MAXserver 1600

Overview

The MAXserver® Series of standalone access servers from MRV Communications provides comprehensive serial-based connectivity for a wide range of applications. The MAXserver allows seamless access from local or remote locations for a variety of devices, from terminals and PCs to bar code readers and data acquisition devices. These access servers are ideal for remote and Internet access, as well as client/server or business automation applications. They are available in AC- and DC-powered versions. With three models ranging from 8 to 40 ports, the MAXserver Series offers multiprotocol support, easy-to-use management options, extensive security features, accounting, and remote access capabilities.

Extensive Software Features

The MAXservers offer a cost-effective, high-performance solution designed to accommodate growth and change in a network. For example, users whose access servers are configured for more traditional terminal serving applications can migrate easily to newer client/server applications using remote access features. With upgradable memory and flexible, robust software features, the MAXserver Series makes migrations to new applications easy and trouble-free.

All operational parameters of the MAXserver Series can be set using software — no hardware switches are required.

Software can be loaded from a host network, or the unit can self-load using a flash memory card supplied by MRV Communications. All MAXservers can also act as a network load server for other MRV Communications access servers on the network.

Remote Access & Automation

Because of its high-performance processor, the MAXserver's serial ports can reach a top speed of 115.2 kbps. This makes it ideal for remote access and business automation applications where speed of connections is essential. The MAXserver's memory can be upgraded using industry-standard SIMMs, allowing broader use of more memory-intensive protocols, as well as support for greater numbers of users or devices.

Features

- Terminal access servers with 8, 20 or 40 ports, and port speeds up to 115.2 kbps; AC or DC power
- Support Novell IPX, TCP/IP, LAT, PPP, SLIP, and CSLIP with source and destination filters
- Extensive network security features including support for Kerberos, SecurID, RADIUS
- Expandable memory via industry standard SIMM
- Optional IPX Remote Access, ARAP, TN3270, and DECnet multisessions
- SNMP MIB I, MIB II, Telnet, and RCP

Applications

- Stat mux replacement
- Secure console management
- Traditional terminal serving
- Automating business applications requiring ethernet connectivity
- Server farm management
- Remote access

MRV Communications access servers support earlier protocols such as SLIP and CSLIP, in addition to PPP. Security options include SecurID, Kerberos, and RADIUS. RADIUS standard or RADIUS accounting information may also be transmitted to the customer's accounting database for access accounting and billing.

Terminal Server Applications

Full terminal support for legacy applications is also provided. Ports on the standalone 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. This dual capability greatly simplifies the migration from host-based to client/server applications.

MRV Communications access servers also allow users to share printing resources in a widely distributed heterogeneous environment that includes VAX hosts, UNIX hosts, and Novell and NT servers that support BOOTP.

The MAXserver 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. MRV Communications 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 MRV Communications' MegaVision™ 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.

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

Worldwide Service and Support

Delivering value added service and support for nearly 20 years, MRV Communications provides worldwide technical assistance through a highly trained team of dedicated corporate and field based engineers as well as through certified channel partners. Whether your needs are for 24x7 dedicated support, same day replacement parts shipment, on-site support or network design and installation related professional services, you'll gain the opportunity to build a responsive and accountable partnership with the MRV service and support experts.

Technical Specifications

	MAXserver 8	MAXserver 20	MAXserver 40
Terminal Cabling	Eight 8-wire RJ-45s	Twenty 8-wire RJ-45s	Forty 8-wire RJ-45s
Serial Line Speeds	50 bps to 115.2 kbps	50 bps to 115.2 kbps	50 bps to 57.6 kbps
Cable Length	Serial Speed – Max. Length >9.6 kbps – 3000 ft/900 m 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 – Max. Length >9.6 kbps – 3000 ft/900 m 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 – Max. Length >9.6 kbps – 3000 ft/900 m 19.2 kbps – 1000 ft/300 m 38.4 kbps – 500 ft/150 m 57.6 kbps – 200 ft/60 m
Power Requirements (DC)	36 - 60 VDC 2A (max)	36 – 72 VDC 3.3A (max)	36 – 72 VDC 3.3A (max)
Power Requirements (AC)	110 – 240 VAC, 50-60 Hz 25 W, 110 Btu/hr 0.7 A at 120 V (typ) 0.3 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) 0.19A at 220 V (typ)
Dimensions	Height: 4.1 cm/1.62 in Width: 23.3 cm/9.9 in Depth: 19.5 cm/7.7 in Weight: 1.7 kg/3.8 lbs with external power supply	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	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

For All Units

Network Interface	Ethernet/IEEE 802.3 AUI (10Base-5) or RJ-45 (10Base-T)
Base Memory	4 MB DRAM
Expansion Memory	Can be upgraded in the field by qualified personnel in 2 MB increments for a total of 8 MB (6 MB on MAXserver 8)
Diagnostic LEDs	Run, LAN, Console, Port Status, Memory Card Status
Memory Card	2 MB and 4 MB Series 2 flash cards (require Access Server Software V6.0.3 or higher)
Memory Card Interface	JEIDA/PCMCIA
Non-volatile Storage	32 kB
Serial Line Interfaces	RS-423/232
Terminal Signals	DTR, DSR/DCD, RTS and CTS/RING modem control. Supports concurrent hardware and modem flow control.
Sessions/unit	255 (software and memory configuration dependent)
Environment	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
Safety Compliance	Complies with UL 1950, CSA M22.2 No. 950, TUV EN60950; verified by UL, CSA, and TUV
Emissions Compliance	FCC Class B, EN55022 Class B, EN50082-1, VCCI Class B, AS3548, BCIQ Class A
EC Directives	Meets all applicable EC Directives
Warranty	One year

Technical Specifications

Software	MRV Communications Access Server Software V6.1 or higher
Loading Platforms	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: All MAXservers can be self-loaded via MRV Communications flash card Platforms: All MAXservers can load all MRV Communications 1600, 1000 Series products, and all Network 9000® products
Network Protocols	IP/IPX, LAT, TN3270 (optional), and IPX RIP
Access Protocols	Telnet, Rlogin, PPP, SLIP, CSLIP, XRemote, ARAP (optional), DECnet multisessions (optional)
Security Options	SecurID, Kerberos, RADIUS
Compatible Systems	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, 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
DoD Compliance	MIL-STD 1778 (TCP), MIL-STD 1777 (IP), MIL-STD 1782 (Telnet)
RFC Compliance	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)
Network Management	SNMP MIB I, MIB II, proprietary MIB extensions, Telnet, APGEN, Digital's Remote Console Protocol (RCP), TSM, and DSVCONFIG

Ordering information

MX-1608B-014	MAXserver 8, 4 MB RAM, unit only. Includes software and documentation on CD-ROM, AC power
MX-1608B-014DC	MAXserver 8, 4 MB RAM, unit only. Includes software and documentation on CD-ROM, DC power
MX-1608B-114	MAXserver 8, 4 MB RAM. Includes base software on flash card and documentation on CD-ROM, AC power
MX-1608B-114DC	MAXserver 8, 4 MB RAM. Includes base software on flash card and documentation on CD-ROM, AC power
MX-1620-018	MAXserver 20, 8 MB RAM, unit only. Includes software and documentation on CD-ROM and brackets for rack-mounting.
MX-1620-014	MAXserver 20, 4 MB RAM, unit only. Includes software and documentation on CD-ROM, AC power
MX-1620-014DC	MAXserver 20, 4 MB RAM, unit only. Includes software and documentation on CD-ROM, DC power
MX-1620-114	MAXserver 20, 4 MB RAM. Includes base software on flash card and documentation on CD-ROM, AC power
MX-1620-114DC	MAXserver 20, 4 MB RAM. Includes base software on flash card and documentation on CD-ROM, DC power
MX-1640-014	MAXserver 40, 4 MB RAM, unit only. Includes software and documentation on CD-ROM, AC power
MX-1640-014DC	MAXserver 40, 4 MB RAM, unit only. Includes software and documentation on CD-ROM, DC power
MX-1640-114	MAXserver 40, 4 MB RAM. Includes base software on flash card and documentation on CD-ROM, AC power
MX-1640-114DC	MAXserver 40, 4 MB RAM. Includes base software on flash card and documentation on CD-ROM, DC power
MX-RACK-M01	Mounting shelf (for 8-port units only)
MX-130-0026	Mounting bracket (for 20- and 40-port units only)
	Refer to the Access Server Software data sheet for software ordering information.

MRV has more than 50 offices throughout the world. Addresses, phone numbers and fax numbers are listed at www.mrv.com.
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