# Apple Internet Router

With the Apple Internet Router, you can easily increase the size, enhance the performance, and improve the management of your organization's AppleTalk network.

The router offers you both local and wide area networking flexibility. You can connect your local workgroups over industry-standard network types, including LocalTalk, Ethernet, and Token Ring. And, as your network grows larger and more global, the Apple Internet Router lets you choose among several wide area options–you can link remote sites to your network through a dial-up connection over a standard modem, or you can add one of the Apple Internet Router Wide Area Extensions (available separately) to link your AppleTalk networks using X.25 or TCP/IP.

The Apple Internet Router features the AppleTalk Update-based Routing Protocol (AURP), a powerful wide area networking standard. AURP ensures that wide area links function efficiently, substantially reducing the traffic over wide area networks. With AURP, you can be certain that you're maximizing the use of your network resources.

Because the Apple Internet Router software runs on a broad range of Apple Macintosh computers and Workgroup Servers, you can tailor your router configurations to meet your cost/performance requirements. And, like other Macintosh computer–based software, the router is easy to use, configure, and support. Even a network novice can have the router up and running and can begin to make use of its powerful features within minutes. In addition, the router has built-in support for the Simple Network Management Protocol (SNMP), so it can be easily monitored by any SNMP-based management station.

Whether you have a small office and want to connect together a few workgroups or you're part of a multinational corporation with global internetworking needs, the Apple Internet Router provides the perfect

## Features

**Easy to Set Up and Use**
- Offers Macintosh computer–based administration and configuration
- Operates in background, allowing other services to run concurrently

**LAN and WAN Support**
- Local workgroups can be connected with LocalTalk, Ethernet, or Token Ring
- Remote sites can be linked through dial-up modems, X.25, or TCP/IP

**Protection from Unauthorized Access**
- Administrator password option to lock out unauthorized access
- Dial-up authorization to authenticate remote sites

**Network Efficiency**
- Isolation of local traffic
- Update-based routing for efficient use of network resources
- Network-number clustering and remapping
- Built-in data compression for maximizing throughput

**Robust Administration**
- Reporting facilities to maintain network statistics
- Network management through industry-standard SNMP
- Ability to export data

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## Ordering Information

**Apple Internet Router**
**Basic Connectivity Package 3.0.1**
Order no. M0502Z/B
- Apple Internet Router software and installer
- Apple Internet Router Administrator's Guide
- DialUp Wide Area Extension
- SNMP Router Agent

**Apple Internet Router**
**AppleTalk/X.25 Wide Area Extension**
Order no. M8111Z/A
(requires purchase of Basic Connectivity Package)
- Router X.25 software and installer
- Using the AppleTalk/X.25 Wide Area Extension guide
- MacX25 Administrator's Guide
- MacX25 client/server software

**MacX25 Router Extension**
Order no. M8068Z/A
(requires purchase of Basic Connectivity Package and MacX25 v1.2)
- Router X.25 software and installer
- Using the AppleTalk/X.25 Wide Area Extension guide

**Apple Internet Router**
**AppleTalk/IP Wide Area Extension**
Order no. M8112Z/A
(requires purchase of Basic Connectivity Package)
- Router IP software and installer
- Using the AppleTalk/IP Wide Area Extension guide

*Product specifications may vary depending on particular configuration or region in which purchased and subject to change without notice. Please see your Apple reseller for current information about product specifications and configurations.*

## Technical Specifications

**Operating Requirements**
**Basic Connectivity Package**
- System software version 7.0 or later
- A Macintosh computer with at least 4 megabytes of memory, a Power Macintosh computer or a Workgroup Server
- Dial-up connections require V.32/9,600 bps or higher-speed modem
- Works on AppleTalk Phase 2 networks only
- Power Macintosh computers and PowerPCTM microprocessor-based Workgroup Servers require Network Software Installer (NSI) 1.4.3 or later

**AppleTalk/X.25 Wide Area Extension**
- Basic Connectivity Package must be installed
- Apple Serial NB Card(s)
- Available for 680x0-based Macintosh computers and Workgroup Servers only

**AppleTalk/IP Wide Area Extension**
**Product Details**
- Basic Connectivity Package must be installed
- Ethernet or Token Ring connectivity

**Setup and Configuration**
The router provides the ease of use you've come to expect with any Macintosh computer–based application. You simply select the port you wish to configure and depending on the connection, enter a network, host, or phone number for each network you want to interconnect. The rest is automatic, because the Apple Internet Router communicates dynamically with other routers to build a table of the entire internet. And, because the router runs in the background, you can maximize your investment by running other services such as AppleShare and SNA•ps concurrently.

**Network Types**
The Apple Internet Router can interconnect all types of AppleTalk networks, including:
- LocalTalk
- Ethernet
- Token Ring

This offers you great flexibility in choosing network media and topologies. You can use the router for such things as connecting LaserWriter printers on LocalTalk networks to Ethernet, connecting networks with dissimilar media, isolating network segments for security and performance, and extending the network beyond physical segment limitations. Multiple Token Ring cards with Power Macintosh computers and PowerPC microprocessor-based Workgroup Servers require NSI 1.4.5 or later.

**Monitoring and Control**
Through the Router Manager application, you can:
- Monitor network activity and network statistics
- View an active routing table of the entire internet
- Change the router setup information
- Print and export the contents of the setup and administrative displays

In addition, the Apple Internet Router supports the Simple Network Management Protocol (SNMP), enabling you to monitor the router from any SNMP-based management station. For Power Macintosh computers and PowerPC microprocessor-based Workgroup Servers, MacSNMP 1.1 is required.

**Security**
The Apple Internet Router offers sophisticated security options that protect the router and your sensitive network resources from unauthorized access, including:
- Router-administration password option
- Device hiding
- Network-number hiding
- Password and callback for dial-up connections

**WAN Support**
With the Apple Internet Router Wide Area Extension options you can connect geographically remote workgroups using wide area telecommunications links. The Apple Internet Router Wide Area Extension products include:
DialUp Wide Area Extension
(included with Basic Connectivity Package)
The DialUp Wide Area Extension:
- Connects two or more AppleTalk networks regardless of location using standard dial-up phone lines
- Works with any Hayes-compatible 9,600-bps or higher-speed modem with the appropriate script
- Includes modem scripts for many popular modems

**AppleTalk/X.25 Wide Area Extension**
(available separately)
The AppleTalk/X.25 Wide Area Extension:
- Enables two or more AppleTalk networks to communicate through an X.25 communications link, extending the wide area networking capabilities of the Apple Internet Router
- Offers a wide variety of X.25 parameter settings, enabling you to implement the most effective X.25 services
- Provides a set of standard profiles for the major public packet-switched networks worldwide
- Allows you to create your own customized profiles for any public or private data network
- Is available for 680x0-based Macintosh computers and Workgroup Servers

**AppleTalk/IP Wide Area Extension**
(available separately)
The AppleTalk/IP Wide Area Extension:
- Enables two or more AppleTalk networks to communicate through a TCP/IP network
- "Tunnels" AppleTalk packets over TCP/IP backbone networks
- Offers configuration by IP address, host name, or "guest"
- Supports Ethernet or Token Ring

**Traffic Minimization**
Several features of the Apple Internet Router ensure that only information that needs to travel across your communications link does so:
- AppleTalk Update-based Routing Protocol (AURP)
- Built-in data compression
- Network-number clustering

**Support of Large Networks**
The Apple Internet Router lets you build large internets that can connect across the street or around the world. An AppleTalk internet can support as many as 16 million devices (nodes) distributed over a virtually unlimited number of interconnected networks. And, because the Apple Internet Router provides for a nearly limitless number of networks and zones per internet, it can grow right along with your organization.

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## Technical Specifications (continued)

**Extensibility**
Because the Basic Connectivity Package was designed with extensibility in mind, you can choose from a wide variety of internetworking options. In addition to Apple's wide area extensions, third-party offerings let you expand in the areas of:

- Local area connectivity (such as FDDI)
- Wide area communications (such as SMDS, T1, SW 56/64)
- Network management
- Multiprotocol support (such as IPX, TCP/IP)

**Specifications**

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|---|---|
| Router table entries | 5,400 maximum |
| Nodes per internet | 16 million |
| Ports per router | up to 32 |

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April 1994. Product specifications are subject to change without notice. Please see your Apple reseller for current information about product specifications and configurations.
Printed in U.S.A.
L00333B