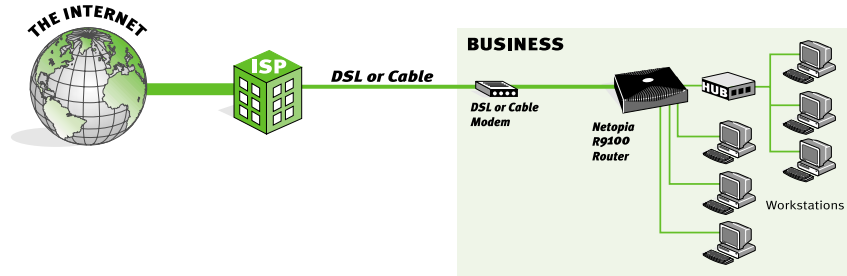


netopia® R9100 Ethernet Routers

Add Firewall, Secure VPN and Routing Features to DSL and Cable Modem Connections



HIGHLIGHTS

- Firewall to protect LAN resources from Internet intruders
- Secure VPN to provide restricted access to LAN resources for remote branch offices, travellers and remote workers over the Internet
- NAT and MultiNAT for secure and seamless Internet access for users and LAN-based servers
- V.90 or ISDN Dial backup options
- Built-in 8-port 10-BaseT Ethernet hub with uplink switch

The Netopia R9100 Ethernet Router allows small and medium size businesses to connect a LAN to the Internet via the Ethernet port on a DSL or Cable modem.

The Netopia R9100 Router is equipped with powerful setup and management features, making shared Internet connectivity simple and easy. Built-in firewall, NAT and MultiNAT features protect a network from would-be intruders.

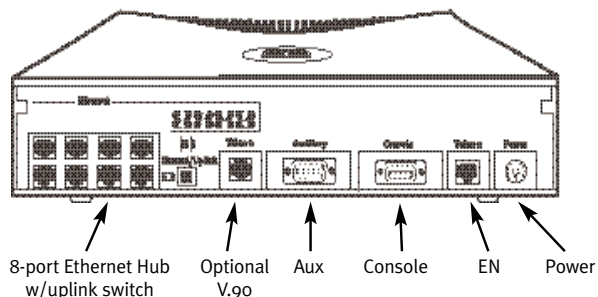
The Netopia R9100 includes an integrated 8-port Ethernet hub with an uplink port for connection to an external hub, so no additional equipment is required to create a new network or expand an existing local network.

Versatile secure VPN features allow dial-in users, remote offices or trusted business partners to access the LAN from anywhere on the Internet using a secure, encrypted tunnel. Netopia's secure VPN saves a business money by eliminating the need for costly remote access servers (RAS), by reducing long distance phone charges, and by using the built-in VPN client included Microsoft Windows.

The R9100 router is designed with a modular architecture to allow for future upgrades. Backup features offer the redundancy to ensure that Internet connectivity is always available for LAN users and LAN-based Internet servers.

PART NUMBERS

R9100	Ethernet Router
R9100-12	Ethernet Router, 12 User
TER/AT1	AppleTalk Kit
TER/AD1	Analog Dial-in Kit
UPR/UL	Unlimited User Upgrade
TE6/DB25	Aux Port Modem Cable
TER/20	V.90 WAN Module
TER/31U	ISDN U WAN Module
TER/31S	ISDN S/T WAN Module



Technical Specifications

Physical Interfaces

WAN Interface:

- 10-BaseT Ethernet port to connect to any broadband modem, such as DSL or Cable, with a 10-BaseT Ethernet port.
- Auxiliary Port: HD15 serial interface to connect to an external modem for remote configuration, backup to external analog or ISDN modem, or for adding optional features such as LocalTalk-to-Ethernet routing.

LAN Interface:

- Ethernet 8-port 10-BaseT hub with uplink switch to easily connect to another hub.
- Serial Console port Management port for direct console connections to PC (DB9) or Macintosh (mini-DIN8), cables included.
- 10-BaseT Ethernet/WAN port can be used as a LAN interface when LAN segmentation is desired.

Security Features

- **Built-in Firewall:** Pre-configured firewall to disallow all inbound traffic originated from the Internet; NetBIOS filters pre-configured to optimize performance of WAN 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:** 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 and NT Servers. Can replace NT server to provide VPN access to remote users. Also includes ATMP for interoperability with Ascend routers and 56-bit DES Netopia extensions for an efficient, secure VPN connection between remote offices using Netopia routers.
- **NAT/NAPT:** Network Address and Network Address Port Translation: maps multiple IP clients to ports of one or more externally visible IP addresses. "Hides" all IP addresses on your LAN behind one Internet IP address by translating IP addresses on LAN to a single static or dynamically assigned IP address on WAN. Allows mail, Web, PPTP and other servers on LAN to be accessible from the Internet (RFC1631).
- **MultiNAT:** Sophisticated NAT (RFC 1631) extension that provides security of a NAT "wall" to hide LAN IP addresses on LAN while providing flexible use of all addresses offered by an ISP.
- **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 configuration automatically. As a DHCP client (RFC 2152), the router can acquire IP configuration information from a remote server. As a DHCP Relay Agent (RFC1542) 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.
- **Dial backup:** Backup to analog or ISDN modem connected to auxiliary serial port. Requires Aux Port Modem Cable Add-on (TE6/DB25).

Management Features

- **Easy Setup:** Menu-driven console screens step through required configuration of basic parameters.
- **Web based Management:** Web-based tool displays current router activity including most recent connection statistics and more.
- **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 system analog server.
- **SNMPv1:** (RFC 1157) and MIB II (RFC1213), Ethernet MIB and Enterprise MIB for remote management using console applications.

Protocol Support

- **Network Protocols:** IP and IPX routing (AppleTalk tunneling and LocalTalk to EtherTalk routing with MacIP available with optional AppleTalk Kit).
- **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.
- **Server Lists:** Allows Web, mail and other hosts on the LAN to be accessible to clients on the Internet when NAT is enabled.
- **Routing:** Transmit and receive RIPv1 and RIPv2 (RFC1723) 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.

- **WAN IP Interface:** Numbered or Unnumbered Interface.
- **Connection profiles:** Specify configuration information for up to 15 Virtual Private Network Tunnels in addition to a primary WAN connection.

Add-on Kits

- **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)
- **Analog Dial-in Kit:** Adds remote access server (RAS) functionality and analog dial-in support via an external analog modem attached to the router auxiliary serial port. Includes a DB25 serial cable. (TER/AD1)
- **Unlimited User Upgrade:** Firmware key to allow unlimited users. (UPR/UL)
- **Aux Port Modem Cable:** Use to connect DB25 connector on analog or ISDN modem to router for backup or remote management. (TE6/D25)

WAN Modules

- **TER/20:** V.90 Integrated Backup Module
- **TER/31U:** ISDN U Integrated Backup Module (Requires firmware upgrade available Q1 2000)
- **TER/31S:** ISDN S/T Integrated Backup Module (Requires firmware upgrade available Q1 2000)

Package Includes

- Netopia Router
- One 14.5 ft. RJ45 10-BaseT 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

Hardware Specifications

- **Memory:** 4 MB DRAM memory
- **Environmental Requirements:** Operating: 0° to +40° C. Storage: 0° to +70° C (20 to 80% non-condensing)
- **Power Requirements:** AC 100-240 V; 50/60 Hz; 1.2A
- **Dimensions:** 9.45" (240 mm) wide X 2.25" (57.2 mm) high X 7.95" (202 mm) long
- **Weight:** 1lb, 14 oz (851 g) (unit carton)
- UL Listed, CSA Approved, FCC part 68 and part 15, Class A

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