

# MAXserver Access Servers

## FEATURES

- ▼ **8-, 20-, and 40-port access servers with port speeds to 115.2 kbps.**
- ▼ **Remote and local dial-up access with support for Remote Node, Remote Control, and terminal applications.**
- ▼ **Wide range of protocol support including Novell IPX, TCP/IP, LAT, PPP, SLIP, and CSLIP with source destination filters.**
- ▼ **Optional IPX Remote Access, ARAP, TN3270, XRemote, and DECnet multisessions.**
- ▼ **Expandable memory via Single Inline Memory Modules (SIMMs).**
- ▼ **Extensive network security features including Kerberos, SecurID, RADIUS and RADIUS accounting.**
- ▼ **SNMP management options, including SNMP MIB I, MIB II, Xyplex Networks ControlPoint software, Telnet, and Digital's Remote Console Protocol (RCP).**

The award-winning MAXserver® 1600 Series of access servers from Xyplex Networks provides comprehensive network access solutions for a wide range of applications. Consisting of three models, the MAXserver 1600 Series allows access locally and remotely via dial-up for a variety of devices, from terminals and PCs to bar code readers and data acquisition devices. The standalone access servers — ideal for Internet access, client/server applications, and users of UNIX, DEC, and IBM systems — offer multiprotocol support, easy-to-use management options, extensive security features, accounting, and remote access capabilities in a range of port densities and performance capabilities.



The MAXserver 1608A offers a cost-effective, high-performance solution suitable for small workgroup applications. The high-performance CPU of the MAXserver 1608A and 1620 provides the highest throughput in the series, while the MAXserver 1640, with 40 ports, represents the family's highest port density.

Designed to accommodate growth and change in a network, the 1600 Series is equipped with upgradable memory that allows users to easily migrate their network to new remote access client/server applications from terminal server configurations.

## MAXserver 1608A

The 1608A uses a high-performance CPU and provides 8 ports with a maximum line speed of 115.2 kbps. All operational parameters of the 1608A can be set via software — no hardware switches are required. Software can be loaded from the network, or the unit can self-load using a flash memory card. Unit memory is easy to upgrade to 8 MB using industry-standard SIMMs.

## MAXserver 1620

The 20-port 1620 also uses a high-performance CPU. With serial port speeds up to 115.2 kbps, the 1620, like the 1608A, supports high-speed connections to local and remote devices. Its memory expansion capabilities offer customers the flexibility to build as they grow. The 1620, as well as the other 1600 Series products, can act as a network load server for other Xyplex Networks access servers on the network.

## MAXserver 1640

Offering 40 ports with line speeds to 57.6 kbps, the 1640 provides the highest port density of the MAXserver 1600 access server family. Like all other members of the 1600 Series, this unit uses readily available SIMMs and supports up to 8 MB of memory, allowing users to easily update their access server software to support new features and protocols.

## Convenient Multiprotocol Remote Access

The 1600 Series, in conjunction with the Xyplex Networks multiprotocol Access Server Software, offers advanced features for supporting Remote Node, Remote Control, and terminal applications.

One of the fastest growing Remote Node applications is connecting individuals to the Internet with TCP/IP and is accomplished with the use of Xyplex Networks access server products. They also support earlier

protocols such as SLIP and CSLIP, in addition to PPP. Security options, critical for controlling Internet access, include SecurID, Kerberos, and RADIUS (RADIUS requires Access Server Software 6.0.1). RADIUS standard or RADIUS accounting information is also transmitted to the customer's accounting database for access accounting and billing.

Remote Node can also be used to provide off-site users of IBM-compatible PCs with a transparent connection to the corporate LAN. Remote Node is a popular approach for supporting telecommuters and mobile users because the remote operation is identical to the operation in the office.

For customers with an Apple computer, Xyplex Networks supports ARAP V1.0 which can be used with the Apple Remote Client, V1.0 and V2.0 and Apple's CCL facility. AppleTalk zones, databases and printers on the local network are available to the remote user as if they were directly attached to the local LAN.

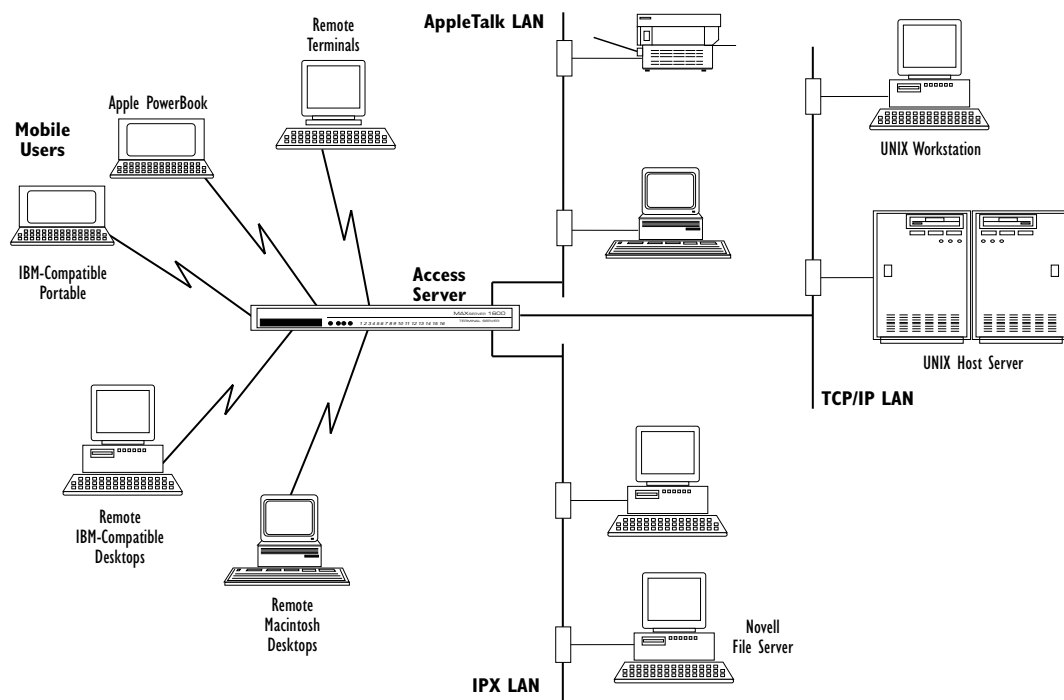
As an alternative to Remote Node, Remote Control allows users to take control of a desktop system in the office and operate it remotely. Users of Remote Control typically have a desktop PC that they use when in the office and a portable PC for use when out of the office. Remote Control is recommended for applications, such as database queries, where computing is performed on the network PC and not remotely.

Full terminal support for legacy applications is also supported. Ports on the standalone I600 Series access servers supporting remote access applications can also be configured to operate with optional terminal server features such as LAT, TN3270, XRemote, Telnet, and DECnet multisessions — the most full-featured terminal support in the industry. This dual capability greatly simplifies the migration from host-based to client/server applications.

Xyplex Networks access servers also allow users to share printing resources in a widely distributed heterogeneous environment that includes VAX hosts, UNIX hosts, and Novell servers.

### Management Options

The MAXserver I600 Series offers a rich array of local and remote management features that are accessible via full in-band SNMP, Telnet, and Digital's Remote Console Protocol (RCP), or via Telnet to an out-of-band management port. Xyplex Networks has implemented support not only for standard SNMP MIBs, such as MIB I and II and the extended Character MIB for asynchronous devices, but also for a full set of MIB extensions. This allows all access server parameters to be observed and changed via any SNMP-based management system, including Xyplex Networks' ControlPoint™ network management software. All MIBs can be obtained from the Internet MIB repository and compiled via standard MIB compilers for use with SNMP-based network management packages.



The MAXserver I600 access server family from Xyplex Networks provides comprehensive network access solutions for a wide range of applications.

Xyplex Networks access servers are compatible with Digital's DECserver management software including Terminal Server Manager (TSM) and DSVCONFIG.

For UNIX users, APGEN maintains access server parameter files, converting the Local Parameter File generated on a Xyplex Networks server to an ASCII script file and storing the converted file on a UNIX host.

For more information on these and other software features supported by Xyplex Networks access servers, refer to the Access Server Software data sheet.

## Service and support

Xyplex Networks provides worldwide service and support through a highly-trained team of dedicated field engineers and channel partners. Service offerings include pre- and post-sales support, 24-hour telephone response, 24-hour parts replacement, on-site technical support, ISDN services, and software and documentation update services. Additional

services such as network design and planning, project management, integration, performance analysis, migration planning, consulting, and installation are also available.

Xyplex Networks Educational Services offer intensive product courses to ensure that customers get the most from their investment.

Some service offerings may vary by geographic location. Contact your local Xyplex Networks office or reseller for details.

## Guaranteed quality

All Xyplex Networks products are engineered and manufactured for exceptional reliability. Before new products are released, they are fully tested and certified to meet or exceed international standards. The company-wide processes at Xyplex Networks have earned ISO 9000 certification, the international standard for quality and continuous improvement.

## Hardware Specifications

	1608A	1620	1640
<b>Terminal Cabling:</b>	Eight 8-wire RJ-45s	Twenty 8-wire RJ-45s	Forty 8-wire RJ-45s
<b>Serial Line Speeds:</b>	50 bps to 115.2 kbps	50 bps to 115.2 kbps	50 bps to 57.6 kbps
<b>Cable Length:</b>	Serial Speed – Maximum Length >9.6 kbps – 3000 ft/900 m (see users guide) 19.2 kbps – 1000 ft/300 m 38.4 kbps – 500 ft/150 m 57.6 kbps – 200 ft/60 m 115.2 kbps – 100 ft/30 m	Serial Speed – Maximum Length >9.6 kbps – 3000 ft/900 m (see users guide) 19.2 kbps – 1000 ft/300 m 38.4 kbps – 500 ft/150 m 57.6 kbps – 200 ft/60 m 115.2 kbps – 100 ft/30 m	Serial Speed – Maximum Length >9.6 kbps – 3000 ft/900 m (see users guide) 19.2 kbps – 1000 ft/300 m 38.4 kbps – 500 ft/150 m 57.6 kbps – 200 ft/60 m
<b>Power Requirements:</b>	110 – 240 VAC, 50 – 60 Hz 32 W, 110 Btu/hr 0.25 A at 110 V (typ) 0.13 A at 220 V (typ)	110 – 240 VAC, 50-60 Hz 32 W, 110 Btu/hr 0.27 A at 110 V (typ) 0.15 A at 220 V (typ)	110 – 240 VAC, 50-60 Hz 42 W, 145 Btu/hr 0.35 A at 110 V (typ) 0.19 A at 220 V (typ)
<b>For All Units</b>			
<b>Network Interface:</b>	Ethernet/IEEE 802.3 AUI (10Base-5) or RJ-45 (10Base-T)		
<b>Base Memory:</b>	4 MB DRAM		
<b>Expansion Memory:</b>	Field upgradable by qualified personnel in 2 MB increments for a total of 8 MB		
<b>Display LEDs:</b>	Run, LAN, Console, Port Status, Memory Card Status		
<b>Memory Card:</b>	2 MB and 4 MB Series 2 flash cards (require access server V6.0.1 software)		
<b>Memory Card Interface:</b>	JEIDA/PCMCIA		
<b>Non-volatile Storage:</b>	32 kB		
<b>Serial Line Interfaces:</b>	RS-423/232		
<b>Terminal Signals:</b>	DTR, DSR/DCD, RTS and CTS/RING modem control. Supports concurrent hardware and modem flow control.		
<b>Sessions/unit:</b>	255 (software and memory configuration dependent)		
<b>Dimensions:</b>	Height: 4.45 cm/1.75 in; Width: 48.26 cm/19 in; Depth: 29.71 cm/11.7 in; Weight: 3.5 kg/8 lbs		
<b>Environment:</b>	Operating Temperature: 32 to 113°F (0 to 45°C) Storage Temperature: -4 to 140°F (-20 to 60°C) Humidity: 10% to 90% non-condensing		
<b>Safety Compliance:</b>	Complies with UL 1950, CSA M22.2 No. 950, TUV EN60950; verified by UL, CSA, and TUV		
<b>Emissions Compliance:</b>	FCC Class B, EN55022 Class B, EN50082-1, VCCI Class II, AS3548		
<b>EC Directives:</b>	Meets all applicable EC Directives		
<b>Warranty:</b>	One year		

## Software Specifications

<b>Software:</b>	Xyplex Networks Access Server Software Version 6.0 or Version 6.0.1
<b>Loading Platforms:</b>	Digital: VAX hosts running VMS 4.7 or later with support for DECnet/MOP; Ultrix hosts 2.2 or later with DECnet/MOP, BOOTP/TFTP or RARP/TFTP UNIX: UNIX hosts with BOOTP/TFTP, RARP/TFTP or TFTP Self-loading: The 1608A, 1620, and 1640 can be self-loaded via Xyplex Networks flash card Platforms: The 1608A and 1620/40 can load all Xyplex Networks 1600, 1000 Series products, and all Network 9000® products
<b>Network Protocols:</b>	TCP/IP, LAT, IPX (optional), TN3270 (optional), and IPX RIP
<b>Access Protocols:</b>	Telnet, Rlogin, PPP, SLIP, CSLIP, ARAP (optional), XRemote (optional), DECnet multisessions (optional). Most combinations of optional protocols require access servers with 4 MB of memory.
<b>Security Options:</b>	SecurID, Kerberos, RADIUS (RADIUS requires access server V6.0.1 software)
<b>Compatible Systems:</b>	LAT: VMS 4.7 or later, Ultrix 2.2 or later; LAT 5.1 and compatibles TCP/IP: Alliant, Amdahl, Apollo, BTI, Celebrity, CMC, Convex, Digital, Data General, FTP Inc., Hewlett Packard, IBM mainframes with TCP/IP software and a 3271 Channel attach device and compatibles, IBM hosts with FEP supporting TCP/IP Telnet sessions, MASSCOMP, McData, Network Research, Open Connect Systems, Pyramid, Process Software, IBM RS/6000, Sequent, SUN, Symbolics, Wollongong, XLAN
<b>DoD Compliance:</b>	MIL-STD 1778 (TCP), MIL-STD 1777 (IP), MIL-STD 1782 (Telnet)
<b>RFC Compliance:</b>	768 (UDP), 793 (TCP), 791 (IP), 792 (ICMP), 826 (ARP), 854 (TELNET), 903 (RARP), 906 (BOOTP/TFTP), 950 (Subnet), 951/1048 (BOOTP), 1034 & 1035 (DOMAIN NAMES), 1055 (SLIP), 1079 (Option Neg Term Type/Speed), 1144 (CSLIP), 1155 (SMI), 1157 (SNMP), 1156 (MIB I), 1213 (MIB II), 1284 (Ethernet), 1316 (Character MIB), 1317 (RS-232 MIB), 1331 (PPP), 1332 (PPP/IP), 1350 (TFTP)
<b>Network Management Support:</b>	SNMP MIB I, MIB II, proprietary MIB extensions, Xyplex Networks ControlPoint software, Telnet, APGEN, Digital's Remote Console Protocol (RCP), TSM, and DSVCONFIG

## Ordering Information

For product ordering information, contact your local Xyplex Networks Sales Representative or call 1-800-338-5316 in the U.S.A. and Canada, 508-952-4700 worldwide. Xyplex Networks internet address: [info@xyplex.com](mailto:info@xyplex.com). Most Xyplex Networks products are available on GSA schedule. Information on all Xyplex Networks products is available on the Worldwide web at <http://www.xyplex.com>.

<b>MX-1608A-004</b>	MAXserver 1608A Access Server – 4 MB of RAM
<b>MX-1620-004</b>	MAXserver 1620 Access Server – 4 MB of RAM
<b>MX-1640-004</b>	MAXserver 1640 Access Server – 4 MB of RAM
<b>MX-130-0026</b>	Mounting bracket

*Refer to the Access Server Software data sheet for software ordering information.*



**U.S.A.**  
295 Foster Street  
Littleton, MA U.S.A. 01460  
Tel. 508-952-4700, Fax 508-952-4702

**Europe**  
2 Manor Court, High Street  
Harmondsworth, Middlesex, United Kingdom UB7 0AQ  
Tel. +44 (0)181-564-0564, Fax +44 (0)181-564-0501

**Pacific Rim**  
80 Raffles Place  
#54-02 UOB Plaza 1, Singapore 069532  
Tel. 65-225-0068, Fax 65-225-2050