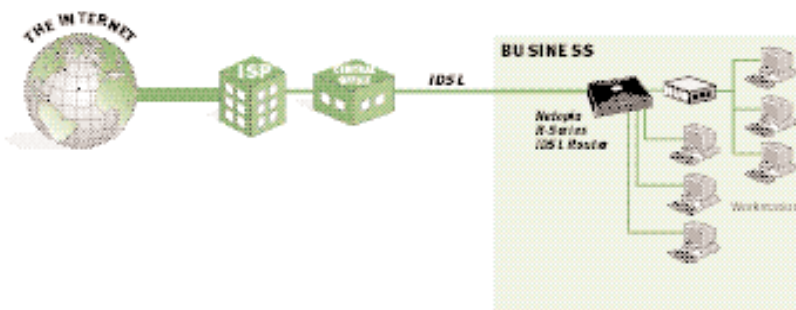




R3200 IDSL Router

Business-class Bonded (2x) IDSL up to 288Kbps with a modular architecture and ease-of-use features.



HIGHLIGHTS

- Symmetric data transmission up to 288 Kbps utilizing DSL Bonding (IMUX) over two IDSL lines
- Built-in firewall to protect LAN resources from Internet intruders
- Built-in Secure VPN to connect remote offices, telecommuters, and trusted business partners
- Built-in 8-port 10 BaseT Ethernet hub with uplink switch
- NAT and MultiNAT™ for secure yet flexible IP configuration
- Built-in dial backup via auxiliary serial port
- Optional integrated V.90 dial backup

The Netopia R3200 IDSL Router is the perfect solution for small and medium size businesses that require a cost-effective 'always-on' Internet connection. IDSL (ISDN Digital Subscriber Line) is a flat-rate service available at speeds ranging from 64 Kbps to 144 Kbps over a single DSL line. With optional IDSL Bonding (IMUX) speeds of up to 576 Kbps can be achieved over up to four IDSL lines.

As a technology, IDSL is very flexible and allows service providers to offer DSL service to customers in locations where line conditions don't allow for other DSL services.

The R-Series IDSL Routers deliver the advanced features businesses require to ensure the security and reliability of an Internet connection. A built-in firewall protects a LAN from unauthorized access. Secure VPN, standard on most models, offers telecommuters, travelers and remote offices encrypted access to

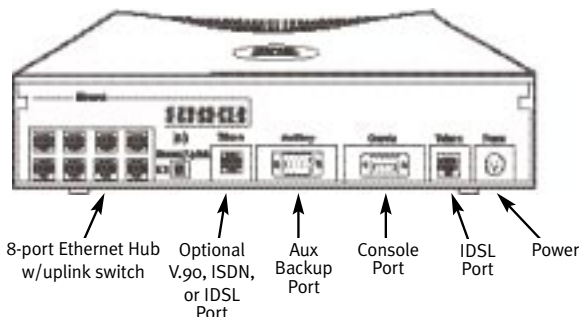
the resources of a LAN. Backup options offer the redundancy to ensure that Internet connectivity is always available for LAN users and LAN-based Internet servers.

The modular architecture of R-Series routers preserves investment in equipment by providing an easy upgrade path to new technologies, dial backup options or support for bonding of multiple DSL Lines when used with Copper Mountain central office equipment. Upgrading to DSL Bonding can be achieved by installing a TER/31U or TER/32U single or dual IDSL WAN module along with the TER/IMUX firmware Add-on.

Netopia DSL solutions combine leading edge DSL technologies with value-added features to ensure the security and reliability of a business-class Internet connection.

PART NUMBERS

R3200	IDSL Router (2x Bonding)
TER/AT1	AppleTalk Kit
TER/ABK	Aux Port Backup Kit
TER/IMUX	DSL Bonding Add-on
TER/VPN2	Secure VPN Add-on
TE6/DB25	Aux Port Modem Cable
TER/31	IDSL WAN Module
TER/32	IDSL 2x IMUX WAN Module



Technical Specifications

Physical Connections

WAN Interface

- IDSL (2x Bonded) symmetric connections from 64 to 288 Kbps.
- Second WAN interface for additional DSL bonding or Dial backup options
- Auxiliary Serial Port: Connect to external analog or ISDN modem for backup or remote configuration. Or use with optional AppleTalk kit

LAN Interface

- 8-port 10-BaseT Ethernet hub with uplink switch

Management Interface

- Console Management port for direct console connections to PC (DB9) or Macintosh (mini-DIN8), cables included
- Remote out-of-band management available over modem connection, requires optional Aux Port Modem Cable (TE6/DB25)
- In-bound management via Telnet, SNMP or Web

Security Features

- **Built-in Firewall:** Pre-configured firewall to disallow all inbound traffic originated from the Internet; pre-configured NetBIOS filters to optimize performance of DSL link. Includes IP & IPX (RIP and SAP) filtering; Filter packets on a per-connection profile basis for source/destination address, service and protocol. Up to 255 rules in up to 8 filter sets.
- **Secure VPN:** (Optional on R3100-T) Set up encrypted Virtual Private Networks for building intranets and extranets to serve remote users, branch offices, and business partners. Integrated PPTP Access Concentrator (PAC) and Network Server (PNS) functionality compatible with Microsoft Windows 95/98/NT Dial-Up Networking clients. Also includes ATMP for interoperability with Ascend routers and 56-bit DES Netopia extensions for an efficient, secure VPN connection between offices using a Netopia.
- **NAT/NAPT:** (Network Address and Network Address Port Translation): Provides enhanced security and flexibility by "hiding" all IP addresses on the LAN behind a single statically or dynamically assigned IP address on the Internet. Port Translation allows mail, Web, PPTP, and other servers on the LAN to be accessible from the Internet. (RFC 1631)
- **MultiNAT:** Sophisticated extension NAT (RFC 1631) that provides security of a NAT "wall" to hide LAN IP addresses while providing flexible use of all addresses offered by Internet Service Provider.
- **Scheduled Connections:** Connection profiles (ISP connection or VPN tunnels) can be initiated on a schedule to define full-time, on-demand, or periodic connections. Up to 16 connections can be scheduled including blackout periods and on-demand connection windows.

Advanced Features

- **Dynamic Host Configuration Protocol (DHCP) Number Server Client and Relay Agent:** As a DHCP server (RFC 2131), the router allows LAN clients to get their IP address automatically. As a DHCP client (RFC 2152), the router can acquire IP configuration information from a remote server. As a DHCP Relay Agent (RFC 1542) the router can forward DHCP requests from LAN

clients to a centralized DHCP server.

- **Modular Architecture:** Flexible hardware design lets you add or change connection types by swapping out WAN module cards.
- **Optional DSL Bonding (IMUX):** Combine four IDSL lines for speeds up to 576 Kbps. Standard on model R3232-1. Available only through service providers using Copper Mountain DSL Central Office equipment.
- **Dial backup:** (Optional on R3100-T) Backup to analog or ISDN modem connected to auxiliary serial port. Requires optional Aux Port Modem Cable (TE6/DB25).

Management Features

- **SmartStart:** Application for easy initial router configuration over an Ethernet network.
- **Easy Setup:** Menu-driven console screens step through required configuration of basic parameters.
- **Auto SpeedSet:** Automatically hunts through available speed modes until successfully trains at the speed set by remote DSL concentrator.
- **Management Security:** Password-protected with up to 4 user names and passwords.
- **LEDs:** 21 diagnostic lights for at-a-glance management of Ethernet, WAN, and power connections.
- **Firmware:** Upgrade firmware in flash memory via TFTP or X-Modem transfer using modem or direct cable connection; configuration retained with upgrades; battery backup to protect configuration across power failures.
- **ICMP Ping:** Tests IP connectivity from router to local or remote site.
- **Trace Route:** Determines routing path to particular host name or IP address.
- **Trivial File Transfer Protocol (TFTP):** Allows remote upload and download firmware and configuration files directly to the router.
- **Telnet Client:** Provides remote management access to Telnet hosts on the LAN or WAN.
- **Syslog Client:** Maintains ongoing activity log on a syslog server.
- **SNMPv1:** (RFC 1157) and MIB II (RFC 1213), Ethernet MIB and enterprise MIB for remote management using console applications.

Protocol Support

- **Network Protocols:** IP and IPX routing (AppleTalk tunneling and LAN routing available with optional AppleTalk kit).
- **ATM Protocols:** ATM Multiprotocol Encapsulation over ATM Adaption Layer 5 (AAL5) Logical Link Control (LLC) encapsulation (RFC 1483).
- **Frame Relay:** Supports ANSI T1.617 and ANSI T1.618 Annex D LMI, Annex A and Cisco LMI, RFC 1490 Multiprotocol Interconnect over Frame Relay.
- **PPP over ATM:** PAP, CHAP or no authentication (RFC 2364). Compression Control Protocol (RFC 1974).
- **Compression:** IP Control Protocol (RFC 1332), PPP Stac LZS Compression Protocol, Ascend LZS Compression Protocol, Van Jacobson Header Compression.
- **Virtual Circuit:** Terminates ATM Permanent Virtual Circuit (PVC) with ATM Adaptation Layer 5 (AAL5); Allows manual configuration of Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI).

- **Routing:** Transmit and Receive RIPv1 and RIPv2 (RFC 1723) and RIPv1 compatibility mode, up to 16 static routes with default route and the option to not advertise routes, configurable with up to 8 subnets on LAN with DHCP pool associated with each subnet.
- **IP Addressing:** Dynamic Host Configuration Protocol (DHCP) and BootP servers. Supports up to 8 different pools of IP addresses (one per subnet) with a maximum of 512 addresses.
- **WAN IP Interface:** Numbered or Unnumbered Interface.
- **Connection profiles:** Specify configuration information for up to 16 Virtual Private Networks (or up to 15 Virtual Private Network Tunnels)

Feature Add-ons

- **AppleTalk Kit:** Interconnect remote AppleTalk networks using AURP or provide Internet Access to older Macintosh networks via Mac IP and LocalTalk to Ethernet routing. (TER/AT1)
- **Aux Port Backup Kit:** (for R3100-T only) Adds backup support via an external analog or digital modem attached to the router auxiliary serial port. Includes a DB25 serial cable. (TER/ABK)
- **Secure VPN:** (for R3100-T only) Adds Secure VPN solution using PPTP and ATMP. Firmware key only. (TER/VPN2)
- **DSL Bonding Add-On:** Allows bonding of multiple DSL lines (IMUX) when used in conjunction with Copper Mountain central office equipment, thus multiplying available bandwidth up to four times. Upgrading to support DSL Bonding requires purchase of an additional DSL WAN module (TER/31 or TER/32) and the firmware upgrade (TER/IMUX).
- **Aux Port Modem Cable:** Use to connect DB25 connector on analog or ISDN modem to router for backup or remote management. (TE6/D25)

WAN Module Add-ons

- **TER/20:** V.90 Integrated Backup Module
- **For Copper Mountain only and available Q1 2000**
 - **TER/31:** IDSL Module (144 Kbps bandwidth)
 - **TER/32:** IDSL 2-IMUX Module (adds 288 Kbps bandwidth)

Package Includes

- Netopia Router
- One 14.5 ft. RJ45 10Base-T Ethernet cable
- Console cable
- CD containing complete documentation, useful setup programs, Internet browsers and other valuable applications
- 2 user License of Timbuktu Pro collaboration software

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