification of, or non-compliance with, any such certificate, authorization or permit which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, could result in a Material Adverse Change.

(t) Title to Properties. Except to the extent described in the Prospectus, the Company has good and marketable title to all the properties and assets reflected as owned in the financial statements referred to in Section 1(i) above (or elsewhere in the Prospectus), in each case free and clear of any security interests, mortgages, liens, encumbrances, equities, claims and other defects, except such as do not materially and adversely affect the value of such property and do not materially interfere with the use made or proposed to be made of such property by the Company. The real property, improvements, equipment and personal property held under lease by the Company are held under valid and enforceable leases, with such exceptions as are not material and do not materially interfere with the use made or proposed to be made of such real property, improvements, equipment or personal property by the Company.

5

6

(u) Tax Law Compliance. The Company has filed all necessary federal, state and foreign income and franchise tax returns or has properly requested extensions thereof and has paid all taxes required to be paid by it, and, if due and payable, any related or similar assessment, fine or penalty levied against it. The Company has made adequate charges, accruals and reserves in the applicable financial statements referred to in Section 1(i) above in respect of all federal, state and foreign income and franchise taxes for all periods as to which the tax liability of the Company has not been finally determined. The Company is not aware of any tax deficiency that has been or might be asserted or

threatened against the Company that could result in a Material Adverse Change.

(v) Intellectual Property Rights. The Company owns or possesses adequate rights to use all patents, patent rights or licenses, inventions, collaborative research agreements, trade secrets, know-how, trademarks, service marks, trade names and copyrights which are necessary to conduct its businesses as described in the Registration Statement and Prospectus; the expiration of any patents, patent rights, trade secrets, trademarks, service marks, trade names or copyrights would not result in a Material Adverse Change that is not otherwise disclosed in the Prospectus; except to the extent described in the Prospectus, the Company has not received any notice of, and has no knowledge of, any infringement of or conflict with asserted rights of the Company by others with respect to any patent, patent rights, inventions, trade secrets, know-how, trademarks, service marks, trade names or copyrights; and the Company has not received any notice of, and has no knowledge of, any infringement of or conflict with asserted rights of others with respect to any patent, patent rights, inventions, trade secrets, know-how, trademarks, service marks, trade names or copyrights which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, might have a Material Adverse Change. There is no claim being made against the Company regarding patents, patent rights or licenses, inventions, collaborative research, trade secrets, know-how, trademarks, service marks, trade names or copyrights. The Company does not, in the conduct of its business as now or proposed to be conducted as described in the Prospectus, infringe or conflict with any right or patent of any third party, or any discovery, invention, product or process which is the subject of a patent application filed by any third party, known to the Company, which such infringement or conflict is reasonably likely to result in a Material Adverse Change.

(w) Year 2000 Preparedness. There are no issues related to the Company's preparedness for the Year 2000 that (i) are of a character required to be described or referred to in the Registration Statement or Prospectus by the Securities Act which have not been accurately described in the Registration Statement or Prospectus or (ii) might reasonably be expected to result in any Material Adverse Change or that might materially affect their properties, assets or rights. Except to the extent described in the Prospectus, all internal computer systems and each Constituent Component (as defined below) of those systems and all computer-related products and each Constituent Component (as defined below) of those products of the Company fully comply with Year 2000 Qualification Requirements. "Year 2000 Qualifications Requirements" means that the internal computer systems and each Constituent Component (as defined below) of those systems and all computer-related products and each Constituent Component (as defined below) of those products of the Company (i) have been reviewed to confirm that they store, process (including sorting and performing mathematical operations, calculations and computations), input and output data containing date and information correctly regardless of whether the date contains dates and times before, on or after January 1, 2000, (ii) have been designated to ensure date and time entry recognition and calculations, and date data interface values that reflect the century, (iii) accurately manage and manipulate data involving dates and times, including single century formulas and multi-century formulas, and will not cause an abnormal ending scenario within the application or generate

7
incorrect values or invalid results involving such dates, (iv) accurately process any date rollover, and (v) accept and respond to two-digit year date input in a manner that resolves any ambiguities as to the century. "Constituent Component" means all software (including operating systems, programs, packages and utilities), firmware, hardware, networking components, and peripherals provided as part of the configuration. The Company has inquired of material vendors as to their preparedness for the Year 2000 and has disclosed in the Registration Statement or Prospectus any issues that might reasonably be expected to result in any Material Adverse Change.

(x) No Transfer Taxes or Other Fees. There are no transfer taxes or other similar fees or charges under Federal law or the laws of any state, or any political subdivision thereof, required to be paid in connection with the execution and delivery of this Agreement or the issuance and sale by the Company of the Shares.

(y) Company Not an "Investment Company". The Company has been advised of the rules and requirements under the Investment Company Act of 1940, as amended (the "Investment Company Act"). The Company is not, and after receipt of payment for the Shares will not be, an "investment company" or an entity "controlled" by an "investment company" within the meaning of the Investment Company Act and will conduct its business in a manner so that it will not become subject to the Investment Company Act.

(z) Insurance. The Company is insured by recognized, financially sound and reputable institutions with policies in such amounts and with such deductibles and covering such risks as are generally deemed adequate and customary for its business in its industry including, but not limited to, policies covering real and personal property owned or leased by the Company against theft, damage, destruction, acts of vandalism and earthquakes, general liability and Directors and Officers liability. The Company has no reason to believe that it will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Change. The Company has not been denied any insurance coverage which it has sought or for which it has applied.

(aa) Labor Matters. To the best of the Company's knowledge, no labor disturbance by the employees of the Company exists or is imminent; and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its principal suppliers, resellers, subcontractors, authorized dealers or distributors that might reasonably be expected to result in a Material Adverse Change.

(bb) No Price Stabilization or Manipulation. The Company has not taken and will not take, directly or indirectly, any action designed to or that might be reasonably expected to cause or result in stabilization or manipulation of the price of the Common Stock to facilitate the sale or resale of the Shares.

(cc) Lock-Up Agreements. Each officer and director of the Company and each beneficial owner of one or more percent of the outstanding issued share capital of the Company has agreed to sign an agreement substantially in the form attached hereto as Exhibit A (the "Lock-up Agreements"). The Company has provided to counsel for the Underwriters a complete and accurate list of all securityholders of the Company and the number and type of securities held by each securityholder. The Company has provided to counsel for the Underwriters true, accurate and complete copies of all of the Lock-up Agreements presently in effect or effected

7

8
hereby. The Company hereby represents and warrants and agrees that it will not release any of its officers, directors or other securityholders from any Lock-up Agreements currently existing or hereafter effected without the prior written consent of BancBoston Robertson Stephens Inc.

(dd) Related Party Transactions. There are no business relationships or related-party transactions involving the Company or any other person required to be described in the Prospectus which have not been described as required.

(ee) No Unlawful Contributions or Other Payments. Neither the Company nor, to the best of the Company's knowledge, any employee or agent of the

Company, has made any contribution or other payment to any official of, or candidate for, any federal, state or foreign office in violation of any law or of the character required to be disclosed in the Prospectus.

(ff) Environmental Laws. (i) The Company is in compliance with all rules, laws and regulations relating to the use, treatment, storage and disposal of toxic substances and protection of health or the environment ("Environmental Laws") which are applicable to its business, except where the failure to comply would not result in a Material Adverse Change, (ii) the Company has received no notice from any governmental authority or third party of an asserted claim under Environmental Laws, which claim is required to be disclosed in the Registration Statement and the Prospectus, (iii) the Company will not be required to make future material capital expenditures to comply with Environmental Laws and (iv) no property which is owned, leased or occupied by the Company has been designated as a Superfund site pursuant to the Comprehensive Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. Section 9601, et seq.), or otherwise designated as a contaminated site under applicable state or local law.

(gg) ERISA Compliance. The Company and any "employee benefit plan" (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, "ERISA")) established or maintained by the Company or its "ERISA Affiliates" (as defined below) are in compliance in all material respects with ERISA. "ERISA Affiliate" means, with respect to the Company, any member of any group of organizations described in Sections 414(b), (c), (m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the "Code") of which the Company is a member. No "reportable event" (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any "employee benefit plan" established or maintained by the Company or any of its ERISA Affiliates. No "employee benefit plan" established or maintained by the Company or any of its ERISA Affiliates, if such "employee benefit plan" were terminated, would have any "amount of unfunded benefit liabilities" (as defined under ERISA). Neither the Company nor any of its ERISA Affiliates has incurred or reasonably expects to incur any liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any "employee benefit plan" or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each "employee benefit plan" established or maintained by the Company or any of its ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and nothing has occurred, whether by action or failure to act, which would cause the loss of such qualification.

(hh) Any certificate signed by an officer of the Company and delivered to the Representatives or to counsel for the Underwriters shall be deemed to be a representation and warranty by the Company to each Underwriter as to the matters set forth therein.

8

9

SECTION 2. PURCHASE, SALE AND DELIVERY OF THE SHARES.

The Firm Shares. The Company agrees to issue and sell to the several Underwriters the Firm Shares upon the terms herein set forth. On the basis of the representations, warranties and agreements herein contained, and upon the terms but subject to the conditions herein set forth, the Underwriters agree, severally and not jointly, to purchase from the Company the respective number of Firm Shares set forth opposite their names on Schedule A. The purchase price per Firm Share to be paid by the several Underwriters to the Company shall be \$[___] per share.

(a) The First Closing Date. Delivery of the Firm Shares to be purchased by the Underwriters and payment therefor shall be made by the Company and the Representatives at 6:00 a.m. San Francisco time, at the offices of Wilson Sonsini Goodrich & Rosati, P.C., 650 Page Mill Road, Palo Alto, CA 94304

(or at such other place as may be agreed upon among the Representatives and the Company), (i) on the third (3rd) full business day following the first day that Shares are traded, (ii) if this Agreement is executed and delivered after 1:30 P.M., San Francisco time, the fourth (4th) full business day following the day that this Agreement is executed and delivered or (iii) at such other time and date not later than seven (7) full business days following the first day that Shares are traded as the Representatives and the Company may determine (or at such time and date to which payment and delivery shall have been postponed pursuant to Section 8 hereof), such time and date of payment and delivery being herein called the "Closing Date;" provided, however, that if the Company has not made available to the Representatives copies of the Prospectus within the time provided in Section 2(f) and 3(e) hereof, the Representatives may, in their sole discretion, postpone the Closing Date until no later than two (2) full business days following delivery of copies of the Prospectus to the Representatives.

(b) The Option Shares; the Second Closing Date. In addition, on the basis of the representations, warranties and agreements herein contained, and upon the terms but subject to the conditions herein set forth, the Company hereby grants an option to the several Underwriters to purchase, severally and not jointly, up to an aggregate of [___] Option Shares from the Company at the purchase price per share to be paid by the Underwriters for the Firm Shares. The option granted hereunder is for use by the Underwriters solely in covering any over-allotments in connection with the sale and distribution of the Firm Shares. The option granted hereunder may be exercised at any time upon notice by the Representatives to the Company, which notice may be given at any time within 30 days from the date of this Agreement. The time and date of delivery of the Option Shares, if subsequent to the First Closing Date, is called the "Second Closing Date" and shall be determined by the Representatives and shall not be earlier than three nor later than five full business days after delivery of such notice of exercise. If any Option Shares are to be purchased, each Underwriter agrees, severally and not jointly, to purchase the number of Option Shares (subject to such adjustments to eliminate fractional shares as the Representatives may determine) that bears the same proportion to the total number of Option Shares to be purchased as the number of Firm Shares set forth on Schedule A opposite the name of such Underwriter bears to the total number of Firm Shares. The Representatives may cancel the option at any time prior to its expiration by giving written notice of such cancellation to the Company.

(c) Public Offering of the Shares. The Representatives hereby advise the Company that the Underwriters intend to offer for sale to the public, as described in the Prospectus, their respective portions of the Shares as soon after this Agreement has been executed and the

9

10

Registration Statement has been declared effective as the Representatives, in their sole judgment, have determined is advisable and practicable.

(d) Payment for the Shares. Payment for the Shares shall be made at the First Closing Date (and, if applicable, at the Second Closing Date) by wire transfer in immediately available-funds to the order of the Company.

It is understood that the Representatives have been authorized, for their own account and the accounts of the several Underwriters, to accept delivery of and receipt for, and make payment of the purchase price for, the Firm Shares and any Option Shares the Underwriters have agreed to purchase. BancBoston Robertson Stephens Inc., individually and not as a Representative of the Underwriters, may (but shall not be obligated to) make payment for any Shares to be purchased by any Underwriter whose funds shall not have been received by the Representatives by the First Closing Date or the Second Closing Date, as the case may be, for the account of such Underwriter, but any such payment shall not relieve such Underwriter from any of its obligations under this Agreement.

(e) Delivery of the Shares. The Company shall deliver, or cause to be delivered, a credit representing the Firm Shares to an account or accounts at The Depository Trust Company, as designated by the Representatives for the accounts of the Representatives and the several Underwriters at the First Closing Date, against the irrevocable release of a wire transfer of immediately available funds for the amount of the purchase price therefor. The Company shall also deliver, or cause to be delivered, a credit representing the Option Shares the Underwriters have agreed to purchase at the First Closing Date (or the Second Closing Date, as the case may be), to an account or accounts at The Depository Trust Company as designated by the Representatives for the accounts of the Representatives and the several Underwriters, against the irrevocable release of a wire transfer of immediately available funds for the amount of the purchase price therefor. Time shall be of the essence, and delivery at the time and place specified in this Agreement is a further condition to the obligations of the Underwriters.

(f) Delivery of Prospectus to the Underwriters. Not later than 12:00 noon on the second business day following the date the Shares are released by the Underwriters for sale to the public, the Company shall deliver or cause to be delivered copies of the Prospectus in such quantities and at such places as the Representatives shall request.

SECTION 3. COVENANTS OF THE COMPANY. The Company further covenants and agrees with each Underwriter as follows:

(a) Registration Statement Matters. The Company will (i) use its best efforts to cause a registration statement on Form 8-A (the "Form 8-A Registration Statement") as required by the Securities Exchange Act of 1934 (the "Exchange Act") to become effective simultaneously with the Registration Statement, (ii) use its best efforts to cause the Registration Statement to become effective or, if the procedure in Rule 430A of the Securities Act is followed, to prepare and timely file with the Commission under Rule 424(b) under the Securities Act a Prospectus in a form approved by the Representatives containing information previously omitted at the time of effectiveness of the Registration Statement in reliance on Rule 430A of the Securities Act and (iii) not file any amendment to the Registration Statement or supplement to the Prospectus of which the Representatives shall not previously have been advised and furnished with a copy or to which the Representatives shall have reasonably objected in writing or which is not in compliance with the Securities Act. If the Company elects to rely on

10

11
Rule 462(b) under the Securities Act, the Company shall file a Rule 462(b) Registration Statement with the Commission in compliance with Rule 462(b) under the Securities Act prior to the time confirmations are sent or given, as specified by Rule 462(b)(2) under the Securities Act, and shall pay the applicable fees in accordance with Rule 111 under the Securities Act.

(b) Securities Act Compliance. The Company will advise the Representatives promptly (i) when the Registration Statement or any post-effective amendment thereto shall have become effective, (ii) of receipt of any comments from the Commission, (iii) of any request of the Commission for amendment of the Registration Statement or for supplement to the Prospectus or for any additional information and (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or the use of the Prospectus or of the institution of any proceedings for that purpose. The Company will use its best efforts to prevent the issuance of any such stop order preventing or suspending the use of the Prospectus and to obtain as soon as possible the lifting thereof, if issued.

(c) Blue Sky Compliance. The Company will cooperate with the Representatives and counsel for the Underwriters in endeavoring to qualify the Shares for sale under the securities laws of such jurisdictions (both national

and foreign) as the Representatives may reasonably have designated in writing and will make such applications, file such documents, and furnish such information as may be reasonably required for that purpose, provided the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction where it is not now so qualified or required to file such a consent. The Company will, from time to time, prepare and file such statements, reports and other documents, as are or may be required to continue such qualifications in effect for so long a period as the Representatives may reasonably request for distribution of the Shares.

(d) Amendments and Supplements to the Prospectus and Other Securities Act Matters. The Company will comply with the Securities Act and the Exchange Act, and the rules and regulations of the Commission thereunder, so as to permit the completion of the distribution of the Shares as contemplated in this Agreement and the Prospectus. If during the period in which a prospectus is required by law to be delivered by an Underwriter or dealer, any event shall occur as a result of which, in the judgment of the Company or in the reasonable opinion of the Representatives or counsel for the Underwriters, it becomes necessary to amend or supplement the Prospectus in order to make the statements therein, in the light of the circumstances existing at the time the Prospectus is delivered to a purchaser, not misleading, or, if it is necessary at any time to amend or supplement the Prospectus to comply with any law, the Company promptly will prepare and file with the Commission, and furnish at its own expense to the Underwriters and to dealers, an appropriate amendment to the Registration Statement or supplement to the Prospectus so that the Prospectus as so amended or supplemented will not, in the light of the circumstances when it is so delivered, be misleading, or so that the Prospectus will comply with the law.

(e) Copies of any Amendments and Supplements to the Prospectus. The Company agrees to furnish the Representatives, without charge, during the period beginning on the date hereof and ending on the later of the First Closing Date or such date, as in the opinion of counsel for the Underwriters, the Prospectus is no longer required by law to be delivered in connection with sales by an Underwriter or dealer (the "Prospectus Delivery Period"), as many copies of the Prospectus and any amendments and supplements thereto as the Representatives may request.

11

12

(f) Insurance. The Company shall (i) obtain Directors and Officers liability insurance in the minimum amount of \$10 million which shall apply to the offering contemplated hereby and (ii) shall cause BancBoston Robertson Stephens Inc. to be added as an additional insured to such policy in respect of the offering contemplated hereby.

(g) Notice of Subsequent Events. If at any time during the ninety (90) day period after the Registration Statement becomes effective, any rumor, publication or event relating to or affecting the Company shall occur as a result of which in your opinion the market price of the Company Shares has been or is likely to be materially affected (regardless of whether such rumor, publication or event necessitates a supplement to or amendment of the Prospectus), the Company will, after written notice from you advising the Company to the effect set forth above, forthwith prepare, consult with you concerning the substance of and disseminate a press release or other public statement, reasonably satisfactory to you, responding to or commenting on such rumor, publication or event.

(h) Use of Proceeds. The Company shall apply the net proceeds from the sale of the Shares sold by it in the manner described under the caption "Use of Proceeds" in the Prospectus.

(i) Transfer Agent. The Company shall engage and maintain, at its own expense, a registrar and transfer agent for the Company Shares.

(j) Earnings Statement. As soon as practicable, the Company will make generally available to its security holders and to the Representatives an earnings statement (which need not be audited) covering the twelve-month period ending [THE DATE OF THE END OF THE FIRST QUARTER ENDING ONE YEAR FOLLOWING THE EFFECTIVE DATE] that satisfies the provisions of Section 11(a) of the Securities Act.

(k) Periodic Reporting Obligations. During the Prospectus Delivery Period the Company shall file, on a timely basis, with the Commission and the Nasdaq National Market all reports and documents required to be filed under the Exchange Act.

(l) Agreement Not to Offer or Sell Additional Securities. The Company will not, without the prior written consent of BancBoston Robertson Stephens Inc., for a period of 180 days following the date of the Prospectus, offer, sell or contract to sell, or otherwise dispose of or enter into any transaction which is designed to, or could be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise by the Company or any affiliate of the Company or any person in privity with the Company or any affiliate of the Company) directly or indirectly, or announce the offering of, any other Common Shares or any securities convertible into, or exchangeable for, Common Shares; provided, however, that the Company may (i) issue and sell Common Shares pursuant to any director or employee stock option plan, stock ownership plan, stock purchase plan or dividend reinvestment plan of the Company in effect at the date of the Prospectus and described in the Prospectus so long as none of those shares may be transferred on during the period of 180 days from the date that the Registration Statement is declared effective (the "Lock-Up Period") and the Company shall enter stop transfer instructions with its transfer agent and registrar against the transfer of any such Common Shares and (ii) the Company may issue Common Shares issuable upon the conversion of securities or the exercise of warrants outstanding at the date of the Prospectus and described in the Prospectus.

12

13

(m) Future Reports to the Representatives. During the period of five years hereafter the Company will furnish to the Representatives (i) as soon as practicable after the end of each fiscal year, copies of the Annual Report of the Company containing the balance sheet of the Company as of the close of such fiscal year and statements of income, stockholders' equity and cash flows for the year then ended and the opinion thereon of the Company's independent public or certified public accountants; (ii) as soon as practicable after the filing thereof, copies of each proxy statement, Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Report on Form 8-K or other report filed by the Company with the Commission, the National Association of Securities Dealers, LLC or any securities exchange; and (iii) as soon as available, copies of any report or communication of the Company mailed generally to holders of its capital stock.

SECTION 4. CONDITIONS OF THE OBLIGATIONS OF THE UNDERWRITERS. The obligations of the several Underwriters to purchase and pay for the Shares as provided herein on the First Closing Date and, with respect to the Option Shares, the Second Closing Date, shall be subject to the accuracy of the representations and warranties on the part of the Company set forth in Section 1 hereof as of the date hereof and as of the First Closing Date as though then made and, with respect to the Option Shares, as of the Second Closing Date as though then made, to the timely performance by the Company of its covenants and other obligations hereunder, and to each of the following additional conditions:

(a) Compliance with Registration Requirements; No Stop Order; No Objection from the National Association of Securities Dealers, LLC. The Registration Statement shall have become effective prior to the execution of

this Agreement, or at such later date as shall be consented to in writing by you; and no stop order suspending the effectiveness thereof shall have been issued and no proceedings for that purpose shall have been initiated or, to the knowledge of the Company or any Underwriter, threatened by the Commission, and any request of the Commission for additional information (to be included in the Registration Statement or the Prospectus or otherwise) shall have been complied with to the satisfaction of Underwriters' Counsel; and the National Association of Securities Dealers, LLC shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(b) Corporate Proceedings. All corporate proceedings and other legal matters in connection with this Agreement, the form of Registration Statement and the Prospectus, and the registration, authorization, issue, sale and delivery of the Shares, shall have been reasonably satisfactory to Underwriters' Counsel, and such counsel shall have been furnished with such papers and information as they may reasonably have requested to enable them to pass upon the matters referred to in this Section.

(c) No Material Adverse Change. Subsequent to the execution and delivery of this Agreement and prior to the First Closing Date, or the Second Closing Date, as the case may be, there shall not have been any Material Adverse Change in the condition (financial or otherwise), earnings, operations, business or prospects of the Company from that set forth in the Registration Statement or Prospectus, which, in your sole judgment, is material and adverse and that makes it, in your sole judgment, impracticable or inadvisable to proceed with the public offering of the Shares as contemplated by the Prospectus;

(d) Opinion of Counsel for the Company. You shall have received on the First Closing Date, or the Second Closing Date, as the case may be, an opinion of Wilson Sonsini Goodrich & Rosati, P.C., counsel for the Company substantially in the form of Exhibit B attached

13

14

hereto, dated the First Closing Date, or the Second Closing Date, addressed to the Underwriters and with reproduced copies or signed counterparts thereof for each of the Underwriters.

Counsel rendering the opinion contained in Exhibit B may rely as to questions of law not involving the laws of the United States, the State of New York or the State of California or general corporate laws of the State of Delaware upon opinions of local counsel, and as to questions of fact upon representations or certificates of officers of the Company, and of government officials, in which case their opinion is to state that they are so relying and that they have no knowledge of any material misstatement or inaccuracy in any such opinion, representation or certificate. Copies of any opinion, representation or certificate so relied upon shall be delivered to you, as Representatives of the Underwriters, and to Underwriters' Counsel.

(e) Opinion of Counsel for the Underwriters. You shall have received on the First Closing Date or the Second Closing Date, as the case may be, an opinion of Brobeck, Phleger & Harrison LLP, substantially in the form of Exhibit C hereto. The Company shall have furnished to such counsel such documents as they may have requested for the purpose of enabling them to pass upon such matters.

(f) Accountants' Comfort Letter. You shall have received on the First Closing Date and on the Second Closing Date, as the case may be, a letter from PricewaterhouseCoopers LLP addressed to the Underwriters, dated the First Closing Date or the Second Closing Date, as the case may be, confirming that they are independent certified public accountants with respect to the Company within the meaning of the Securities Act and the applicable published Rules and Regulations and based upon the procedures described in such letter delivered to you concurrently with the execution of this Agreement (herein called the

"Original Letter"), but carried out to a date not more than four (4) business days prior to the First Closing Date or the Second Closing Date, as the case may be, (i) confirming, to the extent true, that the statements and conclusions set forth in the Original Letter are accurate as of the First Closing Date or the Second Closing Date, as the case may be, and (ii) setting forth any revisions and additions to the statements and conclusions set forth in the Original Letter which are necessary to reflect any changes in the facts described in the Original Letter since the date of such letter, or to reflect the availability of more recent financial statements, data or information. The letter shall not disclose any change in the condition (financial or otherwise), earnings, operations, business or business prospects of the Company from that set forth in the Registration Statement or Prospectus, which, in your sole judgment, is material and adverse and that makes it, in your sole judgment, impracticable or inadvisable to proceed with the public offering of the Shares as contemplated by the Prospectus. The Original Letter from PricewaterhouseCoopers LLP shall be addressed to or for the use of the Underwriters in form and substance satisfactory to the Underwriters and shall (i) represent, to the extent true, that they are independent certified public accountants with respect to the Company within the meaning of the Securities Act and the applicable published Rules and Regulations, (ii) set forth their opinion with respect to their examination of the balance sheet of the Company as of June 30, 1999 and related statements of operations, stockholders' equity, and cash flows for the twelve (12) months ended June 30, 1999, (iii) state that PricewaterhouseCoopers LLP has performed the procedures set out in Statement on Auditing Standards No. 71 ("SAS 71") for a review of interim financial information and providing the report of PricewaterhouseCoopers LLP as described in SAS 71 on the financial statements for each of the quarters in the one-quarter period ended September 30, 1999 (the "Quarterly Financial Statements"), (iv) state that in the course of such review, nothing came to their attention that leads them to believe that any material modifications need to be made to any of the Quarterly Financial Statements in order for them to be in compliance with generally accepted accounting principles consistently applied across the periods presented, (v)

14

15

state that PricewaterhouseCoopers LLP has performed the procedures set out in Statement of Auditing standards No. 86 with respect to "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in the Prospectus and (vi) address other matters agreed upon by PricewaterhouseCoopers LLP and you. In addition, you shall have received from PricewaterhouseCoopers LLP a letter addressed to the Company and made available to you for the use of the Underwriters stating that their review of the Company's system of internal accounting controls, to the extent they deemed necessary in establishing the scope of their examination of the Company's financial statements as of June 30, 1999, did not disclose any weaknesses in internal controls that they considered to be material weaknesses.

(g) Officers' Certificate. You shall have received on the First Closing Date and the Second Closing Date, as the case may be, a certificate of the Company, dated the First Closing Date or the Second Closing Date, as the case may be, signed by the Chief Executive Officer and Chief Financial Officer of the Company, to the effect that, and you shall be satisfied that:

(i) The representations and warranties of the Company in this Agreement are true and correct, as if made on and as of the First Closing Date or the Second Closing Date, as the case may be, and the Company has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to the First Closing Date or the Second Closing Date, as the case may be;

(ii) No stop order suspending the effectiveness of the Registration Statement has been issued and no proceedings for that purpose have been instituted or are pending or threatened under the Act;

(iii) When the Registration Statement became effective and at all times subsequent thereto up to the delivery of such certificate, the Registration Statement and the Prospectus, and any amendments or supplements thereto contained all material information required to be included therein by the Securities Act and in all material respects conformed to the requirements of the Securities Act; the Registration Statement and the Prospectus, and any amendments or supplements thereto, did not and does not include any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; and, since the effective date of the Registration Statement, there has occurred no event required to be set forth in an amended or supplemented Prospectus which has not been so set forth; and

(iv) Subsequent to the respective dates as of which information is given in the Registration Statement and Prospectus, there has not been (a) any material adverse change in the condition (financial or otherwise), earnings, operations, business or prospects of the Company, (b) any transaction that is material to the Company, except transactions entered into in the ordinary course of business, (c) any obligation, direct or contingent, that is material to the Company incurred by the Company, except obligations incurred in the ordinary course of business, (d) any change in the capital stock or outstanding indebtedness of the Company that is material to the Company, (e) any dividend or distribution of any kind declared, paid or made on the capital stock of the Company, or (f) any loss or damage (whether or not insured) to the property of the Company which has been sustained or will have been sustained which has a material adverse effect on the condition (financial or otherwise), earnings, operations, business or prospects of the Company.

15

16

(h) Lock-up Agreement from Certain Stockholders of the Company. The Company shall have obtained and delivered to you an agreement substantially in the form of Exhibit A attached hereto from each officer and director of the Company, and each beneficial owner of one or more percent of the outstanding issued share capital of the Company.

(i) Stock Exchange Listing. The Shares shall have been approved for inclusion on the Nasdaq National Market, subject only to official notice of issuance.

(j) Compliance with Prospectus Delivery Requirements. The Company shall have complied with the provisions of Sections 2(g) and 3(e) hereof with respect to the furnishing of Prospectuses.

(k) Additional Documents. On or before each of the First Closing Date and the Second Closing Date, as the case may be, the Representatives and counsel for the Underwriters shall have received such information, documents and opinions as they may reasonably require for the purposes of enabling them to pass upon the issuance and sale of the Shares as contemplated herein, or in order to evidence the accuracy of any of the representations and warranties, or the satisfaction of any of the conditions or agreements, herein contained.

If any condition specified in this Section 4 is not satisfied when and as required to be satisfied, this Agreement may be terminated by the Representatives by notice to the Company at any time on or prior to the First Closing Date and, with respect to the Option Shares, at any time prior to the Second Closing Date, which termination shall be without liability on the part of any party to any other party, except that Section 5 (Payment of Expenses), Section 6 (Reimbursement of Underwriters' Expenses), Section 7 (Indemnification and Contribution) and Section 10 (Representations and Indemnities to Survive Delivery) shall at all times be effective and shall survive such termination.

SECTION 5. PAYMENT OF EXPENSES. The Company agrees to pay all costs, fees and expenses incurred in connection with the performance of its obligations hereunder and in connection with the transactions contemplated hereby, including without limitation (i) all expenses incident to the issuance and delivery of the Shares (including all printing and engraving costs), (ii) all fees and expenses of the registrar and transfer agent of the Common Stock, (iii) all necessary issue, transfer and other stamp taxes in connection with the issuance and sale of the Shares to the Underwriters, (iv) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors, (v) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), each preliminary prospectus and the Prospectus, and all amendments and supplements thereto, and this Agreement, (vi) all filing fees, attorneys' fees and expenses incurred by the Company or the Underwriters in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Shares for offer and sale under the state securities or blue sky laws or the provincial securities laws of Canada or any other country, and, if requested by the Representatives, preparing and printing a "Blue Sky Survey", an "International Blue Sky Survey" or other memorandum, and any supplements thereto, advising the Underwriters of such qualifications, registrations and exemptions, (vii) the filing fees incident to, and the reasonable fees and expenses of counsel for the Underwriters in connection with, the National Association of Securities Dealers, LLC review and approval of the Underwriters' participation in the offering and distribution of the Common Shares, (viii) the fees and expenses associated with including the Common Shares on the

16

17

Nasdaq National Market, (ix) all costs and expenses incident to the preparation and undertaking of "road show" preparations to be made to prospective investors, and (x) all other fees, costs and expenses referred to in Item 13 of Part II of the Registration Statement. Except as provided in this Section 5, Section 6, and Section 7 hereof, the Underwriters shall pay their own expenses, including the fees and disbursements of their counsel.

SECTION 6. REIMBURSEMENT OF UNDERWRITERS' EXPENSES. If this Agreement is terminated by the Representatives pursuant to Section 4, Section 7, Section 8, Section 9, or if the sale to the Underwriters of the Shares on the First Closing Date is not consummated because of any refusal, inability or failure on the part of the Company to perform any agreement herein or to comply with any provision hereof, the Company agrees to reimburse the Representatives and the other Underwriters (or such Underwriters as have terminated this Agreement with respect to themselves), severally, upon demand for all out-of-pocket expenses that shall have been reasonably incurred by the Representatives and the Underwriters in connection with the proposed purchase and the offering and sale of the Shares, including but not limited to fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges.

SECTION 7. INDEMNIFICATION AND CONTRIBUTION.

(a) Indemnification of the Underwriters. The Company shall indemnify and hold harmless each Underwriter, its officers and employees, and each person, if any, who controls any Underwriter within the meaning of the Securities Act and the Exchange Act against any loss, claim, damage, liability or expense, as incurred, to which such Underwriter or such controlling person may become subject, under the Securities Act, the Exchange Act or other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Company, which consent shall not be unreasonably withheld), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based (i) upon any untrue

statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, including any information deemed to be a part thereof pursuant to Rule 430A or Rule 434 under the Securities Act, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading; or (ii) upon any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus or the Prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; or (iii) in whole or in part upon any inaccuracy in the representations and warranties of the Company contained herein; or (iv) in whole or in part upon any failure of the Company to perform its obligations hereunder or under law; or (v) any act or failure to act or any alleged act or failure to act by any Underwriter in connection with, or relating in any manner to, the Shares or the offering contemplated hereby, and which is included as part of or referred to in any loss, claim, damage, liability, action or expense arising out of or based upon any matter covered by clause (i), (ii), (iii) or (iv) above, provided that the Company shall not be liable under this clause (v) to the extent that a court of competent jurisdiction shall have determined by a final judgment that such loss, claim, damage, liability or action resulted directly from any such acts or failures to act undertaken or omitted to be taken by such Underwriter through its bad faith or willful misconduct; and to reimburse each Underwriter and each such controlling person for any and all expenses (including the fees and disbursements of counsel chosen by BancBoston Robertson Stephens Inc.) as such expenses are reasonably incurred by such Underwriter or such controlling person in connection with

17

18

investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action; provided, however, that the foregoing indemnity agreement shall not apply to any loss, claim, damage, liability or expense to the extent, but only to the extent, arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with written information furnished to the Company by the Representatives expressly for use in the Registration Statement, any preliminary prospectus or the Prospectus (or any amendment or supplement thereto); and provided, further, that with respect to any preliminary prospectus, the foregoing indemnity agreement shall not inure to the benefit of any Underwriter from whom the person asserting any loss, claim, damage, liability or expense purchased Shares, or any person controlling such Underwriter, if copies of the Prospectus were timely delivered to the Underwriter pursuant to Section 2 and a copy of the Prospectus (as then amended or supplemented if the Company shall have furnished any amendments or supplements thereto) was not sent or given by or on behalf of such Underwriter to such person, if required by law so to have been delivered, at or prior to the written confirmation of the sale of the Shares to such person, and if the Prospectus (as so amended or supplemented) would have cured the defect giving rise to such loss, claim, damage, liability or expense. The indemnity agreement set forth in this Section 7(a) shall be in addition to any liabilities that the Company may otherwise have. Notwithstanding the foregoing, any amounts to be paid by an indemnifying party shall be offset by any amounts paid to the indemnified parties pursuant to the insurance described in Section 1(z).

(b) Indemnification of the Company, its Directors and Officers. Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Securities Act or the Exchange Act, against any loss, claim, damage, liability or expense, as incurred, to which the Company, or any such director, officer or controlling person may become subject, under the Securities Act, the Exchange Act, or other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, if such

settlement is effected with the written consent of such Underwriter), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon any untrue or alleged untrue statement of a material fact contained in the Registration Statement, any preliminary prospectus or the Prospectus (or any amendment or supplement thereto), or arises out of or is based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, any preliminary prospectus, the Prospectus (or any amendment or supplement thereto), in reliance upon and in conformity with written information furnished to the Company by the Representatives expressly for use therein; and to reimburse the Company, or any such director, officer or controlling person for any legal and other expense reasonably incurred by the Company, or any such director, officer, or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action. The indemnity agreement set forth in this Section 7(b) shall be in addition to any liabilities that each Underwriter may otherwise have.

(c) Information Provided by the Underwriters. The Company hereby acknowledges that the only information that the Underwriters have furnished to the Company expressly for use in the Registration Statement, any preliminary prospectus or the Prospectus (or any amendment or supplement thereto) are the statements set forth in the table in the first paragraph, the

18

19
second paragraph and the [_____] paragraph under the caption "Underwriting" in the Prospectus; and the Underwriters confirm that such statements are correct.

(d) Notifications and Other Indemnification Procedures. Promptly after receipt by an indemnified party under this Section 7 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party under this Section 7, notify the indemnifying party in writing of the commencement thereof, but the omission so to notify the indemnifying party will not relieve it from any liability which it may have to any indemnified party for contribution or otherwise than under the indemnity agreement contained in this Section 7 or to the extent it is not prejudiced as a proximate result of such failure. In case any such action is brought against any indemnified party and such indemnified party seeks or intends to seek indemnity from an indemnifying party, the indemnifying party will be entitled to participate in, and, to the extent that it shall elect, jointly with all other indemnifying parties similarly notified, by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; provided, however, if the defendants in any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded on advice of counsel that a conflict may arise between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of such indemnifying party's election so to assume the defense of such action and approval by the indemnified party of counsel, the indemnifying party will not be liable to such indemnified party under this Section 7 for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless (i) the indemnified party shall have employed separate counsel in accordance with the proviso to the next preceding sentence

(it being understood, however, that the indemnifying party shall not be liable for the expenses of more than one separate counsel (together with local counsel), approved by the indemnifying party (BancBoston Robertson Stephens Inc. in the case of Section 7(b) and Section 8), representing the indemnified parties who are parties to such action), (ii) the indemnifying party shall not have employed counsel satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of commencement of the action, or (iii) the indemnifying party has authorized the employment of counsel for the indemnified party at the expense of the indemnifying party, in each of which cases the fees and expenses of counsel shall be at the expense of the indemnifying party.

(e) Settlements. The indemnifying party under this Section 7 shall not be liable for any settlement of any proceeding effected without its written consent, which consent shall not be unreasonably withheld, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by Section 7(d) hereof, the indemnifying party agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior

19

20

written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is or could have been a party and indemnity was or could have been sought hereunder by such indemnified party, unless such settlement, compromise or consent includes (i) an unconditional release of such indemnified party from all liability on claims that are the subject matter of such action, suit or proceeding and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party.

(f) Contribution. If the indemnification provided for in this Section 7 is unavailable to or insufficient to hold harmless an indemnified party under Section 7(a) or (b) above in respect of any losses, claims, damages or liabilities (or actions or proceedings in respect thereof) then each indemnifying party shall contribute to the aggregate amount paid or payable by such indemnified party in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Shares. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on one hand and the Underwriters on the other hand in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities, (or actions or proceedings in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriter on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bears to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on one hand or the Underwriters

on the other hand and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 7(f) were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 7(f). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions or proceedings in respect thereof) referred to above in this Section 7(f) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim after taking into account amounts paid pursuant to the insurance described in Section 1(z). Notwithstanding the provisions of this subsection (f), (i) no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions applicable to the Shares purchased by such Underwriter and (ii) no person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this Section 7(f) to contribute are several in proportion to their respective underwriting obligations and not joint.

(g) Timing of Any Payments of Indemnification. Any losses, claims, damages, liabilities or expenses for which an indemnified party is entitled to indemnification or contribution under this Section 7 shall be paid by the indemnifying party to the indemnified party as such

20

21

losses, claims, damages, liabilities or expenses are incurred, but in all cases, no later than thirty (30) days of invoice to the indemnifying party.

(h) Survival. The indemnity and contribution agreements contained in this Section 7 and the representation and warranties of the Company set forth in this Agreement shall remain operative and in full force and effect, regardless of (i) any investigation made by or on behalf of any Underwriter or any person controlling any Underwriter, the Company, its directors or officers or any persons controlling the Company, (ii) acceptance of any Shares and payment therefor hereunder, and (iii) any termination of this Agreement. A successor to any Underwriter, or to the Company, its directors or officers, or any person controlling the Company, shall be entitled to the benefits of the indemnity, contribution and reimbursement agreements contained in this Section 7.

(i) Acknowledgements of Parties. The parties to this Agreement hereby acknowledge that they are sophisticated business persons who were represented by counsel during the negotiations regarding the provisions hereof including, without limitation, the provisions of this Section 7, and are fully informed regarding said provisions. They further acknowledge that the provisions of this Section 7 fairly allocate the risks in light of the ability of the parties to investigate the Company and its business in order to assure that adequate disclosure is made in the Registration Statement and Prospectus as required by the Securities Act and the Exchange Act.

SECTION 8. DEFAULT OF ONE OR MORE OF THE SEVERAL UNDERWRITERS. If, on the First Closing Date or the Second Closing Date, as the case may be, any one or more of the several Underwriters shall fail or refuse to purchase Shares that it or they have agreed to purchase hereunder on such date, and the aggregate number of Common Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase does not exceed 10% of the aggregate number of the Shares to be purchased on such date, the other Underwriters shall be obligated, severally, in the proportions that the number of Firm Common Shares set forth opposite their respective names on Schedule A bears to the aggregate number of Firm Shares set forth opposite the names of all such non-defaulting

Underwriters, or in such other proportions as may be specified by the Representatives with the consent of the non-defaulting Underwriters, to purchase the Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date. If, on the First Closing Date or the Second Closing Date, as the case may be, any one or more of the Underwriters shall fail or refuse to purchase Shares and the aggregate number of Shares with respect to which such default occurs exceeds 10% of the aggregate number of Shares to be purchased on such date, and arrangements satisfactory to the Representatives and the Company for the purchase of such Shares are not made within 48 hours after such default, this Agreement shall terminate without liability of any party to any other party except that the provisions of Section 4, and Section 7 shall at all times be effective and shall survive such termination. In any such case either the Representatives or the Company shall have the right to postpone the First Closing Date or the Second Closing Date, as the case may be, but in no event for longer than seven days in order that the required changes, if any, to the Registration Statement and the Prospectus or any other documents or arrangements may be effected.

As used in this Agreement, the term "Underwriter" shall be deemed to include any person substituted for a defaulting Underwriter under this Section 8. Any action taken under this Section 8 shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

21

22

SECTION 9. TERMINATION OF THIS AGREEMENT. Prior to the First Closing Date, this Agreement may be terminated by the Representatives by notice given to the Company if at any time (i) trading or quotation in any of the Company's securities shall have been suspended or limited by the Commission or by the Nasdaq Stock Market, or trading in securities generally on either the Nasdaq Stock Market or the New York Stock Exchange shall have been suspended or limited, or minimum or maximum prices shall have been generally established on any of such stock exchanges by the Commission or the National Association of Securities Dealers, LLC; (ii) a general banking moratorium shall have been declared by any of federal, New York or California authorities; (iii) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity, or any change in the United States or international financial markets, or any substantial change or development involving a prospective change in United States' or international political, financial or economic conditions, as in the judgment of the Representatives is material and adverse and makes it impracticable or inadvisable to market the Common Shares in the manner and on the terms described in the Prospectus or to enforce contracts for the sale of securities; (iv) in the judgment of the Representatives there shall have occurred any Material Adverse Change; or (v) the Company shall have sustained a loss by strike, fire, flood, earthquake, accident or other calamity of such character as in the judgment of the Representatives may interfere materially with the conduct of the business and operations of the Company regardless of whether or not such loss shall have been insured. Any termination pursuant to this Section 9 shall be without liability on the part of (a) the Company to any Underwriter, except that the Company shall be obligated to reimburse the expenses of the Representatives and the Underwriters pursuant to Sections 5 and 6 hereof, (b) any Underwriter to the Company, or (c) of any party hereto to any other party except that the provisions of Section 7 shall at all times be effective and shall survive such termination.

SECTION 10. REPRESENTATIONS AND INDEMNITIES TO SURVIVE DELIVERY. The respective indemnities, agreements, representations, warranties and other statements of the Company, of its officers and of the several Underwriters set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of any Underwriter or the Company or any of its or their partners, officers or directors or any controlling person as the case may be, and will survive delivery of and payment

for the Shares sold hereunder and any termination of this Agreement.

SECTION 11. NOTICES. All communications hereunder shall be in writing and shall be mailed, hand delivered or telecopied and confirmed to the parties hereto as follows:

If to the Representatives:

BANCBOSTON ROBERTSON STEPHENS INC.
555 California Street
San Francisco, California 94104
Facsimile: (415) 676-2696
Attention: General Counsel

If to the Company:

OnDisplay, Inc.
12667 Alcosta Boulevard, Suite 300
San Ramon, CA 94583
Facsimile: (925) 355-3222
Attention: Chief Financial Officer

22

23

With a copy to:

Wilson Sonsini Goodrich & Rosati, P.C.
650 Page Mill Road
Palo Alto, CA 94304
Attention: Mario Rosati

Any party hereto may change the address for receipt of communications by giving written notice to the others.

SECTION 12. SUCCESSORS. This Agreement will inure to the benefit of and be binding upon the parties hereto, including any substitute Underwriters pursuant to Section 9 hereof, and to the benefit of the employees, officers and directors and controlling persons referred to in Section 7, and to their respective successors, and no other person will have any right or obligation hereunder. The term "successors" shall not include any purchaser of the Shares as such from any of the Underwriters merely by reason of such purchase.

SECTION 13. PARTIAL UNENFORCEABILITY. The invalidity or unenforceability of any Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

SECTION 14. GOVERNING LAW PROVISIONS.

(a) Governing Law. This agreement shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state.

(b) Consent to Jurisdiction. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby ("Related Proceedings") may be instituted in the federal courts of the United States of America located in the City and County of San Francisco or the courts of the State of California located in the City and County of San Francisco (collectively, the "Specified Courts"), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court (a "Related

Judgment"), as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party's address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum. Each party not located in the United States irrevocably appoints CT Corporation System, which currently maintains a San Francisco office at 49 Stevenson Street, San Francisco, California 94105, United States of America, as its agent to receive service of process or other legal summons for purposes of any such suit, action or proceeding that may be instituted in any state or federal court in the City and County of San Francisco.

(c) Waiver of Immunity. With respect to any Related Proceeding, each party irrevocably waives, to the fullest extent permitted by applicable law, all immunity (whether on the

23

24

basis of sovereignty or otherwise) from jurisdiction, service of process, attachment (both before and after judgment) and execution to which it might otherwise be entitled in the Specified Courts, and with respect to any Related Judgment, each party waives any such immunity in the Specified Courts or any other court of competent jurisdiction, and will not raise or claim or cause to be pleaded any such immunity at or in respect of any such Related Proceeding or Related Judgment, including, without limitation, any immunity pursuant to the United States Foreign Sovereign Immunities Act of 1976, as amended.

SECTION 15. GENERAL PROVISIONS. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. This Agreement may be executed in two or more counterparts, each one of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The Table of Contents and the Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

[The remainder of this page has been intentionally left blank.]

24

25

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company the enclosed copies hereof, whereupon this instrument, along with all counterparts hereof, shall become a binding agreement in accordance with its terms.

Very truly yours,

ONDISPLAY, INC.

By: _____

Mark Pine,
Chief Executive Officer

The foregoing Underwriting Agreement is hereby confirmed and accepted by the Representatives as of the date first above written.

BANCBOSTON ROBERTSON STEPHENS INC.
DEUTSCHE BANC ALEX. BROWN INCORPORATED
SG COWEN SECURITIES CORPORATION

On their behalf and on behalf of each of the several underwriters named in Schedule A hereto.

BY BANCBOSTON ROBERTSON STEPHENS INC.

By: _____
Authorized Signatory

25

26

SCHEDULE A

<TABLE>
<CAPTION>

UNDERWRITERS	NUMBER OF FIRM COMMON SHARES TO BE PURCHASED
BANCBOSTON ROBERTSON STEPHENS INC.....	[___]
DEUTSCHE BANC ALEX. BROWN INCORPORATED.....	[___]
SG COWEN SECURITIES CORPORATION.....	[___]
Total.....	[___]

</TABLE>

A-1

27

EXHIBIT A

LOCK-UP AGREEMENT

LOCK-UP AGREEMENT

_____, 1999
BancBoston Robertson Stephens Inc.
Deutsche Banc Alex. Brown Incorporated
SG Cowen Securities Corporation
As Representatives of the Several Underwriters
555 California Street
San Francisco, CA 94104

Ladies and Gentlemen:

The undersigned understands that you, as Representatives of the several underwriters (the "Underwriters"), propose to enter into an Underwriting Agreement (the "Underwriting Agreement") with OnDisplay, Inc. (the "Company") providing for the initial public offering (the "Public Offering") by the Underwriters, including yourselves, of Common Stock of the Company (the "Common Stock") pursuant to the Company's Registration Statement on Form S-1 to be filed with the Securities and Exchange Commission on or about the week of September 10, 1999 (the "Registration Statement").

In consideration of the Underwriters' agreement to purchase and make the Public Offering of the Common Stock, and for other good and valuable consideration, receipt of which is hereby acknowledged, the undersigned hereby agrees, for a period of 180 days after the effective date of the Registration Statement (the "Lock-Up Period"), not to offer to sell, contract to sell or otherwise sell, dispose of, loan, pledge or grant any rights with respect to (collectively, a "Disposition") any shares of Common Stock, any options or warrants to purchase any shares of Common Stock or any securities convertible into or exchangeable for shares of Common Stock (collectively, "Securities"), now owned or hereafter acquired directly by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition, otherwise than (i) as a bona fide gift or gifts, provided the donee or donees thereof agree to be bound by this Lock-Up Agreement, (ii) as a distribution to limited partners or shareholders of the undersigned, provided that the distributees thereof agree in writing to be bound by the terms of this Lock-Up Agreement or (iii) with the prior written consent of BancBoston Robertson Stephens. The foregoing restriction is expressly agreed to preclude the holder of the Securities from engaging in any hedging or other transaction which is designed to or reasonably expected to lead to or result in a Disposition of Securities during the Lock-Up Period even if such Securities would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale (whether or not against the box) or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any Securities or with respect to any security (other than a broad-based market basket or index) that includes, relates to or derives any significant part of its value from Securities. Notwithstanding the foregoing, this Lock-Up Agreement does not prohibit the sale of shares of the Common Stock by the undersigned to the Underwriters in the Public Offering.

Furthermore, the undersigned hereby agrees and consents to the entry of stop transfer instructions with the Company's transfer agent against the transfer of the Securities held by the undersigned except in compliance with this Lock-Up Agreement. In the event that

the Registration Statement shall not have been declared effective on or before March 31, 1999 this Lock-Up Agreement shall be of no further force or effect.

Very truly yours,

(signature)

Name: -----

Address: -----

Accepted as of the date
first set forth above:
BancBoston Robertson Stephens Inc.
Deutsche Banc Alex. Brown Incorporated
SG Cowen Securities Corporation
As Representatives of
the Several Underwriters

BancBoston Robertson Stephens

By: -----

Name:

The Company requests that this Lock-Up Agreement be completed and delivered to underwriters' counsel, Brobeck, Phleger & Harrison LLP, Attn: Alan C. Wang.

A-3

EXHIBIT B

MATTERS TO BE COVERED IN THE OPINION OF COMPANY COUNSEL

(i) The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation;

(ii) The Company has the corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Prospectus;

(iii) The Company is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction, if any, in which the ownership or leasing of its properties or the conduct of its business requires such qualification, except where the failure to be so qualified or be in good standing would not have a Material Adverse Effect. To such counsel's knowledge, the Company does not, directly or

indirectly, own any voting security of or equity interest in, or control, any corporation, association or other entity;

(iv) The authorized, issued and outstanding capital stock of the Company is as set forth in the Prospectus under the caption "Capitalization" as of the dates stated therein, the issued and outstanding shares of capital stock of the Company have been duly and validly issued and are fully paid and nonassessable, and, to such counsel's knowledge, will not have been issued in violation of or subject to any preemptive right, co-sale right, registration right, right of first refusal or other similar right;

(v) The Firm Shares or the Option Shares, as the case may be, to be issued by the Company pursuant to the terms of this Agreement have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms hereof, will be duly and validly issued and fully paid and nonassessable, and will not have been issued in violation of or subject to any preemptive right, co-sale right, registration right, right of first refusal or other similar right;

(vi) The Company has the corporate power and authority to enter into this Agreement and to issue, sell and deliver to the Underwriters the Shares to be issued and sold by it hereunder;

(vii) This Agreement has been duly authorized by all necessary corporate action on the part of the Company and has been duly executed and delivered by the Company and, assuming due authorization, execution and delivery by you, is a valid and binding agreement of the Company, enforceable in accordance with its terms, except as rights to indemnification hereunder may be limited by applicable law and except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or affecting creditors' rights generally or by general equitable principles;

(viii) The Registration Statement has become effective under the Act and, to such counsel's knowledge, no stop order suspending the effectiveness of the Registration Statement has been issued and no proceedings for that purpose have been instituted or are pending or threatened under the Securities Act;

(ix) The 8-A Registration Statement complied as to form in all material respects with the requirements of the Exchange Act; the 8-A Registration Statement has become

B-1

31

effective under the Exchange Act; and the Firm Shares or the Option Shares have been validly registered under the Securities Act and the Rules and Regulations of the Exchange Act and the applicable rules and regulations of the Commission thereunder;

(x) The Registration Statement and the Prospectus, and each amendment or supplement thereto (other than the financial statements (including supporting schedules) and financial data derived therefrom as to which such counsel need express no opinion), as of the effective date of the Registration Statement, complied as to form in all material respects with the requirements of the Act and the applicable Rules and Regulations;

(xi) The information in the Prospectus under the caption "Description of Capital Stock," to the extent that it constitutes matters of law or legal conclusions, has been reviewed by such counsel and is a fair summary of such matters and conclusions; and the forms of certificates evidencing the Common Stock and filed as exhibits to the Registration

Statement comply with Delaware law;

(xii) The description in the Registration Statement and the Prospectus of the charter and bylaws of the Company and of statutes are accurate and fairly present the information required to be presented by the Securities Act;

(xiii) To such counsel's knowledge, there are no agreements, contracts, leases or documents to which the Company is a party of a character required to be described or referred to in the Registration Statement or Prospectus or to be filed as an exhibit to the Registration Statement which are not described or referred to therein or filed as required;

(xiv) The performance of this Agreement and the consummation of the transactions herein contemplated (other than performance of the Company's indemnification obligations hereunder, concerning which no opinion need be expressed) will not (a) result in any violation of the Company's charter or bylaws or (b) to such counsel's knowledge, result in a material breach or violation of any of the terms and provisions of, or constitute a default under, any bond, debenture, note or other evidence of indebtedness, or any lease, contract, indenture, mortgage, deed of trust, loan agreement, joint venture or other agreement or instrument known to such counsel to which the Company is a party or by which its properties are bound, or any applicable statute, rule or regulation known to such counsel or, to such counsel's knowledge, any order, writ or decree of any court, government or governmental agency or body having jurisdiction over the Company, or over any of its properties or operations;

(xv) No consent, approval, authorization or order of or qualification with any court, government or governmental agency or body having jurisdiction over the Company, or over any of its properties or operations is necessary in connection with the consummation by the Company of the transactions herein contemplated, except (i) such as have been obtained under the Securities Act, (ii) such as may be required under state or other securities or Blue Sky laws in connection with the purchase and the distribution of the Shares by the Underwriters, (iii) such as may be required by the National Association of Securities Dealers, LLC and (iv) such as may be required under the federal or provincial laws of Canada;

(xvi) To such counsel's knowledge, there are no legal or governmental proceedings pending or threatened against the Company of a character required to be disclosed in

B-2

32

the Registration Statement or the Prospectus by the Securities Act, other than those described therein;

(xvii) To such counsel's knowledge, the Company is not presently (a) in material violation of its charter or bylaws, or (b) in material breach of any applicable statute, rule or regulation known to such counsel or, to such counsel's knowledge, any order, writ or decree of any court or governmental agency or body having jurisdiction over the Company, or over any of its properties or operations;

(xviii) To such counsel's knowledge, except as set forth in the Registration Statement and Prospectus no holders of Company Shares or other securities of the Company have registration rights with respect to securities of the Company and, except as set forth in the Registration Statement and Prospectus, all holders of securities of the Company having rights known to such counsel to registration of such shares of Company Shares or other securities, because of the filing of the

Registration Statement by the Company have, with respect to the offering contemplated thereby, waived such rights or such rights have expired by reason of lapse of time following notification of the Company's intent to file the Registration Statement or have included securities in the Registration Statement pursuant to the exercise of and in full satisfaction of such rights;

(xix) The Company is not and, after giving effect to the offering and the sale of the Shares and the application of the proceeds thereof as described in the Prospectus, will not be, an "investment company" as such term is defined in the Investment Company Act of 1940, as amended;

(xx) To such counsel's knowledge, the Company owns or possesses sufficient trademarks, trade names, patent rights, copyrights, licenses, approvals, trade secrets and other similar rights (collectively, "Intellectual Property Rights") reasonably necessary to conduct their business as now conducted; and the expected expiration of any such Intellectual Property Rights would not result in a Material Adverse Effect; the Company has not received any notice of infringement or conflict with asserted Intellectual Property Rights of others, which infringement or conflict, if the subject of an unfavorable decision, would result in a Material Adverse Effect; to such counsel's knowledge, the Company's discoveries, inventions, products, or processes referred to in the Registration Statement or Prospectus do not infringe or conflict with any right or patent which is the subject of a patent application known to the Company; and

(xxi) In addition, such counsel shall state that such counsel has participated in conferences with officials and other representatives of the Company, the Representatives, Underwriters' Counsel and the independent certified public accountants of the Company, at which such conferences the contents of the Registration Statement and Prospectus and related matters were discussed, and although they have not verified the accuracy or completeness of the statements contained in the Registration Statement or the Prospectus, nothing has come to the attention of such counsel which leads them to believe that, at the time the Registration Statement became effective and at all times subsequent thereto up to and on the First Closing Date or Second Closing Date, as the case may be, the Registration Statement and any amendment or supplement thereto (other than the financial statements including supporting schedules and other financial and statistical information derived therefrom, as to which such counsel need express no comment) contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary

B-3

33

to make the statements therein not misleading, or at the First Closing Date or the Second Closing Date, as the case may be, the Registration Statement, the Prospectus and any amendment or supplement thereto (except as aforesaid) contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

B-4

34

EXHIBIT C

MATTERS TO BE COVERED IN THE OPINION OF UNDERWRITERS' COUNSEL

(i) The Firm Shares have been duly authorized and, upon issuance and

delivery and payment therefor in accordance with the terms of the Underwriting Agreement, will be validly issued, fully paid and non-assessable;

(ii) The Registration Statement complied as to form in all material respects with the requirements of the Act; the Registration Statement has become effective under the Act and, to such counsel's knowledge, no stop order proceedings with respect thereto have been instituted or threatened or are pending under the Securities Act;

(iii) The 8-A Registration Statement complied as to form in all material respects with the requirements of the Exchange Act; the 8-A Registration Statement has become effective under the Exchange Act; and the Firm Shares or the Option Shares have been validly registered under the Securities Act and the Rules and Regulations of the Exchange Act and the applicable rules and regulations of the Commission thereunder; and

(iv) The Underwriting Agreement has been duly authorized, executed and delivered by the Company.

Such counsel shall state that such counsel has reviewed the opinions addressed to the Representatives from Wilson Sonsini Goodrich & Rosati, P.C., each dated the date hereof, and furnished to you in accordance with the provisions of the Underwriting Agreement. Such opinion appears on its face to be appropriately responsive to the requirements of the Underwriting Agreement.

In addition, such counsel shall state that such counsel has participated in conferences with officials and other representatives of the Company, the Representatives, Underwriters' Counsel and the independent certified public accountants of the Company, at which such conferences the contents of the Registration Statement and Prospectus and related matters were discussed, and although they have not verified the accuracy or completeness of the statements contained in the Registration Statement or the Prospectus, nothing has come to the attention of such counsel which leads them to believe that, at the time the Registration Statement became effective and at all times subsequent thereto up to and on the First Closing Date or Second Closing Date, as the case may be, the Registration Statement and any amendment or supplement thereto (other than the financial statements including supporting schedules and other financial and statistical information derived therefrom, as to which such counsel need express no comment) contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading, or at the First Closing Date or the Second Closing Date, as the case may be, the Registration Statement, the Prospectus and any amendment or supplement thereto (except as aforesaid) contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

RESTATED CERTIFICATE OF INCORPORATION

OF

ONDISPLAY, INC.

A DELAWARE CORPORATION

OnDisplay, Inc., a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

A. The name of the Corporation is OnDisplay, Inc. The Corporation was originally incorporated under the same name and the original Certificate of Incorporation of the Corporation was filed with the Delaware Secretary of State on August 14, 1996.

B. Pursuant to Sections 242 and 245 of the General Corporation Law of the State of Delaware, this Restated Certificate of Incorporation restates and amends the provisions of the Certificate of Incorporation of this Corporation.

C. The text of the Certificate of Incorporation is hereby amended and restated in its entirety to read as follows:

ONE. The name of this Corporation is OnDisplay, Inc. (the "Corporation").

TWO. The address of the Corporation's registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle, Zip Code 19801. The name of its registered agent at such address is The Corporation Trust Company.

THREE. The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware.

FOUR. The Corporation is authorized to issue two classes of capital stock: Preferred Stock, \$0.001 par value per share, and Common Stock, \$0.001 par value per share. The total number of shares of Common Stock which the Corporation shall have the authority to issue is Twenty Five Million (25,000,000). The total number of shares of Preferred Stock the Corporation shall have the authority to issue is Eleven Million Six Hundred Thousand (11,600,000) shares, Three Million Five Hundred Thousand (3,500,000) of which has been designated Series A Preferred Stock, Three Million Five Hundred Thousand (3,500,000) of which has been designated Series B Preferred Stock, Two Million Five Hundred Thousand (2,500,000) of which has been designated Series C Preferred Stock and Two

Million One Hundred Thousand (2,100,000) of which has been designated Series D Preferred Stock.

2

The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Preferred Stock. If at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

The relative powers, preferences, special rights, qualifications, limitations and restrictions granted to or imposed on the respective classes of the shares of capital stock or the holders thereof are as follows:

1. Dividends.

a. Dividends on Preferred Stock. The holders of the Preferred Stock shall be entitled to receive, when, as and if declared by the board of directors, out of any funds legally available therefor, dividends at an annual rate of eight per cent (8%) per share of the "Original Issue Price" per annum on each outstanding share of a series of Preferred Stock. The Original Issue Price of the Series A Preferred Stock shall be One Dollar (\$1.00) (as adjusted for any stock dividend, stock splits, recapitalization, reorganizations and other similar transactions); the Original Issue Price of the Series B Preferred Stock shall be Two Dollars and Ten Cents (\$2.10) (as adjusted for any stock dividend, stock splits, recapitalization, reorganizations and other similar transactions), the Original Issue Price of the Series C Preferred Stock shall be Four Dollars (\$4.00) (as adjusted for any stock dividend, stock splits, recapitalization, reorganizations and other similar transactions) and the Original Issue Price of the Series D Preferred Stock shall be Nine Dollars and Fifty Two Cents (\$9.52) (as adjusted for any stock dividend, stock splits, recapitalization, reorganizations and other similar transactions). Dividends on the Preferred Stock shall be payable in preference and prior to any payment of any dividend on the Common Stock. Thereafter, holders of Preferred Stock and Common Stock shall be entitled to receive, when, as and if declared by the board of directors, out of any funds legally available therefor, dividends; provided, however, that no dividend or distribution shall be declared or paid on any shares of Common Stock or Preferred Stock unless at the same time an equivalent dividend or distribution is declared or paid on all outstanding shares of Common Stock and Preferred Stock, and provided further that any dividend or distribution on Preferred Stock shall be payable at the same rate per share as would be payable on the shares of Common Stock which the holder of Preferred Stock would be

entitled to receive if he had converted the shares of Preferred Stock into Common Stock immediately prior to the record date of such distribution. "Distribution" in this Section 1 means the transfer of cash or property without consideration, whether by way of dividend or otherwise or the purchase or redemption of shares of the Corporation for cash or property (except the purchase of shares of Common Stock from employees, directors or consultants pursuant to restricted stock purchase agreements). The right to dividends on shares of Common Stock and Preferred Stock shall not be cumulative, and no right shall accrue to holders of Common

-2-

3

Stock or Preferred Stock by reason of the fact that dividends on said shares are not declared in any prior period.

2. Liquidation Preference. In the event of any liquidation, dissolution, or winding up of the Corporation, either voluntary or involuntary, distributions to the stockholders of the Corporation shall be made in the following manner:

a. Preferred Stock Preference. The holders of Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets or surplus funds of the Corporation to the holders of the Common Stock by reason of their ownership of such shares, an amount equal to the Original Issue Price for each share of a series of Preferred Stock plus an amount equal to any declared but unpaid dividends per share of Preferred Stock with respect to such liquidation, dissolution or winding up. If the assets and funds thus distributed among the holders of the Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amount, then the entire assets and funds of the Corporation legally available for distribution shall be distributed on a pro rata basis among the holders of the Preferred Stock in proportion to the aggregate liquidation preference of the shares of Preferred Stock then held by them.

b. Remaining Assets. If the assets of the Corporation available for distribution to the Corporation's stockholders exceed the aggregate amount payable to the holders of the Preferred Stock pursuant to Section 2(a) hereof (such assets being hereafter referred to as the "Remaining Assets"), then after the payments required by Section 2(a) shall have been made or irrevocably set apart, such Remaining Assets shall be distributed pro rata among the holders of the Preferred Stock and the Common Stock on a per share basis, treating all shares of Preferred Stock convertible into shares of Common Stock as if converted; provided, however, that after the receipt by each share of Preferred Stock of distributions equal to, in the aggregate, the greater of (i) three (3) times the Original Purchase Price for the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock (including all amounts paid pursuant to Section 2(a)) and two (2) times the Original Purchase Price for the Series D Preferred Stock (including all amounts paid pursuant to Section 2(a)); or (ii) the value such holders of Series A Preferred Stock, Series B Preferred

Stock, Series C Preferred Stock or Series D Preferred Stock would receive, respectively, if each outstanding share of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Series D Preferred Stock had been converted into Common Stock pursuant to Section 5(a) hereof immediately prior to such liquidation, dissolution or winding up of the corporation; then all Remaining Assets shall be distributed equally among the holders of the Common Stock on a per-share basis.

c. Reorganization or Merger. A merger or reorganization of the Corporation with or into any other corporation or corporations or a sale of all or substantially all of the assets or outstanding stock of the Corporation, in which transaction the Corporation's stockholders immediately prior to such transaction own immediately after such transaction less than 50% of the equity securities of the surviving corporation or its parent, shall be deemed to be a liquidation within the meaning of this Section 2 and the proceeds payable in such transaction shall be divided among the stockholders in accordance with this Section 2; provided that the holders of Preferred Stock and

-3-

4

Common Stock shall be paid in cash or in securities received or in a combination thereof (which combination shall be in the same proportions as the consideration received in the transaction). Any securities to be delivered to the holders of the Preferred Stock and Common Stock upon a merger, reorganization or sale of substantially all of the assets of the Corporation shall be valued as follows:

(i) If traded on a securities exchange, the value shall be deemed to be the average of the closing prices of the securities on such exchange over the 30-day period ending three (3) business days prior to the closing;

(ii) If actively traded over-the counter, the value shall be deemed to be the average of the closing bid prices over the 30-day period ending three (3) business days prior to the closing; and

(iii) If there is no active public market, the value shall be the fair market value thereof, as mutually determined by the Corporation and the holders of not less than a majority of the outstanding shares of Preferred Stock, provided that if the Corporation and the holders of a majority of the outstanding shares of Preferred Stock are unable to reach agreement, then by independent appraisal by an investment banker hired and paid by the Corporation, but acceptable to the holders of a majority of the outstanding shares of Preferred Stock.

3. Redemption Rights.

a. Redemption at the Holders' Option. The Preferred Stock shall be

redeemable in whole or in part at the option of the holders of a majority of the outstanding shares of Preferred Stock (voting together as a single class) at any time and from time to time after September 30, 2001 if the Corporation has not closed an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock for the account of the Corporation with an aggregate offering price to the public of not less than \$20,000,000 at a per share issuance price of at least \$15.00, (as adjusted for stock splits, subdivisions, combinations, recapitalizations, reorganizations). Notwithstanding the prior sentence, the Series C Preferred Stock shall not be redeemed without the prior approval by a majority of the holders of Series C Preferred Stock and the Series D Preferred Stock shall not be redeemed without the prior approval by a more than two thirds (2/3) of the holders of Series D Preferred Stock. Such redemption right may be exercised by giving at least 120 day notice prior to the date of commencement of the redemption (the "Redemption Date") by certified or registered mail, postage prepaid, to the Corporation at its principal office. After receipt of such notice of a redemption pursuant to this Section 3(a), the Corporation shall, to the extent it may lawfully do so and to the extent such redemption will not be violative of senior lending covenants, redeem all of the outstanding shares of Preferred Stock in three equal annual installments on the last day of each fiscal year (commencing with the first fiscal year ending after the 120 day notice period). The Redemption Price of the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock shall be the Original Purchase Price per share for such series (as adjusted for any stock dividends, combinations or splits) plus any accrued but unpaid dividends. Any redemption of

-4-

5

only a part of the outstanding Preferred Stock by the Corporation pursuant to this Section 3 shall be pro rata as among all holders of Preferred Stock in proportion to the aggregate Redemption Price to be paid to such holders.

b. Notice Regarding Redemption. At least thirty (30) but no more than sixty (60) days prior to any Redemption Date, written notice shall be mailed, postage prepaid, to each holder of record (determined at the close of business on the business day next preceding the day on which notice is given) of Preferred Stock to be redeemed, at his post office address last shown on the records of the Corporation, notifying such holder of the redemption of such shares, specifying the Redemption Date, the Redemption Price and the date on which such holder's Conversion Rights (as hereinafter defined) as to such shares terminate (such Conversion Rights to expire on the day prior to the Redemption Date) and calling upon such holder to surrender to the Corporation, in the manner and at the place designated in the continental United States, his certificate or certificates representing the shares to be redeemed (such notice is hereinafter referred to as the "Redemption Notice"). Unless such holder elects to convert his shares in accordance with Section 3 prior to the Redemption Date, on or after the Redemption Date, each holder of Preferred Stock

to be redeemed shall surrender his certificate or certificates representing such shares to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price of such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof and each surrendered certificate shall be canceled. In the event less than all the shares represented by any such certificate are redeemed, a new certificate shall be issued representing the unredeemed shares. If, on or prior to the Redemption Date, the funds necessary for such redemption shall have been set aside by the Corporation and deposited with a bank or trust company, for the benefit of the holders of Preferred Stock whose shares are being redeemed, then from and after the close of business on the Redemption Date, all rights of the holders of such shares as holders of Preferred Stock of the Corporation (except the right to receive the Redemption Price without interest upon surrender of their certificate or certificates) shall cease with respect to such shares, and such shares shall not thereafter be transferred on the books of the Corporation or be deemed to be outstanding for any purpose whatsoever.

c. Trust Fund. On or prior to the Redemption Date, the Corporation shall deposit the Redemption Price of all shares of Preferred Stock designated for redemption in the Redemption Notice and not yet redeemed or converted with a bank or trust company as a trust fund for the benefit of the respective holders of the shares designated for redemption and not yet redeemed or converted. Any monies deposited by the Corporation pursuant to this Section 3(c) for the redemption of shares thereafter converted into shares of Common Stock pursuant to Section 3 hereof no later than the close of business on the Redemption Date shall be returned to the Corporation forthwith upon such conversion. The balance of any monies deposited by the Corporation pursuant to this Section 3(c) remaining unclaimed at the expiration of one (1) year following the Redemption Date shall thereafter be returned to the Corporation upon its request expressed in a resolution of the board of directors of the Corporation, provided that the stockholder to which such monies would be payable hereunder shall be entitled, upon surrender of his certificates representing such shares of Series A Preferred

-5-

6

Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock to the Corporation, to receive such monies but without interest from the Redemption Date.

d. Insufficient Funds. If the funds of the Corporation legally available for redemption of Preferred Stock on any Redemption Date are insufficient to redeem the total number of shares of Preferred Stock to be redeemed on such date, those funds which are legally available will be used to redeem the shares of Preferred Stock ratably among the holders in accordance with the last sentence of Section 3(a). The balance of the redemption funds that are not paid on any Redemption Date shall bear interest from the due date at 8%

per annum. At any time thereafter when additional funds of the Corporation are legally available for the redemption of Preferred Stock, such funds will be immediately used to redeem the balance of the shares of Preferred Stock which the Corporation became obligated to redeem on such Redemption Date but which it has not redeemed.

4. Voting Rights.

a. Preferred Stock. Except as otherwise provided herein or required by law, the holder of each share of Preferred Stock shall be entitled to vote on all matters and shall be entitled to the number of votes equal to the number of shares of Common Stock into which each share of Preferred Stock could be converted pursuant to Section 5 hereof at the record date for the determination of the stockholders entitled to vote on such matters or, if no such record date is established, at the date such vote is taken. Except as otherwise provided herein or required by law, the Preferred Stock shall have voting rights and powers equal to the voting rights and powers of the Common Stock. Fractional votes shall not, however, be permitted and any fractional voting rights resulting from the above formula shall be rounded to the nearest whole number (with one-half rounded upward to one).

b. Election of Directors. The holders of Series A Preferred Stock, voting as a separate class, shall elect two (2) members of the Corporation's board of directors. The holders of Series B Preferred Stock, voting as a separate class, shall elect one (1) member of the Corporation's board of directors. The holders of Common Stock, voting as a separate class, shall elect two (2) members of the Corporation's board of directors. The holders of Common Stock and Preferred Stock, voting together as a class, shall elect the remaining directors. In the case of any vacancy in the office of a director elected by a specific class or series of capital stock, a successor shall be elected to hold office for the unexpired term of such director by the affirmative vote of a majority of the shares of such class or series given at a special meeting of such stockholders duly called or by an action by written consent for that purpose. Any director who shall have been elected by a specified group of stockholders may be removed during the aforesaid term of office, either for or without cause, by, and only by, the affirmative vote of the holders of a majority of the shares of such class or series, given at a special meeting of such stockholders duly called or by an action by written consent for that purpose and any such vacancy thereby created may be filled by the vote of the holders of a majority of the shares of such series or class of capital stock represented at such meeting or in such consent.

-6-

7

c. Common Stock. Each holder of shares of Common Stock shall be entitled to one vote for each share thereof held.

d. Election by Ballot. The election of directors need not be by

written ballot unless the Bylaws of the Corporation shall so provide.

5. Conversion. The holders of the Preferred Stock have conversion rights as follows (the "Conversion Rights"):

a. Right to Convert. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for the Preferred Stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Original Issue Price for such series of Preferred Stock (as defined in Section 1(a)) by the Conversion Price, determined as hereinafter provided, in effect at the time of the conversion (the "Conversion Rate"). The Conversion Price for Series A Preferred Stock shall initially be \$1.00; for Series B Preferred Stock shall initially be \$2.10; for Series C Preferred Stock shall initially be \$4.00; and for Series D Preferred Stock shall initially be \$9.52. Such initial Conversion Prices shall be subject to adjustment as hereinafter provided.

b. Automatic Conversion. Each share of each series of Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Conversion Price of such series immediately prior to the closing of an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock for the account of the Corporation with an aggregate offering price to the public of not less than \$20,000,000 at a per share issuance price of at least \$15.00, (as adjusted for stock splits, subdivisions, combinations, recapitalizations, reorganizations) or at any time upon the affirmative election of the holders of at least 66 2/3% of the outstanding shares of Preferred Stock, provided that the Series A, Series B And Series C Preferred Stock shall not be converted without the majority approval of the holders of such Series and the Series D Preferred Stock shall not be converted without the approval by more than two thirds (2/3) of the holders of the Series D Preferred Stock. Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 5(c). In the event of the automatic conversion of the Preferred Stock upon a public offering as aforesaid, the person(s) entitled to receive the Common Stock issuable upon such conversion of Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities. Notwithstanding the foregoing provisions of this Section 5(b), no automatic conversion of the Preferred Stock shall be effected unless and until such conversion will not violate any laws, rules, regulations, orders or other legal requirements of any governing body (such as, without limitation, compliance with the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended) and such automatic conversion shall be held in abeyance pending compliance with any such requirements, provided that the holders of Preferred Stock will use their best efforts to comply with such requirements.

c. Mechanics of Conversion. Before any holder of Preferred Stock shall be entitled to convert the same into full shares of Common Stock and to receive certificates therefor, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Preferred Stock, and shall give written notice to the Corporation at such office that such holder elects to convert the same; provided, however, that in the event of an automatic conversion pursuant to Section 5(b), the outstanding shares of Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent, and provided further that the Corporation shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such automatic conversion unless the certificates evidencing such shares of Preferred Stock are either delivered to the Corporation or its transfer agent as provided above, or the holder notifies the Corporation or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificates. The Corporation shall, as soon as practicable after such delivery, or such agreement and indemnification in the case of a lost certificate, issue and deliver at such office to such holder of Preferred Stock, a certificate or certificates for the number of shares of Common Stock to which the holder shall be entitled as aforesaid and a check payable to the holder in the amount of any cash amounts payable as the result of a conversion into fractional shares of Common Stock. Thereupon, the Corporation shall promptly pay in cash or, to the extent sufficient funds are not then legally available therefor, in Common Stock (at the Common Stock's fair market value determined by the board of directors of the Corporation as of the date of such conversion), any declared and unpaid dividends on the shares of Preferred Stock being converted. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted, or in the case of automatic conversion on the date of closing of the offering and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date.

d. Fractional Shares. In lieu of any fractional shares to which the holder of Preferred Stock would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective Conversion Price. Whether or not fractional shares are issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock of each holder at the time converting into Common Stock and the number of shares of Common Stock issuable upon such aggregate conversion.

e. Adjustment of Conversion Price. The Conversion Price of each series of Preferred Stock shall be subject to adjustment from time to time as follows:

- (i) If the Corporation shall issue (or, pursuant to

Subsections 5(e)(i)(b)(3) hereof, shall be deemed to have issued) any Common Stock other than "Excluded Stock" (as defined below) for a consideration per share less than the Conversion Price for any series of Preferred Stock in effect immediately prior to the issuance of such Common Stock (excluding stock dividends,

-8-

9

subdivisions, split-ups, combinations, dividends or recapitalizations which are covered by Subsections 5(e)(iii), (iv), (v) and (vi)), the Conversion Price for such series of Preferred Stock in effect immediately after each such issuance shall forthwith (except as provided in this Section 5(e)) be adjusted to a price equal to the quotient obtained by dividing:

a. an amount equal to the sum of

(x) the total number of shares of Common Stock outstanding (including any shares of Common Stock issuable upon conversion of such series of Preferred Stock, or deemed to have been issued pursuant to subdivision (3) of this clause (i) and to clause (ii) below) immediately prior to such issuance multiplied by the Conversion Price for such series of Preferred Stock in effect immediately prior to such issuance, plus

(y) the consideration received by the Corporation upon such issuance, by

b. the total number of shares of Common Stock outstanding immediately prior to such issuance of Common Stock (including any shares of Common Stock issuable upon conversion of such series of Preferred Stock or deemed to have been issued pursuant to subdivision (3) of this clause (i) and to clause (ii) below) plus the number of shares of Common Stock actually issued in the transaction which resulted in the adjustment pursuant to this Subsection 5(e)(i).

For the purposes of any adjustment of the Conversion Price for any series of Preferred Stock pursuant to this clause (i), the following provisions shall be applicable:

(1) In the case of the issuance of Common Stock for cash, the consideration shall be deemed to be the amount of cash paid therefor after deducting any discounts or commissions paid or incurred by the Corporation in connection with the issuance and sale thereof.

(2) In the case of the issuance of Common Stock for a consideration in whole or in part other than cash, the consideration other than cash shall be deemed to be the fair value thereof as mutually determined by the Corporation and the holders of not less than a majority of the outstanding shares of Preferred Stock, provided that if the Corporation and the holders of a majority of the outstanding shares of Preferred Stock are unable to reach

agreement, then by independent appraisal by an investment banker hired and paid by the Corporation, but acceptable to the holders of a majority of the outstanding shares of Preferred Stock.

(3) In the case of the issuance of (i) options to purchase or rights to subscribe for Common Stock (other than Excluded Stock), (ii) securities by their terms convertible into or exchangeable for Common Stock (other than Excluded Stock), or (iii) options to purchase or rights to subscribe for such convertible or exchangeable securities:

-9-

10

(A) the aggregate maximum number of shares of Common Stock deliverable upon exercise of such options to purchase or rights to subscribe for Common Stock shall be deemed to have been issued at the time such options or rights were issued and for a consideration equal to the consideration (determined in the manner provided in subdivisions (1) and (2) above), if any, received by the Corporation upon the issuance of such options or rights plus the minimum purchase price provided in such options or rights for the Common Stock covered thereby;

(B) the aggregate maximum number of shares of Common Stock deliverable upon conversion of or in exchange for any such convertible or exchangeable securities, or upon the exercise of options to purchase or rights to subscribe for such convertible or exchangeable securities and subsequent conversion or exchange thereof, shall be deemed to have been issued at the time such securities were issued or such options or rights were issued and for a consideration equal to the consideration received by the Corporation for any such securities and related options or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the additional minimum consideration, if any, to be received by the Corporation upon the conversion or exchange of such securities or the exercise of any related options or rights (the consideration in each case to be determined in the manner provided in subdivisions (1) and (2) above);

(C) on any change in the number of shares of Common Stock deliverable upon exercise of any such options or rights or conversion of or exchange for such convertible or exchangeable securities, or on any change in the minimum purchase price of such options, rights or securities, other than a change resulting from the antidilution provisions of such options, rights or securities, the Conversion Price shall forthwith be readjusted to such Conversion Price as would have obtained had the adjustment made upon (x) the issuance of such options, rights or securities not exercised, converted or exchanged prior to such change or (y) the options or rights related to such securities not converted or exchanged prior to such change, as the case may be, been made upon the basis of such change; and

(D) on the expiration of any such options or

rights, the termination of any such rights to convert or exchange or the expiration of any options or rights related to such convertible or exchangeable securities, the Conversion Price shall forthwith be readjusted to such Conversion Price as would have obtained had the adjustment made upon the issuance of such options, rights, convertible or exchangeable securities or options or rights relate to such convertible or exchangeable securities, as the case may be, been made upon the basis of the issuance of only the number of shares of Common Stock actually issued upon the exercise of such options or rights, upon the conversion or exchange of such convertible or exchangeable securities or upon the exercise of the options or rights related to such convertible or exchangeable securities, as the case may be.

(ii) "Excluded Stock" shall mean:

-10-

11

(A) all shares of Common Stock and Preferred Stock issued and outstanding on the date this certificate is filed with the Delaware Secretary of State, and all shares of Common Stock issuable upon conversion of such Preferred Stock; and

(B) up to 3,000,000 shares of Common Stock or other securities hereafter issued to officers, directors, consultants, employees, strategic partners, lessors, lenders or licensors of the Corporation pursuant to plans and arrangements approved by the board of directors.

All outstanding shares of Excluded Stock (including shares issuable upon conversion of the Preferred Stock) shall be deemed to be outstanding for all purposes of the computations of Subsections 5(e) (i) above.

(iii) If the number of shares of Common Stock outstanding at any time after the date hereof is increased by a stock dividend payable in shares of Common Stock or by a subdivision or split-up of shares of Common Stock, then, on the date such payment is made or such change is effective, the Conversion Price of each series of Preferred Stock shall be appropriately decreased so that the number of shares of Common Stock issuable on conversion of any shares of each series of Preferred Stock shall be increased in proportion to such increase of outstanding shares.

(iv) If the number of shares of Common Stock outstanding at any time after the date hereof is decreased by a combination of the outstanding shares of Common Stock, then, on the effective date of such combination, the Conversion Price of each series of Preferred Stock shall be appropriately increased so that the number of shares of Common Stock issuable on conversion of any shares of each series of Preferred Stock shall be decreased in proportion to such decrease in outstanding shares.

(v) In case the Corporation shall declare a cash dividend upon its Common Stock payable otherwise than out of retained earnings or shall distribute to holders of its Common Stock shares of its capital stock (other than Common Stock), stock or other securities of other persons, evidences of indebtedness issued by the Corporation or other persons, assets (excluding cash dividends) or options or rights (excluding options to purchase and rights to subscribe for Common Stock or other securities of the Corporation convertible into or exchangeable for Common Stock), then, in each such case, the holders of shares of Preferred Stock shall, concurrent with the distribution to holders of Common Stock, receive a like distribution based upon the number of shares of Common Stock into which Preferred Stock is then convertible.

(vi) In case, at any time after the date hereof, of any capital reorganization, or any reclassification of the stock of the Corporation (other than as a result of a stock dividend or subdivision, split-up or combination of shares), or the consolidation or merger of the Corporation with or into another person (other than a consolidation or merger in which the Corporation is the continuing entity and which does not result in any change in the Common Stock), the shares of Preferred Stock shall, after such reorganization, reclassification, consolidation, merger, sale or other

-11-

12

disposition, be convertible into the kind and number of shares of stock or other securities or property of the Corporation or otherwise to which such holder would have been entitled if immediately prior to such reorganization, reclassification, consolidation, merger, sale or other disposition such holder had converted its shares of Preferred Stock into Common Stock. The provisions of this clause (vi) shall similarly apply to successive reorganizations, reclassifications, consolidations, mergers, sales or other dispositions.

(vii) All calculations under this Section 5 shall be made to the nearest cent or to the nearest one hundredth (1/100) of a share, as the case may be.

f. Minimal Adjustments. No adjustment in the Conversion Price for any series of Preferred Stock need be made if such adjustment would result in a change in the Conversion Price of less than \$0.01. Any adjustment of less than \$0.01 which is not made shall be carried forward and shall be made at the time of and together with any subsequent adjustment which, on a cumulative basis, amounts to an adjustment of \$0.01 or more in the Conversion Price.

g. No Impairment. The Corporation will not through any reorganization, recapitalization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but will at all times in good faith assist in the carrying out of all the provisions of this Section 5 and in the

taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of each series of Preferred Stock against impairment. This provision shall not restrict the Corporation's right to amend its Certificate of Incorporation with the requisite stockholder consent.

h. Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Rate for any series of Preferred Stock pursuant to this Section 5, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of such series of Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon written request at any time of any holder of any series of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) all such adjustments and readjustments, (ii) the Conversion Rate at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of such holder's shares of Preferred Stock.

i. Notices of Record Date and Proposed Liquidation Distribution. In the event of any taking by the Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other distribution, any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property or to receive any other right, the Corporation shall mail to each holder of Preferred Stock at least thirty (30) days prior to such record date, a notice

-12-

13

specifying the date on which any such record is to be taken for the purpose of such dividend or distribution or right, and the amount and character of such dividend, distribution or right. In the event of a liquidation distribution pursuant to Section 2 hereof, the Corporation shall mail to each holder of Preferred Stock at least thirty (30) days prior to the date of such distribution a notice (i) certifying as to (x) the anticipated aggregate proceeds available for distribution to holders of Preferred Stock and Common Stock, (y) the amount expected to be distributed pursuant to Section 2 in respect of each share of each outstanding series of Preferred Stock and each share of Common Stock and (z) the amount expected to be distributed pursuant to Section 2 in respect of each share of each outstanding series of Preferred Stock if the holder of each such share of Preferred Stock converted such share of Preferred Stock into Common Stock immediately prior to the liquidation distribution and (ii) stating that in connection with such liquidation distribution the holders of shares of each series of Preferred Stock may prior to such liquidation distribution convert their shares of such series of Preferred Stock into Common Stock at the applicable Conversion Rate for such series.

j. Notices. Any notice required by the provisions of this Section 5 to be given to the holder of shares of the Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at such holder's address appearing on the Corporation's books.

k. Payment of Taxes. The Corporation will pay all taxes (other than taxes based upon income) and other governmental charges that may be imposed with respect to the issue or delivery of shares of Common Stock upon conversion of shares of Preferred Stock, excluding any tax or other charge imposed in connection with any transfer involved in the issue and delivery of shares of Common Stock in a name other than that in which shares of Preferred Stock so converted were registered.

6. Covenants.

a. In addition to any other rights provided by law, so long as 700,000 shares of Preferred Stock or any shares of Series C Preferred Stock or Series D Preferred Stock shall be outstanding, this Corporation shall not, without first obtaining the affirmative vote or written consent of the holders of not less than a majority of the outstanding shares of Preferred Stock (voting or consenting as a separate class);

(i) Certificate and Bylaws. Amend or repeal any provision of, or add any provision to, this Corporation's Certificate of Incorporation or Bylaws if such action would adversely alter or change the preferences, rights, privileges or powers of, or the restrictions provided for the benefit of, such shares of Preferred Stock;

(ii) Section 305. Do any act or thing which would result in taxation of the holders of Preferred Stock under Section 305 of the Internal Revenue Code of 1986, as amended (or any successor provision of such Code as such provision may be amended);

-13-

14

(iii) Authorized Shares. Increase or decrease the authorized number of shares of Common or Preferred Stock;

(iv) Senior Securities. Any authorization or any designation, whether by reclassification or otherwise, of any new class or series of stock or any other securities convertible into equity securities of the Corporation ranking on a parity with or senior to the Series A, Series B, Series C or Series D Preferred Stock in right of redemption, liquidation preference, voting or dividends or any increase in the authorized or designated number of any such new class or series;

(v) Distribution. Any redemption, repurchase, payment of dividends or other distributions with respect to Common Stock (except for

acquisitions of Common Stock by the Corporation pursuant to agreements which permit the Corporation to repurchase such shares upon termination of services to the Corporation or in exercise of the Corporation's right of first refusal upon a proposed transfer);

(vi) Reorganization or Merger. Any agreement by the Corporation or its stockholders regarding reorganization or merger as described in Section 2(c);

(vii) Dividend. Any action that results in the payment or declaration of a dividend on any shares of Common Stock or Preferred Stock;

(viii) Liquidation. Any voluntary dissolution or liquidation of the Corporation; or

(ix) Directors. Any increase or decrease in the authorized number of members of the Corporation's board of directors.

b. For so long as Series C Preferred Stock is outstanding, this Corporation shall not, without first obtaining the affirmative vote or written consent of the holders of not less than a majority of the outstanding shares of Series C Preferred Stock (voting or consenting as a separate class):

(i) Adverse Effect. Amend, alter or restate the Corporation's Certificate of Incorporation in a manner that would adversely effect the rights preferences or privileges of the Series C Preferred Stock; or

(ii) Additional Series. Authorize, create or issue any shares or series of stock having a preference or priority superior to or on a parity with the Series C Preferred Stock.

c. For so long as Series D Preferred Stock is outstanding, this Corporation shall not, without first obtaining the affirmative vote or written consent of the holders of not less than two thirds (2/3) of the outstanding shares of Series D Preferred Stock (voting or consenting as a separate class):

-14-

15

(i) Adverse Effect. Amend, alter or restate the Corporation's Certificate of Incorporation in a manner that would adversely effect the rights, preferences or privileges of the Series D Preferred Stock; or

(ii) Additional Series. Authorize, create or issue any shares or series of stock having a preference or priority superior to or on a parity with the Series D Preferred Stock.

7. No Reissuance of Preferred Stock. No share or shares of Preferred Stock

acquired by the Corporation by reason of purchase, conversion or otherwise shall be reissued.

FIVE. The Corporation is to have perpetual existence.

SIX. In furtherance and not in limitation of the powers conferred by statute and except as otherwise provided herein or required by law, the board of directors of the Corporation is expressly authorized to make, alter, amend or repeal the Bylaws of the Corporation.

SEVEN. The number of directors which constitute the whole board of directors of the Corporation shall be as specified in the Bylaws of the Corporation.

EIGHT. Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws may provide. The books of the Corporation may be kept (subject to any provisions contained in the statutes) outside the State of Delaware at such place or places as may be designated from time to time by the board of directors or in the Bylaws of the Corporation.

NINE. To the fullest extent permitted by the Delaware General Corporation Law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. Neither any amendment nor repeal of this Article NINE, nor the adoption of any provision of this Certificate of Incorporation inconsistent with this Article NINE, shall eliminate or reduce the effect of this Article NINE in respect of any matter occurring, or any cause of action, suit or claim that, but for this Article NINE, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

TEN. Advance notice of new business and stockholder nominations for the election of directors shall be given in the manner and to the extent provided in the Bylaws of the Corporation.

ELEVEN. The Corporation reserves the right to amend, alter, change or repeal any provisions contained in this Certificate, in the manner now or hereafter prescribed herein and by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

TWELVE. (a) The Corporation shall indemnify each of the Corporation's directors and officers in each and every situation where, under Section 145 of the General Corporation Law of the State of Delaware, as amended from time to time ("Section 145"), the Corporation is permitted or empowered to make such indemnification. The Corporation may, in the sole discretion of the board of directors of the Corporation, indemnify any other person who may be indemnified pursuant to

Section 145 to the extent the board of directors deems advisable, as permitted by Section 145. The Corporation shall promptly make or cause to be made any determination required to be made pursuant to Section 145.

(b) No person shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided, however, that the foregoing shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law of the State of Delaware or (iv) for any transaction from which the director derived an improper personal benefit. If the General Corporation Law of the State of Delaware is subsequently amended to further eliminate or limit the liability of a director, then a director of the Corporation, in addition to the circumstances in which a director is not personally liable as set forth in the preceding sentence, shall not be liable to the fullest extent permitted by the amended General Corporation Law of the State of Delaware. For purposes of this Article, "fiduciary duty as a director" shall include any fiduciary duty arising out of serving at the Corporation's request as a director of another corporation, partnership, joint venture or other enterprise, and "personal liability to the Corporation or its stockholders" shall include any liability to such other corporation, partnership, joint venture, trust or other enterprise, and any liability to the Corporation in its capacity as a security holder, joint venturer, partner, beneficiary, creditor or investor of or in any such other corporation, partnership, joint venture, trust or other enterprise.

-16-

17

IN WITNESS WHEREOF, the Corporation has caused this Certificate to be signed by Mark Pine, its President, and attested by Mario Rosati its Secretary, this 24th day of August, 1999.

ONDISPLAY, INC.

By: /s/ MARK PINE

Mark Pine, President

ATTEST:

/s/ MARIO ROSATI

Mario Rosati, Secretary

SIGNATURE PAGE
RESTATED CERTIFICATE OF INCORPORATION

RESTATED CERTIFICATE OF INCORPORATION

OF

ONDISPLAY, INC.

OnDisplay, Inc., a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

A. The name of the corporation is OnDisplay, Inc. The corporation was originally incorporated under the same name, and the original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on August 14, 1996.

B. Pursuant to Sections 242 and 245 of the General Corporation Law of the State of Delaware, this Restated Certificate of Incorporation restates and amends the provisions of the Certificate of Incorporation of the corporation.

C. The text of the Certificate of Incorporation is hereby amended and restated in its entirety to read as follows:

ARTICLE I

The name of this corporation is OnDisplay, Inc.

ARTICLE II

The address of the corporation's registered office in the State of Delaware is 1209 Orange Street, City of Wilmington, County of New Castle, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE III

The purpose of the corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of Delaware.

ARTICLE IV

The corporation is authorized to issue two classes of shares of stock to

be designated, respectively, Common Stock, \$0.001 par value, and Preferred Stock, \$0.001 par value. The total number of shares that the corporation is authorized to issue is 110,000,000 shares. The number of

2

shares of Common Stock authorized is 100,000,000. The number of shares of Preferred authorized is 10,000,000.

The Preferred Stock may be issued from time to time in one or more series pursuant to a resolution or resolutions providing for such issue duly adopted by the board of directors (authority to do so being hereby expressly vested in the board). The board of directors is further authorized to determine or alter the rights, preferences, privileges and restrictions granted to or imposed upon any wholly unissued series of Preferred Stock and to fix the number of shares of any series of Preferred Stock and the designation of any such series of Preferred Stock. The board of directors, within the limits and restrictions stated in any resolution or resolutions of the board of directors originally fixing the number of shares constituting any series, may increase or decrease (but not below the number of shares in any such series then outstanding) the number of shares of any series subsequent to the issue of shares of that series.

The authority of the board of directors with respect to each such class or series shall include, without limitation of the foregoing, the right to determine and fix:

(a) the distinctive designation of such class or series and the number of shares to constitute such class or series;

(b) the rate at which dividends on the shares of such class or series shall be declared and paid, or set aside for payment, whether dividends at the rate so determined shall be cumulative or accruing, and whether the shares of such class or series shall be entitled to any participating or other dividends in addition to dividends at the rate so determined, and if so, on what terms;

(c) the right or obligation, if any, of the corporation to redeem shares of the particular class or series of Preferred Stock and, if redeemable, the price, terms and manner of such redemption;

(d) the special and relative rights and preferences, if any, and the amount or amounts per share, which the shares of such class or series of Preferred Stock shall be entitled to receive upon any voluntary or involuntary liquidation, dissolution or winding up of the corporation;

(e) the terms and conditions, if any, upon which shares of such class or series shall be convertible into, or exchangeable for, shares of capital stock of any other class or series, including the price or prices or the

rate or rates of conversion or exchange and the terms of adjustment, if any;

(f) the obligation, if any, of the corporation to retire, redeem or purchase shares of such class or series pursuant to a sinking fund or fund of a similar nature or otherwise, and the terms and conditions of such obligation;

-2-

3

(g) voting rights, if any, on the issuance of additional shares of such class or series or any shares of any other class or series of Preferred Stock;

(h) limitations, if any, on the issuance of additional shares of such class or series or any shares of any other class or series of Preferred Stock; and

(i) such other preferences, powers, qualifications, special or relative rights and privileges thereof as the board of directors of the corporation, acting in accordance with this Restated Certificate of Incorporation, may deem advisable and are not inconsistent with law and the provisions of this Restated Certificate of Incorporation.

ARTICLE V

The corporation reserves the right to amend, alter, change, or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon the stockholders herein are granted subject to this right.

ARTICLE VI

The corporation is to have perpetual existence.

ARTICLE VII

1. Limitation of Liability. To the fullest extent permitted by the General Corporation Law of the State of Delaware as the same exists or as may hereafter be amended, a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director.

2. Indemnification. The corporation may indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that such person or his or her testator or intestate is or

was a director, officer or employee of the corporation, or any predecessor of the corporation, or serves or served at any other enterprise as a director, officer or employee at the request of the corporation or any predecessor to the corporation.

3. Amendments. Neither any amendment nor repeal of this Article VII, nor the adoption of any provision of the corporation's Certificate of Incorporation inconsistent with this Article VII, shall eliminate or reduce the effect of this Article VII, in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for this Article VII, would accrue or arise, prior to such amendment, repeal, or adoption of an inconsistent provision.

-3-

4

ARTICLE VIII

In the event any shares of Preferred Stock shall be redeemed or converted pursuant to the terms hereof, the shares so converted or redeemed shall not revert to the status of authorized but unissued shares, but instead shall be canceled and shall not be re-issuable by the corporation.

ARTICLE IX

Holders of stock of any class or series of the corporation shall not be entitled to cumulate their votes for the election of directors or any other matter submitted to a vote of the stockholders, unless such cumulative voting is required pursuant to Sections 2115 or 301.5 of the California General Corporation Law, in which event each such holder shall be entitled to as many votes as shall equal the number of votes which (except for this provision as to cumulative voting) such holder would be entitled to cast for the election of directors with respect to his shares of stock multiplied by the number of directors to be elected by him, and the holder may cast all of such votes for a single director or may distribute them among the number of directors to be voted for, or for any two or more of them as such holder may see fit, so long as the name of the candidate for director shall have been placed in nomination prior to the voting and the stockholder, or any other holder of the same class or series of stock, has given notice at the meeting prior to the voting of the intention to cumulate votes.

1. Number of Directors. The number of directors which constitutes the whole Board of Directors of the corporation shall be designated in the Amended and Restated Bylaws of the corporation. The directors shall be divided into three classes with the term of office of the first class (Class I) to expire at the annual meeting of stockholders held in 2000; the term of office of the second class (Class II) to expire at the annual meeting of stockholders held in 2001; the term of office of the third class (Class III) to expire at the annual meeting of stockholders held in 2002; and thereafter for each such term to

expire at each third succeeding annual meeting of stockholders after such election.

2. Election of Directors. Elections of directors need not be by written ballot unless the Amended and Restated Bylaws of the corporation shall so provide.

ARTICLE X

In furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, alter, amend or repeal the Amended and Restated Bylaws of the corporation.

ARTICLE XI

-4-

5

No action shall be taken by the stockholders of the corporation except at an annual or special meeting of the stockholders called in accordance with the Amended and Restated Bylaws and no action shall be taken by the stockholders by written consent. The affirmative vote of sixty-six and two-thirds percent (66 2/3%) of the then outstanding voting securities of the corporation, voting together as a single class, shall be required for the amendment, repeal or modification of the provisions of Article IX, Article X or Article XII of this Restated Certificate of Incorporation or Sections 2.3 (Special Meeting), 2.4 (Notice of Stockholders' Meeting), 2.5 (Advanced Notice of Stockholder Nominees and Stockholder Business), 2.10 (Voting), or 2.12 (Stockholder Action by Written Consent Without a Meeting), or 3.2 (Number of Directors) of the corporation's Amended and Restated Bylaws.

ARTICLE XII

Meetings of stockholders may be held within or without the State of Delaware, as the Amended and Restated Bylaws may provide. The books of the corporation may be kept (subject to any provision contained in the statutes) outside of the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Amended and Restated Bylaws of the corporation.

-5-

IN WITNESS WHEREOF, OnDisplay, Inc. has caused this certificate to be signed by Chris Larsen, its Chief Executive Officer, this ____ day of September, 1999.

Mark Pine, President

BYLAWS
OF
ONDISPLAY, INC.

TABLE OF CONTENTS

<TABLE>
<CAPTION>

	PAGE

<S>	<C>
ARTICLE I CORPORATE OFFICES.....	1
1.1 REGISTERED OFFICE.....	1
1.2 OTHER OFFICES.....	1
ARTICLE II MEETINGS OF STOCKHOLDERS.....	1
2.1 PLACE OF MEETINGS.....	1
2.2 ANNUAL MEETING.....	1
2.3 SPECIAL MEETING.....	2
2.4 NOTICE OF STOCKHOLDERS' MEETINGS.....	2
2.5 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE.....	2
2.6 QUORUM.....	2
2.7 ADJOURNED MEETING NOTICE.....	2
2.8 VOTING.....	3
2.9 WAIVER OF NOTICE.....	3
2.10 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING.....	3
2.11 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS.....	4
2.12 PROXIES.....	4
2.13 LIST OF STOCKHOLDERS ENTITLED TO VOTE.....	5
ARTICLE III DIRECTORS.....	5
3.1 POWERS.....	5
3.2 NUMBER OF DIRECTORS.....	5
3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS.....	6
3.4 RESIGNATION AND VACANCIES.....	6

3.5	PLACE OF MEETINGS; MEETINGS BY TELEPHONE.....	7
3.6	FIRST MEETINGS.....	7
3.7	REGULAR MEETINGS.....	7
3.8	SPECIAL MEETINGS; NOTICE.....	7
3.9	QUORUM.....	8
3.10	WAIVER OF NOTICE.....	8
3.11	ADJOURNED MEETING; NOTICE.....	8
3.12	BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING.....	8
3.13	FEES AND COMPENSATION OF DIRECTORS.....	8
3.14	APPROVAL OF LOANS TO OFFICERS.....	9
3.15	REMOVAL OF DIRECTORS.....	9

ARTICLE IV COMMITTEES..... 9

4.1	COMMITTEES OF DIRECTORS.....	9
4.2	COMMITTEE MINUTES.....	10

</TABLE>

-i-

3

TABLE OF CONTENTS
(CONTINUED)

<TABLE>
<CAPTION>

<S>

PAGE

<C>

4.3	MEETINGS AND ACTION OF COMMITTEES.....	10
-----	--	----

ARTICLE V OFFICERS..... 10

5.1	OFFICERS.....	10
5.2	ELECTION OF OFFICERS.....	10
5.3	SUBORDINATE OFFICERS.....	11
5.4	REMOVAL AND RESIGNATION OF OFFICERS.....	11
5.5	VACANCIES IN OFFICES.....	11
5.6	CHAIRMAN OF THE BOARD.....	11
5.7	PRESIDENT.....	11
5.8	VICE PRESIDENT.....	12
5.9	SECRETARY.....	12
5.10	TREASURER.....	12
5.11	ASSISTANT SECRETARY.....	13
5.12	ASSISTANT TREASURER.....	13
5.13	AUTHORITY AND DUTIES OF OFFICERS.....	13

ARTICLE VI INDEMNITY..... 13

6.1	INDEMNIFICATION OF DIRECTORS AND OFFICERS.....	13
6.2	INDEMNIFICATION OF OTHERS.....	13
6.3	INSURANCE.....	14
ARTICLE VII RECORDS AND REPORTS.....		14
7.1	MAINTENANCE AND INSPECTION OF RECORDS.....	14
7.2	INSPECTION BY DIRECTORS.....	15
7.3	ANNUAL STATEMENT TO STOCKHOLDERS.....	15
7.4	REPRESENTATION OF SHARES OF OTHER CORPORATIONS.....	15
ARTICLE VIII GENERAL MATTERS.....		15
8.1	CHECKS.....	15
8.2	EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS.....	16
8.3	STOCK CERTIFICATES; PARTLY PAID SHARES.....	16
8.4	SPECIAL DESIGNATION ON CERTIFICATES.....	16
8.5	LOST CERTIFICATES.....	17
8.6	CONSTRUCTION; DEFINITIONS.....	17
8.7	DIVIDENDS.....	17
8.8	FISCAL YEAR.....	17
8.9	SEAL.....	18
8.10	TRANSFER OF STOCK.....	18
8.11	STOCK TRANSFER AGREEMENTS.....	18

</TABLE>

-ii-

4

TABLE OF CONTENTS
(CONTINUED)

<TABLE>
<CAPTION>

	PAGE	

8.12	REGISTERED STOCKHOLDERS.....	18
ARTICLE IX AMENDMENTS.....		18
ARTICLE X DISSOLUTION.....		18
ARTICLE XI CUSTODIAN.....		19
11.1	APPOINTMENT OF A CUSTODIAN IN CERTAIN CASES.....	19
11.2	DUTIES OF CUSTODIAN.....	20

<S>

<C>

BYLAWS
OF
ONDISPLAY, INC.

ARTICLE I
CORPORATE OFFICES

1.1 REGISTERED OFFICE

The registered office of the corporation shall be in the City of Wilmington, County of New Castle, State of Delaware. The name of the registered agent of the corporation at such location is The Corporation Trust Company.

1.2 OTHER OFFICES

The board of directors may at any time establish other offices at any place or places where the corporation is qualified to do business.

ARTICLE II
MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the board of directors. In the absence of any such designation, stockholders' meetings shall be held at the registered office of the corporation.

2.2 ANNUAL MEETING

The annual meeting of stockholders shall be held each year on a date and at a time designated by the board of directors. In the absence of such designation, the annual meeting of stockholders shall be held on the second Tuesday of May in each year at 10:00 a.m. However, if such day falls on a legal holiday, then the meeting shall be held at the same time and place on the next

succeeding full business day. At the meeting, directors shall be elected and any other proper business may be transacted.

6

2.3 SPECIAL MEETING

A SPECIAL MEETING OF THE STOCKHOLDERS MAY BE CALLED, AT ANY TIME FOR ANY PURPOSE OR PURPOSES, BY THE BOARD OF DIRECTORS OR BY SUCH PERSON OR PERSONS AS MAY BE AUTHORIZED BY THE CERTIFICATE OF INCORPORATION OR THE BYLAWS.

2.4 NOTICE OF STOCKHOLDERS' MEETINGS

All notices of meetings with stockholders shall be in writing and shall be sent or otherwise given in accordance with Section 2.5 of these bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, date, and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

2.5 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE

Written notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his address as it appears on the records of the corporation. An affidavit of the secretary or an assistant secretary or of the transfer agent of the corporation that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

2.6 QUORUM

The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the certificate of incorporation. If, however, such quorum is not present or represented at any meeting of the stockholders, then the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

2.7 ADJOURNED MEETING NOTICE

When a meeting is adjourned to another time or place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is

taken. At the adjourned meeting the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

-2-

7

2.8 VOTING

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.11 of these bylaws, subject to the provisions of Sections 217 and 218 of the General Corporation Law of Delaware (relating to voting rights of fiduciaries, pledgors and joint owners of stock and to voting trusts and other voting agreements).

Except as provided in the last paragraph of this Section 2.8, or as may be otherwise provided in the certificate of incorporation, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

At a stockholders' meeting at which directors are to be elected, or at elections held under special circumstances, a stockholder shall be entitled to cumulate votes (i.e., cast for any candidate a number of votes greater than the number of votes which such stockholder normally is entitled to cast). Each holder of stock, or of any class or classes or of a series or series thereof, who elects to cumulate votes shall be entitled to as many votes as equals the number of votes which (absent this provision as to cumulative voting) he would be entitled to cast for the election of directors with respect to his shares of stock multiplied by the number of directors to be elected by him, and he may cast all of such votes for a single director or may distribute them among the number to be voted for, or for any two or more of them, as he may see fit.

2.9 WAIVER OF NOTICE

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware or of the certificate of incorporation or these bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice unless so required by the certificate of incorporation or these bylaws.

2.10 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Unless otherwise provided in the certificate of incorporation, any action required by this chapter to be taken at any annual or special meeting of stockholders of a corporation, or any action that may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice, and without a vote if a consent in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing. If the action

-3-

8

which is consented to is such as would have required the filing of a certificate under any section of the General Corporation Law of Delaware if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning any vote of stockholders, that written notice and written consent have been given as provided in Section 228 of the General Corporation Law of Delaware.

2.11 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS

In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the board of directors may fix, in advance, a record date, which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other action.

If the board of directors does not so fix a record date:

(i) The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(ii) The record date for determining stockholders entitled to express consent to corporate action in writing without a meeting,

when no prior action by the board of directors is necessary, shall be the day on which the first written consent is expressed.

(iii) The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the board of directors adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the board of directors may fix a new record date for the adjourned meeting.

2.12 PROXIES

Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for him by a written proxy, signed by the stockholder and filed with the secretary of the corporation, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. A proxy shall be deemed signed if the stockholder's name is placed on the proxy (whether by manual signature, typewriting, telegraphic transmission or otherwise) by the stockholder or the stockholder's attorney-in-fact. The revocability of a proxy that states on its face

-4-

9

that it is irrevocable shall be governed by the provisions of Section 212(c) of the General Corporation Law of Delaware.

2.13 LIST OF STOCKHOLDERS ENTITLED TO VOTE

The officer who has charge of the stock ledger of a corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

ARTICLE III

DIRECTORS

3.1 POWERS

Subject to the provisions of the General Corporation Law of Delaware and any limitations in the certificate of incorporation or these bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the corporation shall be managed and all corporate powers shall be exercised by or under the direction of the board of directors.

3.2 NUMBER OF DIRECTORS

The number of directors of the corporation shall be not less than three (3) nor more than five (5). The exact number of directors shall be five (5) until changed, within the limits specified above, by a bylaw amending this Section 3.2, duly adopted by the board of directors or by the stockholders.* The indefinite number of directors may be changed, or a definite number may be fixed without provision for an indefinite number, by a duly adopted amendment to the certificate of incorporation or by an amendment to this bylaw duly adopted by the vote or written consent of the holders of a majority of the stock issued and outstanding and entitled to vote or by resolution of the board of directors.

No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

* Amended 6/17/96 and 2/12/98

-5-

10

3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS

Except as provided in Section 3.4 of these bylaws, directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws, wherein other qualifications for directors may be prescribed. Each director, including a director elected to fill a vacancy, shall hold office until his successor is elected and qualified or until his earlier resignation or removal.

Elections of directors need not be by written ballot.

3.4 RESIGNATION AND VACANCIES

Any director may resign at any time upon written notice to the corporation. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations

shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Unless otherwise provided in the certificate of incorporation or these bylaws:

(i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the certificate of incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the General Corporation Law of Delaware.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole board (as constituted immediately prior to any such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least ten (10) percent of the total number of the shares at the time outstanding having the

-6-

11

right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the General Corporation Law of Delaware as far as applicable.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE

The board of directors of the corporation may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the board of directors, or any committee designated by the board of directors, may participate in a meeting of the board of directors, or any committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

3.6 FIRST MEETINGS

The first meeting of each newly elected board of directors shall be held at such time and place as shall be fixed by the vote of the stockholders at the annual meeting and no notice of such meeting shall be necessary to the newly elected directors in order legally to constitute the meeting, provided a quorum shall be present. In the event of the failure of the stockholders to fix the time or place of such first meeting of the newly elected board of directors, or in the event such meeting is not held at the time and place so fixed by the stockholders, the meeting may be held at such time and place as shall be specified in a notice given as hereinafter provided for special meetings of the board of directors, or as shall be specified in a written waiver signed by all of the directors.

3.7 REGULAR MEETINGS

Regular meetings of the board of directors may be held without notice at such time and at such place as shall from time to time be determined by the board.

3.8 SPECIAL MEETINGS; NOTICE

Special meetings of the board of directors for any purpose or purposes may be called at any time by the chairman of the board, the president, any vice president, the secretary or any two (2) directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by first-class mail or telegram, charges prepaid, addressed to each director at that director's address as it is shown on the records of the corporation. If the notice is mailed, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. If the notice is delivered personally or by telephone or by telegram, it shall be delivered personally or by telephone or to the telegraph company at least forty-eight (48) hours before the time of the holding of the meeting. Any oral notice given personally or by telephone may be

who the person giving the notice has reason to believe will promptly communicate it to the director. The notice need not specify the purpose or the place of the meeting, if the meeting is to be held at the principal executive office of the corporation.

3.9 QUORUM

At all meetings of the board of directors, a majority of the authorized number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors, except as may be otherwise specifically provided by statute or by the certificate of incorporation. If a quorum is not present at any meeting of the board of directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

3.10 WAIVER OF NOTICE

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware or of the certificate of incorporation or these bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the directors, or members of a committee of directors, need be specified in any written waiver of notice unless so required by the certificate of incorporation or these bylaws.

3.11 ADJOURNED MEETING; NOTICE

If a quorum is not present at any meeting of the board of directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

3.12 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the board of directors, or of any committee thereof, may be taken without a meeting if all members of the board or committee, as the case may be, consent thereto in writing and the writing or writings are filed with the minutes of proceedings of the board or committee.

3.13 FEES AND COMPENSATION OF DIRECTORS

Unless otherwise restricted by the certificate of incorporation or these bylaws, the board of directors shall have the authority to fix the compensation

13

3.14 APPROVAL OF LOANS TO OFFICERS

The corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiary, including any officer or employee who is a director of the corporation or its subsidiary, whenever, in the judgment of the directors, such loan, guaranty or assistance may reasonably be expected to benefit the corporation. The loan, guaranty or other assistance may be with or without interest and may be unsecured, or secured in such manner as the board of directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in this section contained shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

3.15 REMOVAL OF DIRECTORS

Unless otherwise restricted by statute, and as provided for in the certificate of incorporation or these bylaws, any director or the entire board of directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE IV

COMMITTEES

4.1 COMMITTEES OF DIRECTORS

The board of directors may, by resolution passed by a majority of the whole board, designate one or more committees, with each committee to consist of one or more of the directors of the corporation. The board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the board of directors or in the bylaws of the corporation, shall have and may exercise all the powers and authority of the board of directors in the

management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) amend the certificate of incorporation (except that a committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of stock adopted by the board of directors as provided in Section 151(a) of the General Corporation Law of Delaware, fix any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the corporation or the conversion into, or the exchange of such shares for, shares of any other class or classes or any other series of the same or any other class or classes of stock of the corporation), (ii) adopt an agreement of merger or consolidation under Sections 251 or 252 of the General Corporation Law of Delaware,

-9-

14

(iii) recommend to the stockholders the sale, lease or exchange of all or substantially all of the corporation's property and assets, (iv) recommend to the stockholders a dissolution of the corporation or a revocation of a dissolution, or (v) amend the bylaws of the corporation; and, unless the board resolution establishing the committee, the bylaws or the certificate of incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock, or to adopt a certificate of ownership and merger pursuant to Section 253 of the General Corporation Law of Delaware.

4.2 COMMITTEE MINUTES

Each committee shall keep regular minutes of its meetings and report the same to the board of directors when required.

4.3 MEETINGS AND ACTION OF COMMITTEES

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of Article III of these bylaws, Section 3.5 (place of meetings and meetings by telephone), Section 3.7 (regular meetings), Section 3.8 (special meetings and notice), Section 3.9 (quorum), Section 3.10 (waiver of notice), Section 3.11 (adjournment and notice of adjournment), and Section 3.12 (action without a meeting), with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the board of directors and its members; provided, however, that the time of regular meetings of committees may also be called by resolution of the board of directors and that notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The board of directors may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

ARTICLE V

OFFICERS

5.1 OFFICERS

The officers of the corporation shall be a president, one or more vice presidents, a secretary, and a treasurer. The corporation may also have, at the discretion of the board of directors, a chairman of the board, one or more assistant vice presidents, assistant secretaries, assistant treasurers, and any such other officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws. Any number of offices may be held by the same person.

5.2 ELECTION OF OFFICERS

The officers of the corporation, except such officers as may be appointed in accordance with the provisions of Sections 5.3 or 5.5 of these bylaws, shall be chosen by the board of directors, subject to the rights, if any, of an officer under any contract of employment.

-10-

15

5.3 SUBORDINATE OFFICERS

The board of directors may appoint, or empower the president to appoint, such other officers and agents as the business of the corporation may require, each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the board of directors may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the board of directors at any regular or special meeting of the board or, except in the case of an officer chosen by the board of directors, by any officer upon whom such power of removal may be conferred by the board of directors.

Any officer may resign at any time by giving written notice to the corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the corporation under any contract to which the officer is a party.

5.5 VACANCIES IN OFFICES

Any vacancy occurring in any office of the corporation shall be filled by the board of directors.

5.6 CHAIRMAN OF THE BOARD

The chairman of the board, if such an officer be elected, shall, if present, preside at meetings of the board of directors and exercise and perform such other powers and duties as may from time to time be assigned to him by the board of directors or as may be prescribed by these bylaws. If there is no president, then the chairman of the board shall also be the chief executive officer of the corporation and shall have the powers and duties prescribed in Section 5.7 of these bylaws.

5.7 PRESIDENT

Subject to such supervisory powers, if any, as may be given by the board of directors to the chairman of the board, if there be such an officer, the president shall be the chief executive officer of the corporation and shall, subject to the control of the board of directors, have general supervision, direction, and control of the business and the officers of the corporation. He shall preside at all meetings of the shareholders and, in the absence or nonexistence of a chairman of the board, at all meetings of the board of directors. He shall have the general powers and duties of management usually vested in the office of president of a corporation and shall have such other powers and duties as may be prescribed by the board of directors or these bylaws.

-11-

16

5.8 VICE PRESIDENT

In the absence or disability of the president, the vice presidents, if any, in order of their rank as fixed by the board of directors or, if not ranked, a vice president designated by the board of directors, shall perform all the duties of the president and when so acting shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the board of directors, these bylaws, the president or the chairman of the board.

5.9 SECRETARY

The secretary shall keep or cause to be kept, at the principal executive office of the corporation or such other place as the board of directors may direct, a book of minutes of all meetings and actions of directors, committees

of directors, and shareholders. The minutes shall show the time and place of each meeting, whether regular or special (and, if special, how authorized and the notice given), the names of those present at directors' meetings or committee meetings, the number of shares present or represented at shareholders' meetings, and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal executive office of the corporation or at the office of the corporation's transfer agent or registrar, as determined by resolution of the board of directors, a share register, or a duplicate share register, showing the names of all shareholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all meetings of the shareholders and of the board of directors required to be given by law or by these bylaws. He shall keep the seal of the corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the board of directors or by these bylaws.

5.10 TREASURER

The treasurer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, retained earnings, and shares. The books of account shall at all reasonable times be open to inspection by any director.

The treasurer shall deposit all money and other valuables in the name and to the credit of the corporation with such depositaries as may be designated by the board of directors. He shall disburse the funds of the corporation as may be ordered by the board of directors, shall render to the president and directors, whenever they request it, an account of all of his transactions as treasurer and of the financial condition of the corporation, and shall have such other powers and perform such other duties as may be prescribed by the board of directors or these bylaws.

-12-

17

5.11 ASSISTANT SECRETARY

The assistant secretary, or, if there is more than one, the assistant secretaries in the order determined by the stockholders or board of directors (or if there be no such determination, then in the order of their election) shall, in the absence of the secretary or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as the board of

directors or the stockholders may from time to time prescribe.

5.12 ASSISTANT TREASURER

The assistant treasurer, or, if there is more than one, the assistant treasurers, in the order determined by the stockholders or board of directors (or if there be no such determination, then in the order of their election), shall, in the absence of the treasurer or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the treasurer and shall perform such other duties and have such other powers as the board of directors or the stockholders may from time to time prescribe.

5.13 AUTHORITY AND DUTIES OF OFFICERS

In addition to the foregoing authority and duties, all officers of the corporation shall respectively have such authority and perform such duties in the management of the business of the corporation as may be designated from time to time by the board of directors or the stockholders.

ARTICLE VI

INDEMNITY

6.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS

The corporation shall, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware, indemnify each of its directors and officers against expenses (including attorneys' fees), judgments, fines, settlements, and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the corporation. For purposes of this Section 6.1, a "director" or "officer" of the corporation includes any person (i) who is or was a director or officer of the corporation, (ii) who is or was serving at the request of the corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, or (iii) who was a director or officer of a corporation which was a predecessor corporation of the corporation or of another enterprise at the request of such predecessor corporation.

6.2 INDEMNIFICATION OF OTHERS

The corporation shall have the power, to the extent and in the manner permitted by the General Corporation Law of Delaware, to indemnify each of its employees and agents (other than

directors and officers) against expenses (including attorneys' fees), judgments, fines, settlements, and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the corporation. For purposes of this Section 6.2, an "employee" or "agent" of the corporation (other than a director or officer) includes any person (i) who is or was an employee or agent of the corporation, (ii) who is or was serving at the request of the corporation as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise, or (iii) who was an employee or agent of a corporation which was a predecessor corporation of the corporation or of another enterprise at the request of such predecessor corporation.

6.3 INSURANCE

The corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify him against such liability under the provisions of the General Corporation Law of Delaware.

ARTICLE VII

RECORDS AND REPORTS

7.1 MAINTENANCE AND INSPECTION OF RECORDS

The corporation shall, either at its principal executive office or at such place or places as designated by the board of directors, keep a record of its shareholders listing their names and addresses and the number and class of shares held by each shareholder, a copy of these bylaws as amended to date, accounting books, and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent to so act on behalf of the stockholder. The demand under oath shall be directed to the corporation at its registered office in Delaware or at its principal place of business.

The officer who has charge of the stock ledger of a corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a

complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business

-14-

19

hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

7.2 INSPECTION BY DIRECTORS

Any director shall have the right to examine the corporation's stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

7.3 ANNUAL STATEMENT TO STOCKHOLDERS

The board of directors shall present at each annual meeting, and at any special meeting of the stockholders when called for by vote of the stockholders, a full and clear statement of the business and condition of the corporation.

7.4 REPRESENTATION OF SHARES OF OTHER CORPORATIONS

The chairman of the board, the president, any vice president, the treasurer, the secretary or assistant secretary of this corporation, or any other person authorized by the board of directors or the president or a vice president, is authorized to vote, represent, and exercise on behalf of this corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

ARTICLE VIII

GENERAL MATTERS

8.1 CHECKS

From time to time, the board of directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the corporation, and only the persons so authorized shall sign or endorse those instruments.

-15-

20

8.2 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS

The board of directors, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the board of directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

8.3 STOCK CERTIFICATES; PARTLY PAID SHARES

The shares of a corporation shall be represented by certificates, provided that the board of directors of the corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Notwithstanding the adoption of such a resolution by the board of directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the corporation by the chairman or vice-chairman of the board of directors, or the president or vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of such corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

The corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent

any such partly paid shares, upon the books and records of the corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

8.4 SPECIAL DESIGNATION ON CERTIFICATES

If the corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the General Corporation Law of Delaware, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the corporation shall issue to represent such class or series of stock

-16-

21

a statement that the corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

8.5 LOST CERTIFICATES

Except as provided in this Section 8.5, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the corporation and cancelled at the same time. The corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the corporation may require the owner of the lost, stolen or destroyed certificate, or his legal representative, to give the corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

8.6 CONSTRUCTION; DEFINITIONS

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the Delaware General Corporation Law shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes

the singular, and the term "person" includes both a corporation and a natural person.

8.7 DIVIDENDS

The directors of the corporation, subject to any restrictions contained in the certificate of incorporation, may declare and pay dividends upon the shares of its capital stock pursuant to the General Corporation Law of Delaware. Dividends may be paid in cash, in property, or in shares of the corporation's capital stock.

The directors of the corporation may set apart out of any of the funds of the corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the corporation, and meeting contingencies.

8.8 FISCAL YEAR

The fiscal year of the corporation shall be fixed by resolution of the board of directors and may be changed by the board of directors.

-17-

22

8.9 SEAL

The corporation may adopt a corporate seal, which shall be adopted and which may be altered by the board of directors, and may use the same by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

8.10 TRANSFER OF STOCK

Upon surrender to the corporation or the transfer agent of the corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate, and record the transaction in its books.

8.11 STOCK TRANSFER AGREEMENTS

The corporation shall have power to enter into and perform any agreement with any number of shareholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the General Corporation Law of Delaware.

The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner, shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE IX

AMENDMENTS

The original or other bylaws of the corporation may be adopted, amended or repealed by the stockholders entitled to vote; provided, however, that the corporation may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws.

ARTICLE X

DISSOLUTION

If it should be deemed advisable in the judgment of the board of directors of the corporation that the corporation should be dissolved, the board, after the adoption of a resolution to that effect by

-18-

23

a majority of the whole board at any meeting called for that purpose, shall cause notice to be mailed to each stockholder entitled to vote thereon of the adoption of the resolution and of a meeting of stockholders to take action upon the resolution.

At the meeting a vote shall be taken for and against the proposed dissolution. If a majority of the outstanding stock of the corporation entitled to vote thereon votes for the proposed dissolution, then a certificate stating that the dissolution has been authorized in accordance with the provisions of Section 275 of the General Corporation Law of Delaware and setting forth the names and residences of the directors and officers shall be executed, acknowledged, and filed and shall become effective in accordance with Section 103 of the General Corporation Law of Delaware. Upon such certificate's becoming effective in accordance with Section 103 of the General Corporation Law of

Delaware, the corporation shall be dissolved.

Whenever all the stockholders entitled to vote on a dissolution consent in writing, either in person or by duly authorized attorney, to a dissolution, no meeting of directors or stockholders shall be necessary. The consent shall be filed and shall become effective in accordance with Section 103 of the General Corporation Law of Delaware. Upon such consent's becoming effective in accordance with Section 103 of the General Corporation Law of Delaware, the corporation shall be dissolved. If the consent is signed by an attorney, then the original power of attorney or a photocopy thereof shall be attached to and filed with the consent. The consent filed with the Secretary of State shall have attached to it the affidavit of the secretary or some other officer of the corporation stating that the consent has been signed by or on behalf of all the stockholders entitled to vote on a dissolution; in addition, there shall be attached to the consent a certification by the secretary or some other officer of the corporation setting forth the names and residences of the directors and officers of the corporation.

ARTICLE XI

CUSTODIAN

11.1 APPOINTMENT OF A CUSTODIAN IN CERTAIN CASES

The Court of Chancery, upon application of any stockholder, may appoint one or more persons to be custodians and, if the corporation is insolvent, to be receivers, of and for the corporation when:

(i) at any meeting held for the election of directors the stockholders are so divided that they have failed to elect successors to directors whose terms have expired or would have expired upon qualification of their successors; or

(ii) the business of the corporation is suffering or is threatened with irreparable injury because the directors are so divided respecting the management of the affairs of the corporation that the required vote for action by the board of directors cannot be obtained and the stockholders are unable to terminate this division; or

-19-

24

(iii) the corporation has abandoned its business and has failed within a reasonable time to take steps to dissolve, liquidate or distribute its assets.

11.2 DUTIES OF CUSTODIAN

The custodian shall have all the powers and title of a receiver appointed

under Section 291 of the General Corporation Law of Delaware, but the authority of the custodian shall be to continue the business of the corporation and not to liquidate its affairs and distribute its assets, except when the Court of Chancery otherwise orders and except in cases arising under Sections 226(a)(3) or 352(a)(2) of the General Corporation Law of Delaware.

-20-

25

CERTIFICATE OF ADOPTION OF BYLAWS

OF

ONDISPLAY, INC.

Adoption by Incorporator

The undersigned person appointed in the Certificate of Incorporation to act as the Incorporator of OnDisplay, Inc. hereby adopts the foregoing bylaws, comprising twenty-one (21) pages, as the Bylaws of the corporation.

Executed this ____ day of _____ 19__.

Adam D. Levy, Incorporator

Certificate by Secretary of Adoption by Incorporator

The undersigned hereby certifies that he is the duly elected, qualified, and acting Secretary of OnDisplay, Inc. and that the foregoing Bylaws, comprising twenty-one (21) pages, were adopted as the Bylaws of the corporation on _____, 19__, by the person appointed in the Certificate of Incorporation to act as the Incorporator of the corporation.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed the corporate seal this ____ day of _____ 19__.

Mario M. Rosati, Secretary

BYLAWS

OF

ONDISPLAY, INC.

TABLE OF CONTENTS

<TABLE>
<CAPTION>

	Page

<S>	<C>
ARTICLE I CORPORATE OFFICES.....	1
1.1 REGISTERED OFFICE.....	1
1.2 OTHER OFFICES.....	1
ARTICLE II MEETINGS OF STOCKHOLDERS.....	1
2.1 PLACE OF MEETINGS.....	1
2.2 ANNUAL MEETING.....	1
2.3 SPECIAL MEETING.....	2
2.4 NOTICE OF STOCKHOLDERS' MEETINGS.....	2
2.5 ADVANCE NOTICE OF STOCKHOLDER NOMINEES AND STOCKHOLDER BUSINESS.....	2
2.6 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE.....	3
2.7 QUORUM.....	4
2.8 ADJOURNED MEETING; NOTICE.....	4
2.9 CONDUCT OF BUSINESS.....	4
2.10 VOTING.....	4
2.11 WAIVER OF NOTICE.....	5

2.12	STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING.....	5
2.13	RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS.....	6
2.14	PROXIES.....	6
2.15	LIST OF STOCKHOLDERS ENTITLED TO VOTE.....	7
ARTICLE III DIRECTORS.....		7
3.1	POWERS.....	7
3.2	NUMBER OF DIRECTORS.....	7
3.3	ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS.....	7
3.4	RESIGNATION AND VACANCIES.....	8
3.5	PLACE OF MEETINGS; MEETINGS BY TELEPHONE.....	9
3.6	REGULAR MEETINGS.....	9
3.7	SPECIAL MEETINGS; NOTICE.....	9
3.8	QUORUM.....	9
3.9	WAIVER OF NOTICE.....	10
3.10	BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING.....	10
3.11	FEES AND COMPENSATION OF DIRECTORS.....	10
3.12	APPROVAL OF LOANS TO OFFICERS.....	10
3.13	REMOVAL OF DIRECTORS.....	11

</TABLE>

<TABLE>

<S>

<C>

ARTICLE IV COMMITTEES.....		11
4.1	COMMITTEES OF DIRECTORS.....	11
4.2	COMMITTEE MINUTES.....	12
4.3	MEETINGS AND ACTION OF COMMITTEES.....	12
ARTICLE V OFFICERS.....		12
5.1	OFFICERS.....	12
5.2	APPOINTMENT OF OFFICERS.....	12
5.3	SUBORDINATE OFFICERS.....	13
5.4	REMOVAL AND RESIGNATION OF OFFICERS; FILLING VACANCIES.....	13
5.5	CHAIRMAN OF THE BOARD.....	13
5.6	CHIEF EXECUTIVE OFFICER.....	13
5.7	PRESIDENT.....	13
5.8	VICE PRESIDENTS.....	14
5.9	SECRETARY.....	14
5.10	CHIEF FINANCIAL OFFICER.....	14
5.11	ASSISTANT SECRETARY.....	15
5.12	ASSISTANT TREASURER.....	15
5.13	REPRESENTATION OF SHARES OF OTHER CORPORATIONS.....	15
5.14	AUTHORITY AND DUTIES OF OFFICERS.....	15

ARTICLE VI INDEMNITY.....	16
6.1 THIRD PARTY ACTIONS.....	16
6.2 ACTIONS BY OR IN THE RIGHT OF THE CORPORATION.....	16
6.3 SUCCESSFUL DEFENSE.....	17
6.4 DETERMINATION OF CONDUCT.....	17
6.5 PAYMENT OF EXPENSES IN ADVANCE.....	17
6.6 INDEMNITY NOT EXCLUSIVE.....	17
6.7 INSURANCE INDEMNIFICATION.....	18
6.8 THE CORPORATION.....	18
6.9 EMPLOYEE BENEFIT PLANS.....	18
6.10 CONTINUATION OF INDEMNIFICATION AND ADVANCEMENT OF EXPENSES.....	18
ARTICLE VII RECORDS AND REPORTS.....	19
7.1 MAINTENANCE AND INSPECTION OF RECORDS.....	19
7.2 INSPECTION BY DIRECTORS.....	19
7.3 ANNUAL STATEMENT TO STOCKHOLDERS.....	20
ARTICLE VIII GENERAL MATTERS.....	20
8.1 CHECKS.....	20
8.2 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS.....	20

</TABLE>

-ii-

4

<TABLE>	
<CAPTION>	
<S>	<C>
8.3 STOCK CERTIFICATES; PARTLY PAID SHARES.....	20
8.4 SPECIAL DESIGNATION ON CERTIFICATES.....	21
8.5 LOST CERTIFICATES.....	21
8.6 CONSTRUCTION; DEFINITIONS.....	22
8.7 DIVIDENDS.....	22
8.8 FISCAL YEAR.....	22
8.9 SEAL.....	22
8.10 TRANSFER OF STOCK.....	22
8.11 STOCK TRANSFER AGREEMENTS.....	22
8.12 REGISTERED STOCKHOLDERS.....	23
ARTICLE IX AMENDMENTS.....	23

</TABLE>

-iii-

BYLAWS
OF
ONDISPLAY, INC.

ARTICLE I
CORPORATE OFFICES

1.1 REGISTERED OFFICE

The registered office of the corporation shall be in the City of Wilmington, County of New Castle, State of Delaware. The name of the registered agent of the corporation at such location is The Corporation Trust Company.

1.2 OTHER OFFICES

The board of directors may at any time establish other offices at any place or places where the corporation is qualified to do business.

ARTICLE II
MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS

Meetings of stockholders shall be held at any place, either within or without the State of Delaware, as may be designated by the board of directors or in the manner provided in these bylaws. In the absence of any such designation, stockholders' meetings shall be held at the registered office of the corporation in the State of Delaware.

2.2 ANNUAL MEETING

The annual meeting of stockholders shall be held each year on a date and at a time designated by the board of directors. In the absence of such designation, the annual meeting of stockholders shall be held on the second Tuesday of May of each year at 10:00 a.m. However, if such day falls on

a legal holiday, then the meeting shall be held at the same time and place on the next succeeding business day. At the meeting, directors shall be elected and any other proper business may be transacted.

2.3 SPECIAL MEETING

A special meeting of the stockholders may be called at any time by the board of directors, or by the chairman of the board, or by the president.

If a special meeting is called by any person or persons other than the board of directors, the request shall be in writing, specifying the time of such meeting and the general nature of the business proposed to be transacted, and shall be delivered personally or sent by registered mail or by telegraphic or other facsimile transmission to the chairman of the board, the president or the secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The officer receiving the request shall cause notice to be promptly given to the stockholders entitled to vote, in accordance with the provisions of Sections 2.4 and 2.5 of this Article II, that a meeting will be held at the time requested by the person or persons calling the meeting, not less than ten (10) nor more than sixty (60) days after the receipt of the request. Nothing contained in this paragraph of this Section 2.3 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the board of directors may be held.

2.4 NOTICE OF STOCKHOLDERS' MEETINGS

All notices of meetings with stockholders shall be in writing and shall be sent or otherwise given in accordance with Section 2.5 of these bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, date, and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

2.5 ADVANCE NOTICE OF STOCKHOLDER NOMINEES AND STOCKHOLDER BUSINESS

Subject to the rights of holders of any class or series of stock having a preference over the Common Stock as to dividends or upon liquidation,

- (i) nominations for the election of directors, and
- (ii) business proposed to be brought before any stockholder meeting

may be made by the board of directors or proxy committee appointed by the board of directors or by any stockholder entitled to vote in the election of directors generally if such nomination or business proposed is otherwise proper business before such meeting. However, any such stockholder may nominate one or more persons for election as directors at a meeting or propose business to be

brought before a meeting, or both, only if such stockholder has given timely notice in proper written form of their intent to make such nomination or

nominations or to propose such business. To be timely, such stockholder's notice must be delivered to or mailed and received at the principal executive offices of the corporation not less than one hundred twenty (120) calendar days in advance of the first anniversary date of mailing of the corporation's proxy statement released to stockholders in connection with the previous year's annual meeting of stockholders; provided, however, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date contemplated at the time of the previous year's proxy statement, notice by the stockholder to be timely must be so received a reasonable time before the solicitation is made. To be in proper form, a stockholder's notice to the secretary shall set forth:

(a) the name and address of the stockholder who intends to make the nominations or propose the business and, as the case may be, of the person or persons to be nominated or of the business to be proposed;

(b) a representation that the stockholder is a holder of record of stock of the corporation entitled to vote at such meeting and, if applicable, intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice;

(c) if applicable, a description of all arrangements or understandings between the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the stockholder;

(d) such other information regarding each nominee or each matter of business to be proposed by such stockholder as would be required to be included in a proxy statement filed pursuant to the proxy rules of the Securities and Exchange Commission had the nominee been nominated, or intended to be nominated, or the matter been proposed, or intended to be proposed by the board of directors; and

(e) if applicable, the consent of each nominee to serve as director of the corporation if so elected.

The chairman of the meeting shall refuse to acknowledge the nomination of any person or the proposal of any business not made in compliance with the foregoing procedure.

2.6 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE

Written notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his address as it appears on the records of the corporation. An affidavit of the secretary or an assistant secretary or of the transfer

agent of the corporation that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

2.7 QUORUM

The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the certificate of incorporation. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the Chairman of the meeting or (ii) the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

2.8 ADJOURNED MEETING; NOTICE

When a meeting is adjourned to another time or place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.9 CONDUCT OF BUSINESS

The chairman of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business.

2.10 VOTING

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.12 of these bylaws, subject to the provisions of Sections 217 and 218 of the Delaware General Corporation Law (relating to voting rights of fiduciaries, pledgors and joint owners of stock and to voting trusts and other voting agreements).

Except as provided in the last paragraph of this Section 2.10, or as may be otherwise provided in the certificate of incorporation, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

At a stockholders' meeting at which directors are to be elected, each stockholder shall be entitled to cumulate votes (i.e., cast for any candidate a number of

votes greater than the number of votes which such stockholder normally is entitled to cast) if the candidates' names have been properly placed in nomination (in accordance with these bylaws) prior to commencement of the voting and the stockholder requesting cumulative voting or any other stockholder voting at the meeting in person or by proxy has given notice prior to commencement of the voting of the stockholder's intention to cumulate votes. If cumulative voting is properly requested, each holder of stock, or of any class or classes or of a series or series thereof, who elects to cumulate votes shall be entitled to as many votes as equals the number of votes which (absent this provision as to cumulative voting) such person would be entitled to cast for the election of directors with respect to his shares of stock multiplied by the number of directors to be elected by such person, and that such person may cast all of such votes for a single director or may distribute them among the number to be voted for, or for any two or more of them, as such person may see fit.

2.11 WAIVER OF NOTICE

Whenever notice is required to be given under any provision of the Delaware General Corporation Law or of the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors, or members of a committee of directors need be specified in any written waiver of notice unless so required by the certificate of incorporation or these bylaws.

2.12 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Unless otherwise provided in the certificate of incorporation, any action required to be taken at any annual or special meeting of stockholders of a corporation, or any action that may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing. If the action which is consented to is such as would have required the filing of a certificate under any section of the Delaware General Corporation Law if such action had been voted on by

stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning any vote of stockholders, that written notice and written consent have been given as provided in Section 228 of the Delaware General Corporation Law.

-5-

10

2.13 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS

In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the board of directors may fix, in advance, a record date, which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other action.

If the board of directors does not so fix a record date:

(i) The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(ii) The record date for determining stockholders entitled to express consent to corporate action in writing without a meeting, when no prior action by the board of directors is necessary, shall be the first date on which a signed written consent is delivered to the corporation.

(iii) The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the board of directors adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the board of directors may fix a new record date for the adjourned meeting.

2.14 PROXIES

Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for such stockholder by a written proxy, signed by such stockholder and filed with the secretary of the corporation, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. A proxy

shall be deemed signed if such stockholder's name is placed on the proxy by any reasonable means including, but not limited to, by facsimile signature, manual signature, typewriting, telegraphic transmission or otherwise, by such stockholder or such stockholder's attorney-in-fact. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212(e) of the Delaware General Corporation Law.

-6-

11

2.15 LIST OF STOCKHOLDERS ENTITLED TO VOTE

The officer who has charge of the stock ledger of a corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

ARTICLE III

DIRECTORS

3.1 POWERS

Subject to the provisions of the Delaware General Corporation Law and any limitations in the certificate of incorporation or these bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the corporation shall be managed and all corporate powers shall be exercised by or under the direction of the board of directors.

3.2 NUMBER OF DIRECTORS

The number of directors of the corporation shall be seven (7) until changed by a bylaw amending this Section 3.2, duly adopted by the board of directors or by the stockholders. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

Upon the firmly underwritten registered public offering of the company's securities (the "IPO"), the directors shall be divided into three classes with

the term of office of the first class to expire at the first annual meeting of stockholders held after the IPO; the term of office of the second class to expire at the second annual meeting of stockholders held after the IPO; the term of office of the third class to expire at the third annual meeting of stockholders held after the IPO; and thereafter for each such term to expire at each third succeeding annual meeting of stockholders after such election.

3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS

-7-

12

Except as provided in Section 3.4 of these bylaws, directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws, wherein other qualifications for directors may be prescribed. Each director, including a director elected to fill a vacancy, shall hold office until his successor is elected and qualified or until his earlier resignation or removal.

Elections of directors need not be by written ballot.

3.4 RESIGNATION AND VACANCIES

Any director may resign at any time upon written notice to the attention of the Secretary of the corporation. When one or more directors shall resign from the board of directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Unless otherwise provided in the certificate of incorporation or these bylaws:

(i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the certificate of incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the corporation should have no directors in office, then any officer or any

stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the Delaware General Corporation Law.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole board (as constituted immediately prior to any such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least ten (10) percent of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or

-8-

13

newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the Delaware General Corporation Law as far as applicable.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE

The board of directors of the corporation may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the board of directors, or any committee designated by the board of directors, may participate in a meeting of such board of directors, or committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting pursuant to this section shall constitute presence in person at the meeting.

3.6 REGULAR MEETINGS

Regular meetings of the board of directors may be held without notice at such time and at such place as shall from time to time be determined by the board.

3.7 SPECIAL MEETINGS; NOTICE

Special meetings of the board of directors for any purpose or purposes may be called at any time by the chairman of the board, the president, any vice president, the secretary or any two (2) directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by first-class mail or telegram, charges prepaid, addressed to each director at that director's address

as it is shown on the records of the corporation. If the notice is mailed, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. If the notice is delivered personally or by telephone or by telegram, it shall be delivered personally or by telephone or to the telegraph company at least forty-eight (48) hours before the time of the holding of the meeting. Any oral notice given personally or by telephone may be communicated either to the director or to a person at the office of the director who the person giving the notice has reason to believe will promptly communicate it to the director. The notice need not specify the purpose or the place of the meeting, if the meeting is to be held at the principal executive office of the corporation.

3.8 QUORUM

At all meetings of the board of directors, a majority of the authorized number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors, except as

-9-

14

may be otherwise specifically provided by statute, the certificate of incorporation, or these bylaws. If a quorum is not present at any meeting of the board of directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

3.9 WAIVER OF NOTICE

Whenever notice is required to be given under any provision of the Delaware General Corporation Law, the certificate of incorporation, or these bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when such person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the directors, or members of a committee of directors, need be specified in any written waiver of notice unless so required by the certificate of incorporation or these bylaws.

3.10 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Unless otherwise restricted by the certificate of incorporation or these

bylaws, any action required or permitted to be taken at any meeting of the board of directors, or of any committee thereof may be taken without a meeting if all members of the board or committee, as the case may be, consent thereto in writing and the writing or writings are filed with the minutes of proceedings of the board or committee.

3.11 FEES AND COMPENSATION OF DIRECTORS

Unless otherwise restricted by the certificate of incorporation or these bylaws, the board of directors shall have the authority to fix the compensation of directors.

3.12 APPROVAL OF LOANS TO OFFICERS

The corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiary, including any officer or employee who is a director of the corporation or its subsidiary, whenever, in the judgment of the directors, such loan, guaranty or assistance may reasonably be expected to benefit the corporation. The loan, guaranty or other assistance may be with or without interest and may be unsecured, or secured in such manner as the board of directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing contained in this section shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

-10-

15

3.13 REMOVAL OF DIRECTORS

Unless otherwise restricted by statute, by the certificate of incorporation or by these bylaws, any director or the entire board of directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors; provided, however, that, so long as stockholders of the corporation are entitled to cumulative voting, if less than the entire board is to be removed, no director may be removed without cause if the votes cast against his removal would be sufficient to elect such director if then cumulatively voted at an election of the entire board of directors or, if there be classes of directors, at an election of the class of directors of which such director is a part.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE IV

COMMITTEES

4.1 COMMITTEES OF DIRECTORS

The board of directors may, by resolution passed by a majority of the whole board, designate one or more committees, with each committee to consist of one or more of the directors of the corporation. The board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the board of directors, or in the bylaws of the corporation, shall have and may exercise all the powers and authority of the board of directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority (i) approving or adopting or recommending to the stockholders, any action or matter expressly required by the Delaware General Corporation Law to be submitted to stockholders for approval or (ii) adopting, amending, or repealing any bylaws of the corporation; and, unless the board resolution establishing the committee, the bylaws or the certificate of incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock, or to adopt a certificate of ownership and merger pursuant to Section 253 of the Delaware General Corporation Law.

-11-

16

4.2 COMMITTEE MINUTES

Each committee shall keep regular minutes of its meetings and report the same to the board of directors when required.

4.3 MEETINGS AND ACTION OF COMMITTEES

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of Article III of these bylaws, Section 3.5 (place of meetings and meetings by telephone), Section 3.6 (regular meetings), Section 3.7 (special meetings and notice), Section 3.8 (quorum), Section 3.9 (waiver of notice), and Section 3.10 (action without a meeting), with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the board of directors and its members; provided, however, that the time of regular meetings of committees may be determined either by resolution of the board of directors or by resolution of the committee, that special meetings of committees may also be called by resolution of the board of directors and that notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The board of directors may adopt

rules for the government of any committee not inconsistent with the provisions of these bylaws.

ARTICLE V

OFFICERS

5.1 OFFICERS

The officers of the corporation shall be a president, a secretary, and a chief financial officer. The corporation may also have, at the discretion of the board of directors, a chairman of the board, one or more vice presidents, one or more assistant vice presidents, one or more assistant secretaries, one or more assistant treasurers, and any such other officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws. Any number of offices may be held by the same person.

5.2 APPOINTMENT OF OFFICERS

The officers of the corporation, except such officers as may be appointed in accordance with the provisions of Sections 5.3 or 5.5 of these bylaws, shall be appointed by the board of directors, subject to the rights, if any, of an officer under any contract of employment.

5.3 SUBORDINATE OFFICERS

The board of directors may appoint, or empower the president to appoint, such other officers and agents as the business of the corporation may require, each of whom shall hold office for such

-12-

17

period, have such authority, and perform such duties as are provided in these bylaws or as the board of directors may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS; FILLING VACANCIES

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the board of directors at any regular or special meeting of the board or, except in the case of an officer chosen by the board of directors, by any officer upon whom such power of removal may be conferred by the board of directors.

Any officer may resign at any time by giving written notice to the corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be

necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the corporation under any contract to which the officer is a party.

Any vacancy occurring in any office of the corporation shall be filled by the board of directors.

5.5 CHAIRMAN OF THE BOARD

The chairman of the board, if such an officer be elected, shall, if present, preside at meetings of the board of directors and exercise and perform such other powers and duties as may from time to time be assigned to the chairman of the board by the board of directors or as may be prescribed by these bylaws. If there is no president and no one has been appointed chief executive officer, then the chairman of the board shall also be the chief executive officer of the corporation and shall have the powers and duties prescribed in Section 5.6 of these bylaws.

5.6 CHIEF EXECUTIVE OFFICER

The board of directors shall select a chief executive officer of the corporation who shall be subject to the control of the board of directors and have general supervision, direction and control of the business and the officers of the corporation. The chief executive officer shall preside at all meetings of the stockholders and, in the absence or nonexistence of a chairman of the board, at all meetings of the board of directors.

5.7 PRESIDENT

The president shall have the general powers and duties of management usually vested in the office of president of a corporation and shall have such other powers and duties as may be prescribed by the board of directors or these bylaws. In addition and subject to such supervisory powers, if any, as may be given by the board of directors to the chairman of the board, if no one has been appointed

-13-

18

chief executive officer, the president shall be the chief executive officer of the corporation and shall, subject to the control of the board of directors, have the powers and duties described in Section 5.6.

5.8 VICE PRESIDENTS

In the absence or disability of the president, the vice presidents, if any, in order of their rank as fixed by the board of directors or, if not ranked, a vice president designated by the board of directors, shall perform all the duties of the president and when so acting shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents

shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the board of directors, these bylaws, the president or the chairman of the board.

5.9 SECRETARY

The secretary shall keep or cause to be kept, at the principal executive office of the corporation or such other place as the board of directors may direct, a book of minutes of all meetings and actions of directors, committees of directors, and stockholders. The minutes shall show the time and place of each meeting, whether regular or special (and, if special, how authorized and the notice given), the names of those present at directors' meetings or committee meetings, the number of shares present or represented at stockholders' meetings, and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal executive office of the corporation or at the office of the corporation's transfer agent or registrar, as determined by resolution of the board of directors, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the board of directors required to be given by law or by these bylaws. The secretary shall keep the seal of the corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the board of directors or by these bylaws.

5.10 CHIEF FINANCIAL OFFICER

The chief financial officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital retained earnings, and shares. The books of account shall at all reasonable times be open to inspection by any director.

The chief financial officer shall deposit all moneys and other valuables in the name and to the credit of the corporation with such depositories as may be designated by the board of directors. The chief financial officer shall disburse the funds of the corporation as may be ordered by the board of

directors, shall render to the president and directors, whenever they request it, an account of all his transactions as chief financial officer and of the financial condition of the corporation, and shall have other powers and perform such other duties as may be prescribed by the board of directors or these

bylaws.

The chief financial officer shall be the treasurer of the corporation.

5.11 ASSISTANT SECRETARY

The assistant secretary, or, if there is more than one, the assistant secretaries in the order determined by the stockholders or board of directors (or if there be no such determination, then in the order of their election) shall, in the absence of the secretary or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as may be prescribed by the board of directors or these bylaws.

5.12 ASSISTANT TREASURER

The assistant treasurer, or, if there is more than one, the assistant treasurers, in the order determined by the stockholders or board of directors (or if there be no such determination, then in the order of their election), shall, in the absence of the chief financial officer or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the chief financial officer and shall perform such other duties and have such other powers as may be prescribed by the board of directors or these bylaws.

5.13 REPRESENTATION OF SHARES OF OTHER CORPORATIONS

The chairman of the board, the president, any vice president, the chief financial officer, the secretary or assistant secretary of this corporation, or any other person authorized by the board of directors or the president or a vice president, is authorized to vote, represent, and exercise on behalf of this corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

5.14 AUTHORITY AND DUTIES OF OFFICERS

In addition to the foregoing authority and duties, all officers of the corporation shall respectively have such authority and perform such duties in the management of the business of the corporation as may be designated from time to time by the board of directors or the stockholders.

-15-

20

ARTICLE VI

INDEMNITY

6.1 THIRD PARTY ACTIONS

The corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending, or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement (if such settlement is approved in advance by the corporation, which approval shall not be unreasonably withheld) actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interest of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful.

6.2 ACTIONS BY OR IN THE RIGHT OF THE CORPORATION

The corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person is or was a director, officer, employee or agent of corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) and amounts paid in settlement (if such settlement is approved in advance by the corporation, which approval shall not be unreasonably withheld) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in manner such person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Delaware Court of Chancery or such other court shall deem proper. Notwithstanding any other provision of this Article VI, no person shall be

indemnified hereunder for any expenses or amounts paid in settlement with respect to any action to recover short-swing profits under Section 16(b) of the Securities Exchange Act of 1934, as amended.

6.3 SUCCESSFUL DEFENSE

To the extent that a director, officer, employee or agent of the corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Sections 6.1 and 6.2, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

6.4 DETERMINATION OF CONDUCT

Any indemnification under Sections 6.1 and 6.2 (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that the indemnification of the director, officer, employee or agent is proper in the circumstances because such person has met the applicable standard of conduct set forth in Sections 6.1 and 6.2. Such determination shall be made (1) by the Board of Directors or the Executive Committee by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding or (2) or if such quorum is not obtainable or, even if obtainable, a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders. Notwithstanding the foregoing, a director, officer, employee or agent of the Corporation shall be entitled to contest any determination that the director, officer, employee or agent has not met the applicable standard of conduct set forth in Sections 6.1 and 6.2 by petitioning a court of competent jurisdiction.

6.5 PAYMENT OF EXPENSES IN ADVANCE

Expenses incurred in defending a civil or criminal action, suit or proceeding, by an individual who may be entitled to indemnification pursuant to Section 6.1 or 6.2, shall be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of the director, officer, employee or agent to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the corporation as authorized in this Article VI.

6.6 INDEMNITY NOT EXCLUSIVE

The indemnification and advancement of expenses provided by or granted pursuant to the other sections of this Article VI shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office.

6.7 INSURANCE INDEMNIFICATION

The corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against any liability asserted against such person and incurred by such person in any such capacity or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under the provisions of this Article VI.

6.8 THE CORPORATION

For purposes of this Article VI, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under and subject to the provisions of this Article VI (including, without limitation the provisions of Section 6.4) with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued.

6.9 EMPLOYEE BENEFIT PLANS

For purposes of this Article VI, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this Article VI.

6.10 CONTINUATION OF INDEMNIFICATION AND ADVANCEMENT OF EXPENSES

The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VI shall, unless otherwise provided when authorized or

ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

-18-

23

ARTICLE VII

RECORDS AND REPORTS

7.1 MAINTENANCE AND INSPECTION OF RECORDS

The corporation shall, either at its principal executive officer or at such place or places as designated by the board of directors, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these bylaws as amended to date, accounting books, and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent so to act on behalf of the stockholder. The demand under oath shall be directed to the corporation at its registered office in Delaware or at its principal place of business.

The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

7.2 INSPECTION BY DIRECTORS

Any director shall have the right to examine the corporation's stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his position as a director. The Court of Chancery

is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any

-19-

24

limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

7.3 ANNUAL STATEMENT TO STOCKHOLDERS

The board of directors shall present at each annual meeting, and at any special meeting of the stockholders when called for by vote of the stockholders, a full and clear statement of the business and condition of the corporation.

ARTICLE VIII

GENERAL MATTERS

8.1 CHECKS

From time to time, the board of directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the corporation, and only the persons so authorized shall sign or endorse those instruments.

8.2 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS

The board of directors, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the board of directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

8.3 STOCK CERTIFICATES; PARTLY PAID SHARES

The shares of the corporation shall be represented by certificates, provided that the board of directors of the corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Notwithstanding the adoption of such a resolution by the board of

directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the corporation by the chairman or vice-chairman of the board of directors, or the president or vice-president, and by the chief financial officer or an assistant treasurer, or the secretary or an assistant secretary of such corporation representing the

-20-

25

number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue.

The corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

8.4 SPECIAL DESIGNATION ON CERTIFICATES

If the corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the General Corporation Law of Delaware, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the corporation shall issue to represent such class or series of stock a statement that the corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

8.5 LOST CERTIFICATES

Except as provided in this Section 8.5, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is

surrendered to the corporation and canceled at the same time. The corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the corporation may require the owner of the lost, stolen or destroyed certificate, or his legal representative, to give the corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

-21-

26

8.6 CONSTRUCTION; DEFINITIONS

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the Delaware General Corporation Law shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

8.7 DIVIDENDS

The directors of the corporation, subject to any restrictions contained in (i) the Delaware General Corporation Law or (ii) the certificate of incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property, or in shares of the corporation's capital stock.

The directors of the corporation may set apart out of any of the funds of the corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the corporation, and meeting contingencies.

8.8 FISCAL YEAR

The fiscal year of the corporation shall be fixed by resolution of the board of directors and may be changed by the board of directors.

8.9 SEAL

The corporation may adopt a corporate seal, which shall be adopted and which may be altered by the board of directors, and may use the same by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

8.10 TRANSFER OF STOCK

Upon surrender to the corporation or the transfer agent of the corporation

of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate, and record the transaction in its books.

8.11 STOCK TRANSFER AGREEMENTS

The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the Delaware General Corporation Law.

-22-

27

8.12 REGISTERED STOCKHOLDERS

The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner, shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE IX

AMENDMENTS

The bylaws of the corporation may be adopted, amended or repealed by the stockholders entitled to vote; provided, however, that the corporation may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws.

-23-

LOCK-UP AGREEMENT

August 27, 1999

BancBoston Robertson Stephens
As Representatives of the Several Underwriters
555 California Street
San Francisco, CA 94104

Ladies and Gentlemen:

The undersigned understands that you, as Representatives of the several underwriters (the "Underwriters"), propose to enter into an Underwriting Agreement (the "Underwriting Agreement") with OnDisplay, Inc. (the "Company") providing for the initial public offering (the "Public Offering") by the Underwriters, including yourselves, of Common Stock of the Company (the "Common Stock") pursuant to the Company's Registration Statement on Form S-1 to be filed with the Securities and Exchange Commission on or about September 9, 1999 (the "Registration Statement").

In consideration of the Underwriters' agreement to purchase and make the Public Offering of the Common Stock, and for other good and valuable consideration, receipt of which is hereby acknowledged, the undersigned hereby agrees, for a period of 180 days after the effective date of the Registration Statement (the "Lock-Up Period"), not to offer to sell, contract to sell or otherwise sell, dispose of, loan, pledge or grant any rights with respect to (collectively, a "Disposition") any shares of Common Stock, any options or warrants to purchase any shares of Common Stock or any securities convertible into or exchangeable for shares of Common Stock (collectively, "Securities"), now owned or hereafter acquired directly by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition, other than (i) as a bona fide gift or gifts, provided the donee or donees thereof agree to be bound by this Lock-Up Agreement, (ii) as a distribution to limited partners or shareholders of the undersigned, provided that the distributees thereof agree in writing to be bound by the terms of this Lock-Up Agreement or (iii) with the prior written consent of BancBoston Robertson Stephens. The foregoing restriction is expressly agreed to preclude the holder of the Securities from engaging in any hedging or other transaction which is designed to or reasonably expected to lead to or result in a Disposition of Securities during the Lock-Up Period even if such Securities would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale (whether or not against the box) or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any Securities or with respect to any security (other than a broad-based market basket or index) that

includes, relates to or derives any significant part of its value from Securities. Notwithstanding the foregoing, this Lock-Up Agreement does not prohibit the sale of shares of the Common Stock by the undersigned to the Underwriters in the Public Offering.

2

Furthermore, the undersigned hereby agrees and consents to the entry of stop transfer instructions with the Company's transfer agent against the transfer of the Securities held by the undersigned except in compliance with this Lock-Up Agreement.

Very truly yours,

(signature)

Name: _____

Address: _____

Accepted as of the date first set forth above:

BancBoston Robertson Stephens
As Representatives of the Several Underwriters

BancBoston Robertson Stephens

By: _____
(authorized signatory)

[WILSON SONSINI GOODRICH & ROSATI LETTERHEAD]

September __, 1999

BancBoston Robertson Stephens
Deutsche Bank - Alex. Brown
SG COWEN
as Representatives of the several Underwriters
c/o BancBoston Robertson Stephens
555 California Street
San Francisco, California 94104

Re: OnDisplay, Inc.

Ladies and Gentlemen:

We have acted as counsel for OnDisplay, Inc., a Delaware corporation (the "Company") in connection with the public offering of _____ shares of the Company's common stock (the "Shares"), pursuant to that certain Underwriting Agreement dated September __, 1999 (the "Underwriting Agreement"), among the Company, the Selling Stockholder, BancBoston Robertson Stephens, Deutsche Bank - Alex. Brown, and SG COWEN., as Representatives of the several Underwriters named in Schedule I thereto (the "Underwriters"). This opinion is being rendered to you pursuant to Section [7(c)] of the Underwriting Agreement. Capitalized terms used herein shall have the same meanings given to them in the Underwriting Agreement unless otherwise defined herein.

We are licensed to practice law only in the State of California. Accordingly, except as otherwise specifically stated herein, the opinions expressed herein are limited in all respects to existing laws of the State of California, the corporate laws of the State of Delaware and applicable federal laws, and we have made no inquiry into, and express no opinion as to, the statutes, regulations, treaties or common laws of any other nation, state or jurisdiction, or the effect on the transaction in the Underwriting Agreement of non-compliance under any such statutes, regulations, treaties or common laws. We have assumed that the laws of any state, other than California or the corporate laws of Delaware, applicable to the opinions rendered herein are identical to the laws of the State of California or the corporate laws of Delaware.

As counsel for the Company, we have made such legal and factual examinations and inquiries as we have deemed advisable or necessary for the purpose of rendering this opinion and we have examined, among other things,

being true copies of the originals of, or have received where other than in written form, the following:

(a) The Restated Certificate of Incorporation of the Company as in effect on the date hereof and as proposed to be amended simultaneously with or following the Closing;

(b) The Bylaws of the Company as in effect on the date hereof (the "Bylaws");

(c) Minutes of meetings of the Board of Directors of the Company and the Pricing Committee of the Board of Directors of the Company with respect to the transactions covered by this opinion;

(d) The Registration Statement on Form S-1 (Registration No. _____) filed by the Company under the Act with the Commission on September __, 1999, (the "Registration Statement") and the prospectus in the form filed with the Commission on _____, 1999 pursuant to Rule 424(b) under the Act (hereinafter referred to as the "Prospectus");

(e) Oral confirmation from the Commission staff that the Registration Statement became effective at _____ p.m., Eastern Daylight Time, on _____, 1999;

(f) Specimen certificate for shares of the Company's Common Stock;

(g) Executed copies of the Underwriting Agreement;

(h) The letter dated _____, 1999 of PricewaterhouseCoopers LLP addressed and delivered to you pursuant to Section [7(f)] of the Underwriting Agreement;

(i) The Officers' Certificate dated _____, 1999, delivered to you pursuant to Section [7(1)] of the Underwriting Agreement; and

(j) The certificate of Chase Mellon Shareholder Services, the Transfer Agent and Registrar for the Company, delivered to you on the date hereof.

In addition, we have obtained from public officials and officers of the Company such other certificates and assurances, and we have examined such corporate records, other documents and questions of law as we have considered necessary or appropriate for the purposes of rendering this opinion, which certificates and assurances, records, documents and the like have been delivered to you herewith.

In connection with such examination, we have assumed the genuineness of all signatures on original documents, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof, and the due execution of all documents where due execution and delivery are a prerequisite to the effectiveness thereof, other than the signatures of the Company's officers and directors with respect to the Underwriting Agreement and the Registration Statement. In addition, we have assumed that the Underwriting Agreement has been duly authorized, executed and delivered by you and that the representations and warranties as to

-2-

3

factual matters, but not legal conclusions, made by the Company in the Underwriting Agreement and pursuant thereto are correct and complete.

As used in this opinion, the expressions "to our knowledge", "to the best of our knowledge", "known to us" or similar language with reference to matters of fact mean that, after an examination of documents made available to us by the Company, and after inquiries of officers of the Company, but without any further independent factual investigation, nothing has come to our attention which causes us to believe that the opinions expressed herein are factually incorrect. Further, the expressions "to our knowledge", "to the best of our knowledge", "known to us" or similar language with reference to matters of fact refer to the current actual knowledge solely of the attorneys of this firm who have worked on matters for the Company. Except to the extent expressly set forth herein or as we otherwise believe to be necessary to our opinion, we have not undertaken any independent investigation to determine the existence or absence of any fact, and no inference as to our knowledge of the existence or absence of any fact should be drawn from our representation of the Company or the rendering of the opinions set forth below.

The opinions expressed are subject to the following qualifications:

(i) We express no opinion as to the effect of applicable bankruptcy, insolvency, reorganization, moratorium or other similar federal or state laws relating to or affecting the rights of creditors generally or of general equitable principles;

(ii) We express no opinion as to the effect of rules of law governing specific performance, injunctive relief or other equitable remedies (regardless of whether any such remedy is considered in a proceeding at law or in equity);

(iii) In rendering our opinion in Paragraph 3, we have relied solely upon good standing certificates issued by the appropriate state officers in each state in which the Company owns or leases properties or conducts any business; and

(iv) We express no opinion as to the enforceability of the indemnification and contribution provisions of Section [8] of the Underwriting Agreement to the extent such provisions may be subject to limitations of public policy and the effect of applicable statutes and judicial decisions.

Based upon, and subject to the foregoing, we are of the opinion that:

(1) The Company has been duly incorporated and is validly existing as a corporation and in good standing under the laws of the State of Delaware, with power and authority (corporate and other) to own its properties and conduct its business as described in the Prospectus;

(2) The Company has an authorized capitalization as set forth in the Prospectus, and all of the issued shares of capital stock of the Company (including the Shares being delivered at such Time of Delivery) have been duly and validly authorized and issued and are fully paid and non-assessable; and the Shares conform to the description of the Stock contained in the Prospectus;

-3-

4

(3) The Company has been duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, except where the failure to be so qualified would not have a material adverse effect on the Company;

(4) To our knowledge and other than as set forth in the Prospectus, there are no legal or governmental proceedings pending to which the Company is a party or of which any property of the Company is the subject which, if determined adversely to the Company, would individually or in the aggregate have a material adverse effect on the current consolidated financial position, stockholders' equity or results of operations of the Company and its subsidiaries; and, to our knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others;

(5) The Underwriting Agreement has been duly authorized, executed and delivered by the Company;

(6) The issue and sale of the Shares being delivered at the Time of Delivery by the Company and the compliance by the Company with all of the provisions of the Underwriting Agreement and the consummation of the transactions therein contemplated will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any agreement included as an exhibit to the Registration Statement, nor will such action result in any violation of the provisions of the Restated Certificate of Incorporation or Bylaws of the Company or any statute or any order, rule or regulation known to us of any court or governmental agency or

body having jurisdiction over the Company or any of its subsidiaries or any of their properties;

(7) No consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Shares or the consummation by the Company of the transactions contemplated by the Underwriting Agreement, except (i) in certain states where the Company is licensed as a mortgage lender or broker, (ii) the registration under the Act of the Shares, and (iii) such consents, approvals, authorizations, registrations or qualifications as may be required under state securities or Blue Sky laws in connection with the purchase and distribution of the Shares by the Underwriters;

(8) Neither the Company nor any of its subsidiaries is in violation of its Certificate of Incorporation or Bylaws;

(9) The statements set forth in the Prospectus under the caption "Description of Capital Stock", insofar as they purport to constitute a summary of the terms of the Stock and under the caption "Underwriting", insofar as they purport to describe the provisions of the laws and documents referred to therein, are accurate, complete and fair;

(10) The Company is not an "investment company", as such term is defined in the Investment Company Act;

(11) The Registration Statement and the Prospectus and any further amendments and supplements thereto made by the Company prior to the Time of Delivery (other than the financial statements and related schedules and financial data therein, as to which we express no opinion) comply as to form in all material respects with the requirements of the Act and the rules and

-4-

5

regulations thereunder; and we do not know of any amendment to the Registration Statement required to be filed or of any contracts or other documents of a character required to be filed as an exhibit to the Registration Statement or required to be described in the Registration Statement or the Prospectus which are not filed or described as required; and

(12) To the best of our knowledge and other than as set forth in the Prospectus, neither the Company nor any of its officers, directors or employees is a party or subject to the provisions of any regulatory action, injunction, judgment, decree or order of any federal or state mortgage banking regulatory agency, nor is there any charge, action, suit, proceeding or investigation pending before or threatened by any federal or state mortgage banking regulatory agency.

We have participated in conferences with officers and other

representatives of the Company, including the independent certified public accountants of the Company and with you and your counsel, at which such conferences the contents of the Registration Statement and Prospectus and related matters were discussed, and although we have not verified the accuracy or completeness of the statements contained in the Registration Statement or the Prospectus, except for those referred to in paragraph 9 above, nothing has come to our attention which leads us to believe that, at the time the Registration Statement became effective and at all times subsequent thereto up to and at the Time of Delivery, the Registration Statement and any amendment or supplement thereto (other than the financial statements and related schedules and financial data therein, as to which we express no opinion) contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading, or at the date of the Prospectus or at the Time of Delivery, the Prospectus and any amendment or supplement thereto (except as aforesaid) contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

This opinion is furnished by us, as counsel for the Company, to you in connection with the sale by the Company and the purchase by you of the Shares pursuant to the Underwriting Agreement. This opinion may not be relied upon by you for any other purpose or made available to or relied upon by any other person or entity for any purpose without our prior written consent.

Very truly yours,

WILSON SONSINI GOODRICH & ROSATI

ONDISPLAY, INC.
 THIRD RESTATED
 INVESTOR RIGHTS AGREEMENT
 AUGUST 2, 1999

TABLE OF CONTENTS

<TABLE>
<CAPTION>

	PAGE

<S>	<C>
1. Restrictions on Transfer.....	1
1.1 Transfer.....	1
1.2 Legend.....	2
1.3 Legend Removal.....	2
2. Registration Rights.....	3
2.1 Definitions.....	3
2.2 Demand Registration.....	4
2.3 Piggyback Registration.....	5
2.4 Obligations of the Company.....	5
2.5 Furnish Information.....	6
2.6 Expenses of Demand Registration.....	7
2.7 Expenses of Piggyback Registration.....	7
2.8 Underwriting Requirements.....	7
2.9 Delay of Registration.....	8
2.10 Indemnification.....	8
2.11 Reports Under Securities Exchange Act of 1934.....	10
2.12 Form S-3 Registration.....	11
2.13 Assignment of Registration Rights.....	12
2.14 Limitations on Subsequent Registration Rights.....	12
2.15 "Market Stand-Off" Agreement.....	13
2.16 Termination of Registration Rights.....	13
3. Right of First Offer.....	13
3.1 Grant of Right.....	13
3.2 Future Shares.....	13
3.3 Special Right of First Refusal in Qualified IPO.....	14
3.4 Notice.....	14
3.5 Sale after Notice.....	15
3.6 Assignment.....	16
3.7 Termination of Rights.....	16

4.	Information Rights; Board Observation Rights, Vesting.....	16
4.1	Financial Information.....	16
4.2	Inspection Rights.....	17
4.3	Assignment of Rights.....	17
4.4	Board Observation Rights.....	17
4.5	Termination of Covenants.....	18
4.6	Stock Vesting.....	18

</TABLE>

-i-

3

TABLE OF CONTENTS

(CONTINUED)

<TABLE>

<CAPTION>

	PAGE

<S>	<C>
5.	Termination of Prior Rights Agreements.....18
6.	Waiver of Right of First Offer.....18
7.	Miscellaneous Provisions.....19
7.1	Waivers and Amendments.....19
7.2	Notices.....19
7.3	Governing Law.....19
7.4	Counterparts.....19
7.5	Expenses.....19
7.6	Successors and Assigns.....19
7.7	Entire Agreement; Superseding Prior Rights Agreement.....19
7.8	Separability; Severability.....20
7.9	Stock Splits.....20
7.10	Delays or Omissions.....20
7.11	Aggregation.....20

</TABLE>

-ii-

4

ONDISPLAY, INC.

THIRD RESTATED INVESTOR RIGHTS AGREEMENT

This Third Restated Investor Rights Agreement (the "Agreement") is effective as of August 2, 1999 by and among OnDisplay, Inc. (the "Company") and the investors listed on Schedule A attached hereto (the "Investors").

RECITALS

A. The Company sold and issued to certain of the Investors (the "Existing Holders") 3,400,000 shares of Series A Preferred Stock of the Company on September 23, 1996, 100,000 shares of Series A Preferred Stock of the Company on June 12, 1997, 3,190,476 shares of the Series B Preferred Stock of the Company on June 30, 1997, 11,905 shares of Series B Preferred Stock of the Company on January 9, 1998, 2,146,673 shares of Series C Preferred Stock of the Company on July 28, 1998 and 42,500 shares of Series C Preferred Stock of the Company on October 16, 1998. Pursuant to that certain Second Restated Investor Rights Agreement dated as of July 28, 1998 (the "Prior Rights Agreement") the Company granted to such Existing Holders certain rights and the Existing Holders entered

into certain covenants between themselves.

B. Pursuant to that certain Series D Preferred Stock Purchase Agreement of even date herewith and a Second Series D Preferred Stock Purchase Agreement dated August __, 1999 (collectively referred to as the "Series D Agreement"), the Company has agreed to sell to certain Investors (the "Series D Holders") a total of up to 2,100,000 shares of the Series D Preferred Stock of the Company and, as an inducement for the Series D Holders to purchase such shares, the Company and the Existing Holders have agreed to enter into this Agreement to supersede, amend and restate the rights granted to and covenants agreed by the Existing Holders in the Prior Rights Agreement. The outstanding shares of Series A Preferred Stock, the Series B Preferred Stock and Series C Preferred Stock, and the shares of Series D Preferred Stock sold pursuant to the Series D Agreement are collectively referred to herein as the "Preferred Shares." The Existing Holders and the Series D Holders are collectively referred to herein as the "Holders."

1. Restrictions on Transfer.

1.1 Transfer. Each Holder agrees not to make any disposition of all or any portion of the Preferred Shares (or shares of Common Stock issuable upon conversion of the Preferred Shares) unless and until:

(a) There is then in effect a registration statement under the Securities Act of 1933, as amended (the "Securities Act") covering such proposed disposition and such disposition is made in accordance with such registration statement; or

5

(b) (1) The transferee has agreed in writing to be bound by the terms of this Agreement, (2) such Holder shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and (3) if reasonably requested by the Company, such Holder shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, that such disposition will not require registration of such shares under the Securities Act. It is agreed that the Company will not require opinions of counsel for transactions made pursuant to Rule 144 except in unusual circumstances.

(c) Notwithstanding the provisions of paragraphs (a) and (b) above, no such registration statement or opinion of counsel shall be necessary for a transfer by a Holder which is (A) a partnership to its partners or former partners in accordance with partnership interests, (B) a corporation to its shareholders in accordance with their interest in the corporation, (C) a limited liability company to its members or former members in accordance with their interest in the limited liability company, or (D) to the Holder's family member or trust for the benefit of an individual Holder, provided the transferee will be subject to the terms of this Agreement to the same extent as if the transferee were an original Holder hereunder.

1.2 Legend. Each certificate representing Preferred Shares (or shares of Common Stock issuable upon conversion of the Preferred Shares) shall (unless otherwise permitted by the provisions of the Agreement) be stamped or otherwise imprinted with a legend substantially similar to the following (in addition to any legend required under applicable state securities laws or as provided elsewhere in this Agreement):

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, ASSIGNED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY AND ITS COUNSEL THAT SUCH REGISTRATION IS NOT REQUIRED.

1.3 Legend Removal.

(a) The Company shall be obligated to reissue promptly unlegended certificates at the request of any holder thereof if the holder shall have obtained an opinion of counsel (which counsel may be counsel to the Company) reasonably acceptable to the Company to the effect that the securities proposed to be disposed of may lawfully be so disposed of without registration, qualification or legend.

(b) Any legend endorsed on an instrument pursuant to applicable state securities laws and the stop-transfer instructions with respect to such securities shall be removed

-2-

6

upon receipt by the Company of an order of the appropriate blue sky authority authorizing such removal.

2. Registration Rights.

2.1 Definitions. For purposes of this Section 2:

(a) The term "register," "registered," and "registration" refer to a registration effected by preparing and filing a registration statement or similar document in compliance with the Act, and the declaration or ordering of effectiveness of such registration statement or document;

(b) The term "Registrable Securities" means (1) the Preferred Shares, (2) the Common Stock issued upon conversion of the Preferred Shares, (3) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, such Preferred Shares or Common Stock, excluding in all cases, however, (i) any Registrable Securities sold by a person in a transaction in which such person's rights under this Section 2 are not assigned, or (ii) any Registrable Securities sold to or through a broker or dealer or underwriter in a public distribution or a public securities transaction;

(c) The number of shares of "Registrable Securities then outstanding" shall be determined by the number of shares of Common Stock outstanding which are, and the number of shares of Common Stock issuable pursuant to then exercisable or convertible securities which are, Registrable Securities;

(d) The term "Holder" means any person owning or having the right to acquire Registrable Securities or any assignee thereof in accordance with Section 2.13 hereof;

(e) The term "Form S-3" means such form under the Act as in effect on the date hereof or any registration form under the Act subsequently adopted by the Securities and Exchange Commission (the "SEC") which permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC; and

(f) The term "Securities Act" shall mean the Securities Act of 1933, as amended.

(g) The term "Qualified IPO" shall mean the first underwritten public offering of Common Stock of the Company that is pursuant to a registration statement filed with, and declared effective by, the Securities and Exchange Commission (or any other federal agency at the time administering the Securities Act) under the Securities Act, covering the offer and sale of Common Stock to the public at a public offering price (prior to the underwriter commissions and expenses) equal to or exceeding Fifteen Dollars (\$15.00) per share of Common Stock (appropriately adjusted for stock splits, stock dividends,

transactions) and at an aggregate offering price (before deduction for underwriter commissions and expenses) of not less than Twenty Million Dollars (\$20,000,000).

2.2 Demand Registration.

(a) If the Company shall receive at any time after the earlier of (i) September 30, 2000 or (ii) six (6) months after the effective date of the first registration statement for a public offering of securities of the Company (other than a registration statement relating either to the sale of securities to employees of the Company pursuant to a stock option, stock purchase or similar plan or a SEC Rule 145 transaction), a written request from the Holders of at least ten percent (10%) of the Registrable Securities then outstanding (including securities convertible into Registrable Securities) for the first registration pursuant to this Section 2.2(b), and at least forty percent (40%) of the Registrable Securities then outstanding (including securities convertible into Registrable Securities) for the second registration pursuant to this Section 2.2(b), that the Company file a registration statement under the Act covering the registration of Registrable Securities having an aggregate offering price in excess of Five Million Dollars (\$5,000,000), then the Company shall, within ten (10) days of the receipt thereof, give written notice of such request to all Holders and shall, subject to the limitations of Section 2.2(b), effect as soon as practicable, and in any event within ninety (90) days of the receipt of such request, the registration under the Act of all Registrable Securities which the Holders request to be registered within twenty (20) days of the mailing of such written notice by the Company; provided, however, that the Company shall not be obligated to take any action to effect any such registration, qualification or compliance pursuant to this Section 2.2(a):

(i) During the period starting with the date sixty (60) days prior to the Company's estimated date of filing of, and ending on the date 120 days immediately following the effective date of, any registration statement pertaining to securities of the Company (other than a registration of securities in a Rule 145 transaction or with respect to an employee benefit plan), provided that the Company is actively employing in good faith all reasonable efforts to cause such registration statement to become effective;

(ii) After the Company has effected two such registrations pursuant to this Section 2.2(a), and such registrations have been declared or ordered effective; or

(iii) If the Company shall furnish to such Holders a certificate signed by the Chairman of the Board of the Company stating that in the good faith judgment of the Board of Directors it would be seriously detrimental to the Company or its stockholders for a registration statement to be filed at such time, then the Company's obligation to use its best efforts to register, qualify or comply under this Section 2.2(a) shall be deferred for a period not to exceed 120 days from the date of receipt of written request from the Holders; provided, however, that the Company may not utilize this right more than once in any twelve-month period.

(b) If the Holders initiating the registration request hereunder (the "Initiating Holders") intend to distribute the Registrable Securities covered by their request by means

of an underwriting, they shall so advise the Company as a part of their request

made pursuant to this Section 2.2 and the Company shall include such information in the written notice referred to in Section 2.2(a). In such event, the right of any Holder to include his Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Initiating Holders and such Holder) to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.4(e)) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by a majority in interest of the Initiating Holders. Notwithstanding any other provision of this Section 2.2, if the underwriter advises the Initiating Holders in writing that marketing factors require a limitation of the number of shares to be underwritten, then the Company shall so advise all Holders of Registrable Securities which would otherwise be underwritten pursuant hereto, and the number of shares of Registrable Securities that may be included in the underwriting shall be allocated among all Holders thereof, including the Initiating Holders, in proportion (as nearly as practicable) to the amount of Registrable Securities of the Company owned by each Holder. In any event, the Holders shall have the first right to include all of their shares in the offering before any other shares.

2.3 Piggyback Registration. If (but without any obligation to do so) the Company proposes to register (including for this purpose a registration effected by the Company for stockholders other than the Holders) any of its stock or other securities under the Act in connection with the public offering of such securities solely for cash (other than a registration relating solely to the sale of securities to participants in a Company stock plan, or a registration on any form which does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities), the Company shall, at such time, promptly give each Holder written notice of such registration. Upon the written request of each Holder given within twenty (20) days after mailing of written notice by the Company, the Company shall, subject to the provisions of Section 2.8, cause to be registered under the Act all of the Registrable Securities that each such Holder has requested to be registered.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) Prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for up to ninety (90) days, or other period as required in Section 2.12.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as

-5-

9

may be necessary to comply with the provisions of the Act with respect to the disposition of all securities covered by such registration statement.

(c) Furnish to the Holders such numbers of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them.

(d) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky

laws of such jurisdictions as shall be reasonably requested by the Holders, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement provided that such underwriting agreement shall not provide for indemnification or contribution obligations on the part of the holders greater than the obligations set forth in Section 2.10(b).

(f) Notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing.

(g) Furnish, at the request of any Holder requesting registration of Registrable Securities pursuant to this Section 2, on the date that such Registrable Securities are delivered to the underwriters for sale in connection with a registration pursuant to this Section 2, if such securities are being sold through underwriters, or, if such securities are not being sold through underwriters, on the date that the registration statement with respect to such securities becomes effective, (i) an opinion, dated such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Securities and (ii) if such offering is being underwritten, a letter dated such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of

-6-

10

any selling Holder that such holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as shall be required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Demand Registration. All expenses other than underwriting discounts and commissions incurred in connection with the registration, filing or qualification pursuant to Section 2.2 (which right may be assigned as provided in Section 2.13), including all registration, filing and qualification fees, printers' and accounting fees, fees and disbursements of counsel for the Company, and the reasonable fees and disbursements of one counsel for the selling Holders shall be borne by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.2 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all Participating Holders shall bear such expenses), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to a demand registration pursuant to Section 2.2; provided further, however, that if at the time of such withdrawal, the Holders have learned of a material adverse change in the

condition, business, or prospects of the Company from that known to the Holders at the time of their request, then the Holders shall not be required to pay any of such expenses and shall retain their rights pursuant to Section 2.2.

2.7 Expenses of Piggyback Registration. The Company shall bear and pay all expenses incurred in connection with any registration, filing or qualification of Registrable Securities with respect to the registrations pursuant to Section 2.3 for each Holder (which right may be assigned as provided in Section 2.13), including all registration, filing, and qualification fees, printers and accounting fees relating or apportionable thereto and the fees and disbursements of one counsel for the selling Holders selected by them, but excluding underwriting discounts and commissions relating to Registrable Securities.

2.8 Underwriting Requirements. In connection with any offering involving an underwriting of shares being issued by the Company, the Company shall not be required under Section 2.3 to include any of the Holders' securities in such underwriting unless they accept the terms of the underwriting as agreed upon between the Company and the underwriters selected by it, and then only in such quantity as will not, in the opinion of the underwriters, jeopardize the success of the offering by the Company; provided that such underwriting agreement shall not provide for indemnification or contribution obligations on the part of the Holders greater than the obligations set forth in Section 2.10(b). If the total amount of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the amount of securities sold other than by the Company that the underwriters reasonably believe compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters believe will not jeopardize the success of the offering (the securities so included to be apportioned pro rata among the selling stockholders according to the total amount of securities entitled to be included therein owned by each selling stockholder or in such other proportions as shall mutually be agreed to by such selling stockholders,

-7-

11

provided that the Holders shall have the first right to include all of their shares in the offering before any shares held by other selling stockholders) and in no event shall the Holder's shares be reduced below 25% of the shares sold in any offering with the exception of the Qualified IPO. In the event the Company reduces the number of Holder's shares included in the offering, as set forth in the previous sentence, the underwriter must first set forth its reasons for the reduction in writing. For purposes of apportionment, any selling stockholder which is a Holder of Registrable Securities and which is a partnership or corporation, the partners, retired partners and stockholders of such Holder, or the estates and family members of any such partners and retired partners and any trusts for the benefit of any of the foregoing persons shall be deemed to be a single "selling stockholder", and any pro rata reduction with respect to such "selling stockholder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "selling stockholder," as defined in this sentence.

2.9 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.10 Indemnification. In the event any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, any underwriter (as defined in the Securities Act) for such Holder and each person, if any, who controls such Holder or

underwriter within the meaning of the Securities Act or the Securities Exchange Act of 1934, amended (the "Exchange Act"), against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a "Violation"): (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law; and the Company will pay to each such Holder, underwriter or controlling person, as incurred, any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this Section 2.10(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, claim, damage, liability, or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished

-8-

12

expressly for use in connection with such registration by any such Holder, underwriter or controlling person.

(b) To the extent permitted by law, each selling Holder will indemnify and hold harmless the Company, each of its directors, each of its officers who has signed the registration statement, each person, if any, who controls the Company within the meaning of the Securities Act, any underwriter, any other Holder selling securities in such registration statement and any controlling person of any such underwriter or other Holder, against any losses, claims, damages, or liabilities (severally and not jointly) to which any of the foregoing persons may become subject, under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration; and each such Holder will pay, as incurred, any legal or other expenses reasonably incurred by any person intended to be indemnified pursuant to this Section 2.10(b), in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this Section 2.10(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; provided, that, in no event shall any indemnity under this Section 2.10(b) exceed the net proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.10 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 1.10, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party shall have the right to retain its own counsel, with the fees and expenses to be paid

by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. If the indemnified party fails to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, the indemnity party's liability under this Section 2.10 shall be reduced to the extent such failure to notify was prejudicial to the indemnifying party's ability to defend such action, but the omission to so deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.10.

(d) If the indemnification provided for in Section 2.10 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any losses, claims, damages or liabilities referred to herein, the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall to the extent permitted by applicable law contribute to the

-9-

13

amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the Violation(s) that resulted in such loss, claim, damage or liability, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by a court of law by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; provided, that in no event shall any contribution by a Holder hereunder exceed the net proceeds from the offering received by such Holder.

(e) The obligations of the Company and Holders under this Section 2.10 shall survive the completion of any offering of Registrable Securities in a registration statement under this Section 2.

2.11 Reports Under Securities Exchange Act of 1934. With a view to making available to the Holders the benefits of Rule 144 promulgated under the Act and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in SEC Rule 144, at all times after ninety (90) days after the effective date of the first registration statement filed by the Company for the offering of its securities to the general public;

(b) take such action, including the voluntary registration of its Common Stock under Section 12 of the 1934 Act, as is necessary to enable the Holders to utilize Form S-3 for the sale of their Registrable Securities, such action to be taken as soon as practicable after the end of the fiscal year in which the first registration statement filed by the Company for the offering of its securities to the general public is declared effective;

(c) file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act; and

(d) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the first

registration statement filed by the Company), the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested

-10-

14

in availing any Holder of any rule or regulation of the SEC which permits the selling of any such securities without registration or pursuant to such form.

2.12 Form S-3 Registration.

(a) In case the Company shall receive from any Holder or Holders who hold in excess of ten percent (10%) of the Company's Registrable Securities, a written request or requests that the Company effect a registration on Form S-3 and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders, the Company will:

(i) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders; and

(ii) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Holder's or Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holder or Holders joining in such request as are specified in a written request given within 15 days after receipt of such written notice from the Company; provided, however, that the Company shall not be obligated to effect any such registration, qualification or compliance, pursuant to this Section 2.12: (1) if Form S-3 is not available for such offering by the Holders; (2) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public (net of any underwriters' discounts or commissions) of less than \$1,000,000; (3) if the Company shall furnish to the Holders a certificate signed by the Chairman of the Board of the Company stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such Form S-3 Registration to be effected at such time, in which event the Company shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than 120 days after receipt of the request of the Holder or Holders under this Section 2.12; provided, however, that the Company shall not utilize this right more than once in any twelve (12) month period; (4) if the Company has already effected one registration on Form S-3 in any twelve (12) month period for the Holders pursuant to this Section 2.12; or (5) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

(b) If the Holders initiating the registration request hereunder (the "Initiating Holders") intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as part of their request made pursuant to this Section 2.12 and the Company shall include such information in the written notice referred to in Section 2.12(a)(i). In such event, the right of any Holder to include his Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the

-11-

inclusion of such Holder's Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Initiating Holders and such Holder) to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.4(e)) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by a majority in interest of the Initiating Holders. Notwithstanding any other provision of this Section 2.12, if the underwriter advises the Initiating Holders in writing that marketing factors require a limitation of the number of shares to be underwritten, then the Company shall so advise all Holders of Registrable Securities which would otherwise be underwritten pursuant hereto, and the number of shares of Registrable Securities that may be included in the underwriting shall be allocated among all Holders thereof, including the Initiating Holders, in proportion (as nearly as practicable) to the amount of Registrable Securities of the Company owned by each Holder.

(c) Subject to the foregoing, the Company shall file a registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the request or requests of the Holders and use its best efforts to keep such registration statement effective until the registered shares are sold or for three months, whichever comes first. All expenses incurred in connection with a registration requested pursuant to Section 2.12, including all registration, filing, qualification, printer's and accounting fees and the reasonable fees and disbursements of one counsel for the selling Holders selected by them, but excluding any underwriters' discounts or commissions associated with Registrable Securities, shall be borne by the Company. Registrations effected pursuant to this Section 2.12 shall not be counted as demands for registration or registrations effected pursuant to Section 2.2 or 2.3, respectively.

2.13 Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned by a Holder to a transferee or assignee who acquires at least 200,000 shares of Registrable Securities, provided the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned; and provided, further, that such assignment shall be effective only if immediately following such transfer the further disposition of such securities by the transferee or assignee is restricted under the Securities Act. Notwithstanding the above, such rights may be assigned by a Holder to a limited partner, general partner, former partner or other affiliate of an Investor (the "Transferee") regardless of the number of shares acquired by such Transferee.

2.14 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of at least sixty percent (60%) of the outstanding Registrable Securities, enter into any agreement with any holder or prospective holder of any securities of the Company which would allow such holder or prospective holder to include such securities in any registration filed under Section 2.2 hereof, unless under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of his securities will not reduce the amount of the Registrable Securities of the Holders which is included.

-12-

2.15 "Market Stand-Off" Agreement. Each holder of securities which are or at one time were Registrable Securities (or which are or were convertible into Registrable Securities) hereby agrees that, during a period not to exceed 180 days, following the effective date of a registration statement of the Company filed under the Securities Act, it shall not, to the extent requested by

the Company and such underwriter, sell or otherwise transfer or dispose of (other than to donees, partners or former partners in accordance with their partnership interests who agree to be similarly bound) any Registrable Securities except Registrable Securities included in such registration; provided, however, that:

(a) such agreement shall be applicable only to the first such registration statement of the Company which covers Common Stock (or other securities) to be sold on its behalf to the public in an underwritten offering; and

(b) all officers and directors of the Company enter into similar agreements. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Registrable Securities of each Investor (and the shares or securities of every other person subject to the foregoing restriction) until the end of such period.

2.16 Termination of Registration Rights. No stockholder shall be entitled to exercise any right provided for in this Section 2 after five (5) years following the Qualified IPO.

3. Right of First Offer.

3.1 Grant of Right.

(a) By Company. Subject to the terms and conditions specified in this Section 3, the Company hereby grants to each Investor a right of first offer with respect to future sales by the Company of its Future Shares (as hereinafter defined) and grants to each holder of Series C Preferred Stock and Series D Preferred Stock the rights set forth in Section 3.3.

(b) By Investors. Each Investor grants to the Company a right of first offer with respect to all future sales of the shares listed opposite each Investor's name on Schedule A attached hereto ("Investor Shares").

3.2 Future Shares. "Future Shares" shall mean shares of any capital stock of the Company, whether now authorized or not, and any rights, options or warrants to purchase such capital stock, and securities of any type that are, or may become, convertible into such capital stock; provided however, that "Future Shares" do not include (i) the shares of Preferred Stock or the Common Stock issued or issuable upon the conversion of such Preferred Stock, (ii) securities offered pursuant to the Qualified IPO, (iii) securities issued pursuant to the acquisition of another corporation by the Company by merger of, purchase of substantially all of the assets of or other reorganization, and (iv) up to 3,000,000 shares reserved for issuance under an incentive stock plan

-13-

17

or other securities issued or issuable to officers, directors, employees, consultants, strategic partners, licensors or lessors of the Company pursuant to any employee or consultant stock offering, plan or arrangement.

3.3 Special Right of First Refusal in Qualified IPO

(a) In the event the Company proposes to undertake a Qualified IPO subject to the conditions set forth in Section 3.3(b), the holders of Series C Preferred Stock and Series D Preferred Stock shall have the right to purchase their pro rata share of the shares issued in the Qualified IPO (the "Special Right of First Refusal"). The provisions of Section 3.4 below shall apply to the implementation of the Special Right of First Refusal.

(b) The underwriter of the Qualified IPO, in the exercise of its reasonable judgment and discretion, may reduce or eliminate this Special Right of First Refusal to the extent it is deemed reasonably necessary (i) to the success of the offering due to marketing factors as set forth in writing no less than one week prior to the anticipated effective date of the registration

statement covering such offering, or (ii) to comply with applicable SEC or NASD rules and regulations for reasons set forth in writing no less than one day prior to the anticipated effective date of the registration statement covering such offering.

3.4 Notice. In the event the Company proposes to offer any of its Future Shares, the Company shall first make an offering of such Future Shares to each Investor in accordance with the following provisions:

(a) The Company shall deliver a notice by certified mail (the "Notice") to the Investors stating (i) its bona fide intention to offer such Future Shares, (ii) the number of such Future Shares to be offered, (iii) the price, if any, for which it proposes to offer such Future Shares, and (iv) a statement as to the number of days from receipt of such Notice within which the Investor must respond to such Notice.

(b) Within twenty (20) calendar days after receipt of the Notice, the Investor may elect to purchase or obtain, at the price and on the terms specified in the Notice, up to that portion of such Future Shares which equals the proportion that the number of shares of Common Stock issued and held, or issuable upon conversion of the Shares then held, by such Investor bears to the total number of shares of Common Stock issued and outstanding, including shares issuable upon conversion of convertible securities issued and outstanding. The Company shall promptly, in writing, inform each Investor which purchases all the Future Shares available to it (the "Fully-Exercising Investor") of any other Investor's failure to do likewise. During the ten-day period commencing after receipt of such information, each Fully-Exercising Investor shall be entitled to obtain that portion of the Future Shares offered to the Investors which was not subscribed for, which is equal to the proportion that the number of shares of Common Stock issued and outstanding, or issuable upon conversion of the Shares then held, held by such Fully-Exercising Investor bears to the total number of shares of Common Stock issued and outstanding, including shares issuable upon

-14-

18

conversion of convertible securities issued and outstanding then held, held by all Fully-Exercising Investors who wish to purchase some of the unsubscribed shares. This Section 3.4 shall apply to the exercise of the rights of the Series C Preferred Stock and Series D Preferred Stock set forth in Section 3.3 hereof; for such purposes "Future Shares" shall mean the securities offered by the Company in the Qualified IPO and such rights shall apply only to the holders of Series C Preferred Stock and Series D Preferred Stock.

In the case of a proposed sale by an Investor:

(a) The Investor shall deliver a notice by certified mail (the "Investor's Notice") to the Company stating (i) the Investor's bona fide intention to offer the Investor Shares, (ii) the number of such Investor Shares to be offered, (iii) the price for which it proposes to offer such Investor Shares, and (iv) a statement as to the number of days from receipt of such Investor's Notice within which the Company must respond to such Investor's Notice.

(b) Within twenty (20) calendar days after receipt of the Investor's Notice, the Company may elect to purchase or obtain, at the price and on the terms specified in the Investor's Notice, all or a portion of the Investor Shares so offered. If the Company elects not to purchase the Investor shares, the Company shall promptly, in writing, inform each Investor of such election. During the ten-day period commencing after receipt of such information, each Investor shall be entitled to obtain that portion of the Investor Shares offered, which is equal to the proportion that the number of shares of Common Stock issued and outstanding, or issuable upon conversion of the Shares then held, held by such Fully-Exercising Investor bears to the total

number of shares of Common Stock issued and outstanding, including shares issuable upon conversion of convertible securities issued and outstanding then held, held by all Investors (with the exception of the Investor proposing to sell its shares) who wish to purchase some of the Investor Shares.

3.5 Sale after Notice

(a) By Company. If all such Future Shares referred to in the Notice are not elected to be obtained as provided in Section 3.4 hereof, the Company may, during the 90-day period following the expiration of the period provided in Section 3.4 hereof, offer the remaining unsubscribed Future Shares to any person or persons at a price not less than, and upon terms no more favorable to the offeree than those specified in the Notice. If the Company does not enter into an agreement for the sale of the Future Shares within such period, or if such agreement is not consummated within ninety (90) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such Future Shares shall not be offered unless first reoffered to the Investors in accordance herewith.

(b) By Investor. If all such Investor Shares referred to in the Investor's Notice are not elected to be purchased as provided in Section 3.4 hereof, the Investor may, during the 90-day period following the expiration of the period provided in Section 3.4 hereof, offer the

-15-

19

remaining unsubscribed Investor Shares to any person or persons at a price not less than, and upon terms no more favorable to the offeree than those specified in the Investor's Notice. If the Investor does not enter into an agreement for the sale of the Investor Shares within such period, or if such agreement is not consummated within 90 days of the execution thereof, the right provided hereunder shall be deemed to be revived and such Investor Shares shall not be offered unless first reoffered to the Company in accordance herewith.

3.6 Assignment. The right of first offer granted under this Section 3 is assignable by the Company without limitation and by the Investors to (i) any partner or retired partner of any Investor which is a partnership, (ii) any family member or trust for the benefit of any individual holder, (iii) any shareholder of any Investor which is a corporation, (iv) any member of any Investor who is limited liability company, or (v) any transferee who acquires at least 200,000 shares of Series C Preferred Stock or Series D Preferred Stock; provided the Company is given written notice thereof.

3.7 Termination of Rights. Neither the Company nor any Investor shall be entitled to exercise any right provided for in this Section 3 following the Qualified IPO.

4. Information Rights; Board Observation Rights, Vesting

4.1 Financial Information. The Company will provide each Investor the following reports for so long as the Investor is a holder of a minimum of 200,000 Shares or an equivalent amount of Conversion Stock or of an equivalent combination of Shares and Conversion Stock (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and other similar transactions) (a "Major Investor"), including for purposes of this Section 4 any such Shares which have been transferred to a constituent partner of an Investor:

(a) As soon as practicable after the end of each fiscal year, and in any event within ninety (90) days thereafter, consolidated balance sheets of the Company and its subsidiaries, if any, as of the end of such fiscal year, and consolidated statements of income, stockholders' equity and cash flows of the Company and its subsidiaries, if any, for such year, prepared in accordance with generally accepted accounting principles and setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable

detail and audited by independent public accountants of national standing selected by the Company.

(b) As soon as practicable after the end of each fiscal quarter, and in any event within twenty (20) days thereafter, a consolidated balance sheet of the Company and its subsidiaries, if any, as of the end of each such quarter, consolidated statements of income, consolidated statements of changes in financial condition, and a consolidated statement of cash flow of the Company and its subsidiaries for such period and for the current fiscal year to date, and setting forth in each case in comparative form the figures for corresponding periods in the previous fiscal year, and setting forth in comparative form the budgeted figures for such period and for the current fiscal year then reported, prepared in accordance with generally accepted accounting principles

-16-

20

(other than for accompanying notes), subject to changes resulting from year-end audit adjustments, all in reasonable detail and signed by the principal financial or accounting officer of the Company.

(c) At least thirty (30) days prior to the beginning of each fiscal year an annual budget and operating plans for such fiscal year (and as soon as available, any subsequent revisions thereto); and

(d) As soon as practicable after the end of each month, and in any event within twenty (20) days thereafter, a consolidated balance sheet of the Company as of the end of each such month, and a consolidated statement of income and a consolidated statement of cash flows of the Company for such month and for the current fiscal year to date, including a comparison to plan figures for such period, prepared in accordance with generally accepted accounting principles consistently applied, with the exception that no notes need be attached to such statements and year-end audit adjustments need not have been made.

4.2 Inspection Rights. Each Major Investor shall have the right to visit and inspect any of the properties of the Company or any of its subsidiaries, and to discuss the affairs, finances and accounts of the Company or any of its subsidiaries with its officers and to review such information as is reasonably requested all at such reasonable times and as often as may be reasonably requested; provided, however, that the Company shall not be obligated under this Section 4.2 with respect to a competitor of the Company or with respect to information which the Board of Directors believes in good faith upon the advice of counsel is reasonably necessary to not disclose in order to preserve the attorney client privilege.

4.3 Assignment of Rights. Subject to the limitations set forth in Sections 4.1, the rights granted pursuant to Sections 4.1 and 4.2 may be assigned or otherwise conveyed by the Investors or by any subsequent transferee to an investor who acquires a minimum of 200,000 Shares, Conversion Stock, or a combination thereof, other than a competitor of the Company, as reasonably determined by the Board of Directors of the Company excluding any director with an interest in such transferee, provided that written notice of such assignment or conveyance is given to the Company.

4.4 Board Observation Rights

(a) Series C Observer. For as long as Amerindo Investors and its affiliates holds Preferred Shares, a representative shall be invited to participate in all meetings of the Board of Directors as an observer and the Company shall send such observer a copy of all notices, minutes and other materials distributed by the Company to the directors. The initial Series C observer shall be Emeric McDonald. In the event Amerindo Investors wishes to replace the Series C observer, the nominee to become the new Series C Observer must be approved by a majority of the then current Board of Directors.

(b) Series D Observer. For as long as Omega Venture Partners and its affiliates holds Preferred Shares, a representative shall be invited to participate in all meetings of the

-17-

21

Board of Directors as an observer and the Company shall send such observer a copy of all notices, minutes and other materials distributed by the Company to the directors. The initial Series D observer shall be Michael Stark. In the event Omega Venture Partners wishes to replace the Series D observer, the nominee to become the new Series D Observer must be approved by a majority of the then current Board of Directors.

(c) Restrictions. The Company reserves the right to exclude the Series C Observer and the Series D Observer from access to any material or meeting or portion thereof if the Board of Directors believes in good faith upon advice of counsel that such exclusion is reasonably necessary to preserve the attorney-client privilege.

4.5 Termination of Covenants. The covenants set forth in Sections 4.1, 4.2 and 4.4, shall terminate and be of no further force or effect upon the closing of the Company's initial underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act (other than a registration of securities in a Rule 145 transaction or with respect to an employee benefit plan).

4.6 Stock Vesting. Unless otherwise approved by the Board of Directors, all stock options and other stock equivalents issued after the date of this Agreement to employees, directors, consultants and other service providers shall be subject to vesting as follows: (i) twenty-five percent (25%) of such stock shall vest at the end of the first year following the earlier of the date of issuance or such person's services commencement date with the Company, and (ii) seventy-five percent (75%) of such stock shall vest monthly over the remaining three (3) years. With respect to any shares of stock purchased by any such person, the Company will have a repurchase option that shall provide that upon such person's termination of employment or service with the Company, with or without cause, the Company or its assignee (to the extent permissible under applicable securities laws and other laws) shall have the option to purchase at cost any unvested shares of stock held by such person. In the event the Company does not exercise the repurchase option, the Company hereby agrees to assign such right to the Investors on a pro rata basis.

5. Termination of Prior Rights Agreements. The Prior Rights Agreement is hereby terminated and superseded by this Agreement. This termination is effective upon the execution of this Agreement by Investors who are holders of a sixty percent (60%) of the Registrable Securities under the Prior Rights Agreement.

6. Waiver of Right of First Offer. To the extent that an Investor under the Prior Rights Agreement is not purchasing its pro rata share of Series D Preferred Stock pursuant to the Series D Agreement, all rights under the Right of First Offer set forth in Section 3 of the Prior Rights Agreement to purchase such securities are hereby waived. This waiver is effective upon the execution of this Agreement by the holders of sixty percent (60%) of the Registrable Securities under the Prior Rights Agreement.

-18-

22

7. Miscellaneous Provisions.

7.1 Waivers and Amendments Any term of this Agreement may be amended

and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and the holders of at least sixty percent (60%) of the shares of Registrable Securities, provided, however, that the rights of the Series C Preferred Stock shall not be materially changed without the written consent of a majority of the holders of Series C Preferred Stock and that the rights of the Series D Preferred Stock shall not be materially changed without the written consent of more than two thirds (2/3) of the holders of Series D Preferred Stock. In the event such amendment or waiver adversely affects the rights and or obligations of any party under this agreement in a different manner than other parties, such amendment or waiver must be approved by the holders of more than two thirds (2/3) of the securities held by the affected party. Any amendment or waiver effected in accordance with this Section 7.1 shall be binding upon each person or entity which are granted certain rights under this Agreement and the Company.

7.2 Notices. All notices and other communications required or permitted hereunder shall be in writing and, except as otherwise noted herein, shall be deemed effectively given upon personal delivery, delivery by nationally recognized courier or five business days after deposit with the United States Post Office (by first class mail, postage prepaid), addressed: (a) if to the Company, at 12667 Alcosta Boulevard, Suite 300, San Ramon, California 94583 (or at such other address as the Company shall have furnished to the Investors in writing) attention of President and (b) if to an Investor, at the latest address of such person shown on the Company's records.

7.3 Governing Law. This Agreement shall be governed by and interpreted under the laws of the State of California as applied to agreements among California residents, made and to be performed entirely within the State of California.

7.4 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original and all of which shall constitute the same instrument, but only one of which need be produced.

7.5 Expenses. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

7.6 Successors and Assigns. Except as otherwise expressly provided in this Agreement, this Agreement shall benefit and bind the successors, assigns, heirs, executors and administrators of the parties to this Agreement.

7.7 Entire Agreement; Superseding Prior Rights Agreement. This Agreement constitutes the entire agreement among the parties hereto with respect to the specific subject matter hereof. Without in any manner limiting the foregoing, the parties hereto agree that this Agreement

-19-

23

supersedes and replaces the Prior Rights Agreement, and that the Prior Rights Agreement shall hereafter have no further force or effect.

7.8 Separability; Severability. Unless expressly provided in this Agreement, the rights of each Investor under this Agreement are several rights, not rights jointly held with any other Investors. Any invalidity, illegality or limitation on the enforceability of this Agreement with respect to any Investor shall not affect the validity, legality or enforceability of this Agreement with respect to the other Investors. If any provision of this Agreement is judicially determined to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be affected or impaired.

7.9 Stock Splits. All references to numbers of shares in this Agreement shall be appropriately adjusted to reflect any stock dividend, split,

combination, recapitalization, reorganization or other similar transaction of shares by the Company occurring after the date of this Agreement.

7.10 Delays or Omissions. It is agreed that no delay or omission to exercise any right, power or remedy accruing to any Holder upon any breach, default or noncompliance of the Company under this Agreement shall impair any such right, power or remedy nor shall it be construed to be a waiver of any such breach, default or noncompliance or any acquiescence therein or of any similar breach, default or noncompliance thereafter occurring. It is further agreed that any waiver, permit, consent or approval of any kind or character on any Holder's part of any breach, default or noncompliance under the Agreement or any waiver on such Holder's part of any provisions or conditions of this Agreement must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement, by law, or otherwise afforded to Holders shall be cumulative and not alternative.

7.11 Aggregation. For the purposes of determining the availability of any rights under the transaction documents, all shares of the Series C Preferred Stock and Series D Preferred Stock held by or acquired by affiliate entities, entities under common management or persons associated with such entities shall be aggregated together.

-20-

24

IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year first set forth above.

COMPANY: ONDISPLAY, INC.

By: _____
Title: President

Address: 12667 Alcosta Boulevard,
Suite 300
San Ramon, CA 95483

INVESTORS:

OMEGA VENTURES III, L.L.C.

By: RS Omega III Holdings, L.L.C.,
Authorized Signatory

By: _____
Managing Member

Address:

RS & CO. OFFSHORE OMEGA VENTURES III

By: RS Omega III Holdings, L.L.C.,
Authorized Signatory

By: _____
Managing Member

Address:

SIGNATURE PAGE
THIRD RESTATED INVESTOR RIGHTS AGREEMENT

25

OMEGA BAYVIEW, L.L.C.

By: _____
Authorized Signatory
Address:

CROSSOVER FUND II, L.P.

By: Crossover Investment
Management, L.L.C., Its General
Partner

By: _____
Michael J. Stark, Managing Member
Address:

COMDISCO, INC.

By: _____
Title: _____
Address: 6111 North River Road
Rosemont, IL 60018
Attn: Venture Group

BRET ARSENAULT

SIGNATURE PAGE
THIRD RESTATED INVESTOR RIGHTS AGREEMENT

26

Howard L. Karr & Louise C. Karr,
trustees, or the successor trustee(s),
of the Karr Family 1982 Trust,
dated 12/01/82, as amended

BANCBOSTON CAPITAL INC.

By: _____

Title: _____

Address:

ANDERSON ONDISPLAY, L.P.

By: Spring Creek Partners
its General Partner

By: _____

Address: 330 Spring Creek Road
Rockford, IL 61107

ATGF II, a Panamanian Corporation

By: _____

Alberto W. Vilar
Title: Director

Emeric McDonald

SIGNATURE PAGE
THIRD RESTATED INVESTOR RIGHTS AGREEMENT

27

James Stableford

NORWEST VENTURE PARTNERS VI, LP
By: Itasca VC Partners

By: _____

Promod Haque, General Partner

MATRIX PARTNERS IV, L.P.
By: Matrix IV Management Co., L.P.,
its General Partner

By: _____

Address: Bay Colony Corporate Center
1000 Winter Street,
Suite 4500
Waltham, MA 02154

MATRIX IV ENTREPRENEURS FUND, LP.

By: _____

Address: Bay Colony Corporate Center
1000 Winter Street,
Suite 4500
Waltham, MA 02154

ATLAS VENTURE FUND II, L.P.

By: _____

Title: _____

Address:

SIGNATURE PAGE
THIRD RESTATED INVESTOR RIGHTS AGREEMENT

28

Robert S. Colman, as trustee under
declaration of trust dated 3/13/85 or
any successor trustee(s) under said
declaration of trust

WS INVESTMENT COMPANY 99A

By: _____

Title: _____

Address: 650 Page Mill Road
Palo Alto, CA 94304

Mario M. Rosati

Peggy Taylor

Mark Olsen

Anthony Damaschino

SIGNATURE PAGE

W.W. GRAINGER, INC.

By:

 P. O. Loux
 Senior Vice President, Finance &
 Chief Financial Officer

Address: 100 Grainger Parkway
 Lake Forest, IL 60045

EXPERTEYES EXPANSIONS CAPITAL N.V.

By:

 Title: -----

Address: Ajuinlei 1
 B-9000 Gent -- Belgium

SIGNATURE PAGE
 THIRD RESTGATED INVESTOR RIGHTS AGREEMENT

EXHIBIT A
 LIST OF INVESTORS

<TABLE>
 <CAPTION>

INVESTOR NAME AND ADDRESS -----	NUMBER OF SHARES -----	PREFERRED SERIES -----
<S> ExpertEyes Expansions Capital N.V.	<C> 36,765	<C> Series D
W.W. Grainger, Inc.	315,126	Series D
Omega Ventures III, L.L.C.	204,516	Series D
RS & Co. Offshore Omega Ventures III	318,921	Series D
Omega Bayview, L.L.C.	28,196	Series D
Crossover Fund II, L.P.	52,358	Series D
BancBoston Capital Inc.	210,084	Series D
Anderson OnDisplay, L.P. (Spring Creek Partners)	26,261	Series D
Comdisco Ventures	105,042	Series D

Bret Arsenault	10,504	Series D
Howard L. Karr & Louise C. Karr, trustees, or the successor trustee(s), of the Karr Family 1982 Trust, dated 12/01/82, as amended.	2,101	Series D
	52,521	Series D
ATFG II, a Panamanian Corporation	945,000	Series C
	52,521	Series D
Emeric McDonald	50,000	Series C
James Stableford	5,000	Series C
	119,088	Series D
	500,000	Series C
Norwest Venture Partners VI, LP	1,904,762	Series B
	130,353	Series D
	323,864	Series C
	598,376	Series B
Matrix Partners IV, L.P.	1,710,000	Series A
	6,861	Series D
	17,045	Series C
	31,494	Series B
Matrix IV Entrepreneurs Fund, L.P.	90,000	Series A

</TABLE>

31

EXHIBIT A

LIST OF INVESTORS

INVESTOR NAME AND ADDRESS -----	NUMBER OF SHARES -----	PREFERRED SERIES -----
<S>	<C>	<C>
	52,521	Series D
	284,091	Series C
	524,892	Series B
Atlas Venture Fund II, L.P.	1,500,000	Series A
Robert S. Colman, as trustee under declaration of trust dated 3/13/85 or any successor trustee(s) under said declaration of trust	15,248	Series C
	119,047	Series B
	11,905	Series B
John Mandile	100,000	Series A
	4,727	Series C
	11,905	Series B
WS Investments (Mario Rosati)	25,000	Series A
Peggy Taylor	25,000	Series C
Mark Olsen	12,500	Series C
Anthony Damaschino	5,000	Series C
Qamar Aziz	75,000	Series A

</TABLE>

ONDISPLAY, INC.

AMENDED AND RESTATED 1996 STOCK PLAN

1. Purposes of the Plan. The purposes of this 1996 Stock Plan are:
 - to attract and retain the best available personnel for positions of substantial responsibility,
 - to provide additional incentive to Employees, Directors and Consultants, and
 - to promote the success of the Company's business.

Options granted under the Plan may be Incentive Stock Options or Nonstatutory Stock Options, as determined by the Administrator at the time of grant. Stock Purchase Rights may also be granted under the Plan.

2. Definitions. As used herein, the following definitions shall apply:

(a) "Administrator" means the Board or any of its Committees as shall be administering the Plan, in accordance with Section 4 of the Plan.

(b) "Applicable Laws" means the requirements relating to the administration of stock option plans under U. S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where Options or Stock Purchase Rights are, or will be, granted under the Plan.

(c) "Board" means the Board of Directors of the Company.

(d) "Code" means the Internal Revenue Code of 1986, as amended.

(e) "Committee" means a committee of Directors appointed by the Board in accordance with Section 4 of the Plan.

(f) "Common Stock" means the common stock of the Company.

(g) "Company" means OnDisplay, Inc., a Delaware corporation.

(h) "Consultant" means any person, including an advisor, engaged by the Company or a Parent or Subsidiary to render services to such entity.

(i) "Director" means a member of the Board.

2

(j) "Disability" means total and permanent disability as defined in Section 22(e) (3) of the Code.

(k) "Employee" means any person, including Officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. A Service Provider shall not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, any Subsidiary, or any successor. For purposes of Incentive Stock Options, no such leave may exceed ninety days, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, on the 181st day of such leave any Incentive Stock Option held by the Optionee shall cease to be treated as an Incentive Stock Option and shall be treated for tax purposes as a Nonstatutory Stock Option. Neither service as a Director nor payment of a director's fee by the Company shall be sufficient to constitute "employment" by the Company.

(l) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(m) "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system for the last market trading day prior to the time of determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share of Common Stock shall be the mean between the high bid and low asked prices for the Common Stock on the last market trading day prior to the day of determination, as reported in The Wall Street Journal or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value shall be determined in good faith by the Administrator.

(n) "Incentive Stock Option" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(o) "Nonstatutory Stock Option" means an Option not intended to qualify as an Incentive Stock Option.

(p) "Notice of Grant" means a written or electronic notice evidencing certain terms and conditions of an individual Option or Stock Purchase Right grant. The Notice of Grant is part of the Option Agreement.

-2-

3

(q) "Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(r) "Option" means a stock option granted pursuant to the Plan.

(s) "Option Agreement" means an agreement between the Company and an Optionee evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of the Plan.

(t) "Option Exchange Program" means a program whereby outstanding Options are surrendered in exchange for Options with a lower exercise price.

(u) "Optioned Stock" means the Common Stock subject to an Option or Stock Purchase Right.

(v) "Optionee" means the holder of an outstanding Option or Stock Purchase Right granted under the Plan.

(w) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(x) "Plan" means this Amended and Restated 1996 Stock Plan.

(y) "Restricted Stock" means shares of Common Stock acquired pursuant to a grant of Stock Purchase Rights under Section 11 of the Plan.

(z) "Restricted Stock Purchase Agreement" means a written agreement between the Company and the Optionee evidencing the terms and restrictions applying to stock purchased under a Stock Purchase Right. The Restricted Stock Purchase Agreement is subject to the terms and conditions of the Plan and the Notice of Grant.

(aa) "Rule 16b-3" means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.

(bb) "Section 16(b) " means Section 16(b) of the Exchange Act.

(cc) "Service Provider" means an Employee, Director or Consultant.

(dd) "Share" means a share of the Common Stock, as adjusted in accordance with Section 13 of the Plan.

(ee) "Stock Purchase Right" means the right to purchase Common Stock pursuant to Section 11 of the Plan, as evidenced by a Notice of Grant.

(ff) "Subsidiary" means a "subsidiary corporation", whether now or hereafter existing, as defined in Section 424(f) of the Code.

-3-

4

3. Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan, the maximum aggregate number of Shares which may be optioned and sold under the Plan is 2,550,000 Shares, plus an annual increase to be added on the first day of the Company's fiscal year beginning in [YEAR], equal to the lesser of (i) [_____] shares, (ii) [___%] of the outstanding shares on such date or (iii) a lesser amount determined by the Board. The Shares may be authorized, but unissued, or reacquired Common Stock.

If an Option or Stock Purchase Right expires or becomes unexercisable without having been exercised in full, or is surrendered pursuant to an Option Exchange Program, the unpurchased Shares which were subject thereto shall become available for future grant or sale under the Plan (unless the Plan has terminated); provided, however, that Shares that have actually been issued under the Plan, whether upon exercise of an Option or Right, shall not be returned to the Plan and shall not become available for future distribution under the Plan, except that if Shares of Restricted Stock are repurchased by the Company at their original purchase price, such Shares shall become available for future grant under the Plan.

4. Administration of the Plan.

(a) Procedure.

(i) Multiple Administrative Bodies. The Plan may be administered by different Committees with respect to different groups of Service Providers.

(ii) Section 162(m). To the extent that the Administrator determines it to be desirable to qualify Options granted hereunder as "performance-based compensation" within the meaning of Section 162(m) of the Code, the Plan shall be administered by a Committee of two or more "outside directors" within the meaning of Section 162(m) of the Code.

(iii) Rule 16b-3. To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, the transactions contemplated hereunder shall be structured to satisfy the requirements for exemption under Rule 16b-3.

(iv) Other Administration. Other than as provided above, the Plan shall be administered by (A) the Board or (B) a Committee, which committee shall be constituted to satisfy Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan, and in the case of a Committee, subject to the specific duties delegated by the Board to such Committee, the Administrator shall have the authority, in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Options and Stock Purchase Rights may be granted hereunder;

(iii) to determine the number of shares of Common Stock to be covered by each Option and Stock Purchase Right granted hereunder;

-4-

5

(iv) to approve forms of agreement for use under the Plan;

(v) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Option or Stock Purchase Right granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Options or Stock Purchase Rights may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Option or Stock Purchase Right or the shares of Common Stock relating thereto, based in each case on such factors as the Administrator, in its sole discretion, shall determine;

(vi) to reduce the exercise price of any Option or Stock Purchase Right to the then current Fair Market Value if the Fair Market Value of the Common Stock covered by such Option or Stock Purchase Right shall have declined since the date the Option or Stock Purchase Right was granted;

(vii) to institute an Option Exchange Program;

(viii) to construe and interpret the terms of the Plan and awards granted pursuant to the Plan;

(ix) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of qualifying for preferred tax treatment under foreign tax laws;

(x) to modify or amend each Option or Stock Purchase Right (subject to Section 15(c) of the Plan), including the discretionary authority to extend the post-termination exercisability period of Options longer than is

otherwise provided for in the Plan;

(xi) to allow Optionees to satisfy withholding tax obligations by electing to have the Company withhold from the Shares to be issued upon exercise of an Option or Stock Purchase Right that number of Shares having a Fair Market Value equal to the amount required to be withheld. The Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined. All elections by an Optionee to have Shares withheld for this purpose shall be made in such form and under such conditions as the Administrator may deem necessary or advisable;

(xii) to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Option or Stock Purchase Right previously granted by the Administrator;

(xiii) to make all other determinations deemed necessary or advisable for administering the Plan.

(c) Effect of Administrator's Decision. The Administrator's decisions, determinations and interpretations shall be final and binding on all Optionees and any other holders of Options or Stock Purchase Rights.

-5-

6

5. Eligibility. Nonstatutory Stock Options and Stock Purchase Rights may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

6. Limitations.

(a) Each Option shall be designated in the Option Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Optionee during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds \$100,000, such Options shall be treated as Nonstatutory Stock Options. For purposes of this Section 6(a), Incentive Stock Options shall be taken into account in the order in which they were granted. The Fair Market Value of the Shares shall be determined as of the time the Option with respect to such Shares is granted.

(b) Neither the Plan nor any Option or Stock Purchase Right shall confer upon an Optionee any right with respect to continuing the Optionee's relationship as a Service Provider with the Company, nor shall they interfere in any way with the Optionee's right or the Company's right to terminate such relationship at any time, with or without cause.

(c) The following limitations shall apply to grants of Options:

(i) No Service Provider shall be granted, in any fiscal year of the Company, Options to purchase more than [] Shares.

(ii) In connection with his or her initial service, a Service Provider may be granted Options to purchase up to an additional [] Shares which shall not count against the limit set forth in subsection (i) above.

(iii) The foregoing limitations shall be adjusted proportionately in connection with any change in the Company's capitalization as described in Section 13.

(iv) If an Option is cancelled in the same fiscal year of the Company in which it was granted (other than in connection with a transaction described in Section 13), the cancelled Option will be counted against the limits set forth in subsections (i) and (ii) above. For this purpose, if the exercise price of an Option is reduced, the transaction will be treated as a cancellation of the Option and the grant of a new Option.

7. Term of Plan. Subject to Section 19 of the Plan, the Plan shall become effective upon its adoption by the Board. It shall continue in effect for a term of ten (10) years unless terminated earlier under Section 15 of the Plan.

8. Term of Option. The term of each Option shall be stated in the Option Agreement. In the case of an Incentive Stock Option, the term shall be ten (10) years from the date of grant or such shorter term as may be provided in the Option Agreement. Moreover, in the case of an Incentive Stock Option granted to an Optionee who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock

-6-

7

Option shall be five (5) years from the date of grant or such shorter term as may be provided in the Option Agreement.

9. Option Exercise Price and Consideration.

(a) Exercise Price. The per share exercise price for the Shares to be issued pursuant to exercise of an Option shall be determined by the Administrator, subject to the following:

(i) In the case of an Incentive Stock Option

(A) granted to an Employee who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price shall be no less than 110% of the Fair

Market Value per Share on the date of grant.

(B) granted to any Employee other than an Employee described in paragraph (A) immediately above, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Nonstatutory Stock Option, the per Share exercise price shall be determined by the Administrator. In the case of a Nonstatutory Stock Option intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Code, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(iii) Notwithstanding the foregoing, Options may be granted with a per Share exercise price of less than 100% of the Fair Market Value per Share on the date of grant pursuant to a merger or other corporate transaction.

(b) Waiting Period and Exercise Dates. At the time an Option is granted, the Administrator shall fix the period within which the Option may be exercised and shall determine any conditions which must be satisfied before the Option may be exercised.

(c) Form of Consideration. The Administrator shall determine the acceptable form of consideration for exercising an Option, including the method of payment. In the case of an Incentive Stock Option, the Administrator shall determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of:

(i) cash;

(ii) check;

(iii) promissory note;

(iv) other Shares which (A) in the case of Shares acquired upon exercise of an option, have been owned by the Optionee for more than six months on the date of surrender, and

-7-

8

(B) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which said Option shall be exercised;

(v) consideration received by the Company under a cashless exercise program implemented by the Company in connection with the Plan;

(vi) a reduction in the amount of any Company liability to the Optionee, including any liability attributable to the Optionee's participation

in any Company-sponsored deferred compensation program or arrangement;

(vii) any combination of the foregoing methods of payment; or

(viii) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws.

10. Exercise of Option.

(a) Procedure for Exercise; Rights as a Shareholder. Any Option granted hereunder shall be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Option Agreement. Unless the Administrator provides otherwise, vesting of Options granted hereunder shall be tolled during any unpaid leave of absence. An Option may not be exercised for a fraction of a Share.

An Option shall be deemed exercised when the Company receives: (i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised. Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Option Agreement and the Plan. Shares issued upon exercise of an Option shall be issued in the name of the Optionee or, if requested by the Optionee, in the name of the Optionee and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 13 of the Plan.

Exercising an Option in any manner shall decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Relationship as a Service Provider. If an Optionee ceases to be a Service Provider, other than upon the Optionee's death or Disability, the Optionee may exercise his or her Option within such period of time as is specified in the Option Agreement to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for three (3) months following the

Optionee's termination. If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified by the Administrator, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(c) Disability of Optionee. If an Optionee ceases to be a Service Provider as a result of the Optionee's Disability, the Optionee may exercise his or her Option within such period of time as is specified in the Option Agreement to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for twelve (12) months following the Optionee's termination. If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(d) Death of Optionee. If an Optionee dies while a Service Provider, the Option may be exercised within such period of time as is specified in the Option Agreement (but in no event later than the expiration of the term of such Option as set forth in the Notice of Grant), by the Optionee's estate or by a person who acquires the right to exercise the Option by bequest or inheritance, but only to the extent that the Option is vested on the date of death. In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for twelve (12) months following the Optionee's termination. If, at the time of death, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately revert to the Plan. The Option may be exercised by the executor or administrator of the Optionee's estate or, if none, by the person(s) entitled to exercise the Option under the Optionee's will or the laws of descent or distribution. If the Option is not so exercised within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(e) Buyout Provisions. The Administrator may at any time offer to buy out for a payment in cash or Shares an Option previously granted based on such terms and conditions as the Administrator shall establish and communicate to the Optionee at the time that such offer is made.

11. Stock Purchase Rights.

(a) Rights to Purchase. Stock Purchase Rights may be issued either alone, in addition to, or in tandem with other awards granted under the Plan and/or cash awards made outside of the Plan. After the Administrator determines that it will offer Stock Purchase Rights under the Plan, it shall advise the offeree in writing or electronically, by means of a Notice of Grant, of the terms, conditions and restrictions related to the offer, including the number of Shares that the offeree shall be entitled to purchase, the price to be paid, and the time within which the offeree must accept such offer. The offer shall be

accepted by execution of a Restricted Stock Purchase Agreement in the form determined by the Administrator.

-9-

10

(b) Repurchase Option. Unless the Administrator determines otherwise, the Restricted Stock Purchase Agreement shall grant the Company a repurchase option exercisable upon the voluntary or involuntary termination of the purchaser's service with the Company for any reason (including death or Disability). The purchase price for Shares repurchased pursuant to the Restricted Stock Purchase Agreement shall be the original price paid by the purchaser and may be paid by cancellation of any indebtedness of the purchaser to the Company. The repurchase option shall lapse at a rate determined by the Administrator.

(c) Other Provisions. The Restricted Stock Purchase Agreement shall contain such other terms, provisions and conditions not inconsistent with the Plan as may be determined by the Administrator in its sole discretion.

(d) Rights as a Shareholder. Once the Stock Purchase Right is exercised, the purchaser shall have the rights equivalent to those of a shareholder, and shall be a shareholder when his or her purchase is entered upon the records of the duly authorized transfer agent of the Company. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Stock Purchase Right is exercised, except as provided in Section 13 of the Plan.

12. Non-Transferability of Options and Stock Purchase Rights. Unless determined otherwise by the Administrator, an Option or Stock Purchase Right may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Optionee, only by the Optionee. If the Administrator makes an Option or Stock Purchase Right transferable, such Option or Stock Purchase Right shall contain such additional terms and conditions as the Administrator deems appropriate.

13. Adjustments Upon Changes in Capitalization, Dissolution, Merger or Asset Sale.

(a) Changes in Capitalization. Subject to any required action by the shareholders of the Company, the number of shares of Common Stock covered by each outstanding Option and Stock Purchase Right, and the number of shares of Common Stock which have been authorized for issuance under the Plan but as to which no Options or Stock Purchase Rights have yet been granted or which have been returned to the Plan upon cancellation or expiration of an Option or Stock Purchase Right, as well as the price per share of Common Stock covered by each such outstanding Option or Stock Purchase Right, shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend,

combination or reclassification of the Common Stock, or any other increase or decrease in the number of issued shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an Option or Stock Purchase Right.

-10-

11

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator shall notify each Optionee as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Option or Stock Purchase Right will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Asset Sale. In the event of a merger, sale or reorganization of the Company with or into any other corporation or corporations or a sale of all or substantially all of the assets or outstanding stock of the Company, in which transaction the Company's stockholders immediately prior to such transaction own immediately after such transaction less than 50% of the equity securities of the surviving corporation or its parent, all Options that have not been terminated in accordance with the Stock Option Agreement that will become vested within 18 months of the closing date of such merger, sale or reorganization will be accelerated. In the event of a merger of the Company with or into another corporation, each outstanding Option or Stock Purchase Right may be assumed or an equivalent option or right may be substituted by such successor corporation or a parent or subsidiary of such successor corporation. If, in such event, an Option or Stock Purchase Right is not assumed or substituted, the Option or Stock Purchase Right shall terminate as of the date of the closing of the merger. For the purposes of this paragraph, the Option or Stock Purchase Right shall be considered assumed if, following the merger, the Option or Stock Purchase Right confers the right to purchase or receive, for each Share of Optioned Stock subject to the Option or Stock Purchase Right immediately prior to the merger, the consideration (whether stock, cash, or other securities or property) received in the merger by holders of Common Stock for each Share held on the effective date of the transaction (and if the holders are offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares). If such consideration received in the merger is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option or Stock Purchase Right, for each Share of Optioned Stock subject to the Option or Stock Purchase Right, to be solely common stock of the successor corporation or its

Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger.

14. Date of Grant. The date of grant of an Option or Stock Purchase Right shall be, for all purposes, the date on which the Administrator makes the determination granting such Option or Stock Purchase Right, or such other later date as is determined by the Administrator. Notice of the determination shall be provided to each Optionee within a reasonable time after the date of such grant.

15. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.

(b) Shareholder Approval. The Company shall obtain shareholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

-11-

12

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan shall impair the rights of any Optionee, unless mutually agreed otherwise between the Optionee and the Administrator, which agreement must be in writing and signed by the Optionee and the Company. Termination of the Plan shall not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Options granted under the Plan prior to the date of such termination.

16. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares shall not be issued pursuant to the exercise of an Option or Stock Purchase Right unless the exercise of such Option or Stock Purchase Right and the issuance and delivery of such Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Option or Stock Purchase Right, the Company may require the person exercising such Option or Stock Purchase Right to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

17. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

18. Reservation of Shares. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

19. Shareholder Approval. The Plan shall be subject to approval by the shareholders of the Company within twelve (12) months after the date the Plan is adopted. Such shareholder approval shall be obtained in the manner and to the degree required under Applicable Laws.

-12-

13

ONDISPLAY, INC.

AMENDED AND RESTATED 1996 STOCK PLAN

STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

[Optionee's Name and Address]

You have been granted an option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

<TABLE>

<S>	<C>
Grant Number	_____
Date of Grant	_____
Vesting Commencement Date	_____
Exercise Price per Share	\$ _____
Total Number of Shares Granted	_____
Total Exercise Price	\$ _____
Type of Option:	___ Incentive Stock Option ___ Nonstatutory Stock Option
Term/Expiration Date:	_____

</TABLE>

Vesting Schedule:

Subject to accelerated vesting as set forth below, this Option may be exercised, in whole or in part, in accordance with the following schedule:

25% of the Shares subject to the Option shall vest twelve months after the Vesting Commencement Date, and 1/48 of the Shares subject to the Option shall vest each month thereafter, subject to the Optionee continuing to be a Service Provider on such dates.

14

Termination Period:

This Option may be exercised for three months after Optionee ceases to be a Service Provider. Upon the death or Disability of the Optionee, this Option may be exercised for twelve months after Optionee ceases to be a Service Provider. In no event shall this Option be exercised later than the Term/Expiration Date as provided above.

II. AGREEMENT

A. Grant of Option.

The Plan Administrator of the Company hereby grants to the Optionee named in the Notice of Grant attached as Part I of this Agreement (the "Optionee") an option (the "Option") to purchase the number of Shares, as set forth in the Notice of Grant, at the exercise price per share set forth in the Notice of Grant (the "Exercise Price"), subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 15(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and the terms and conditions of this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Grant as an Incentive Stock Option ("ISO"), this Option is intended to qualify as an Incentive Stock Option under Section 422 of the Code. However, if this Option is intended to be an Incentive Stock Option, to the extent that it exceeds the \$100,000 rule of Code Section 422(d) it shall be treated as a Nonstatutory Stock Option ("NSO").

B. Exercise of Option.

(a) Right to Exercise. This Option is exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Grant and the applicable provisions of the Plan and this Option Agreement.

(b) Method of Exercise. This Option is exercisable by delivery of an exercise notice, in the form attached as Exhibit A (the "Exercise Notice"), which shall state the election to exercise the Option, the number of

Shares in respect of which the Option is being exercised (the "Exercised Shares"), and such other representations and agreements as may be required by the Company pursuant to the provisions of the Plan. The Exercise Notice shall be completed by the Optionee and delivered to the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by such aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of this Option unless such issuance and exercise complies with Applicable Laws. Assuming such compliance, for income tax purposes the Exercised Shares shall be considered transferred to the Optionee on the date the Option is exercised with respect to such Exercised Shares.

-2-

15

C. Method of Payment.

Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

1. cash; or

2. check; or

3. consideration received by the Company under a cashless exercise program implemented by the Company in connection with the Plan; or

4. surrender of other Shares which (i) in the case of Shares acquired upon exercise of an option, have been owned by the Optionee for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares; or

5. a reduction in the amount of any Company liability to the Optionee, including any liability attributable to the Optionee's participation in any Company-sponsored deferred compensation program.

D. Non-Transferability of Option.

This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by the Optionee. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

E. Term of Option.

This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option Agreement.

F. Tax Consequences.

Some of the federal tax consequences relating to this Option, as of the date of this Option, are set forth below. THIS SUMMARY IS NECESSARILY INCOMPLETE, AND THE TAX LAWS AND REGULATIONS ARE SUBJECT TO CHANGE. THE OPTIONEE SHOULD CONSULT A TAX ADVISER BEFORE EXERCISING THIS OPTION OR DISPOSING OF THE SHARES.

1. Exercising the Option.

(a) Nonstatutory Stock Option. The Optionee may incur regular federal income tax liability upon exercise of a NSO. The Optionee will be treated as having received compensation income (taxable at ordinary income tax rates) equal to the excess, if any, of the Fair Market Value of the Exercised Shares on the date of exercise over their aggregate Exercise Price. If the Optionee is an Employee or a former Employee, the Company will be required to withhold from

-3-

16

his or her compensation or collect from Optionee and pay to the applicable taxing authorities an amount in cash equal to a percentage of this compensation income at the time of exercise, and may refuse to honor the exercise and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise.

(b) Incentive Stock Option. If this Option qualifies as an ISO, the Optionee will have no regular federal income tax liability upon its exercise, although the excess, if any, of the Fair Market Value of the Exercised Shares on the date of exercise over their aggregate Exercise Price will be treated as an adjustment to alternative minimum taxable income for federal tax purposes and may subject the Optionee to alternative minimum tax in the year of exercise. In the event that the Optionee ceases to be an Employee but remains a Service Provider, any Incentive Stock Option of the Optionee that remains unexercised shall cease to qualify as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option on the date three (3) months and one (1) day following such change of status.

2. Disposition of Shares.

(a) NSO. If the Optionee holds NSO Shares for at least one year, any gain realized on disposition of the Shares will be treated as

long-term capital gain for federal income tax purposes.

(b) ISO. If the Optionee holds ISO Shares for at least one year after exercise and two years after the grant date, any gain realized on disposition of the Shares will be treated as long-term capital gain for federal income tax purposes. If the Optionee disposes of ISO Shares within one year after exercise or two years after the grant date, any gain realized on such disposition will be treated as compensation income (taxable at ordinary income rates) to the extent of the excess, if any, of the lesser of (A) the difference between the Fair Market Value of the Shares acquired on the date of exercise and the aggregate Exercise Price, or (B) the difference between the sale price of such Shares and the aggregate Exercise Price. Any additional gain will be taxed as capital gain, short-term or long-term depending on the period that the ISO Shares were held.

(c) Notice of Disqualifying Disposition of ISO Shares. If the Optionee sells or otherwise disposes of any of the Shares acquired pursuant to an ISO on or before the later of (i) two years after the grant date, or (ii) one year after the exercise date, the Optionee shall immediately notify the Company in writing of such disposition. The Optionee agrees that he or she may be subject to income tax withholding by the Company on the compensation income recognized from such early disposition of ISO Shares by payment in cash or out of the current earnings paid to the Optionee.

G. Entire Agreement; Governing Law.

The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. The internal substantive laws, but not the choice of law rules, of California govern this agreement.

-4-

17

H. NO GUARANTEE OF CONTINUED SERVICE.

OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED AN OPTION OR PURCHASING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

By your signature and the signature of the Company's representative below, you and the Company agree that this Option is granted under and governed by the terms and conditions of the Plan and this Option Agreement. Optionee has reviewed the Plan and this Option Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option Agreement and fully understands all provisions of the Plan and Option Agreement. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions relating to the Plan and Option Agreement. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE:

ONDISPLAY, INC.

Signature

By

Print Name

Title

Residence Address

-5-

18

EXHIBIT A
ONDISPLAY, INC.
AMENDED AND RESTATED 1996 STOCK PLAN
EXERCISE NOTICE

OnDisplay, Inc.

[address]

Attention: [Title]

1. Exercise of Option. Effective as of today, _____, _____, the undersigned ("Purchaser") hereby elects to purchase _____ shares (the "Shares") of the Common Stock of OnDisplay, Inc. (the "Company") under and pursuant to the Amended and Restated 1996 Stock Plan (the "Plan") and the Stock Option Agreement dated, _____ (the "Option Agreement"). The purchase

price for the Shares shall be \$_____, as required by the Option Agreement.

2. Delivery of Payment. Purchaser herewith delivers to the Company the full purchase price for the Shares.

3. Representations of Purchaser. Purchaser acknowledges that Purchaser has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Shareholder. Until the issuance (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) of the Shares, no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Shares so acquired shall be issued to the Optionee as soon as practicable after exercise of the Option. No adjustment will be made for a dividend or other right for which the record date is prior to the date of issuance, except as provided in Section 13 of the Plan.

5. Tax Consultation. Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser's purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted with any tax consultants Purchaser deems advisable in connection with the purchase or disposition of the Shares and that Purchaser is not relying on the Company for any tax advice.

19

6. Entire Agreement; Governing Law. The Plan and Option Agreement are incorporated herein by reference. This Agreement, the Plan and the Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Purchaser with respect to the subject matter hereof, and may not be modified adversely to the Purchaser's interest except by means of a writing signed by the Company and Purchaser. The internal substantive laws, but not the choice of law rules, of California govern this agreement.

Submitted by:

Accepted by:

PURCHASER:

ONDISPLAY, INC.

Signature

By

Print Name

Its

Address:

Address:

OnDisplay, Inc.

[address]

Date Received

ONDISPLAY, INC.

1999 EMPLOYEE STOCK PURCHASE PLAN

The following constitute the provisions of the 1999 Employee Stock Purchase Plan of On Display, Inc.

1. Purpose. The purpose of the Plan is to provide employees of the Company and its Designated Subsidiaries with an opportunity to purchase Common Stock of the Company through accumulated payroll deductions. It is the intention of the Company to have the Plan qualify as an "Employee Stock Purchase Plan" under Section 423 of the Internal Revenue Code of 1986, as amended. The provisions of the Plan, accordingly, shall be construed so as to extend and limit participation in a manner consistent with the requirements of that section of the Code.

2. Definitions.

(a) "Board" shall mean the Board of Directors of the Company or any committee thereof designated by the Board of Directors of the Company in accordance with Section 14 of the Plan.

(b) "Code" shall mean the Internal Revenue Code of 1986, as amended.

(c) "Common Stock" shall mean the common stock of the Company.

(d) "Company" shall mean OnDisplay, Inc., a Delaware Corporation, and any Designated Subsidiary of the Company.

(e) "Compensation" shall mean all base straight time gross earnings and commissions, but exclusive of payments for overtime, shift premium, incentive compensation, incentive payments, bonuses and other compensation.

(f) "Designated Subsidiary" shall mean any Subsidiary that has been designated by the Board from time to time in its sole discretion as eligible to participate in the Plan.

(g) "Employee" shall mean any individual who is an Employee of the Company for tax purposes whose customary employment with the Company is at least twenty (20) hours per week and more than five (5) months in any calendar year. For purposes of the Plan, the employment relationship shall be treated as continuing intact while the individual is on sick leave or other leave of absence approved by the Company. Where the period of leave exceeds 90 days and the individual's right to reemployment is not guaranteed either by statute or by contract, the employment relationship shall be deemed to have terminated on the

91st day of such leave.

(h) "Enrollment Date" shall mean the first Trading Day of each Offering Period.

(i) "Exercise Date" shall mean the last Trading Day of each Purchase Period.

2

(j) "Fair Market Value" shall mean, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system for the last market trading day prior to the date of determination, as reported in The Wall Street Journal or such other source as the Board deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean of the closing bid and asked prices for the Common Stock prior to the date of determination, as reported in The Wall Street Journal or such other source as the Board deems reliable;

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Board; or

(iv) For purposes of the Enrollment Date of the first Offering Period under the Plan, the Fair Market Value shall be the initial price to the public as set forth in the final prospectus included within the registration statement in Form S-1 filed with the Securities and Exchange Commission for the initial public offering of the Company's Common Stock (the "Registration Statement").

(k) "Offering Periods" shall mean the periods of approximately twenty-four (24) months during which an option granted pursuant to the Plan may be exercised, commencing on the first Trading Day on or after [_____] and [_____] of each year and terminating on the last Trading Day in the periods ending twenty-four months later; provided, however, that the first Offering Period under the Plan shall commence with the first Trading Day on or after the date on which the Securities and Exchange Commission declares the Company's Registration Statement effective and ending on the last Trading Day on or before [_____]. The duration and timing of Offering Periods may be changed pursuant to Section 4 of this Plan.

(l) "Plan" shall mean this 1999 Employee Stock Purchase Plan.

(m) "Purchase Period" shall mean the approximately six month period commencing after one Exercise Date and ending with the next Exercise Date, except that the first Purchase Period of any Offering Period shall commence on the Enrollment Date and end with the next Exercise Date.

(n) "Purchase Price" shall mean 85% of the Fair Market Value of a share of Common Stock on the Enrollment Date or on the Exercise Date, whichever is lower; provided however, that the Purchase Price may be adjusted by the Board pursuant to Section 20.

(o) "Reserves" shall mean the number of shares of Common Stock covered by each option under the Plan which have not yet been exercised and the number of shares of Common Stock which have been authorized for issuance under the Plan but not yet placed under option.

-2-

3

(p) "Subsidiary" shall mean a corporation, domestic or foreign, of which not less than 50% of the voting shares are held by the Company or a Subsidiary, whether or not such corporation now exists or is hereafter organized or acquired by the Company or a Subsidiary.

(q) "Trading Day" shall mean a day on which national stock exchanges and the Nasdaq System are open for trading.

3. Eligibility.

(a) Any Employee who shall be employed by the Company on a given Enrollment Date shall be eligible to participate in the Plan.

(b) Any provisions of the Plan to the contrary notwithstanding, no Employee shall be granted an option under the Plan (i) to the extent that, immediately after the grant, such Employee (or any other person whose stock would be attributed to such Employee pursuant to Section 424(d) of the Code) would own capital stock of the Company and/or hold outstanding options to purchase such stock possessing five percent (5%) or more of the total combined voting power or value of all classes of the capital stock of the Company or of any Subsidiary, or (ii) to the extent that his or her rights to purchase stock under all employee stock purchase plans of the Company and its subsidiaries accrues at a rate which exceeds Twenty-Five Thousand Dollars (\$25,000) worth of stock (determined at the fair market value of the shares at the time such option is granted) for each calendar year in which such option is outstanding at any time.

4. Offering Periods. The Plan shall be implemented by consecutive, overlapping Offering Periods with a new Offering Period commencing on the first Trading Day on or after [_____] and [_____] each year, or on such other date as the Board shall determine, and continuing thereafter until

terminated in accordance with Section 20 hereof; provided, however, that the first Offering Period under the Plan shall commence with the first Trading Day on or after the date on which the Securities and Exchange Commission declares the Company's Registration Statement effective and ending on the last Trading Day on or before [_____]. The Board shall have the power to change the duration of Offering Periods (including the commencement dates thereof) with respect to future offerings without shareholder approval if such change is announced at least five (5) days prior to the scheduled beginning of the first Offering Period to be affected thereafter.

5. Participation.

(a) An eligible Employee may become a participant in the Plan by completing a subscription agreement authorizing payroll deductions in the form of Exhibit A to this Plan and filing it with the Company's payroll office prior to the applicable Enrollment Date.

(b) Payroll deductions for a participant shall commence on the first payroll following the Enrollment Date and shall end on the last payroll in the Offering Period to which such authorization is applicable, unless sooner terminated by the participant as provided in Section 10 hereof.

-3-

4

6. Payroll Deductions.

(a) At the time a participant files his or her subscription agreement, he or she shall elect to have payroll deductions made on each pay day during the Offering Period in an amount not exceeding [_____ (___%)] of the Compensation which he or she receives on each pay day during the Offering Period.

(b) All payroll deductions made for a participant shall be credited to his or her account under the Plan and shall be withheld in whole percentages only. A participant may not make any additional payments into such account.

(c) A participant may discontinue his or her participation in the Plan as provided in Section 10 hereof, or may increase or decrease the rate of his or her payroll deductions during the Offering Period by completing or filing with the Company a new subscription agreement authorizing a change in payroll deduction rate. The Board may, in its discretion, limit the number of participation rate changes during any Offering Period. The change in rate shall be effective with the first full payroll period following five (5) business days after the Company's receipt of the new subscription agreement unless the Company elects to process a given change in participation more quickly. A participant's subscription agreement shall remain in effect for successive Offering Periods unless terminated as provided in Section 10 hereof.

(d) Notwithstanding the foregoing, to the extent necessary to comply

with Section 423(b)(8) of the Code and Section 3(b) hereof, a participant's payroll deductions may be decreased to zero percent (0%) at any time during a Purchase Period. Payroll deductions shall recommence at the rate provided in such participant's subscription agreement at the beginning of the first Purchase Period which is scheduled to end in the following calendar year, unless terminated by the participant as provided in Section 10 hereof.

(e) At the time the option is exercised, in whole or in part, or at the time some or all of the Company's Common Stock issued under the Plan is disposed of, the participant must make adequate provision for the Company's federal, state, or other tax withholding obligations, if any, which arise upon the exercise of the option or the disposition of the Common Stock. At any time, the Company may, but shall not be obligated to, withhold from the participant's compensation the amount necessary for the Company to meet applicable withholding obligations, including any withholding required to make available to the Company any tax deductions or benefits attributable to sale or early disposition of Common Stock by the Employee.

7. Grant of Option. On the Enrollment Date of each Offering Period, each eligible Employee participating in such Offering Period shall be granted an option to purchase on each Exercise Date during such Offering Period (at the applicable Purchase Price) up to a number of shares of the Company's Common Stock determined by dividing such Employee's payroll deductions accumulated prior to such Exercise Date and retained in the Participant's account as of the Exercise Date by the applicable Purchase Price; provided that in no event shall an Employee be permitted to purchase during each Purchase Period more than [] shares of the Company's Common Stock (subject to any adjustment pursuant to Section 19), and provided further that such purchase shall be subject to the limitations set forth in Sections 3(b) and 12 hereof. The Board may, for future Offering Periods, increase or decrease, in its absolute discretion, the maximum number of shares of

-4-

5

the Company's Common Stock an Employee may purchase during each Purchase Period of such Offering Period. Exercise of the option shall occur as provided in Section 8 hereof, unless the participant has withdrawn pursuant to Section 10 hereof. The option shall expire on the last day of the Offering Period.

8. Exercise of Option.

(a) Unless a participant withdraws from the Plan as provided in Section 10 hereof, his or her option for the purchase of shares shall be exercised automatically on the Exercise Date, and the maximum number of full shares subject to option shall be purchased for such participant at the applicable Purchase Price with the accumulated payroll deductions in his or her account. No fractional shares shall be purchased; any payroll deductions accumulated in a participant's account which are not sufficient to purchase a full share shall be retained in the participant's account for the subsequent

Purchase Period or Offering Period, subject to earlier withdrawal by the participant as provided in Section 10 hereof. Any other monies left over in a participant's account after the Exercise Date shall be returned to the participant. During a participant's lifetime, a participant's option to purchase shares hereunder is exercisable only by him or her.

(b) If the Board determines that, on a given Exercise Date, the number of shares with respect to which options are to be exercised may exceed (i) the number of shares of Common Stock that were available for sale under the Plan on the Enrollment Date of the applicable Offering Period, or (ii) the number of shares available for sale under the Plan on such Exercise Date, the Board may in its sole discretion (x) provide that the Company shall make a pro rata allocation of the shares of Common Stock available for purchase on such Enrollment Date or Exercise Date, as applicable, in as uniform a manner as shall be practicable and as it shall determine in its sole discretion to be equitable among all participants exercising options to purchase Common Stock on such Exercise Date, and continue all Offering Periods then in effect, or (y) provide that the Company shall make a pro rata allocation of the shares available for purchase on such Enrollment Date or Exercise Date, as applicable, in as uniform a manner as shall be practicable and as it shall determine in its sole discretion to be equitable among all participants exercising options to purchase Common Stock on such Exercise Date, and terminate any or all Offering Periods then in effect pursuant to Section 20 hereof. The Company may make pro rata allocation of the shares available on the Enrollment Date of any applicable Offering Period pursuant to the preceding sentence, notwithstanding any authorization of additional shares for issuance under the Plan by the Company's shareholders subsequent to such Enrollment Date.

9. Delivery. As promptly as practicable after each Exercise Date on which a purchase of shares occurs, the Company shall arrange the delivery to each participant, as appropriate, of a certificate representing the shares purchased upon exercise of his or her option.

10. Withdrawal.

(a) A participant may withdraw all but not less than all the payroll deductions credited to his or her account and not yet used to exercise his or her option under the Plan at any time by giving written notice to the Company in the form of Exhibit B to this Plan. All of the participant's payroll deductions credited to his or her account shall be paid to such participant

-5-

6

promptly after receipt of notice of withdrawal and such participant's option for the Offering Period shall be automatically terminated, and no further payroll deductions for the purchase of shares shall be made for such Offering Period. If a participant withdraws from an Offering Period, payroll deductions shall not resume at the beginning of the succeeding Offering Period unless the participant delivers to the Company a new subscription agreement.

(b) A participant's withdrawal from an Offering Period shall not have any effect upon his or her eligibility to participate in any similar plan which may hereafter be adopted by the Company or in succeeding Offering Periods which commence after the termination of the Offering Period from which the participant withdraws.

11. Termination of Employment.

Upon a participant's ceasing to be an Employee, for any reason, he or she shall be deemed to have elected to withdraw from the Plan and the payroll deductions credited to such participant's account during the Offering Period, but not yet used to exercise the option, shall be returned to such participant or, in the case of his or her death, to the person or persons entitled thereto under Section 15 hereof, and such participant's option shall be automatically terminated. The preceding sentence notwithstanding, a participant who receives payment in lieu of notice of termination of employment shall be treated as continuing to be an Employee for the participant's customary number of hours per week of employment during the period in which the participant is subject to such payment in lieu of notice.

12. Interest. No interest shall accrue on the payroll deductions of a participant in the Plan.

13. Stock.

(a) Subject to adjustment upon changes in capitalization of the Company as provided in Section 19 hereof, the maximum number of shares of the Company's Common Stock which shall be made available for sale under the Plan shall be [_____ (____)] shares plus an annual increase to be added on the first day of the Company's fiscal year beginning in [Year], equal to the lesser of (i) [_____] shares, (ii) [___%] of the outstanding shares on such date or (iii) a lesser amount determined by the Board.

(b) The participant shall have no interest or voting right in shares covered by his option until such option has been exercised.

(c) Shares to be delivered to a participant under the Plan shall be registered in the name of the participant or in the name of the participant and his or her spouse.

-6-

7

14. Administration. The Plan shall be administered by the Board or a committee of members of the Board appointed by the Board. The Board or its committee shall have full and exclusive discretionary authority to construe, interpret and apply the terms of the Plan, to determine eligibility and to adjudicate all disputed claims filed under the Plan. Every finding, decision and determination made by the Board or its committee shall, to the full extent permitted by law, be final and binding upon all parties.

15. Designation of Beneficiary.

(a) A participant may file a written designation of a beneficiary who is to receive any shares and cash, if any, from the participant's account under the Plan in the event of such participant's death subsequent to an Exercise Date on which the option is exercised but prior to delivery to such participant of such shares and cash. In addition, a participant may file a written designation of a beneficiary who is to receive any cash from the participant's account under the Plan in the event of such participant's death prior to exercise of the option. If a participant is married and the designated beneficiary is not the spouse, spousal consent shall be required for such designation to be effective.

(b) Such designation of beneficiary may be changed by the participant at any time by written notice. In the event of the death of a participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such participant's death, the Company shall deliver such shares and/or cash to the executor or administrator of the estate of the participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such shares and/or cash to the spouse or to any one or more dependents or relatives of the participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

16. Transferability. Neither payroll deductions credited to a participant's account nor any rights with regard to the exercise of an option or to receive shares under the Plan may be assigned, transferred, pledged or otherwise disposed of in any way (other than by will, the laws of descent and distribution or as provided in Section 15 hereof) by the participant. Any such attempt at assignment, transfer, pledge or other disposition shall be without effect, except that the Company may treat such act as an election to withdraw funds from an Offering Period in accordance with Section 10 hereof.

17. Use of Funds. All payroll deductions received or held by the Company under the Plan may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such payroll deductions.

18. Reports. Individual accounts shall be maintained for each participant in the Plan. Statements of account shall be given to participating Employees at least annually, which statements shall set forth the amounts of payroll deductions, the Purchase Price, the number of shares purchased and the remaining cash balance, if any.

-7-

8

19. Adjustments Upon Changes in Capitalization, Dissolution, Liquidation, Merger or Asset Sale.

(a) Changes in Capitalization. Subject to any required action by the

shareholders of the Company, the Reserves, the maximum number of shares each participant may purchase each Purchase Period (pursuant to Section 7), as well as the price per share and the number of shares of Common Stock covered by each option under the Plan which has not yet been exercised shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock, or any other increase or decrease in the number of shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an option.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Offering Period then in progress shall be shortened by setting a new Exercise Date (the "New Exercise Date"), and shall terminate immediately prior to the consummation of such proposed dissolution or liquidation, unless provided otherwise by the Board. The New Exercise Date shall be before the date of the Company's proposed dissolution or liquidation. The Board shall notify each participant in writing, at least ten (10) business days prior to the New Exercise Date, that the Exercise Date for the participant's option has been changed to the New Exercise Date and that the participant's option shall be exercised automatically on the New Exercise Date, unless prior to such date the participant has withdrawn from the Offering Period as provided in Section 10 hereof.

(c) Merger or Asset Sale. In the event of a proposed sale of all or substantially all of the assets of the Company, or the merger of the Company with or into another corporation, each outstanding option shall be assumed or an equivalent option substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the successor corporation refuses to assume or substitute for the option, any Purchase Periods then in progress shall be shortened by setting a new Exercise Date (the "New Exercise Date") and any Offering Periods then in progress shall end on the New Exercise Date. The New Exercise Date shall be before the date of the Company's proposed sale or merger. The Board shall notify each participant in writing, at least ten (10) business days prior to the New Exercise Date, that the Exercise Date for the participant's option has been changed to the New Exercise Date and that the participant's option shall be exercised automatically on the New Exercise Date, unless prior to such date the participant has withdrawn from the Offering Period as provided in Section 10 hereof.

20. Amendment or Termination.

(a) The Board of Directors of the Company may at any time and for any reason terminate or amend the Plan. Except as provided in Section 19 hereof, no such termination can

affect options previously granted, provided that an Offering Period may be terminated by the Board of Directors on any Exercise Date if the Board determines that the termination of the Offering Period or the Plan is in the best interests of the Company and its shareholders. Except as provided in Section 19 and this Section 20 hereof, no amendment may make any change in any option theretofore granted which adversely affects the rights of any participant. To the extent necessary to comply with Section 423 of the Code (or any successor rule or provision or any other applicable law, regulation or stock exchange rule), the Company shall obtain shareholder approval in such a manner and to such a degree as required.

(b) Without shareholder consent and without regard to whether any participant rights may be considered to have been "adversely affected," the Board (or its committee) shall be entitled to change the Offering Periods, limit the frequency and/or number of changes in the amount withheld during an Offering Period, establish the exchange ratio applicable to amounts withheld in a currency other than U.S. dollars, permit payroll withholding in excess of the amount designated by a participant in order to adjust for delays or mistakes in the Company's processing of properly completed withholding elections, establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that amounts applied toward the purchase of Common Stock for each participant properly correspond with amounts withheld from the participant's Compensation, and establish such other limitations or procedures as the Board (or its committee) determines in its sole discretion advisable which are consistent with the Plan.

(c) In the event the Board determines that the ongoing operation of the Plan may result in unfavorable financial accounting consequences, the Board may, in its discretion and, to the extent necessary or desirable, modify or amend the Plan to reduce or eliminate such accounting consequence including, but not limited to:

(i) altering the Purchase Price for any Offering Period including an Offering Period underway at the time of the change in Purchase Price;

(ii) shortening any Offering Period so that Offering Period ends on a new Exercise Date, including an Offering Period underway at the time of the Board action; and

(iii) allocating shares.

Such modifications or amendments shall not require stockholder approval or the consent of any Plan participants.

21. Notices. All notices or other communications by a participant to the Company under or in connection with the Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

22. Conditions Upon Issuance of Shares. Shares shall not be issued with respect to an option unless the exercise of such option and the issuance and delivery of such shares pursuant thereto shall comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, the rules and regulations promulgated thereunder, and the requirements of any stock

-9-

10

exchange upon which the shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

As a condition to the exercise of an option, the Company may require the person exercising such option to represent and warrant at the time of any such exercise that the shares are being purchased only for investment and without any present intention to sell or distribute such shares if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned applicable provisions of law.

23. Term of Plan. The Plan shall become effective upon the earlier to occur of its adoption by the Board of Directors or its approval by the shareholders of the Company. It shall continue in effect for a term of ten (10) years unless sooner terminated under Section 20 hereof.

24. Automatic Transfer to Low Price Offering Period. To the extent permitted by any applicable laws, regulations, or stock exchange rules if the Fair Market Value of the Common Stock on any Exercise Date in an Offering Period is lower than the Fair Market Value of the Common Stock on the Enrollment Date of such Offering Period, then all participants in such Offering Period shall be automatically withdrawn from such Offering Period immediately after the exercise of their option on such Exercise Date and automatically re-enrolled in the immediately following Offering Period as of the first day thereof.

-10-

11

EXHIBIT A

ONDISPLAY, INC.

1999 EMPLOYEE STOCK PURCHASE PLAN

SUBSCRIPTION AGREEMENT

_____ Original Application
_____ Change in Payroll Deduction Rate
_____ Change of Beneficiary(ies)

Enrollment Date: _____

1. _____ hereby elects to participate in the OnDisplay, Inc. Employee Stock Purchase Plan (the "Employee Stock Purchase Plan") and subscribes to purchase shares of the Company's Common Stock in accordance with this Subscription Agreement and the Employee Stock Purchase Plan.
2. I hereby authorize payroll deductions from each paycheck in the amount of _____% of my Compensation on each payday (from 1 to _____%) during the Offering Period in accordance with the Employee Stock Purchase Plan.

(Please note that no fractional percentages are permitted.)

3. I understand that said payroll deductions shall be accumulated for the purchase of shares of Common Stock at the applicable Purchase Price determined in accordance with the Employee Stock Purchase Plan. I understand that if I do not withdraw from an Offering Period, any accumulated payroll deductions will be used to automatically exercise my option.
4. I have received a copy of the complete Employee Stock Purchase Plan. I understand that my participation in the Employee Stock Purchase Plan is in all respects subject to the terms of the Plan. I understand that my ability to exercise the option under this Subscription Agreement is subject to shareholder approval of the Employee Stock Purchase Plan.
5. Shares purchased for me under the Employee Stock Purchase Plan should be issued in the name(s) of (Employee or Employee and Spouse only).
6. I understand that if I dispose of any shares received by me pursuant to the Plan within 2 years after the Enrollment Date (the first day of the Offering Period during which I purchased such shares) or one year after the Exercise Date, I will be treated for federal income tax purposes as having received ordinary income at the time of such disposition in an amount equal to the excess of the fair market value of the shares at the time such shares were purchased by me over the price which I paid for the shares. I hereby agree to notify the Company in writing within 30 days after the date of any disposition of my shares and I will make adequate provision for Federal, state or other tax withholding obligations, if any, which arise upon the

12

disposition of the Common Stock. The Company may, but will not be obligated to, withhold from my compensation the amount necessary to meet any applicable withholding obligation including any withholding necessary to

Spouse's Signature
(If beneficiary other than spouse)

-3-

14

EXHIBIT B

ONDISPLAY, INC.

1999 EMPLOYEE STOCK PURCHASE PLAN

NOTICE OF WITHDRAWAL

The undersigned participant in the Offering Period of the OnDisplay, Inc. Employee Stock Purchase Plan which began on _____, _____ (the "Enrollment Date") hereby notifies the Company that he or she hereby withdraws from the Offering Period. He or she hereby directs the Company to pay to the undersigned as promptly as practicable all the payroll deductions credited to his or her account with respect to such Offering Period. The undersigned understands and agrees that his or her option for such Offering Period will be automatically terminated. The undersigned understands further that no further payroll deductions will be made for the purchase of shares in the current Offering Period and the undersigned shall be eligible to participate in succeeding Offering Periods only by delivering to the Company a new Subscription Agreement.

Name and Address of Participant:

Signature:

Date:

ONDISPLAY, INC.
FORM OF
INDEMNIFICATION AGREEMENT

This Indemnification Agreement ("Agreement") is effective as of September __, 1999 by and between OnDisplay, Inc., a Delaware corporation (the "Company"), and <<NAME>> ("Indemnitee").

WHEREAS, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company and its related entities;

WHEREAS, in order to induce Indemnitee to continue to provide services to the Company, the Company wishes to provide for the indemnification of, and the advancement of expenses to, Indemnitee to the maximum extent permitted by law;

WHEREAS, the Company and Indemnitee recognize the continued difficulty in obtaining liability insurance for the Company's directors, officers, employees, agents and fiduciaries, the significant increases in the cost of such insurance and the general reductions in the coverage of such insurance;

WHEREAS, the Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting directors, officers, employees, agents and fiduciaries to expensive litigation risks at the same time as the availability and coverage of liability insurance has been severely limited; and

WHEREAS, in connection with the Company's reincorporation, the Company and Indemnitee desire to continue to have in place the additional protection provided by an indemnification agreement, with such changes as are required to conform the existing agreement to Delaware law and to provide indemnification and advancement of expenses to the Indemnitee to the maximum extent permitted by Delaware law;

WHEREAS, in view of the considerations set forth above, the Company desires that Indemnitee shall be indemnified and advanced expenses by the Company as set forth herein;

NOW, THEREFORE, the Company and Indemnitee hereby agree as set forth below.

1. Certain Definitions.

a. "Change in Control" shall mean, and shall be deemed to have occurred if, on or after the date of this Agreement, (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934,

as amended), other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company acting in such capacity or a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding Voting Securities, (ii) during any period of two consecutive years, individuals who at the beginning of such period constitute the Board of Directors of the Company and any new director whose election by the Board of Directors or nomination for election by the Company's stockholders was approved by a vote of at least two thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof, (iii) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation other than a merger or consolidation which would result in the Voting Securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into Voting Securities of the surviving entity) at least 80% of the total voting power represented by the Voting Securities of the Company or such surviving entity outstanding immediately after such merger or consolidation, or (iv) the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of (in one transaction or a series of related transactions) all or substantially all of the Company's assets.

b. "Claim" shall mean with respect to a Covered Event: any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that Indemnitee in good faith believes might lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative, investigative or other.

c. References to the "Company" shall include, in addition to OnDisplay, Inc., any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger to which OnDisplay, Inc. (or any of its wholly owned subsidiaries) is a party which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees, agents or fiduciaries, so that if Indemnitee is or was a director, officer, employee, agent or fiduciary of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

d. "Covered Event" shall mean any event or occurrence related to the fact that Indemnitee is or was a director, officer, employee, agent or fiduciary of the Company, or any subsidiary of the Company, or is or was serving at the

request of the Company as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action or inaction on the part of Indemnitee while serving in such capacity.

e. "Expenses" shall mean any and all expenses (including attorneys' fees and all other costs, expenses and obligations incurred in connection with investigating, defending, being a

2

2

witness in or participating in (including on appeal), or preparing to defend, to be a witness in or to participate in, any action, suit, proceeding, alternative dispute resolution mechanism, hearing, inquiry or investigation), judgments, fines, penalties and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld) of any Claim and any federal, state, local or foreign taxes imposed on the Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement.

f. "Expense Advance" shall mean a payment to Indemnitee pursuant to Section 3 of Expenses in advance of the settlement of or final judgement in any action, suit, proceeding or alternative dispute resolution mechanism, hearing, inquiry or investigation which constitutes a Claim.

g. "Independent Legal Counsel" shall mean an attorney or firm of attorneys, selected in accordance with the provisions of Section 2(d) hereof, who shall not have otherwise performed services for the Company or Indemnitee within the last three years (other than with respect to matters concerning the rights of Indemnitee under this Agreement, or of other Indemnites under similar indemnity agreements).

h. References to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "serving at the request of the Company" shall include any service as a director, officer, employee, agent or fiduciary of the Company which imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or its beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

i. "Reviewing Party" shall mean, subject to the provisions of Section 2(d), any person or body appointed by the Board of Directors in accordance with applicable law to review the Company's obligations hereunder and under applicable law, which may include a member or members of the Company's Board of Directors, Independent Legal Counsel or any other person or body not a party to the particular Claim for which Indemnitee is seeking indemnification.

j. "Section" refers to a section of this Agreement unless otherwise indicated.

k. "Voting Securities" shall mean any securities of the Company that vote generally in the election of directors.

2. Indemnification.

a. Indemnification of Expenses. Subject to the provisions of Section 2(b) below, the Company shall indemnify Indemnitee for Expenses to the fullest extent permitted by law if Indemnitee was or is or becomes a party to or witness or other participant in, or is threatened to be made a party to or witness or other participant in, any Claim (whether by reason of or arising in part

3

3

out of a Covered Event), including all interest, assessments and other charges paid or payable in connection with or in respect of such Expenses.

b. Review of Indemnification Obligations. Notwithstanding the foregoing, in the event any Reviewing Party shall have determined (in a written opinion, in any case in which Independent Legal Counsel is the Reviewing Party) that Indemnitee is not entitled to be indemnified hereunder under applicable law, (i) the Company shall have no further obligation under Section 2(a) to make any payments to Indemnitee not made prior to such determination by such Reviewing Party, and (ii) the Company shall be entitled to be reimbursed by Indemnitee (who hereby agrees to reimburse the Company) for all Expenses theretofore paid to Indemnitee to which Indemnitee is not entitled hereunder under applicable law; provided, however, that if Indemnitee has commenced or thereafter commences legal proceedings in a court of competent jurisdiction to secure a determination that Indemnitee is entitled to be indemnified hereunder under applicable law, any determination made by any Reviewing Party that Indemnitee is not entitled to be indemnified hereunder under applicable law shall not be binding and Indemnitee shall not be required to reimburse the Company for any Expenses theretofore paid in indemnifying Indemnitee until a final judicial determination is made with respect thereto (as to which all rights of appeal therefrom have been exhausted or lapsed). Indemnitee's obligation to reimburse the Company for any Expenses shall be unsecured and no interest shall be charged thereon.

c. Indemnitee Rights on Unfavorable Determination; Binding Effect. If any Reviewing Party determines that Indemnitee substantively is not entitled to be indemnified hereunder in whole or in part under applicable law, Indemnitee shall have the right to commence litigation seeking an initial determination by the court or challenging any such determination by such Reviewing Party or any aspect thereof, including the legal or factual bases therefor, and, subject to the provisions of Section 15, the Company hereby consents to service of process

and to appear in any such proceeding. Absent such litigation, any determination by any Reviewing Party shall be conclusive and binding on the Company and Indemnitee.

d. Selection of Reviewing Party; Change in Control. If there has not been a Change in Control, any Reviewing Party shall be selected by the Board of Directors, and if there has been such a Change in Control (other than a Change in Control which has been approved by a majority of the Company's Board of Directors who were directors immediately prior to such Change in Control), any Reviewing Party with respect to all matters thereafter arising concerning the rights of Indemnitee to indemnification of Expenses under this Agreement or any other agreement or under the Company's Certificate of Incorporation or Bylaws as now or hereafter in effect, or under any other applicable law, if desired by Indemnitee, shall be Independent Legal Counsel selected by Indemnitee and approved by the Company (which approval shall not be unreasonably withheld). Such counsel, among other things, shall render its written opinion to the Company and Indemnitee as to whether and to what extent Indemnitee would be entitled to be indemnified hereunder under applicable law and the Company agrees to abide by such opinion. The Company agrees to pay the reasonable fees of the Independent Legal Counsel referred to above and to indemnify fully such counsel against any and all expenses (including attorneys' fees), claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto. Notwithstanding any

4

4

other provision of this Agreement, the Company shall not be required to pay Expenses of more than one Independent Legal Counsel in connection with all matters concerning a single Indemnitee, and such Independent Legal Counsel shall be the Independent Legal Counsel for any or all other Indemnitees unless (i) the employment of separate counsel by one or more Indemnitees has been previously authorized by the Company in writing, or (ii) an Indemnitee shall have provided to the Company a written statement that such Indemnitee has reasonably concluded that there may be a conflict of interest between such Indemnitee and the other Indemnitees with respect to the matters arising under this Agreement.

e. Mandatory Payment of Expenses. Notwithstanding any other provision of this Agreement other than Section 10 hereof, to the extent that Indemnitee has been successful on the merits or otherwise, including, without limitation, the dismissal of an action without prejudice, in defense of any Claim, Indemnitee shall be indemnified against all Expenses incurred by Indemnitee in connection therewith.

3. Expense Advances.

a. Obligation to Make Expense Advances. Upon receipt of a written undertaking by or on behalf of the Indemnitee to repay such amounts if it shall ultimately be determined that the Indemnitee is not entitled to be indemnified

therefore by the Company hereunder under applicable law, the Company shall make Expense Advances to Indemnitee.

b. Form of Undertaking. Any obligation to repay any Expense Advances hereunder pursuant to a written undertaking by the Indemnitee shall be unsecured and no interest shall be charged thereon.

c. Determination of Reasonable Expense Advances. The parties agree that for the purposes of any Expense Advance for which Indemnitee has made written demand to the Company in accordance with this Agreement, all Expenses included in such Expense Advance that are certified by affidavit of Indemnitee's counsel as being reasonable shall be presumed conclusively to be reasonable.

4. Procedures for Indemnification and Expense Advances.

a. Timing of Payments. All payments of Expenses (including without limitation Expense Advances) by the Company to the Indemnitee pursuant to this Agreement shall be made to the fullest extent permitted by law as soon as practicable after written demand by Indemnitee therefor is presented to the Company, but in no event later than thirty (30) business days after such written demand by Indemnitee is presented to the Company, except in the case of Expense Advances, which shall be made no later than ten (10) business days after such written demand by Indemnitee is presented to the Company.

b. Notice/Cooperation by Indemnitee. Indemnitee shall, as a condition precedent to Indemnitee's right to be indemnified or Indemnitee's right to receive Expense Advances under this Agreement, give the Company notice in writing as soon as practicable of any Claim made

5

5

against Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company shall be directed to the Chief Executive Officer of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee). In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

c. No Presumptions; Burden of Proof. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of nolo contendere, or its equivalent, shall not create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or that a court has determined that indemnification is not permitted by this Agreement or applicable law. In addition, neither the failure of any Reviewing Party to have made a determination as to whether Indemnitee has met any particular standard of conduct or had any particular belief, nor an actual determination by any

Reviewing Party that Indemnitee has not met such standard of conduct or did not have such belief, prior to the commencement of legal proceedings by Indemnitee to secure a judicial determination that Indemnitee should be indemnified under this Agreement under applicable law, shall be a defense to Indemnitee's claim or create a presumption that Indemnitee has not met any particular standard of conduct or did not have any particular belief. In connection with any determination by any Reviewing Party or otherwise as to whether the Indemnitee is entitled to be indemnified hereunder under applicable law, the burden of proof shall be on the Company to establish that Indemnitee is not so entitled.

d. Notice to Insurers. If, at the time of the receipt by the Company of a notice of a Claim pursuant to Section 4(b) hereof, the Company has liability insurance in effect which may cover such Claim, the Company shall give prompt notice of the commencement of such Claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such Claim in accordance with the terms of such policies.

e. Selection of Counsel. In the event the Company shall be obligated hereunder to provide indemnification for or make any Expense Advances with respect to the Expenses of any Claim, the Company, if appropriate, shall be entitled to assume the defense of such Claim with counsel approved by Indemnitee (which approval shall not be unreasonably withheld) upon the delivery to Indemnitee of written notice of the Company's election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently retained by or on behalf of Indemnitee with respect to the same Claim; provided that, (i) Indemnitee shall have the right to employ Indemnitee's separate counsel in any such Claim at Indemnitee's expense and (ii) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense, or (C) the Company shall not continue to retain such counsel to defend

6

6

such Claim, then the fees and expenses of Indemnitee's separate counsel shall be Expenses for which Indemnitee may receive indemnification or Expense Advances hereunder.

5. Additional Indemnification Rights; Nonexclusivity.

a. Scope. The Company hereby agrees to indemnify the Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws or by statute. In

the event of any change after the date of this Agreement in any applicable law, statute or rule which expands the right of a Delaware corporation to indemnify a member of its board of directors or an officer, employee, agent or fiduciary, it is the intent of the parties hereto that Indemnatee shall enjoy by this Agreement the greater benefits afforded by such change. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify a member of its board of directors or an officer, employee, agent or fiduciary, such change, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder except as set forth in Section 10(a) hereof.

b. Nonexclusivity. The indemnification and the payment of Expense Advances provided by this Agreement shall be in addition to any rights to which Indemnatee may be entitled under the Company's Certificate of Incorporation, its Bylaws, any other agreement, any vote of stockholders or disinterested directors, the General Corporation Law of the State of Delaware, or otherwise. The indemnification and the payment of Expense Advances provided under this Agreement shall continue as to Indemnatee for any action taken or not taken while serving in an indemnified capacity even though subsequent thereto Indemnatee may have ceased to serve in such capacity.

6. No Duplication of Payments. The Company shall not be liable under this Agreement to make any payment in connection with any Claim made against Indemnatee to the extent Indemnatee has otherwise actually received payment (under any insurance policy, provision of the Company's Certificate of Incorporation, Bylaws or otherwise) of the amounts otherwise payable hereunder.

7. Partial Indemnification. If Indemnatee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of Expenses incurred in connection with any Claim, but not, however, for all of the total amount thereof, the Company shall nevertheless indemnify Indemnatee for the portion of such Expenses to which Indemnatee is entitled.

8. Mutual Acknowledgment. Both the Company and Indemnatee acknowledge that in certain instances, federal law or applicable public policy may prohibit the Company from indemnifying its directors, officers, employees, agents or fiduciaries under this Agreement or otherwise. Indemnatee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnatee.

7

7

9. Liability Insurance. To the extent the Company maintains liability insurance applicable to directors, officers, employees, agents or fiduciaries, Indemnatee shall be covered by such policies in such a manner as to provide Indemnatee the same rights and benefits as are provided to the most favorably

insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer; or of the Company's key employees, agents or fiduciaries, if Indemnitee is not an officer or director but is a key employee, agent or fiduciary.

10. Exceptions. Notwithstanding any other provision of this Agreement, the Company shall not be obligated pursuant to the terms of this Agreement:

a. Excluded Actions or Omissions. To indemnify or make Expense Advances to Indemnitee with respect to Claims arising out of acts, omissions or transactions for which Indemnitee is prohibited from receiving indemnification under applicable law.

b. Claims Initiated by Indemnitee. To indemnify or make Expense Advances to Indemnitee with respect to Claims initiated or brought voluntarily by Indemnitee and not by way of defense, counterclaim or crossclaim, except (i) with respect to actions or proceedings brought to establish or enforce a right to indemnification under this Agreement or any other agreement or insurance policy or under the Company's Certificate of Incorporation or Bylaws now or hereafter in effect relating to Claims for Covered Events, (ii) in specific cases if the Board of Directors has approved the initiation or bringing of such Claim, or (iii) as otherwise required under Section 145 of the Delaware General Corporation Law, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, Expense Advances, or insurance recovery, as the case may be.

c. Lack of Good Faith. To indemnify Indemnitee for any Expenses incurred by the Indemnitee with respect to any action instituted (i) by Indemnitee to enforce or interpret this Agreement, if a court having jurisdiction over such action determines as provided in Section 13 that each of the material assertions made by the Indemnitee as a basis for such action was not made in good faith or was frivolous, or (ii) by or in the name of the Company to enforce or interpret this Agreement, if a court having jurisdiction over such action determines as provided in Section 13 that each of the material defenses asserted by Indemnitee in such action was made in bad faith or was frivolous.

d. Claims Under Section 16(b). To indemnify Indemnitee for Expenses and the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute.

11. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original.

12. Binding Effect; Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors, assigns (including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business or assets of the Company), spouses, heirs and

personal and legal representatives. The Company shall require and cause any successor (whether direct or indirect, and whether by purchase, merger, consolidation or otherwise) to all, substantially all, or a substantial part, of the business or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place. This Agreement shall continue in effect regardless of whether Indemnitee continues to serve as a director, officer, employee, agent or fiduciary (as applicable) of the Company or of any other enterprise at the Company's request.

13. Expenses Incurred in Action Relating to Enforcement or Interpretation. In the event that any action is instituted by Indemnitee under this Agreement or under any liability insurance policies maintained by the Company to enforce or interpret any of the terms hereof or thereof, Indemnitee shall be entitled to be indemnified for all Expenses incurred by Indemnitee with respect to such action (including without limitation attorneys' fees), regardless of whether Indemnitee is ultimately successful in such action, unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material assertions made by Indemnitee as a basis for such action was not made in good faith or was frivolous; provided, however, that until such final judicial determination is made, Indemnitee shall be entitled under Section 3 to receive payment of Expense Advances hereunder with respect to such action. In the event of an action instituted by or in the name of the Company under this Agreement to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be indemnified for all Expenses incurred by Indemnitee in defense of such action (including without limitation costs and expenses incurred with respect to Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material defenses asserted by Indemnitee in such action was made in bad faith or was frivolous; provided, however, that until such final judicial determination is made, Indemnitee shall be entitled under Section 3 to receive payment of Expense Advances hereunder with respect to such action.

14. Period of Limitations. No legal action shall be brought and no cause of action shall be asserted by or in the right of the Company against Indemnitee, Indemnitee's estate, spouse, heirs, executors or personal or legal representatives after the expiration of two years from the date of accrual of such cause of action, and any claim or cause of action of the Company shall be extinguished and deemed released unless asserted by the timely filing of a legal action within such two year period; provided, however, that if any shorter period of limitations is otherwise applicable to any such cause of action, such shorter period shall govern.

15. Notice. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed duly given (i) if delivered by hand and signed for by the party addressed, on the date of such delivery, or (ii) if mailed by domestic certified or registered mail with postage prepaid, on the third business day after the date postmarked. Addresses for notice to either party are as shown on the signature page of this Agreement, or as subsequently modified by written notice.

9

9

16. Consent to Jurisdiction. The Company and Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the State of Delaware for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement and agree that any action instituted under this Agreement shall be commenced, prosecuted and continued only in the Court of Chancery of the State of Delaware in and for New Castle County, which shall be the exclusive and only proper forum for adjudicating such a claim.

17. Severability. The provisions of this Agreement shall be severable in the event that any of the provisions hereof (including any provision within a single section, paragraph or sentence) are held by a court of competent jurisdiction to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law. Furthermore, to the fullest extent possible, the provisions of this Agreement (including without limitation each portion of this Agreement containing any provision held to be invalid, void or otherwise unenforceable, that is not itself invalid, void or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

18. Choice of Law. This Agreement, and all rights, remedies, liabilities, powers and duties of the parties to this Agreement, shall be governed by and construed in accordance with the laws of the State of Delaware as applied to contracts between Delaware residents entered into and to be performed entirely in the State of Delaware without regard to principles of conflicts of laws.

19. Subrogation. In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights.

20. Amendment and Termination. No amendment, modification, termination or cancellation of this Agreement shall be effective unless it is in writing signed by both the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed to be or shall constitute a waiver of any other provisions hereof (whether or not similar), nor shall such waiver constitute a continuing waiver.

21. Integration and Entire Agreement. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements relating to the subject matter hereof between the parties hereto.

22. No Construction as Employment Agreement. Nothing contained in this Agreement shall be construed as giving Indemnitee any right to be retained in the employ of the Company or any of its subsidiaries or affiliated entities.

10

10

IN WITNESS WHEREOF, the parties hereto have executed this Indemnification Agreement as of the date first above written.

ONDISPLAY, INC.

By:

Name:

Title:

Address: 12667 Alcosta Blvd., Ste. 300
San Ramon, CA 94583-4427

AGREED TO AND ACCEPTED

INDEMNITEE:

(Signature)

<<NAME>>

Name

Address

SUBLEASE AGREEMENT

THIS SUBLEASE AGREEMENT ("Sublease"), made as of the 2nd day of December, 1998 between ONDISPLAY, INC., a Delaware corporation ("Sublessee") and IRWIN HOME EQUITY CORPORATION, an Indiana corporation ("Sublessor").

WHEREAS, Sublessor is the Lessee under that certain Second Lease Addendum ("Addendum") (attached hereto as Exhibit "A" and made a part hereof by reference thereto), dated June 24, 1997 to that certain Lease Agreement ("Master Lease"), (attached hereto as Exhibit "B" and made a part hereof by reference thereto), dated October 12, 1995, where Sunset Development Company, the Lessor, leased to Sublessor approximately 13,140 rentable square feet of space on the third floor in a building known as 12667 Alcosta Boulevard, Building BB in San Ramon, California 94583 (the "Premises").

WHEREAS, Sublessee desires to sublease from Sublessor the Premises and certain items of furniture, fixtures, and equipment ("Personal Property"), and

WHEREAS, the Lessor under the Master Lease shall consent to this Sublease by executing the "Consent of Lessor" (attached hereto as Exhibit "D" and made a part hereof by reference thereto).

NOW, THEREFORE, for valuable consideration, the receipt, adequacy and sufficiency of which is hereby acknowledged by the parties hereto, the parties agree as follows:

1. Demise. Sublessor leases to Sublessee, and Sublessee leases from Sublessor the (a) Premises which are more particularly described in the Addendum, and (b) the Personal Property more fully described in Exhibit "C".
2. Guaranty. [Intentionally Deleted]
3. Use. the Premises and Personal Property shall be used and occupied only for general office use or any other use which is reasonably permitted under the terms of the Master Lease and for no other purpose.
4. Subject to Master Lease. This Sublease is a sublease by the Sublessor under the provisions of, and is subject and subordinate to, all of the terms and conditions of the Master Lease which are incorporated herein by reference and unless otherwise modified or excluded herein, Sublessee is entitled to the rights and benefits conferred by the master Lease. All undefined capitalized terms used herein shall have the meanings ascribed to such terms as set forth in

the Master Lease.

5. Term.

2

(a) Commencement Date. The Sublease term shall begin on January 15, 1999 (the "Commencement Date"), and shall continue until midnight on July 30, 2002 (the "Term"). The Sublessor shall deliver the Premises and Personal Property to the Sublessee on or before December 25, 1998 (the "Delivery Date"), solely for the purpose of preparing the Premises for Sublessee's use and occupancy ("Pre-Occupancy Period"). In the event that Sublessee reasonably commences utilizing the Premises for business purposes during this Pre-Occupancy Period, Base Rent shall commence as of that date. In the event Landlord does not consent to this Sublease, and/or Sublessor does not deliver the Premises and Personal Property on or before the Delivery Date, Sublessee shall have a minimum Pre-Occupancy Period of seven (7) days and Base Rent and Operating Costs shall not commence until the end of said Pre-Occupancy Period.

(b) Delay in Delivery. In the event that Sublessor is unable to deliver the Premises on the Delivery Date, Rent shall not be due and payable until the occurrence of delivery. In the event that delivery is delayed for thirty (30) days beyond the anticipated Commencement Date, Sublessee shall have the right to terminate this Sublease, by providing Sublessor with written notice of said termination within fifteen (15) days after the end of said thirty (30) day period. Upon receipt of said notice of termination, Sublessor shall return all monies previously paid by Sublessee to Sublessor and the parties shall have no further rights, responsibilities or obligations toward each other.

(c) Termination of Master Lease. In the event Sublessor's right to occupy the Premises is terminated at any time following execution of this Sublease as a result of the termination or expiration of the Master Lease, this Sublease shall terminate upon the effective terminate date of the Master Lease after prior written notice and be of no further force and effect, and except for any indemnity obligations and Sublessee's obligations to remove its personal property from the Premises (excluding Sublessor's Personal Property as defined in Exhibit C), the parties hereto shall be released from all duties, obligations, liabilities and responsibilities under this Sublease.

(d) Option to Extend. Sublessee shall have no right or option to extend the term of this Sublease beyond the expiration of the original Term.

(e) Early Termination by Sublessor. At any time after May 1, 2000, Sublessee shall have a continuing right to terminate this Sublease provided, Sublessee: (i) provides Sublessor with six (6) months advance written notice of its intent to terminate, and (ii) pays, concurrently with said notice, to Sublessor the sum of Seventy Eight Thousand Eight Hundred and Forty dollars (\$78,840.00) as an early termination penalty, and (iii) Sublessee is not in default of any of the provisions of this Sublease at the time Sublessee provides said notice or on the effective date of the early termination.

3

(a) Base Rent. During the Term, Sublease shall pay annual rent of Three Hundred Fifteen Thousand Three Hundred Sixty dollars and 00/100 (\$315,360.00) to Sublessor, payable in equal monthly installments of Twenty-six Thousand Two Hundred and Eighty and 00/100 (\$26,280.00) with such rent due in advance, beginning with the Commencement Date and on the first day of each month thereafter. If Commencement Date is any other day than the first day of a month, the first monthly installment shall be prorated. Sublessee shall mail the monthly rental payments, in advance, to the Sublessor, or to such other person, firm or place as the Sublessor may from time to time, designate in writing at least thirty (30) days in advance of any rental payment date.

(b) Taxes. Sublease shall be responsible for the reporting and payment when due of any tax directly related to ownership or operation of its business.

(c) Advance Rent. Concurrently with Sublessee's execution of this Sublease, Sublessee shall pay to Sublessor the sum of Twenty Six Thousand Two Hundred and Eighty Dollars (\$26,280.00) ("Advance Rent") to be applied against the first full month's Base Rent when it becomes due.

7. Security Deposit. Upon the execution of this Sublease by Sublessee, Sublessee shall deposit with Sublessor the sum of Seventy Eight Thousand Eight Hundred and Forty dollars (\$78,840.00) (the "Security Deposit"). The Security Deposit shall be held by Sublessor as security for the faithful performance by Sublessor of all of the terms, covenants and conditions of this Sublease to be performed by Sublessee during the Term. If Sublessee defaults with respect to any provision of this Sublease, including the provisions relating to the payment of any Base Rent or Operating Costs, Sublessor may (but shall not be required to) use, apply or retain all or any part of the Security Deposit to cure such default or to compensate Sublessor for any other loss or damage which Sublessor may suffer by reason of Sublessee's default. If any portion of the Security Deposit is so used or applied, Sublessee shall, within ten (10) days after written demand for Sublessor, deposit with Sublessor an amount sufficient to restore the Security Deposit to its original amount. Sublessee shall not be entitled to interest on such deposit. If Sublessee is in not in default of any of the provisions of this Sublease, Sublessor agrees to apply the sum of Twenty Six Thousand Two Hundred Eighty dollars (\$26,280.00) against the Base Rent due for the month of January 2000 when it becomes due. If Sublessee shall fully and faithfully perform every position of this Sublease as required to be performed by it under the terms of this Sublease and the Master Lease, the Security Deposit or any balance thereof shall be returned to Sublessee no later than thirty (30) days after the expiration of the Term and Sublessee's vacation of the premises.

8. Operating Costs. Sublessee shall, based on the square footage of the Premises calculated by dividing the rentable square footage of the Premises by

4

square footage of the building, pay for its pro-rata share of any increases in actual operating costs over a Base Year of 1999. For calculation purposes, Operating Costs pass through increases shall not exceed five (5%) over the immediately proceeding year.

9. Condition of Premises and Personal Property, Maintenance and Repair, Alterations.

(a) Sublessee agrees that its act of taking possession will be an acknowledgement that the Premises and Personal Property are in tenantable and good condition and that Sublessee takes the Premises and Personal Property on an "as-is" basis. Sublessee shall, at its sole cost and expense as required by the terms of the Master Lease, keep and maintain the Premises and Personal Property (excepting Landlord's obligations in Section 7 and Section 8 of the Master Lease), including but not limited to windows, doors, and the interior of Premises in good order, condition and repair. On the termination of this Sublease, Sublessee shall surrender to Sublessor the Premises, Personal Property and all improvements thereto, excepting personal property and trade fixtures owned by the Sublessee, in the same condition as when received, reasonable use and wear thereof excepted.

(b) Sublessee shall obtain the prior written approval of Sublessor and Lessor for any alterations, additions or improvements to the Premises, which approval shall not be unreasonably withheld. Such alterations and improvements shall be made at Sublessee's sole expense and Sublessee shall be required to obtain all necessary permits and fees for the alterations and improvements. Further, Sublessee agrees to remove any tenant improvements, modifications made by Sublessee and return the space to its original condition at Sublessee's sole cost and expense if requested to do so by Sublessor or as required by Master Lease.

(c) Sublessee shall obtain the prior written approval of Sublessor for any alterations or additions to the Personal Property, which approval shall not be unreasonably withheld. Such alterations, additions or improvements shall be made at Sublessee's sole expense. Further, Sublessee agrees to return the Personal Property to its original condition at Sublessee's sole cost and expense if requested to do so by Sublessor.

(d) Sublessor shall make reasonable repairs to the damaged wall and baseboard trim and touch up the paint, where reasonably deemed necessary, throughout the Premises. Sublessor shall make reasonable commercial efforts to complete these repairs prior to the Commencement Date.

10. Sublessor's Covenants. Sublessor covenants that during the term

of the Sublease, it shall:

- 4 of 11 -

5

(a) Except as otherwise set forth in this Sublease, take no action which would adversely affect Sublessee's use of the Premises or Personal Property; and

(b) Upon Sublessee's payment of rent and performance of its covenants, ensure Sublessee's quiet use and enjoyment of the Premises or Personal Property.

11. Assignment or Subletting, No Liens.

(a) Sublessee shall not assign, convey, sublet or transfer its interest in the Sublease without first obtaining Sublessor's and Lessor's written approval in accordance with the terms of the Master Lease.

(b) Sublessee shall keep the Premises and Personal Property free from any liens arising from any work performed, materials furnished or obligations incurred by or at the request of Sublessee. All persons either contracting with Sublessee or furnishing or rendering labor and materials to Sublessee shall be notified in writing by Sublessee that they must look only to Sublessee for payment for any labor or materials. If any lien is filed against the Premises or Personal Property as a result of the acts or omissions of Sublessee, its employees, agents or contractors, Sublessee shall discharge it within twenty (20) days after Sublessee learns that the lien has been filed.

12. Insurance, Risk of Loss.

(a) Insurance. Prior to the commencement of the Sublease Term and to having access to the Premises and Personal Property and at all times during the tenancy of this Sublease, Sublessee shall provide proof of insurance, as outlined below, satisfactory to Sublessor, and maintain the coverage's specified below during the term hereof and until the termination hereof:

Comprehensive General Liability in an aggregate amount of \$2,000,000.

Worker's Compensation Coverage in the statutory amount.

All Risk Insurance with Standard Extended Coverage, Replacement Value for full replacement of the Personal Property and Sublessee's personal property located on the Premises.

(b) Additional Insured. Sublessor and Lessor shall be named as additional insureds on the policy or policies. Sublessee may satisfy this requirement by obtaining appropriate endorsements to any master or blanket policy of liability insurance

6

Sublessee may maintain. No policy may be cancelable or subject to reduction of coverage except after thirty (30) days prior written notice to Sublessor.

(c) Sublessor Released from Liability in Certain Events. Except to the extent caused by the negligent or otherwise wrongful acts or omissions of Sublessor, its agents or employees, Sublessor shall not be responsible, at any time or in any event, for any latent defects, deterioration or change in the condition of the Premises except for circumstances existing prior to the date hereof caused by or attributable to the use of the Premises by Sublessor. Except to the extent caused by the negligent or otherwise wrongful acts or omissions of Sublessor, its agents or employees, Sublessor shall also not be responsible for any fire or earthquake damage, or overflow or leakage upon or into the Premises, of water, steam, gas or electricity, or by any breakage in pipes or plumbing, or breakage, leakage or obstruction of sewer pipes or other damage occasioned by water being upon or coming through the roof skylight, trapdoors, walls, basement or otherwise, not for failure of the heating (steam) plant, nor for loss of property by theft or otherwise, nor for any damage arising from any act or neglect of any co-tenant or other occupant of the Premises, or for that of any owner or occupants of adjoining or contiguous property. Notwithstanding the above, at Sublessee's written request, Sublessor shall, at Sublessor's expense, take whatever action as is reasonable and necessary to enforce the rights and benefits accruing to the Sublessee by virtue of the Master Lease and this Sublease.

13. Indemnification. Except to the extent caused by the sole negligence or willful misconduct of Sublessor, its agents or employees, Sublessee hereby agrees to indemnify and save Sublessor and its agents and the Lessor harmless from any claims, demands, or causes of action for property damage or personal injuries caused by Sublessee, Sublessee's agents, employees, contractors and customers, arising out of Sublessee's occupancy of or presence in the Premises.

14. Default.

(a) Each of the following shall be considered a default by the Sublessee:

(i) The failure to pay the Base Rent or Operating Costs required hereunder within five (5) days after receipt of Sublessor's written notice of such failure;

(ii) The failure to cure, within twenty (20) days after receipt of Sublessor's written notice thereof, any breach of any other term hereof.

Such breach shall not be deemed a default if within said twenty (20) day period Sublessee has begun the process to cure the breach and is diligently working on a cure; or

- 6 of 11 -

7

(iii) The abandonment of the Premises without the payment of Rent.

(b) Upon an uncured event of default of this Sublease by Sublessee, and Sublessee's failure to cure as allowed in (a) above, in addition to all other remedies provided at law or in equity, Sublessor may, after Sublessor's prior written notice thereof, at its option:

(i) elect to remove all of the merchandise, fixtures and equipment, without being guilty or liable in any manner for trespass, thereby terminating this Sublease, and store the personal property at Sublessee's expense, payable upon demand by Sublessor, and recover from Sublessee those amounts necessary to compensate Sublessor as permitted by applicable California law.

(ii) elect to treat this Sublease in full force and effect and shall be entitled to collect the rent provided for hereunder.

15. Condemnation. If the entire Premises or so much thereof as to interfere with the use thereof shall be taken or condemned by any competent authority for any public or quasi-public use or purpose, this Sublease shall terminate as of the date when possession is taken. In such event, Sublessor shall be under no liability to Sublessee, and Sublessee shall be entitled to no part of any condemnation award except so much thereof as the condemning authority expressly allocates to moving or relocation expenses incurred by Sublessee. Sublessor shall provide Sublessee with notice in writing of any actual or threatened condemnation proceedings promptly after receiving notice thereof.

16. Arbitration. Any dispute as to the interpretation or enforcement of this Sublease shall be subject to binding arbitration pursuant to Section 25.29 of the Master Lease.

17. Brokers. Sublessee and Sublessor warrant and represent to each other that in the negotiating or making of this Sublease neither Sublessee or Sublessor nor anyone acting on their behalf has dealt with any real estate broker or finder who might be entitled to a fee or commission for this Sublease other than Ernst & Young, LLP, whose fee is to be paid by Sublessor per a separate agreement. Each party agrees to indemnify and hold the other harmless from any claim or claims, including costs, expenses and attorney's fees incurred by the other asserted by any other broker or finder for a fee or

commission based upon any dealings with or statements made by the respective party or its agents, employees or representatives.

18. Financial Information. (a) As soon as they become available, and in no event later than April 30th of each year, Sublessee shall deliver, or cause to be

- 7 of 11 -

8

delivered, to Sublessor, copies of its audited consolidated financial statements of operations, stockholders' equity and cash flows for such fiscal year, prepared in accordance with generally accepted accounting principals, consistently applied, and accompanied by the audit opinion of the Sublessee's independent public accountants.

(b) Sublessor reserves the right to obtain, within sixty days after the close of each of the first three fiscal quarters of each fiscal year, copies of Sublessee's unaudited consolidated financial statements of operations, stockholder's equity and cash flows for such quarter, prepared in accordance with generally accepted accounting principals, consistently applied.

19. Entirety. This writing constitutes the entire agreement between Sublessor and Sublessee and any modification hereof must, in order to be effective, be in writing, signed by authorized representatives of each party.

20. Waiver. Failure or delay on the part of either party to exercise any right, power, privilege or remedy hereunder shall not operate as a waiver thereof, nor shall any single or partial exercise of any right under this Sublease preclude any other or further exercise thereof or the exercise of any other right.

21. Binding Effect. This Sublease shall extend to and bind the heirs, personal representatives, successors, assigns, or its successors in interest of the parties hereto.

22. Governing Law. This Sublease and performance hereunder shall be governed, interpreted, construed and regulated by the laws of the State of California without regard to its conflict of laws principles.

23. Notice. All notice and payments due hereunder shall be deemed validly given if sent by certified mail, return receipt requested, or with a nationally recognized courier which provides notice of receipt, postage fully prepaid, addressed as follows, or to such other addresses as may be given from either party in writing to the other:

SUBLESSEE:
OnDisplay, Inc.
12667 Alcosta Boulevard Building BB
San Ramon, California 94583

SUBLESSOR:
Irwin Home Equity Corporation
12677 Alcosta Blvd., Suite 500
San Ramon, California 94583

9

With a copy to:
Fern Prosnitz Vice President, Chief Counsel
Irwin Home Equity Corporation
12677 Alcosta Blvd., Suite 500
San Ramon, CA 94583

and
Irwin Financial Corporation
500 Washington Street
Columbus, IN 47201
Attn: Ellen Mufson Vice President, Legal

24. Headings. Section headings in this Sublease are included for the convenience of reference only and shall not constitute a part of this Sublease for any other purpose.

25. Counterparts. This Sublease may be executed in any number of counterparts, each of which shall be an original, but all for which together shall constitute but one instrument.

26. Authority. Each party hereby represents and warrants to the other that all necessary corporate authorizations required for execution and performance of this Sublease have been given and that the undersigned officer is duly authorized to execute this Sublease and bind the party for this it signs.

27. Expansion Rights. Section 25.20 of the Master Lease, notwithstanding, Sublessee is not granted any rights to expand its Premises by virtue of this Sublease.

IN WITNESS WHEREOF, the parties hereto have set their hands the day and year first above written.

ONDISPLAY, INC.

IRWIN HOME EQUITY CORPORATION

by: [sig illegible]

by: /s/ EDWIN K. CORBIN

Title: CEO

Title: VP Finance

Attest:

Attest: /s/ FERN P. PROSNITZ

- 9 of 11 -

10

EXHIBIT A

Second Lease Addendum, dated June 24, 1997, by and between SDC 7 (Landlord) and Irwin Home Equity Corporation (Tenant)

- 10 of 11 -

11

EXHIBIT B

Master Lease dated September 11, 1995, by and between Sunset Development Company (Landlord) and Irwin Home Equity Corporation (Tenant)

- 11 of 11 -

12

FINAL 3RD FLOOR PROPERTY INVENTORY

<TABLE>

<CAPTION>

DESCRIPTION	QUANTITY
<S> <C>	<C>
1. Blue Desk Chairs (1 each at every cubicle)	52
2. Conference Room Chairs	10
3. Conference Room Table	1
4. Wood Guest Chairs for Private Offices	12
5. Regular Size Cubicles (6 x 7.5)	47
6. Large Size Cubicles (7.5 x 9.25)	5
7. Overhead Cabinet with light fixture	51
8. Furnished Regular Size Private Offices	11

9.	Furnished Large Size Private Offices	1
10.	Five-Drawer Lateral Filing Cabinets	17
11.	Two-Drawer Lateral Filing Cabinets	47
12.	One Dishwasher	1
13.	Three-Drawer Pedestal	52
14.	Desk Chairs for Private Offices	12
15.	Egan Visual Boards	3
16.	One Refrigerator	1
17.	One Wood Credenza in Office 301	1
18.	System Rack/Cabling	1
19.	Honeywell Security System	1

</TABLE>

EXHIBIT "C"

13

[SDC7 LETTERHEAD]

December 18, 1998

Fax 421-8322

Mr. Gary Iorfido
 IRWIN HOME EQUITY CORPORATION
 12677 Alcosta Blvd. Suite 500
 San Ramon, CA 94583

Re: Landlord's Consent to Sublease
 Sublessee: OnDisplay, Inc.
 12667 Alcosta Blvd., Suite 300
 San Ramon, CA

Dear Gary:

Pursuant to Section 15 Assignment and Subletting, Subsection 15.1 Landlord's Consent Required, of that certain Lease dated September 11, 1995, by and between

SDC7 as Landlord and Irwin Home Equity Corporation as Tenant, Landlord hereby consents to the Sublease of 13,140 square feet on the third floor of 12667 Alcosta Blvd., Suite 300, to OnDisplay, Inc.

Consent to this Sublease does not release Irwin Home Equity Corporation or Irwin Financial Corporation of any of their obligations under the Lease.

This consent shall not be in effect until Landlord has received a fully executed copy of the Sublease.

Sincerely,

/s/ EDWARD HAGOPIAN

Edward Hagopian
Senior Vice President

EH:pm/b/f

cc: Jack Clark, Sunset Development Company
Douglas Hubert, Ernst & Young, via fax 415/248-2101

Exhibit "D"

SUBLEASE

THIS AGREEMENT OF SUBLEASE made as of the 17th day of Sept., 1996, by and between Knutson Mortgage Corporation, (hereinafter referred to as Sublessor) and OnDisplay, Inc., (hereinafter referred to as Sublessee).

WITNESSETH

WHEREAS, Sublessor is the Lessee of the Premises as hereinafter described under that certain agreement of Lease dated June 29, 1995, as amended November 29, 1995 by and between Annabel Investment Co. as Landlord (hereinafter referred to as the "Master Lessor") and Knutson Mortgage Corporation a Tenant (which Lease as amended is hereinafter referred to as the "Master Lease") which Lease concerns 6,728 square feet of space in a Building known as 2682 Bishop Drive, Building H, San Ramon, California 94583 ("Premises"); and,

WHEREAS, Sublessee desires to sublease a portion of the Premises from Sublessor, and Sublessor desires to sublease a portion of the Premises to Sublessee.

NOW THEREFORE, in consideration of the rents and covenants hereinafter set forth to be paid and performed by Sublessee, Sublessor does hereby demise, lease and let unto Sublessee, and the Sublessee does hereby lease and take from Sublessor upon the terms and conditions hereinafter set forth the following:

6,728 contiguous square feet located on the second (2nd) floor of the Premises as shown on the sketch attached hereto as Exhibit A hereinafter described as the "Subleased Premises."

1. RELATIONSHIP TO MASTER LEASE. The Sublease and all its terms, covenants and provisions are and each of them is subordinate to (i) the Master Lease (a copy of which is attached hereto as Exhibit B and made a part hereof by reference) under which Sublessor is granted a leasehold interest in the Subleased Premises; (ii) the rights as contained in the Master Lease of the owner or owners of the Premises and/or the land and Building of which the Subleased Premises are a part; (iii) the rights of Master Lessor as contained in the Master Lease; and (iv) to any and all mortgages or encumbrances now or hereafter affecting the Subleased Premises to which the Master Lease would be subordinated. Sublessee expressly agrees that if Sublessor's tenancy or right to possession of the Premises (including the Subleased Premises) shall terminate by expiration of the Master Lease or any other cause not due to the fault of Sublessor, this Sublease shall thereupon immediately cease and terminate and Sublessee shall give immediate possession to Sublessor.

2. PERFORMANCE OF MASTER LEASE TERMS. With respect to the Subleased Premises, Sublessee shall receive all benefits which accrue to Sublessor under the Master Lease. Sublessee hereby covenants and agrees to assume during the term of this Sublease the obligation for performance of the responsibilities, covenants, conditions and stipulations of

Please initial: Sublessor (____)
Sublessee (____)

1

2

Sublessor contained in the Master Lease, including payment when due of all amounts constituting Rent, as defined in the Master Lease, including but not limited to the payment of Operating Expenses. Sublessee hereby agrees to indemnify and hold harmless Sublessor from and against any loss, claim, damage, expense or injury (including reasonable attorneys' fees) which Sublessor may incur as a result of Sublessee's failure to perform such obligations on behalf of Sublessor. Sublessor covenants and agrees that if and so long as the Sublessee pays the base rent and additional rent specified in this Sublease and fully, faithfully and punctually observes the covenants and conditions hereof, then (i) Sublessee shall during the term of this Sublease quietly enjoy the Subleased Premises, subject, however, to the earlier termination of the Master Lease; and (ii) Sublessor shall not do anything which would cause the Master Lease to be canceled, terminated or forfeited including but not limited to, elect to terminate the Master Lease pursuant to Section 26.19 thereof.

3. TERM. The term of this Sublease shall commence on the earlier of (i) the date Sublessee occupies the Subleased Premises or (ii) September 15, 1996 ("Commencement Date") and shall expire on July 11, 2000.

4. RENT. During the term of this Sublease, Sublessee covenants to pay monthly base rent ("Base Rent") for the Subleased Premises at the rate of \$1.52 per square foot, payable in monthly payments of ten thousand two hundred twenty six and 56/100 Dollars (\$10,226.56).

Base Rent is due and payable on the first day of each month in advance to Sublessor at the address specified herein for providing notice. If the Commencement Date is a date other than the first of the month, Base Rent shall be prorated.

5. USE. Sublessee shall use the Subleased Premises for general office purposes.

6. WORK OF IMPROVEMENT. Sublessee has inspected the Subleased Premises and shall Lease the Subleased Premises in "as-is" condition.

7. INSURANCE AND INDEMNIFICATION. At all times during the term of this Sublease, Sublessee shall keep in effect (i) a policy of Comprehensive General Liability insurance with a reputable company in amounts not less than \$1,000,000 combined single limit and \$500,000 property damage or in such greater amounts deemed reasonably appropriate by Sublessor or Master Lessor with due regard given to Sublessee's use of the Subleased Premises, which policy shall name Sublessor and Master Lessor as additional insureds; (ii) a policy of Worker's Compensation insurance in at least the statutory amounts covering Sublessee's employees using the Subleased Premises; and (iii) insurance covering loss to Sublessee's personal property located on the Subleased Premises by fire or other casualty. All policies of insurance shall be issued by a company licensed to do business in the State of California and reasonably approved by Sublessor. Within five (5) days after full execution hereof, Sublessee shall provide Sublessor and Master Lessor with a certificate evidencing such insurance coverage. Sublessee shall indemnify and hold harmless of the Sublessor and Master Lessor except that references to "Tenant" shall read "Sublessee" and

Please initial: Sublessor (ART)
Sublessee(____)

2

3
references to "Landlord" shall read "Master Lessor and Sublessor".

8. SURRENDER. At the expiration or earlier termination of this Sublease, Sublessee shall surrender the Subleased Premises to Sublessor in broom clean condition in the same condition as on the Commencement Date, except for ordinary wear and tear, damage by fire, earthquake, act of God, or the elements, and not caused by the wrongful act or omission of Sublessee or Sublessee's agents.

9. ASSIGNMENT AND SUBLETTING. Sublessee may not sublet all or any portion of the Subleased Premise without the prior consent of Sublessor, which consent subject to the Master Lease, shall not be unreasonably withheld. No subletting by the Sublessee shall relieve Sublessee of its liability hereunder. Notwithstanding anything herein to the contrary the Sublessor may, without requiring Sublessee's consent, but with notice to the Sublessee, assign this Sublease to any business entity that controls, is controlled by or is under common control with or which acquires all or substantially all of the voting stock or assets of Sublessor.

10. DEFAULT. If Sublessee shall default in the payment of Base Rent or additional rent hereunder and such default shall continue for five (5) days after written notice from Sublessor, Sublessor may exercise any of the rights reserved to the Master Lessor pursuant to the Master Lease.

11. ACCESS. Sublessor and Master Lessor shall be permitted access to the Subleased Premises at all reasonable times upon reasonable advance notice, or at any time in case of emergency, to inspect the Subleased Premises, subject to Sublessee's reasonable security requirements.

12. NOTICE. Any notice required or permitted to be sent pursuant to this Agreement shall be in writing sent certified mail, return receipt requested, effective upon receipt, postage prepaid to the parties at the following addresses or to such other addresses as they shall from time to time indicate by written notice pursuant to this Section:

Sublessee:

OnDisplay, Inc.
Attn: Jeff Hodos
2682 Bishop Drive, Suite 215
San Ramon, CA 94583

Sublessor:

Knutson Mortgage Corporation
Attn: Corporate Accounting
3001 Metro Drive, #400
Minneapolis, MN 55425

13. SUBLESSOR RELEASED FROM LIABILITY IN CERTAIN EVENTS. Except to the extent caused by the negligent or otherwise wrongful acts or omissions of Sublessor or Master Lessor, its agents or employees, Sublessor shall not be responsible, at any time or in any

Please initial: Sublessor (_____)
Sublessee (_____)

event, for any latent defects, deterioration or change in the condition of the Subleased Premises except for circumstances existing prior to the date hereof caused by or attributable to the use of the Subleased Premises by Sublessor and/or any other party using the Subleased Premises of which the Sublessor had knowledge prior to the date hereof. Except to the extent caused by the negligent or otherwise wrongful acts or omissions of Sublessor, its agents or employees, Sublessor shall also not be responsible for any damage to Sublessee's property or for injury to persons, whether caused by riot or civil commotion, fire or earthquake damage, or overflow or leakage upon or into the Subleased Premises, of water, steam, gas or electricity, or by any breakage in pipes or plumbing, or breakage, leakage or obstruction of sewer pipes or other damage occasioned by water being upon or coming through the roof, skylight, trapdoors, walls, basement or otherwise, nor for failure of the heating (steam) plant, nor for loss of property by theft or otherwise, nor for any damage arising from any act

or neglect of Master Lessor, any co-tenant or other occupant of the Premises, or for that of any owner or occupants of adjoining or contiguous property.

14. CONSENT OF MASTER LESSOR. This Sublease and any extension of the term hereof is expressly conditioned on and subject to the prior consent of the Master Lessor, which consent has been obtained by Sublessor. This Sublease is presented for examination only and is valid only if signed by both parties. Unsigned it represents neither a reservation of a sublease or an agreement to sublease by either party.

15. ALTERATIONS. Sublessee may make no alterations, additions or improvements to the Subleased Premises without the prior written approval of Sublessor, which approval shall not be unreasonably withheld, and without the prior written approval of Master Lessor, which approval shall not be unreasonably withheld.

16. CONSENT OF SUBLESSOR. In all provisions requiring the approval or consent of Sublessor in accordance with the Master Lease, Sublessor shall promptly forward to Master Lessor such requests as Sublessee may submit for approval and/or consent from Master Lessor. If Master Lessor shall grant its approval or consent, except as otherwise provided in this Sublease, Sublessor shall be deemed to have also granted such approval or consent without any further action on the part of the Sublessor or Sublease as long as the matter in question does not expand any liability of the Sublessor under the Master Lease or provided that Sublessee shall separately agree in writing to indemnify Sublessor from and against any such additional liability.

17. ENTIRE AGREEMENT. This Sublease (including the provision of the Master Lease incorporated herein by reference) contains the entire agreement between the parties concerning the Subleased Premises and any agreement hereafter made shall be ineffective to change, modify or discharge this Sublease in whole or in part unless such agreement is in writing and signed by the parties hereto.

18. SUBLESSOR'S REPRESENTATIONS AND WARRANTIES. Sublessor represents and warrants that (1) the Master Lease is in full force and effect and not modified or

Please initial: Sublessor (____)
Sublessee (____)

amended except as set forth in the copies attached hereto; and (ii) Sublessor is not in default of any of its obligations under the Master Lease and has

received no notice asserting that it is in default of any of its obligations under the Master Lease.

19. MISCELLANEOUS.

a. If any term, covenant or condition of this Sublease or the application thereof to any circumstance or to any person, corporation or other entity shall be invalid or unenforceable to any extent, the remaining terms, covenants and conditions of this Sublease shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

b. The paragraph headings contained in the Sublease have been included for convenience only and shall not be used in the construction or interpretation of the Sublease.

c. This Sublease shall be governed by and construed in accordance with the laws of the State of California.

20. SUCCESSORS AND ASSIGNS. This Sublease shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

21. HAZARDOUS MATERIALS. Sublessee shall not (either with or without negligence) cause or permit the escape, disposal or release of any biologically or chemically active or other hazardous substances or materials. Sublessee shall not allow the storage or use of such substances or materials in any manner not sanctioned by law or by the highest standards prevailing in the industry for the storage and use of such substances or materials, nor allow to be brought into the Project any such materials or substances except to use in the ordinary course of Sublessee's business, and then only after written notice is given to Master Lessor of the identity of such substances or materials. Without limitation, hazardous substances and materials shall include those described in the Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended, 42 U.S.C. Section 9601 et seq., any applicable state or local laws and the regulations adopted under these acts. If any lender or governmental agency shall ever require testing to ascertain whether or not there has been any release of hazardous materials, then the reasonable costs thereof shall be reimbursed by Sublessee to Master Lessor upon demand as additional charges if such requirement applies to the Sublessee's use of the Premises. In addition, Sublessee shall execute affidavits, representations and the like from time to time at Master Lessor's request concerning Sublessee's best knowledge and belief regarding the presence of hazardous substances or materials on the Premises. In all events, Sublessee shall indemnify Master Lessor in the manner elsewhere provided in this Lease from any release of hazardous materials on the Premises occurring while Sublessee is in possession, or elsewhere if caused by Sublessee or persons acting under Sublessee. The within covenants shall survive the expiration or earlier termination of the lease term.

22. FORCE MAJEURE. Neither party shall be responsible or liable for delays

6

or failures of performance under this Sublease caused by events or circumstances beyond a party's control which may not be overcome by due diligence.

23. SECURITY DEPOSIT. Concurrently with Sublessee's execution of this Sublease, Sublessee shall deposit with Sublessor the sum of Thirty Thousand Six Hundred Seventy Nine and 68/100 Dollars (\$30,679.68) (the "Security Deposit"). The Security Deposit shall be held by Sublessor as security for the faithful performance by Sublessee of all of the terms, covenants and conditions of this Sublease to be performed by Sublessee during the term hereof. If Sublessee defaults with respect to any provision of this Sublease, including the provisions relating to the payment of any Rent, Sublessor may (but shall not be required to) use, apply or retain all or any part of the Security Deposit to cure such default or to compensate Sublessor for any other loss or damage which Sublessor may suffer by reason of Sublessee's default. If any portion of said deposit is so used or applied, Sublessee shall, within ten (10) days after written demand therefor, deposit cash with Sublessor in an amount sufficient to restore the Security Deposit to its original amount; Sublessee's failure to do so shall be a material breach of this Sublease. Sublessor shall not be required to keep the Security Deposit separate from its general funds, and Sublessee shall not be entitled to interest on such deposit. If Sublessee shall fully and faithfully perform every provision of this Sublease to be performed by it, the Security Deposit or any balance thereof shall be returned to Sublease (or, at Sublessor's option, to the last assignee of Sublessee's interest hereunder) upon the expiration of the Sublease term and Sublessee's vacating the Subleased Premises. In the event of termination of Sublessor's interest in this Sublease, Sublessor shall transfer the Security Deposit to Sublessor's successor in interest whereupon Sublessor shall be released from liability for the return of the Security Deposit or the accounting therefor.

24. BROKERS. Sublessee warrants and represents to Sublessor that in the negotiating or making of this Sublease it has worked solely with Century 21 Hosking Associates, Inc. as broker. Sublessee agrees to indemnify and hold harmless Sublessor and Master Lessor from any claim or claims including costs, expenses and attorney's fees incurred by Sublessor or Master Lessor asserted by any other broker or finder for a fee or commission based upon any dealings with or statements made by Sublessee or its agents, employees, or representatives. Sublessor hereby agrees to pay commission in the amount of Twenty Three Thousand Five Hundred Forty Eight and 00/100 Dollars (\$23,548.00) to Century 21 Hosking Associates, Inc., as Sublessee's broker, and in the amount of Six Thousand Seven Hundred Twenty Eight and 00/100 Dollars (\$6,728.00) to Sunset Development Company as cooperating broker, payable upon full execution of this Sublease and upon occupancy of the Subleased Premises by Sublessee. Sublessor expressly limits the amount of commissions and finder fees to be paid in this matter to the amounts described above.

25. BILL OF SALE. Concurrently with the execution hereof, Sublessee and Sublessor shall execute that Bill of Sale attached hereto as Exhibit C and by reference incorporated herein, pertaining to Sublessee's purchase of Sublessor's furnishings in the Subleased Premises.

Please initial: Sublessor(____)
Sublessee (____)

6

7

IN WITNESS WHEREOF, Sublessor and Sublessee have duly executed this Agreement of Sublease on the day and year first-above written

SUBLESSOR:

SUBLESSEE:

Knutson Mortgage Corporation

OnDisplay, Inc.

By: [Signature illegible]

By:

Name:

Name:

Title:

Title:

Date:

Date:

ATTACHMENTS:

- Exhibit A -Subleased Premises
- Exhibit B -Master Lease
- Exhibit C -Bill of Sale
- Exhibit C-1 -Inventory of Personal Property

Please initial: Sublessor [Illegible]

September 15, 1996

7

8

EXHIBIT A
SUBLEASED PREMISES

[DIAGRAM]

EXHIBIT A

BISHOP RANCH 2, BLDG. R	
2682 BISHOP DRIVE	
PRESENT PREMISES, SUITE 215	4,390 RSF
EXPANSION SPACE, SUITE 221	2,338 RSF

TOTAL NEW PREMISES	6,728 RSF

Please initial: Sublessor [Illegible]
Sublessee [_____]

September 15, 1996

8

9

EXHIBIT B
MASTER LEASE

Please initial: Sublessor [Illegible]
Sublessee [_____]

September 15, 1996

9

10

EXHIBIT C

BILL OF SALE

THIS BILL OF SALE is entered into this _____ day of _____, 1996, by and between Knutson Mortgage Corporation, ("Seller") and OnDisplay, Inc. ("Buyer").

WITNESSETH

WHEREAS, Seller has sublet to Buyer 6,728 square feet of space known as Suite 215 in that building at 2682 Bishop Drive, San Ramon, CA 94583 (the "Sublet Premises"); and

WHEREAS Buyer and Seller have agreed that certain personal property used by Seller and located in the Sublet Premises shall be sold to Buyer.

NOW THEREFORE, Buyer hereby agrees to pay to seller \$52,000.00, due and payable in three installments as follows: (1) \$17,333.34 upon execution hereof; (2) \$17,333.33 on or before December 15, 1996; and (3) \$17,333.33 on or before March 15, 1997. Seller hereby sells, transfers and assigns to Buyer all of Seller's right, title, and interest in those items of personal property which are in the Sublet Premises and which are described on Exhibit C-1 attached hereto. Seller represents and warrants to Buyer that the property converted herein is free of liens and encumbrances created by Seller and Seller will warrant and defend the same unto the Buyer, its successors and assigns, against the unlawful claims and demands of any persons resulting from the acts of Seller.

By acceptance hereof, Buyer acknowledges and agrees that such property is transferred and conveyed "as-is" and "where-is" as of the date Buyer first occupies the Sublet Premises.

IN WITNESS WHEREOF, Seller has executed this Bill of Sale as of the day, month and year first above written

SELLER:

KNUTSON MORTGAGE CORPORATION

By: [Signature Illegible]

Its:

BUYER:

ONDISPLAY, INC.

By:

Its:

Please initial: Sublessor [Illegible]
Sublessee [_____]

September 15, 1996

EXHIBIT C-1

PERSONAL PROPERTY

<TABLE>
<S> <C>
32 Workstations, Steelcase
6 Desks, U-Shaped, metal Steelcase
9 Files, Lateral, 2-drawer
7 Bookcases, Metal
2 Desks, L-Shaped, Wood
3 Files, Lateral, 2-Drawer, Wood
2 Credenzas, Wood
3 Desks, Metal
2 Hutches, Wood
1 Conference Table, Wood, Oval, 6-Seater
1 Conference Table, wood, round, 2-Seater
1 Bookcase, Wood
8 Chairs, side, wood
29 Chairs, task
10 Files, 3-Drawer, metal
3 Chairs, Executive
18 Chairs, task w/arms (management)
1 Table, telephone, wood
2 Cabinets, metal, for forms
2 Cabinets, metal, large for supplies
4 Tables, folding, brown
2 Carts, utility with files
2 Coat racks, portable
39 Telephones, Meridian M5009
22 Art
1 Full size refrigerator
</TABLE>

Please initial: Sublessor [Illegible]
Sublessee [_____]

September 15, 1996

MASTER LEASE AGREEMENT

MASTER LEASE AGREEMENT (the "Master Lease") dated February 25, 1999 by and between COMDISCO, INC. ("Lessor") and ONDISPLAY, INC. ("Lessee").

IN CONSIDERATION of the mutual agreements described below, the parties agree as follows (all capitalized terms are defined in Section 14.18):

1. PROPERTY LEASED.

Lessor leases to Lessee all of the Equipment described on each Summary Equipment Schedule in the event of a conflict, the terms of the applicable Schedule prevail over this Master Lease.

2. TERM.

On the Commencement Date, Lessee will be deemed to accept the Equipment, will be bound to its rental obligations for each item of Equipment and the term of a Summary Equipment Schedule will begin and continue through the Initial Term and thereafter until terminated by either party upon prior written notice received during the Notice Period. No termination may be effective prior to the expiration of the Initial Term.

3. RENT AND PAYMENT.

Rent is due and payable in advance on the first day of each Rent Interval at the address specified in Lessor's invoice. Interim Rent is due and payable when invoiced. If any payment is not made when due, Lessee will pay a Late Charge on the overdue amount. Upon Lessee's execution of each Schedule, Lessee will pay Lessor the Advance specified on the Schedule. The Advance will be credited towards the final Rent payment if Lessee is not then in default. No interest will be paid on the Advance.

4. SELECTION; WARRANTY AND DISCLAIMER OF WARRANTIES.

4.1 SELECTION. Lessee acknowledges that it has selected the Equipment and disclaims any reliance upon statements made by the Lessor, other than as set forth in the Schedule.

4.2 WARRANTY AND DISCLAIMER OF WARRANTIES. Lessor warrants to Lessee that, so long as Lessee is not in default, Lessor will not disturb Lessee's quiet and peaceful possession, and unrestricted use of the Equipment. To the extent permitted by the manufacturer, Lessor assigns to Lessee during the term of the Summary Equipment Schedule any manufacturer's warranties for the Equipment. LESSOR MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED AS TO ANY MATTER WHATSOEVER, INCLUDING, WITHOUT LIMITATION, THE MERCHANTABILITY OF THE EQUIPMENT OR ITS FITNESS FOR A PARTICULAR PURPOSE. Lessor is not responsible for any liability, claim, loss, damage or expense of any kind (including strict liability in tort) caused by the Equipment except for any loss or damage caused by the willful misconduct or negligent acts of Lessor. In no event is Lessor responsible for special, incidental or consequential damages.

5. TITLE; RELOCATION OR SUBLEASE; AND ASSIGNMENT.

5.1 TITLE. Lessee holds the Equipment subject and subordinate to the rights of the Owner, Lessor, any Assignee and any Secured Party. Lessee authorizes Lessor, as Lessee's agent, and at Lessor's expense, to prepare, execute and file in Lessee's name precautionary Uniform Commercial Code financing statements showing the interest of the Owner, Lessor, and any Assignee or Secured Party in the Equipment and to insert serial numbers in Summary Equipment Schedules as appropriate Lessee will, at its expense, keep the Equipment free and clear from any liens or encumbrances of any kind (except any caused by Lessor) and will indemnify and hold the Owner, Lessor, any Assignee and Secured Party harmless from and against any loss caused by Lessee's failure to do so, except where such is caused by Lessor.

5.2 RELOCATION OR SUBLEASE. Upon prior written notice, Lessee may relocate Equipment to any location within the continental United States provided (i) the Equipment will not be used by an entity exempt from federal income tax, and (ii) all additional costs (including any administrative fees, additional taxes and insurance coverage) are reconciled and promptly paid by Lessee.

Lessee may sublease the Equipment upon the reasonable consent of the Lessor and the Secured Party. Such consent to sublease will be granted if (i) Lessee meets the relocation requirements set out above, (ii) the sublease is expressly subject and subordinate to the terms of the Schedule, (iii) Lessee assigns its rights in the sublease to Lessor and the Secured Party as additional collateral and security, (iv) Lessee's obligation to maintain and insure the Equipment is not altered, (v) all financing statements required to continue the Secured Party's prior perfected security interest are filed, and (vi) Lessee executes sublease documents acceptable to Lessor.

No relocation or sublease will relieve Lessee from any of its obligations under this Master Lease and the relevant Schedule.

5.3 ASSIGNMENT BY LESSOR. The terms and conditions of each Schedule have been fixed by Lessor in order to permit Lessor to sell and/or assign or transfer its interest or grant a security interest in each Schedule and/or the Equipment to a Secured Party or Assignee. In that event, the term Lessor will mean the Assignee and any Secured Party. However, any assignment, sale, or other transfer by Lessor will not relieve Lessor of its obligations to Lessee and will not materially change Lessee's duties or materially increase the burdens or risks imposed on Lessee. The Lessee consents to and will acknowledge such assignments in a written notice given to Lessee. Lessee also agrees that:

(a) The Secured Party will be entitled to exercise all of Lessor's rights, but will not be obligated to perform any of the obligations of Lessor. The Secured Party will not disturb Lessee's quiet and peaceful possession and unrestricted use of the Equipment so long as Lessee is not in default and the Secured Party continues to receive all Rent payable under the Schedule, and

(b) Lessee will pay all Rent and all other amounts payable to the Secured Party, despite any defense or claim which it has against Lessor. Lessee reserves its right to have recourse directly against Lessor for any defense or claim.

(c) Subject to and without impairment of Lessee's leasehold rights in the Equipment, Lessee holds the Equipment for the Secured Party to the extent of the Secured Party's rights in that Equipment.

6. NET LEASE; TAXES AND FEES.

6.1 NET LEASE. Each Summary Equipment Schedule constitutes a net lease. Lessee's obligation to pay Rent and all other amounts due hereunder is absolute and unconditional and is not subject to any abatement, reduction, set-off, defense, counterclaim, interruption, deferment or recoupment for any reason whatsoever.

6.2 TAXES AND FEES. Lessee will pay when due or reimburse Lessor for all taxes, fees or any other charges (together with any related interest or penalties not arising from the negligence of Lessor) accrued for or arising during the term of each Summary Equipment Schedule against Lessor, Lessee or the Equipment by any governmental authority (except only Federal, state, local and franchise taxes on the capital or the net income of Lessor). Lessor will file all personal property tax returns for the Equipment and pay all such property taxes due. Lessee will reimburse Lessor for property taxes within thirty (30) days of receipt of an invoice.

7. CARE, USE AND MAINTENANCE; INSPECTION BY LESSOR.

7.1 CARE, USE AND MAINTENANCE. Lessee will maintain the Equipment in good operating order and appearance, protect the Equipment from deterioration, other than normal wear and tear, and will not use the Equipment for any purpose other than that for which it was designed if commercially available and considered common business practice for each item of Equipment. Lessee will maintain in force a standard maintenance contract with the manufacturer of the Equipment, or

another party acceptable to Lessor, and will provide Lessor with a complete copy of that contract. If Lessee has the Equipment maintained by a party other than the manufacturer or self maintains, Lessee agrees to pay any costs necessary for the manufacturer to bring the Equipment to then current release, revision and engineering change levels, and to re-certify the Equipment as eligible for manufacturer's maintenance at the expiration of the lease term, provided re-certification is available and is required by Lessor. The lease term will continue upon the same terms and conditions until recertification has been obtained.

7.2 INSPECTION BY LESSOR. Upon reasonable advance notice, Lessee, during reasonable business hours and subject to Lessee's security requirements, will make the Equipment and its related log and maintenance records available to Lessor for inspection.

8. REPRESENTATIONS AND WARRANTIES OF LESSEE. Lessee hereby represents, warrants and covenants that with respect to the Master Lease and each Schedule executed hereunder:

(a) The Lessee is a corporation duly organized and validly existing in good standing under the laws of the jurisdiction of its incorporation, is duly qualified to do business in each jurisdiction (including the jurisdiction where the Equipment is, or is to be, located) where its ownership or lease of property or the conduct of its business requires such qualification, except for where such lack of qualification would not have a material adverse effect on the Company's business, and has full corporate power and authority to hold property under the Master Lease and each Schedule and to enter into and perform its obligations under the Master Lease and each Schedule.

(b) The execution and delivery by the Lessee of the Master Lease and each Schedule and its performance thereunder have been duly authorized by all necessary corporate action on the part of the Lessee, and the Master Lease and each Schedule are not inconsistent with the Lessee's Articles of Incorporation or Bylaws, do not

- 1 -

2

contravene any law or governmental rule, regulation or order applicable to it, do not and will not contravene any provision of, or constitute a default under, any indenture, mortgage, contract or other instrument to which it is a party or by which it is bound, and the Master Lease and each Schedule constitute legal, valid and binding agreements of the Lessee, enforceable in accordance with their terms, subject to the effect of applicable bankruptcy and other similar laws affecting the rights of creditors generally and rules of law concerning equitable remedies.

(c) There are no actions, suits, proceedings or patent claims pending or, to the knowledge of the Lessee, threatened against or affecting the Lessee in any court or before any governmental commission, board or authority which, if adversely determined, will have a material adverse effect on the ability of the Lessee to perform its obligations under the Master Lease and each Schedule.

(d) The Equipment is personal property and when subjected to use by the Lessee will not be or become fixtures under applicable law.

(e) The Lessee has no material liabilities or obligations, absolute or contingent (individually or in the aggregate), except the liabilities and obligations of the Lessee as set forth in the Financial Statements and liabilities and obligations which have occurred in the ordinary course of business, and which have not been, in any case or in the aggregate, materially adverse to Lessee's ongoing business.

(f) To the best of Lessee's knowledge, the Lessee owns, possesses, has access to, or can become licensed on reasonable terms under all patents, patent applications, trademarks, trade names, inventions, franchises, licenses, permits, computer software and copyrights necessary for the operations of its

business as now conducted, with no known infringement of, or conflict with, the rights of others.

(g) All material contracts, agreements and instruments to which the Lessee is a party are in full force and effect in all material respects, and are valid, binding and enforceable by the Lessee in accordance with their respective terms, subject to the effect of applicable bankruptcy, and other similar laws affecting the rights of creditors generally, and rules of law concerning equitable remedies.

9. DELIVERY AND RETURN OF EQUIPMENT.

Lessee hereby assumes the full expense of transportation and in-transit insurance to Lessee's premises and installation thereof of the Equipment. Upon termination (by expiration or otherwise) of each Summary Equipment Schedule, Lessee shall, pursuant to Lessor's instructions and at Lessee's full expense (including, without limitation, expenses of transportation and in-transit insurance), return the Equipment to Lessor in the same operating order, repair, condition and appearance as when received, less normal depreciation and wear and tear. Lessee shall return the Equipment to Lessor at 6111 North River Road, Rosemont, Illinois 60018 or at such other address within the continental United States as directed by Lessor, provided, however, that Lessor's address expense shall be limited to the cost of returning the Equipment to Lessee's address as set forth herein. During the period subsequent to receipt of a notice under Section 2, Lessor may demonstrate the Equipment's operation in place and Lessee will supply any of its personal as may reasonably be required to assist in the demonstrations.

10. LABELING.

Upon request, Lessee will mark the Equipment indicating Lessor's interest with labels provided by Lessor. Lessee will keep all Equipment free from any other marking or labeling which might be interpreted as a claim of ownership.

11. INDEMNITY.

With regard to bodily injury and property damage liability only, Lessee will indemnify and hold Lessor, any Assignee and any Secured Party harmless from and against any and all claims, costs, expenses, damages and liabilities, including reasonable attorneys' fees, arising out of the ownership (for strict liability in tort only), selection, possession, leasing, operation, control, use, maintenance, delivery, return or other disposition of the Equipment during the term of this Master Lease or until Lessee's obligations under the Master Lease terminate. However, Lessee is not responsible to a party indemnified hereunder for any claims, costs, expenses, damages and liabilities occasioned by the negligent acts of such indemnified party. Lessee agrees to carry bodily injury and property damage liability insurance during the term of the Master Lease in amounts and against risks customarily insured against by the Lessee on equipment owned by it. Any amounts received by Lessor under that insurance will be credited against Lessee's obligations under this Section.

12. RISK OF LOSS.

Effective upon delivery and until the Equipment is returned, Lessee relieves Lessor of responsibility for all risks of physical damages to or loss or destruction of the Equipment. Lessee will carry casualty insurance for each item of Equipment in an amount not less than the Casualty Value. All policies for such insurance will name the Lessor and any Secured Party as additional insured and as loss payee, and will provide for at least thirty (30) days prior written notice to the Lessor of cancellation or expiration, and will insure Lessor's interests regardless of any breach or violation by Lessee of any representation, warranty or condition contained in such policies and will be primary without right of contribution from any insurance effected by Lessor. Upon the execution of any Schedule, the Lessee will furnish appropriate evidence of such insurance acceptable to Lessor.

Lessee will promptly repair any damaged item of Equipment unless such Equipment has suffered a Casualty Loss. Within fifteen (15) days of a Casualty Loss, Lessee will provide written notice of that loss to Lessor and Lessee will, at Lessee's option, either (a) replace the item of Equipment with Like Equipment

and marketable title to the Like Equipment will automatically vest in Lessor or (b) pay the Casualty Value and after that payment and the payment of all other amounts due and owing with respect to that item of Equipment, Lessee's obligation to pay further Rent for the item of Equipment will cease.

13. DEFAULT, REMEDIES AND MITIGATION.

13.1 DEFAULT. The occurrence of any one or more of the following Events of Default constitutes a default under a Summary Equipment Schedule.

(a) Lessee's failure to pay Rent or other amounts payable by Lessee when due if that failure continues for five (5) business days after written notice; or

(b) Lessee's failure to perform any other term or condition of the Schedule or the material inaccuracy of any representation or warranty made by the Lessee in the Schedule or in any document or certificate furnished to the Lessor hereunder if that failure or inaccuracy continues for ten (10) business days after written notice; or

(c) An assignment by Lessee for the benefit of its creditors, the failure by Lessee to pay its debts when due, the insolvency of Lessee, the filing by Lessee or the filing against Lessee of any petition under any bankruptcy or insolvency law or for the appointment of a trustee or other officer with similar powers, the adjudication of Lessee as insolvent, the liquidation of Lessee, or the taking of any action for the purpose of the foregoing; or

(d) The occurrence of an Event of Default under any Schedule. Summary Equipment schedule or other agreement between Lessee and Lessor or its Assignee or Secured Party.

13.2 REMEDIES. Upon the occurrence of any of the above Events of Default, Lessor, at its option, may:

(a) enforce Lessee's performance of the provisions of the applicable Schedule by appropriate court action in law or in equity;

(b) recover from Lessee any damages and or expenses, including Default Costs;

(c) with notice and demand, recover all sums due and accelerate and recover the present value of the remaining payment stream of all Rent due under the defaulted Schedule (discounted at the same rate of interest at which such defaulted Schedule was discounted with a Secured Party plus any prepayment fees charged to Lessor by the Secured Party or, if there is no Secured Party, then discounted at 6%) together with all Rent and other amounts currently due as liquidated damages and not as a penalty;

(d) with notice and process of law and in compliance with Lessee's security requirements, Lessor may enter on Lessee's premises to remove and repossess the Equipment without being liable to Lessee for damages due to the repossession, except those resulting from Lessor's, its assignees', agents' or representatives' negligence; and

(e) pursue any other remedy permitted by law or equity.

The above remedies, in Lessor's discretion and to the extent permitted by law, are cumulative and may be exercised successively or concurrently.

13.3 MITIGATION. Upon return of the Equipment pursuant to the terms of Section 13.2, Lessor will use its best efforts in accordance with its normal business procedures (and without obligation to give any priority to such Equipment) to mitigate Lessor's damages as describe below. EXCEPT AS SET FORTH IN THIS SECTION, LESSEE HEREBY WAIVES ANY RIGHTS NOW OR HEREAFTER CONFERRED BY STATUTE OR OTHERWISE WHICH MAY REQUIRE LESSOR TO MITIGATE ITS DAMAGES OR MODIFY ANY OF LESSOR'S RIGHTS OR REMEDIES STATED HEREIN. Lessor may sell, lease or otherwise dispose of all or any part of the Equipment at a public or private sale for cash or credit with the privilege of purchasing the Equipment. The proceeds from any sale, lease or other disposition of the Equipment are defined as either:

(a) if sold or otherwise disposed of, the cash proceeds less the Fair Market

3

b) if leased, the present value (discounted at 3 percent (3%) over the U.S. Treasury Notes of comparable maturity to the term of the re-lease of the rentals for a term not to exceed the Initial Term, less the default Costs.

Any proceeds will be applied against liquidated damages and any other sums due to Lessor from Lessee. However, Lessee is liable to Lessor for, and Lessor may recover, the amount by which the proceeds are less than the liquidated damages and other sums due to Lessor from Lessee.

14. ADDITIONAL PROVISIONS.

14.1 BOARD ATTENDANCE. One representative of Lessor will have the right to attend Lessee's corporate Board of Directors meetings and Lessee will give Lessor reasonable notice in advance of any special Board of Directors meeting, which notice will provide an agenda of the subject matter to be discussed at such board meeting. Lessee will provide Lessor with a certified copy of the minutes of each Board of Directors meeting within thirty (30) days following the date of such meeting held during the term of this Master Lease.

14.2 FINANCIAL STATEMENTS. As soon as practicable at the end of each month (and in any event within thirty (30) days). Lessee will provide to Lessor the same information which Lessee provides to its Board of Directors, but which will include not less than a monthly income statement, balance sheet and statement of cash flows prepared in accordance with generally accepted accounting principles, consistently applied (the "Financial Statements"). As soon as practicable at the end of each fiscal year, Lessee will provide to Lessor audited Financial Statements setting forth in comparative form the corresponding figures for the fiscal year (and in any event within ninety (90) days), and accompanied by an audit report and opinion of the independent certified public accountants selected by Lessee. Lessee will promptly furnish to Lessor any additional information (including, but not limited to, tax returns, income statements, balance sheets and names of principal creditors) as Lessor reasonably believes necessary to evaluate Lessee's continuing ability to meet financial obligations. After the effective date of the initial registration statement covering a public offering of Lessee's securities, the term "Financial Statements" will be deemed to refer to only those statements required by the Securities and Exchange Commission.

14.3 OBLIGATION TO LEASE ADDITIONAL EQUIPMENT. Upon notice to Lessee, Lessor will not be obligated to lease any Equipment which would have a commencement date after said notice if, (i) Lessee is in default under this Master Lease or any Schedule; (ii) Lessee is in default under any loan agreement, the result of which would allow the lender or any secured party to demand immediate payment of any material indebtedness; (iii) there is a material adverse change in Lessee's credit standing; or (iv) Lessor determines (in reasonable good faith) that Lessee will be unable to perform its obligations under this Master Lease or any Schedule.

14.4 MERGER AND SALE PROVISIONS. Lessee will notify Lessor of any proposed Merger at least sixty (60) days prior to the closing date. Lessor may, in its discretion, either (i) consent to the assignment of the Master Lease and all relevant Schedules to the successor entity, or (ii) terminate the Lease and all relevant Schedules. If Lessor elects to consent to the assignment, Lessee and its successor will sign the assignment documentation provided by Lessor. If Lessor elects to terminate the Master Lease and all relevant Schedules, then

Lessee will pay Lessor all amounts then due and owing and a termination fee equal to the present value (discounted at 6%) of the remaining Rent for the balance of the Initial Term(s) of all Schedules, and will return the Equipment in accordance with Section 9. Lessor hereby consents to any Merger in which the acquiring entity has a Moody's Bond Rating of BA3 or better or a commercially acceptable equivalent measure of creditworthiness as reasonably determined by Lessor.

14.5 ENTIRE AGREEMENT. This Master Lease and associated Schedules and Summary Equipment Schedules supersede all other oral or written agreements or understandings between the parties concerning the Equipment including, for example, purchase orders. ANY AMENDMENT OF THIS MASTER LEASE OR A SCHEDULE, MAY ONLY BE ACCOMPLISHED BY A WRITING SIGNED BY THE PARTY AGAINST WHOM THE AMENDMENT IS SOUGHT TO BE ENFORCED.

14.6 NO WAIVER. No action taken by Lessor or Lessee will be deemed to constitute a waiver of compliance with any representation, warranty or covenant contained in this Master Lease or a Schedule. The waiver by Lessor or Lessee of a breach of any provision of this Master Lease or a Schedule will not operate or be construed as a waiver of any subsequent breach.

14.7 BINDING NATURE. Each Schedule is binding, upon and inures to the benefit of Lessor and its assigns. LESSEE MAY NOT ASSIGN ITS RIGHTS OR OBLIGATIONS.

14.8 SURVIVAL OF OBLIGATIONS. All agreements, obligations, including, but not limited to those arising under Section 6.2, representations and warranties contained in this Master Lease, any Schedule. Summary Equipment Schedule or in any document delivered in connection with those agreements are for the benefit of Lessor and any Assignee or Secured Party and survive the execution, delivery, expiration or termination of this Master Lease.

14.9 NOTICES. Any notice, request or other communication to either party by the other will be given in writing and deemed received upon the earlier of (1) actual receipt or (2) three days after mailing if mailed postage prepaid by regular or airmail to Lessor (to the attention of "the Comdisco Venture Group") or Lessee, at the address set out in the Schedule, (3) one day after it is sent by counter or (4) on the same day as sent via facsimile transmission, provided that the original is sent by personal delivery or mail by the sending party.

14.10 APPLICABLE LAW. THIS MASTER LEASE HAS BEEN, AND EACH SCHEDULE WILL HAVE BEEN MADE, EXECUTED AND DELIVERED IN THE STATE OF ILLINOIS AND WILL BE GOVERNED AND CONSTRUED FOR ALL PURPOSES IN ACCORDANCE WITH THE LAWS OF THE STATE OF ILLINOIS WITHOUT GIVING EFFECT TO CONFLICT OR LAW PROVISIONS. NO RIGHTS OR REMEDIES REFERRED TO IN ARTICLE 2A OF THE UNIFORM COMMERCIAL CODE WILL BE CONFERRED ON LESSEE UNLESS EXPRESSLY GRANTED IN THIS MASTER LEASE OR A SCHEDULE.

14.11 SEVERABILITY. If any one or more of the provisions of this Master Lease or any Schedule is for any reason held invalid, illegal or unenforceable, the remaining provisions of this Master Lease and any such Schedule will be unimpaired, and the invalid, illegal or unenforceable provision replaced by a mutually acceptable valid, legal and enforceable provision that is closest to the original intention of the parties.

14.12 COUNTERPARTS. This Master Lease and any Schedule may be executed in any number of counterparts, each of which will be deemed an original, but all such counterparts together constitute one and the same instrument. If Lessor grants a security interest in all or any part of a Schedule, the Equipment or sums payable thereunder, only that counterpart Schedule marked "Secured Party's Original" can transfer Lessor's rights and all other counterparts will be marked "Duplicate."

14.13 LICENSED PRODUCTS. Lessee will obtain no title to Licensed Products which will at all time remain the property of the owner of the Licensed Products. A license from the owner may be required and it is Lessee's responsibility to obtain any required license before the use of the Licensed Products. Lessee agrees to treat the Licensed Products as confidential information of the owner, to observe all copyright restrictions, and not to reproduce or sell the Licensed Products.

14.14 SECRETARY'S CERTIFICATE. Lessee will, upon execution of this Master Lease, provide Lessor with a secretary's certificate of incumbency and authority. Upon the execution of each Schedule with a purchase price in excess of \$1,000,000. Lessee will provide Lessor with an opinion from Lessee's counsel in a form acceptable to Lessor regarding the representations and warranties in Section 8.

14.15 ELECTRONIC COMMUNICATIONS. Each of the Parties may communicate with the other by electronic means under mutually agreeable terms.

14.16 LANDLORD/MORTGAGE WAIVER. Lessee agrees to provide Lessor with a Landlord/Mortgagee Waiver with respect to the Equipment. Such waiver shall be in a form satisfactory to Lessor.

14.17 EQUIPMENT PROCUREMENT CHARGES/PROGRESS PAYMENTS. Lessee hereby agrees that Lessor shall not, by virtue of its entering into this Master Lease, be required to remit any payments to any manufacturer or other third party until Lessee accepts the Equipment subject to this Master Lease.

14.18 DEFINITIONS,

ADVANCE - means the amount due to Lessor by Lessee upon Lessee's execution of each Schedule.

ASSIGNEE - means an entity to whom Lessor has sold or assigned its rights as owner and Lessor of Equipment.

CASUALTY LOSS - means the irreparable loss or destruction of Equipment.

CASUALTY VALUE - means the greater of the aggregate Rent remaining to be paid for the balance of the lease term of the Fair Market Value of the Equipment immediately prior to the Casualty Loss. However, if a Casualty Value Table is attached to the relevant Schedule its term will control.

COMMENCEMENT DATE - is defined in each Schedule.

DEFAULT COSTS - means reasonable attorney's fees and remarketing costs resulting from a Lessee default or Lessor's enforcement of its remedies.

DELIVERY DATE - means date of delivery of Inventory Equipment to Lessee's address.

EQUIPMENT - means the property described on a Summary Equipment Schedule and any replacement for that property required or permitted by this Master Lease or a Schedule.

EVENT OF DEFAULT - means the events described in subsection 13.1.

- 3 -

4

FAIR MARKET VALUE - means the aggregate amount which would be obtainable in an arm's-length transaction between an informed and willing buyer/user and an informed and willing seller under no compulsion to sell.

INITIAL TERM - means the period of time beginning on the first day of the first full Rent Interval following the Commencement Date for all items of Equipment and continuing for the number of Rent Intervals indicated on a Schedule.

INTERIM RENT - means the pro-rata portion of Rent due for the period from the Commencement Date through but not including the first day of the first full Rent Interval included in the Initial Term.

LATE CHARGE - means the lesser of five percent (5%) of the payment due or the maximum amount permitted by the law of the state where the Equipment is located.

LICENSED PRODUCTS - means any software or other licensed products attached to the Equipment.

LIKE EQUIPMENT - means replacement Equipment which is lien free and of the same model, type, configuration and manufacture as Equipment.

MERGER - means any consolidation or merger of the Lessee with or into any other corporation or entity, any sale or conveyance of all or substantially all of the assets or stock of the Lessee by or to any other person or entity in which Lessee is not the surviving entity.

NOTICE PERIOD - means not less than ninety (90) days nor more than twelve (12) months prior to the expiration of the lease term.

OWNER - means the owner of Equipment.

RENT - means the rent Lessee will pay for each item of Equipment expressed in a Summary Equipment Schedule either as a specific amount or an amount equal to the amount which Lessor pays for an item of Equipment multiplied by a lease rate factor plus all other amounts due to Lessor under this Master Lease or a Schedule.

RENT INTERVAL - means a full calendar month or quarter as indicated on a Schedule.

SCHEDULE - means either an Equipment Schedule or a Licensed Products Schedule which incorporates all of the terms and conditions of this Master Lease.

SECURED PARTY - means an entity to whom Lessor has granted a security interest for the purpose of securing a loan.

SUMMARY EQUIPMENT SCHEDULE - means a certificate provided by Lessor summarizing all of the Equipment for which Lessor has received Lessee approved vendor invoices, purchase documents and/or evidence of delivery during a calendar quarter which will incorporate all of the terms and conditions of the related Schedule and this Master Lease and will constitute a separate lease for the equipment leased thereunder.

IN WITNESS WHEREOF, the parties hereto have executed this Master Lease on or as of the day and year first above written.

ONDISPLAY, INC.
AS LESSEE

COMDISCO, INC.,
AS LESSOR

By: /s/ DOUG JEFFRIES

By: /s/ JAMES P. LABE

JAMES P. LABE

Title: Vice President and CFO

Title: PRESIDENT

COMDISCO VENTURES DIVISION

-4-

5

ADDENDUM TO THE
MASTER LEASE AGREEMENT DATED AS OF FEBRUARY 25, 1999
BETWEEN ONDISPLAY, INC., AS LESSEE
AND COMDISCO, INC., AS LESSOR

The undersigned hereby agree that the terms and conditions of the above-referenced Master Lease Agreement are hereby modified and amended as follows:

- 1) SECTION 4.2 "WARRANTY AND DISCLAIMER OF WARRANTIES."

First Sentence, line 2 delete the words "Lessee is not in default" and insert "no Event of Default has occurred and is continuing, neither Lessor nor any person or entity claiming by or through Lessor".

2) SECTION 5. 1 "TITLE."

Delete the first sentence in its entirety and replace with: Lessee shall have no right, title or interest in the Equipment except as set forth in this Master Lease or in any Schedule."

Third Sentence, line 3, after the words "caused by Lessor", insert "or parties claiming by or through Lessor".

3) SECTION 5.3 "ASSIGNMENT BY LESSOR."

In Paragraph (a), second sentence, lines 3 and 4, delete the words "Lessee is not in default and the Secured Party continues to receive all Rent Payable under the Schedule." and replace with "no Event of Default has occurred and is continuing".

In Paragraph (b), insert the following clause at the beginning thereof: "Upon written notice from Lessor,".

4) SECTIONS 6.1 "NET LEASE."

At the end of second sentence insert the following, ";provided, however, that Lessee's ability to bring suit against Lessor for breach of this Master Lease shall not be affected by this Section 6.1.".

5) SECTION 6.2 "TAXES AND FEES."

First Sentence, line 3 delete "accrued for or arising" and replace with "attributable to periods".

-1-

6

6) SECTION 7.1 "CARE, USE AND MAINTENANCE; INSPECTION BY LESSOR."

Delete the fourth sentence in its entirety and replace with: "With Lessor's prior written consent, Lessee may have the Equipment maintained by a party other than the manufacturer. Lessor approves Lessee as such maintenance contractor.".

7) SECTION 7.2 "REPRESENTATIONS AND WARRANTIES OF LESSEE"

Paragraph (b), in line 6, after the words "under, any" insert "material".

8) SECTION 8 "REPRESENTATIONS AND WARRANTIES OF LESSEE."

Paragraph (b), in line 4, delete the word "Articles" and replace it with "Certificate".

Paragraph (f) insert the following at the end thereof: ", except where the failure to do so would not reasonably be expected to have a material adverse effect.".

9) SECTION 9 "DELIVERY AND RETURN OF EQUIPMENT."

Second sentence, line 3, after the words "Summary Equipment Schedule," insert the following "unless Lessee has exercised its option to purchase or re-lease the Equipment in accordance with each Summary Equipment

Schedule," and in line 4, after the words "to Lessor's" insert the word "reasonable."

Fourth sentence, line 1, after the words "under Section 2" insert ",subject to Lessee's security requirements,".

Insert the following sentence at the end of Section 9: "All such demonstrations will be conducted in such manner as to minimize any interference with Lessee's operations.".

10) SECTION 11 "INDEMNITY."

Second sentence, in line 3, after the words "negligent acts" insert "or willful conduct".

11) SECTION 13.1 "DEFAULT."

Paragraph (c), insert the following at the end thereof: "(and any such involuntary event has not been dismissed or vacated within 30 days)".

-2-

7

12) SECTION 13.2 "REMEDIES."

After the word "occurrence", insert the words "and continuance".

Paragraph (c), line 5, delete "6%" and insert "U.S. Treasury Notes of comparable maturity to the remaining term of the defaulted Schedule".

13) SECTION 13.3 "MITIGATION."

Paragraph (b), lines 2 and 3, delete "3 percent (3%) over the U.S. Treasury Notes of comparable maturity to the term of" and insert, "the same interest rate implicit in".

14) SECTION 14.1 "BOARD ATTENDANCE"

Delete this section in its entirety.

15) SECTION 14.2., "FINANCIAL STATEMENTS"

In the first sentence, change the words "month" and "monthly" to "quarter" and "quarterly".

16) SECTION 14.3 "OBLIGATION TO LEASE ADDITIONAL EQUIPMENT."

In line 3, delete "Lessee is in default" and replace with "an Event of Default has occurred or is continuing".

In line 6 after the words "material indebtedness" insert "for borrowed money in an amount in excess of \$75,000".

17) SECTION 14.18., "DEFINITIONS"

In the definition of "Interim Rent", delete "the pro-rata portion" and replace with "interest only portion of", unless otherwise amended in the applicable equipment schedule.

18) SECTION 14.4 "MERGER AND SALE PROVISIONS."

In line 2, delete "sixty (60)" and replace with "twenty (20)".

19) SECTION 14.6 "NO WAIVER."

First sentence, insert the following at the beginning thereof: "Except for a written waiver,".

8

20) SECTION 14.7 "BINDING NATURE."

Second sentence, insert the following at the end thereof: "EXCEPT IN ACCORDANCE WITH SECTION 14.4."

21) SECTION 14.9 "NOTICES."

Line 3, delete "three (3)" and insert "five (5)"; delete "postage prepaid by regular or air mail" and insert "certified mail, return receipt requested".

22) SECTION 14.13 "LICENSED PRODUCTS."

After the first sentence insert: "To the extent that Lessor, by reason of its ownership of the Equipment, holds any license to a Licensed Product, Lessor shall obtain the right for Lessee to use any such Licensed Product for the duration of the lease term."

Third sentence, line 2, after the word "owner" insert "of such Licensed Product".

23) SECTION 14.18 "DEFINITIONS."

"Delivery Date" revise the word "Inventory" to read "inventory".

"Like Equipment" delete the words "of the same model, type, configuration, and manufacture as Equipment." and replace with "of the same manufacture and of a type, model and feature configuration having a capability and value equal to or greater than the Equipment being replaced."

Except as amended hereby, all other terms and conditions of the Master Lease Agreement remain in full force and effect.

ONDISPLAY, INC.
as Lessee

COMDISCO, INC.
as Lessor

By: /s/ DOUG JEFFRIES

By: /s/ JAMES P. LABE

JAMES P. LABE

Title: Vice President & CFO

Title: PRESIDENT

COMDISCO VENTURES DIVISION

Date: 2/25/99

Date: February 26, 1999

9

EQUIPMENT SCHEDULE VL-1
DATED AS OF FEBRUARY 25, 1999
TO MASTER LEASE AGREEMENT
DATED AS OF FEBRUARY 25, 1999 (THE "MASTER LEASE")

LESSEE: ONDISPLAY, INC.

LESSOR: COMDISCO, INC.

ADMIN. CONTACT/PHONE NO.:

ADDRESS FOR ALL NOTICES:

Phone: (925) 355-3200
Fax: (925) 355-3222

6111 North River Road
Rosemont, Illinois 60018
Attn.: Venture Group

Address for Notices:
2667 Alcosta Blvd., Suite 300
San Ramon, CA 94583

Central Billing Location:
same as above

Rental Interval: Monthly

Attn:

Lessee Reference No.: _____
(24 digits maximum)

Location of Equipment:
same as above

Initial Term: 36 months
(Number of Rental Intervals)

Lease Rate Factor: 3.091%

Attn.:

EQUIPMENT (as defined below):

Advance: \$41,728.50

Interim Rent: Interest Only (7.5%)

Equipment including without limitation, computers, prototypes, workstations, peripherals, instrumentation, test equipment, office furniture, and telecommunication equipment, specifically approved by Lessor, which shall be delivered to and accepted by Lessee during the period February 19, 1999 through August 19, 2000 ("Equipment Delivery Period"), for which Lessor receives vendor invoices approved for payment, up to an aggregate purchase price of \$1,350,000.00 ("Commitment Amount"); excluding custom use equipment, leasehold improvements, installation costs and delivery costs, rolling stock, special tooling, "stand-alone" software, application software bundled into computer hardware, hand held items, molds and fungible items.

10

1. EQUIPMENT PURCHASE

This Schedule contemplates Lessor's acquisition of Equipment for lease to Lessee, either by one of the first three categories listed below or by providing Lessee with Equipment from the fourth category, in an aggregate value up to the Commitment Amount referred to on the fact of this Schedule. If the Equipment acquired is of category (i), (ii) (iii) below, the effectiveness of this Schedule as it relates to those items of Equipment is contingent upon Lessee's acknowledgment at the time Lessor acquires the Equipment that Lessee has either received or approved the relevant purchase documentation between vendor and Lessor for that Equipment.

- (i) NEW ON-ORDER EQUIPMENT. Lessor will purchase new Equipment which is obtained from a vendor by Lessee for its use subject to Lessor's prior approval of the Equipment.
- (ii) SALE-LEASEBACK EQUIPMENT. Any in-place Equipment installed at Lessee' site and to which Lessee has clear title and ownership may be considered by Lessor for inclusion under this Lease (the "Sale-Leaseback Transaction"). Any request for a Sale-Leaseback Transaction must be submitted to Lessor in writing (along with accompanying evidence of Lessee's Equipment ownership satisfactory to Lessor for all Equipment submitted) no later than April 25, 1999*. Lessor will not perform a Sale-Leaseback Transaction for any request or accompanying Equipment ownership documents which arrive after the date marked above by an asterisk (*). Further, any sale-leaseback Equipment will be placed on lease subject to: (1) Lessor prior approval of the Equipment; and (2) if approved, at Lessor's actual net appraised Equipment value pursuant to the Schedule below:

<TABLE>
<CAPTION>

<S> Between 01/25/99 - 04/25/99 (90 days) <C> 100%

</TABLE>

Lessee represents that it has paid all California sales tax due on the cost of that portion of Equipment to be installed in California and agrees to provide evidence of such payment to Lessor, if specifically requested. As a result of the election, Lessor agrees that it will not invoice Lessee for use tax on the monthly rental rate. Lessee understands that this is an irrevocable election to measure the tax by the Equipment cost and cannot be changed except prior to installation of the Equipment.

(iii) USED ON-ORDER EQUIPMENT. Lessor will purchase used Equipment which is obtained from a third party by Lessee for its use subject to Lessor's prior approval of the Equipment and at Lessor's appraised value for such used Equipment.

(iv) 800 NUMBER EQUIPMENT. Upon Lessee's use of Comdisco's 1-800 Direct Service, Lessor will purchase new or used Equipment from a third party or Lessor will supply new or used Equipment from its inventory for use by Lessee at rates provided by Lessor.

2. COMMENCEMENT DATE

The Commencement Date for each item of new on-order or used on-order Equipment will be the install date as confirmed in writing by Lessee as set forth on the vendor invoice of which a facsimile transmission will constitute an original document. The Commencement Date for sale-leaseback Equipment shall be the date Lessor tenders the purchase price. The Commencement Date for 800 Number Equipment shall be fifteen (15) days from the ship date, such ship date to be set forth on the vendor invoice or if unavailable on the vendor invoice the ship date will be determined by Lessor upon other supporting shipping documentation Lessor will summarize all approved invoices, purchase documentation and evidence of delivery, as applicable, received in the same calendar quarter into a Summary Equipment Schedule in the form attached to this Schedule as Exhibit 1, and the initial Term will begin the first day of the calendar quarter thereafter. Each Summary Equipment Schedule will contain the Equipment location, description, serial number(s) and cost and will incorporate the terms and conditions of the Master Lease and this Schedule and will constitute a separate lease.

2

11

3. OPTIONS TO EXTEND

So long as no Event of Default has occurred and is continuing hereunder, and upon written notice no earlier than twelve (12) months and no later than ninety (90) days prior to the expiration of the Initial Term of a Summary Equipment Schedule, Lessee will have the right to extend the Initial Term of such Summary Equipment Schedule for a period of one (1) year. In such event, the rent to be paid during said extended period shall be mutually agreed upon and if the parties cannot mutually agree, then the Summary Equipment Schedule shall continue in full force and effect pursuant to the existing terms and conditions until terminated in accordance with its terms. The Summary Equipment Schedule will continue in effect following said extended period until terminated by either party upon not less than ninety (90) days prior written notice, which notice shall be effective as of the date of receipt.

4. PURCHASE OPTION

So long as no Event of Default has occurred and is continuing hereunder, and upon written notice no earlier than twelve (12) months and no

later than ninety (90) days prior to the expiration of the Initial Term or the extended term of the applicable Summary Equipment Schedule, Lessee will have the option at the expiration of the Initial Term of the Summary Equipment Schedule to purchase all, but not less than all, of the Equipment listed therein for a purchase price not to exceed 15% of Lessor's cost hereunder and upon terms and conditions to be mutually agreed upon by the parties following Lessee's written notice, plus any taxes applicable at time of purchase. Said purchase price shall be paid to Lessor at least fifteen (15) days before the expiration date of the Initial Term or extended term. Title to the Equipment shall automatically pass to Lessee upon payment in full of the purchase price but, in no event, earlier than the expiration of the fixed Initial Term or extended term, if applicable. If the parties are unable to agree on the purchase price of the terms and conditions with respect to said purchase, then the Summary Equipment Schedule with respect to this Equipment shall remain in full force and effect. Notwithstanding the exercise by Lessee of this option and payment of the purchase price, until all obligations under the applicable Summary Equipment Schedule have been fulfilled, it is agreed and understood that Lessor shall retain a purchase money security interest in the Equipment listed therein and the Summary Equipment Schedule shall constitute a Security Agreement under the Uniform Commercial Code of the state in which the Equipment is located.

5. TECHNOLOGY EXCHANGE OPTION

If Lessee is not in default, and there is no material adverse change in Lessee's credit, on or after the expiration of the 12th month of any Summary Equipment Schedule, Lessee shall have the option to replace any of the Equipment subject to such summary Equipment Schedule with new technology equipment ("New Technology Equipment") utilizing the following guidelines:

- A. Equipment being replaced with New Technology Equipment shall have an aggregate original cost equal to or greater than \$20,000 and be comprised of full configurations of equipment.
- B. This technology Exchange Option shall be limited to a maximum in the aggregate of fifty percent (50%) of the original equipment cost and shall not apply to software or any soft costs financed hereunder including but not limited to tenant improvements and custom equipment.
- C. The cost of the New Technology Equipment must be equal to or greater than the original equipment cost of the replaced equipment, but in no event shall exceed 150% of the original equipment cost.
- D. The remaining lease payments applicable to the equipment being replaced by the New Technology Equipment will be discounted to present value at 6%.

The wholesale market value of the equipment being replaced will be established by Comdisco in its reasonable good faith judgment based upon then current market conditions. Upon the return of the replaced equipment, the wholesale price will be deducted from the present value of the remaining rentals and the differential will be added to the cost of the New Technology Equipment in calculating the new rental. The lease for the New Technology Equipment will contain terms and conditions substantially similar to those for the replaced equipment and will have an Initial Term not less than the balance of the remaining Initial Term for the replaced equipment.

SPECIAL TERMS

The terms and conditions of the Lease as they pertain to this Schedule are hereby modified and amended as follows:

Master Lease: This Schedule is issued pursuant to the Lease identified on page 1 of this Schedule. All of the terms and conditions of the Lease are incorporated in and made a part of this Schedule as if they were expressly set forth in this Schedule. The parties hereby reaffirm all of the terms and conditions of the Lease (including, without limitation, the representations and

warranties set forth in Section 8) except as modified herein by this Schedule. This Schedule may not be amended or rescinded except by a writing signed by both parties.

ONDISPLAY, INC.
AS LESSEE

COMDISCO, INC.,
AS LESSOR

By: /s/ DOUG JEFFRIES

By: /s/ JAMES P. LABE

JAMES P. LABE

Title: Vice President and CEO

Title: PRESIDENT

COMDISCO VENTURES DIVISION

Date: 2/25/99

Date: Feb 26 1999

4

13

EXHIBIT 1

SUMMARY EQUIPMENT SCHEDULE

This Summary Equipment Schedule dated XXXX is executed pursuant to Equipment Schedule No. X to the Master Lease Agreement dated XXXX between Comdisco, Inc. ("Lessor") and XXXX ("Lessee"). All of the terms, conditions, representations and warranties of the Master Lease Agreement and Equipment Schedule No. X are incorporated herein and made a part hereof, and this Summary Equipment Schedule constitutes a Schedule for the Equipment on the attached invoices.

- 1. For Period Beginning: And Ending:
- 2. Initial Term Starts on: Initial Term:
(Number of Rent Intervals)
- 3. Total Summary Equipment Cost:
- 4. Lease Rate Factor:
- 5. Rent:
- 6. Acceptance Doc Type:

5

14

EQUIPMENT SCHEDULE VL-2
DATED AS OF FEBRUARY 25, 1999
TO MASTER LEASE AGREEMENT
DATED AS OF FEBRUARY 25, 1999 (THE "MASTER LEASE")

LESSEE: ONDISPLAY, INC.

LESSOR: COMDISCO, INC.

ADMIN. CONTACT/PHONE NO.:

ADDRESS FOR ALL NOTICES:

Phone: (925) 355-3200
Fax: (925) 355-3222

6111 North River Road
Rosemont, Illinois 60018
Attn.: Venture Group

Address for Notices:
2667 Alcosta Blvd., Suite 300
San Ramon, CA 94583

Central Billing Location:
same as above

Rental Interval: Monthly

Attn:

Lessee Reference No.: _____
(24 digits maximum)

Location of Equipment:
same as above

Initial Term: 36 months
(Number of Rental Intervals)

Lease Rate Factor: 3.091%

Attn.:

EQUIPMENT (as defined below):

Advance: \$4,636.50

Interim Rent: Interest Only (7.5%)

Software, tenant improvements and other soft costs specifically approved by Lessor, which shall be delivered to and accepted by Lessee during the period February 25, 1999 through August 25, 2000 ("Equipment Delivery Period"), for which Lessor receives vendor invoices approved for payment, up to an aggregate purchase price of \$150,000.00 ("Commitment Amount"); excluding custom use equipment, installation costs and delivery costs, rolling stock, special tooling, hand held items, molds and fungible items.

1

15

1. EQUIPMENT PURCHASE

This Schedule contemplates Lessor's acquisition of Equipment for lease to Lessee, either by one of the first three categories listed below or by providing Lessee with Equipment from the fourth category, in an aggregate value up to the Commitment Amount referred to on the face of this Schedule. If the Equipment acquired is of category (i), (ii), (iii) below, the effectiveness of this Schedule as it relates to those items of Equipment is contingent upon Lessee's acknowledgement at the time Lessor acquires the Equipment that Lessee has either received or approved the relevant purchase documentation between vendor and Lessor for that Equipment.

- (i) NEW ON-ORDER EQUIPMENT. Lessor will purchase new Equipment which is obtained from a vendor by Lessee for its use subject to Lessor's prior approval of the Equipment.
- (ii) SALE-LEASEBACK EQUIPMENT. Any in-place Equipment installed at Lessee's site and to which Lessee has clear title and ownership may be considered by Lessor for inclusion under this Lease (the "Sale-Leaseback Transaction"). Any request for a Sale-Leaseback Transaction must be submitted to Lessor in writing (along with accompanying evidence of Lessee's Equipment ownership satisfactory to Lessor for all Equipment submitted) no later than April 25, 1999*. Lessor will not perform a Sale-Leaseback Transaction for any request or accompanying Equipment ownership documents which arrive after the date marked above by an asterisk (*). Further, any sale-leaseback Equipment will be placed on lease subject to: (1) Lessor prior approval of the Equipment; and (2) if approved, at Lessor's actual net appraised Equipment value pursuant to the schedule below:

<TABLE>
<CAPTION>

ORIGINAL EQUIPMENT INVOICE DATE -----	PERCENT OF ORIGINAL MANUFACTURER'S NET EQUIPMENT COST PAID BY LESSOR -----
Between 01/25/99 - 04/25/99 (90 days)	100%

</TABLE>

- (iii) USED ON-ORDER EQUIPMENT. Lessor will purchase used Equipment which is obtained from a third party by Lessee for its use subject to Lessor's prior approval of the Equipment and at Lessor's appraised value for such used Equipment.
- (iv) 800 NUMBER EQUIPMENT. Upon Lessee's use of Comdisco's 1-800 Direct Service, Lessor will purchase new or used Equipment from a third party or Lessor will supply new or used Equipment from its inventory for use by Lessee at rates provided by Lessor.

2. COMMENCEMENT DATE

The Commencement Date for each item of new on-order or used on-order Equipment will be the install date as confirmed in writing by Lessee as set forth on the vendor invoice of which a facsimile transmission will constitute an original document. The Commencement Date for sale-leaseback Equipment shall be the date Lessor tenders the purchase price. The Commencement Date for 800 Number Equipment shall be fifteen (15) days from the ship date, such ship date to be set forth on the vendor invoice or if unavailable on the vendor invoice the ship date will be determined by Lessor upon other supporting shipping documentation. Lessor will summarize all approved invoices, purchase documentation and evidence of delivery, as applicable, received in the same calendar quarter into a Summary Equipment Schedule in the form attached to this Schedule as Exhibit 1, and the Initial Term will begin the first day of the calendar quarter thereafter. Each Summary Equipment Schedule will contain the Equipment location, description, serial number(s) and cost and will incorporate the terms and conditions of the Master Lease and this Schedule and will constitute a separate lease.

3. MISCELLANEOUS

In consideration of Lessor financing software and tenant improvements hereunder, Lessee agrees in addition to its last Monthly Rent Payment to remit to Lessor an amount equal to 15% of Lessor's aggregate cost of software and tenant improvements provided hereunder.

4. SPECIAL TERMS

The terms and conditions of the Lease as they pertain to this Schedule are hereby modified and amended as follows:

- (a) Section 9. Delivery and Return of Equipment

2

16

Delete second, third and fourth sentences in their entirety.

Master Lease: This Schedule is issued pursuant to the Lease identified on page 1 of this Schedule. All of the terms and conditions of the Lease are incorporated in and made a part of this Schedule as if they were expressly set forth in this Schedule. The parties hereby reaffirm all of the terms and conditions of the Lease (including, without limitation, the representations and warranties set forth in Section 8) except as modified herein by this Schedule. This Schedule may not be amended or rescinded except by a writing signed by both parties.

ONDISPLAY, INC.
AS LESSEE

COMDISCO, INC.
AS LESSOR

NO.	QTY.	MFG.	TYPE/FEATURE	DESCRIPTION	NUMBER
-----	----	----	-----	-----	-----
<S>	<C>	<C>	<C>	<C>	<C>
see attached invoices					

- PURCHASE PRICE: \$4,508.94. Purchase Price is due _____. Upon request, Seller will provide Buyer with copies of purchase documentation, invoices and Bill of Sale to Seller to verify Seller's purchase of the Equipment from the Equipment vendor. The Purchase Price will not be paid to Seller until all requested documentation is received by, and is satisfactory to Buyer.
- LEASEBACK: This Agreement is contingent upon Seller leasing the Equipment from Buyer pursuant to the Equipment Schedule No. VL-2 to the Master Lease Agreement dated February 25, 1999 between Seller, as Lessee, and Buyer, as Lessor (collectively the "Lease").
- WARRANTY: SELLER MAKES NO WARRANTIES OTHER THAN THOSE SPECIFICALLY SET OUT IN THIS AGREEMENT (IF ANY) AND SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- TITLE: Title to the Equipment will be free and clear of all liens, claims and encumbrances of any kind and will vest in Buyer upon payment of the full Purchase Price. Upon request, Seller will provide Buyer with a Bill of Sale to evidence such title.
- TAXES: Buyer warrants that it is the business of buying and selling computer, communications and high technology equipment and that the purchase of the Equipment is for the purpose of resale only.
- GOVERNING LAW: Illinois
- MULTIPLE COUNTERPARTS: This Agreement may be executed in multiple counterparts, each of which will be deemed to be an original and of equal force and effect.

ONDISPLAY, INC.
as Seller

COMDISCO, INC.
as Buyer

By: /s/ CAROL RICHARD

(authorized signature)

By: _____
(authorized signature)

TAX ON SOFTWARE \$2999.94
TAX OFF SOFTWARE \$1509.00

PURCHASE/LEASEBACK AGREEMENT

Buyer:
COMDISCO INC.
6111 North River Road
Rosemont, Illinois 60018

Seller:
ONDISPLAY, INC.
12667 ALCOSTA BOULEVARD #300
San Ramon, CA 94583

- PURCHASE: Seller agrees to sell and Buyer agrees to purchase from Seller the equipment listed below (the "Equipment") in accordance with the terms and conditions specified in this Purchase/Leaseback Agreement dated as of May 27, 1999.

<TABLE>
<CAPTION>

ITEM NO.	QTY.	MFE.	MACHINE TYPE/FEATURE	DESCRIPTION	SERIAL NUMBER
----	----	----	-----	-----	-----

</TABLE>

2. PURCHASE PRICE. \$93,681.91. Purchase Price is due _____. Upon request, Seller will provide Buyer with copies of purchase documentation, invoices and Bill of Sale to Seller to verify Seller's purchase of the Equipment from the Equipment Vendor. The Purchase Price will not be paid to Seller until all requested documentation is received by, and is satisfactory to Buyer.
3. LEASEBACK. This Agreement is contingent upon Seller leasing the Equipment from Buyer pursuant to the Equipment Schedule No. VL-1 to the Master Lease Agreement dated February 25, 1999 between Seller, as Lessee, and Buyer, as Lessor (collectively the "Lease").
4. WARRANTY: SELLER MAKES NO WARRANTIES OTHER THAN THOSE SPECIFICALLY SET OUT IN THIS AGREEMENT (IF ANY), AND SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

TITLE: Title to the Equipment will be free and clear of all liens, claims and encumbrances of any kind and will vest in Buyer upon payment of the full Purchase Price. Upon request, Seller will provide Buyer with a Bill of Sale to evidence such title.
6. TAXES: Buyer warrants that it is in the business of buying and selling computer, communications and high technology equipment and that the purchase of the Equipment is for the purpose of resale only.
7. GOVERNING LAW: Illinois
8. MULTIPLE COUNTERPARTS: This Agreement may be executed in multiple counterparts, each of which will be deemed to be an original and of equal force and effect.

OnDisplay, Inc.
as Seller

COMDISCO, INC.
as Buyer

By: /s/ CAROL RICHARD

By:

(authorized signature)

(authorized signature)

TAX ON PC	\$33,278.91
TAX OFF PC	\$54,826.00
TAX OFF FURN	\$ 5,587.00

SENIOR LOAN AND SECURITY AGREEMENT NO. 0088

THIS SENIOR LOAN AND SECURITY AGREEMENT NO. 0088 (this "Security Agreement") is dated as of June 2, 1997 between ONDISPLAY, INC., A Delaware corporation ("Borrower") and PHOENIX LEASING INCORPORATED, a California corporation ("Lender").

RECITALS

A. Borrower desires to borrow from Lender in one or more borrowings an amount not to exceed \$500,000 in the aggregate, and Lender desires to loan, subject to the terms and conditions herein set forth, such amount to Borrower. Such borrowings shall be evidenced by one or more Senior Secured Promissory Notes (each, a "Note" and collectively, the "Notes"), in the form attached hereto.

B. As security for Borrower's obligations to Lender under this Security Agreement, the Notes and any other agreement between Borrower and Lender, Borrower will grant to Lender hereunder a first perfected security interest in certain of its equipment, machinery and fixtures and also certain custom use equipment, installation and delivery costs, purchase tax, toolings, software and generally considered fungible or expendable ("Soft Costs"), including but not limited to personal computers, (including laptops), peripherals, workstations, office equipment, furniture and other equipment approved by Lender, whether now owned by Borrower or hereafter acquired, and all substitutions and replacements of and additions, improvements, accessions and accumulations to said equipment, machinery and fixtures, together with all rents, issues, income, profits and proceeds therefrom (collectively, the "Collateral") which is described on the Note attached hereto or any subsequently-executed Note entered into by Lender and Borrower and which incorporates this Security Agreement by reference. In addition to the foregoing Collateral, under certain circumstances Borrower's obligations to Lender may also be secured by certain "Additional Collateral" as provided below, in which case the term "Collateral" shall include such Additional Collateral.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

SECTION 1. TERM OF AGREEMENT. The term of this Security Agreement begins on the date set forth above and shall continue thereafter and be in effect so long as and at any time any Note entered into pursuant to this Security Agreement is in effect. The Base Term and monthly payment amount payable with respect to each item of Collateral shall be as set forth in and as stated in the respective Note(s). The terms of each Note hereto are subject to all conditions and provisions of this Security Agreement as it may at any time be amended. Each Note shall constitute a separate and independent loan and contractual

obligation of Borrower and shall incorporate the terms and conditions of this Security Agreement and any additional provisions contained in such Note. In the event of a conflict between the terms and conditions of this Security Agreement and any additional provisions of such Note, the additional provisions of such Note shall prevail with respect to such Note only.

SECTION 2. NON-CANCELLABLE SECURITY AGREEMENT. This Security Agreement and any Note cannot be cancelled or terminated except as expressly provided herein. This Security Agreement (including all Notes to this Security Agreement) constitutes a net loan and Borrower agrees that its obligations to pay all monthly payment amounts and other sums payable hereunder (and under any Note) and the rights of Lender and assignee in and to such monthly payments and other sums, are absolute and unconditional and are not subject to any abatement, reduction, setoff, defense, counterclaim or recoupment due or alleged to be due to, or by reason of, any past, present or future claims which Borrower may have against Lender, any assignee, the manufacturer or seller of the Collateral, or against any person for any reason whatsoever.

1

2

SECTION 3. LENDER COMMITMENT. (a) General Terms. Subject to the terms and conditions of this Security Agreement and so long as no Event of Default or event which with the giving of notice or passage of time, or both, could become an Event of Default has occurred or is continuing, Lender hereby agrees to make one or more senior secured loans (each, a "Loan" and collectively, the "Loans") to Borrower, subject to the following conditions: (1) each Loan shall be evidenced by a Note; (ii) the total principal amount of the Loans shall not exceed \$500,000 in the aggregate (the "Commitment") provided that no more than 10% of the amount of the utilized Commitment may be used to finance Soft Costs; (iii) at the time of each Loan, no Event of Default or event which with the giving of notice or passage of time, or both, could become an Event of Default shall have occurred and be continuing, as reasonably determined by Lender, and certified by Borrower; (iv) the amount of each Loan shall be at least \$25,000 except for a final Loan which may be less than \$25,000; (v) Lender shall not be obligated to make any Loan after March 31, 1998; (vi) for each Loan, Borrower shall present to Lender a list of proposed Collateral for approval by Lender in its sole discretion; (vii) for each Loan, Borrower shall have provided Lender with each of the closing documents described in Exhibit A hereto (which documents shall be in form and substance acceptable to Lender); (viii) for each Loan, Borrower is performing according to its business plan referred to as "On Display, Inc. Business Plan, 6 pages," dated April 24, 1997 (the "Business Plan"), as may be amended from time to time in form and substance acceptable to Lender; (ix) there shall be no material adverse change in Borrower's condition, financial or otherwise, as reasonably determined by Lender, and Borrower so certifies, from (yy) the date of the most recent financial statements delivered by Borrower to Lender to (zz) the date of the proposed Loan; (x) prior to full utilization of the Commitment amount, Borrower shall not offer any loan secured by capital equipment to any other person or entity other than Lender, unless Lender declines to finance such transaction or Borrower and Lender are unable

to agree on the terms of such financing; (xi) Borrower shall use the proceeds of all Loans hereunder for working capital; (xii) at the time of each Loan, Borrower has reimbursed Lender for all UCC filing and search costs and appraisal fees; (xiii) all Collateral has been marked and labeled by Lender or Lender's agent; and (xiv) Lender has received in form and substance acceptable to Lender: (a) Borrower's interim financial statements signed by a financial officer of Borrower, (b) evidence of Borrower's \$1,660,000 cash position as of March 31, 1997; and (c) complete copies of the Borrower's audit reports for its most recent fiscal year, which shall include at least Borrower's balance sheet as of the close of such year, and Borrower's statement of income and retained earnings and of changes in financial position for such year, prepared on a consolidated basis and certified by independent public accountants. Such certificate shall not be qualified or limited because of restricted or limited examination by such accountant of any material portion of the company's records. Such reports shall be prepared in accordance with generally accepted accounting principles and practices consistently applied.

(b) The Notes. Each Loan shall be evidenced by a Note. Each Note shall bear interest and be payable and prepayable at the times and in the manner provided therein. Following a payment of the indebtedness related to each Note, Lender shall return such Note, marked "canceled," to Borrower.

SECTION 4. SECURITY INTERESTS. (a) Borrower hereby grants to Lender a first security interest in all Collateral; (b) This Security Agreement secures (i) the payment of the principal of and interest on the Notes and all other sums due thereunder and under this Security Agreement (the "Indebtedness") and (ii) the performance by Borrower of all of its other covenants now or hereafter existing under the Notes, this Security Agreement and any other obligation owed by Borrower to Lender (the "Obligations").

SECTION 5. BORROWER'S REPRESENTATIONS AND WARRANTIES. Borrower represents and warrants that (a) it is in good standing under the laws of the state of its formation, and duly qualified to do business and will remain duly qualified during the term of this Security Agreement in each state where necessary to carry on its present business and operations, including the jurisdiction(s) where the Collateral will be located as specified on each Note; (b) it has full authority to execute and deliver this Security Agreement and the Notes

and perform the terms hereof and thereof, and this Security Agreement and the Notes have been duly authorized, executed and delivered and constitute valid and binding obligations of Borrower enforceable in accordance with their terms; (c) the execution and delivery of this Security Agreement and the Notes will not contravene any law, regulation or judgment affecting Borrower or result in any breach of any agreement or other instrument binding on Borrower, (d) no consent of Borrower's shareholders or holder of any indebtedness, or filing with, or approval of, any governmental agency or commission, which has not already been obtained or performed, as appropriate, is a condition to the performance of the

terms of this Security Agreement or the Notes; (e) there is no action or proceeding pending or threatened against Borrower before any court or administrative agency which might have a materially adverse effect on the business, financial condition or operations of Borrower; (f) Borrower owns and will keep all of the Collateral free and clear of all liens, claims and encumbrances (excluding taxes, fees, assessments or other government charges which exist in the ordinary course of business from time to time, but which Borrower agrees to pay when due), and, except for this Security Agreement, there is no deed of trust, mortgage, security agreement or other third party interest against any of the Collateral; (g) Borrower has good and marketable title to the Collateral; (h) all Collateral has been received, installed and is ready for use and is satisfactory in all material respects for the purposes of this Security Agreement; (i) the Collateral is, and will remain at all times under applicable law, removable personal property, which is free and clear of any lien or encumbrance except in favor of the Lender, notwithstanding the manner in which the Collateral may be attached to any real property; (j) all credit and financial information submitted to Lender herewith or at any other time is and will at the time given be true and correct; and (k) the security interest granted to Lender hereunder is a perfected first priority security interest.

SECTION 6. METHOD AND PLACE OF PAYMENT. Borrower shall pay to Lender, at its office at the address specified in the Notes, or such other address as Lender specifies in writing, all amounts payable to it in respect of the principal of or interest on the Notes.

SECTION 7. LOCATION; INSPECTION; LABELS. All of the Collateral, with the exception of portable laptop computers used by employees, shall be located at the address (the "Collateral Location") shown on Exhibit A to each Note and shall not be moved without Lender's prior written consent which location shall in all events be within the United States. All of the records regarding the Collateral shall be located at 2682 Bishop Drive, Suite 215, San Ramon, California 94583. Lender shall have the right to inspect Collateral, including records relating thereto, and Borrower's books and records at any time (upon reasonable notification) during regular business hours, such books and records to be maintained in accordance with generally accepted accounting principles. Borrower shall be responsible for all labor, material and freight charges incurred in connection with any removal or relocation of Collateral which is requested by Borrower and consented to by Lender, as well as for any charges due to the installation or moving of the Collateral. Payments under the Notes and under this Security Agreement shall continue during any period in which the Collateral is in transit during a relocation. Lender or its agent shall mark and label Collateral, which labels (to be provided by Lender) shall state that such Collateral is subject to a security interest of Lender, and Borrower shall keep such labels on the Collateral as so labeled.

SECTION 8. COLLATERAL MAINTENANCE. (a) General. Borrower will at its sole expense comply with all applicable laws, rules, regulations, requirements and orders with respect to the use, maintenance, repair, condition, storage and operation of each item of Collateral. Except as required herein, Borrower will not make any addition or improvement to any item of Collateral that is not readily removable without causing material damage to any item or impairing its

original value or utility. An addition or improvement that is so required or cannot be so removed will immediately become Collateral of Lender. (b) Service and Repair. Borrower will at its sole expense maintain and service and repair any damage to each item of Collateral in a manner consistent with prudent industry practice and Borrower's own practice so that such item of Collateral is at all times (i) in the same

3

4

condition as when delivered to Borrower, except for ordinary wear and tear, and (ii) in good operating order for the function intended by its manufacturer's warranties and recommendations.

SECTION 9. LOSS OR DAMAGE. Borrower assumes the entire risk of loss to the Collateral through use, operation or otherwise. Borrower hereby indemnifies and holds harmless Lender from and against all claims, loss of Loan payments, costs, damages, and expenses relating to or resulting from any loss, damage or destruction of the Collateral, any such occurrence being hereinafter called a "Casualty Occurrence." On the first day payment is due on each Note following the Casualty Occurrence or, if there is no such payment date, thirty (30) days after such Casualty Occurrence Borrower shall pay to Lender an amount equal to the Balance Due (as defined below) for each lost or damaged item of Collateral. The Balance Due for each item such is the sum of: (i) all amounts for each item which may be then due or accrued to the payment date, plus (ii) as of such payment date, an amount equal to the product of the fraction specified below times the sum of all remaining payments under the respective Note, including the amount of any mandatory or optional payment required or permitted to be paid by Borrower to Lender at the maturity of the Note. The numerator of the fraction shall be the Collateral Value (as set forth on the applicable Note) of the item and the denominator shall be the aggregate Collateral Value of all items under the Note. Upon the making of such payments, Lender shall release such item of Collateral from its lien hereunder.

Notwithstanding the above, within thirty (30) days following a Casualty Occurrence, Borrower may replace any item of Collateral which has suffered a Casualty Occurrence with Collateral of equivalent value in good condition and repair and, in such event, the provisions of the previous paragraph shall not apply. Borrower's tender of such Collateral shall constitute a representation and warranty that it is free of all liens, claims and encumbrances (excluding taxes, fees, assessments, or other government charges not yet due which exist in the ordinary course of business from time to time, but which Borrower agrees to pay when due), and otherwise qualifies as Collateral under this Security Agreement. Following such tender, Lender shall have a first security interest in such Collateral.

All insurance proceeds from policies required to be maintained hereunder received by or payable to Lender on account of a Casualty Occurrence, shall be released to the vendor of the replacement item of Collateral upon Borrower's request if (i) no Event of Default has occurred and is continuing hereunder, and (ii) Lender has received an invoice from Vendor describing the replacement item

of Collateral.

If Lender has received from Borrower the Balance Due and all other payments due with respect to the item of Collateral which has suffered a Casualty Occurrence, all insurance proceeds received by Lender thereafter or payable on account of the Casualty Occurrence shall be paid over to Borrower as it may direct.

SECTION 10. INSURANCE. Borrower at its expense shall keep the Collateral insured against all risks of physical loss for at least the replacement value of the Collateral and in no event for less than the amount payable following a Casualty Occurrence (as provided in Section 9). Such insurance shall provide for a loss payable endorsement to Lender and/or any assignee of Lender. Borrower shall maintain commercial general liability insurance with respect to loss or damage for personal injury, death or property damage in an amount not less than \$2,000,000 in the aggregate, naming Lender and/or Lender's assignee as additional insured. Such insurance shall contain insurer's agreement to give thirty (30) days' advance written notice to Lender before cancellation or material change of any policy of insurance. Borrower will provide Lender and any assignee of Lender with a certificate of insurance from the insurer evidencing Lender's or such assignee's interest in the policy of insurance. Such insurance shall cover any Casualty Occurrence to any unit of Collateral. Notwithstanding anything in Section 9 or this Section 10 to the contrary, this Security Agreement and Borrower's obligations hereunder shall remain in full force and effect with respect to any unit of Collateral which is not subject to a Casualty Occurrence. If Borrower fails to provide or maintain insurance as required herein, Lender shall have the right, but shall not

4

5

be obligated to obtain such insurance. In that event, Borrower shall pay to Lender the cost thereof.

SECTION. 11. MISCELLANEOUS AFFIRMATIVE COVENANTS. So long as any portion of the Indebtedness is unpaid and as long as any of the Obligations are outstanding Borrower will (a) duly pay all governmental taxes and assessments at the time they become due and payable; (b) comply with all applicable governmental laws, rules and regulations; (c) maintain Lender's security interest in the Collateral as a first and prior perfected security interest; (d) furnish Lender with its annual audited financial statements within ninety (90) days following the end of Borrower's fiscal year, unaudited quarterly financial statements within twenty (20) days after the end of each fiscal quarter, and within twenty (20) days of the end of each month a financial statement for that month prepared by Borrower, including all financial information given to Borrower's Board of Directors, and including an income statement and balance sheet, all of which shall be certified by an officer of Borrower as true and correct and shall be prepared in accordance with generally accepted accounting principles consistently applied, and such other information as Lender may reasonably request; (e) promptly (but in no event more than five (5) days after the

occurrence of such event) notify Lender of any material adverse change in Borrower's condition during the commitment period and of the occurrence of any Event of Default; and (f) take all steps deemed by Lender reasonable or advisable to validate or perfect the security interest of Lender in the Collateral.

SECTION 12. INDEMNITIES. Borrower will protect, indemnify and save harmless Lender and any assignees on an after-tax basis from and against all liabilities, obligations, claims, damages, penalties, causes of action, costs and expenses (including reasonable attorneys' fees and expenses), imposed upon or incurred by or asserted against Lender or any assignee of Lender by Borrower or any third party by reason of the occurrence or existence (or alleged occurrence or existence) of any act or event relating to or caused by any portion of the Collateral, or its purchase, acceptance, possession use, maintenance or transportation, including without limitation, consequential or special damages of any kind, any failure on the part of Borrower to perform or comply with any of the terms of this Security Agreement or the Notes, claims for latent or other defects, claims for patent, trademark or copyright infringement and claims for personal injury, death or property damage, including those based on Lender's negligence or strict liability in tort and excluding only those based on Lender's gross negligence or willful misconduct. In the event that any action, suit or proceeding is brought against Lender by reason of any such occurrence, Borrower, upon Lender's request, will, at Borrower's expense, resist and defend such action, suit or proceeding or cause the same to be resisted and defended by counsel designated and approved by Lender. Borrower's obligations under this Section 11 shall survive the payment in full of all the Indebtedness and the performance of all Obligations with respect to acts or events occurring or alleged to have occurred prior to the payment in full of all the Indebtedness and the performance of all Obligations.

SECTION 13. TAXES. Borrower agrees to reimburse Lender (or pay directly if instructed by Lender) and any assignee of Lender for and to indemnify and hold Lender and any assignee harmless from, all fees (including but not limited to, license, documentation, recording and registration fees), and all sales, use, gross receipts, personal property, occupation, value added or other taxes, levies, imposts, duties assessments, charges, or withholdings of any nature whatsoever, together with any penalties, fines, additions to tax, or interest thereon (the foregoing collectively "Impositions"), except some as may be attributable to Lender's income, arising at any time prior to or during the term of any Notes or of this Security Agreement, or upon termination or early termination of this Security Agreement and levied or imposed upon Lender directly or otherwise by any Federal, state or local government in the United States or by any foreign country or foreign or international taxing authority upon or with respect to (a) the Collateral, (b) the exportation, importation, registration, purchase, ownership, delivery, leasing, possession, use, operation, storage, maintenance, repair, return, sale, transfer of title, or other disposition thereof, (c) the rentals, receipts, or earnings arising from the Collateral, or any disposition of the rights to such rentals, receipts, or earnings, (d) any payment pursuant to this Security Agreement or the Notes, or (e) this Security Agreement, the Notes or any transaction or any part hereof or thereof.

6

SECTION 14. RELEASE OF LIENS. Upon payment of all of the Indebtedness and performance of all of the Obligations, Lender shall execute UCC termination statements and such other documents as Borrower shall reasonably request to evidence the release of Lender's lien relating to the Collateral.

SECTION 15. ASSIGNMENT. WITHOUT LENDER'S PRIOR WRITTEN CONSENT WHICH CONSENT WILL NOT BE UNREASONABLY WITHHELD, BORROWER SHALL NOT (a) ASSIGN, TRANSFER, PLEDGE, HYPOTHECATE OR OTHERWISE DISPOSE OF THIS SECURITY AGREEMENT, ANY COLLATERAL, OR ANY INTEREST THEREIN, (b) LEASE OR LEND COLLATERAL OR PERMIT IT TO BE USED BY ANYONE OTHER THAN BORROWER OR BORROWER'S EMPLOYEES OR (c) MERGE INTO, CONSOLIDATE WITH OR CONVEY OR TRANSFER ITS PROPERTIES SUBSTANTIALLY AS AN ENTIRETY TO ANY OTHER PERSON OR ENTITY. LENDER MAY ASSIGN ANY OF THE NOTES, THIS SECURITY AGREEMENT OR ITS SECURITY INTEREST IN ANY OR ALL COLLATERAL, OR ANY OR ALL OF THE ABOVE, IN WHOLE OR IN PART TO ONE OR MORE ASSIGNEES OR SECURED PARTIES WITHOUT NOTICE TO BORROWER. If Borrower is given notice of such assignment it agrees to acknowledge receipt thereof in writing and Borrower shall execute such additional documentation as Lender's assignee and/or secured party shall reasonably require. Each such assignee and/or secured party shall have all of the rights, but (except as provided in this Section 15) none of the obligations, of Lender under this Security Agreement, unless such assignee or secured party expressly agrees to assume such obligations in writing. Borrower shall not assert against any assignee and/or secured party any defense, counterclaim or offset that Borrower may have against Lender. Notwithstanding any such assignment, and providing no Event of Default has occurred and is continuing, Lender, to its assignees, secured parties, or their agents or assigns, shall not interfere with Borrower's right to quietly enjoy use of Collateral subject to the terms and conditions of this Security Agreement. Subject to the foregoing, the Notes and this Security Agreement shall inure to the benefit of and are binding upon, the successors and assignees of the parties hereto. Borrower acknowledges that any such assignment by Lender will not materially change Borrower's duties or obligations under the Security Agreement or increase any burden or risk on Borrower.

SECTION 16. DEFAULT. (a) Events of Default. Any of the following events or conditions shall constitute an "Event of Default" hereunder, (i) Borrower's failure to pay any monies due to Lender hereunder or under any Note beyond the fifth (5th) day after the same is due; (ii) Borrower's failure to comply with its obligations under Section 10 or Section 15; (iii) any representation or warranty of Borrower made in this Security Agreement or the Notes or in any other agreement, statement or certificate furnished to Lender in connection with this Security Agreement or the Notes shall prove to have been incorrect in any material respect when made or given; (iv) Borrower's failure to comply with or perform any term, covenant or condition of this Security Agreement or any Note or under any other agreement between Borrower and Lender or under any lease of real property covering the location of the Equipment if such failure

to comply or perform is not cured by Borrower within ten (10) days after Borrower knows of the noncompliance or nonperformance or notice from Lender; (v) seizure of any of the Collateral under legal process; (vi) the filing by or against Borrower or any guarantor under any guaranty executed in connection with this Security Agreement ("Guarantor") of a petition for reorganization or liquidation under the Bankruptcy Code or any amendment thereto or under any other insolvency law providing for the relief of debtors; (vii) the voluntary or involuntary making of an assignment of a substantial portion of its assets by Borrower or by any Guarantor for the benefit of its creditors, the appointment of a receiver or trustee for Borrower or any Guarantor or for any of Borrower's or Guarantor's assets, the institution by or against Borrower or any Guarantor of any formal or informal proceeding for dissolution, liquidation, settlement of claims against or winding up of the affairs of Borrower or any Guarantor provided that in the case of all such involuntary proceedings, same are not dismissed within sixty (60) days after commencement; or (viii) the making by Borrower or by any Guarantor of a transfer of all or a material portion of Borrower's or Guarantor's assets or inventory not in the ordinary course of business.

6

7

(b) Remedies. If any Event of Default has occurred, Lender may in its sole discretion exercise one or more of the following remedies with respect to any or all of the Collateral: (i) declare due any or all of the aggregate sum of all remaining payments under the Notes, including the amount of any mandatory or optional payment required or permitted to be paid by Borrower to Lender at the maturity of the Notes ("Remaining Payments"); (ii) proceed by appropriate court action or actions either at law or in equity to enforce Borrower's performance of the applicable covenants of the Notes and this Security Agreement or to recover all damages and expenses incurred by Lender by reason of an Event of Default; (iii) without court order or prior demand, enter upon the premises where the Collateral is located and take immediate possession of and remove it without liability of Lender to Borrower or any other person or entity; (iv) terminate this Security Agreement and sell the Collateral at public or private sale, or otherwise dispose of, hold, use or lease any or all of the Collateral; or (v) exercise any other right or remedy available to it under applicable law. If Lender has declared due any or all of the Remaining Payments, Borrower will pay immediately to Lender (A) the Remaining Payments, (B) all amounts which may be then due or occurred, and (C) all other amounts due under this Security Agreement and under the Notes (Lender's Return, as referred to below, means the amounts described in Clauses (A), (B) and (C) above). The net proceeds of any sale or lease of such Collateral will be credited against Lender's Return. The net proceeds of a sale of the Collateral pursuant to this Section 15(b) is defined as the sales price of the Collateral less selling expenses, including, without limitation, costs of remarketing the Collateral and all refurbishing

costs and commissions paid with respect to such remarketing. The net proceeds of a lease of the Collateral pursuant to this Section 15(b) is defined as the amount equal to the monthly payments due under such lease (discounted at a rate per annum equal to the 3-year Treasury Bill yield as of the date on which Lender notifies Borrower that this Security Agreement is terminated (the "Termination Date") (as such yield is reported in the most recent Federal Reserve Statistical Release H.15 (519) ("Statistical Release") (the "Discount Rate")) plus the residual value of the Collateral at the end of the basic term of such lease, as reasonably determined by Lender, and discounted at the Discount Rate.

In addition to the foregoing remedies, Lender may apply the security deposit pledged to Lender pursuant to Section 26, including all interest paid thereon, (A) to compensate Lender for losses or damages sustained as a result of such Event of Default, and/or (B) to reimburse Lender for costs and expenses, including reasonable attorney's fees, incurred by Lender in connection with such failure to perform, whether or not litigation or other judicial proceedings are commenced. Any surplus remaining thereafter shall be retained by Lender as security hereunder.

Borrower agrees to pay all reasonable internal and out-of-pocket costs of Lender incurred in enforcement of this Security Agreement, the Notes or any instrument or agreement required under this Security Agreement, including, but not limited to direct overhead costs of Lender allocated to the estimated time spent by its employees (and the employees of its affiliates, including counsel who are employees of Lender or its affiliates) and outside counsel legal fees and litigation expenses and fees of collection agencies ("Remedy Expenses"). At Lender's request, Borrower shall assemble the Collateral and make it available to Lender at such time and location as Lender may designate. Borrower waives any right it may have to redeem the Collateral.

Declaration that any or all amounts under this Security Agreement and/or the Notes are immediately due and payable and/or Lender's taking possession of any or all Equipment shall not terminate this Security Agreement or any of the Notes unless Lender so notifies Borrower in writing. None of the above remedies is intended to be exclusive but each is cumulative and may be enforced separately or concurrently.

In addition to the foregoing remedies, if an Event of Default hereunder shall have occurred and be continuing, Lender shall have the right to cause its representative or representatives to attend any meeting of Borrower's Board of Directors or any committee thereof. In such case, Borrower shall provide Lender with the

7

8

same notice of any such Board or Committee meeting that is given to the members of Borrower's Board or committee thereof.

(c) Application of Proceeds. The proceeds of any sale of all or any part

of the Collateral and the proceeds of any remedy afforded to lender by this Security Agreement shall be paid to and applied as follows:

First to the payment of reasonable costs and expenses of suit or foreclosure, if any, and of the sale, if any, including, without limitation, refurbishing costs, costs of remarketing and commissions related to remarketing, all Remedy Expenses, all expenses, liabilities and advances incurred or made pursuant to this Security Agreement or any Note by Lender in connection with foreclosure, suit, sale or enforcement of this Security Agreement or the Notes, and taxes, assessments or liens superior to Lender's security interest granted by this Security Agreement;

Second, to the payment of all other amounts not described in item Third below due under this Security Agreement and all Notes;

Third, to pay Lender an amount equal to Lender's Return, to the extent not previously paid by Borrower; and

Fourth, to the payment of any surplus to Borrower or to whomever may lawfully be entitled to receive it.

(d) Effect of Delay; Waiver, foreclosure on Collateral. No delay or omission of Lender, in exercising any right or power arising from any Event of Default shall prevent Lender from exercising that right or power if the Event of Default continues. No waiver of an Event of Default, or to impair the rights of lender in respect of any damages suffered as a result of the Event of Default. The giving, taking or enforcement of any other or additional security, collateral or guaranty for the payment or discharge of the Indebtedness and performance of the Obligations shall in no way operate to prejudice, waive or affect the security interest created by this security Agreement or any rights, powers or remedies exercised hereunder or thereunder. Lender shall not be required first to foreclose on the Collateral prior to bringing an action against Borrower for sums owed to Lender under this security Agreement or under any Note.

SECTION 17. LATE PAYMENTS. Borrower shall pay Lender a late charge in an amount equal to 10% of each monthly payment owed Lender by Borrower which is not paid when due, for every month such payment is not paid when due, but in no event an amount greater than the highest rate permitted by applicable law. If such amounts have not been received by Lender at Lender's place of business or by Lender's designated agent by the date such amounts are due under this Security Agreement or the Notes, Lender shall bill borrower for such charges. Borrower acknowledges that invoices for amounts due hereunder or under the Notes are sent by Lender for Borrower's convenience only. Borrower's non-receipt of an invoice will not relieve Borrower of its obligation to make payments hereunder or under the Notes.

SECTION 18. PAYMENTS BY LENDER. If Borrower shall fail to make any payment or perform any act required hereunder (including, but not limited to, maintenance of any insurance required by Section 10, then Lender may, but shall not be required to, after such notice to Borrower as is reasonable under the

circumstances, make such payment or perform such act with the same effect as if made or performed by Borrower. Borrower will upon demand reimburse Lender for all sums paid and all costs and expenses incurred in connection with the performance of any such act.

8

9

SECTION 19. FINANCING STATEMENTS. Borrower will execute all financing statements pursuant to the Uniform Commercial Code and all such other documents reasonably requested by Lender to perfect Lender's security interests hereunder. Borrower authorizes Lender to file financing statements signed only by Lender (where such authorization is permitted by law) at all places where Lender deems necessary.

SECTION 20. NATURE OF TRANSACTION. Lender makes no representation whatsoever, express or implied, concerning the legal character of the transaction evidenced hereby, for tax or any other purpose.

SECTION 21. SUSPENSION OF LENDER'S OBLIGATIONS. The obligations of Lender hereunder will be suspended to the extent that Lender is hindered or prevented from complying therewith because of labor disturbances, including but not limited to strikes and lockouts, acts of God, fires, floods, storms, accidents, industrial unrest, acts of war, insurrection, riot or civil disorder, any order decree, law or governmental regulations or interference, failure of the manufacturer to deliver any item of Collateral or any cause whatsoever not within the sole and exclusive control of Lender.

SECTION 22. LENDER'S EXPENSE. Borrower shall pay Lender all reasonable costs and expenses including reasonable attorney's fees and the fees of collection agencies, incurred by Lender (a) in enforcing any of the terms, conditions or provisions hereof and related to the exercise of its remedies, and (b) in connection with any bankruptcy or post-judgment proceeding, whether or not suit is filed and, in each and every action, suit or proceeding, including any and all appeals and petitions therefrom.

SECTION 23. ALTERATIONS; ATTACHMENTS. No alterations or attachments shall be made to the Collateral without Lender's prior written consent, which shall not be given for changes that will affect the reliability and utility of the Collateral or which cannot be removed without damage to the Collateral, or which in any way affect the value of the Collateral for purposes of resale or lease. All attachments and improvements to the Collateral shall be deemed to be "Collateral" for purposes of the Security Agreement, and a first priority security interest therein shall immediately vest in Lessor.

SECTION 24. CHATTEL PAPER. (a) One executed copy of the Security Agreement will be marked "Original" and all other counterparts will be duplicates. To the extent, if any, that this Security Agreement constitutes chattel paper (as such term is defined in the Uniform Commercial Code as in effect in any applicable jurisdiction) no security interest in the Security Agreement may be created in

any documents other than the "Original." (b) There shall be only one original of each Note and it shall be marked "Original," and all other counterparts will be duplicates. To the extent, if any, that any Note(s) to this Security Agreement constitutes chattel paper (or as such term is defined in the Uniform Commercial Code as in effect in any applicable jurisdiction) no security interest in any Note(s) may be created in any documents other than the "Original."

SECTION 25. ADDITIONAL SECURITY (CASH). For each Note executed by Borrower hereunder, before Lender's funding of the Note, Borrower shall provide to Lender, as security for the timely performance and payment by Borrower of its obligations hereunder, cash in a dollar amount equal to 10% of the Collateral value ("Additional Security"). The Additional Security shall accrue interest at 6% per annum compounded monthly. If any Event of Default has occurred or is continuing, the amount of any such interest shall be retained by Lender as Additional Security.

Provided (a) no Event of Default hereunder has occurred or is continuing, (b) Lender is satisfied that Borrower has theretofore continuously performed according to its Business Plan and (c) Lender has timely received from Borrower all monthly note payments, then Lender shall apply the Additional Security to Borrower's Additional

Interest Compensation requirement described in Section 31 hereof and the Note provided, that if Borrower elects the 12 month extension period provided under Section 31(b), Election No. 2, the Additional Security shall be applied in prorata increments to the extended monthly note payments, with the balance of the Additional Security continuing to earn interest as stated herein.

If an Event of Default by Borrower occurs hereunder, the amount of the Additional Security for all Notes then retained by Lender, together with any interest thereon, shall be applied against the amount of Borrower's default obligation. In such event, Lender may apply all or part of the Additional Security for the following purposes:

(a) to compensate Lender for losses or damages sustained as a result of such Event of Default; and/or

(b) to reimburse Lender for costs and expenses, including reasonable attorney's fees, incurred by Lender in connection with such failure to perform, whether or not litigation or other judicial proceedings are commenced. Any surplus remaining thereafter shall be retained by Lender as security hereunder. Provided no Event of Default has occurred and is continuing under this Security Agreement, upon payment by Borrower of all obligations under the Note, any

Additional Security, if any, held by Lender for such Note shall be returned to Borrower.

SECTION 26. COMMITMENT FEE. Borrower has paid to Lender a commitment fee ("Fee") of \$10,000. The Fee shall be applied by Lender first to reimburse Lender for all out-of-pocket UCC and other search costs, inspections and labeling costs and appraisal fees, if any, incurred by Lender, and then proportionally to the first monthly payment for each Note hereunder in the proportion that the Collateral Value for such Note bears to Lender's entire commitment. However, the portion of the Fee which is not applied to such monthly payments shall be non-refundable except if Lender defaults in its obligations pursuant to Section 3.

SECTION 27. NOTICES. All notices hereunder shall be in writing, by registered mail, or reliable messenger or delivery service and shall be directed, as the case may be, to Lender at 2401 Kerner Boulevard, San Rafael, California 94901, Attention: Asset Management and to Borrower at 2682 Bishop Drive, Suite 215, San Ramon, CA 94583, Attention: Mr. Jaime Gonzales.

SECTION 28. MISCELLANEOUS. (a) Borrower shall provide Lender with such corporate resolutions, financial statements and other documents as Lender shall reasonably request from time to time. (b) Borrower represents that the Collateral hereunder is used solely for business purposes. (c) Time is of the essence with respect to this Security Agreement. (d) Borrower acknowledges that Borrower has read this Security Agreement and the Notes, understands them and agrees to be bound by their terms and further agrees that this Security Agreement and the Notes constitute the entire agreement between Lender and Borrower with respect to the subject matter hereof and supersede all previous agreements, promises, or representations. (e) This Security Agreement and the Notes may not be changed, altered or modified except by an instrument signed by an officer or authorized representative of Lender and Borrower. (f) Any failure of Lender to require strict performance by Borrower or any waiver by Lender of any provision herein or in a Note shall not be construed as a consent or waiver of any other breach of the same or any other provision. (g) If any provision of this Security Agreement or a Note is held invalid, such invalidity shall not affect any other provisions hereof or thereof. (h) The obligations of Borrower to pay the Indebtedness and perform the Obligations shall survive the expiration or earlier termination of this Security Agreement or the Notes until all Obligations of Borrower to Lender have been met and all liabilities of Borrower to Lender and any assignee have been paid in full. (i) Borrower will notify Lender at least 30 days before changing its name, principal place of business or chief executive office. (j) Borrower will, at its expense, promptly execute and deliver to Lender such documents and assurances (including financing statements) and take such further action as Lender may reasonably request in order to carry out the intent of this Security Agreement and Lender's rights and remedies. (k) Borrower hereby appoints Lender (and each of Lender's officers, employees

or agents designated by Lender), with full power of substitution by Lender, as Borrower's attorney, with power to execute and deliver on Borrower's behalf financing statements and other documents necessary to perfect and/or give notice of Lender's security interest in any of the Collateral. (1) Borrower shall keep its books and records in accordance with generally accepted accounting principles and practices consistently applied and shall deliver to Lender its annual audited financial statements, unaudited monthly financial statements to include any financial information given to Borrower's Board of Directors, and signed by an officer of Borrower and such other unaudited financial statements as may be reasonably requested by Lender.

SECTION 29. JURISDICTION AND WAIVER OF JURY TRIAL. This Security Agreement and the Notes shall be deemed to have been negotiated, entered into and performed in the State of California and it is understood and agreed that the validity of this Security Agreement and of any of the terms and provisions, of the Security Agreement and Notes, as well as the rights and duties of Lender and Borrower, shall be construed pursuant to and in accordance with laws of the State of California, without giving effect to conflicts of law principles. It is agreed that exclusive jurisdiction and venue for any legal action between the parties arising out of relating to this Security Agreement or a Note shall be in the Superior Court for Marin County, California, or, in cases where federal diversity jurisdiction is available, in the United States District Court for the Northern District of California situated in San Francisco. BORROWER, TO THE EXTENT IT MAY LAWFULLY DO SO, HEREBY WAIVES ITS RIGHT TO TRIAL BY JURY IN ANY ACTION BROUGHT ON OR WITH RESPECT TO THIS SECURITY AGREEMENT, ANY NOTE, ANY SECURITY DOCUMENTS, OR ANY OTHER AGREEMENTS EXECUTED IN CONNECTION HEREWITH.

SECTION 30. ADDITIONAL INTEREST COMPENSATION: (a) General. If and as the Note provides, Borrower is required to choose a final payment or Note extension election ("Additional Interest Compensation") at the expiration of the first Note's base term, that choice shall be an election of Borrower's Additional Interest Compensation election for all, but not less than all, of the Collateral under all Notes under the Security Agreement.

Until Borrower fulfills an End of Loan election, all Borrower's Obligations, including payment of the Monthly Payment Amount, shall continue in full force and effect, on a month-to-month basis.

(b) End of Loan Position Elections

Election No. 1

Make a final payment equal to 15% of the Collateral's original purchase price.

Election No. 2

Extended the Note's Base Term for an additional 12 months ("Extended Term") for a monthly rate of 1.5% of the Collateral's original purchase price.

In the event Borrower does not provide 90 days' prior written notice of its election, Borrower shall be deemed to have elected No. 1 above.

SECTION 31. ADJUST-A-LOAN OPTION: (a) General: After the first 12 months of the term of any Note, Borrower shall have the option to remove such Note's Collateral ("Removed Collateral") and finance new Collateral ("New Collateral") under a new Note ("New Note"). (b) New Note Amount: The principal amount of the New Note shall be an amount equal to the purchase price for the New Collateral plus a prepayment figure for the Removed Collateral. The prepayment figure shall be the original principal amount of the original Note ("Old Note") less: (i) any trade-in value or resale proceeds received by Lender for the Removed Collateral and (ii) a

11

12

credit for Note payments already made (the total Old Note payments attributable to the removed Collateral multiplied by the "Allowance Factor" indicated in the table below). In no event shall the principal amount of the New Note be less than original principal amount of the Old Note.

<TABLE>

<CAPTION>

REMOVAL DATE -----	ALLOWANCE FACTOR -----
<S>	<C>
After 12 Months of Old Note	55%
After 24 Months of Old Note	60%
After 36 Months of Old Note	65%

(c) Old Note: If any Collateral remains on the Old Note, the monthly payment amount for the Old Note will be reduced in proportion to the Removed Collateral's value. (d) Option Preconditions: Borrower's right to exercise this Adjust-A-Loan Option ("Option") is conditioned upon the following: (i) no Event of Default under the Security Agreement has theretofore occurred or is continuing; (ii) the New Collateral and prepayment of the Removed Collateral are financed by Lender under a New Note, subject to Lender's current loan rates and documentation acceptable to Lender; (iii) Lender is satisfied with Borrower's creditworthiness; (iv) the New Collateral is acceptable to Lender; and (v) Borrower has given Lender at least 90 days' prior written notice of its desire to exercise the Option.

SECTION 32. PREPAYMENT. If, and as each Note provides, after the 24th month of the term of the last Note funded pursuant to this Security Agreement, and provided Borrower is not in default under this Security Agreement, Borrower shall have the right to elect to prepay all amounts then owing under all Notes, for the Prepayment Amount, as defined below. The Prepayment Amount shall be an amount equal to the difference between (a) the sum of (i) all past due payments and interest, costs, expenses or other amounts due Lender pursuant to this Security Agreement and Notes, and (ii) the present value of the remaining payments and Additional Interest due under the Security Agreement and Notes

discounted at 6% per annum compounded monthly, and (b) the then current balance of Additional Security remaining.

IN WITNESS WHEREOF, Borrower and Lender have caused this Security Agreement to be executed as of the date and year first above written.

PHOENIX LEASING INCORPORATED

ONDISPLAY, INC.

By: [SIGNATURE ILLEGIBLE]

By: /s/ MARK PINE

Title: V.P.

Title: Illegible

HEADQUARTERS LOCATION:

2682 Bishop Drive, Suite 215

San Ramon, CA 94583

County of Contra Costa

EXHIBITS AND SCHEDULES:

Exhibit A -- Closing Memorandum

EXHIBIT 23.1
CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the use in this Registration Statement on Form S-1 of our report dated July 2, 1999 relating to the financial statements of OnDisplay, Inc., which appear in such Registration Statement. We also consent to the references to us under the headings "Experts" and "Selected Financial Data" in such Registration Statement.

PricewaterhouseCoopers LLP
San Jose, California
September 10, 1999

<TABLE> <S> <C>

<ARTICLE> 5

<MULTIPLIER> 1,000

<S>	<C>
<PERIOD-TYPE>	6-MOS
<FISCAL-YEAR-END>	DEC-31-1998
<PERIOD-START>	JAN-01-1999
<PERIOD-END>	JUN-30-1999
<CASH>	2,970
<SECURITIES>	0
<RECEIVABLES>	2,683
<ALLOWANCES>	330
<INVENTORY>	0
<CURRENT-ASSETS>	5,798
<PP&E>	941
<DEPRECIATION>	649
<TOTAL-ASSETS>	6,975
<CURRENT-LIABILITIES>	4,461
<BONDS>	2,367
<PREFERRED-MANDATORY>	18,982
<PREFERRED>	0
<COMMON>	1
<OTHER-SE>	(18,836)
<TOTAL-LIABILITY-AND-EQUITY>	6,975
<SALES>	3,655
<TOTAL-REVENUES>	3,655
<CGS>	1,981
<TOTAL-COSTS>	1,981
<OTHER-EXPENSES>	7,677
<LOSS-PROVISION>	80
<INTEREST-EXPENSE>	71
<INCOME-PRETAX>	(6,074)
<INCOME-TAX>	0
<INCOME-CONTINUING>	(6,074)
<DISCONTINUED>	0
<EXTRAORDINARY>	0
<CHANGES>	0
<NET-INCOME>	(6,074)
<EPS-BASIC>	(1.56)
<EPS-DILUTED>	(1.56)

</TABLE>