# CHAPTER 1-OVERVIEW

This chapter introduces AppleTalk Connection and provides an overview of how AppleTalk Connection software allows the configuration of a Macintosh computer for management by an SNMP console. It also specifies hardware and software requirements for the Macintosh computer on which you will be installing the MacSNMP software. The chapter also describes the components of your AppleTalk Connection product package.

## About AppleTalk Connection

AppleTalk Connection software provides the latest version of Apple's networking software (the AppleTalk transport stack and updated software drivers for LocalTalk, Ethernet, and Token Ring network connections).

The AppleTalk Connection software also includes support for SNMP (Simple Network Management Protocol), which brings industry-standard network management capability to the Macintosh. With the installation of MacSNMP software, Macintosh computers using AppleTalk Connection software can be managed by existing UNIX-based SNMP management consoles.

The AppleTalk Connection kit also provides the MacSNMP Client application, which provides the user of a networked Macintosh with the ability to perform such basic tasks as sending a message to the administrator, viewing access privileges, and importing communities.

About MacSNMP

Historically, network management vendors have relied on proprietary technologies to develop products that can manage network operations. As networks have grown to include many different types of networking environments, network managers are faced with integrating many different products and standards.

One approach to providing a unified standard for network management is SNMP. Developed by the Internet Engineering Task Force (IETF) to address network management of TCP/IP internets, the intent of SNMP was to provide a simple, reliable network management protocol. SNMP has since broadened to run independently of any network protocol, and is now a standard for managing devices on a multivendor network.

An SNMP network management system consists of software running on a computer known as the console and SNMP agent software that is installed on each networked computer. The agent software collects information -- called variables -- from the computer and, when requested, relays this information to the console. Upon the console's request, the agent can also make modifications to the management information.

The Apple implementation of SNMP, MacSNMP, provides the agent component of an SNMP network management system, allowing Macintosh computers on multivendor networks to be managed by third-party SNMP consoles. MacSNMP software consists of several components:

- The SNMP Manager, which runs on each networked Macintosh, collects

information from the agents and relays it to the console.

- SNMP agents, which run on each networked Macintosh, provide information to the SNMP Manager.

- SNMP transports provide a common interface between the network protocol and the SNMP Manager.

All MacSNMP software components are System 7 extensions, automatically placed in the System Folder during installation.

System requirements

The AppleTalk stack and network driver software are designed to run on members of the Macintosh family of computers (Macintosh Plus or later). The software requires a hard disk and Macintosh system software version 6.0.5 or later with at least 1 megabyte (MB) of random-access memory of (RAM). (You need 2 MB of RAM with system software version 7.0 or later.)

If you will be using the MacSNMP software, you require

- Macintosh system software version 7.0 or later and at least 4 MB of memory

- connection to an appropriate SNMP console

Your AppleTalk Connection package

Your AppleTalk Connection product package contains two disks, this document, and a software license agreement.

The Network Software Installer disk

The Network Software Installer disk contains the installer script that installs the latest versions of network software on your Macintosh computer. Network software includes

- the latest version of the AppleTalk protocol stack and network resources

- updated software drivers for LocalTalk, Ethernet, and Token Ring network connections (The drivers support Apple's network interface cards.)

The AppleTalk Connection disk

The AppleTalk Connection disk contains the installer script that installs SNMP software on a networked Macintosh computer. The SNMP software provided on the disk includes

- SNMP Manager, which collects information from the individual SNMP agents and relays the information to the console

- SNMP Macintosh Agent, which reports Macintosh system information to the SNMP Manager

- SNMP AppleTalk Agent, which reports information about core AppleTalk protocols to the SNMP Manager

- SNMP Transport, which provides the transport-independent interface between the network protocol and the SNMP Manager

- SNMP Preferences file, which provides information about the relationship between the console and managed computers (This file must be configured by the network administrator before the AppleTalk Connection software can be installed on a network user's Macintosh.)

The disk also contains

- MacSNMP Client application, which provides the user of a networked Macintosh with the ability to perform such basic tasks as sending a message to the administrator, viewing access privileges, and importing communities

- User Instructions, a file providing instructions for installing and using the MacSNMP Client application (The file duplicates the instructions provided in this document.)

### CHAPTER 2-INSTALLING THE APPLETALK CONNECTION SOFTWARE

This chapter explains how to install the AppleTalk Connection software, which provides your Macintosh computer with updated versions of AppleTalk and various network drivers, as well as MacSNMP software that adds support for the management of your computer from an SNMP console.

Obtaining the AppleTalk Connection software

Your network administrator has chosen a method for distributing and installing the AppleTalk Connection software that best meets the need of your networking environment. Depending on your site requirements, you may have received instructions in the form of

- a printed copy of this entire document
- printed excerpts of this document
- an electronic file

Contact your network administrator if you are unsure about how to proceed.

Installing AppleTalk Connection software from floppy disks

This section tells you how to install the AppleTalk Connection software from the floppy disks provided in your product package, or from disks provided by your network administrator.

If your network administrator has instructed you to install the AppleTalk Connection software from a network server or shared Macintosh, see the section "Installing AppleTalk Connection Software Over a Network" later in this chapter.

Updating your network software

It may be necessary for you to use the Network Software Installer disk to install AppleTalk and other appropriate network drivers for your system. This section tells you how to install the network software that provides updates to AppleTalk, the Network control panel, and driver software for LocalTalk, Ethernet, and Token Ring installations. Note You must update your network software before you can install the MacSNMP software that configures your Macintosh computer for network management by an SNMP console.

The Installer program provided on your Network Software Installer disk recognizes your system configuration and recommends software for installation, based on system software version, the type of Macintosh, and the interface cards installed in your Macintosh.

Note Because the installation procedure requires you to restart the Macintosh, save all your work and quit any applications you are running before installing the software.

Follow these steps to install the network files and resources on your Macintosh computer:

1. Insert the Network Software Installer disk into a floppy disk drive.

2. Open the disk and double-click the Installer application icon to start the Installer program.

This program installs the network files and resources on a selected hard disk.

!! IMPORTANT Do not start the Installer application by double-clicking the Network Software Script. If another version of the Installer application exists on your hard drive, it may start up instead and prevent you from installing the network software properly. !!

3. When the Installer's opening display appears, click OK to display the Easy Install dialog box.

The Installer program recognizes whether your current startup disk is running system software version 6.0.x or version 7.x, and specifies the appropriate version of AppleTalk for the Easy Install. It also recognizes your system configuration and provides the appropriate network drivers for Easy Install.

The name of the disk on which you want to install the network software should appear beneath the phrase "on the hard disk named." If it doesn't, click Switch Disk until the right name appears.

For further information about the Installer application and startup disks, refer to the documentation that accompanies your Macintosh computer.

If your current startup disk is running system software version 7.x and an Apple Ethernet NB Card is installed in your Macintosh, the Easy Install screen will appear like this:

The default set of software is tailored to your hardware and software configuration.

Click Customize if you want to install network resources that support other types of configurations.

4. Click Install.

The Installer program begins to install the network software on your Macintosh computer.

When the installation is complete, a dialog box appears, stating that you should restart your Macintosh so that your applications can begin using the new network software.

5. When you see a message reporting that the installation was successful, click Restart.

Your Macintosh restarts.

After the Macintosh has restarted, the network software is ready for use. If you will be running MacSNMP on your Macintosh, you also need to install the software provided on the AppleTalk Connection disk.

Installing connection software

After the network software has been installed, you can install the remaining AppleTalk Connection software -- SNMP files and resources -- on your startup disk.

The SNMP software must be configured for your network before it can be used to manage your Macintosh from a console. Typically, your network administrator will configure the software and copy the updated version to your AppleTalk Connection disk, or to a folder on a file server or shared Macintosh disk.

The Installer program provided on your AppleTalk Connection disk recognizes your system configuration and recommends software for installation, based on the type of Macintosh and the interface cards installed in your Macintosh.

Note Because the installation procedure requires you to restart the Macintosh, save all your work and quit any applications you are running before installing the software.

Follow these steps to install the SNMP files and resources on your Macintosh computer:

1. Insert the AppleTalk Connection disk into a floppy disk drive.

2. Open the disk and double-click the Installer application icon to start the Installer program.

This program installs the SNMP files and resources on a selected hard disk.

!! IMPORTANT Do not start the Installer application by double-clicking the AppleTalk Connection Script. If another version of the Installer application exists on your hard drive, it may start up instead and prevent you from installing the connection software properly. !!

3. When the Installer's opening display appears, click OK to display the Easy Install dialog box.

The name of the disk on which you want to install the AppleTalk Connection software should appear beneath the phrase "on the hard disk named." If it doesn't, click Switch Disk until the right name appears.

4. Click Install.

The Installer program begins to install the SNMP software on your Macintosh

computer. (SNMP software is installed in the Extensions folder within your System Folder.)

When the installation is complete, a dialog box appears, stating that you should restart your Macintosh so that your applications can begin using the new connection software.

5. When you see a message reporting that the installation was successful, click Restart.

Your Macintosh restarts.

Your Macintosh computer can now be managed from an SNMP console that has been configured for Macintosh network management.

Copying the MacSNMP Client application

Your network administrator may instruct you to copy the MacSNMP Client application that allows you to perform tasks that will assist the network administrator in managing the network for SNMP operations.

Follow these steps to copy the MacSNMP client application onto your Macintosh computer:

1. Insert the AppleTalk Connection disk into a floppy disk drive.

2. Open the disk and drag the MacSNMP Client application to your hard disk.

When copying the MacSNMP Client application or other MacSNMP files store the files in a single folder (for example, a folder called MacSNMP Client).

Installing AppleTalk Connection software over a network

If instructed by your network administrator, you can also install AppleTalk Connection software from a network server or shared Macintosh if the software is available on a volume to which you are permitted access.

!! IMPORTANT Always install the network software (the AppleTalk stack and network drivers) before installing the remainder of the AppleTalk Connection software. The MacSNMP software provided as part of the AppleTalk Connection software will not work properly if it is installed before the network software. !!

Follow these steps to install the AppleTalk files and resources from a network server:

1. Use the Chooser to connect to the AppleShare file server or shared Macintosh disk on which your network administrator has set up the AppleTalk Connection software.

If you don't know which file server or hard disk the software is installed on, contact your network administrator.

2. On the file server or hard disk, open the folder called Network Software Installer so that it appears on your desktop and double-click the Installer application icon to start the Installer program.

3. When the Installer's opening display appears, follow the instruction for

installing the network software provided in the section "Updating Your Network Software" earlier in this chapter.

4. When you see a message reporting that the installation was successful, click Restart.

Your Macintosh restarts.

Follow these steps to install the MacSNMP files and resources from a network server:

1. Use the Chooser to connect to the AppleShare file server or shared Macintosh disk on which your network administrator has set up the AppleTalk Connection software.

If you don't know which file server or hard disk the software is installed on, contact your Network Administrator.

2. On the file server or hard disk, open the folder called AppleTalk Connection so that it appears on your desktop.

3. If your network administrator has instructed you to copy the MacSNMP Client application, drag the MacSNMP Client application to your hard disk.

4. Double-click the Installer application icon to start the Installer program.

5. When the Installer's opening display appears, follow the instructions for installing the SNMP software provided in the section "Installing Connection Software" earlier in this chapter.

6. When you see a message reporting that the installation was successful, click Restart.

Your Macintosh restarts.

Selecting a network connection

Your Macintosh should retain its network connection after you've installed the AppleTalk Connection software on your startup disk. If you do need to select a network connection, open the Network control panel and click the icon that represents the type of network connection you will be using. For example, if you are using an Apple Ethernet NB Card to connect to an Ethernet network, you will click the EtherTalk icon.

## CHAPTER 3

#### USING MACSNMP CLIENT

This chapter provides instructions on how to use the MacSNMP Client application to perform basic tasks such as setting a location, sending a message to the network administrator, and importing a community.

The MacSNMP Client application lets you perform a set of tasks that will aid the administrator in managing the network. At the administrator's request, you will use the MacSNMP Client application to supply information about your location or to import a new or modified community. In addition, you can use the application to send a message to the administrator.

If you are uncertain about using the MacSNMP Client application, contact your administrator.

Setting your location

Your network administrator may ask you to supply more information about the location of your Macintosh computer.

Follow these steps to provide your network administrator with information about the location of your Macintosh computer:

1. Double-click the MacSNMP Client application icon to open it.

The client application starts and displays the Community List window.

2. Choose Set Location from the Control menu.

The Set Location dialog box appears, displaying information about the Macintosh running the client software and providing fields for entering additional information.

3. In the Telephone Number text box, type your telephone number.

4. In the Location text box, type the location of your Macintosh computer.

Try to be as descriptive as possible. Include such information as the building, floor, and wing (such as east or west) you're on, and if appropriate, the number assigned to your cubicle. You can type up to 255 characters.

5. Click OK to save the entries.

Note MacSNMP uses the Owner Name and Macintosh Name defined in the Sharing Setup control panel (accessible from the Apple menu). If these two fields are empty, open the Sharing Setup control panel to fill in this information. The AppleTalk address is provided automatically.

6. Choose Quit from the File menu to leave the MacSNMP application.

Sending a message

You can use the MacSNMP Client application to send messages to the network administrator's console. This feature is useful for reporting computer and network problems that need to be corrected quickly.

Follow these steps to send a message to your network administrator:

1. Double-click the MacSNMP Client application to open it.

The client application starts, and displays the Community List window.

2. Choose Send Message from the Control menu.

The Send Message dialog box appears.

Note If, instead of seeing this dialog box, you see a dialog box saying that you cannot send a message, then your administrator has not registered the console name within MacSNMP. Contact your network administrator for assistance.

3. Choose the name of the administrator's console from the "Send to Administrator of" pop-up menu.

4. In the provided text area, type the message.

You can type up to 255 characters.

5. Click Send.

The message is sent immediately to the specified administrator's console.

6. Choose Quit from the File menu to leave the MacSNMP application.

Importing a community

Your network administrator may ask you to import a MacSNMP file called a community to your Macintosh. The community can be stored on a floppy disk, a file server, or a shared disk (such as the administrator's hard disk). If the file is located on a file server or shared disk, make sure you are connected to the server or shared disk on which your network administrator has saved the community.

Follow these steps to import a community:

1. Double-click the MacSNMP Client application icon to open it.

The client application starts, and displays the Community List window.

2. Choose Import Community from the File menu.

A directory dialog box appears, providing a list of folders and community files on the disk in use.

3. Select the location (disk and folder) you want to import the community from, then click Open.

4. If necessary, scroll to locate the community, then click its name to select it.

When a community is selected, the Open button becomes the Import button.

5. Click Import to import the selected community.

Note If the community name already exists on your computer, you will be asked whether you want to replace this existing community. Click the Replace button. The community you selected is imported onto your Macintosh computer.