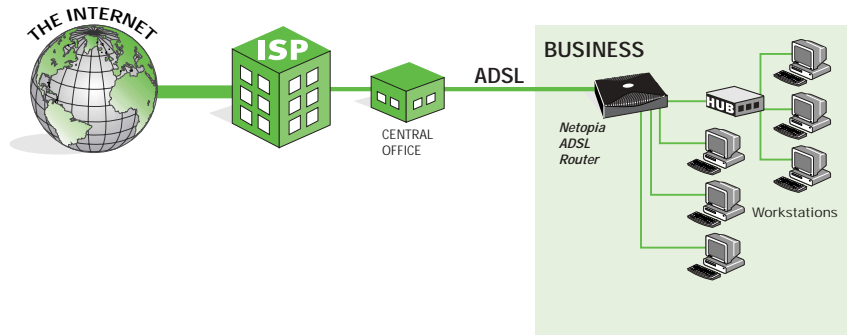
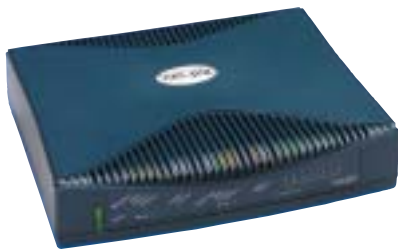




# R6100 ADSL Routers

*Fast, 'Always-on' Internet Access with Security Built in and Dial Backup Options*



## Highlights

- ▶ Fast, always-on connection at up to 8 Mbps down from the Internet and 1 Mbps upload speeds
- ▶ Compatible with G.dmt (ADSL) and G.lite
- ▶ Built-in firewall to protect LAN resources from Internet intruders
- ▶ Built-in VPN features offer secure Internet connections to remote offices and telecommuters. Supports PPTP (client & server), IPSec (with IKE) & ATMP.
- ▶ VPN Acceleration module available for 3DES encryption and best IPSec performance
- ▶ NAT and dynamic MultiNAT for secure Internet connectivity, access to LAN-based servers and dynamic use of multimedia applications
- ▶ PPTP, PPPoE and PPPoA support for user access control
- ▶ Built-in 8-port 10BaseT Ethernet hub with uplink switch
- ▶ Modular architecture for hardware and feature upgrades
- ▶ Includes support for V.90 or ISDN dial backup to external modem or optional integrated module
- ▶ Includes Timbuktu Pro Remote Control for 2 users

The Netopia R6100 ADSL Router is perfect for small and medium size businesses that want cost-effective, always-on Internet access with business-class security and reliability.

Designed with small businesses in mind, the Netopia R6100 includes an integrated 8-port Ethernet hub with an uplink port for connection to an external hub. No additional equipment is required to create a new network or expand an existing local network.

The Netopia R6100 Router is equipped with powerful setup and management features, making shared Internet connectivity simple and easy. Built-in firewall and NAT protect a network from would-be intruders. Dynamic MultiNAT allows access to LAN-based servers and dynamic use of all ISP-provided IP addresses for multimedia applications (such as NetMeeting and QuickTime 4).

Versatile secure VPN features with IPSec support allow remote users, mobile workers, 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 business money by eliminating the need for remote access servers (RAS), by reducing long distance phone charges, and is compatible with Microsoft Windows Dial-Up Networking Clients.

As businesses increasingly rely on the Internet to conduct their business, the Netopia R6100 includes dial backup through an external ISDN or analog modem to secure a redundant always-on access to the Internet.

The R6100 Router is designed with a modular software and hardware architecture to allow the addition of feature set add-ons, upgrades to future connectivity technologies or the addition of an internal analog or ISDN WAN module.

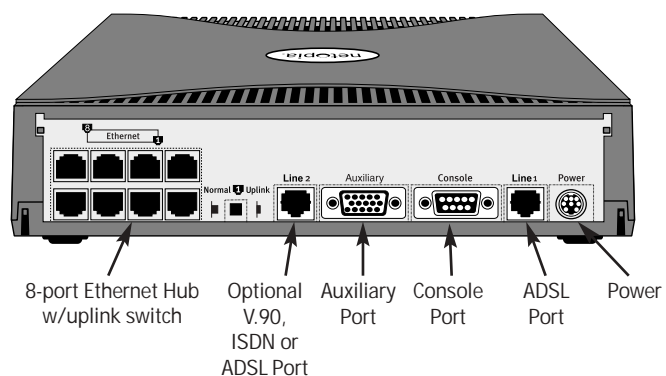
### Part Numbers

R6100	ADSL Router
R6120	ADSL Router w/Integrated V.90 Backup*
R6131-S	ADSL Router w/Integrated ISDN Backup

### Options

TER/AT1	AppleTalk Kit
TE6/DB25	Aux Port Modem Cable
TER/20IN	V.90 WAN module*
TER/31S	ISDN S/T WAN module
TER/61	ADSL WAN module
TER/XL	VPN Acceleration module

\* Not available in all countries



# Technical Specifications

## Physical Interfaces

### WAN Interfaces:

- ADSL: ALCATEL DynaMiTe Chipset, ANSI T1.413 Issue 2, ITU G.992.1 (G.dmt), ITU G.992.2 (G.lite), ITU G.994.1 (G.hs) and ITU G.997.1 (Mgmt)
- Optional port for analog or ISDN WAN module
- Auxiliary Port: HD15 serial interface to connect to an external modem for remote configuration, backup to an external analog or ISDN modem, or for adding optional features. See list in "Add-ons".

### LAN Interfaces:

- Ethernet 8-port 10BaseT hub with uplink switch to easily connect to another hub.
- Serial console port management for direct console connections to PC (DB9) or Macintosh (mini-DIN8), cable included.

## Security Features

- **Built-in Firewall:** Firewall with pre-configured filter set to disallow all inbound traffic originated from the Internet; pre-configured NetBIOS filter set 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. Menu-based interface.
- **Secure VPN:** Set up encrypted Virtual Private Networks for building intranets and extranets to serve remote users, branch offices, and trusted business partners. Supports 3 different modes: PPTP, IPsec & ATMP. Integrated PPTP Access Concentrator (PAC) and Network Server (PNS) functionality compatible with Microsoft Windows Dial-Up Networking clients and NT/2000 Servers. Can replace NT/2000 server to provide VPN access to remote users. Built-in IPsec support with DES and Internet Key Exchange (IKE) as well as manual key entry, fully interoperable with major IPsec vendors. 3DES requires the TER/XL Acceleration module which is also recommended for best IPsec performance. Also supports ATMP for interoperability with Ascend routers including Netopia proprietary 56-bit DES extension. Menu-based interface.
- **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).
- **Dynamic MultiNAT:** Sophisticated NAT (RFC 1631) extension that provides flexible implementation of NAT, including dynamic use of all ISP provided addresses and support for multimedia applications.
- **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.
- **Authentication:** PPTP (RFC 2516)

## 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 2132), 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. DHCP Management features include reservation/exclusion of IP addresses.

- **Modular Architecture:** Flexible hardware design lets you add or change connection types by swapping out WAN module.

## Management Features

- **Easy Setup:** Menu-driven console screens step through required configuration of basic parameters.
- **Web based Management:** Web-based tool displays real time view of 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 syslog server.
- **SNMPv1:** (RFC 1157) and MIB II (RFC1213), Ethernet MIB and enterprise MIB for remote management using console applications.

## Protocol Support

- **ATM Protocols:** ATM Multiprotocol Encapsulation over ATM Adaption Layer 5 (AAL5) Logical Link Control (LLC) encapsulation (RFC 1483), bridged and routed modes
- **ATM over PPP:** PAP, CHAP or no authentication (RFC 2364). CCP (RFC 1974)
- **Compression:** IP Control Protocol (RFC 1332), PPP Stac LZS Compression Protocol, Ascend LZS Compression Protocol, Van Jacobson Header Compression
- **ATM Traffic Shaping:** Universal Bit Rate (UBR), Constant Bit Rate(CBR)
- **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 32 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.

## Dial Backup

- **External Dial Backup:** Automatic or manual dial backup, and automatic or manual recovery supported as a standard feature using an analog or ISDN modem

connected to the auxiliary serial port. Requires Aux Port Modem Cable Add-on (TE6/DB25).

- **Optional Integrated Dial backup:** Provides same dial backup functionality using internal WAN modules.

## WAN Modules

- **TER/201N:** V.90 Integrated Backup module (not available in all countries)
- **TER/31S:** ISDN S/T Integrated Backup module

## Add-ons

- **VPN Acceleration Module (TER/XL):** Allows maximum transfer speed for VPN connection by using a dedicated hardware processor to accelerate the processing intensive encryption algorithms. Accelerates IPsec, ATMP and PPTP connections. Required when using 3DES IPsec encryption.
- **AppleTalk Kit (TER/AT1):** Interconnects remote AppleTalk networks using AURP or provide Internet Access to older Macintosh networks via Mac IP and LocalTalk to Ethernet routing.
- **Aux Port Modem Cable (TE6/DB25):** Use to connect DB25 connector on analog or ISDN modem to router for backup or remote management.

## Package Includes

- Netopia Router
- 10BaseT Ethernet cable (RJ45)
- Console cable
- CD containing complete documentation, useful setup programs, Internet browsers and other valuable applications
- 2 user License of Timbuktu Pro remote control software

## Hardware Specifications

- **Memory:** 4 MB DRAM memory
- **Environment 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:** 240 mm wide x 57.2 mm high x 202 mm long
- **Weight:** 851 g (unit carton)
- UL Listed, CSA Approved, FCC part 68 and part 15, CISPER B, CE

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