

Ascend

Ascend MAX™ 1800 vs. Key Competitors

Gandalf xPressStack BRI, Livingston PortMaster 2E-30, Shiva LanRover/Eplus, and USR NETServer/16 I-modem Plus

Product Description

Gandalf xPressStack BRI

The xPressStack is a stackable ISDN remote access server targeted at the ISP and corporate enterprise. xPressStack supports a combination of up to 16 analog V.34 / 56K modems or 8 ISDN BRI's. The system supports IP and IPX, and comes with Gandalf's RAC software.

U.S. List Pricing

xPressStack BRI:

Base Chassis:	\$ 9,500
Modem card (8-port):	\$ 3,600
Fully configured:	\$16,700
Price per modem:	\$ 1,044

Livingston PortMaster 2E-30

The PortMaster 2E is modular server targeted at the corporate enterprise. The PortMaster 2E-30 comes standard with either 10 asynchronous serial ports or 5 ISDN BRI ports, and two expansion slots that can be configured with two additional modules – any combination of the 10-port asynchronous modem module and the 5-port BRI module – for up to 30 concurrent sessions. The PortMaster uses Livingston's COMOS operating system, routes IP/IPX, and is configured/supported with Livingston's PMconsole graphical administration software.

U.S. List Pricing

PortMaster 2E-30:

Base Chassis:	\$ 3,750
True Digital Modem card (10-port):	\$ 4,300
Fully configured:	\$12,350
Price per modem:	\$ 412



Shiva LanRover E/Plus

The LanRover E/Plus is an eight-port remote access server that supports integrated analog modems or ISDN BRI. The system can support up to a maximum of eight ports — eight analog or four BRI interfaces or a combination of both up to eight. The LanRover supports IP, IPX and AppleTalk. This product is primarily targeted at the corporate departmental access needs; the system comes with Shiva Client software and a Windows configurator, but firewall software is an option.

Shiva recently unbundled its products and began selling features of its remote access line as software upgrades. The LanRover is available in the “Power Base” configuration that includes basic routing and configuration software. The “Connectivity Kit” adds dial-out / fax functionality and LAN-to-LAN routing, the “Security Kit” provides authentication and monitoring functionality, and the “Performance Kit” adds Shiva’s PowerBurst acceleration software. The “Power Suite” option bundles all of the kits listed with RADIUS accounting/call report functionality via LanRover AccessManager.

U.S. List Pricing

LanRover E/Plus:

Power Base:	\$~3,200
Connectivity Kit:	\$ 499
Security Kit:	\$ 499
Performance Kit:	\$ 1,999
Power Suite:	\$ 2,499
Fully configured:	\$~5,699
Price per modem:	\$ 712

US Robotics Total Control NETServer/16 I-modem Plus

The Total Control NETServer/16 I-modem Plus is a new integrated remote access server aimed at ISPs and office environments. NETServer includes analog modem and ISDN support to accommodate eight or sixteen analog/x2 or ISDN calls. The system supports IP, IPX, and AppleTalk, and comes bundled with an Auto Configuration Wizard and Stampede Client software.

The NETServer comes in two configurations: 8-I modem that supports up to eight combinations of V.34/x2 and ISDN calls, 16-I that supports up to 16 combinations of V.34/x2 or ISDN calls. No price premium was added to the NETServer for the x2 support

U.S. List Pricing

NETServer/16 I-modem Plus:

Base Chassis:	\$13,995
Modem card:	N/A
Fully configured:	\$13,995
Price per modem:	\$ 875

Ascend MAX 1800 Competitive Advantages

- Integrated analog, ISDN BRI and Frame Relay support
- V.110 cellular support
- 56K support (K56flex) available NOW
- IP/IPX/AppleTalk support
- Most comprehensive set of security features including: extended RADIUS dictionary (over 120 enhancements), TACACS/TACACS+, and optional integrated dynamic firewall
- Guaranteed interoperability with a wide number of modem manufacturers and carrier networks including carriers in over 36 countries

-
- Proven track record and investment protection: Ascend has the largest installed base of integrated access switches and has been shipping high density access concentrators for over three years. Ascend has installed over 2 million digital ports and over 1.5 million digital modems worldwide. Customers can be assured of investment protection because of Ascend's commitment to developing scalable, compatible and high-performance platform solutions
 - MAXLink PRO™ client software support
 - MAXDial™ dial-out functionality
 - End-to-end network management: Ascend's NetClarity™ is a multi-vendor solution designed specifically for ISPs, carriers and corporations to support a variety of network access services and devices. NetClarity provides discovery and mapping, configuration management, performance measurement, and fault monitoring functionality to provide a customized view of the network as a whole, or device by device.

Major Weaknesses of Competitor's products

Gandalf xPressStack BRI

- Limited market presence
- Product is not scalable; no Multi-Chassis MP to support scaling of systems
- No support for Frame Relay or V.110 cellular
- Limited security: no integrated, dynamic firewall, no extended RADIUS
- Limited management: No end-to-end multiservice/multidevice management capability

Livingston PortMaster 2E-30

- Product is not scalable; no Multi-Chassis MP to support scaling of systems
- No support for Frame Relay or V.110 cellular
- No 56K support
- Limited security: no integrated, dynamic firewall, no extended RADIUS
- Limited management: No end-to-end multiservice/multidevice management capability

Shiva LanRover E/Plus

- Low density — only supports 8 concurrent sessions
- High price, Low value; sold in add-on pieces — firewall still extra
- No 56K support available yet
- No support for Frame Relay or V.110 cellular
- Product is not scalable; no Multi-Chassis MP to support scaling of systems
- Limited security: no integrated, dynamic firewall, no extended RADIUS
- No transparent bridging support for non-routable protocols
- Limited management: No end-to-end multiservice/multidevice management capability

US Robotics Total Control NETServer/16 I-modem Plus

- No proven track record in the integrated access server arena
- No support for Frame Relay or V.110 cellular
- Supports proprietary x2 56K technology – not interoperable with 65-70% of the market
- Limited security: no integrated, dynamic firewall, no extended RADIUS
- No Dial-out functionality
- Product is not scalable; no Multi-Chassis MP to support scaling of systems
- Requires separate boxes for 8 and 16-port configurations
- Extra charge for firewall software
- No transparent bridging support for non-routable protocols
- Limited management: No end-to-end multiservice/multidevice management capability

Remote Access Server Key Feature Comparison Matrix

Ascend MAX 1800 Vs. Key Competitors

Feature	MAX 1800	Gandalf xPressStack BRI	Livingston PortMaster 2E-30	Shiva LanRover/E plus	USR NETServer/16 I-modem Plus
U.S. List Price					
Base Chassis	\$7,200	\$9,500	\$3,750	\$~3,200	\$13,995
Max. modems	16	16	30	8	16
Max B-channels	16	16	30	8	16
List price for modems	\$8,800 (Series56™)	\$7,200 (56K)	\$8,600 (TDM)	incl.	incl.
List Price fully configured	\$16,000	\$16,700	\$12,350	\$~5,600	\$13,995
List Price/modem	\$1,000	\$1,044	\$412	\$712	\$875
WAN Connectivity/ Bandwidth Management					
V.34	Yes	Yes	Yes	Yes	Yes
ISDN BRI	Yes	Yes	Yes	Yes	Yes
V.110	Yes	NO	NO	NO	NO
Frame Relay	Yes	NO	NO	NO	NO
PPP	Yes	Yes	Yes	Yes	Yes
Multilink Protocol (MP)	Yes	NO	Yes	Yes	Yes
Multilink Protocol Plus™ (MP+)	Yes	NO	NO	NO	NO
Security					
PAP/CHAP	Yes	Yes	Yes	Yes	Yes
TACACS & TACACS+	Yes	NO (TACACS only)	NO	Yes	NO
Dynamic Firewall	Yes	NO	NO	NO	NO
RADIUS	Yes	NO	Yes	Yes	Yes
Extended RADIUS	Yes	NO	NO	NO	NO
Integrated Firewall	Yes	NO	NO	NO	NO
CLID	Yes	Yes	NO	Yes	NO
VPN Support	Yes	NO	NO	NO	Yes
Management and Control					
Comprehensive SNMP	Yes	Yes	NO	Yes	NO
Client Software	Yes	NO	NO	Yes	Yes
Routed/Routing Protocol Support					
IP	Yes	Yes	Yes	Yes	Yes
IPX	Yes	Yes	Yes	Yes	Yes
AppleTalk	Yes	NO	NO	Yes	Yes
Server Functions					
STAC comp.	Yes	NO	NO	Yes	Yes
Terminal Server	Yes	Yes	Yes	Yes	Yes
Remote Software Download	Yes	NO	NO	Yes	Yes
LAN to LAN	Yes	Yes	Yes	Yes	Yes
Open 56K support	Yes	Yes	Future	Future	NO (x2)

Prices as of June 1997 Subject to Change

Worldwide and North American Headquarters
 One Ascend Plaza
 1701 Harbor Bay Parkway
 Alameda, CA 94502, United States
 Tel: 510.769.6001
 Fax: 510.747.2300
 North American E-mail:
 info@ascend.com
 International E-mail:
 air-info@ascend.com
 Toll Free: 800.621.9578
 Fax Server: 415.688.4343
 Web Site: http://www.ascend.com

European Headquarters
 Rosemount House
 Rosemount Avenue
 West Byfleet
 Surrey KT14 6NP, United Kingdom
 Tel: +44 (0) 1932.350.115
 Fax: +44 (0) 1932.350.199

Japan Headquarters
 Level 19 Shinjuku Daiichi-Seimei Bldg.
 2-7-1 Nishi-Shinjuku
 Shinjuku-ku, Tokyo 163-07, Japan
 Tel: +81.3.5325.7397
 Fax: +81.3.5325.7399
 Web Site: http://www.ascend.co.jp

Asia-Pacific Headquarters
 Suite 1419, Central Building
 1 Pedder Street
 Central, Hong Kong
 Tel: +852.2844.7600
 Fax: +852.2810.0298

Latin, South America and the Caribbean Headquarters
 One Ascend Plaza
 1701 Harbor Bay Parkway
 Alameda, CA 94502, United States
 Tel: 510.769.6001
 Fax: 510.747.2669

Ascend and the Ascend logo are registered trademarks and all Ascend product names are trademarks of Ascend Communications, Inc. Other brand and product names are trademarks of their respective holders.



**Remote Networking
Solutions That Work.™**