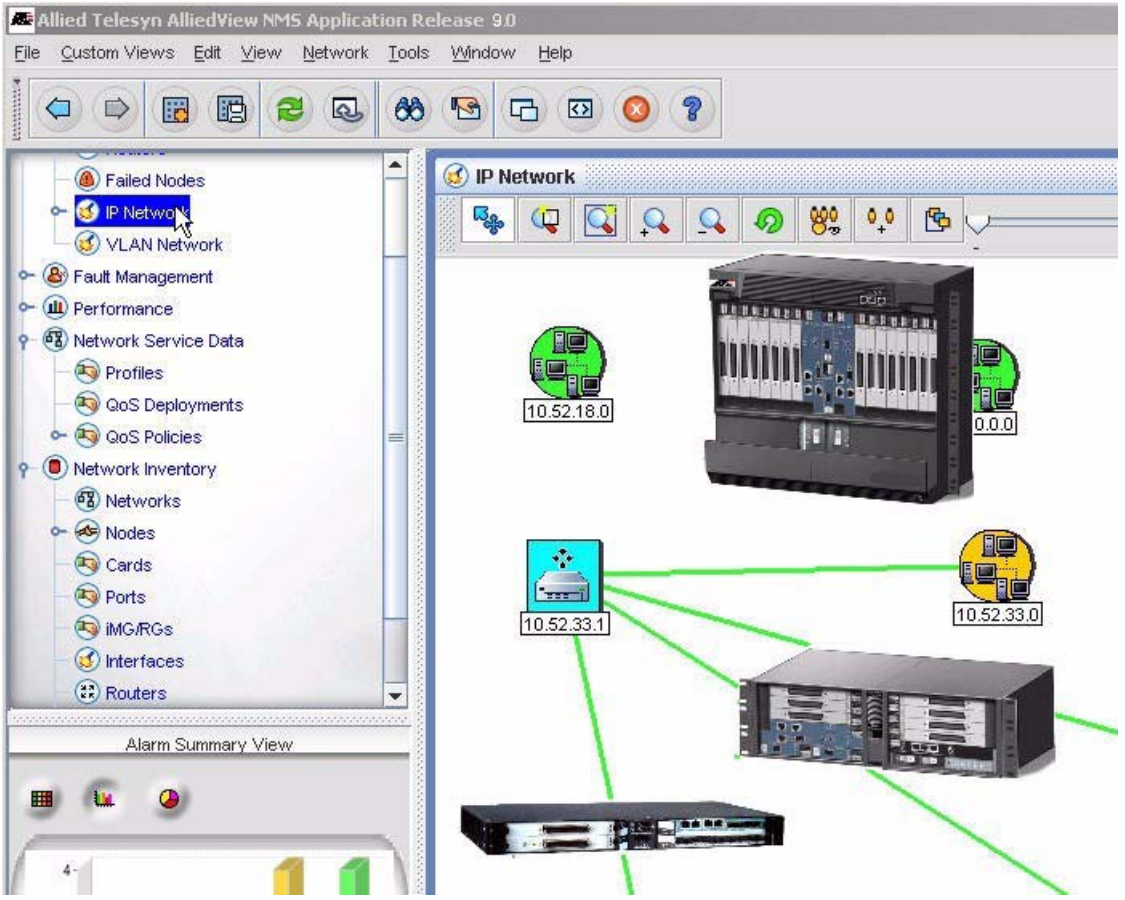

Telesyn™ AlliedView™ NMS System 9.0 Installation Guide Issue 3

Introduction

Congratulations on your purchase of the Allied*View*™ Network Management System product. This product allows users to query all aspects of Allied Telesis products in their network.

Who Should Read This Guide?

This document is for users who need to deploy the AlliedView NMS product on Windows[1] or Solaris[2] platforms. For in-depth knowledge of the NMS and its applications, refer to the *AlliedView NMS AlliedView Administration Guide* and the *NMS User Guide*.

About this Guide

This Guide covers all aspects of the AlliedView NMS 9.0 installation, including:

- The hardware and software requirements
- Any new features for installing, starting, and uninstalling the AlliedView NMS software
- The instructions for installing, restarting, and uninstalling the AlliedView NMS server / client software

This document describes the installation of the AlliedView NMS.

The content of this Guide is organized as follows:

Chapter 1 describes how to prepare for the installation

Chapters 2 and 3 describes how to install the AlliedView NMS on the Windows 2003 and Solaris platform

Chapter 4 describes how to install a AlliedView NMS Service Pack

Chapter 5 describes how to start up the AlliedView NMS Server and clients

Chapter 6 describes how to shut down the AlliedView NMS.

Chapter 7 describes how to uninstall the AlliedView NMS

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1. Registered Trademark ® 2003 Microsoft Corporation. All Rights Reserved.
2. Registered Trademark ® 2003 Sun Microsystems, Incorporated. All Rights Reserved.

Chapter 8 describes how to uninstall a Service Pack.

Chapter 9 gives installation scenarios and includes references when needed to other sections or documents.

The Appendix describes how to enable anonymous ftp.

Reason for Update

For AlliedView NMS release 9.0, this document is being updated for the following:

- SSL is being removed
- The HPOV sections are being moved into a standalone document
- The Appendix has been updated, emphasizing that anonymous FTP is used by the NMS to manage certain devices, and therefore must be enabled on the Backend server.

This document is being re-issued (Issue 3) to clarify that Solaris version 8, 9, 10 can be used on the client and server. Refer to Section 1.2.

Service and Support

For information about support services for Allied Telesis, contact your Allied Telesis sales representative or visit the website at www.alliedtelesis.com.

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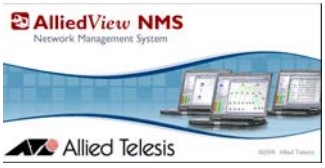


1. Preparing for Installation

1.1 Types of Installation

There are two basic types of AlliedView NMS installations: a full installation and an Upgrade Pack. A full installation is used when installing the NMS for the first time on a host machine. A full installation copies all of the files required to run the NMS to your hard drive. The software is delivered on a CD-ROM., which contains the necessary files, documentation, and an installer program that steps you through the installation process.

AlliedView NMS **Upgrade** Packs are designed to upgrade your NMS to the next major software release. Upgrade packs are mandatory and may not be skipped.

Service Packs are designed to service your AlliedView NMS with software bug fixes and are optional.

Service packs are inclusive of the previous SP so it is only necessary to apply the latest version. For example, if SP 3 is latest version applying it will also apply the contents of SP 1 and SP 2.

Available for use with your AlliedView NMS and HP OpenView is the AlliedView NMS Management Extensions for HP OpenView, which is a set of extensions to HP OpenView that allow the AlliedView NMS to be accessed from the HP OpenView menu. It is a separate product that may be installed on the HP OpenView host machine once your AlliedView NMS is installed.

1.2 System Requirements

The system requirements for the AlliedView NMS are listed in the following table.

TABLE 1-1 AlliedView NMS System Requirements

Requirement	Windows	Solaris
AlliedView NMS 9.0 server	OS: Windows 2003 Machine: Dell, IBM, etc. Processor: 1@3.4 GHz **(2@3.6 GHz)** RAM: 1 GB **(4 GB)** Disk: 40GB **(RAID 5)** Monitor: 1280x1024 resolution	OS: Solaris 8, 9, or 10 Machine: Sun Fire V210 **(V440)** Processor: UltraSparc llli 1.34 GHz **(2@1.59 GHz)** RAM: 1 Gb **(4 GB)** Disk: 40 GB 15,000 RPM SCSI **(RAID 5)** Monitor: 1280x1024 resolution
Client to communicate with AlliedView NMS 9.0 server	OS: Windows 2000/2003/XP Processor: 1GHz minimum RAM: 512 Mb Minimum Monitor: 1280x1024 resolution Java JRE: 1.5.0_05	OS: Solaris 8, 9, or 10 Machine: Sun Blade V125 RAM: 512 MB Monitor: 1280x1024 resolution Java JRE: 1.5.0_05
Browser (Platform Independent)	Explorer 6.0 and above Mozilla 1.7 and above	Mozilla 1.7 and above

1.3 Getting Started

If you are not familiar with the AlliedView NMS, you may want to review the product documentation prior to installation to familiarize yourself with the AlliedView NMS. There are two user documents provided in addition to this Guide: the *AlliedView NMS Administration Guide*, and the *NMS User Guide*. The *NMS Administration Guide* describes the tasks associated with the administration of the AlliedView NMS. The *NMS User Guide* describes the NMS user interface and how it is used. You may need to refer to the *NMS Administration Guide* during the installation process. Locate this document before you start.

Release Notes are provided with each installation CD. These notes contain important information regarding the release or Upgrade Pack you are installing. Before installing your AlliedView NMS software or Upgrade Pack, carefully review the Release Notes and follow any special instructions that may be provided.

Note: You may want to print the Release Notes for future reference.

The preparation required depends on the type of installation you are performing. If you are performing a full installation, refer to 1.4. If you are performing an Upgrade Pack installation, refer to 1.5.

1.4 Preparing for a Full Installation

Before starting the installation, you must verify that the host machine or machines on which you plan to install the AlliedView NMS meet the requirements described in Table 1-1. If any host machine upgrades are necessary, you must perform these upgrades prior to installing the AlliedView NMS. Upgrading host machines is not covered in this document. You will need to refer to the documentation provided with your host machines for these procedures. Do not install or upgrade the AlliedView NMS on a machine until the machine meets the stated requirements.

Caution: The AlliedView NMS server must have a static (rather than dynamic) IP address. Otherwise, traps will not be routed correctly.

If the host machines meet the requirements, you are now ready to begin the installation process. An installation CD-ROM is provided with your AlliedView NMS. If you have not already done so, locate and unpack this CD-ROM.

Note: If you cannot find your CD-ROM, contact your Allied Telesis representative.

You are now ready to begin. If you are installing the NMS on a Windows platform, refer to 2.2. If you are installing the NMS on a Solaris platform, refer to 2.3.

Note: Only one version of the NMS may exist on the systems. Uninstall previous versions of the NMS or use the Upgrade Pack process to upgrade.

1.5 Preparing for an Upgrade Installation

An Upgrade Pack is used to upgrade an existing NMS installation to the latest release. Upgrade packs are available at the Allied Telesis website. Contact your representative for an account.

To prepare for an Upgrade Pack installation, perform the following steps:

1. Retrieve the upgrade pack from the following website:

   http://www.alliedtelesyn.com/support/software/restricted/login.aspx

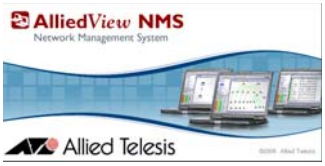
2. Perform an NMS backup. Refer to the *NMS Administration Guide* for instructions.
3. Shut down the NMS clients as well as the server. Refer to Chapter 6.

You are now ready to install the NMS Upgrade Pack. Refer to Chapter 4.

1.6 Preparing for Allied Telesis Management Extensions for HP OpenView

The Allied Telesis Management Extensions for HP Openview is a set of extensions to HP OpenView (HPOV) to allow the HPOV to identify, monitor and manage Allied Telesis devices. Advanced device-specific and network management functions are provided by the AlliedView NMS.

The Extension feature is not installed on the same machine as the AlliedView NMS. It should be installed on the machine having HPOV. Refer to the *Installation Guide for AlliedView NMS Extensions for HP OpenView.*



2. Installation - Single Server

2.1 Overview

In the single server (default) configuration, the AlliedView NMS software is loaded on one server, which provides both Back End (BE) and Front End (FE) functionality.

Note: Anonymous FTP is used by the NMS to manage certain devices, and therefore must be enabled on the server. Refer to Appendix A for instructions.

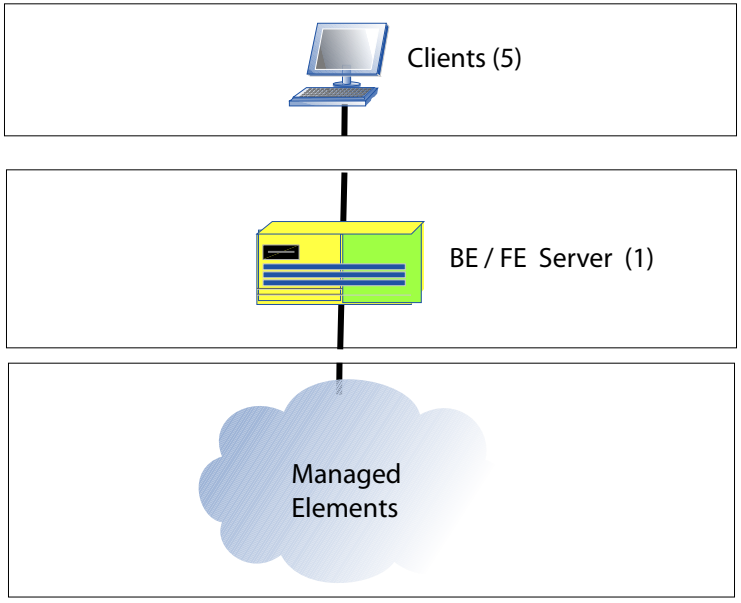


FIGURE 2-1 Single Server Configuration

2.2 Installing on a Windows Platform

To install the AlliedView NMS on a Windows platform, follow these steps.

1. Insert the Windows installation CD-ROM in the CD-ROM drive. After approximately 60 seconds, the InstallShield[1] Wizard **Installer** screen will appear, as shown in the following figure.

FIGURE 2-2 AlliedView NMS Installation Wizard Screen

2. On the **Installer** screen, click **Next**. This will display the license agreement page shown in the following figure.

1. Registered Trademark ® 2003 InstallShield Software Corporation. All rights reserved.

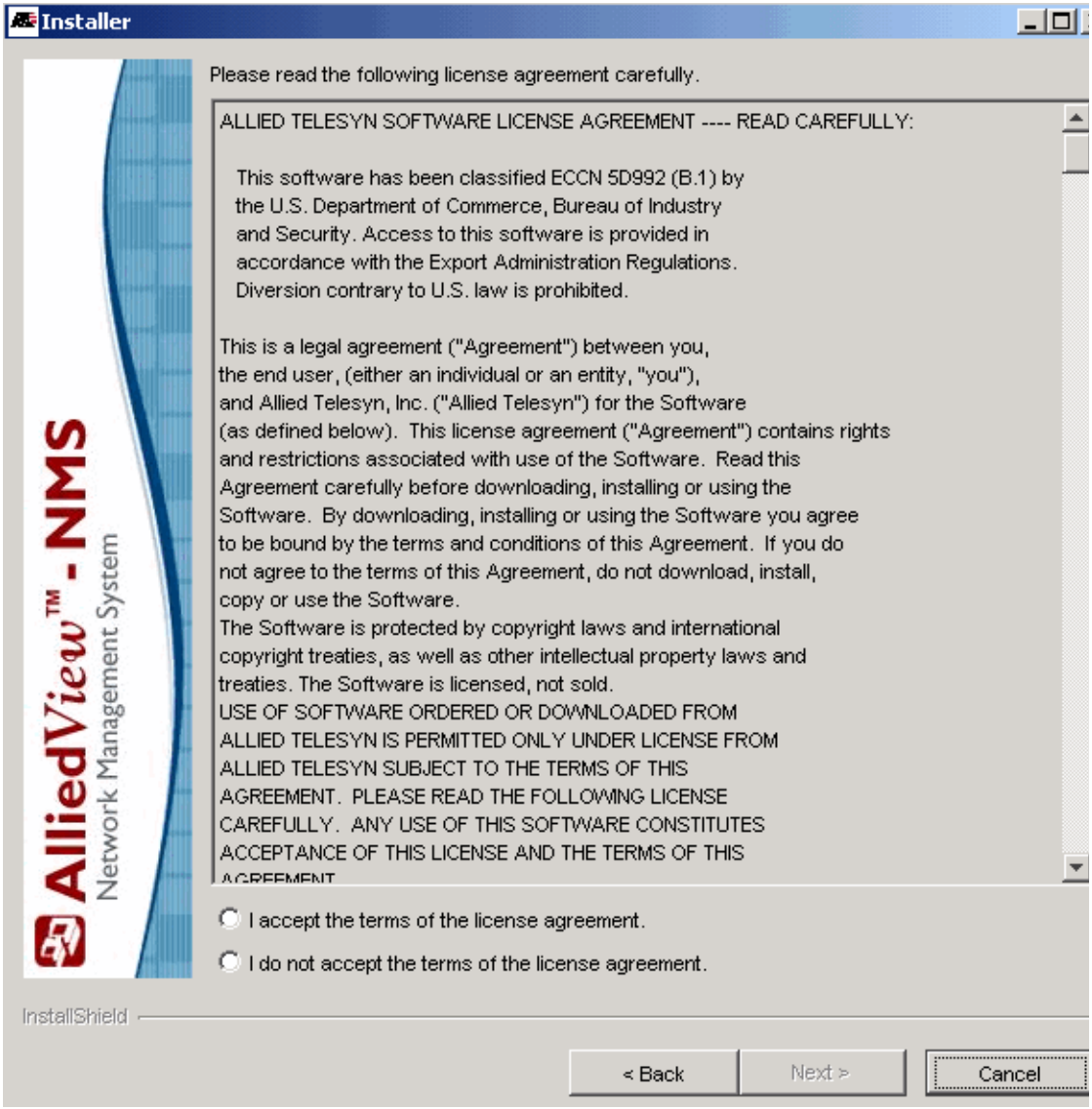


FIGURE 2-3 AlliedView NMS Installation Wizard License Agreement

3. Carefully read the license agreement, click the **I accept the terms of the license agreement** radio button, and then click **Next**.

*Note: If you do not wish to proceed with the installation, click **Cancel** to exit.*

The next screen will specify the installation directory.

4. Although you can change this directory, it is highly recommended that you use the default directory provided. Click **Next**.
5. The next screen displays the selected installation directory and indicates the total size of the installation (in Mb). If you need to make a change, click **Back** and make the change. If you wish to exit, click **Cancel**. Otherwise, click **Next**.
6. This will display the installation progress window shown in the following figure.

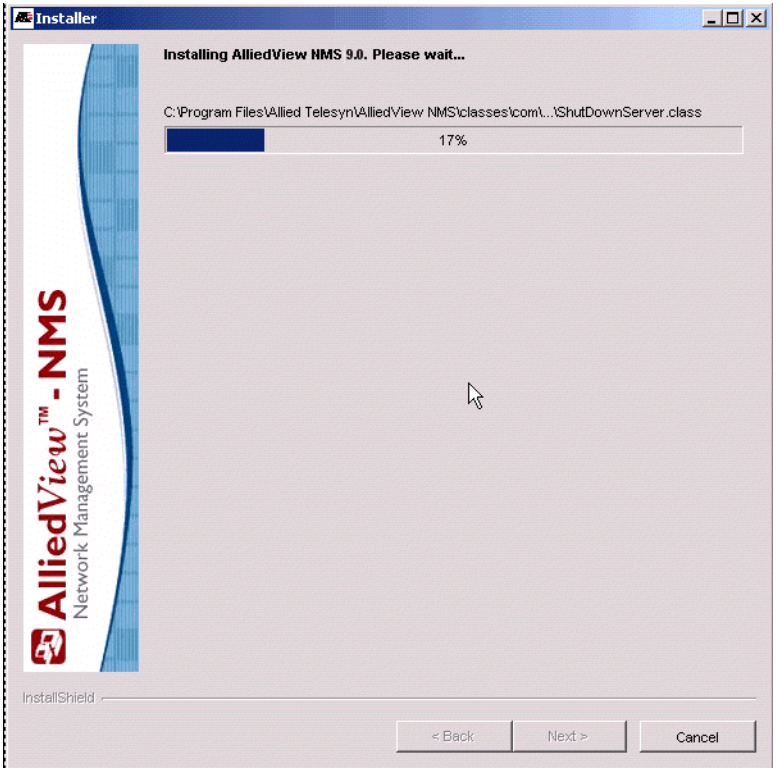


FIGURE 2-4 AlliedView NMS Installation Wizard Installation Progress

The progress bar tracks the progress of the installation. It will take a few minutes for the installation to complete. When the installation completes, the next window, shown in the following figure, will appear.

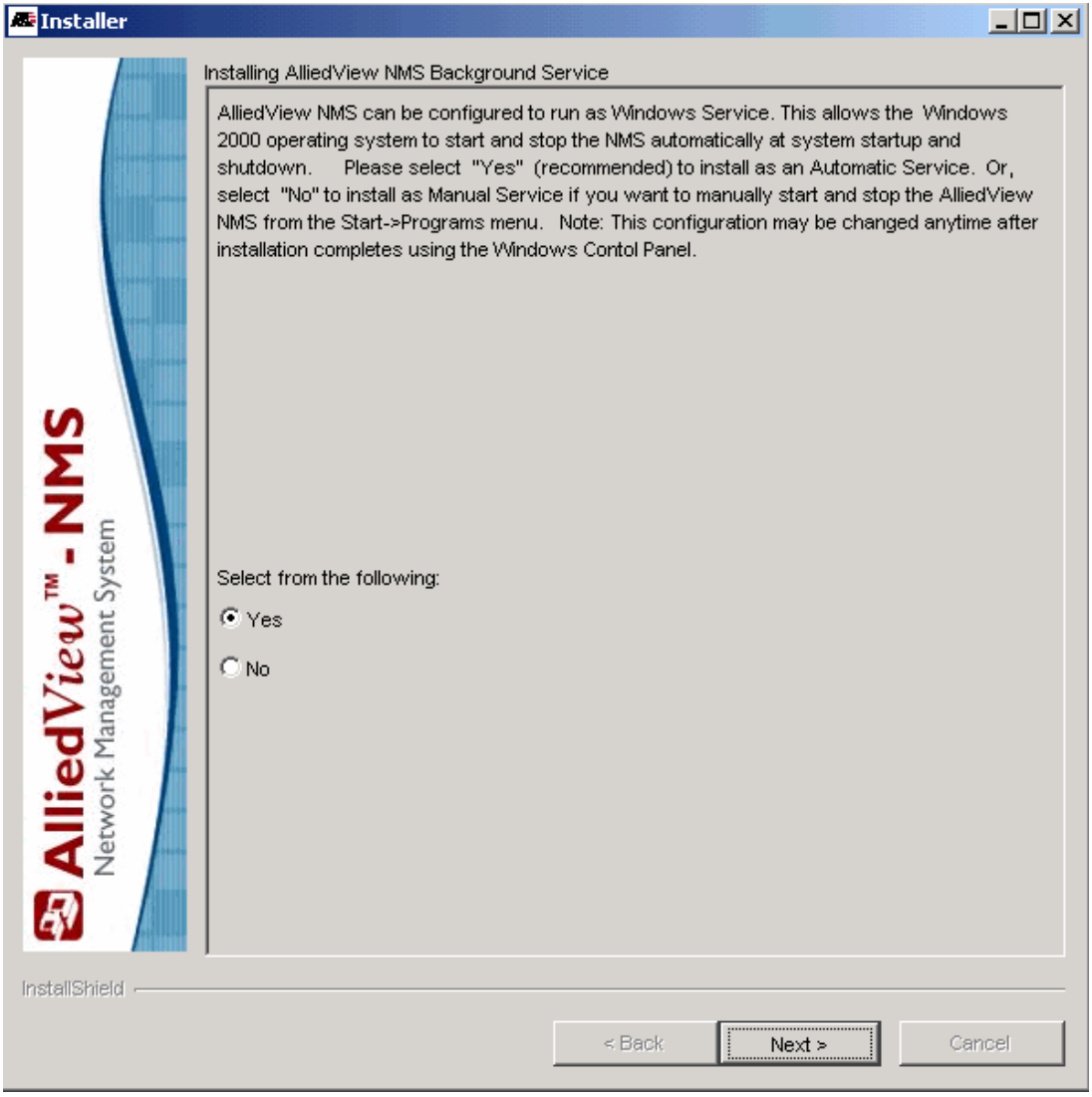


FIGURE 2-5 AlliedView NMS Installation Wizard File Installation

7. This window prompts you to choose whether to install the AlliedView NMS as a Windows service, which allows the AlliedView NMS to automatically start up on Windows startup and shut down on Windows shut-down.

Note: It is highly recommended that you install the AlliedView NMS as a Windows Service.

Select **Yes** if you want the AlliedView NMS as a service. Otherwise select **No**. Click **Next**. The next window will appear.

8. The next screen will confirm the successful installation of the AlliedView NMS. Complete the process as follows:
   1. Click **Next**. The next window will appear.
   2. The next window will ask you whether you want to restart your computer now or at a later time. If you want to restart now, select **Yes**. Otherwise, select **No**.

*Note: If you selected **Yes**, your computer will restart when you click **Finish**. Before restarting your computer, if you have any Windows applications open other than the AlliedView NMS Installation Wizard, close them now. If you selected **No**, this is not necessary as a restart will not occur.*

   3. Click **Finish** to complete the process.
   4. If you selected **Yes** to restart in the previous window, when your computer restarts, you will get the AlliedView NMS Client logon window. If you want to log in, enter **root** as the username and **public** as the password, and then click **Connect**. Otherwise, click **Cancel** to terminate the login process.

*Note: The InstallShield adds the NMS Client startup program to your Windows **Startup** menu, which means the client will start automatically when a user logs into Windows.*

   5. If you do not want the client to start automatically, remove ***AlliedView NMS Client*** from your Windows ***Startup*** menu by right-clicking on it, and then selecting ***Delete*** from the pop-up menu.

You have completed the installation process. To start the AlliedView NMS, refer to Chapter 5.

2.3 Installing on a Solaris Platform

To install the AlliedView NMS on a Solaris platform, follow these steps:

1. On the machine on which the AlliedView NMS is to be installed, log in as **root** or as a user with root privileges.
2. Insert the installation Solaris CD-ROM into the CD-ROM drive.
3. Start the Wizard manually by executing the **AlliedViewNMS_x_x_Sol.bin** file.

Note: The Solaris Installer requires 1.5 GB of temporary disk space to properly complete the installation process. It is recommended the `/tmp` directory is used for this purpose. Also, for best performance first copy the Installer (`AlliedViewNMS_x_x_Sol.bin`) to a hard drive location. For example:

```
% AlliedViewNMS_9_0_Sol.bin -is:tempdir /tmp -is:log /tmp/nmslog
```

4. Once the Installation Wizard starts, follow the instructions provided by the Installation Wizard. The instructions are identical to those provided during the installation on the Windows platform. For specific information on following the Wizard instructions, refer to Chapter 2.

*Note: The default installation directory for the AlliedView NMS on the Solaris platform is **/opt/AlliedViewNMS**. Although you can change this directory, it is highly recommended that you use the default directory provided.*

Note: Prior to release 7.0 the path was /opt/TelesynNMS.

5. Once installation is complete, start the AlliedView NMS. Refer to Chapter 5.

3. Installing the AlliedView NMS - Distributed Front End Server

3.1 Overview

The AlliedView NMS is deployed by default in a single server, or non-distributed environment. There are therefore certain scalability limits, such as the number of devices or users. Starting in release 4.0, the AlliedView NMS can be deployed in a multiple Front End server, or distributed, environment.

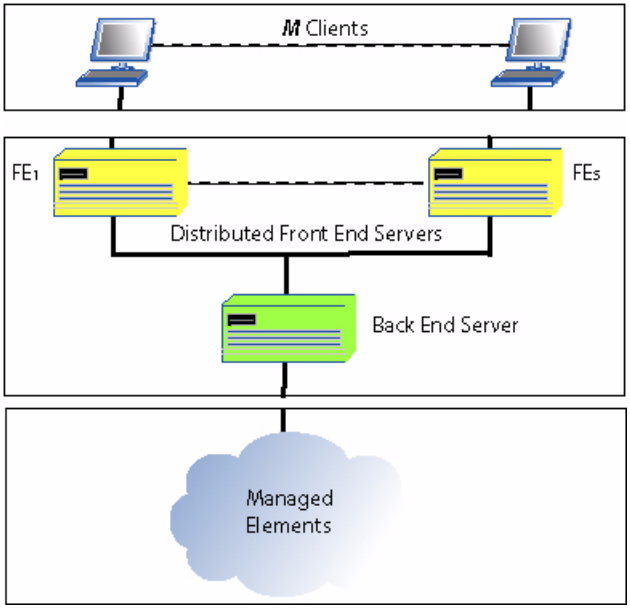


FIGURE 3-1 Distributed Front End Server Configuration

This section will focus on installing the Front End Server(s), and assumes the administrator understands how this feature works and has deployed the network (both servers and devices) to support this configuration. The network administrator should therefore read the AlliedView NMS Administration Guide for a description of the distributed configuration (capabilities of the FrontEnd servers and Backend server) and the benefits it provides.

Installing the AlliedView NMS software on a Front End server is similar to installation on a single server, but there are a few differences that must be considered during the installation. These are highlighted in the procedures below.

Note: The Front-End configuration is available only upon request. Please contact your Allied Telesis representative for details.

Note: Anonymous FTP is used by the NMS to manage certain devices, and therefore must be enabled on the Backend server. Refer to Appendix A for instructions.

3.2 Installing on a Windows Platform

Note: Prior to beginning the installation, obtain the IP address for the existing AlliedView NMS Back End Server.

3.2.1 Initial Installation on a Front End Server

The software for a Front End server installation comes in a separate CD, and so can only be used to install a Front End server. To install the AlliedView NMS Front End on a Windows platform, follow these steps:

1. Insert the Distributed Server Extensions installation CD-ROM in the CD-ROM drive. After approximately 60 seconds, the NMS InstallShield[1] Wizard **Installer** screen will appear.
2. On the **Installer** screen, click **Next**. This will display the license agreement page.
3. Carefully read the license agreement, click the **I accept the terms of the license agreement** radio button, and then click **Next**.

*Note: If you do not wish to proceed with the installation, click **Cancel** to exit.*

The next screen, shown in the following figure, will specify the installation directory.

1. Registered Trademark ® 2003 InstallShield Software Corporation. All rights reserved.

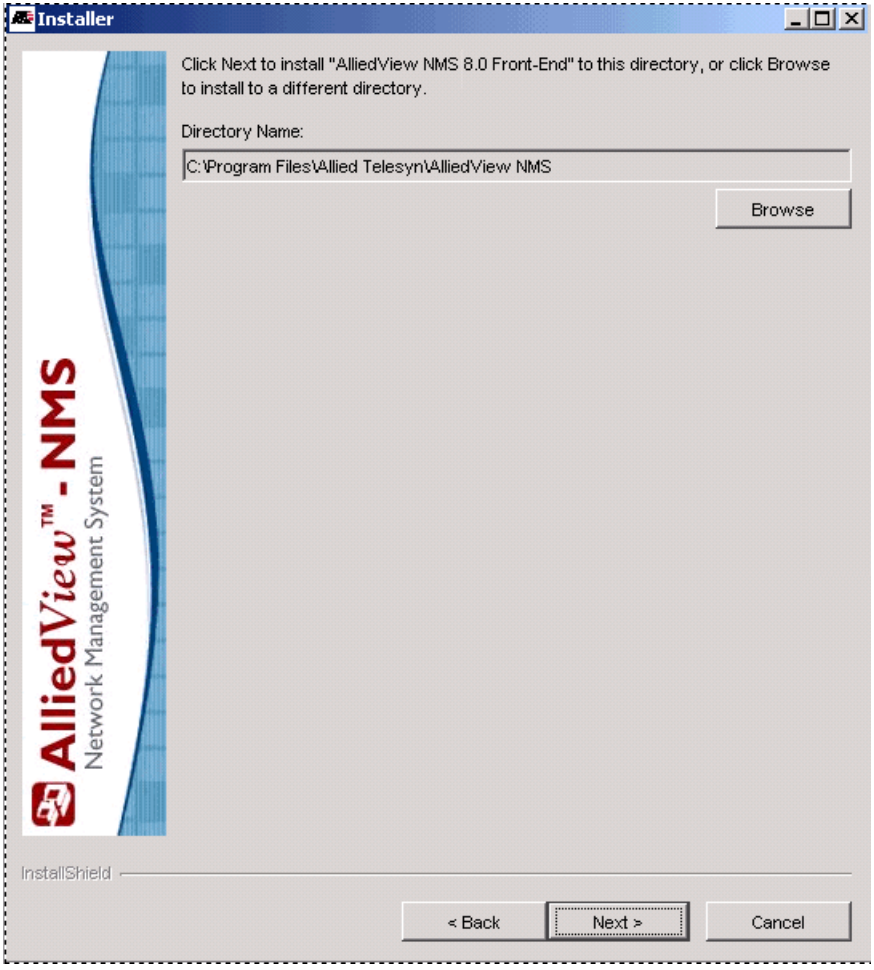


FIGURE 3-2 AlliedView NMS Installation Front End Wizard Install Directory

4. Although you can change this directory, it is highly recommended that you use the default directory provided. Click **Next**.
5. After clicking Next, a confirmation window shows the directory and indicates the total size of the installation (in Mb). If you need to make a change, click **Back** and make the change. If you wish to exit, click **Cancel**. Otherwise, click **Next**.
6. This will display the installation progress window.

   The progress bar tracks the progress of the installation. It will take a few minutes for the installation to complete. When the installation completes, the next window, shown in the following figure, will appear.

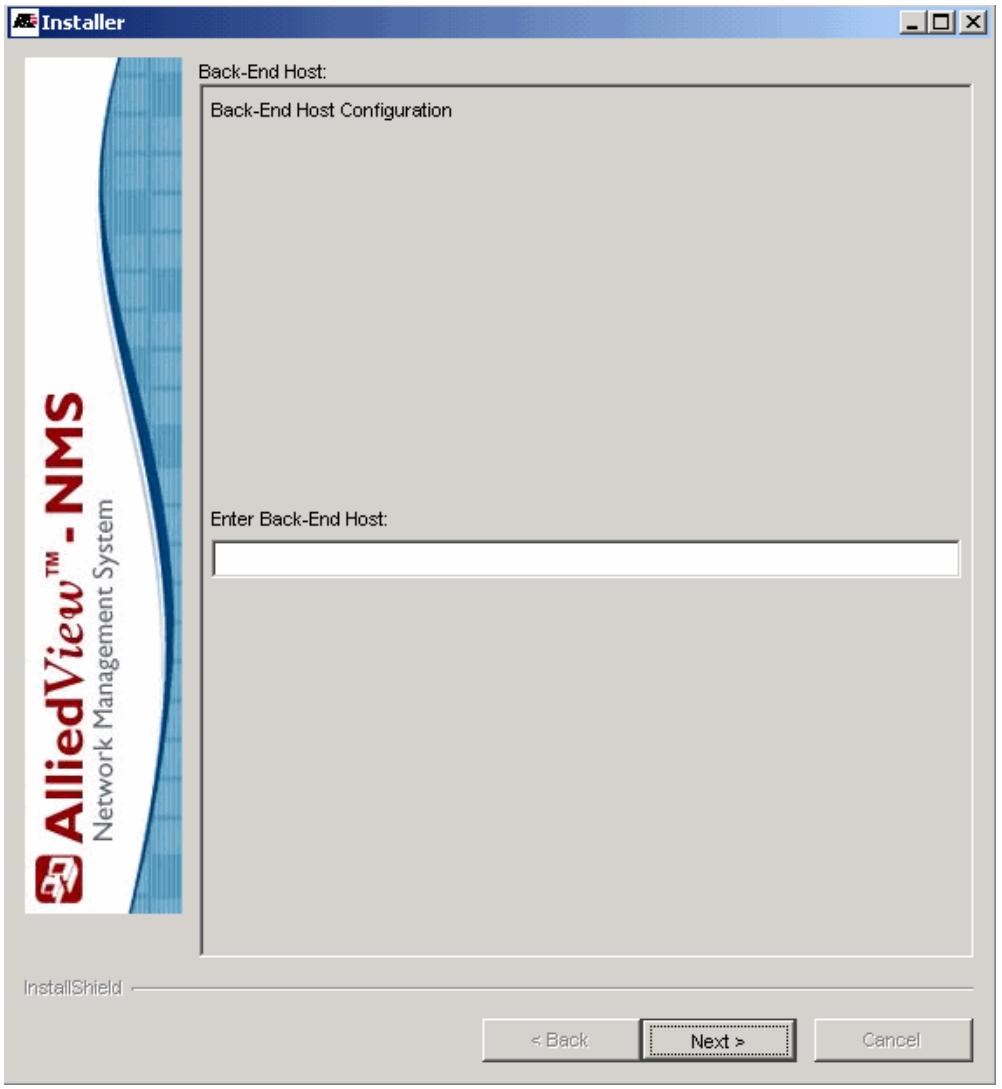


FIGURE 3-3 AlliedView NMS Installation Back End Host Form

7. The window prompts you to enter the IP address for the Back End server. This address must be correct to ensure the Front End can download the appropriate files back End configuration files.

Note: If you input an incorrect address, the Front End server, at start up, will not download the appropriate Back End configuration files, and an error will occur. This can be corrected during start up, as explained later in this procedure.

8. Click **Next**.

9. The last form confirms you have successfully installed the Front End software. Click **Finish**.
10. There is no need to restart the server. Therefore, select **Start -> Programs -> <front end load> Start Server**. A progress window appears and lists the back end configuration files as they are loaded.

    If the error “Unable to connect to Back End Host” appears, you have probably entered the wrong IP address for the Back End server. To correct this, access the `<FE NMS load>/bin path` and the file `start-nmsFE.bat`. Search on the string BE_HOST and it will have the Back End host address. Change this to the correct IP address and save, then repeat this step.
11. Once the Back End configuration files are loaded, the NMS user interface will appear and will have the same Network Object tree as the Back End server.
12. Refer to Section 5. for more information on starting up the AlliedView NMS.
13. Refer to the AlliedView NMS Administration Guide for further information on the FE server features.

3.2.2 Accessing the Front End Server from a Remote Client

If desired, a remote client can use the webstart application to access the Front End server. Note that this still counts as one of the 5 GUI clients that are allowed per server.

The process is the same as starting up a single server configuration, except that the web server application will use `http://<FE Server IP address>:9090.` Refer to the AlliedView NMS Administration Guide for further information on the FE server features.

3.3 Installing on a Solaris Platform

The steps to install the Front End AlliedView NMS on a Solaris platform are similar to those for a Windows platform.

Follow steps 1 through 10 in 3.2.1 to install the Front End software, noting the following:

- In Step 4, the screen showing the default directory is /opt/AlliedViewNMS.
- In Step 7, the user must still input the correct IP address for the Back End server.

11. To start the AlliedView NMS, go to `/opt/AlliedViewNMS/bin` and execute:

    ```
    ./startnmsFE
    ```

    If the error “Unable to connect to Back End Host” appears, you have probably entered the wrong IP address for the Back End server. To correct this, access the `<FE NMS load>/bin path` and the file `start-nmsFE.sh`. Search on the string BE_HOST and it will have the Back End host address. Change this to the correct IP address and save, then repeat this step.
12. Once the Back End configuration files are loaded, the NMS user interface will appear and will have the same Network Object tree as the Back End server.
13. Refer to Section 5. for more information on starting up the AlliedView NMS.
14. Refer to the AlliedView NMS Administration Guide for further information on the FE server features.

3.4 Installation Scenarios

Since both the one BE and FE server(s) are loaded separately, it is important to ensure that the software loads are compatible both when the system is set up as well as when upgrades are performed. This is particularly important when the administrator has an existing single server NMS and wants to change to the distributed server configuration. Moreover, the administrator may be upgrading the AlliedView NMS software version as well.

3.4.1 Installing the FE Configuration on an Existing AlliedView NMS

If the single BE AlliedView NMS server is keeping its current software load and Front End servers are being added to the configuration, the steps are as follows, assuming the current NMS configuration is 8.0:

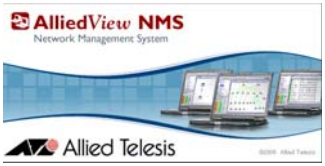
1. Keep the current software (8.0) on the one (now Back-End) server. No action is to be performed.
2. Install the FE version that matches the Back-End server (such as 8.0) on the FE servers, following the steps in 3.2 or 3.3.

Note: All Front-End and Back-End servers should use either Solaris or Windows 2000/2003.

3.4.2 Upgrading the AlliedView NMS and Installing the FE Configuration

If the BE/FE AlliedView NMS is being updated and the FE configuration is being applied to the updated software load, the steps are:

1. Complete the upgrade of the single BE server to the latest AlliedView NMS version
2. Uninstall the current FE software. Refer to Section 7.
3. Install the latest AlliedView NMS version on the FE servers, following the steps in 3.2 or 3.3.



4. Installing an Upgrade Pack

4.1 Overview

The upgrade pack is used to bring your AlliedView NMS to the next major software release. The process is identical for both Windows and Solaris. In 9.0 the same upgrade pack is used for Solaris and Windows.

Note: Prior to this procedure, perform a server backup as documented in 3.4.

4.2 Upgrading the Single Server NMS Back-End

1. Shut down the NMS Server. Refer to Chapter 8.

Caution: You must shut down the AlliedView NMS server; otherwise, the AlliedView NMS server cannot successfully install the upgrade pack.

2. In your **<NMS_HOME>/bin** directory and locate file **UpdateManager**. Execute this file. This will bring up the **AlliedView NMS Update Manager** window shown in the following figure.

*Note: Use the **UpdateManager.bat** file for Windows, or the **UpdateManager.sh** file for Solaris.*

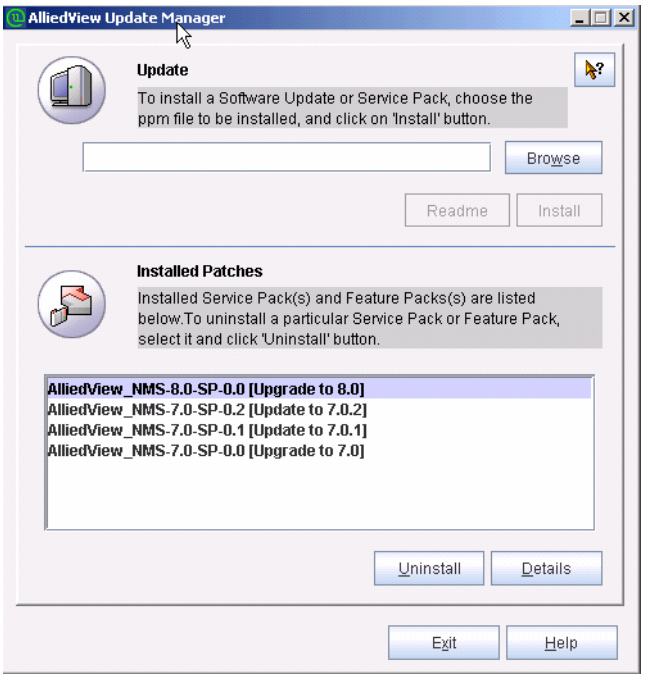


FIGURE 4-1 AlliedView NMS Update Manager

FIGURE 4-2 AlliedView NMS Update Manager Installation Wizard

3. In the Installation Wizard window, click **Browse**. This will bring up the **Select a File** window. Refer to the following figure.

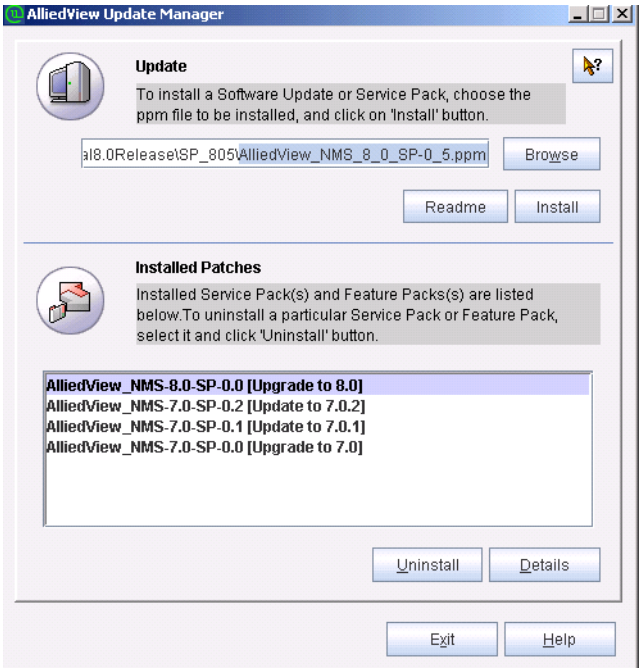


FIGURE 4-3 AlliedView NMS Select a File Window

4. In the **Select a File** window, navigate to the Service Pack file located on the installation CD-ROM. This file will have a **.ppm** file extension. Double-click this file, or select the file and then click **Open**. This will close the **Select a File** window.
5. In the **Installation Wizard** window, if you wish to view the **Readme** file for this update, click **Readme**.
6. Click **Install** to apply the update. The update process will begin. The **Installation Wizard** window will track the progress as shown in the following figure.

*Note: If you do not wish to view the **Readme** file and the installation log file upon completion, uncheck the **View Readme and Log** checkbox. This can be done during the installation process.*

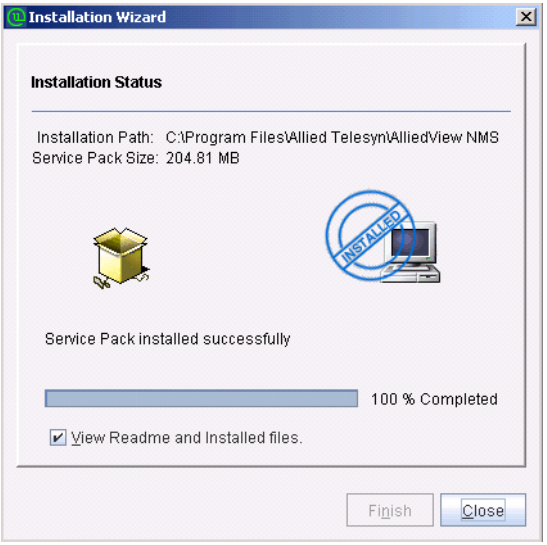


FIGURE 4-4 AlliedView NMS Update Manager Installation Wizard Update In Progress

7. Allow the installation to complete, and then click **Close**.
8. The **AlliedView NMS Update Manager** window will now show the installed Service Pack as shown in the following figure.
9. The Service Pack is now installed. Click **Exit** to exit the AlliedView NMS Update Manager.

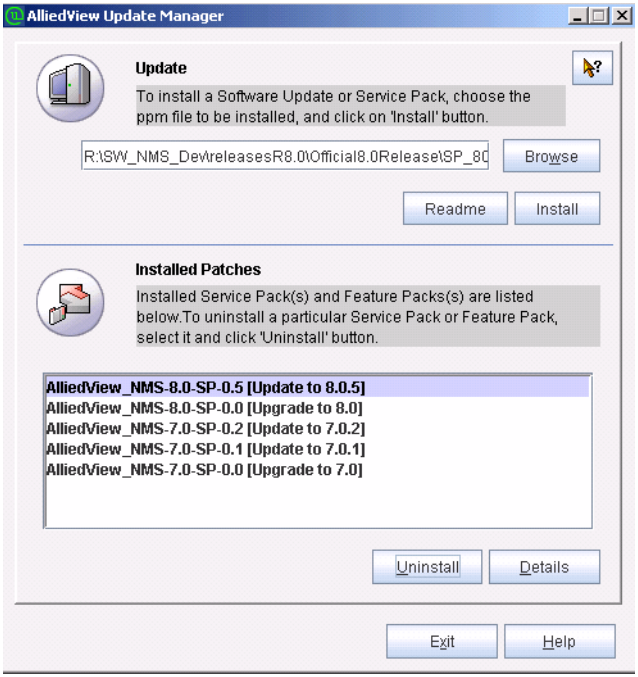


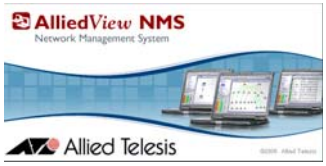
FIGURE 4-5 Update Manager Showing the Installed Service Pack

10. Start the NMS Server. Refer to Chapter 6.
11. The installation is now complete.

4.3 Upgrading the Distributed NMS FE Servers

To upgrade a distributed NMS FE server follow these procedures:

1. Follow the FE uninstallation procedure in Section 7.
2. Follow the FE installation procedure in Section 3.



5. Starting Up AlliedView NMS 9.0

5.1 Starting the AlliedView NMS Server on Windows

If you chose to install the AlliedView NMS as a Windows automatic Service, the AlliedView NMS Server will start automatically when your computer is restarted. If you left the ***AlliedView NMS Client*** menu item in your Windows ***Startup*** menu, the AlliedView NMS Client will also start automatically when your computer is restarted. In this case, no further action is required, as both the server and client will be started automatically when a user logs in.

If you chose not to install the AlliedView NMS as an automatic Service, you will have to start it manually. Likewise, if you removed the ***AlliedView NMS Client*** item from your Startup menu, you will have to start the client manually. There are two ways in which you can manually start the AlliedView NMS Server: from the ***Start*** menu or from the **Administrative Tools** window. The following sections describe how this is done.

5.1.1 Starting the NMS Server from the Start Menu

To start the AlliedView NMS Server from the ***Start*** menu, select ***Start -> Programs -> AlliedView NMS -> Start Server***. The **AlliedView NMS** window will appear. In the window title bar, you will see DO NOT CLOSE. Do not close this window as it will cause the server process to fail. Later, an **Apache** window will appear (on the FE only). Do not close this window either.

Several messages will scroll by in the **AlliedView NMS** window as the server software initializes. You will see the following message in the **AlliedView NMS** window when the server is ready:

```
Please connect your client to the web server on port: 9090
```

At this point, the server is ready to accept client connections. You can iconify the two server windows to get them out of your way, but *do not close either window*. If you need to shut down the server, refer to Chapter 6.

5.1.2 Starting the NMS Server from the Services Window

When you installed the AlliedView NMS software, item **AlliedView NMS** was added to your Windows Services. To see this item, follow these steps:

1. Select ***Start -> Settings -> Control Panel*** to access the **Control Panel** on your computer.

*Note: You can also double-click **My Computer**, and then double-click **Control Panel** in the **My Computer** window.*

2. In the **Control Panel**, double-click the **Administrative Tools** folder.
3. In the **Administrative Tools** folder, double-click **Services**. The **Services** window will appear.
4. In the **Services** window, scroll down until you find item **Telesyn NMS**. This item is the AlliedView NMS Service. Refer to the following figure for an example.

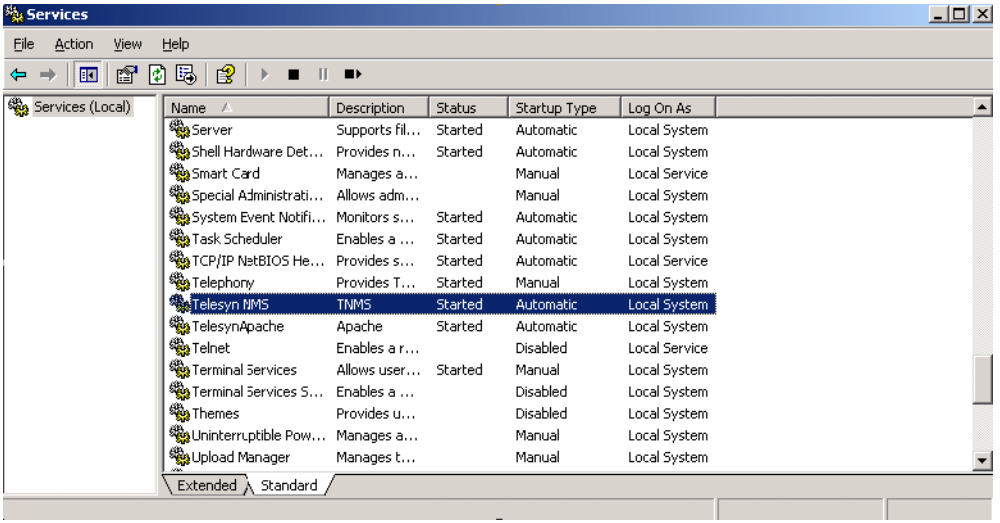


FIGURE 5-1 AlliedView NMS Automatic Service

If you chose not to install the NMS as an automatic Service, the AlliedView NMS service Startup Type will be shown as Manual and the Status field will be blank in the **Services** window as shown in the previous figure.

Note: If AlliedView NMS is an automatic Service, the Startup Type will be Automatic.

To manually start the AlliedView NMS Service, right-click **Telesyn NMS** in the **Services** window, and then select ***Start*** from the pop-up menu. The **Service Control** pop-up window may appear briefly, and then the AlliedView NMS Status field will change to Started in the **Services** window. Allow approximately 60 seconds for the server to initialize. After the 60-second initialization period, the AlliedView NMS Server will be ready to accept client connections.

Note: The Telesyn Apache will always appear as Automatic regardless of the the state of TelesynNMS.

5.2 Starting the AlliedView NMS Server on Solaris

To start the AlliedView NMS Server on a Solaris platform, perform the following steps:

1. Log on as **root** or as a user with root privileges.
2. Change your current directory (**cd**) to **/opt/AlliedViewNMS/bin**.
3. Execute file **startnms.sh**.

4. Allow the server to initialize.

5.3 Starting the Client

5.3.1 Overview

The AlliedView application client may be run locally on the AlliedView NMS server, or remotely on any java-enabled Windows, Solaris, or Linux system, The local installation is installed during the normal AlliedView NMS server installation process (Section 2) and the Remote Client is installed using the Java Web Start technology via the remote client's java-enabled web browser. The local and remote functionality is identical.

5.3.2 Local Application Client

The application client is installed on the server during the CD installation.

5.3.2.1 Windows

In windows it can be accessed by choosing ***Start -> Programs -> AlliedView NMS -> Start Client***.

FIGURE 5-2 Application Client Logon Window

Clicking on Advanced brings up other options, including the option of using port 8443 for SSL.

5.3.2.2 Solaris

In Solaris if can accessed in `./startApplicationClient.sh`

5.3.3 Remote Client - Java Web Start

5.3.3.1 Overview

Java Web Start is a helper application that allows the AlliedView NMS client to run the AlliedView NMS remotely via the Internet as a user application rather than as an HTML client. Java Web Start is installed from the AlliedView NMS Server via HTTP and must be installed on the client machine before the user can use it. A first-time installation is typically performed on a new client machine or when the AlliedView NMS is first deployed. The AlliedView NMS Server must be running in order to install the Java Web Start Client.

5.3.3.2 Installing Java Web Start[1] Client

From your Web browser, enter the following address

```
http://<server ip address>:9090
```

where server ip address is the IP address of the AlliedView NMS Server.

The AlliedView NMS logon screen will appear as shown in the following figure.

1. Registered Trademark ® Sun Microsystems. All rights reserved.

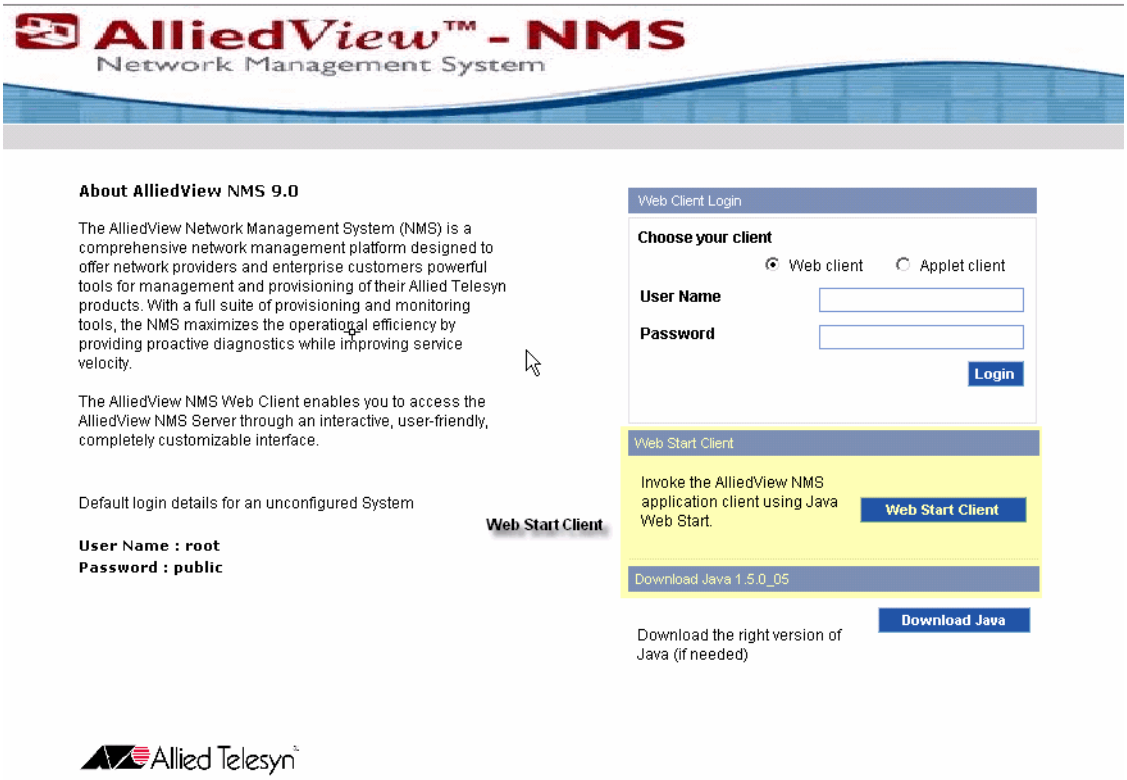


FIGURE 5-3 AlliedView NMS HTML Client Logon Screen

1. Click **Web Start Client** from the Java Web Start Interface panel and allow the application to load. This will download Java Web Start from the AlliedView NMS as shown in the following figure.

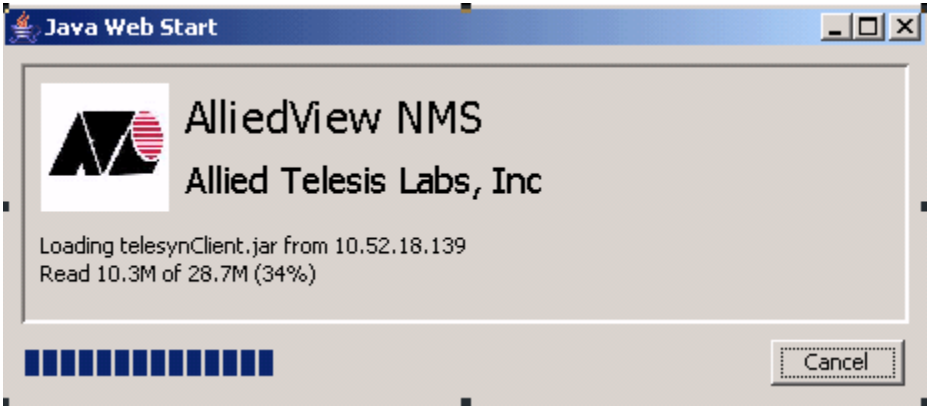


FIGURE 5-4 Java Web Start Download

2. If Java Web Start is not installed, you will be given the option of installing it from the Sun Web site. You can also install it from the AlliedView NMS Login screen (refer to Figure 5-3) by clicking on **Download Java**.

Note: Installing from the AlliedView NMS Login screen (refer to Figure 5-3) *is preferred since it will always contain the correct version of the jre software.*

For Solaris, click the **Sun Microsystem's Binary Code Agreement** link and read the license agreement.

3. When the **AlliedView NMS Authentication** window appears, enter **root** as the username and **public** as the password, and then click **Connect**. The **AlliedView NMS Application** screen will appear, with the IP Topology screen. Refer to the *NMS Administration Guide* and the *NMS User Guide* for more information.

*Note: It is highly recommended that you change your password immediately upon first logging in. The **root** username and **public** password are defaults for the AlliedView NMS. Leaving the default password may make your NMS vulnerable to unauthorized access. Refer to the AlliedView NMS Administration Guide for information on changing the password.*

4. Verify that the client can log in and that the AlliedView NMS starts up and displays properly on the client machine.
5. If you wish to exit the AlliedView NMS, from the panel-specific menu, select ***File -> Exit***.

5.3.4 HTML Client

For starting the AlliedView NMS Client for simple network monitoring over a slow dialup link, it is recommended that you use the HTML client. To start the AlliedView NMS HTML Client, follow these steps:

1. In your Web browser, enter the following address:
   `http://<server ip address>:9090`

   where server ip address is the IP address of the AlliedView NMS Server. The AlliedView NMS logon screen shown in Figure 5-3 will appear.

2. Enter **root** as the username and **public** as the password, and then click **HTML Client**. The HTML Client view will appear.

*Note: It is highly recommended that you change your password immediately upon first logging in. The **root** username and **public** password are known defaults for the AlliedView NMS. Leaving the default password may make your NMS vulnerable to unauthorized access. Refer to the NMS Administration Guide for information on changing the password.*

3. Refer to the AlliedView *NMS User Guide* and the AlliedView *NMS Administration Guide* for information on using the HTML interface.

5.3.5 Client Limitations

- The Java Web Start Client may throw exception InvalidClassException.

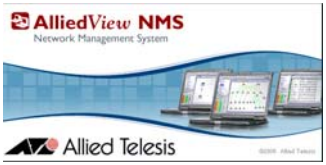
  Java Web Start is a client-side technology that downloads software from the AlliedView NMS Server via HTTP and executes it on the local (client) host. The AlliedView NMS Java Web Start client makes use of this technology to keep client software synchronized with the NMS Server software when the NMS is upgraded. However, the AlliedView NMS Java Web Start Client does not handle the case where the server is down-graded from a new version to an older version.

  For example, if a user has the AlliedView NMS 6.0 server running on a host, and then replaces it with the AlliedView NMS 5.0, the Java Web Start clients that had downloaded the 6.0 software must remove their current Java Web Start Client and download it again from the AlliedView NMS 5.0 Server.

  If the AlliedView NMS Web Start client is not re-installed as described above, the UnmarshallException and InvalidClassException messages will be seen in the Java Web Start console. Re-installing the Java Web Start Client is described in Section 6.3.2.2.

- A maximum of five users may be logged in on the AlliedView NMS at any given time.

  The AlliedView NMS supports a maximum of five simultaneous client sessions. If a user attempts to log in when five users are already connected, the user's login attempt will fail with an error message indicating that the maximum number of client sessions has been reached. The user will be able to log in when one or more of the current users logs out.



6. Shutting Down the AlliedView NMS

6.1 Shutting Down a AlliedView NMS Client

6.1.1 Application Client

For an NMS client running as a user application, to shut down the client, simply select ***File -> Exit*** from the Panel-Specific Menu, or click the **X** in the upper-right-hand corner of the screen. The **Confirmation Message** dialog box will appear. Click **Yes** in the dialog box to shut down the client.

6.1.2 HTML Client

For a AlliedView NMS HTML client, select ***File -> Logout*** from the AlliedView NMS Panel-Specific Menu.

6.2 Shutting Down the AlliedView NMS Server

6.2.1 Windows

To shut down the AlliedView NMS Server on a Windows platform, follow these steps:

1. Select ***Start -> Programs -> <AlliedView NMS load -> Shutdown Server***. The Shutdown Server window will appear. *Do not close this window*. Shortly afterwards, the **Shutdown AlliedView NMS Server** dialog box will appear.

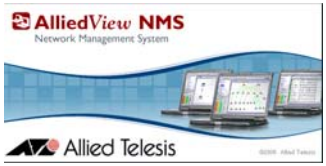
*Note: Click **Cancel** if you decide not to shut down the server.*

2. In the **Shutdown AlliedView NMS Server** dialog box, enter the **root** user password in the **Password** field.
3. If you want to change the shutdown mode:
    1. Click **Settings**. This will display the **Mode of Shutdown** window.
    2. In the **Mode of Shutdown** window, select the desired mode.
    3. Click **OK**.
4. Click **OK**. Allow a few seconds for the server to shut down. The **Server Shutdown** dialog box will appear when the shutdown is complete.
5. Click **OK** in the **Server Shutdown** dialog box.

6.2.2 Solaris

To shut down the AlliedView NMS Server on a Solaris platform, follow these steps:

1. Log in as **root** or as a user with root privileges.
2. Change your current directory (**cd**) to **<NMS_HOME>/bin**.
3. Execute file **ShutDown.sh**.



7. Uninstalling the AlliedView NMS

7.1 Overview

The process for uninstalling the AlliedView NMS is identical for both the single server and distributed server FE(s).

7.2 Windows

To uninstall the AlliedView NMS from a computer running Windows, follow these steps:

1. Shut down any client connections and the server. Refer to Section 6.
2. ***Select Start -> Programs -> AlliedView NMS_load->Tools -> Uninstall***. The AlliedView NMS InstallShield will appear.
3. Click **Next**. This will display the next window.
4. Click **Next**. The uninstaller process will begin. When the uninstaller process is complete, the next window will display, which contains a message indicating a successful uninstallation.
5. Click **Finish** to exit the InstallShield Wizard.

An alternate method is to remove the AlliedView NMS using **Add/Remove Programs** in your **Control Panel** as follows:

1. Shut down any client connections and the server. Refer to Chapter 7.
2. ***Select Start -> Settings -> Control Panel*** to access your **Control Panel**.

*Note: You can also double-click **My Computer**, and then select **Control Panel** in the **My Computer** window.*

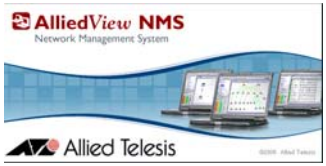
3. Double-click **Add/Remove Programs**.
4. In the **Add/Remove Programs** window, click **AlliedView NMS**, and then click the **Change/Remove** pop-up button. This will bring up the AlliedView NMS InstallShield Wizard.
5. Follow the Wizard prompts to remove the AlliedView NMS.
6. When the uninstallation is completed, close the **Add/Remove Programs** window and the **Control Panel**.

7.3 Solaris

To uninstall the AlliedView NMS from a computer running Solaris, follow these steps:

Solaris

1. Log in as root or as a user with root privileges.
2. Change your current directory (**cd**) to **<NMS_HOME>/_uninst**.
3. Execute file **uninstaller.bin**.



8. Uninstalling an AlliedView NMS Service Pack

Note: Uninstalling an NMS Service Pack is only necessary if the Service Pack is determined to be faulty and must be removed.

Note: The uninstallation procedure is identical for Windows and Solaris.

To uninstall a AlliedView NMS Service Pack, perform the following steps:

1. Shut down the NMS Server. Refer to Chapter 6.
2. Navigate to your **<NMS_HOME>/bin** directory and locate file **reinitialize_nms**. Execute this file.

*Note: Use file **reinitialize_nms.bat** for Windows, or file **reinitialize_nms.sh** for Solaris.*

   The **Reinitialize AlliedView NMS Database** window will appear.

3. Click **Yes** to initialize the database. A pop-up dialog box will appear indicating success. Click **OK** in the dialog box.
4. In your **<NMS_HOME>/bin** directory, locate file **UpdateManager**. Execute this file. The **AlliedView NMS Update Manager** window will appear as shown in the following figure.

Note: Use the UpdateManager.bat file for Windows,or the UpdateManager.sh file for Solaris.

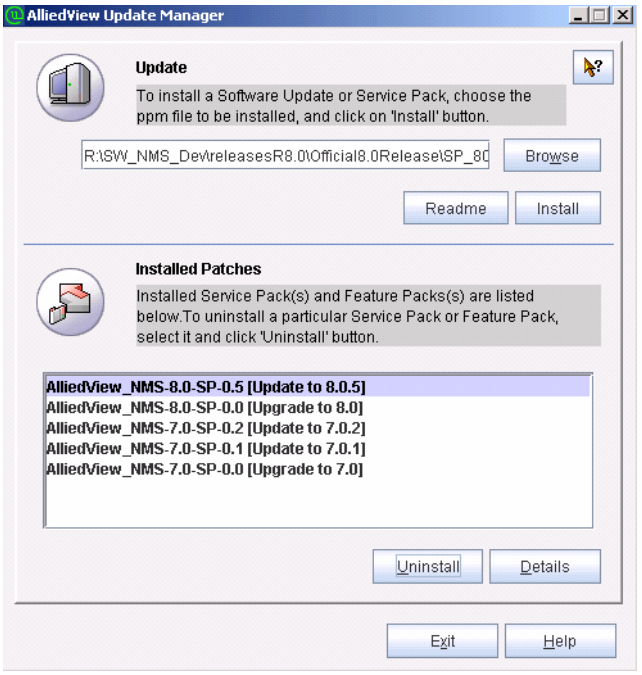


FIGURE 8-1 NMS Update Manager Window Showing Installed Service Packs

5. Click on the Service Pack you want to remove, and then click **Uninstall**. The **Uninstall** window will appear as shown in the following figure.

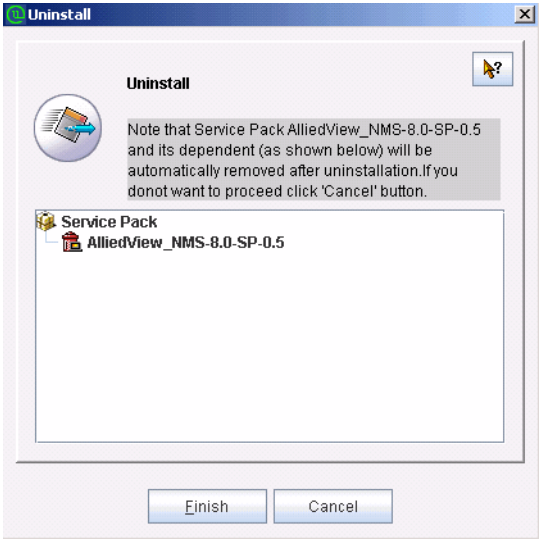


FIGURE 8-2 NMS Update Manager Uninstall Window

6. Click **Finish**. The uninstallation process will begin. The **Uninstall** window will track the progress as shown in the following figure.

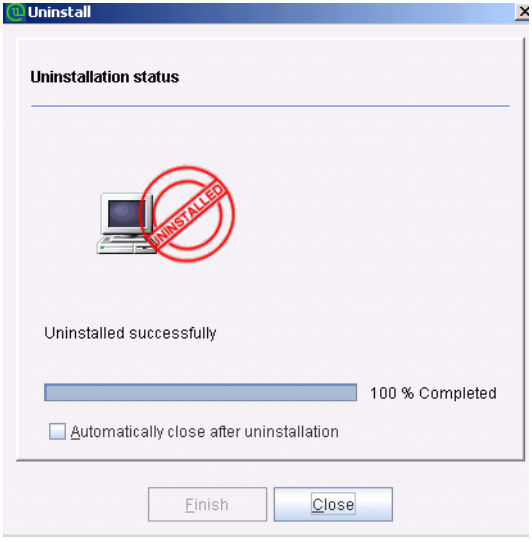
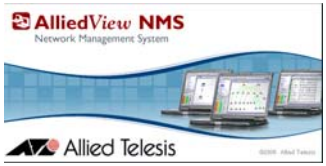


FIGURE 8-3 NMS Update Manager Uninstall Progress

*Note: If you want the **Uninstall** window to close after the uninstallation is complete, check the **Automatically close after uninstallation** checkbox. You can do this during the uninstallation process.*

7. Allow the uninstallation process to complete. If the **Uninstall** window did not close automatically, click **Close** to close it. The **AlliedView NMS Update Manager** window will no longer show the uninstalled Service Pack.
8. In the **AlliedView NMS Update Manager** window, click **Exit** to exit the NMS Update Manager. The Service Pack is now removed.
9. Restore the database files. Refer to the *Allied View NMS Administration Guide*.
10. Start the NMS Server. Refer to Chapter 5.
11. The uninstall procedure is complete.



9. Installation Steps - Overview

The previous sections of this Guide have shown how the various components of the AlliedView NMS are installed on the server and clients, as well as provisioning extensions for HP OpenView. The NMS Administration Guide explains how the NMS programs and configuration discover the network devices so that they are displayed and managed by the AlliedView NMS interface.

The following lists the steps to go through the installation of the NMS and the network devices to ensure that all devices are able to be discovered, the AlliedView NMS and the devices are physically connected, and the NMS is polling and receiving the appropriate data from the devices.

9.1 NMS and iMAP/AT Device Software Version Compatibility

For every version of the AlliedView NMS, there is a list of devices that the version of AlliedView NMS will support, as well as the software version of these devices.

Caution: Refer to the AlliedView NMS Administration Guide for the list of devices and their software versions supported by the latest version of the AlliedView NMS. If there is any question about compatibility, consult with your authorized Allied Telesis representative.

9.2 Configuring a New NMS with New Devices

If the AlliedView NMS is being installed for the first time and a new network is being configured, the network, the devices, and the network interface to other networks need to be configured, as well as the AlliedView NMS.

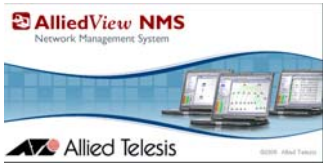
Caution: Ensure the AlliedView NMS and the devices have layer 3 connectivity; if this is not done, the devices will not be able to communicate with the AlliedView NMS server.

TABLE 9-1 Steps for a New AlliedView NMS with New Devices

Step	Details / Reference	Notes
1. Evaluate Network Configuration Requirements	Ensure all network configuration information is recorded and what changes (such as Network VLANs) will be required	
2. Install the AlliedView NMS on the Server	Refer to Section 2.	For the latest version of a AlliedView NMS release, the CD may contain a Service Pack that must be installed as well. Refer to Section 3.
3. Confirm the telnet server is working	This must be done for each device	For Rapier devices, the default is on. For iMAP devices, use `>enable telnet`.
4. Start up the SNMP agent	This must be done for each device	
5. Physically connect the AlliedView NMS to the network	For any issues specific to Windows or Solaris, refer to their connectivity Guides.	
6. Start the AlliedView NMS	On the NMS, select ***Start -> <Load_Name> -> Start Client***. (If you did not set the NMS server as Autostart, you will have to select ***Start Server*** first.) When the NMS GUI appears, the only network that appears is the one the server is a member of.	Be sure the default user id and password for Rapier devices (friend, friend), iMAP devices (officer, officer) and the NMS (root, public) is changed.
7. Use the CLI Login Manager	Set up the global CLI user names and passwords. Refer to the Administration Guide, Section 3.3	

TABLE 9-1 Steps for a New AlliedView NMS with New Devices (Continued)

Step	Details / Reference	Notes
8. Use the Discovery Configurator to Prepare for the Discovery Process	Select ***Tools -> Discover Configurator*** to bring up the Discovery Configurator Window. Then follow the tabs: - General Attributes - Protocol (always SNMP only) - Network Discovery (Networks and Masks) - Node Discovery (optional) Refer to the Administration Guide, Section 3	The Discovery Configurator is used to configure the attributes of the discovery process, and so it is critical that these be set up correctly.
9. Use the Security Administrator	Set up NMS users with passwords and scope of control. Refer to the Administration Guide, Section 4.	
10. Import Link Profiles	Create an excel spreadsheet and place it in `<NMS Home>\state`. Refer to the Administration Guide, Section 6.7.3.	Since the physical link configuration for an existing network can be large and complex, the Network VLAN Manager can have an Excel spreadsheet of the physical links imported. This will populate the Physical Network map, and any existing Network VLANs that use those links will be configured.
11. Set Device Attributes	Refer to the Administration Guide, Section 5.	
12. Configure Applications	Refer to the Administration Guide, Sections 5 and 6.	With all devices discovered and being monitored, it is now possible to configure applications such as VLANs, HVLANs, and Network VLANs.
13. Perform a AlliedView NMS Backup	Make a backup of both the AlliedView NMS file, the database, and devices Refer to the Administration Guide, Section 3.4, and Section 5.	Do this on a schedule to ensure whenever changes due to Steps 11 and 12 are captured and archived.



10. Appendix A - Enabling Anonymous FTP

10.1 Overview

Use the following steps to enable anonymous FTP on the Backend Server. Refer to the AlliedView NMS Administration Guide for how this works.

10.2 Windows

1. ***Control Panel -> Add/Remove Programs -> Add/Remove Windows Components***
2. Select (without checking) Internet Information Services (IIS)

Note: For Windows 2003, Internet Information Services is under Application Server -> Details.

3. Click on Details
4. Check File Transfer Protocol Server, which will check its dependencies
5. Click Okay
6. Load the CD if prompted and enter the path `D:\ENGLISH\WIN2000\ADV_SERV\I386`

The default configuration will consist of:

- Anonymous access only, with passwords under Windows control
- Read access only
- Root is `C:\inetpub\ftproot`
- Logging is enabled

Write access has to be enabled. Other defaults may be modified. If the ftp root directory is modified, then it has to be added to the AlliedView NMS config file conf\AT_server.properties.

1. ***Control Panel -> Administrative Tools -> Internet Services Manager***
2. Select the host
3. Select the “Default FTP Site”
4. Right click and select Properties
5. Select the “Home Directory” tab and enable Write access.

10.3 Solaris

Configuring FTP on Solaris can be a complex and difficult task if your system has been altered from the original installation. On the other hand, it's a relatively straight-forward task if your system does not deviate from the default Solaris installation.

Due to variations among UNIX and Solaris systems, however, this procedure cannot be reliably automated. What follows is a procedure that can be followed on an **unaltered** system that will configure anonymous FTP service suitable for AlliedView NMS.

This procedure assumes the ftp root directory will be `/opt/ftp`. Shell commands to execute this procedure are provided at the end of this section. If your system has been altered from the original installation or `/opt` has not been mounted with enough memory to handle file transfers (100 MB), you will have to modify this procedure accordingly. FTP configuration is extensively documented in the Solaris man pages and on the web. For more information, options, details, and security considerations, see the man pages for in `.ftpd` or `ftpd` and `ftpaccess` or contact your system administrator.

Note: This procedure may require 30 minutes or more-depending on your particular Solaris installation and how much it differs from the default installation.

The AlliedView NMS will need read/write file access to the FTP pub directory and FTP clients (iMG/RG and GenBand) will need retrieve and upload server permissions.

Note: The following procedure assumes the ftp home directory and anonymous ftp root directory will be /opt/ftp. If you decide to use a different directory because of system constraints, then replace all occurrences of /opt/ftp with your directory name throughout the procedure.

10.3.1 Creating the Anonymous FTP Account

1. Begin the configuration procedure by logging in as root and creating the ftp account with the useradd command. (Shell commands are listed at the end of this section)
2. Set the `/etc/passwd` and `/etc/shadow` entries for anonymous usage. The ftp entry in `/etc/passwd` needs to look something like:

   ```
   ftp:x:30000:30000:Anonymous FTP:/opt/ftp:/nosuchshell
   ```

Note: The 30000 will be some number created by the useradd command and already in the file. Don't change it to 30000. Use the number already there, but change the text that follows the 30000.

3. The ftp entry in /etc/shadow should look like:

   ```
   ftp:NP:6445::::::
   ```

10.3.2 Create the FTP Directory Tree

Now create the ftp directory tree, configure the ls command, copy shared libraries, and set file permissions.

1. Create the following subdirectories under the ftp root:

   ```
   /opt/ftp
   /opt/ftp/bin
   /opt/ftp/pub
   /opt/ftp/usr
   /opt/ftp/lbin
   /opt/ftp/lib
   /opt/ftp/usr/bin
   /opt/ftp/usr/lib
   ```

2. Set up the “ls” command for the anonymous user:

   ```
   ln s /usr/bin/ls /opt/ftp/bin/ls
   cp /usr/bin/ls /opt/ftp/usr/bin
   ```

3. Copy the following shared libraries to usr/lib (it's possible some of these libraries don't exist on certain versions of Solaris, but their functionality is still available in the other libraries that do exist):

   ```
   /usr/lib/ld.so.1*
   /usr/lib/libc.so.1*
   /usr/lib/libdl.so.1*
   /usr/lib/libmp.so.1*
   /usr/lib/libnsl.so.1*
   /usr/lib/libsocket.so.1*
   /usr/lib/nss_compat.so.1*
   /usr/lib/nss_dns.so.1*
   /usr/lib/nss_files.so.1*
   /usr/lib/nss_nis.so.1*
   /usr/lib/nss_nisplus.so.1*
   /usr/lib/nss_xfn.so.1*
   /usr/lib/straddr.so*
   /usr/lib/straddr.so.2*
   ```

4. Set file permissions to allow read-execute to all directories, read-only to the ls command, and read-write-execute to pub:

```
chmod 555 /opt/ftp/bin
chmod 777 /opt/ftp/pub
chmod 555 /opt/ftp/usr
chmod 555 /opt/ftp/usr/bin
chmod 111 /opt/ftp/usr/bin/ls
chmod 555 /opt/ftp/usr/lib
```

10.3.3 Configure Upload Permission on Solaris 9-10

1. For Solaris 10, give clients upload permission by adding the following 4 lines to the end of /etc/ftpd/ftpaccess:

```
uploadclass=anonusers   * /pub yes ftp 30000 0660 dirs
deleteyesanonymous
overwriteyesanonymous
renameyesanonymous
```

10.3.4 Test Anonymous FTP Service

Test the configuration by attempting to connect to the ftp service from a remote client, making a directory, uploading a file, list files, retrieving the file, deleting the file, and finally removing the created directory. Acceptable user names are ftp and anonymous. Almost anything will be an acceptable password.

10.3.5 Configure AlliedView NMS (if necessary)

AlliedView NMS will assume the ftp root directory is `/opt/ftp`. To specify a different ftp root, edit the `FTP_ROOT` entry in the AlliedView NMS config file `conf/AT_server.properties`.

10.3.6 Shell Commands

The following shell commands will configure anonymous FTP service suitable for AlliedView NMS on most Solaris installations. Due to variations in system administration from one system to another, this procedure cannot be guaranteed to work on all Solaris systems.

You are advised to create and configure the ftp account interactively in case errors occur.

```
#
# You must be logged-in as root to configure anonymous FTP
#
useradd ftp
cd /etc
#The following is ONE line
sed -e 's/^\(ftp:x\):\([0-9]\{1,\}\).*$/\1:\2:\2:Anonymous FTP:\/opt\/
ftp:nosuchshell/' passwd > passwd~
#
sed -e 's/^ftp.*$/ftp:NP:6445::::::/' shadow > shadow~
#
# Verify the settings before making them permanent.
#
more passwd~
more shadow~
#
# Make the verified settings permanent
#
# CAUTION: ANY ERRORS HERE MAY BE IMPOSSIBLE TO FIX.
#
chmod 660 /etc/passwd /etc/shadow
mv passwd~ passwd
mv shadow~ shadow
mv passwd~ passwd
chmod 440 /etc/passwd /etc/shadow
```

The rest of the shell commands, which also must be executed while logged-in as root, are listed in the `file bin/AT_configure_ftp.sh`. Any system-specific errors from these commands are typically harmless. In fact, on certain installations, some of the shared libraries are obsolete, so “file not found” errors will be expected. The last four commands in the file are to be used with Solaris 9 and 10, so skip them to use on Solaris 8.

11. Appendix B - Activating NMS Software License

11.1 Obtaining the License Activator Key

In order to convert your Evaluation copy to a fully licensed NMS, provide your Allied Telesis Representative with the License Key Request Form (Appendix C).

This form must include the server unique identifier, which is obtained as follows:

11.1.1 Obtain Server Identifier

The following command must be executed on the NMS server to obtain the Unique ID.

- Solaris:

  ```
  % /opt/AlliedView NMS/bin/UniqueIDSolaris.sh
  ```

- Windows Server:

  ```
  C:\> \Program Files\Allied Telesyn\AlliedView NMS\bin\UniqueId.exe
  ```

Note: The server ID is already included when creating the License Key Form, explained below.

11.1.2 Obtain License Key Request Form

The Windows License Key Request Form can be obtained as follows (Windows only)

- Windows Server:

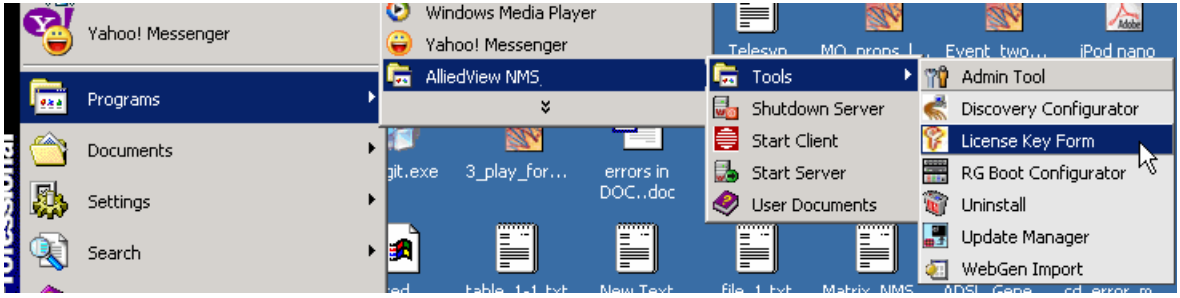


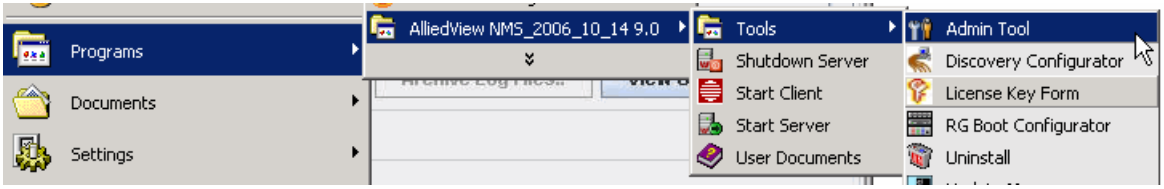
FIGURE 11-1 Obtaining License Key Form - Windows

11.1.3 Applying License Activator Key

Once the license activator key is delivered to you it must be copied to the NMS server and the AT_Update program must be run. This procedure may be applied to a running NMS server and it will take effect immediately **without the need of a system restart**.

Note: This procedure must be run on the NMS Server with Administrator (W2003) or root (Solaris) privileges.

1. Copy the license activator key (`<filename>.upd`) on to the NMS server directory
2. Bring up the **File Update Tool** Form.
   - For windows, select:



   - For Solaris, select `<NMS_HOME>/bin/AT_Update.bin`

3. The GUI will appear, as shown in Figure 11-2.

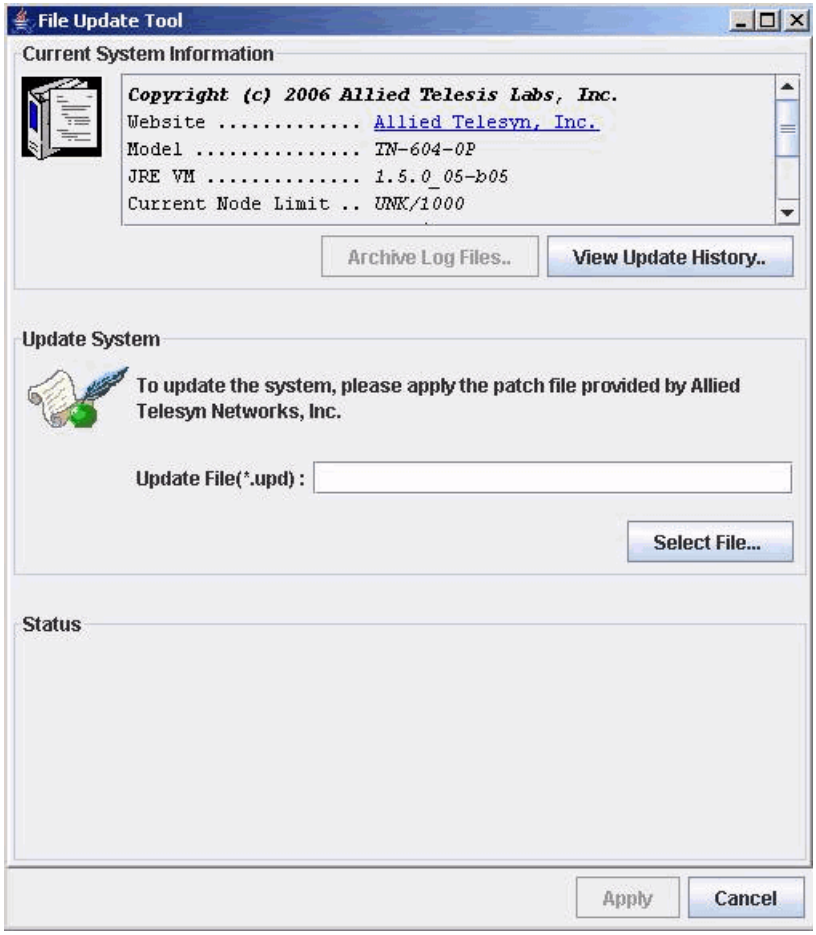
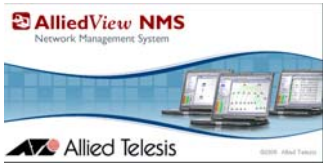


FIGURE 11-2 File Update Tool Form

4. Use the **Select File** to locate the License.upd file
5. Select **Apply** and the key will activate the NMS as a fully licensed system.
6. When success message is received, select **Cancel** to close the window.



11. Appendix C - License Key Form

11.1 License Activation Form - AlliedView NMS

The license key will allow converting your evaluation copy to a fully licensed AlliedView NMS. Please provide your Telesyn Sales Representative with all information on this form by either printing and sending a hard copy, fax or email.

License Key Form - Please fill out and send to your Allied Telesis representative

Date: _____

Company Information

Your Name: _____

Your Title: _____

Your E-mail Address: _____

Company Name: _____

Company Address 1: _____

Company Address 2: _____

Company Address 3: _____

Admin Contact: _____

Telephone Number: _____

E-mail Address (License Key will be sent here): _____

Server Information

Total Number of System Nodes Managed: _____

Types of Nodes Managed (e.g. Rapiers, Switchblades, 9800s, MAPs, etc.): _____

_____

_____

_____

Product Information

Date of Purchase: _____

Where Purchased: _____

Technical Contact: _____

NMS CD Model Num Purchased: _____

PO Number for License Key Purchased: _____

Purchase Price of this License Key: _____

Unique ID Code: _____

Product Version: _____

Service Packs: _____