

# SECURITIES AND EXCHANGE COMMISSION

## FORM 10KSB

Annual and transition reports of small business issuers [Section 13 or 15(d), not S-B Item 405]

Filing Date: **1999-03-26** | Period of Report: **1998-12-31**  
SEC Accession No. **0000950134-99-002039**

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### FILER

#### MULTIMEDIA ACCESS CORP

CIK: **921313** | IRS No.: **752528700** | State of Incorporation: **DE** | Fiscal Year End: **1231**  
Type: **10KSB** | Act: **34** | File No.: **000-29020** | Film No.: **99574360**  
SIC: **3663** Radio & tv broadcasting & communications equipment

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U.S. SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 10-KSB

- ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934.  
 TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934.

For Fiscal Year Ended December 31, 1998  
Commission File Number: 0-29020

MULTIMEDIA ACCESS CORPORATION  
(Exact Name of Small Business Issuer as Specified in its Charter)

Delaware 75-2528700  
(State of Incorporation) (I.R.S. Employer Identification No.)

2665 VILLA CREEK DRIVE, SUITE 200 DALLAS, TEXAS 75234 (972) 488-7200

(Address including zip code, area code and telephone number of  
Registrant's executive offices.)

Securities registered pursuant to Section 12(b) of the Act: None

Securities registered pursuant to Section 12(g) of the Act:

<TABLE>

<CAPTION>

Title of Each Class -----	Name of Each Exchange on Which Registered -----
Common Stock, \$.0001 par value	NASDAQ
Redeemable Common Stock Purchase Warrants	NASDAQ

</TABLE>

Check whether the issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No

--- ---

Check if disclosure of delinquent filers in response to Item 405 of Regulation S-B is not contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB. [ ]

Issuer's revenues for its most recent fiscal year: \$8,027,948

As of March 22, 1999, 12,133,595 shares of the Registrant's common stock were outstanding.

State the aggregate market value of the voting stock held by non-affiliates computed by reference to the price at which the stock was sold, or the average bid and asked prices of such stock, as of a specified date within the past 60 days: As of March 22, 1999 - \$44,543,850. This amount was computed by reference to the average of the bid and asked prices of registrant's common stock.

Documents incorporated by reference: Proxy Statement, Part III

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## PART I

Item 1. Description of Business

## GENERAL

MultiMedia Access Corporation develops, manufactures and markets high-quality standards-based video communications equipment for businesses and professional enterprises. The Company's solutions are used to enhance communication and increase productivity in corporations, educational networks, healthcare facilities, financial institutions and government agencies. The Company's ViewCast(R) web-video systems, Osprey(R) video codecs and peripherals and VBX(TM) enterprise video PBX deliver popular video communications applications including Internet/intranet-based video streaming, distance learning, telemedicine and video conferencing.

The Company's products are available from leading resellers, systems integrators, OEMs and application developers worldwide. Many of these resellers

are the same entities that market, install and support a customer's telephone PBX, LAN, e-mail file servers, routers and other communication systems. The Company's products are compatible with existing communications equipment and infrastructure.

The Company believes that increased utilization of the Internet and corporate intranets, the convergence of multimedia PCs and the establishment of new standards-based audio and video technologies, combined with lower price levels for such capabilities, will generate a rapid adoption of video communication products and services.

#### BUSINESS STRATEGY

The Company is a leading provider of enterprise-wide video communications solutions. Key elements of the Company's strategy include:

- o Provide Enterprise-Wide Video Communication Systems, Solutions and Applications.

The Company's practice is to offer turn-key video communications systems, including the individual components and applications, which appeal to customers who are looking for a complete solution to their video communications needs. These systems are designed to be easy to install, cost-effective and user-friendly. The Company believes its enterprise-wide systems and applications approach provides a significant competitive advantage, whether dealing with streaming video over the Internet or corporate intranet or distributing full-motion video throughout the enterprise.

- o Distribute Through Established Channels of Distribution.

The Company's strategy is to utilize resellers, system integrators, OEMs and custom application developers to distribute its systems and applications. These distributors are typically the same companies that market, install and support an organization's Internet service, telephone PBX, LAN, e-mail file servers, routers and other communication systems. These distributors offer access to an existing customer base, along with continuing service and support organizations.

- o Develop and Acquire New Applications.

The Company believes that the continued growth of the video communications market will be driven by the development of new applications in response to customer needs. The Company intends to continue to invest significant resources to develop and acquire value-added and technologically superior applications.

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- o Develop Brand-Name Recognition.

The Company's strategy is to develop a strong brand identity in the Internet/intranet and video communications marketplace. The Company believes a strong brand identity will result in a significant competitive advantage and permit it to more easily introduce new products and applications.

- o Enhance Growth through Strategic Acquisitions and Alliances.

An important part of the Company's growth strategy is to seek strategic alliances and joint marketing relationships with companies that have complementary technologies, products or customers. The Company believes that the video communications industry is highly fragmented and that this environment provides an excellent opportunity to expand its business through such alliances.

#### PRODUCT FAMILY

The Company currently offers a broad array of products which when used together provide an enterprise-wide solution for multiple video communications

applications for business customers. The MultiMedia product family includes: the ViewCast(R) line of Internet streaming-video servers, the Osprey(R) line of video peripheral products and Codec cards and the VBX video distribution and switching system.

Internet Video. The Company designs, manufactures and markets several video products which capitalize on the growth of the Internet and corporate intranets. Industry improvements in video and audio compression technology, the establishment of standards and increased access to the Internet have made delivering new forms of motion-video content over the Internet possible. The Company's Osprey(R) Codecs provide the necessary capability at the Web site server to allow the one-way transmission of live broadcasts over the Internet. The Company has recently introduced a line of ViewCast(R) streaming video servers that combine the Company's Osprey(R) Codecs with popular video-streaming software to provide a complete hardware and software system for Internet video broadcasting. The Company has announced video-streaming compatibility with the following software providers: RealNetworks, Inc., VXtreme, Inc., Vosaic LLC, Precept Software, Inc., Iterated Systems, Inc. and Microsoft Corporation.

The Company's products have allowed Internet users to view live broadcasts of the NASA Mars Pathfinder expedition, the Indy 500 time trials, the Pope's visit to St. Louis and other live events from their respective Web sites through Microsoft and Netscape Internet browsers.

Codecs and Video Peripheral Products. The Company designs, develops, manufactures and markets standards-based video and audio peripheral products and Codecs that video enable individual PCs and workstations for multimedia applications. The Company's Osprey(R) Codecs enable video transmissions across several different types of existing communication networks. The Osprey(R) Codecs perform this function by capturing, digitizing, compressing, transmitting, receiving, decompressing and displaying full-motion video. The Osprey(R) Codecs are compatible with multiple video and audio compression standards and are available for PCs and workstations that are equipped with the standard PCI-bus or Sun's S-bus. The Codecs also support Microsoft's WindowsNT, Windows 3.1 and Windows95, and Sun's Solaris and UNIX operating systems. The Company believes its Osprey(R)-1000 is the leading standards-based, multi-algorithm Codec for the WindowsNT operating system and that its Osprey(R)-1500 is currently the only Codec available for Sun's new family of Ultra Workstations.

The Osprey(R) Codecs are used in connection with the Company's VBX video distribution system as a shared Codec server to enable VBX users to communicate by video with remote locations. In addition, the Osprey(R) Codecs may be used in remote facilities to video enable individual desktop computers.

The Company also offers a line of video peripheral products for PCs and workstations, including SLIC-Video(R), Osprey(R)-100 and Osprey(R)-150 video capture cards and WorkFone(R) video applications software. SLIC-Video(R) is a video capture product that enables Sun S-bus workstation users to view uncompressed, high-quality video and to capture full-motion video frames. SLIC-Video(R) software also provides access to closed caption data which allows key words to act as filters and thereby control video

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displayed on the screen. SLIC-Video(R)'s compatibility with Sun products allows this product to support a wide variety of video applications on existing Sun workstations. The Company's WorkFone(R) product provides affordable, consumer-quality video communications capabilities over standard telephone lines with 28.8 Kbps modems. Examples of uses of this product include: families and grandparents exchanging live video greetings, college students videoconferencing with their parents, business workers accessing video-training courses or videoconferencing with co-workers in remote locations.

Video Switching and Distribution System. The Company's VBX is an enterprise-wide video distribution and switching system, which can video enable hundreds of desktops with multiple video communications applications. The VBX

switches and distributes video content throughout an organization in much the same way as a telephone PBX switches and distributes voice communications. The VBX provides workgroup video communications and connectivity via shared Codecs and WAN gateways to remote users equipped with stand-alone desktop computers, video tele-conferencing room systems or users on another VBX. The VBX, a PC-based WindowsNT system, employs a switched architecture to distribute uncompressed, TV-quality video within a building or campus using unshielded twisted pair (UTP) wiring (which typically already exists within the organization's infrastructure as part of its telephone system or which may be installed more cost-effectively than coaxial cable). The VBX can support hundreds of users and allows point-to-point, multipoint and broadcast modes of operation. The VBX is compatible with standard cameras, audio components, speakerphones, PC video peripherals, videoconferencing systems and other videocom products produced by third-party manufacturers.

A typical VBX system includes a video switch, a shared Codec server, WAN interfaces and desktop components. Video and audio signals are distributed with TV quality by utilizing the Company's VBX transceiver technology to send video over existing UTP wiring at distances of up to 3,500 feet. An existing LAN or telephone system is used only for non-video communications between the multimedia switch and each user, requiring minimal use of the computer network.

The VBX also provides shared access to video sources and storage devices located anywhere within the network. VCRs, videodisk players, broadcast or cable TV and Direct Broadcast Satellite programming sources may also be connected to the switch over UTP wiring or coaxial cabling and distributed on-demand to any equipped desktop or TV monitor.

VBX transceivers allow desktop PCs, TV monitors, room systems and standard video and audio devices to be connected to the VBX via UTP wiring. The VBX client software allows users to place calls through a personal or system-wide dialing directory, to subscribe to live video broadcasts, to access pre-recorded video content or to establish a point-to-point or a multipoint videoconference.

The Company believes the VBX appeals to businesses and other institutions with multiple users and with multiple geographic locations, such as college campuses, office complexes, government bases and organizations with regional offices. The VBX permits these customers to communicate and share video-based information and resources, to distribute business and financial TV broadcasts, to videoconference with co-workers and to receive business or industry presentations or live broadcasts from local or remote locations.

#### APPLICATIONS

Internet Applications --Video communications products and technologies play an important role in the development of live communications and entertainment on the Internet. The Company markets its compression and video capture products to many players in the Web video-streaming marketplace.

Three key applications in the Internet video marketplace include: (i) Internet video publishing, (ii) Internet video broadcasting and (iii) Internet video call center. Internet Video publishing refers to stored-video content, designed to be played back to a user's system in real-time. Internet video publishing entails compressing a video "clip" and storing it on a server which is available to the user by accessing the relevant Web page. Internet video broadcasting has recently come to the Internet and is characterized by one-way live audio and motion-video. Although video broadcasting presents technical challenges such as

the limited bandwidth and multi-cast capabilities of most Web sites, Internet video broadcasting is well suited to delivering video to distant learning sites and to special interest broadcast recipients. The Company's ViewCast(R) streaming-video server works in conjunction with Web servers and browser software to establish connections between multiple users and a broadcast source

allowing businesses to deliver live programs, commercials and other information over the Internet. The Internet video call center is a new concept to the Internet, allowing one-way live video and two-way audio across the Internet. The term "call center" is used because the technology is well suited to utilize existing call center staff such as help desks, catalog ordering centers, reservation systems and corporate receptionists to provide live Web site sales assistance.

Videoconferencing -- The Company's products offer the business and institutional customer a cost-effective and efficient means of establishing an enterprise-wide videoconferencing system. The VBX and Osprey(R) Codecs permit employees, students or other members of the organization in different offices or geographic locations to communicate with each other via live video.

Video Presentations or Live Video -- The Company's products offer businesses or organizations the opportunity to broadcast live events. These events could include educational seminars, management briefings, human resources orientations or breaking news being created and transmitted by the organization itself or by outside sources.

Surveillance -- Video surveillance has expanded beyond internal systems placed in businesses to monitor intrusions to include systems that monitor daycare and nursing home facilities, traffic patterns and other relevant live information which the Internet user can access from a Web site. The commercial surveillance market represents strong business opportunity.

Industry Specific Applications -- The Company's products offer a broad array of applications within specific industries. For instance, in the health and medical industry, the Company's products allow doctors to collaborate via videoconferencing, to receive computed tomography (CT) scans, ultrasounds and other diagnostic tests at locations remote from the hospital or patient and to take part in educational and training broadcasts. The judicial system and correctional institutions are also taking advantage of the Company's videocom products. In addition to surveillance, the VBX and Osprey(R) Codecs enable prisons to hold arraignments by videoconference, to allow prisoner visitation and legal consultation with persons in remote locations and to provide vocational training and counseling for prisoners from outside sources.

#### MARKETING AND SALES

The Company markets its products primarily via third-party distribution channels including, but not limited to, OEMs, resellers and system integrators. The Company currently has distribution and reseller agreements with over 71 companies worldwide. In addition, the Company plans to continue to expand its distribution channels both domestically and internationally.

The Company establishes distribution relationships with resellers and integrators who service corporate, institutional and government customers. These relationships are non-exclusive and typically require that these resellers participate in the marketing, installation and technical support of the Company's products.

The Company's Internet related products are marketed primarily to Web site designers. The Company bundles its products with other popular Web-video products and sells or licenses its subsystems to resellers to integrate with their Web development products. Such strategic business alliances provide Web developers with a rich array of innovative capabilities with the familiarity of existing tools.

For consumer products the Company will depend on major OEM customers who provide access to consumer marketing channels. These OEMs have established relationships with manufacturers and resellers and typically pay licensing fees and royalties to bring new leading-edge products to market.

The Company continues to expand its marketing activities over the Internet. The Company's products enable new ways to promote products over the Internet. The Company intends to use its own products to increase sales productivity and to pursue alternate selling strategies. In addition, the Company utilizes press releases, product literature, presentations to industry analysts and participation in trade shows to enhance brand awareness.

#### PRODUCTION AND SUPPLY

The Company builds its current products using contract manufacturers in the United States. The Company's operations personnel in Dallas are responsible for parts planning, procurement and final testing and inspection to quality standards. The Company plans for most high-volume production to be handled through large OEMs or contract manufacturers. The Company has been and will continue to be dependent on third parties for the supply and manufacture of its components and electronic parts, including standard and custom-designed components. The Company generally does not maintain supply agreements with such third parties but instead purchases components and electronic parts pursuant to purchase orders in the ordinary course of business. The Company is substantially dependent on the ability of its third-party manufacturers and suppliers to, among other things, meet the Company's design, performance and quality specifications.

The electronics industry from time to time experiences short supplies of certain high demand components, which may adversely affect the Company's ability to meet its production schedules. Failure of manufacturers or suppliers to supply or delays in supplying the Company with components, or allocations in the supply of certain high-demand components, could adversely affect the Company's operations and ability to meet delivery schedules on a timely and competitive basis.

#### INSTALLATION, SERVICE AND MAINTENANCE

Many of the Company's products are customer installable. The Company has contracted with Data General Corporation to provide third-party field installation and support. The Company maintains a small in-house technical support group and also depends on its resellers to install and service its products.

The Company offers limited warranties covering workmanship and materials, during which period the Company or its resellers will replace parts or make repairs. The Company also maintains an in-house staff of engineering personnel and offers telephone support to assist resellers and end-users during normal business hours.

In addition, the Company enters into annual contracts with end-users to provide software and/or hardware maintenance on its products.

#### RESEARCH AND DEVELOPMENT

The Company has focused and will continue to focus on research and development activities related to video communications applications. The Company's recent development efforts have been devoted to the design and development of its products and software applications, including the ViewCast(R) streaming video server, the VBX, the VBX Codec server, the WorkFone(R), the Osprey(R) line of Codecs and the applications software for these systems.

Total research and development expense for 1997 and 1998 was approximately \$2.7 million and \$3.1 million, respectively.

#### COMPETITION

The market for video communications systems is highly competitive and characterized by the frequent introduction of new products based upon innovative technologies. The Company competes with numerous well-established manufacturers and suppliers of videoconferencing, networking, telecommunications and multimedia products, certain of which dominate the existing videoconferencing market for such products.



In addition, the Company is aware of others that are developing, and in some cases have introduced, new video communications systems. Most of the Company's competitors possess substantially greater financial, marketing, personnel and other resources than the Company, have established reputations relating to product design, development, manufacture, marketing and service of networking, telecom and video products and have significant budgets to permit them to implement extensive campaigns to market new products in response to competitors. The Company is not aware of any direct competitors that compete in all of the Company's product families and applications. However, among the Company's direct competitors competing in one or more of the Company's products or applications are C-Phone Corporation, Zydacron, Inc., VCON, Ltd., Corel Computer Corporation, Objective Communications, Inc. and Datapoint Corporation. In addition, electronics manufacturers such as Intel actively compete for business in this market.

#### PATENTS, COPYRIGHTS, TRADEMARKS AND PROPRIETARY INFORMATION

The Company holds a United States patent covering certain aspects of compressed video. Although the Company does not believe this patent or any other patent is essential to its business operations, the Company may apply for additional patents relating to other aspects of its products. The Company also relies on copyright laws to protect its software applications, which it considers proprietary. There can be no assurance as to the breadth or degree of protection which existing or future patents, copyrights and trademarks, if any, may afford the Company, that any patent, copyright or trademark applications will result in issued patents, registered copyrights or registered trademarks, as the case may be, that the Company's patents, copyrights or trademarks will be upheld, if challenged, or that competitors will not develop similar or superior methods, products or names outside the protection of any patent issued to or copyright held by the Company.

The Company believes that product recognition is an important competitive factor and, accordingly, the Company promotes the ViewCast(R), Osprey(R), SLIC-Video(R), Viewpoint VBX(TM) and WorkFone(R) names, among others, in connection with its marketing activities, and has applied for or received trademark registration for such names. The Company's use of those marks may be subject to challenge by others, which, if successful, could have a material adverse effect on the Company.

The Company also relies on confidentiality agreements with its directors, employees, consultants and manufacturers and employs various methods to protect the source codes, concepts, ideas, proprietary know-how and documentation of its proprietary technology. However, such methods may not afford the Company complete protection, and there can be no assurance that others will not independently develop similar know-how or obtain access to the Company's know-how or software codes, concepts, ideas and documentation. Furthermore, although the Company has and expects to continue to have confidentiality agreements with its directors, employees, consultants, manufacturers, and appropriate vendors, there can be no assurance that such arrangements will adequately protect the Company's trade secrets. The Company purchases certain components that are incorporated into its products from third-party suppliers and relies on their assurances that such components do not infringe on the patents of others. A successful claim against any components used in the Company's products could affect the ability of the Company to manufacture, supply and support its products. The Company uses commercially reasonable efforts to ensure third-party supplied components are non-infringing, but there can be no assurances against future claims.

#### GOVERNMENT REGULATION

The Company is subject to regulations relating to electromagnetic radiation from its products, which impose compliance burdens on the Company. In the event the Company redesigns or otherwise modifies its products or completes the development of new products, it will be required to comply with Federal

Communications Commission regulations with respect to such products, of which there can be no assurance prior to their commercialization. In addition, new legislation and regulations, as well as revisions to existing laws and regulations, at the federal, state and local levels may be proposed in the future affecting the video communications industries. Such proposals could affect the Company's operations, result in material capital expenditures, affect the marketability of its products and limit opportunities for the Company with respect to modifications of its products or with respect to new

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or proposed products or technologies. Expansion into foreign markets may also require the Company to comply with additional regulatory requirements. Currently, the Company is seeking certain foreign certificates in order to expand its international marketing opportunities.

There can be no assurance that such export controls, either in their current form or as may be subsequently enacted, will not delay introduction of new products or limit the Company's ability to distribute products outside of the United States. Further, various countries may regulate the import of certain technologies contained in the Company's products. Any such export or import restrictions, new legislation or regulation or government enforcement of existing regulations could have a material adverse effect on the Company's business, operating results and/or financial condition. There can be no assurance that the Company will be able to comply with additional applicable laws and regulations without excessive cost or business interruption, if at all, and failure to comply could have a material adverse effect on the Company.

#### EMPLOYEES

As of December 31, 1998, the Company had sixty-five (65) full-time employees, three (3) of whom are in executive positions, twenty-eight (28) of whom are engaged in engineering, research and development, twenty (20) of whom are engaged in marketing and sales activities, eight (8) of whom are engaged in operations and six (6) of whom are in administration. None of the Company's employees are represented by a labor union. The Company considers its employee relations to be satisfactory.

#### Item 2. Description of Property

The Company's executive offices and some of its sales, design and development activities are located in approximately 21,100 square feet of leased space in Dallas, Texas. The lease expires in September of 1999 and provides for a base annual rent of \$316,512. The Company's assembly operations are located in approximately 4,065 square feet of leased space in Dallas, Texas. The lease expires in August 1999 and provides for a base annual rent of \$33,372. Osprey's design and development activities are located in approximately 10,000 square feet of leased space in Morrisville, North Carolina. The lease expires in December of 2002 and provides for a base annual rent of \$99,000. The company leases office space for a sales office in Fairfax, Virginia consisting of approximately 2,152 square feet of leased space. This lease expires in February 2001 and provides for base annual costs of \$55,952. The Company believes that its facilities are adequate for its current and reasonable foreseeable future needs and its current facilities can accommodate expansion, as required.

#### Item 3. Legal Proceedings

The Company is not currently a party to any litigation that it believes could have a material adverse effect on the Company or its business.

#### Item 4. Submission of Matters to a Vote of Security Holders

None

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## PART II

## Item 5. Market for Company's Common Equity and Related Stockholder Matters

The Company's Common Stock is traded on the Nasdaq Stock Market under the symbol "MMAC." The Company's redeemable common stock purchase warrants (the "Public Warrants") are traded on the Nasdaq Stock Market under the symbol "MMACW." As of December 31, 1998, there were 11,063,477 shares of Common Stock and 2,851,977 Public Warrants outstanding. The shares of Common Stock are held by approximately 850 beneficial holders and the Public Warrants are held of record by approximately 24 holders. The following table sets forth, for the periods indicated, the high and low sales prices for the Common Stock and the Public Warrants on the Nasdaq Stock Market. These over-the-counter market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions. The Company's IPO became effective on February 4, 1997. Before this date, there was no public market for the Company's securities.

<TABLE>  
<CAPTION>

FISCAL 1997 -----	COMMON STOCK		PUBLIC WARRANTS	
	HIGH ----	LOW ---	HIGH ----	LOW ---
<S>	<C>	<C>	<C>	<C>
1st Quarter	\$ 5.8750	\$ 4.1875	\$ 2.3750	\$ 1.0000
2nd Quarter	6.5000	5.0000	2.3750	1.3750
3rd Quarter	6.0000	4.0000	2.0000	1.0000
4th Quarter	6.0000	3.8125	2.1250	0.9375

</TABLE>

<TABLE>  
<CAPTION>

FISCAL 1998 -----	COMMON STOCK		PUBLIC WARRANTS	
	HIGH ----	LOW ---	HIGH ----	LOW ---
<S>	<C>	<C>	<C>	<C>
1st Quarter	\$ 5.0000	\$3.0000	\$1.8750	\$0.8750
2nd Quarter	3.8125	2.6875	1.2500	0.6563
3rd Quarter	3.5000	1.8125	0.8750	0.3438
4th Quarter	3.6875	0.8750	1.6875	0.2500

</TABLE>

On March 22, 1999, the last reported sales prices for the Common Stock and the Public Warrants as reported on the Nasdaq Stock Market were \$4.969 and \$2.75, respectively.

The Company declared no cash dividends in 1997 or 1998. The Company does not anticipate paying cash dividends in the future as it intends to retain earnings to finance the growth of the business. The payment of future dividends will depend on such factors as earnings levels, anticipated capital requirements, the operating and financial condition of the Company and other factors deemed relevant by the Company's Board of Directors.

Item 6. Management's Discussion and Analysis of Financial Condition and Results of Operations

GENERAL

MultiMedia Access Corporation develops, manufacturers and markets advanced video communications solutions for business and professional enterprises. The Company's systems and solutions provide enhanced communication and increased productivity for major corporations, educational institutions and healthcare, financial and governmental organizations. The Company's products deliver popular video communication applications including Internet and intranet media streaming, live broadcasting, video-based training, surveillance, distance learning, videoconferencing and telemedicine. Its products are available from leading resellers, systems integrators, OEMs and application developers worldwide.

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RESULTS OF OPERATIONS

Year Ended December 31, 1998 compared to Year Ended December 31, 1997.

Net Sales. Net sales for the year ended December 31, 1998 increased 139% to \$8,027,948 from \$3,360,703 reported in 1997. This increase can be attributed to significant growth in sales of both video peripheral products and video systems during 1998 compared to 1997.

During the year ended December 31, 1998, sales of video peripheral products increased 69% over 1997 and represented approximately 45.5% of total 1998 revenues, compared to approximately 64% of total revenues in 1997. Sales of video systems increased 296% in 1998, compared to the same period in 1997 and represented approximately 53% of total 1998 revenues, compared to approximately 32% of total revenues in 1997. The Company expects its product mix to change slightly in 1999 as sales of its video peripheral products and video systems continue to increase while its newest product family, the ViewCast(R) Streaming Video Server, which was introduced in late 1997, completes its beta testing and begins generating revenue in 1999.

Cost of Goods Sold. Cost of goods sold increased \$2,485,206 to \$4,181,128 for the year ended December 31, 1998 compared to the same period in 1997 primarily due to the increase in net sales described above. Gross profit margin for 1998 was 47.9%, representing a decline from the 49.5% margin during 1997. This decline in gross margin can be attributed to increased sales in 1998 to distribution and OEM partners with contractual sales discounts. The Company does not anticipate that this decline in gross profit margin is permanent but believes that, over extended periods, its margins will remain in the range of 48 - 52%.

Selling, General and Administrative Expense. Selling, general, and administrative expense increased to \$8,352,476 for the year ended December 31, 1998 from \$4,243,485 in 1997 due to a significant expansion of the Company's sales, marketing and customer support efforts in 1998. In late 1997, the Company added 14 sales positions and three customer support positions, the full effect of which was reflected in 1998. Also contributing to the increase are expenses related to being a public company, including significant increases in investor relations, legal and professional fees and consulting fees. Also, in 1998 the Company incurred a \$610,000 bad debt write-off that arose when a reseller failed to meet its financial obligations.

Research and Development Expense. Research and development expense increased \$349,245 to \$3,090,102 for the year ended December 31, 1998 compared to 1997, primarily due to an increase in the Company's manufacturing staff and contract consultants during 1998. The new staff and consultants were principally involved in the continued development of the Company's Viewpoint VBX(TM) system, Osprey(R) video products and the newly announced ViewCast(R) Streaming-video

servers.

Other Income (Expense). For the year ended December 31, 1998, other expense increased \$645,322 to \$843,708, primarily as a result of an increase in interest expense during the year. The changes to other expense can be attributed principally to an increase in outstanding debt, reflecting the convertible debt placed in December 1997 and the working capital lines of credit put in place during 1998.

Year Ended December 31, 1997 compared to Year Ended December 31, 1996.

Net Sales. Net sales for the year ended December 31, 1997 increased 206.9% to \$3,360,703 from \$1,095,012 reported in 1996. This increase can be attributed to significant growth in sales of both video peripheral products and video systems during 1997 compared to 1996, offset in part by a decline in custom programming and design revenue between the same periods.

During the year ended December 31, 1997, sales of video peripheral products increased 193.9% over 1996 and represented approximately 65.5% of total 1997 revenues, compared to approximately 68.4% of total revenues in 1996. Sales of video systems increased 602.2% in 1997, compared to the same period in

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1996 and represented approximately 31.8% of total 1997 revenues, compared to approximately 13.9% of total revenues in 1996. While sales of video peripheral products are expected to continue to increase during 1998 as new products are developed and marketed and new contracts are finalized, the percentage of peripheral product sales to total sales is expected to decline as the Company also expects to see a significant increase in video systems revenue during 1998.

Cost of Goods Sold. Cost of goods sold increased \$1,302,004 to \$1,695,922 for the year ended December 31, 1997 compared to the same period in 1996 primarily due to the increase in net sales described above. Gross profit margin for 1997 was 49.5%, representing a decline from the 64.0% margin during 1996. This decline in gross margin can be attributed to greater custom programming and design revenue in 1996, which had little or no associated costs, and to increased sales in 1997 to distribution partners with contractual sales discounts. The Company anticipates that its gross profit margin will generally average 50% for the foreseeable future.

Selling, General and Administrative Expense. Selling, general, and administrative expense increased to \$4,243,485 for the year ended December 31, 1997 from \$2,378,653 in 1996 due to a significant expansion of the Company's sales, marketing and customer support efforts in 1997. During 1997, the Company added 14 sales positions and three customer support positions that did not exist during 1996. Also contributing to the increase are expenses related to being a public company that were incurred subsequent to the Company's initial public offering in February 1997, including significant increases in insurance, investor relations, travel, legal and professional fees.

Research and Development Expense. Research and development expense increased \$743,711 to \$2,740,857 for the year ended December 31, 1997 compared to 1996, primarily due to an increase in the Company's development staff, contract consultants and manufacturing staff during 1997. The new staff and consultants were principally involved in the continued development of the Company's Viewpoint VBX(TM) system, Osprey(R) video products and the newly announced ViewCast(R) Web-video servers.

Other Income (Expense). For the year ended December 31, 1997, other expense decreased \$314,833 to \$198,386, primarily as a result of an increase in interest income and a reduction in interest expense during the year. The changes to other income and expense can be attributed principally to increased capital and retirement of debt in conjunction with the Company's initial public offering in February 1997.

The Company's primary sources of funds for conducting its business activities come from operations and from the sale of its debt and equity securities. The Company requires liquidity and working capital primarily to fund increases in inventories and accounts receivable associated with sales growth, development of its products, debt service and for capital expenditures.

The Company successfully completed an IPO of its Common Stock and Public Warrants on February 7, 1997 and on March 13, 1997 sold the over-allotment option, raising a total of \$5,427,000 of net proceeds. During 1997, with the proceeds of the IPO, the Company endeavored to build an effective marketing and sales organization, develop a network of independent resellers and achieve market acceptance of its products.

In August 1997, the Company registered, in a Registration Statement on Form SB-2, 2,981,573 shares of Common Stock underlying Private Warrants that had previously been issued by the Company at various times between June 1995 and February 1997 in connection with various financing transactions. Each such private warrant entitles the holder to purchase one share of Common Stock at prices ranging from \$1.00 to \$3.00 per share at any time commencing immediately upon issuance through and including three (3) years from the date of issuance. The Company will not receive any of the proceeds of the sale of such shares of Common Stock, but will receive proceeds of up to \$7,529,719 from the exercise of the Private Warrants. During the years ended December 31, 1997 and 1998, 821,667 and 976,557, respectively, of the Private Warrants were exercised, resulting in net proceeds to the Company of \$1,676,533 and \$2,148,225,

respectively. These proceeds and any additional proceeds have been used for working capital and general corporate purposes.

On December 9, 1997 the Company sold, in a private placement, \$5,000,000 aggregate principal amount of 8% Senior Convertible Notes due 2002 (the "Notes") at an initial offering price of 100% of the principal amount thereof, less 8% gross commission. The Notes are convertible into shares of Common Stock of the Company at a conversion price of \$4.625 per share of Common Stock, subject to adjustment in certain circumstances (including upon certain issuances of Common Stock or Common Stock Equivalents at less than the then effective conversion price). The Notes rank senior to all existing and future subordinated obligations and rank pari passu with all present and future senior indebtedness of the Company, except to the extent of any collateral securing such debt. Net proceeds to the Company in December 1997 after expenses amounted to \$4,168,000. In August 1998, the Company exchanged \$3,640,000 of the Notes for 364,000 shares of Series A Convertible Preferred Stock. The Series A preferred stock carries a dividend of 8.5% per year payable in cash or common stock of the Company, at the Company's option, and is convertible into Common Stock of the Company at a fixed conversion price of \$3.635 per share (subject to certain conditions). In September 1998, holders of 30,000 shares of Series A preferred stock converted their shares into 82,770 shares on the Company's Common Stock.

In November 1998, the Company entered into a Working Capital Line of Credit financing arrangement for up to \$9 million with one of its principal shareholders. The availability of funds under this facility is subject to certain Borrowing Base limitations, based principally on qualifying accounts receivable and inventory. The initial draw under this facility, which contains terms that are more favorable to the Company than its existing facility, was approximately \$3.7 million, a portion of which was used to repay an existing credit facility.

In December 1998, the Company initiated a private placement of 945,000 shares of a newly created Series B Convertible Preferred Stock at \$10 per share. The Series B preferred stock is convertible into Common Stock of the Company at a fixed price of \$3.625 per share, subject to certain requirements, and carries a dividend of 8% per year payable in cash or common stock of the Company, at the

Company's option. In December 1998, the Company received a \$4,000,000 subscription for the Series B preferred stock from a principal shareholder of the Company, of which \$600,000 was paid in December 1998. The balance of \$3,400,000 was classified as a stock subscription receivable at December 31, 1998 and was received in January 1999. In January and February 1999, the Company placed the balance of the Series B preferred stock, receiving an additional \$5,450,000 of new equity.

The Company believes that the proceeds from the above offering together with cash provided by operations will be sufficient to meet the Company's operating expenses and capital requirements through at least the end of 1999. At December 31, 1998, the Company had working capital of \$1,452,778 and did not have any material commitments for capital expenditures.

#### YEAR 2000 COMPLIANCE

The "Year 2000" issue (Y2K) refers to potential complications that may be caused by computer hardware and software that were not designed for the change in the century. If not corrected, such computer hardware and software may cause management information systems and devices with embedded microprocessors to fail or miscalculate data.

The Company has largely completed all phases of its Y2K readiness review, except for contingency planning, with respect to the currently supported versions of all of its products. As a result, the current versions of each of the Company products are "Year 2000 Compliant" as defined below, when configured and used in accordance with the related documentation, and provided that any other software used with the Company's products are also Year 2000 Compliant. The Company continues to respond to customer questions about prior versions of its products on a case-by-case basis.

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"Year 2000 Compliant" is defined as the ability to:

(a) correctly handle date information needed for the December 31, 1999 to January 1, 2000 date change;

(b) function according to the product documentation provided for this date change, without changes in operation resulting from the advent of a new century, assuming correct configuration;

(c) where appropriate, respond to two-digit date input in a way that resolves the ambiguity as to century in a disclosed, defined, and predetermined manner;

(d) if the date elements in interfaces and data storage specify the century, store and provide output of date information in ways that are unambiguous as to century; and

(e) recognize year 2000 as a leap year.

The Company has received assurances from its vendors that licensed software incorporated in its products is Year 2000 Compliant. Despite testing by the Company and by current and potential clients, and assurances from developers of products incorporated into the Company's products, the Company's products may contain undetected errors or defects associated with year 2000 date functions. Known or unknown errors or defects in the Company's products could result in delay or loss of revenue, diversion of development resources, damage to its reputation, or increased service and warranty costs, any of which could materially adversely affect its business, operating results, or financial condition.

The Company's internal systems include both information technology, or IT, and non-IT systems. An assessment of the Company's material internal IT systems has been initiated, including both its own software products and third-party

software and hardware technology, but the Company has not initiated an assessment of its non-IT systems. The Company expects to complete testing its IT and non-IT systems in 1999. To the extent that it is not able to test the technology provided by third-party vendors, it is seeking assurances from such vendors that their systems are Year 2000 Compliant. Although the Company is not currently aware of any material operational issues or costs associated with preparing its internal IT and non-IT systems for the Year 2000, the Company may experience material unanticipated problems and costs caused by undetected errors or defects in the technology used in its internal IT and non-IT systems.

The Company does not currently have any information concerning the Y2K compliance status of its customers. The Company's current and potential clients may incur significant expenses to achieve Y2K compliance. If its clients are not Y2K compliant, they may experience material costs to remedy problems or they may face litigation costs. In either case, Y2K issues could reduce or eliminate budgets that current or potential customers could have for purchases of the Company's products and services. As a result, the Company's business, results of operations or financial condition could be materially adversely affected.

The Company has funded its Y2K plan from available cash and has not separately accounted for these costs in the past. To date, these costs have not been material. Any additional costs that may be incurred are not anticipated to be material. The Company may experience material problems and costs with Y2K compliance that could adversely affect its business, results of operations and financial condition.

The Company has not yet fully developed a contingency plan to address situations that may result if it is unable to achieve Y2K readiness of its critical operations. The costs of developing and implementing such a plan may itself be material. Finally, the Company is also subject to external forces that might generally affect industry and commerce, such as utility or transportation company Y2K compliance failures and related service interruptions. There can be no assurance that Y2K will not adversely affect the Company and its operations.

Item 7. Financial Statements

MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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Consolidated Statements of Operations for the years ended December 31, 1997 and 1998.....	18
Consolidated Statements of Stockholders' Equity for the years ended December 31, 1997 and 1998 .....	19
Consolidated Statements of Cash Flows for the years ended December 31, 1997 and 1998 .....	20
Notes to Consolidated Financial Statements.....	21
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## Report of Independent Auditors

The Board of Directors  
MultiMedia Access Corporation

We have audited the accompanying consolidated balance sheets of MultiMedia Access Corporation and subsidiaries as of December 31, 1997 and 1998, and the related consolidated statements of operations, stockholders' equity and cash flows for the years then ended. 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 in accordance with generally accepted auditing standards. Those standards 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of MultiMedia Access Corporation and subsidiaries at December 31, 1997 and 1998, and the consolidated results of their operations and their cash flows for the years then ended in conformity with generally accepted accounting principles.

Dallas, Texas  
February 25, 1999

ERNST & YOUNG LLP

MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
CONSOLIDATED BALANCE SHEETS

<TABLE>  
<CAPTION>

	DECEMBER 31,	
	1997	1998
<S>	<C>	<C>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 3,117,202	\$ 439,791
Accounts receivable, less allowance for doubtful accounts of \$65,000 and \$823,500 at December 31, 1997 and 1998, respectively	1,195,230	1,839,783
Stock subscription receivable	--	3,400,000
Inventory	1,762,186	3,110,588
Prepaid expenses	75,096	90,646
Deferred charges, principally deferred debt issue costs	191,287	568,252
	-----	-----
Total current assets	6,341,001	9,449,060
Property and equipment, net	877,440	1,382,044
Software development costs, net	203,858	431,500
Deferred charges	752,125	213,048
Investment in equity securities	--	2,000,000

Deposits	36,991	135,938
	-----	-----
Total assets	\$ 8,211,415	\$ 13,611,590
	=====	=====
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 759,319	\$ 2,847,807
Accrued compensation	313,634	326,169
Deferred revenue	52,784	157,891
Accrued restructuring charges	--	275,000
Other accrued liabilities	343,051	488,337
Short-term debt, officer	311,243	96,285
Shareholder line of credit	--	3,687,513
Short-term debt, other	13,120	117,280
	-----	-----
Total current liabilities	1,793,151	7,996,282
Long-term debt	5,000,000	1,360,000
Commitments		
Stockholders' equity:		
Convertible preferred stock, \$.0001 par value:		
Authorized shares - 5,000,000		
Series A issued and outstanding shares - none at	--	33
December 31, 1997 and 334,000 at December 31, 1998		
Series B shares subscribed - none at December 31, 1997		
and 400,000 at December 31, 1998	--	40
Common stock, \$.0001 par value:		
Authorized shares - 20,000,000 and 30,000,000 at		
December 31, 1997 and 1998, respectively		
Issued and outstanding shares - 8,955,455 and 11,324,974		
at December 31, 1997 and 1998, respectively	900	1,132
Additional paid-in capital	19,628,703	31,947,418
Accumulated deficit	(18,199,433)	(27,681,409)
Treasury stock, 261,497 shares at December 31, 1997 and 1998	(11,906)	(11,906)
	-----	-----
Total stockholders' equity	1,418,264	4,255,308
	-----	-----
Total liabilities and stockholders' equity	\$ 8,211,415	\$ 13,611,590
	=====	=====

</TABLE>

See accompanying notes.

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MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF OPERATIONS

<TABLE>  
<CAPTION>

	YEAR ENDED DECEMBER 31,	
	-----	-----
	1997	1998
	-----	-----
<S>	<C>	<C>
NET SALES	\$ 3,360,703	\$ 8,027,948
Cost of goods sold	1,695,922	4,181,128

GROSS PROFIT	1,664,781	3,846,820
Operating expenses:		
Selling, general and administrative	4,243,485	8,352,476
Research and development	2,740,857	3,090,102
Restructuring charge	--	402,800
Depreciation and amortization	309,458	524,427
Total operating expenses	7,293,800	12,369,805
OPERATING LOSS	(5,629,019)	(8,522,985)
Other income (expense):		
Dividend and interest income	63,613	34,117
Interest expense	(290,492)	(877,873)
Other	28,493	48
Total other income (expense)	(198,386)	(843,708)
NET LOSS	\$ (5,827,405)	\$ (9,366,693)
NET LOSS PER SHARE: BASIC AND DILUTED	(0.75)	\$ (1.02)
WEIGHTED AVERAGE NUMBER OF COMMON SHARES outstanding	7,806,378	9,367,537

</TABLE>

See accompanying notes.

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MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY  
FOR THE YEARS ENDED DECEMBER 31, 1997 AND 1998

<TABLE>  
<CAPTION>

	CONVERTIBLE PREFERRED STOCK		COMMON STOCK SHARES	STOCK PAR VALUE	ADDITIONAL PAID-IN CAPITAL
	SHARES	PAR VALUE			
<S>	<C>	<C>	<C>	<C>	<C>
BALANCE, DECEMBER 31, 1996	--	\$ --	5,315,811	\$ 532	\$ 6,602,572
Sale of common stock and Public Warrants, net of expenses	--	--	1,610,000	161	5,427,077
Exchange of short-term and long-term debt for common stock and Public Warrants	--	--	1,241,977	124	5,713,003
Warrants issued for inducement of debt	--	--	--	--	191,500
Exercise of options and warrants, net	--	--	827,667	83	1,694,551
Net loss and comprehensive loss	--	--	--	--	--

BALANCE, DECEMBER 31, 1997	--	--	8,995,455	900	19,628,703
Conversion of long-term debt to convertible preferred stock - Series A	364,000	36	--	--	2,903,604
Sale of convertible preferred stock - Series B	400,000	40	--	--	3,999,960
Conversion of convertible preferred stock - Series A to common stock	(30,000)	(3)	82,770	8	(5)
Common stock issued in exchange for equity securities	--	--	1,000,000	100	1,999,900
Exercise of options and warrants	--	--	1,043,374	104	2,185,392
Sale of common stock, employee stock purchase plan	--	--	73,787	7	139,109
Value of options and warrants issued for consulting services	--	--	--	--	461,851
Warrants issued for inducement of debt	--	--	--	--	266,000
Accelerated vesting of employee stock options in connection with restructuring	--	--	--	--	127,800
Common stock issued for consulting services	--	--	73,443	7	133,389
Convertible preferred stock dividends - Series A	--	--	56,145	6	101,715
Net loss and comprehensive loss	--	--	--	--	--
	=====	=====	=====	=====	=====
BALANCE, DECEMBER 31, 1998	734,000	\$ 73	11,324,974	\$ 1,132	\$ 31,947,418
	=====	=====	=====	=====	=====

</TABLE>

<TABLE>  
<CAPTION>

	ACCUMULATED DEFICIT	TREASURY STOCK	TOTAL STOCKHOLDERS' EQUITY
	-----	-----	-----
<S>	<C>	<C>	<C>
BALANCE, DECEMBER 31, 1996	\$ (12,372,028)	\$ (11,906)	\$ (5,780,830)
Sale of common stock and Public Warrants, net of expenses	--	--	5,427,238
Exchange of short-term and long-term debt for common stock and Public Warrants	--	--	5,713,127
Warrants issued for inducement of debt	--	--	191,500
Exercise of options and warrants, net	--	--	1,694,634
Net loss and comprehensive loss	(5,827,405)	--	(5,827,405)
	-----	-----	-----
BALANCE, DECEMBER 31, 1997	(18,199,433)	(11,906)	1,418,264

Conversion of long-term debt to convertible preferred stock - Series A	--	--	2,903,640
Sale of convertible preferred stock - Series B	--	--	4,000,000
Conversion of convertible preferred stock - Series A to common stock	--	--	--
Common stock issued in exchange for equity securities	--	--	2,000,000
Exercise of options and warrants	--	--	2,185,496
Sale of common stock, employee stock purchase plan	--	--	139,116
Value of options and warrants issued for consulting services	--	--	461,851
Warrants issued for inducement of debt	--	--	266,000
Accelerated vesting of employee stock options in connection with restructuring	--	--	127,800
Common stock issued for consulting services	--	--	133,396
Convertible preferred stock dividends - Series A	(115,283)	--	(13,562)
Net loss and comprehensive loss	(9,366,693)	--	(9,366,693)
	=====	=====	=====
BALANCE, DECEMBER 31, 1998	\$ (27,681,409)	\$ (11,906)	\$ 4,255,308
	=====	=====	=====

</TABLE>

See accompanying notes.

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MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS

<TABLE>

<CAPTION>

	YEAR ENDED DECEMBER 31,	
	1997	1998
	-----	-----
	<C>	<C>
<S>		
OPERATING ACTIVITIES:		
Net loss	\$ (5,827,405)	\$ (9,366,693)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation of fixed assets	229,659	380,742
Amortization of software development	79,799	143,685
Non-cash charges to interest expense	168,691	289,885
Non-cash charge to restructuring costs	--	127,800
Non-cash consulting fees exchanged for options, warrants and common stock		595,247
Changes in operating assets and liabilities:		
Accounts receivable	(1,009,666)	(644,553)
Inventory	(1,452,053)	(1,348,402)

Prepaid expenses	(28,857)	(15,550)
Deferred charges	(416,308)	(598,132)
Deposits	(18,719)	(98,947)
Accounts payable	76,630	2,088,488
Accrued compensation	73,927	12,535
Accrued restructuring charges	--	275,000
Deferred revenue	37,193	105,107
Other accrued liabilities	(133,228)	131,723
	-----	-----
Net cash used in operating activities	(8,220,337)	(7,922,065)
	-----	-----
INVESTING ACTIVITIES:		
Purchase of property and equipment, net	(649,938)	(885,350)
Software development costs	(136,336)	(371,323)
Other	3,734	--
	-----	-----
Net cash used in investing activities	(782,540)	(1,256,673)
	-----	-----
FINANCING ACTIVITIES:		
Net proceeds from convertible preferred stock subscription - Series B	--	600,000
Net proceeds from issuance of short-term debt	212,202	3,687,512
Repayment of short-term debt-officer	(235,000)	(214,958)
Net proceeds from capital leases	2,466	104,161
Proceeds from issuance of long-term debt	5,000,000	--
Proceeds from the exercise of options and warrants	1,694,634	2,185,496
Net proceeds from sale of common stock and warrants	5,427,238	139,116
	-----	-----
Net cash provided by financing activities	12,101,540	6,501,327
	-----	-----
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	3,098,663	(2,677,411)
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	18,539	3,117,202
	-----	-----
CASH AND CASH EQUIVALENTS, END OF PERIOD	\$ 3,117,202	\$ 439,791
	=====	=====

</TABLE>

See accompanying notes.

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MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
DECEMBER 31, 1998

1. THE COMPANY AND DESCRIPTION OF BUSINESS

The accompanying consolidated financial statements include the accounts of MultiMedia Access Corporation (MMAC), and its wholly-owned subsidiaries, Viewpoint Systems, Inc. (Viewpoint), VideoWare, Inc. (VideoWare) and Osprey Technologies, Inc. (Osprey) (collectively, the Company). The Company operates in one business segment and is engaged in developing and marketing advanced, standards-based video communications products that integrate video capabilities into existing desktop computers, applications and networks. The Company markets its products directly to end-users, through value-added resellers and computer system integrators, primarily in the continental United States.

The Company has sustained operating losses since its inception in

February 1994, and expects losses to continue during the first half of 1999 and until such time, if ever, as gross margins from the sales of its products exceed its development, selling, administrative and financing costs. In December 1998 through February 1999, the Company received \$9.45 million in gross proceeds from the sale of 945,000 shares of a newly created Series B convertible preferred stock at \$10 per share (See Note 10). During 1999, with the proceeds from the preferred stock sale, the Company will endeavor to introduce new products, strengthen its sales and marketing organizations, increase its base of value-added resellers and computer system integrators, and achieve market acceptance of its products at prices and volumes which will, in the future, result in profitable operations. However, there are no assurances that the Company will be successful in its efforts.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### PRINCIPALS OF CONSOLIDATION

The consolidated financial statements include the accounts of the Company and all of its subsidiaries. All material inter-company accounts and transactions have been eliminated in consolidation.

### CASH AND CASH EQUIVALENTS

The Company considers all highly liquid investments purchased with an initial maturity of three months or less to be cash equivalents.

### INVENTORY

Inventory consists primarily of purchased electronic components and computer system products, along with the related documentation manuals and packaging materials. Inventory is carried at the lower of cost or market, cost being determined on a standard cost basis, which approximates average cost.

### PROPERTY AND EQUIPMENT

Property and equipment is recorded at cost. Depreciation is determined using the straight-line method over the estimated useful lives, generally five years, of the related assets. Leasehold improvements are amortized over the lives of the related leases. Expenditures for repairs and maintenance are charged to operations as incurred; renewals and betterments are capitalized.

### SOFTWARE DEVELOPMENT COSTS

Costs of developing new software products and substantial enhancements to existing software products are expensed as incurred until technological feasibility has been established, after which time additional costs incurred are capitalized in accordance with Statement of Financial Accounting Standards No. 86, "Accounting for the Costs of Computer Software to be Sold, Leased, or Otherwise Marketed." Amortization of capitalized software development costs begins when products are available for general release to customers, and is computed using the straight-line method over a period not to exceed three years.

## MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

### REVENUE RECOGNITION

Revenue from the sale of video communication systems and products and licensing of the related software is recognized upon shipment to customers. With pre-approval by a return merchandise authorization, a customer may return undamaged product to the Company, subject to a 30-day money back guarantee. The Company maintains an accrued warranty reserve for products which are returned defective during the warranty period.

NET LOSS PER SHARE

Basic earnings per share is calculated by dividing net income/loss by the number of weighted average common shares outstanding for the period. Since the Company has reported net losses for all periods presented, the computation of diluted loss per share excludes the effects of options (see Note 10), warrants (see Note 10) and convertible debt (see Note 8) since their effect is anti-dilutive.

Loss per share calculations for the years ended December 31, 1997 and 1998 are as follows:

<TABLE>  
<CAPTION>

	YEAR ENDED DECEMBER 31,	
	1997	1998
<S>	<C>	<C>
Net loss	\$ (5,827,405)	\$ (9,366,693)
Preferred dividends and accretion of issue costs	--	(175,945)
Net loss applicable to common shareholders	\$ (5,827,405)	\$ (9,542,638)
Weighted average number of common shares outstanding	7,806,378	9,367,537
Loss per share as reported in the financial statements: basic and diluted	\$ (0.75)	\$ (1.02)

</TABLE>

DEFERRED CHARGES AND OTHER ASSETS

Deferred charges at December 31, 1998 consist of legal, accounting and lead manager fees and expenses associated with the issuance of 8 % senior convertible notes in December 1997 as well as fees and expenses associated with the procurement of a \$9 million working capital credit facility in October of 1998. During August 1998, the Company exchanged \$3.64 million of its 8% senior convertible notes for newly created shares of Series A convertible preferred stock and, accordingly, a proportionate share of issue costs in the amount \$736,359 were charged against the exchange proceeds. Net debt issue costs at December 31, 1998 were \$781,300 of which \$568,252 has been classified as current.

MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

Deferred charges at December 31, 1997 were \$943,412, of which \$191,287 has been classified as current, consisting solely of fees and expenses associated with the issuance of the 8% senior convertible notes.

Deferred charges are being amortized using the straight-line method over the term of the notes. Amounts charged to operations for the years ended December 31, 1997 and 1998 were \$168,691 and \$289,885, respectively.

CONCENTRATION OF CREDIT RISK

Financial instruments that potentially subject the Company to credit risk consist principally of cash, cash equivalents and trade accounts receivable. The



Company invests its cash and cash equivalents with a Texas commercial bank and a commercial brokerage firm. The brokerage firm maintains accounts in several banks throughout the country and in government securities. The Company sells its products and services primarily to distributors and resellers without requiring collateral; however, the Company routinely assesses the financial condition of its customers and maintains allowances for anticipated losses. During the years ended December 31, 1997 and 1998, one customer accounted for 14% and three customers accounted for 41% of total consolidated revenues, respectively. Balances due from these customers at December 31, 1997 and 1998 represented 10% and 39% of net accounts receivable, respectively. During December 1998, the Company provided an additional accounts receivable reserve and charge against income of \$610,000 when a major reseller of the Company failed to meet its payment obligations in accordance with contracted terms. In January 1999, the Company initiated legal action against the reseller and will vigorously pursue a collection process to recover the receivable. The Company believes it has no significant credit risk in excess of provided reserves.

#### USE OF ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

#### INCOME TAXES

The Company utilizes the liability method of accounting for income taxes wherein deferred tax assets and liabilities are determined based upon the differences between the financial statement and tax bases of assets and liabilities, as measured by the enacted tax rates expected to be in effect when these differences reverse.

#### ADVERTISING COSTS

Advertising costs are expensed as incurred. Advertising expense for the years ended December 31, 1997 and 1998 was \$353,024 and \$226,413, respectively.

#### FAIR VALUE OF FINANCIAL INSTRUMENTS

The Company believes that the carrying amount of certain of its financial instruments, which include cash equivalents, accounts receivable, accounts payable, short-term debt and accrued expenses approximate fair value due to the short-term maturities of these instruments. The Company also believes the carrying value of its long-term debt approximates fair value at December 31, 1998 since actual interest rates were consistent with rates estimated to be available for obligations with similar terms and conditions.

#### MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

#### STOCK-BASED COMPENSATION

In October 1995, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 123 (SFAS 123), Accounting for Stock-Based Compensation. SFAS 123 defines a fair-value based method of accounting for an employee stock option or similar equity instrument. As permitted by SFAS 123, the Company has elected to continue to measure the cost of its stock-based compensation plans using the intrinsic-value based method of accounting prescribed by Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees. See Note 10 to the Consolidated Financial Statements for additional information concerning stock-based compensation.

#### SEGMENT REPORTING

During 1998, the Company adopted Statement of Financial Accounting Standards No. 131 (SFAS 131), Disclosures about Segments of an Enterprise and Related Information. SFAS 131 supersedes SFAS 14, Financial Reporting for Segments of Business Enterprise, replacing the "industry segment" approach with the "management" approach. The management approach designates the internal reporting that is used by management for making operating decisions and assessing performance as the source of the Company's reportable segments. Under this definition, the company operated, for all periods presented, in a single segment.

#### COMPREHENSIVE INCOME

In June 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 130 (SFAS 130), Reporting Comprehensive Income. SFAS 130 requires that total comprehensive income and comprehensive income per share be disclosed with equal prominence as net income and earnings per share. Comprehensive income is defined as changes in stockholder's equity exclusive of transactions with owners such as capital contributions and dividends. The Company adopted the standard in 1998, however the Company had no material comprehensive income transactions during the years ended December 31, 1997 and 1998.

#### IMPAIRMENT OF LONG-LIVED ASSETS

In accordance with Statement of Accounting Standards No. 121 (SFAS 121), Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed of, the Company reviews its long-lived assets for impairment when events or changes in circumstances indicate that the carrying value of such assets may not be recoverable. This review consists of a comparison of the carrying value of the asset with the asset's expected future undiscounted cash flows without interest costs. Estimates of expected future cash flows represent management's best estimate based on reasonable and supportable assumptions and projections. If the expected future cash flow exceeds the carrying value of the asset, no impairment is recognized. If the carrying value of the asset exceeds the expected future cash flows, impairment is measured by the excess of the carrying value over the fair value of the asset. Any impairment provisions recognized are permanent and may not be restored in the future. Impairment expense of \$30,000 was recognized in 1998, and is included as a component of the restructuring charge (See Note 3).

#### NEW ACCOUNTING STANDARDS

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133 (SFAS 133), Accounting for Derivative Instruments and Hedging Activities. SFAS 133 is effective for transactions entered into after January 1, 2000. SFAS 133 requires that all derivative instruments be recorded on the balance sheet at fair value. Changes in the fair value of derivatives are recorded each period in current earnings or other comprehensive income, depending on whether a derivative is designated as part of a hedge transaction and the type of hedge transaction. The ineffective portion of all hedges will be recognized in earnings. The Company's management is currently evaluating the impact of the statement.

### 3. BUSINESS RESTRUCTURING

Results of operations for 1998 include charges of \$402,800 for resizing and restructuring the Company's operations and workforce. The charges were recorded in the fourth quarter of 1998 in accordance with a plan of restructuring approved by the Board of Directors. Charges include severance costs for workforce reductions of 16 employees including two Executive Officers of the Company, closure of three sales offices and losses on impairment of certain

assets. Personnel reductions were made in the Company's sales, development and finance and administration departments in an effort to reduce operating expenses. At December 31, 1998 the Company had \$275,000 of accrued restructuring charges consisting mainly of severance to be paid in 1999.

#### 4. INVENTORY

Inventory consists of the following:

<TABLE>  
<CAPTION>

	DECEMBER 31,	
	1997	1998
<S>	<C>	<C>
Purchased materials	\$1,035,006	\$ 815,999
Work in progress	--	108,639
Finished goods	727,180	2,185,950
	-----	-----
	\$1,762,186	\$3,110,588
	=====	=====

</TABLE>

Inventory at December 31, 1998 is presented net of a reserve of \$199,255 for obsolete, slow moving and damaged inventory.

#### 5. INVESTMENT IN EQUITY SECURITIES

In September 1998, the Company entered into a strategic business alliance with Tadeo Holdings, Inc. ("THI"), that included a stock purchase agreement whereby the Company acquired 1,240,310 shares of THI common stock in exchange for 1,000,000 shares of the Company's common stock. As specified in the purchase agreement, the number of shares exchanged was determined by dividing \$2,000,000 by the average closing price per share of each company's common stock for the five trading days prior to September 24, 1998. The shares issued by the Company and THI are not registered under the Securities Act of 1993, as amended, and may not be sold, transferred or otherwise distributed in the absence of such registration or an applicable exemption therefrom.

At December 31, 1998, the Company valued its investment in THI common stock at cost due to governmental limitations imposed by Rule 144 of the Securities and Exchange Commission limiting trading for the first two years that the stock is held. At December 31, 1998, the quoted market price of THI registered shares was \$1.00 per share.

MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

#### 6. PROPERTY AND EQUIPMENT

Property and equipment, at cost, consists of the following:

<TABLE>  
<CAPTION>

	DECEMBER 31,	
	1997	1998
<S>	<C>	<C>
Computer equipment	\$ 933,767	\$ 1,397,444

Software	270,386	374,403
Leasehold improvements	43,951	100,779
Office furniture and equipment	180,256	441,080
	-----	-----
	1,428,360	2,313,706
Less accumulated depreciation and amortization	(550,920)	(931,662)
	-----	-----
	\$ 877,440	\$ 1,382,044
	=====	=====

</TABLE>

#### 7. SHORT-TERM DEBT

Short-term debt consists of the following:

<TABLE>

<CAPTION>

	DECEMBER 31,	
	1997	1998
	-----	-----
<S>	<C>	<C>
OFFICER:		
Unsecured note payable to an officer and affiliate of the Company, due on demand with interest at 15%.	\$ 311,243	\$ 96,285
	=====	=====
OTHER:		
Fully secured \$9,000,000 working capital credit facility payable to a principal shareholder of the Company, with interest payable monthly at 12%.	\$ --	\$ 3,687,513
Other	13,120	117,280
	-----	-----
Total short-term debt, other.	\$ 13,120	\$ 3,804,793
	=====	=====

</TABLE>

In January and February 1997, the Company issued \$600,000 of 8% unsecured debt to two principal stockholders of the Company. The unsecured debt was due on demand 10 days subsequent to an initial public offering of the Company's equity securities or 180 days from the date of issue. As an incentive to advance the debt, the stockholders were issued 60,000 three-year warrants to purchase Company stock at \$3.00 per share. Based on independent appraisal, the fair market value of these warrants of \$1.00 per share was charged to interest expense. In February 1997, the \$600,000 unsecured debt was exchanged for shares of common stock and public warrants in the Company's initial public offering.

In February 1997, \$2,915,000 principal amount of secured and unsecured notes then outstanding were exchanged for 633,694 shares of common stock and public warrants in the Company's initial public offering. Additionally, in February 1997, the Company repaid \$377,548 principal amount of secured and demand notes together with total accrued interest of \$90,745.

In May 1998, the Company entered into an accounts receivable line of credit financing arrangement with a Texas commercial bank for up to \$1.5 million (extended to \$1.7 million in July 1998). The financing arrangement allowed the

bank to purchase all domestic and foreign accounts of the Company at a discount from face value of each invoice and reserve 10% of the face amount of each account receivable for doubtful accounts. The line of credit was collateralized by the accounts receivable, inventory, furniture and fixtures of the Company until the line was retired in November 1998.

In November 1998, the Company entered into a working capital line of credit facility for up to \$9 million with one of its principal shareholders, H.T. Ardinger, Jr. This one year, renewable facility, which contains terms more favorable than the Company's prior facility, bears interest at 12% per annum and is secured by all assets of the Company. The availability of funds under this facility is subject to certain borrowing base limitations based principally on qualifying accounts receivable and inventory. A portion of the proceeds from this facility was used to retire the Texas commercial bank line of credit. As an incentive to advance the line of credit, Mr. Ardinger was issued 200,000 three-year warrants to purchase Company stock at \$4.50 per share. The value of the warrants of \$1.33 per share, as determined using the Black-Sholes option valuation model, is being charged to interest expense over the term of the note.

At December 31, 1998, the Company had \$96,285 of 15% notes outstanding to its former Chief Executive Officer. The 15% notes were due on demand with interest payable monthly and were retired in January of 1999.

Other notes payable at December 31, 1997 and 1998 of \$13,120 and 117,280, respectively, are comprised of various capital leases for telephone and voice mail equipment and have been classified as current due to their immateriality.

Interest paid was \$253,675 and \$528,301 for the years ended December 31, 1997 and 1998, respectively.

#### 8. LONG-TERM DEBT

Long-term debt consists of the following:

<TABLE>

<CAPTION>

	DECEMBER 31,	
	1997	1998
	-----	-----
<S>	<C>	<C>
Senior 8% convertible notes issued December 9, 1997 due December 2002 with interest payable semi-annually in arrears.	\$ 5,000,000	\$ 1,360,000
	=====	=====

</TABLE>

In February 1997, \$2,430,300 principal amount of then outstanding 8% senior convertible notes together with accrued interest of \$367,827 were exchanged for 608,283 shares of common stock and public warrants in the Company's initial public offering. Additionally, in February 1997, the Company repaid \$247,250 principal amount of 8% convertible debt together with accrued interest of \$118,726. Converting noteholders received 1,215,150 three-year warrants to purchase Company stock at \$3.00 per share while repayment noteholders received 82,418 three-year warrants to purchase Company stock at \$3.00 per share.

On December 9, 1997 the Company sold \$5,000,000 aggregate principal amount of 8% senior convertible notes due 2002 (the "Notes") at an initial offering price of 100% of the principal amount thereof, less 8% gross commission. The Notes are convertible to common stock of the Company at the initial conversion price of \$4.625 per share. The Notes rank senior to all existing and future subordinated obligations and rank pari passu with all present and future senior indebtedness of the Company, except to the extent of any collateral securing such debt. Lead managers in connection with the Notes offering received 108,108 warrants to purchase Company stock at an exercise price of \$4.625 per share. In December 1997, the Company received net proceeds of \$4,168,000 from the Notes offering.

MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

In August 1998, the Company exchanged \$3,640,000 of its 8% senior convertible notes for 364,000 shares of its newly created Series A convertible preferred stock. The Series A preferred stock carries a dividend of 8.5% per year payable in cash or common stock of the Company, at the Company's option, and is convertible into Common Stock of the Company at a fixed conversion price of \$3.625 per share (subject to certain conditions).

9. INCOME TAXES

The Company accounts for income taxes in accordance with Statement of Financial Accounting Standards No. 109 (SFAS 109), Accounting for Income Taxes. SFAS 109 requires a valuation allowance to be recorded when it is "more likely than not that some portion or all of the deferred tax assets will not be realized." In the opinion of management, realization of the Company's net operating loss carryforward is not reasonably assured, and a valuation allowance of \$6,716,000 and \$9,327,000 has been provided against deferred tax assets in excess of deferred tax liabilities in the accompanying consolidated financial statements at December 31, 1997 and 1998, respectively.

The components of the Company's net deferred taxes are as follows:

<TABLE>  
<CAPTION>

	DECEMBER 31,	
	1997	1998
<S>	<C>	<C>
Deferred tax assets:		
Net operating loss carryforward	\$ 6,357,000	\$ 8,182,000
Revenue deferred for financial statements, recognized for tax	--	38,000
Excess of tax over financial statement basis of patent	37,000	33,000
Accruals deductible for tax purposes when paid	241,000	606,000
Excess of tax over financial statement basis of software development costs	130,000	532,000
Total deferred tax assets	6,765,000	9,391,000
Less: valuation allowance	(6,716,000)	(9,327,000)
	49,000	64,000
Deferred tax liabilities:		
Excess of financial statement over tax basis of property and equipment	49,000	64,000
Total deferred tax liabilities	49,000	64,000
Net deferred taxes	\$ --	\$ --

</TABLE>

A reconciliation between the federal income tax benefit calculated by applying U.S. federal statutory rates to net loss and the absence of a tax benefit reported in the accompanying consolidated financial statements is as follows:

MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

<TABLE>  
 <CAPTION>

	DECEMBER 31,	
	1997	1998
<S>	<C>	<C>
U.S. federal statutory rate applied to pretax loss	\$ (1,981,000)	\$ (3,185,000)
Accrued compensation and other accruals	70,000	31,000
Amortization of patent	(4,000)	(4,000)
Depreciation of property and equipment	(12,000)	(28,000)
Software development costs for financial reporting purposes	(43,000)	121,000
Net operating loss carryforward not recognized for financial reporting purposes	1,966,000	2,573,000
Inventory and doubtful account reserves	(66,000)	326,000
Non-deductible restructuring charges	--	44,000
Non-deductible interest expense	58,000	99,000
Other	12,000	23,000
	=====	=====
	\$ --	\$ --
	=====	=====

</TABLE>

At December 31, 1998 the Company has federal income tax net operating loss carryforwards of approximately \$24,100,000 which expire as follows:

<TABLE>  
 <CAPTION>

YEAR ENDED	AMOUNT
----	-----
<S>	<C>
2009	\$ 2,700,000
2010	4,700,000
2011	4,000,000
2012	5,200,000
2013	7,500,000

</TABLE>

The Company is subject to limitations existing under Internal Revenue Code Section 382 (Change of Control) relating to the availability of the operating loss carryforward. Beginning with 1994, approximately \$21,000,000 of the carryforward is limited.

No income taxes were paid during the years ended December 31, 1997 and 1998, respectively.

#### 10. STOCKHOLDERS' EQUITY

##### PREFERRED STOCK

In August 1998, the Company exchanged \$3,640,000 of its 8% senior convertible notes for 364,000 shares of its newly created Series A convertible preferred stock. The Series A preferred stock carries a dividend of 8.5% per year payable in cash or common stock of the Company, at the Company's option, and is convertible into Common Stock of the Company at a fixed conversion price of \$3.625 per share (subject to certain conditions).

MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

In December 1998, the Company began a private placement of 945,000 shares of a newly created Series B convertible preferred stock at \$10 per share. The Series B preferred stock is convertible into common stock of the Company at a fixed price of \$3.625 per share, subject to certain requirements, and carries a dividend of 8% per year payable in cash or common stock of the Company, at the Company's option. In December 1998, the Company received a \$4,000,000 subscription for the Series B preferred stock from H.T. Ardinger Jr., a principal shareholder of the Company, of which \$600,000 was paid in December 1998 and the balance of \$3,400,000 was classified as a stock subscription receivable at December 31, 1998 and paid January 27, 1999.

Holder of the Series A and Series B preferred stock have no voting rights except on amendments to the Company's Articles of Incorporation to change the authorized shares, or par value, or to alter or change the powers or preferences of their respective preferred stock issues. Additionally, the holders of Series A preferred stock have Board of Director representation privileges in instances of dividend default by the Company.

#### COMMON STOCK

In February 1997, the Company completed an underwritten initial public offering of 1,400,000 shares of its common stock and 1,400,000 redeemable common stock purchase warrants (public warrants). The shares of common stock and the public warrants were sold on the basis of one public warrant for each share of common stock at a unit price to the public of \$4.60, and were separately transferable immediately upon issuance. Each public warrant entitles the holder to purchase one share of common stock at \$4.50 per share, subject to adjustment under certain circumstances, at any time commencing six months from the date of the Prospectus through and including five years from the date of the Prospectus. The public warrants are redeemable by the Company at any time commencing twelve months from the date of the Prospectus, upon notice of not less than thirty days, at a price of \$1.10 per public warrant, provided that the closing price or bid price of the common stock for any twenty trading days within a period of thirty consecutive trading days ending on the fifth day prior to the day on which the Company gives notice of redemption has been at least 150% (currently \$6.285, subject to adjustment) of the initial public offering price per share of common stock. In March 1997, the Company issued 210,000 additional shares of common stock and public warrants upon exercise of the underwriter's over-allotment option. The Company received net proceeds of \$5,427,000 during February and March 1997 related to this sale. Additionally, in February of 1997, \$5,345,300 principal amount of convertible and bridge notes together with accrued interest of \$367,827 were converted into 1,241,977 shares of common stock and public warrants in the offering.

In August 1997, the Company registered, in a Registration Statement on Form SB-2, 2,981,573 shares of common stock underlying private warrants that had previously been issued by the Company at various times between June 1995 and February 1997 in connection with various financing transactions. Each such private warrant entitles the holder to purchase one (1) share of common stock at prices ranging from \$1.00 to \$3.00 per share at any time commencing immediately upon issuance through and including three years from date of issuance. The Company does not receive any of the proceeds of the sale of such shares of common stock, but will receive proceeds of up to \$7,529,719 from the exercise of the private warrants, to the extent the warrants are exercised. In September and October 1997, the Company received net proceeds of \$1,676,533 upon the exercise of 821,677 private warrants at prices ranging from \$1.00 to \$3.00 per share. As an inducement for early exercise of the private warrants, exercising warrant holders received 82,000 three-year warrants to purchase Company stock at \$4.50 per share. In June and July of 1998, the Company received \$1,804,996 in net



proceeds from the exercise of 633,332 warrants to purchase Company common stock at \$3.00 per share. As an incentive for early exercise, warrant holders were issued 1,266,664 warrants to purchase Company stock at \$4.50 per share. The warrants will expire in February 2002 and have exercise price adjustment terms identical to the public warrants issued in connection with Company's initial public offering.

In September 1998, holders of 30,000 shares of Series A preferred stock converted their shares into 82,770 shares of common stock of the Company.

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MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

In June through December of 1998, the Company received \$343,225 in proceeds from the exercise of 343,225 warrants to purchase Company common stock at an exercise price of \$1.00 per share.

During 1998, the Company received proceeds of \$37,275 from the exercise of 66,817 stock options with exercise prices ranging from \$.04 to \$3.00 per share.

In September 1998, the Company entered into a strategic business alliance with Tadeo Holdings, Inc. ("THI"), whereby the Company acquired 1,240,310 shares of THI common stock in exchange for 1,000,000 shares of the Company's common stock. The number of Company shares exchanged was determined by dividing \$2,000,000 by the average closing price per share of the Company's common stock for the five trading days prior to September 24, 1998 which was \$2.00 per share (see Note 5).

In December 1998, the Company issued 56,145 shares of Company common stock to Series A preferred shareholders of record on December 15, 1998 as payment of \$101,721 of 8.5% dividends accrued from August 17, 1998 through December 15, 1998. Series A preferred dividends are paid semi-annually on June 15th and December 15th of each year in cash or, at the option of the Company, in common stock. The common stock is valued at the average of the market prices for the 20 consecutive stock exchange business days ending ten stock exchange business days prior to the dividend payment date. The computed common stock value at December 15, 1998 was \$1.812 per share.

During 1998 the Company issued 73,443 shares of common stock to various consultants in exchange for financial services. The number of common shares issued was determined by dividing the fair market value of services by an average of the common stock market prices on the date of issuance. Total value of the consulting services provided during 1998 amounted to \$133,396 and prices for common stock shares issued ranged from \$1.77 to \$2.81 per share.

During 1998, the Company received \$139,117 in proceeds from the sale of 73,787 shares of common stock to employees under the terms of the Company's Employee Stock Purchase Plan. The employee purchase price for the offering periods ended April 30, 1998 and October 31, 1998 were \$2.62 and \$1.50 per share, respectively.

In May 1998, shareholders of the Company approved a proposal to increase the number of authorized shares of common stock of the Company from 20,000,000 shares to 30,000,000 shares.

#### STOCK OPTION PLANS

In April 1995, the Company adopted its 1995 Stock Plan (the 1995 Stock Option Plan) under which 2,000,000 shares of the Company's common stock are reserved for issuance to officers, key employees and consultants of the Company. The objectives of the stock plan are to attract and retain qualified personnel for positions of substantial responsibility, and to provide additional incentives to employees and consultants to promote the success of the Company's

business. Options granted under the plan may be incentive stock options or non-qualified stock options. The plan is administered by the Board of Directors. The options are granted at the discretion of the Board of Directors at an option price per share not less than fair market value at the date of grant. In May 1998, shareholders of the Company approved a proposal to increase the number of shares available for issuance under the 1995 Stock Plan from 2,000,000 shares to 3,900,000 shares.

In April 1995, the Company also adopted the 1995 Director Option Plan under which 250,000 shares of the Company's common stock are reserved for issuance to outside directors of the Company. The objective of the director plan is to attract and retain qualified personnel for service as outside directors of the Company, and to encourage their continued service to the Board. Only non-qualified stock options may be granted. Grants under the plan are automatic and nondiscretionary, and are issued at an option price per share not less than fair market value at the date of grant.

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MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

Following is a summary of stock option activity from December 31, 1996 through December 31, 1998:

<TABLE>  
 <CAPTION>

	STOCK OPTIONS		
	NUMBER OF SHARES	PRICE PER SHARE	WEIGHTED-AVERAGE EXERCISE PRICE PER SHARE
<S>	<C>	<C>	<C>
Outstanding at December 31, 1996	2,093,961	\$ .04 - 4.00	\$ 2.81
Granted	780,666	3.00 - 5.84	4.55
Exercised	6,000	3.00	3.00
Canceled/forfeited	130,817	2.20 - 4.63	3.42
Outstanding at December 31, 1997	2,737,810	.04 - 5.84	3.27
Granted	1,638,009	2.06 - 4.09	2.69
Exercised	66,817	.04 - 3.00	.56
Canceled/forfeited	654,999	2.06 - 5.84	3.58
Outstanding at December 31, 1998	3,654,003	\$ .10 - 5.84	\$ 3.00

</TABLE>

The weighted-average grant-date fair value of options granted was \$2.23 and \$1.60 for the years ended December 31, 1997 and 1998, respectively.

The following information applies to options outstanding at December 31, 1998:

<TABLE>  
 <CAPTION>

OPTIONS OUTSTANDING			OPTIONS EXERCISABLE		
RANGE OF	OUTSTANDING AT	WEIGHTED-AVERAGE REMAINING	WEIGHTED-AVERAGE EXERCISABLE AT	WEIGHTED-AVERAGE	

EXERCISE PRICES	DECEMBER 31, 1998	CONTRACTUAL LIFE	EXERCISE PRICE	DECEMBER 31, 1998	EXERCISE PRICE
<S>	<C>	<C>	<C>	<C>	<C>
\$ 0.01 - 1.00	103,670	4.8	\$ 0.13	101,337	\$ 0.13
1.01 - 2.00	--	--	--	--	--
2.01 - 3.00	2,292,168	6.2	2.64	1,616,600	2.69
3.01 - 4.00	782,750	6.4	3.45	238,649	3.53
4.01 - 5.00	386,832	7.2	4.45	157,579	4.44
5.01 - 6.00	88,583	4.9	5.23	66,891	5.17
	3,654,003	6.3	\$ 3.00	2,181,056	\$ 2.87

</TABLE>

Statement of Financial Accounting Standards No. 123 (SFAS 123), Accounting For Stock Based Compensation, requires the disclosure of pro forma net income and earnings per share information computed as if the Company had accounted for its employee stock options granted subsequent to December 31, 1994 under the fair value method set forth in SFAS 123. The fair value for these options was estimated at the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

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MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

<TABLE>  
<CAPTION>

	1997	1998
<S>	<C>	<C>
Risk-free interest rate	6%	5.35%
Dividend yield	0%	0%
Volatility factor of the market price of the Company's common stock	40%	60%
Expected life of the options (years)	6	6

</TABLE>

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimated, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options. In addition, because SFAS 123 is applicable only to options granted subsequent to December 31, 1994, the pro forma information presented below is not necessarily indicative of the effects on reported net income in future years.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the options' vesting periods. Pro forma information for the years ended December 31, 1997 and 1998 is as follows:

<TABLE>  
<CAPTION>

	DECEMBER 31, 1997	DECEMBER 31, 1998
<S>	<C>	<C>
Pro forma net loss	\$ (6,212,743)	\$ (10,741,022)

Pro forma net loss per share:

basic and diluted \$ (.80) \$ (1.15)

</TABLE>

#### EMPLOYEE STOCK PURCHASE PLAN

In May 1995, the Company established an Employee Stock Purchase Plan (ESPP) to provide employees of the Company with an opportunity to purchase common stock through payroll deductions. Under the ESPP, up to 250,000 shares of common stock have been reserved for issuance, subject to certain antidilution adjustments. The ESPP, by its terms, became effective at the time of the Company's IPO. The ESPP is intended to qualify as an employee stock purchase plan within the meaning of Section 423 of the Internal Revenue Code.

Each offering period will be for a period of six months except the first offering period under the ESPP was from October 1, 1997 through April 30, 1998. The ESPP terminates in April, 2005. Eligible employees may participate in the ESPP by authorizing payroll deductions during an offering period within a percentage range determined by the Board of Directors. Initially, the amount of authorized payroll deductions is not more than ten percent of an employee's cash compensation during an offering period, but not more than \$25,000 per year. Amounts withheld from payroll are applied at the end of each offering period to purchase shares of common stock. Participants may withdraw their contributions at any time before stock is purchased, and in the event of withdrawal such contributions will be returned to participants. The purchase price of the common stock is equal to eighty-five percent (85%) of the lower of (i) the market price of common stock immediately before the beginning of the applicable offering period or (ii) the market price of common stock at the end of each offering period. The Company will pay all expenses incurred in connection with the implementation and administration of the ESPP.

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#### MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

#### WARRANTS

The Company has issued private warrants to purchase common stock of the Company in connection with the issuance and repayment of certain notes payable (as described in Notes 7 and 8), as inducement for early exercise of private warrants and as compensation for services rendered by various consultants. Additionally, the Company has issued public warrants to purchase common stock of the Company in connection with its initial public offering and concurrent debt retirement and debt for equity exchange (as described in the Common Stock section of Note 10).

The following is a summary of warrant activity from December 31, 1996 through December 31, 1998:

<TABLE>

<CAPTION>

	WARRANTS		
	NUMBER OF SHARES	PRICE PER SHARE	WEIGHTED- AVERAGE EXERCISE PRICE PER SHARE
<S>	<C>	<C>	<C>
Outstanding at December 31, 1996	1,524,005	\$ 1.00 - 3.00	\$ 2.07
Granted - non-public warrants	1,717,676	3.00 - 4.63	3.24
Granted - public warrants	2,851,977	4.50	4.50

Exercised	821,667	1.00 - 3.00	2.13
	-----		
Outstanding at December 31, 1997	5,271,991	1.00 - 4.63	3.76
Granted - non-public warrants	1,796,664	3.00 - 4.50	4.02
Exercised	976,557	1.00 - 3.00	2.30
Canceled	23,442	1.00 - 4.50	3.49
	-----		
Outstanding at December 31, 1998	6,068,656	\$ 1.00 - 4.50	\$ 3.91
	=====		

</TABLE>

In addition, at December 31, 1998 the Company's IPO representative holds warrants to purchase 140,000 units at \$6.44 per unit, each unit consisting of one share of common stock and one common stock purchase warrant exercisable at \$4.50 per share through February 2002.

In October 1998, the Company reduced the exercise price of 2,851,977 redeemable common stock purchase warrants (public warrants) that were issued in connection with the Company's initial public offering, from \$4.50 per share to \$4.19 per share in accordance with certain provisions in the warrant agreement. Concurrently, the exercise price of 1,266,664 private warrants that were issued in connection with the early exercise of warrants was also lowered from \$4.50 to \$4.19 per share.

At December 31, 1998, 6,043,656 warrants at prices ranging from \$1.00 to \$4.50 with a weighted-average exercise price of \$3.91 were exercisable.

#### 11. EMPLOYEE BENEFIT PLAN

Effective March 1, 1997, the Company adopted a profit sharing plan pursuant to Section 401(k) of the Internal Revenue Code whereby participants may elect to contribute up to twenty percent (20%) of their compensation subject to statutory limitations. The plan provides for discretionary matching and profit sharing contributions by the Company. All full-time employees are eligible to participate in the plan provided they meet a minimum service requirement of six consecutive months and a minimum age requirement of twenty-one. For the years ended December 31, 1997 and 1998, the Company made no matching or profit sharing contributions.

MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

#### 12. COMMITMENTS AND CONTINGENCIES

The Company leases various office and manufacturing space under non-cancelable operating leases extending through 2003. The Company also leases certain office and computer equipment under non-cancelable operating leases. Future minimum operating lease payments with initial or remaining terms of one year or more are as follows:

<TABLE>  
<CAPTION>

	OPERATING LEASES
	-----
<S>	<C>
Year ended December 31:	
1999	\$ 445,587
2000	191,854
2001	149,890

2002	134,529
2003	12,211
Thereafter	-
	=====
Total minimum lease payments	\$ 934,071
	=====

</TABLE>

Rent expense was \$261,400 and \$545,174 for the years ended December 31, 1997 and 1998, respectively.

### 13. RELATED PARTY TRANSACTIONS AND SUBSEQUENT EVENTS

During January and February of 1997, the Company issued \$600,000 of 8% unsecured notes to two principal stockholders of the Company. The notes were due on demand 10 days subsequent to an initial public offering of the Company's equity securities or 180 days from date of issue. During February of 1997 these notes were converted into common stock and public warrants in the Company's initial public offering as described in Note 7.

During February 1997, \$1,915,000 principal amount of 8% unsecured bridge notes and \$1,000,000 principal amount of 8% secured convertible notes owing to four principal stockholders of the Company were converted into 633,694 shares of common stock and public warrants in the Company's initial public offering at \$4.60 per share. Additionally, during February 1997, the Company paid accrued interest of \$76,634 to the stockholders.

During February 1997, \$1,905,000 principal amount of 8% convertible debt and accrued interest of \$282,992 owing to four principal stockholders, its Chief Executive Officer and the spouse of another principal stockholder and former director, were converted into 475,647 shares of common stock and public warrants in the Company's initial public offering at \$4.60 per share.

During 1997, the Company repaid \$235,000 principal amount of 15% debt to its Chief Executive Officer together with accrued of \$53,568. During 1998, the Company repaid \$214,958 principal amount of 15% debt together with accrued interest of \$27,036. In January 1999, the principal balance in the amount of \$96,285 was retired together with accrued interest of \$719.

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### MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS - (CONTINUED)

In August 1997, the Company registered, in a Registration Statement on Form SB-2, 2,981,573 shares of common stock underlying private warrants (see Note 9), some of which are held by affiliates of the Company. In September and October of 1997, the Company received gross proceeds of \$1,700,000 upon exercise of 805,000 private warrants from three principal stockholders of the Company and the spouse of a principal stockholder. As an incentive for early exercise of the warrants, the stockholders were issued 82,000 three-year private warrants to purchase Company stock at \$4.50 per share.

During 1997 and 1998, the Company paid consulting fees to its Chairman in the amount of \$56,000 and \$48,000, respectively.

In June and July of 1998, the Company received \$1,849,998 in gross proceeds from the exercise of 616,666 warrants to purchase Company common stock at \$3.00 per share from three principal shareholders. As an incentive for early exercise, shareholders were issued 1,233,332 warrants to purchase Company stock at \$4.50 per share. The warrants will expire in February 2002 and have exercise price adjustment terms identical to the public warrants issued in connection with Company's initial public offering.

In November 1998, the Company entered into a working capital line of credit facility for up to \$9 million with one of its principal shareholders. This one year, renewable facility, bears interest at 12% per annum and is secured by all assets of the Company (See Note 6). At December 31, 1998 the outstanding principal balance of the note was \$3,687,513 and accrued interest thereon was \$77,692.

In December 1998 through February 1999, the Company received \$9.45 million in gross proceeds from the sale of 945,000 shares of a newly created Series B convertible preferred stock at \$10 per share. Two principal shareholders of the Company purchased \$4,000,000 each and other existing shareholders purchased the balance of \$1.45 million. The Series B preferred stock is convertible into common stock of the Company at a fixed price of \$3.625 per share, subject to certain requirements, and carries a dividend of 8% per year payable in cash or common stock of the Company, at the Company's option.

Item 8. Changes and Disagreements with Accountants on Accounting and Financial Disclosure

There have been no disagreements concerning any matter of accounting principle or financial statement disclosure between the Company and its independent auditors.

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PART III

Item 9. Directors, Executive Officers, Promoters and Control Persons: Compliance with Section 16 (a) of the Exchange Act.

The information required by this item is incorporated by reference to disclosure in the Company's Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days after the end of the fiscal year covered by this report ("Proxy Statement").

Item 10. Executive Compensation

The information required by this item is incorporated by reference to Proxy Statement.

Item 11. Security Ownership of Certain Beneficial Owners and Management

The information required by this item is incorporated by reference to the Proxy Statement.

Item 12. Certain Relationship and Related Transactions

The information required by this item is incorporated by reference to the Proxy Statement.

Item 13. Exhibits and Report on Form 8-K

a.) Exhibits  
See Exhibit index.

b.) Reports on Form 8-K

On November 30, 1998, the Company filed a Form 8-K describing the terms of a \$9,000,000 working capital credit facility payable to a principal shareholder of the Company and the consummation of a strategic business alliance with Tadeo Holdings, Inc. that included a stock purchase of 1,240,310 shares of Tadeo Holdings, Inc. common stock in exchange for common stock of the Company.

## SIGNATURES

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date	MultiMedia Access Corporation
March 23, 1999	By: /s/ William S. Leftwich ----- William S. Leftwich Chief Financial Officer and Secretary

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Date	MultiMedia Access Corporation
March 23, 1999	By: /s/ William D. Jobe ----- William D. Jobe Director, Chairman of the Board and Chief Executive Officer

Date	MultiMedia Access Corporation
March 23, 1999	By: /s/ William S. Leftwich ----- William S. Leftwich Chief Financial Officer and Secretary

March 23, 1999	By: /s/ William E. Johnson ----- William E. Johnson Director
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March 23, 1999	By: /s/ Joseph W. Autem ----- Joseph W. Autem Director
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March 23, 1999	By: /s/ Glenn A. Norem ----- Glenn A. Norem Director
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## EXHIBIT INDEX

<TABLE> <CAPTION> EXHIBIT PAGE NO.	DESCRIPTION OF EXHIBIT	SEQUENTIAL PAGE NO.
<S>	<C>	<C>
2	Agreement and Plan of Merger and Reorganization (1)	
3(a)	Certificate of Incorporation (1)	
3(b)	Amendment to Certificate of Incorporation (1)	
3(c)	Restated By-Laws (1)	
3(d)	Certificate of Designations of Series B Convertible Preferred Stock (1)	
4(a)	Form of Common Stock Certificate (1)	
4(b)	Form of Warrant Certificate (1)	
4(c)	Form of Warrant Agreement between the Company and Continental Stock Transfer & Trust Company (1)	
4(d)	Form of Representative's Warrant Agreement (1)	
4(e)	Form of Trust Indenture - \$5,000,000 8% Senior Convertible Notes Due 2002 (1)	
4(f)	Form of Lead Managers Warrant Agreement (1)	
9(a)	Voting Trust Agreement between Robert M. Sterling, Jr. and Thomas E. Brown (1)	
9(b)	Voting Trust Agreement between Robert P. Bernardi and Richard Bernardi (1)	
9(c)	Form of Lock-Up Agreement (1)	
9(d)	Lock-Up Agreement with Robert Sterling Trust (1)	
9(e)	Lock-Up Agreement with Robert Bernardi Trust (1)	
9(f)	Lock-Up Agreement with Michael Nissenbaum (1)	
10(a)	Modified Employment Agreement between the Company and Glenn A. Norem (1)	
10(b)	Modified Consulting Agreement between the Company and Sterling Capital Group Inc. (1)	
10(c)	Form of Indemnification Agreement between the Company and Executive Officers and Directors (1)	
10(d)	1995 Stock Option Plan (1)	
10(e)	1994 Stock Option Plan (1)	
10(f)	1993 Viewpoint Stock Plan (1)	
10(g)	1995 Director Option Plan (1)	
10(h)	Lease Agreement between the Company and Metro Squared, L P (1)	
10(i)	Employee Stock Purchase Plan (1)	
10(j)	Licensing Agreement between the Company and Boca Research, Inc. (1)	
10(k)	Agreement between the Company and Unisys(TM) (1)	
10(l)	Employment Agreement between the Company and Philip M. Colquhoun (1)	
10(m)	Employment Agreement between the Company and William S. Leftwich (1)	
10(n)	Employment Agreement between the Company and David T. Stoner (1)	
10(o)	Employment Agreement between the Company and Neal Page (1)	
10(p)	Employment Agreement between the Company and A. David Boomstein (1)	
10(r)	Lease between the Company and Burlingame Home Office, Inc. (1)	
10(s)	Lease between the Company and Family Funds Partnership (1)	
10(t)	Agreement between the Company and Catalyst Financial Corporation (1)	
10(u)	Promissory Note by the Company payable to Robert Rubin dated September 5, 1996. (1)	
10(v)	Promissory Note by the Company payable to M. Douglas Adkins dated November 15, 1996. (1)	
10(w)	Promissory Note by the Company payable to H.T. Ardinger dated November 15, 1996. (1)	
10(x)	Promissory Note by the Company payable to H.T. Ardinger dated January 15, 1997. (1)	
10(y)	Promissory Note by the Company payable to Adkins Family Partnership, Ltd. dated January 15, 1997. (1)	
10(z)	Lease between the Company and the Air Force Association. (1)	
10(aa)	Lease between the Company and Airport Boulevard Partners, LLC. (1)	
10(bb)	Stock Purchase Agreement between the Company and Tadeo Holdings, Inc.	
10(cc)	Working Capital Line of Credit Loan Agreement by the Company payable to the Ardinger Family Partnership, Ltd.	
21	List of Subsidiaries of the Company (1)	
23	Consent of Ernst & Young LLP	
27	Financial Data Schedule	

&lt;/TABLE&gt;

- (1) Incorporated by reference to the Registration Statement on Form SB-2 and all amendments thereto as declared effective on February 4, 1997 and to Forms 10-KSB and Form 8-K filed March 31, 1998 and November 30, 1998, respectively.



## STOCK PURCHASE AGREEMENT

This Stock Purchase Agreement dated September 24, 1998 by and between Multimedia Access Corp. ("MMAC") and Tadeo Holdings Inc. ("THI").

## RECITALS

A. MMAC designs, develops, manufactures and markets advanced, standards-based video communications ("videocom") systems that provide enterprise-wide solutions for business customers.

B. THI, through Astratek, Inc., will be engaged in the business of software development and providing consulting services related thereto.

C. THI and MMAC desire to develop a strategic relationship pursuant to which it is contemplated THI will provide software development products and services for MMAC and be a reseller, primarily to customers engaged in financial services businesses, of MMAC products.

NOW THEREFORE, in consideration of the mutual promises herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. On the "Closing", as hereinafter defined, MMAC will purchase that number of shares of the common stock of THI, par value \$.0001 per share, ("THI Common Stock") determined in accordance with the formula set forth below, which shall be paid by the issuance to THI of that number of shares of common stock of MMAC, par value \$.0001 per share, ("MMAC Common Stock") determined in accordance with the formula set forth below. The number of shares of THI Common Stock to be purchased and the number of shares of MMAC Common Stock to be issued in payment thereof shall be determined, in, each case, by dividing \$2,000,000 by the average closing price per share of the MMAC Common Stock or THI Common Stock, as the case may be, for the five trading days ending one day prior to the "Closing Date", as hereinafter defined.

2. THI represents and warrants to, and agrees with, MMAC that the following representations and warranties are as of the date of this Agreement, and will be, on the Closing Date, true, correct and complete:

(A) THI is a corporation duly organized, validly existing and in good standing in the laws of the State of Delaware and has all requisite corporate power and authority under the laws of the State of Delaware and its certificate of incorporation to hold or lease, and to operate, its properties presently owned or conducted, and to carry on its business as now conducted and as proposed to be conducted following the Closing.

(B) The execution, delivery and performance by THI of this Agreement and the effectuation of transactions contemplated hereby are within its corporate power and have been duly authorized by all proceedings required to be taken under its certificate of incorporation and the laws of the State of Delaware.

(C) This Agreement has been duly and validly executed and delivered and constitutes the legal, valid and binding obligation of THI, enforceable against THI in accordance with its terms, except as such enforceability may be (i) limited by any applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the enforcement of creditors' rights generally and (ii) subject to general principles of equity, regardless of whether that enforceability is considered in a proceeding at law or in equity.

(D) The execution, delivery and performance by THI in accordance with the terms of this Agreement does not, and will not (i) violate, breach or constitute a default under the certificate of incorporation or bylaws of THI, any governmental requirement applicable to THI or any material agreement to which THI is a party or by which it or its assets is bound; (ii) result in the acceleration or mandatory prepayment of any indebtedness of THI or afford any holder of any indebtedness the right to require THI to redeem, purchase or otherwise acquire, reacquire, or repay any of that indebtedness; (iii) cause or result in the imposition of, or afford any person the right to obtain, any lien upon the property or assets of THI; or (iv) result in the revocation, cancellation, suspension or material, individually or in the aggregate, modification, of any licenses or governmental approvals possessed by THI and necessary for the ownership or lease and the operation of its properties or the carrying out of its business as now conducted.

(E) THI has heretofore delivered to MMAC, THI's Form 10-K for the fiscal year ended June 30, 1997 ("THI 10-K") and its Form 10-Qs for the quarters ended September 30, 1997, December 31, 1997 and March 31, 1998 (collectively "THI 10-Qs" and the THI 10-K and THI 10-Qs collectively "THI SEC Filings"). As of their respective dates, except for any information corrected or superseded by subsequent filings with the SEC, the THI SEC Filings did not contain any untrue statement of material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. The audited consolidated financial statements of THI and its subsidiaries, and the notes thereto, certified by Feldman, Radin, included in the THI 10-K, have been prepared in accordance with generally accepted accounting principles applied on a consistent basis during the periods involved and present fairly the consolidated financial position of THI and its subsidiaries as of the date thereof and the results of their consolidated operations and changes in

financial position for the periods then ended. The unaudited consolidated financial statements included in the THI 10-Qs comply as to form, in all material respects, with the published rules and regulations of the SEC with respect thereto; and such unaudited financial statements fairly present the financial position of THI, in conformity with generally accepted accounting principles, except as permitted by Form 10-Q, applied on a basis substantially consistent with that of the audited financial statements included in the THI 10-K, subject to year-end adjustments.

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Except as to the extent reflected or reserved against in the balance sheet included in the 10-K, in the notes thereto or disclosed in the THI 10-Qs or as covered by valid collectible insurance or other collectible claim for reimbursement, neither THI nor its subsidiaries had (i) any accrued or determined liability or obligation which is material to THI or its subsidiaries taken as a whole or (ii) any contingent liability or obligation which is material to THI or its subsidiaries taken as a whole. Since March 31, 1998, there has been no material adverse change in the business, prospects, properties or condition (financial or otherwise) of THI or its subsidiaries which is materially adverse to THI or its subsidiaries taken as a whole.

(F) THI acknowledges that the MMAC Common Stock issued to it will not be registered under the Securities Act of 1933, as amended ("Securities Act"), may not be sold, transferred or otherwise distributed in the absence of such registration or an applicable exemption therefrom and will bear an appropriate legend. THI is an "accredited investor" as defined in Rule 501 (A) promulgated under the Securities Act, is able to bear the economic risk of an investment in the MMAC Common Stock acquired pursuant to this Agreement, can afford to sustain a total loss of that investment, has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the proposed investment in the MMAC Common Stock, has had an adequate opportunity to ask questions and receive answers from the officers of MMAC concerning any and all matters relating to the transactions contemplated hereby, including the background experience of the current officers and directors of MMAC and has asked all questions of the nature described in the preceding clause and all those questions have been answered to its satisfaction.

3. MMAC represents and warrants to, and agrees with, THI that the following representations and warranties are as of the date of this Agreement, and will be, on the Closing Date, true, correct and complete:

(A) MMAC is a corporation duly organized, validly existing and in good standing in the laws of the State of Delaware and has all requisite corporate power and authority under the laws of the State of Delaware and its certificate of incorporation to hold or lease, and to operate, its properties presently

owned, or conducted, and to carry on its business as now conducted and as proposed to be conducted following the Closing.

(B) The execution, delivery and performance by MMAC of this Agreement and the effectuation of transactions contemplated hereby are within its corporate power and have been duly authorized by all proceedings required to be taken under its certificate of incorporation and the laws of the State of Delaware.

(C) This Agreement has been duly and validly executed and delivered and constitutes the legal, valid and binding obligation of MMAC, enforceable against MMAC in accordance with its terms, except as such enforceability may be (1) limited by any applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the

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enforcement of creditors' rights generally and (ii) subject to general principles of equity, regardless of whether that enforceability is considered in a proceeding at law or in equity.

(D) The execution, delivery and performance by MMAC in accordance with the terms of this Agreement does not, and will not (i) violate, breach or constitute a default under the certificate of incorporation or bylaws of MMAC, any governmental requirement applicable to MMAC or any material agreement to which MMAC is a party or by which it or its assets is bound; (ii) result in the acceleration or mandatory prepayment of any indebtedness of MMAC or afford any holder of any indebtedness the right to require MMAC to redeem, purchase or otherwise acquire, reacquire, or repay any of that indebtedness; (iii) cause or result in the imposition of, or afford any person the right to obtain, any lien upon the property or assets of MMAC; or (iv) result in the revocation, cancellation, suspension or material, individually or in the aggregate, modification of any licenses or governmental approvals possessed by MMAC and necessary for the ownership or lease and the operation of its properties or the carrying out of its business as now conducted.

(E) MMAC has heretofore delivered to THI MMAC's Form 10-KSB for the fiscal year ended December 31, 1997 ("MMAC 10-K") and its Form 10-QSBs for the quarters ended March 31, 1998 and June 30, 1998 (collectively "MMAC 10-Qs" and the MMAC 10-K and MMAC 10-Qs collectively "MMAC SEC Filings"). As of their respective dates, except for any information corrected or superseded by subsequent filings with the SEC, the MMAC SEC Filings did not contain any untrue statement of material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. The audited consolidated financial statements of MMAC and its subsidiaries, and the notes

thereto, certified by Ernst & Young, included in the MMAC 10-K, have been prepared in accordance with generally accepted accounting principles applied on a consistent basis during the periods involved and present fairly the consolidated financial position of MMAC and its subsidiaries as of the date thereof and the results of their consolidated operations and changes in financial position for the periods then ended. The unaudited consolidated financial statements included in the MMAC 10-Qs comply as to form, in all material respects, with the published rules and regulations of the SEC with respect thereto; and such unaudited financial statements fairly present the financial position of MMAC, in conformity with generally accepted accounting principles, except as permitted by Form 10-Q, applied on a basis substantially consistent with that of the audited financial statements included in the MMAC 10-K, subject to year end adjustments. Except as to the extent reflected or reserved against in the balance sheet included in the 10-K, in the notes thereto or disclosed in the MMAC 10-Qs or as covered by valid collectible insurance or other collectible claim for reimbursement, neither MMAC nor its subsidiaries had (i) any accrued or determined liability or obligation which is material to MMAC or its subsidiaries taken as a whole or (ii) any contingent liability or obligation which is material to MMAC or its subsidiaries taken as a whole. Since June 30, 1998, there has been no material adverse change in the business,

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prospects, properties or condition (financial or otherwise) of MMAC or its subsidiaries which is materially adverse to MMAC or its subsidiaries taken as a whole.

(F) MMAC acknowledges that the THI Common Stock issued to it will not be registered under the Securities Act, may not be sold, transferred or otherwise distributed in the absence of such registration or an applicable exemption therefrom and will bear an appropriate legend. MMAC is an "accredited investor" as defined in Rule 501(A) promulgated under the Securities Act of 1933, as amended, is able to bear the economic risk of an investment in the THI Common Stock acquired pursuant to this Agreement, can afford to sustain a total loss of that investment, has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the proposed investment in the THI Common Stock, has had an adequate opportunity to ask questions and receive answers from the officers of THI concerning any and all matters relating to the transactions contemplated hereby, including the background experience of the current officers and directors of THI and has asked all questions of the nature described in the preceding clause and all those questions have been answered to its satisfaction.

4. THI acknowledges that it has had in the past, currently has and in the future may have access to confidential information of MMAC. THI agrees that it will keep confidential all such confidential information furnished to it and,

except with the specific prior written consent of MMAC will not disclose such confidential information to any person except (A) representatives of MMAC, (B) its own representatives, provided that such representatives (other than counsel) agree to the confidentiality provisions of this section and provided further, confidential information shall not include (i) such information which becomes known to the public generally through no fault of THI, (ii) information required to be disclosed by law or the order of any governmental authority under color of law, provided, that prior to disclosing any information pursuant to this clause (ii), THI shall, if possible, give prior written notice thereof to MMAC and provide MMAC with the opportunity to contest such disclosure, (iii) THI reasonably believes that such disclosure is required in connection with the defense of the lawsuit against it; or (iv) information THI determines it needs to disclose pursuant to the Securities Act or the Securities Exchange Act of 1934, as amended. Nothing herein shall be construed as prohibiting MMAC from pursuing any other available remedy for such breach or threatened breach, including the recovery of damages.

5. MMAC acknowledges that it has had in the past, currently has and in the future may have access to confidential information of THI MMAC agrees that it will keep confidential all such confidential information furnished to it and, except with the specific prior written consent of THI will not disclose such confidential information to any person except (A) representatives of THI, (B) its own representatives, provided that such representatives (other than counsel) agree to the confidentiality provisions of this section and provided further, confidential information shall not include (i) such information which becomes known to the public generally through no fault of MMAC, (ii) information required to be disclosed by law or the order of any governmental authority under color of

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law, provided, that prior to disclosing any information pursuant to this clause (ii), MMAC shall, if possible, give prior written notice thereof to THI and provide THI with the opportunity to contest such disclosure, (iii) MMAC reasonably believes that such disclosure is required in connection with the defense of the lawsuit against it or (iv) information MMAC determines it needs to disclose pursuant to the Securities Act or the Securities Exchange Act of 1934, as amended. Nothing herein shall be construed as prohibiting THI from pursuing any other available remedy for such breach or threatened breach, including the recovery of damages.

6. Because of the difficulty in measuring economic losses as a result of the breach of the covenants contained in Paragraphs 4 or 5, and because of the immediate and irreparable damage that would be caused to the party entitled to confidentiality for which it would have no other adequate remedy, the party receiving such disclosure agrees that the party making such disclosure may



enforce provisions of such paragraph by injunctions and restraining orders against a party who breaches any such provisions. The obligations of the parties under Paragraphs 4, 5 and 6 of this Agreement shall survive the termination of this Agreement.

7. The consummation of the transaction herein contemplated ("Closing") shall be deemed to occur simultaneously with the execution hereof on the date hereof ("Closing Date"). Promptly following the Closing the parties shall determine the number of shares of their respective stock to be issued and shall Exchange Certificates therefor.

8. Each party represents and warrants to the other that such person has not directly or indirectly employed or become obligated to pay any broker, finder or similar agent in connection with the transactions contemplated hereby and agrees to indemnify the other party against all claims arising for fees and commissions of brokers or similar agents employed or promised payment by such person.

9. This Agreement and the rights of the parties hereunder may not be assigned voluntarily or by operation of law, without due prior consent of the other party and shall be binding upon and enure to the benefit of the parties hereto and any permitted successors or assigns. This Agreement is not intended nor shall be construed, deemed or interpreted, to confer on any person not party hereto any rights or remedies hereunder.

10. This Agreement constitutes the entire agreement and understanding between the parties on the subject matter hereof and supersedes all prior agreements and understandings, both written and oral, relating to the subject matter of this Agreement. This Agreement may be amended, modified or supplemented, and any right hereunder may be waived, if, but only if, that amendment, modification, supplement or waiver is in writing and signed by the party sought to be charged therewith. The waiver of any of the terms and conditions hereof shall not be construed or interpreted as, or deemed to be, a waiver of any other term or condition hereof.

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11. This Agreement may be executed in multiple counterparts, each of which will be an original, but all of which together will constitute one and the same instrument.

12. Each party will pay all fees, costs and expenses incurred by it in connection with the transactions contemplated herein, including, without limitation, the fees and expenses of attorneys, accountants and other persons, and no portion thereof shall be incurred or paid by the other party hereto, except if otherwise specifically provided herein.

13. All notices required or permitted hereunder shall be in writing, and shall be deemed to be delivered and received:

(A) If personally delivered or addressed by telex telegram, facsimile or courier service, when actually received by the party to whom notice addressed; or

(B) If delivered by mail (whether actually received or not), at the close of business on the third business day next following the day when placed in the mail, postage prepaid, certified or registered, addressed to the appropriate party at the address of such party set forth below (or such other addresses as such party may designate by written notice given in accordance with this paragraph):

(i) if to THI, address to it at:  
11585 Farmington Road, Suite 4  
Livonia, MI 48150

(ii) if to MMAC, addressed to it at:  
2665 Villa Creek Drive, Suite 200  
Dallas, TX 75234  
Fax: 972-488-7299

14. This Agreement, and the rights and obligations of the parties hereto, shall be governed and construed and enforced accordance with the substantive laws of the State of Texas without regard to the conflicts of laws provisions thereof.

15. Except as otherwise provided herein, no delay or omission in the exercise of any right, power or remedy accruing to any party hereto as result of any breach or default hereunder by any other party hereto shall impair any such right, power or remedy, or shall be construed, deemed or interpreted as a waiver of or acquiescence in any such breach or default, or any similar breach or default occurring later; nor shall any waiver of any single breach or default be construed, deemed or interpreted as the waiver of any other breach or default hereunder occurring before or after that waiver.

16. If any provision of this Agreement is invalid, illegal or unenforceable, that provision shall, to the extent possible, be modified in such manner as to be valid, legal and enforceable but so as to most nearly retain the intent of the parties hereto as expressed

herein, and if such modification is not possible, that provision shall be deemed severed from this Agreement, and in either case the validity, legality and

enforceability of the remaining provisions of this Agreement shall not in anyway be affected or impaired thereby.

17. No right, remedy or election given by any term of this Agreement shall be deemed exclusive, but each shall be cumulative with all other rights, remedies and elections available at law or in equity.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

TADEO Holdings Inc.

By

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MultiMedia Access Corporation

By

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Glenn Norem  
Chairman

## LOAN AGREEMENT

This LOAN AGREEMENT ("Agreement") dated as of this 22nd day of October 1998, is between MULTIMEDIA ACCESS CORPORATION, a Delaware corporation (the "Borrower"), and the Lenders listed on the signature pages hereof (each a "Lender", and collectively "Lenders"). The parties hereto hereby agree as follows:

## ARTICLE I

## DEFINITIONS AND ACCOUNTING TERMS

SECTION 1.01. DEFINED TERMS. As used in this Agreement, the following terms have the following meanings (terms defined in the singular to have the same meaning when used in the plural and vice versa):

"Affiliate" means any person (1) which directly or indirectly controls, or is controlled by, or is under common control with the Borrower or a subsidiary; (2) which directly or indirectly beneficially owns or holds five percent (5%) or more of any class of voting stock of the Borrower or any subsidiary; or (3) five percent (5%) or more of the voting stock of which is directly or indirectly beneficially owned or held by the Borrower or a subsidiary. The term "control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract, or otherwise.

"Agreement" means this Loan Agreement, as amended, supplemented, or modified from time to time.

"Assignment and Acceptance Agreement" means an agreement among a Lender and such Lender's assignee regarding their respective rights and obligations with respect to assignments of the Loans, the Commitment and other interests under this Agreement and the other Loan Documents.

"Bankruptcy Code" means Title 11 of the United States Code entitled "Bankruptcy", as amended from time to time or any applicable bankruptcy, insolvency or other similar law now or hereafter in effect and all rules and regulations promulgated thereunder.

"Borrowing Base" means the amount as established by Lenders from time to time, based on their sole and absolute discretion.

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"Borrowing Base Certificate" means a certificate of Borrower in the form of Exhibit "A" attached hereto.

"Business Day" means any day other than a Saturday, Sunday, or other day on which commercial banks in Texas are authorized or required to close under the laws of the State of Texas.

"Capital Lease" means all leases, which have been or should be capitalized on the books of the lessee in accordance with GAAP.

"Closing Date" means October 22, 1998.

"Collateral" means, collectively: (a) all capital stock and other property pledged pursuant to the Security Documents; (b) all "Collateral" as defined in the Security Documents; (c) all real property mortgaged pursuant to the Security Documents; and (d) any property or interest provided in addition to or in substitution for any of the foregoing.

"Commitment" means \$9,000,000.00, as may be reduced from time to time by Lenders.

"Debt" means all outstanding liabilities payable to the Lenders under this Agreement and/or hereinafter arising.

"Default" means any of the events specified in Section 7.01, whether or not any requirement for the giving of notice, the lapse of time, or both, or any other condition, has been satisfied.

"Eligible Accounts Receivable" means all accounts receivables of the Borrower less the total dollar amount of Ineligible Accounts Receivable.

"Eligible Inventory" means all inventory of the Borrower less the total dollar amount of Ineligible Inventory.

"Event of Default" means any of the events specified in Section 7.01, provided that any requirement for the giving of notice, the lapse of time, or both, or any other condition, has been satisfied.

"GAAP" means generally accepted accounting principles in the United States.

"Ineligible Accounts Receivable" means accounts which are not included in the Borrowing Base by the Lenders, such as intercompany receivables, affiliate receivables, related receivables, employee receivables, or receivables of bankrupt companies, and any other receivables which the Lenders determine as ineligible.

"Ineligible Inventory" means inventory which is not included in the Borrowing Base by the Lenders, such as obsolete inventory, and any other inventory which the Lenders determine as ineligible.

"Lien" means any mortgage, deed of trust, pledge, security interest, hypothecation, assignment, deposit arrangement, encumbrance, lien (statutory or other), or preference, priority, or other security agreement or preferential arrangement, charge, or encumbrance of any kind or nature whatsoever (including, without limitation, any conditional sale or other title retention agreement, any financing lease having substantially the same economic effect as any of the foregoing, and the filing of any financing statement under the Uniform Commercial Code or comparable law of any jurisdiction to evidence any of the foregoing).

"Line" shall have the meaning assigned to such term in Section 2.01.

"Loan" or "Loans" means an advance or advances under the Line.

"Loan Document" means this Agreement, the Note, the Security Documents, and the other documents and agreements executed by the Borrower in connection with such documents and agreements.

"Maturity Date" means the earlier of (a) the suspension (subject to reinstatement) of the Lenders' obligations to make Loans pursuant to section 7.02, (b) the acceleration of the Obligations pursuant to subsection 7.03 or (c) October 22, 1999; provided however, the date indicated in clause (c) of this definition shall automatically be extended for one (1) year on such date unless Lenders terminate this Agreement by written notice to Borrower at least 120 days prior to such date, or Borrower terminates this Agreement by written notice to all Lenders at least 60 days prior to such date.

"Note" or "Notes" means one or more of the notes of Borrower substantially in the form of Exhibit "B" attached hereto.

"Obligations" means all obligations, liabilities and indebtedness of every nature of Borrower from time to time owed to any Lender under the Loan Documents including the principal amount of all debts, claims and indebtedness, accrued and unpaid interest and all fees, costs and expenses, whether primary, secondary, direct, contingent, fixed or otherwise, heretofore, now and/or from time to time hereafter owing, due or payable whether before or after the filing of a proceeding under the Bankruptcy Code by or against Borrower, or any of its Subsidiaries.

"Person" means an individual, partnership, corporation, business trust, joint stock company, trust, unincorporated association, joint venture, governmental authority, or other entity of whatever nature.

"Pro Rata Share" means with respect to a Lender's obligation to make Loans and receive payments of interest and principal with respect thereto, the percentage obtained by dividing (i) such Lender's commitment to make Loans, as set forth on the signature page of this Agreement opposite such Lender's signature or in the most recent

Assignment and Acceptance Agreement, if any, executed by such Lender, by (ii) all such commitments of all Lenders to make Loans.

"Security Agreement" means one or more Security Agreements to be delivered by the Borrower under the terms of this Agreement in favor of the Lenders.

"Security Documents" means all instruments, documents and agreements executed by or on behalf of any Person to guaranty or provide collateral security with respect to the Obligations including, without limitation, any security agreement or pledge agreement, any guaranty of the Obligations, any mortgage or deed of trust, and all instruments, documents and agreements executed pursuant to the terms of the foregoing.

"Subsidiary" means, with respect to any Person, any corporation, partnership, association or other business entity of which more than fifty percent (50%) of the total voting power of shares of stock (or equivalent ownership or controlling interest) entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person or a combination thereof.

## ARTICLE II

### AMOUNT AND TERMS OF THE LOAN

SECTION 2.01. LINE. Each Lender agrees, severally and not jointly, on the terms and conditions hereinafter set forth, to make advances to Borrower under a line of credit (the "Line") from time to time during the period from the Closing Date, to but excluding the Maturity Date, in the amount of its Pro Rata Share of the lesser of (i) the Commitment, or (ii) the Borrowing Base then in effect. Requests for advances under the Line may be made only twice per month. Advances or amounts outstanding under the Commitment will be called "Loans". Loans may be repaid and reborrowed. The Loans shall be repaid in full on the Maturity Date. The "Maximum Loan Balance" will be the lesser of (a) the "Borrowing Base" or (b) the Commitment. If at any time the outstanding Loans exceed the Maximum Loan Balance, Lenders shall not be obligated to make Loans and Loans must be repaid immediately in an amount sufficient to eliminate any excess. Loans may be requested in any amount, with three (3) Business Days prior notice. All Loans requested telephonically must be confirmed in writing within twenty-four (24) hours. No Lender shall incur any liability to Borrower for acting upon any telephonic notice that such Lender believes in good faith to have been given by a duly authorized officer or other person authorized to borrow on behalf of Borrower.

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SECTION 2.02. NOTES. Borrower shall execute and deliver to each Lender a Note to evidence the Loans, such Note to be in the principal amount of such Lender's Pro Rata Share of the Commitment. In the event of an assignment of the Loans by a Lender or if a new Lender is added to this Agreement, Borrower shall, upon surrender of the assigning Lender's Notes, issue new Notes to reflect the interests of the assigning Lender and the Person to which interests are to be assigned.

SECTION 2.03. (1) Interest. From the date the Loans are made and the date the other Obligations become due, the Loans and the other Obligations shall bear interest at a rate of twelve percent (12%) per annum.

(2) Computation of Interest and Related Fees. Interest on all Loans and all other Obligations shall be calculated daily on the basis of a three hundred sixty-five (365) day year for the actual number of days elapsed in the period during which it accrues. The date of funding a Loan shall be included in the calculation of interest. The date of payment of a Loan shall be excluded from the calculation of interest. If a Loan is repaid on the same day that it is made, one (1) day's interest shall be charged. Interest on all Loans is payable in arrears on the first day of each calendar month and on the maturity of such Loans, whether by acceleration or otherwise.

(3) Default Rate of Interest. At the election of Lenders, after the occurrence of an Event of Default and for so long as it continues, the Loans and other Obligations shall bear interest at a rate that is six percent (6%) in excess of the rates otherwise payable under this Agreement.

(4) Excess Interest. Under no circumstances will the rate of interest chargeable be in excess of the maximum amount permitted by law. If excess interest is charged and paid in error, then the excess amount will be promptly refunded.

SECTION 2.04. MATURITY. All of the Obligations shall become due and payable as otherwise set forth herein, but in any event, all of the remaining Obligations shall become due and payable on the date set forth in clause (c) of the definition of the term "Maturity Date." Until all Obligations have been fully paid and satisfied and the Commitment has been terminated, Lenders shall be entitled to retain the security interests in the Collateral granted under the Security Documents and the ability to exercise all rights and remedies available to them under the Loan Documents and applicable laws.

SECTION 2.05. LOAN ACCOUNTS. Each Lender will maintain loan account records for (a) all Loans, interest charges and payments thereof, (b) the charging and payment of all fees, costs and expenses and (c) all other debits and credits pursuant to this Agreement. The balance in the loan accounts shall be presumptive evidence of the amounts due and owing to Lenders, provided that any failure by a Lender to so record shall not limit or affect the Borrower's obligation to pay.

SECTION 2.06. METHOD OF PAYMENT. The Borrower shall make each payment under this Agreement and under the Note not later than 2:00 p.m. (CST) on the date when due in lawful money of the United States to each Lender at the address of such Lender shown on the signature pages

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hereof in immediately available funds. Whenever any payment to be made under this Agreement or under the Note shall be stated to be due on a Saturday, Sunday, or a public holiday, or the equivalent for banks generally under the laws of the State of Texas, such payment shall be made on the next succeeding Business Day, and such extension of time shall in such case be included in the computation of payment of interest.



ARTICLE III

CONDITIONS PRECEDENT

SECTION 3.01. CONDITIONS PRECEDENT TO THE INITIAL LOAN. The obligation of the Lenders to make the initial Loan to Borrower is subject to the conditions precedent that the Lender shall have received on or before the day of such Loan each of the following, in form and substance satisfactory to the Lender and its counsel:

- (1) NOTE. A Note duly executed by the Borrower in favor of each Lender;
- (2) SECURITY AGREEMENT. A Security Agreement, duly executed by the Borrower, together with (a) acknowledgment copies of the Financing Statement (UCC-1) duly filed under the Uniform Commercial Code of all jurisdictions necessary or, in the opinion of the Lenders, desirable to perfect the security interest created by the Security Agreement;
- (3) EVIDENCE OF ALL CORPORATE ACTION BY THE BORROWER. Certified copies of all corporate action taken by the Borrower, including resolutions of its Board of Directors, authorizing the execution, delivery, and performance of the Loan Documents to which it is a party and each other document to be delivered pursuant to this Agreement;
- (4) INCUMBENCY AND SIGNATURE CERTIFICATE OF THE BORROWER. A certificate of the Secretary of Borrower certifying the names and true signatures of the officers of the Borrower authorized to sign the Loan Documents to which it is a party and each other documents to be delivered by the Borrower under this Agreement;
- (5) LISTING OF ASSETS. A complete, updated listing of all assets of the Borrower, certified by an authorized officer of the Borrower;
- (6) BORROWING BASE CERTIFICATE. A completed Borrowing Base Certificate signed by an authorized officer of the Borrower.
- (7) LENDER'S COUNSEL FEES. Payment of all fees and expenses of counsel to Lender incurred in connection with this Agreement and all other Loan Documents.

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(8) ADDITIONAL DOCUMENTATION. The Lender shall have received such other approvals, opinion, or documents as the Lender may reasonably request.

SECTION 3.02. CONDITIONS TO ALL LOANS. The obligations of Lenders to make Loans on any date ("Funding Date") are subject to the further conditions precedent set forth below.

(A) Lenders shall have received, in accordance with the provisions of Section 2.01, a notice requesting an advance of a Loan.

(B) The representations and warranties contained in Article IV of this Agreement and elsewhere herein and in the Loan Documents shall be (and each request by Borrower for a Loan shall constitute a

representation and warranty by Borrower that such representations and warranties are) true, correct and complete in all material respects on and as of that Funding Date to the same extent as though made on and as of that date, except for any representation or warranty limited by its terms to a specific date.

(C) No event shall have occurred and be continuing or would result from the consummation of the borrowing contemplated that would constitute an Event of Default or a Default.

(D) No order, judgment or decree of any court, arbitrator or governmental authority shall purport to enjoin or restrain any Lender from making any Loan.

#### ARTICLE IV

##### REPRESENTATIONS AND WARRANTIES

The Borrower represents and warrants to the Lenders that:

SECTION 4.01. INCORPORATION, GOOD STANDING, AND DUE QUALIFICATION. The Borrower is a corporation duly incorporated, validly existing, and in good standing under the laws of the jurisdiction of its incorporation; has the corporate power and authority to own its assets and to transact the business in which it is now engaged or proposed to be engaged in, and is duly qualified as a foreign corporation and in good standing under the laws of each other jurisdiction in which such qualification is required.

SECTION 4.02. CORPORATE POWER AND AUTHORITY. The execution, delivery, and performance by the Borrower of the Loan Documents to which it is a party has been duly authorized by all necessary corporate action and do not and will not (1) require any consent or approval of the stockholders of such corporation, (2) contravene such corporation's charter or bylaws; (3) violate any provision of any law, rule, regulation (including, without limitation, Regulation U of the Board of Governors of the Federal Reserve Lender System), order, writ, judgment, injunction, decree, determination, or award presently in effect having applicability to such corporation; (4) result in a

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breach of or constitute a default under any indenture or loan or credit agreement or any other agreement, lease, or instrument to which such corporation is a party or by which it or its properties may be bound or affected; and (5) cause such corporation to be in default under any such law, rule, regulation, order, writ, judgment, injunction, decree, determination, or award or any such indenture, agreement, lease, or instrument. Borrower will make every effort to comply with this Section, and as of the date of this Agreement, the Borrower has, to the best of the Borrower's knowledge, complied with this Section.

SECTION 4.03. LEGALLY ENFORCEABLE AGREEMENT. This Agreement is, and each of the other Loan Documents when delivered under this Agreement will be, legal, valid, and binding obligation of the Borrower, enforceable against the Borrower, except to the extent that such enforcement may be limited by applicable bankruptcy, insolvency, and other similar laws affecting creditors' rights generally.

SECTION 4.04. FINANCIAL STATEMENTS. The audited balance sheet of the Borrower as of December 31, 1997, and the related audited statements of income and retained earnings of the Borrower for the period ending December 31, 1997, and the unaudited balance sheet of the Borrower as of August 31, 1998, and the related unaudited statement of income and retained earnings for the eight (8) month period then ended, copies of which have been furnished to the Lenders, are complete and correct and fairly present the financial condition of the Borrower as at such dates and the results of the operations of the Borrower for the periods covered by such statements, (subject to year end adjustments in the case of interim financial statements), there has been no material adverse change in the business condition (financial or otherwise) or operations of the Borrower. There are no liabilities of the Borrower, fixed or contingent, which have not already been disclosed to the Lenders which are material, but are not reflected in the financial statements or in the notes thereto, other than liabilities arising in the ordinary course of business. No information, exhibit, or report furnished by the Borrower to the Lenders in connection with the negotiation of this Agreement contained any material misstatement of fact or omitted to state a material fact or any fact necessary to make the statement contained therein not materially misleading.

SECTION 4.05. LITIGATION. To the best of the Borrower's knowledge, there is no pending or threatened action or proceeding against or affecting the Borrower, before any court, governmental agency, or arbitrator, which may, in any case or in the aggregate, materially adversely affect the financial condition, operations, properties, or business of the Borrower or the ability of the Borrower to perform its obligation under the Loan Documents to which it is a party.

SECTION 4.06. OPERATION OF BUSINESS. To the best of its knowledge, the Borrower possess all licenses, permits, franchises, patents, copyrights, trademarks, and trade names, or rights thereto, to conduct business as now conducted and as presently proposed to be conducted, and the Borrower is not in violation of any valid rights or others with respect to any of the foregoing.

SECTION 4.07. TAXES. The Borrower has filed all tax returns (federal, state, and local) required to be filed and have paid all taxes, assessments, and governmental charges and levies thereon to be due, including interest and penalties. The federal income tax liability of the Borrower

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for all taxable years ended has been filed with the Internal Revenue Service and all known tax liabilities have been paid.

## ARTICLE V

### AFFIRMATIVE COVENANTS

So long as any Note shall remain unpaid, the Borrower will:

SECTION 5.01. MAINTENANCE OF EXISTENCE. Preserve and maintain its corporate existence and good standing in the jurisdiction of its incorporation, and qualify and remain qualified as a foreign corporation in each jurisdiction in which such qualification is required.

SECTION 5.02. MAINTENANCE OF RECORDS. Keep adequate records and books of account, in which complete entries will be made in accordance with GAAP consistently applied, reflecting all financial transactions of the Borrower.

SECTION 5.03. MAINTENANCE OF PROPERTIES. Maintain, keep, and preserve all of its properties (tangible and intangible) necessary or useful in the property conduct of its business.

SECTION 5.04. CONDUCT OF BUSINESS. Continue to engage in an efficient and economical manner in a business of the same general type as now conducted by it on the date of this Agreement within the Borrower's powers under its Bylaws and Articles of Incorporation.

SECTION 5.05. MAINTENANCE OF CASUALTY INSURANCE. Maintain property and casualty insurance with financially sound and reputable insurance companies or associations in such amounts and covering such risks as are usually carried by companies engaged in the same or a similar business and similarly situated, which insurance may provide for reasonable deductibility from coverage thereof.

SECTION 5.06. COMPLIANCE WITH LAWS. Comply in all respects with all applicable laws, rules, regulations, and orders, such compliance to include, without limitation, paying before the same become delinquent all taxes, assessments, and governmental charges imposed upon the property pledged to the Lenders, to the best of the Borrower's knowledge.

SECTION 5.07. RIGHT OF INSPECTION. At any reasonable time and from time to time, permit the Lender or any agent or representative thereof to examine and make copies of and abstracts from the records and books of accounts of, and visit the properties of, the Borrower and to discuss the affairs, finances, and accounts of the Borrower with any of their respective officers and directors and the Borrower's independent accountants.

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SECTION 5.08. REPORTING REQUIREMENTS. Furnish to the Lenders:

(1) FINANCIAL STATEMENTS. The Borrower will furnish the Lender (a) within one hundred and eighty (180) days after the end of each fiscal year of the Borrower, copies of Audited Balance Sheets of the Borrower as of the close of business of such fiscal year and Audited consolidated statements of income and retained earnings of the Borrower for such year, (b) within ten (10) days after the end of each month of each fiscal year of the Borrower, a Borrowing Base Certificate; (c) as soon as available, and in any event within forty-five (45) days after the end of each fiscal quarter of Borrower, copies of the consolidated balance sheet of the Borrower as of the end of such fiscal quarter and consolidated statements of income and retained earnings of the Borrower and copies of accounts receivable agings for the same period; and (d) from time to time, such further information regarding the business, affairs, and financial condition of the Borrower as the Lenders may reasonably request, including copies of all filings with the Securities and Exchange Commission. All financial statements delivered hereunder shall be prepared on a basis consistent with those used in the preparation of the financial statements of the Borrower in the past;

(2) NOTICE OF LITIGATION. Promptly after the commencement thereof, notice of all actions, suits, and proceedings before any court or governmental department, commission, board, bureau, agency, or instrumentality, domestic or foreign, affecting the Borrower which, if determined adversely to the Borrower could have a material adverse effect on the financial condition, properties, or operations of the Borrower;

(3) NOTICE OF DEFAULT AND EVENTS OF DEFAULT. As soon as possible and in any event within thirty (30) days after the concurrence of each default or event of default, a written notice setting forth the details of such default or event of default and the action which is proposed to be taken by the Borrower with respect thereto; and

(4) GENERAL INFORMATION. Such other information respecting the condition or operations, financial or otherwise, of the Borrower or any subsidiary as the Lenders may from time to time reasonably request.

SECTION 5.09. MAINTENANCE OF KEYMAN INSURANCE. Maintain Keyman life insurance in an amount not less than \$1,000,000.00 with financially sound and reputable insurance companies on Glenn Norem.

SECTION 5.10. CONTINGENT LIABILITIES. The Lenders will be informed of any litigation, changes in contractual obligations, or other changes in the status quo of the Borrower that could materially affect the business.

SECTION 5.11. YEAR 2000 COMPLIANT. The Borrower will be Year 2000 Compliant by December 31, 1999. "Year 2000 Compliant" means, that all software, embedded microchips, and

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other processing capabilities utilized by, and material to the business operations or financial condition of the Borrower are able to interpret and manipulate data on and involving all calendar dates correctly and without causing any abnormal ending scenario, including in relation to dates, in and after the Year 2000.

SECTION 5.12. FURTHER ASSURANCES.

(1) Borrower shall execute such financing statements, documents, security agreements and reports as Lenders at any time may reasonably request to evidence, perfect or otherwise implement the security for repayment of the Obligations contemplated by the Loan Documents.

(2) At Lenders' request, Borrower shall cause any Subsidiaries of Borrower promptly to guaranty the Obligations and to grant to Lenders, a security interest in the real, personal and mixed property of such Subsidiary to secure the Obligations. The documentation for such guaranty or security shall be substantially similar to the Loan Documents executed concurrently herewith with such modifications as are reasonably requested by Lenders.

ARTICLE VI

NEGATIVE COVENANTS

So long as the Note shall remain unpaid, the Borrower will not:

SECTION 6.01. MERGERS, ETC. Merge or consolidate with, or sell, assign, lease, or otherwise dispose of all or substantially all of its remaining unpledged assets (whether now owned and not encumbered) to any person and or any entity, where the Borrower is not the surviving entity.

SECTION 6.02. LEASES. Create, incur, assume, or suffer to exist, any obligation as lessee for the rental or hire of any real or personal property, except leases totaling in the aggregate \$250,000. in any fiscal year of the Borrower.

SECTION 6.03. DIVIDENDS. Declare or pay any dividends on common stock; or purchase, redeem, retire, or otherwise acquire for value any of its capital stock now or hereafter outstanding, or allocate or otherwise set apart any sum for the payment of any dividend or distribution on, or for the purchase, redemption, or retirement of, any shares of its capital stock, or make any other distribution by reduction of capital or otherwise in respect of any shares of its capital stock.

SECTION 6.04. SALE OF ASSETS. Sell, lease, assign, transfer, or otherwise dispose of any of its now owned or hereafter acquired assets (including, without limitation, shares of stock, receivable, and leasehold interests), except: (1) for inventory disposed of in the ordinary course of business; (2) the sale or other disposition of assets no longer used or useful in the conduct of its business; and (3) Borrower determines it is in the best interest of the Borrower.

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SECTION 6.05. DEBT The Borrower will not incur debt, other than normal trade payables, in excess of \$250,000 without the prior consent of the Lenders.

SECTION 6.06. INVESTMENTS. The Borrower will not purchase any stock or debt obligations for cash (except U.S. Government Obligations).

SECTION 6.07. LOANS. The Borrower will not make loans that aggregate \$100,000 to, or guarantee any obligation of any other person, firm, or corporation, without written permission from the Lenders.

SECTION 6.08. CHANGE OF BUSINESS. The Borrower will not engage in any business other than that in which it is engaged as of the date of this Agreement.

SECTION 6.09. CHANGES IN MANAGEMENT OR OWNERSHIP. Any adverse changes in management or ownership that might materially change the character or operating philosophy of the Borrower is prohibited.

SECTION 6.10. REPURCHASE OF STOCK. The Borrower will not repurchase any of its common stock, without written permission from the Lenders.

ARTICLE VII

EVENTS OF DEFAULT

SECTION 7.01. EVENTS OF DEFAULT. The following shall constitute "Events of Default":

(1) The Borrower should fail to pay the principal of, or interest on, the Note as and when due and payable and such failure shall continue after five (5) days after Lender has sent notice of such failure to Borrower;

(2) Any representation or warranty made by the Borrower in this Agreement or the Security Agreement or which is contained in any certificate, document, opinion, or financial or other statement furnished at any time under or in connection with any Loan Document shall prove to have been incorrect in any material respect on or as of the date made, all of which has not been cured after ten (10) days after Lender has sent notice of such default to Borrower;

(3) The Borrower shall fail to perform or observe any term, covenant, or agreement contained in any Loan Document (other than the Note) to which it is a party on its part to be performed or observed, all of which has not been cured after ten (10) days after Lender has sent notice of such default to Borrower;

(4) The Borrower shall (a) fail to pay any indebtedness for borrowed money (other than the Note), or any interest or premium thereon, when due (whether

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by scheduled maturity, required prepayment, acceleration, demand, or otherwise); or (b) fail to perform or observe any term, covenant, or condition on its part to be performed or observed under any agreement or instrument relating to any such indebtedness, when required to be performed or observed, if the effect of such failure to perform or observe is to accelerate, or to permit the acceleration after the giving of notice or passage of time, or both, of the maturity of such indebtedness; or any such indebtedness shall be declared to be due and payable, or required to be prepaid (other than by a regularly scheduled require prepayment), prior to the stated maturity thereof, all of which has not been cured after ten (10) days after Lender has sent notice of such default to Borrower:

(5) The Borrower (a) shall generally not, or shall be unable to, or shall admit in writing its inability to pay its debts as such debts become due; (b) shall commence any proceeding under any bankruptcy, reorganization, arrangements, readjustment of debt, dissolution, or liquidation law or status of any jurisdiction, whether now or hereafter in effect; (c) shall have any such petition or application filled or any such proceeding commenced against it in which an order for relief is entered or adjudication or appointment is made and which remains undismissed for a period of thirty (30) days or more; (d) by any act or omission shall indicate its consent to, approval of, or acquiescence in any such petition, application, or proceeding or order for relief or



the appointment of a custodian, receiver, or trustee for all or any substantial part of its properties; or (e) shall suffer any such custodianship, receivership, or trusteeship to continue undischarged for a period of ninety (90) days or more;

(6) One or more judgments, decrees, or orders for the payment of money in excess of Ten Thousand Dollars (\$10,000.00) in the aggregate shall be rendered against the Borrower and such judgments, decrees, or orders shall continue unsatisfied and in effect for a period of one hundred eighty (180) consecutive days without being vacated, discharged, satisfied, or stayed or bonded pending appeal; or

(7) The Security Agreement shall at any time after its execution and delivery and for any reason cease (a) to create a valid and perfected first priority security interest in and to the property purported to be subject to such Security Agreement; or (b) to be in full force and effect or shall be declared null and void, or the validity of enforceability thereof shall be contested by the Borrower, or the Borrower shall deny it has any further liability or obligation under the Security Agreement, or the Borrower shall fail to perform any of its obligations under the security agreement.

SECTION 7.02. SUSPENSION OF COMMITMENTS. Upon the occurrence of any Default or Event of Default, each Lender without notice or demand, may immediately cease making additional Loans and cause its obligation to lend its Pro Rata Share of the Commitment to be suspended; provided that, in the case of a Default, if the subject condition or event is waived, cured or removed by Lenders within any

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applicable grace or cure period, any suspended portion of the Commitment shall be reinstated. Each Lender may alternatively suspend only a portion of its obligation to lend its Pro Rata Share of the Commitment.

SECTION 7.03. ACCELERATION. Upon the occurrence of any Event of Default described in the foregoing Section 7.01(7), the unpaid principal amount of and accrued interest and fees on the Loans and all other Obligations shall automatically become immediately due and payable, without presentment, demand, protest, notice of intent to accelerate, notice of acceleration or other requirements of any kind, all of which are hereby expressly waived by Borrower, and the obligations of Lenders to make Loans shall thereupon terminate. Upon the occurrence and during the continuance of any other Event of Default, Lenders may, by written notice to Borrower declare all or any portion of the Loans and all or some of the other Obligations to be, and the same shall forthwith become, immediately due and payable together with accrued interest thereon, and the obligations of Lenders to make Loans shall thereupon terminate.

ARTICLE VIII

(Reserved)

ARTICLE IX



MISCELLANEOUS

SECTION 9.01. AMENDMENTS, ETC. No amendment, modification, termination, or waiver of any provision of any Loan Document to which the Borrower is a party, nor consent to any departure by the Borrower from any Loan Document to which it is a party, shall in any event be effective unless the same shall be in writing and signed by the Lenders, and then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given.

SECTION 9.02. NOTICES, ETC. All notices and other communications provided for under this Agreement and under the Loan Documents to which the Borrower is a party shall be in writing (including telegraphic communication) and mailed or telegraphed or delivered, if to the Borrower, at its address at 2665 Villa Creek Drive, Suite 200, Dallas, Texas 75234, Attn: William Leftwich, CFO and if to a Lender, at its address set forth on the signature pages hereof or in any Assignment and Acceptance Agreement, or as to each party at such other address as shall be designated by such party in a written notice to the other party complying as to delivery with the terms of this Section 9.02. All such notices and communications shall, when mailed or telegraphed, be effective when deposited in the mails or delivered to the telegraph company, respectively, addressed as aforesaid, except that notices to any Lender pursuant to the provisions of Article II shall not be effective until received by such Lender.

MULTIMEDIA ACCESS CORPORATION LOAN AGREEMENT - PAGE 14

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SECTION 9.03. NO WAIVER; REMEDIES. No failure on the part of the Lenders to exercise, and no delay in exercising any right, power, or remedy under any Loan Document shall operate as a waiver thereof; nor shall any single or partial exercise of any right under any Loan Document preclude any other or further exercise thereof or the exercise of any other right. The remedies provided in the Loan Document are limited by other remedies available, as prescribed by law.

SECTION 9.04. SUCCESSORS AND ASSIGNS. This Agreement shall be binding upon and inure to the benefit of the Borrower and the Lenders and their respective successors and assigns, except that the Borrower may not assign or transfer any of its rights under any Loan Document to which the Borrower is a party without the prior written consent of the Lenders.

SECTION 9.05. COSTS, EXPENSES, AND TAXES. The Borrower agrees to pay on demand all reasonable costs and expenses in connection with the preparation, execution, delivery, filing, recording, and administration of any of the Loan Documents, including without limitation, the reasonable fees and out-of-pocket expenses of counsel for the Lenders, and local counsel who may be retained by said counsel, with respect thereto and with respect to advising the Lenders as to their rights and responsibilities under any of the Loan Documents, and all costs and expenses, if any, in connection with the enforcement of any of the Loan Documents. In addition, the Borrower shall pay any and all stamp and other taxes and fees payable or determined to be payable in connection with the execution, delivery, filing, and recording of any of the Loan Documents and the other documents to be delivered under any such Loan Document, and agrees to save the Lenders harmless from and against any and all liabilities with respect to or resulting from any delay in paying or omission to pay such taxes and fees.

SECTION 9.06. RIGHT OF SET OFF. Upon the occurrence and during the continuance of any Event of Default, the Lenders are hereby authorized at any time and from time to time, without notice to the Borrower (any such notice being expressly waived by the Borrower), to set off and apply any and all deposits (general or special, time or demand, provisional or final) at any time held and other indebtedness at any time owing by such Lenders to or for the credit or the account of the Borrower against any and all of the obligations of the Borrower now or hereafter existing under this Agreement or the Note or any other Loan Document to such Lender, up to the amount of its Pro Rata Share, irrespective of whether or not the Lenders shall have made any demand under this Agreement or the Note or such other Loan Document and although such obligations may be unmatured. The Lenders agree promptly to notify the Borrower after any such setoff and application, provided that the failure to give such notice shall not affect the validity of such setoff and application. The rights of the Lenders under this Section are in addition to other rights and remedies (including, without limitation, other rights of setoff) which the Lenders may have.

SECTION 9.07. INDEMNITIES. Borrower agrees to indemnify, pay, and hold each Lender and their respective officers, directors, employees, agents, and attorneys (the "Indemnitees") harmless from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits and claims of any kind or nature whatsoever that may be imposed on, incurred by, or asserted against the Indemnitee as a result of its being a party to this Agreement or the transactions consummated pursuant to this Agreement; provided that Borrower shall have no

MULTIMEDIA ACCESS CORPORATION LOAN AGREEMENT - Page 15

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obligation to an Indemnitee hereunder with respect to liabilities arising from the gross negligence or willful misconduct of that Indemnitee as determined by a court of competent jurisdiction. This Section and other indemnification provisions contained within the Loan Documents shall survive the termination of this Agreement.

SECTION 9.08. GOVERNING LAW. This Agreement and the Note shall be governed by, and construed in accordance with the laws of the State of Texas.

SECTION 9.09. SEVERABILITY OF PROVISIONS. Any provision of any Loan Document which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions of such Loan Document or affecting the validity of enforceability of such provision in any other jurisdiction.

SECTION 9.10. HEADINGS. Article and Section headings in the Loan Documents are included in such Loan Documents for the convenience of reference only and shall not constitute a part of the applicable Loan Documents for any other purpose.

SECTION 9.11. GOOD FAITH. The Lenders acknowledge that all dealings by the Borrower that precede this Agreement were done in good faith with no fraudulent intent. The Borrower acknowledges that all dealings by the Lenders that precede this Agreement were done in good faith with no fraudulent intent.

All lawsuits or other legal or quasi-legal proceedings shall be brought solely in Dallas County, Texas. The parties hereto agree and submit to the jurisdiction of such courts for all disputes under this or the other agreements executed and delivered on this date in connection with the loan.

SECTION 9.12. VERBAL AGREEMENTS. THIS AGREEMENT REPRESENTS THE FINAL AGREEMENT BETWEEN THE PARTIES AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR SUBSEQUENT ORAL AGREEMENTS OF THE PARTIES. THERE ARE NO UNWRITTEN ORAL AGREEMENTS BETWEEN THE PARTIES.

SECTION 9.13. COUNTERPARTS. This Agreement may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

(Signature Page Follows)

MULTIMEDIA ACCESS CORPORATION LOAN AGREEMENT - PAGE 16

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers thereunto duly authorized as of the date first above written.

Borrower:

MULTIMEDIA ACCESS CORPORATION

By: /s/ WILLIAM S. LEFTWICH

-----  
Name: William S. Leftwich

Title: Chief Financial Officer

Commitment Amount:

\$9,000,000

Lender:

ARDINGER FAMILY PARTNERSHIP, LTD.

Pro Rata Share:

100%

By: /s/ H. T. ARDINGER, JR.

-----  
Name: H. T. Ardinger, Jr.

Title: General Partner

Address: 9040 Old Governor's Row

Dallas, Texas 75356

Facsimile: (214) 634-1270

MULTIMEDIA ACCESS CORPORATION LOAN AGREEMENT - SIGNATURE PAGE

EXHIBIT "A"

BORROWING BASE CERTIFICATE

Date: \_\_\_\_\_, \_\_\_\_\_

This certificate is given by MultiMedia Access Corporation ("Borrower") pursuant to that certain Loan Agreement dated as of October 22, 1998 among Borrower and the Lenders from time to time party thereto (as such agreement may have been amended, restated, supplemented or otherwise modified from time to time the "Loan Agreement"). Capitalized terms used herein without definition shall have the meanings set forth in the Loan Agreement.

The officer executing this certificate is the Chief Financial Officer of Borrower and as such is duly authorized to execute and deliver this certificate on behalf of Borrower. By executing this certificate such officer hereby certifies to Lenders that:

(a) Attached hereto as Schedule 1 is a calculation of the Borrowing Base for Borrower as of the above date;

(b) based on such schedule, Borrower proposes to Lenders that the Borrowing Base as of the above date is:

\$ \_\_\_\_\_

IN WITNESS WHEREOF, Borrower has caused this Certificate to be executed by its Chief Financial Officer this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

MULTIMEDIA ACCESS CORPORATION

By: \_\_\_\_\_  
Chief Financial Officer

Schedule 1  
to Exhibit "A"

BORROWING BASE CALCULATION

-----

<TABLE>

<S>

Accounts of the Borrower reflected on the Borrower's consolidated aged

<C>

accounts receivable trial balance (as of the date above). Accounts means, on any date of determination, the unpaid portion of the obligations as stated on the respective invoices issued to a customer of Borrower or any of its Subsidiaries with respect to inventory sold and shipped or services performed in the ordinary course of business, net of any credits, rebates or offsets owed by Borrower or any of its Subsidiaries to the respective customer.

\$ \_\_\_\_\_

Less: Ineligible Accounts:

Accounts which remain unpaid for more than sixty days after the due date specified in the original invoice or for more than ninety days after the invoice date if no due date was specified

\_\_\_\_\_

Accounts due from a customer whose principal place of business is located outside of the United States, except (i) such Accounts that are backed by a letter of credit (provided that such letter of credit was issued or confirmed by a Lender that is organized under the laws of the United States of America or a State thereof and has capital and surplus in excess of \$500,000,000); and (ii) such Accounts as approved by Lender.

\_\_\_\_\_

Accounts with respect to which the customer is the United States of America or any department, agency, or instrumentality thereof, except for those Accounts for which Borrower has complied with the Federal Assignment of Claims Act (Ref. 31 U.S.C. Section 3727)

\_\_\_\_\_

</TABLE>

BORROWING BASE CALCULATION

<TABLE>

Accounts with respect to which the customer is an Affiliate of Borrower or a director, officer, agent, stockholder, or employee of Borrower or any of their Affiliates

<C>

\_\_\_\_\_

Accounts with respect to which there is any unresolved dispute with the respective customer, but only to the extent of such dispute

\_\_\_\_\_

Accounts with respect to which Lender does not have a valid, first priority and fully perfected security interest and Accounts subject to any Lien except those in favor of Lender and permitted encumbrances; including Accounts evidenced by an instrument (as defined in Article 9 of the UCC) not in the possession of Lender

-----

Accounts with respect to which the customer is the subject of any bankruptcy or other insolvency proceedings

-----

Accounts with respect to which the customer's obligation to pay is conditional or subject to a repurchase obligation or right to return, including bill and hold sales, guaranteed sales, sale or return transactions, sales on approval or consignment sales

-----

</TABLE>

BORROWING BASE CALCULATION

<TABLE>

<S> Total Ineligible Accounts \$  
=====

Total Eligible Accounts (Accounts less Total Ineligible Accounts) \$  
=====

Advance Rate 90%

Accounts Availability \$  
=====

Inventory owned by, and in the possession of the Borrower, and located in the United States of America, reflected on the Borrower's inventory stock status report (as of the date above), valued at the lower of cost or market (including adequate reserves for obsolete, slow moving or excess quantities), on a first-in, first-out basis \$  
-----

Less: Ineligible Inventory:

Inventory with respect to which Lender does not have a valid, first priority and fully perfected security interest

-----

Inventory with respect to which there exists any lien (other than

-----

</TABLE>

BORROWING BASE CALCULATION

<TABLE>

<S>	<C>
Inventory produced in violation of the Fair Labor Standards Act and subject to the so-called "hot goods" provisions contained in Title 25 U.S.C. 215(a) (i)	-----
Inventory which Lender determines, in the exercise of reasonable discretion and in accordance with Lender's or Borrower's customary business practices, to be unacceptable for borrowing purposes due to age, quality, type, category and/or quantity (e.g. work-in-process)	-----
Total Ineligible Inventory	\$ =====
Total Eligible Inventory (Inventory less total Ineligible Inventory)	\$ =====
Advance Rate	75%
Inventory Availability	\$ =====
Proposed Borrowing Base (Accounts Availability plus Inventory Availability)	=====
</TABLE>	

EXHIBIT "B"

NOTE

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---  
FOR VALUE RECEIVED, MULTIMEDIA ACCESS CORPORATION, a Delaware corporation ("Borrower"), promises to pay to the order of \_\_\_\_\_, a \_\_\_\_\_ ("Payee"), on or before the Maturity Date (as defined in the Loan Agreement referred to below), the lesser of (i) \_\_\_\_\_ and No/100 DOLLARS (\$\_\_\_\_\_), or (ii) the unpaid principal amount of all advances made by Payee to Borrower under the Loan pursuant to the Loan Agreement referred to below.

Borrower also promises to pay interest on the unpaid principal amount of this Note at the rates and at the times which shall be determined in accordance with the provisions of the Loan Agreement dated as of October 22, 1998, by and between Borrower and the Ardinger Family Partnership, Ltd., (said Loan Agreement as it may hereafter be amended, restated, supplemented or otherwise modified from time to time, being the "Loan Agreement"; capitalized terms used herein without definition shall have the meanings set forth in the Loan Agreement).

This Note is issued pursuant to, and entitled to the benefits of, the Loan Agreement to which reference is hereby made for a more complete statement of the terms and conditions under which the Loan evidenced hereby is made and is to be repaid.

All payments of principal and interest due in respect of this Note shall be made without deduction, defense, set-off or counterclaim, in lawful money of the United States of America, and in same day funds and delivered to Payee at its address set forth in the Loan Agreement.

Whenever any payment on this Note shall be stated to be due on a day which is not a Business Day, such payment shall be made on the next succeeding Business Day and such extension of time shall be included in the computation of the payment of interest on this Note.

Payee and any subsequent holder of this Note agree that before disposing of this Note or any part hereof, it will make a notation hereon of all principal payments previously made hereunder and of the date to which interest hereon has been paid; provided, however, that the failure to make a notation of any payment made on this Note shall not limit, enlarge or otherwise affect the obligation of Borrower hereunder with respect to payments of principal or interest on this Note.

THIS NOTE SHALL BE GOVERNED BY AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS.

Upon the occurrence of an Event of Default, the unpaid balance of the principal amount of this Note may become, or may be declared to be, due and payable in the manner, upon the conditions and with the effect provided in the Loan Agreement.

No reference herein to the Loan Agreement and no provisions of this Note or the Loan Agreement shall alter or impair the obligation of Borrower, which is absolute and unconditional, to pay the principal of and interest on this Note at the place, at the respective times, and in the currency herein prescribed.



Borrower promises to pay all costs and expenses, including reasonable attorneys' fees, incurred in the collection and enforcement of this Note. Borrower hereby waives diligence, presentment, protest, demand, notice of intent to accelerate, notice of acceleration and any other notice of every kind (except such notices as may be required under the Loan Agreement) and, to the full extent permitted by law, the right to plead any statute of limitations as a defense to any demand hereunder.

IN WITNESS WHEREOF, Borrower has caused this Note to be executed and delivered by its duly authorized officer, as of the day and year first written above.

MULTIMEDIA ACCESS CORPORATION

By:

-----

Name:

-----

Title:

-----

## CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statements (Form SB-2 No. 333-31947, Form S-8 No. 333-53159 and Form S-8 No. 333-63799) of MultiMedia Access Corporation and in the related Prospectuses of our report dated February 25, 1999, with respect to the consolidated financial statements of MultiMedia Access Corporation included in this Annual Report (Form 10-KSB) for the year ended December 31, 1998.

ERNST &amp; YOUNG LLP

Dallas, Texas  
March 22, 1999

<TABLE> <S> <C>

<ARTICLE> 5

<LEGEND>

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONSOLIDATED BALANCE SHEET OF MULTIMEDIA ACCESS CORPORATION AND SUBSIDIARIES AS OF DECEMBER 31, 1998 AND THE RELATED CONSOLIDATED STATEMENT OF OPERATIONS FOR THE YEAR THEN ENDED, AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

</LEGEND>

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