



Nways Manager for AIX

Installation Guide

Version 2.1



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Note

Before using this information and the product it supports, be sure to read the general information under "Appendix. Notices" on page 29.

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This edition applies to Version 2.1 of the Nways Manager for AIX.

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Chapter 1. Introduction

IBM Nways[®] Manager for AIX[®] Version 2.1. provides an effective way to manage heterogeneous networks (ATM, token ring, Ethernet, FDDI), particularly LAN-based campus networks with high-speed backbones consisting of ATM and LAN switches.

Nways Manager consists of the following components, which are made up of applications:

- Advanced Remote Monitor
- Configuration Tools
- Nways Element Manager
- Nways Manager Suite
- Deployment Manager

For a description of the Nways Manager for AIX Version 2.1, its components and applications, click on the blue **Information** icon on the Nways Manager for AIX Installation window of the Installation Program. This information is provided on the CD-ROM.

For the latest technical information, including prerequisites and supported Web browsers, visit the Nways Management Web site:

<http://www.networking.ibm.com/netmgt>

Demonstration Version

All Nways Manager components are provided on the CD-ROM that accompanies this book. You can install the Nways Manager Version 2.1 components and use them for a 60-day trial period. During (or after) this period, you may purchase any of the Nways Manager components without losing your configurations.

When you purchase an Nways Manager component you receive a Production License Use Certificate (software key) that unlocks the component and allows you to permanently use it. You do not have to re-install the component or applications.

SmoothStart

SmoothStart[™] is an IBM service offering that provides on-site installation, configuration, integration, and education services for IBM networking devices and IBM Nways Manager for AIX. All information is available on the IBM Global Services Web site:

<http://www.as.ibm.com/asus/mus47ae.html>

Automatic Alerts

By signing up for automatic alerts, you will automatically receive e-mail notifying you of the latest news, fixes, and new releases for a variety of products of interest to users of the Nways Manager family of products.

You can sign up for automatic alerts on the Web at:

<http://www.networking.ibm.com/netsupt>

Hardware and Software Prerequisites

The Nways Manager installation process requires the installation of Java Development Kit (JDK) 1.1.6 or later. For information on hardware and software prerequisites for Nways Manager for AIX Version 2.1, visit our Web site at:

<http://www.networking.ibm.com/netmgt>

Important: In order to use Nways Manager for AIX Version 2.1 to execute a JMA from a Web browser, you must set the AIX system /tmp file to contain at least 150 MB of free space.

Chapter 2. Installing Over Previous Versions

If you are installing IBM Nways Manager for AIX Version 2.1 components over previous versions, follow the instructions in this chapter to maintain your current configuration.

ObjectStore

ObjectStore Version 5.1 is automatically installed when you install Nways Manager for AIX Version 2.1 Nways Manager-ATM. If you already have ObjectStore Version 4.0 installed, you must modify the following parameters before installing the Element Manager components:

- The OS_ROOTDIR variable can be located in the following places:
 - /etc/environment
 - /etc/profile
 - your \$HOME/.profile

Locate the correct file, and edit the line that defines the OS_ROOTDIR variable to point to the new version of ObjectStore as shown:

```
export OS_ROOTDIR=/usr/lpp/ODI/OS5.1/cset
```

- In the /.profile file, delete \$OS_ROOTDIR/bin from the line that defines the PATH variable; for example:

```
export PATH=$PATH:$OS_ROOTDIR/bin
```

Element Manager

You cannot install the LAN component of Nways Manager for AIX Version 2.1 over a version of Nways Campus Manager LAN earlier than 3.2, which was shipped as part of Nways Manager for AIX Version 1.1. If you have previously installed Nways Campus Manager LAN Version 3.1 or earlier, you must completely uninstall it before installing the new Nways Manager product.

If you have installed Nways Campus Manager ATM Versions 1 or 2.0 on your management station, you must completely uninstall it before installing the new Nways Manager product.

You can install the LAN component of Nways Manager for AIX Version 2.1 over Nways Campus Manager LAN Version 3.2 or later if Nways Campus Manager ATM *is not* installed on the same workstation.

To remove the old Nways Campus Manager versions refer to the installation instructions that came with that version.

The Nways Manager for AIX Version 2.1 Element Manager component can operate only with IBM Nways Manager for AIX Version 2.1 Nways Manager ATM component that is provided with it.

Nways Manager ATM

You cannot install the ATM component of Nways Manager over any versions of Nways Campus Manager ATM older than 2.2, which was shipped as part of Nways Campus Manager ATM Version 1.1. Any earlier versions of this code, and the corresponding versions of Nways Campus Manager LAN must be completely uninstalled before installing Nways Manager for AIX 1.2.3.

Note that the ATM device element management that was previously included in Nways Campus Manager ATM was moved into the LAN component of Nways Manager for AIX beginning with Version 1.2.

To remove the old Nways Campus Manager versions refer to the installation instructions that came with that version.

The Nways Manager for AIX Version 2.1 Campus Manager - ATM component can only operate with IBM Nways Manager for AIX Version 2.1 Campus Manager - LAN component that is provided on this CD-ROM.

Remote Monitor

You can install Nways Manager for AIX Version 2.1 Remote Monitor component over all previous versions of Nways Campus Manager Remote Monitor or Nways Campus Manager Remote Monitor Advanced without losing your current configuration.

Traffic Monitor

You can install Nways Manager for AIX Version 2.1 Traffic Monitor component over Nways Traffic Monitor Version 1.1 (part of Nways Manager for AIX Version 1.1) without losing your current configuration.

Chapter 3. Installing Nways Manager for AIX

To install Nways Manager for AIX Version 2.1, follow these steps:

1. Log in as the root user.
2. Make sure that you have stopped all the NetView daemons.
3. Create the mount point directory for the CD-ROM by entering the command:

```
mkdir /cdrom
```

Note: You *must* use /cdrom as the mount point. If you use a different mount point, the installation program will not work correctly.

4. Insert the IBM Nways Manager for AIX Version 2.1 CD-ROM into the CD-ROM drive.
5. Mount the CD-ROM by entering the command:

```
mount -r -v cdrfs /dev/cd0 /cdrom
```

6. Initiate the test of system requirements by typing:

```
/cdrom/SystemCheck
```

7. Run the shell script to start the installation program by entering the command:

```
/cdrom/install.nways
```

The Welcome window for the installation program is displayed.

8. Follow the instructions in the installation program to select and install Nways Manager for AIX Version 2.1.

Important: Before you can remove a CD-ROM from the CD-ROM drive, you must first unmount the file system. To do so, enter the command:

```
umount /cdrom
```

Managing Licenses

If this is the first time you have installed Nways Manager for AIX Version 2.1, you will see the License screen that allows you to register your licensed products or elect to use a demonstration version of the installed Nways Manager components:

- To register a licensed product, enter your customer number and license key number when prompted.
- To install a 60-day demonstration version of the selected components, simply press **CTRL+C** to exit the License window. The trial installation will be completed automatically.

If you are installing the Element Manager component or the Nways Manager Suite of components, you will be asked to select what version of these components you want to install and enter the number of nodes for which you have purchased a license.

If you have already installed some parts of the Element Manager component or the Nways Manager Suite, and have installed the correct license key, the installation program will complete automatically.

If you have not already installed an applicable license key, you will be taken to the License window to install the key and complete the installation.

Upgrading Your License

If you have purchased a license to upgrade from a demonstration version of an Nways Manager component, simply run the installation program again, select the component, and enter your customer number and license key number when prompted in the License window.

The key will be installed, the product will be registered, and you will not lose any of your accumulated data.

Increasing the Number of Licensed Nodes

If you have purchased a license allowing you to manage additional nodes using Nways Element Manager or Nways Manager Suite, use the following procedure from the NetView console to update the node-count associated with your product license:

1. Select **Tools** -> **IBM Nways Java** -> **Open License Status** from the NetView menu bar.
2. Select **Update** from the *License Status* panel to invoke the *Update* panel.
3. Enter the value for the updated number of licensed nodes.
4. Select **Update Now** to save the new value.
5. Click **Close** to return to the *License Status* panel. You can click **Refresh** at the bottom of the *License Status* panel to see the updated values.
6. Click **Close** button to exit the *License Status* panel.

AIX 4.3 Upgrade Notes

If you plan to install or upgrade to AIX Version 4.3 on your Network Management station, be aware of the following:

After installing AIX Version 4.3 on your Network Management station, you must modify the LIBPATH environment variable to include the following path **at the beginning** of the LIBPATH:

```
/usr/lpp/X11/lib/R5:/usr/lpp/X11/lib/R5/Motif1.2
```

You must also ensure that if the directory `/usr/Tivoli/lib/aix4-r1` is specified as part of the LIBPATH variable, it is the last directory specified, because this directory contains older copies of AIX system libraries that can cause applications not to run properly.

Modify the following files to include these changes:

- /etc/netnrc
- /etc/Tivoli/setup_env.sh
- /usr/OV/bin/nv6000
- /usr/OV/bin/netview

NetView Fixes

Netscape Communicator and Navigator Version 4.0 use a private copy libC.a, which must remain synchronized with other shared AIX libraries. If updates have been applied to your AIX system, you may also need to update the copy of the libC.a file used by Communicator and Navigator. The following errors may be resolved by updating libC.a:

On AIX 4.2.1

```
./netscape
exec(): 0509-036 Cannot load program /usr/net405/netscape_aix4 because of
the following errors:
0509-023 Symbol snprintf in /usr/lib/libX11.a is not defined.
0509-022 Cannot load library libXt.a[shr4.o].
0509-026 System error: Cannot run a file that does not have a valid form
```

On AIX 4.3.2

```
./netscape
exec(): 0509-036 Cannot load program /usr/netscape/t/net405/netscape_aix4 because of
the following errors:
0509-023 Symbol __malloc_postfork_unlock in /usr/lib/libpthreads.a is not defined
0509-023 Symbol __malloc_prefork_lock in /usr/lib/libpthreads.a is not defined
0509-022 Cannot load library libC.a[shr.o].
0509-026 System error: Cannot run a file that does not have a valid format
```

These fixes are available at:

<ftp://service.software.ibm.com/aix/efixes/netscape/>

or

<http://techsupport.services.ibm.com/aix/efixes/netscape/>

Or from your IBM Service representative. Please consult the readme file that comes with the fixes for instructions on installation.

Chapter 4. Configuring Nways Manager Applications

This section describes any additional configuration steps that you need to perform after installing Nways Manager for AIX Version 2.1.

Java-Based Device Management

Nways Manager Element Manager supports the following IBM networking hardware:

- IBM Ethernet and Token-Ring Adapters
- MSS Client UFC in:
 - IBM 8270 Nways LAN Switch
 - IBM 8272 LAN Switch Modules
- IBM Network Utility
- MSS Domain Client UFC in:
 - IBM 8270 Nways LAN Switch
 - IBM 8272 Nways Token-Ring LAN Switch model 216
 - IBM 8271 and 8272 2- and 3-slot LAN Switch Modules
- IBM 2210 Nways Multiprotocol Router
- IBM 2212 Access Utility
- IBM 2216 Multiaccess Connector
- IBM 8210 Nways Multiprotocol Switched Services (MSS) Server
- IBM 8224 Ethernet Stackable Hub
- IBM 8225 Fast Ethernet Stackable Hub
- IBM 8229 Bridge
- IBM 8230 Token Ring Network Controlled Access Unit
- IBM 8235 Models 31, 32, 51, and 52
- IBM 8237 Stackable Ethernet Hub
- IBM 8238 Token Ring Stackable Hub
- IBM 8239 Token Ring Stackable Hub
- IBM 8245 Nways 10/100 Ethernet Stackable Hub
- IBM 8250 Multiprotocol Intelligent Hub
- IBM 8260 Nways Multiprotocol Switching Hub
- IBM 8265 Nways ATM Switch
- IBM 8270 Nways LAN Switch Family Models 600 and 800
- IBM 8271 Nways Ethernet LAN Switch, models E12, E24, F12, F24, 108, 212, 412, 216, 524, 612, 624, and 712
- IBM 8272 Nways Token-Ring LAN Switch
- IBM 8273 Nways Ethernet RouteSwitch (also requires Xylan RouteVision)
- IBM 8275 Nways Ethernet LAN Switch
- IBM 8281 Nways ATM LAN Bridge Card and Box formats

- IBM 8282 Nways ATM Workgroup Concentrator
- IBM 8285 Nways ATM Workgroup Switch
- IBM 8371 Multilayer Ethernet Switch
- Generic Java™-based management for any SNMP-enabled™ device in your network.

Note: For the most up-to-date information on hardware supported by Nways Manager Element Manager, see our Web site:

<http://www.networking.ibm.com/netmgt>

These device managers consist of Nways Web pages (both HTML and Java) and can be used at the local management workstation or from JDK 1.1.5-compliant Web browsers running on any platform from anywhere in your enterprise.

Accessing the Java-Based Device Manager Helps

The Java-based managers use a Web browser to display their HTML help panels. If the Web browser is installed in a directory that is not included in the search path, then you will not be able to access the online help. The installation program assumes that you are using Netscape as your Web browser.

To use a Web browser other than Netscape or to specify a browser that is not in the search path, edit the `/usr/CML/JMA/java/websvr/properties/BrowserApplet.txt` file and specify the fully qualified name for the Web browser on the following line:

```
webBrowser.path=
```

About Device Configuration Programs

Some IBM networking products include a configuration program. Nways Manager allows you to launch these configuration programs from the device's JMA.

In order to launch the configuration program from the JMA, Nways Manager must know the location of the configuration tool on the network management workstation. For configuration tools shipped after July 1998, this information is automatically updated when the configuration tool is installed.

To locate older versions of configuration tools, Nways Manager includes the Config Tool Locator, which locates existing versions of configuration tools already installed on the network management workstation. You should run the Config Tool Locator when you install Nways Manager, and again after each installation of a configuration tool that originally shipped prior to July 1998.

To run the config tool locator, from SMIT, select

Nways Campus Manager -> Configure -> Config Tool Locator

If the Config Tool Locator is unable to find a configuration tool that is loaded on the network management workstation, you can add the location of the program to the list of known programs using the following procedure:

1. Locate the correct configuration tool (cfg.exe or cfg.app file) on the network management workstation and note the file size.
2. Check the Config Tool Locator's FixCfg.properties file (located in the directory /usr/CML/JMA/java/fixcfg) to ensure that the size of this configuration tool is unique.
3. Add a new entry to the FixCfg.properties file, using existing entries as a model.
4. Rerun the Config Tool Locator.
5. Restart the JMA.

Accessing the Device Managers from a Web Browser

There are three basic components involved in Web browser-based access to the device managers:

- Nways Manager Workstation
- Web Server
- Web Browser compliant with JDK 1.1.5 or later

Important: In order to use Nways Manager for AIX Version 2.1 to execute a JMA from a Web browser, you must set the AIX system /tmp file to contain at least 150 MB of free space.

Nways Manager Workstation

The Nways Manager maintains the Nways Web pages that are sent from the Web server to the Web browser clients.

Web Server

You can run Java device management applications in client mode on stations connected to the network management station without configuring a Web server, but for true intranet access through a Web browser, you must configure your Web server to locate the Nways Java Management Web pages subdirectory.

Web servers supported for the Nways Web access include:

- Apache
- Fast Track
- Microsoft IIS
- Lotus® Domino™ Go Server
- Netscape Enterprise Server

On the network management station, you must:

1. Assign a new port number for use by the HTTP server higher than 8000. (The default value is 80.) This action adds an additional level of security to Web browser access, and prevents port conflicts with other applications using the server.
2. Assign an alias or logical name to the directory in which the HTML pages are stored on the management system. The Nways Web pages are stored in:
/usr/CML/JMA/java/websvr.

3. Verify that the properties assigned to this directory by the server include allowing Web browser access. Consult your Web server documentation for more information on how to do this.

Web Access for ATM Manager

Before you can use the ATM Manager via a Web browser, you must configure your Web server. The following configuration for the Lotus Domino server can be used as a guide if you are using another server.

1. Enter the following commands in the configuration file of your Web server, making sure that the two "Pass" statements are entered in this order:

```
Exec      /atm-bin/*      /usr/CML/ATMWEB/bin/*
Pass      /atm-html/*  /usr/CML/ATMWEB/html/*
Pass      /*          /a directory path/*
```

2. Reset the Web server by entering the appropriate command; for example:

```
refresh -s httpd
```

Web Browser Compliant with JDK 1.1.5 or Later

Java support comes with your browser. The Web browser can dynamically load the Java application.

Java communication uses the IP host name and not the IP address, therefore both the client and server need the correct host names to which they are communicating. If the client is dynamically assigned an IP address, ensure that this IP address is associated with your client's IP host name. This process works correctly with Dynamic Host Configuration Protocol (DHCP).

If your client uses the PPP protocol to connect to the server, the client will be dynamically assigned both an IP address and an IP host name. In this situation, Windows NT®, or Windows 95 do not provide the correct IP host name to the Java applications running in the client. Hence, the Java applications will not provide the correct IP host name to the server and the server will not be able to send asynchronous (unsolicited) events to the client. To correct this problem, change the IP host name on the Windows client to the value "localhost" for the PPP connection's TCP/IP protocol. The Java code in the Windows client will then provide the server with the correct (dynamically assigned) IP host name.

When you access the Nways Web pages, your browser may ask if you want to allow unsigned applets. To use the Web functions of the Nways Manager, you must allow unsigned applets.

Note: If you are using the HotJava™ Browser, you must start it using the following parameters:

```
hot.java -mx64M
```

Remote Distributed Intelligent Agents (DIAs)

The Element Manager provides DIAs that can be placed in remote Java-enabled workstations to off-load performance management polling for these device managers.

The recommended JDK for use with the DIAs is 1.1.6.

Refer to the following readme file for complete instructions:

/usr/CML/JMA/dia/readme.txt

DB2 Universal Database

Deployment Manager and performance management for these device managers uses a Java Database Connectivity (JDBC)-compliant database. For your convenience, DB2 Universal Database[®] is provided.

You will need to create a database instance that can be accessed using JDBC. The following steps show how to do this using DB2[®] (the concept is the same if you are using another JDBC-compliant database, but you will need to refer to that database's instructions): Before installing DB2, create the following AIX group and user definitions using the **SMIT -> Security and Users** menu:

- **Group: nwaysdb2**

This group will be used for the DB2 Instance and Administrative Server.

Using SMIT, the *Add Group* menu requires the name to be entered first. After entering the name, set the *Administrative Group* field to True.

- **User: nwaysdb2**

This is the DB2 Instance Owner.

Using SMIT, enter the name of the user to be added first, then complete only the following fields:

```
ADMINISTRATIVE USER = true
Primary group = nwaysdb2
Group SET = nwaysdb2,system
ADMINISTRATIVE GROUP = nwaysdb2
```

- **User: nwaysadm**

This is the owner of the Administrative Server.

Using SMIT, enter the name of the second user to be added, and complete only these fields:

```
ADMINISTRATIVE USER = true
Primary group = nwaysadm
Group SET = nwaysdb2,system
ADMINISTRATIVE GROUP = nwaysdb2
```

- **User: root**

Modify the existing user definition for root to add nwaysdb2 to the Group SET.

After you have completed these changes, use the following commands to confirm the correct settings of the new group and users:

```
lsgroup nwaysdb2
lsgroup system
```

All three users should show up as users in both groups.

1. After you have created these users, select passwords for them and log in as each user to change the temporary status of the root-generated ones. You will need these passwords when configuring DB2, so be sure to write them down.
2. To begin the installation, mount the CD using the following command:

```
mount -r -v cdrfs /dev/cd0 /mnt
```

You can install using SMIT or the db2setup script included on the CD. Installing using the script assists you in selecting the components to install and allows you to set up users during installation.

3. Change directory to the mount point and run the script db2setup.
Select the *Universal Enterprise Database* option to install. You can select only one major product group.
Use the spacebar to choose options. When you have completed a panel click **OK**.
4. After the installation is set up, you are asked whether you want to create the Instance and Administrative Server. Select *Instance*, then click **Customize** to set up the server. For the Instance user, use *nwaysdb2* as the user name, *nwaysdb2* as the group, and the password you configured earlier.
Click **OK** when you are done.
5. You are then prompted to configure another user. This is referred to as the fence user, and should be the same as the instance owner you entered above.
6. Use the same procedure to configure the Administrative Server, using *nwaysadm* as the user name and *nwaysdb2* as the group.
7. After creating the user, check the ownership of the *nwaysdb2.profile*. If ownership is not assigned correctly, logon as root and change the ownership of the *\$HOME/.profile*:

```
cd /home/nwaysdb2  
chown nwaysdb2:nwaysdb2 .profile
```

Note: The next two steps refer to the application of a FixPak to DB2. You must apply this FixPak before configuring DB2 for use with Nways Manager.

If you choose not to install the FixPak now, you can skip the next two steps and complete the installation. If you install the FixPak at a later date, you must then rebind the DB2 files.

8. If you are using Version 5 of IBM DB2 Universal Database, you must use release 2 or later (Version 5.2 or later). If you received Version 5.0 with Nways Manager, apply FixPak 8 to upgrade to Version 5.2. You may also apply later versions of the FixPak, but FixPak 8 is the minimum which can be used with Nways Manager for AIX Version 2.1 and its components.

In the United States and Canada, call 1-800-237-5511 to request the DB2 APAR. Outside the United States and Canada, contact your country support representative.

You can also download the APAR at:

<http://www.software.ibm.com/data/db2/db2tech/version5.html>

9. Add the following line to *nwaysdb2*'s profile after the existing PATH statements:

- . sqllib/db2profile
10. Activate the new profile using the .profile command.
 11. Execute the following command to automatically start the instance on reboots:


```
db2set -i nwaysdb2 DB2AUTOSTART=YES
```
 12. Start the DB2 instance:


```
db2start
```
 13. Start the Command Line Processor (CLP):


```
db2
```
 14. At the CLP prompt, enter:


```
CREATE DATABASE IBMNMPDB
```
 15. After that database is successfully created, go to the CLP prompt and create the CfgMan database by typing:


```
CREATE DATABASE CFGMAN
```
 16. When both databases are successfully created, enter:


```
Quit
```
 17. Log in as root and, if the directory /usr/CML/JMA/java/websvr/code was not created during Nways Manager Installation, create it.
 18. Move the DB2 JDBC drivers into the Nways class path using the following commands:


```
cd /usr/CML/JMA/java/websvr/code
jar -xvf /usr/lpp/db2_05_00/java/db2java.zip
```
 19. Modify the existing PATH statement in /etc/environment to include:


```
/home/nwaysbd2/sqllib/bin:/home/nwaysdb2/
sqllib/adm:/home/nwaysdb2/sqllib/misc
```
 20. Add the following lines to /etc/environment:


```
DB2DIR=/usr/lpp/db2_05_00
DB2INSTANCE=nwaysdb2
LD_LIBRARY_PATH=/home/nwaysdb2/sqllib/lib
```
 21. In /etc/inittab, move the following line:


```
rcdb2:2:once:/etc/rc.db2 > /dev/console 2>script
```

immediately before the line equivalent to:

```
rctcpip:2:wait:/etc/rc.tcpip > /dev/console 2>script
```
 22. Reboot the machine for the modifications to take effect.
 23. Ensure that the Nways Manager daemons are running and then start the Nways Manager Performance Management Configuration application by selecting **IBM Nways Java -> Performance Configuration** from the NetView Tools menu, or by issuing the following command:


```
/usr/CML/JMA/bin/dpadmin
```
 24. Modify the /usr/CML/JMA/java/properties/CfgManProperties.txt file to use the *nwaysdb2* user id and password. (Optionally, you may delete the values for the CfgManUserId and CfgManPassword properties.)

25. From the Performance Management Configuration window, select the Database tab. There are 4 fields in this window. Two are filled for DB2. The third and fourth fields are UserId and Password, which can be ignored.

The dpadmin and dpconfig screens show the polling list, templates, reports, and other features. Once the collection is started, you can close this window and the collection will continue running. To stop the collection, reopen this window and click on **Stop Collection**.

In addition to DB2, IBM has successfully tested JPM with the following databases:

- Oracle
- Sybase

Stopping Automatic Polling

If you do not need to collect performance statistics, you can reduce the workload of the Nways Manager workstation and eliminate some network traffic by turning off performance polling.

To do this:

1. Stop the JMA server using the command:
ovstop JMAintegrator
2. Edit the file `/usr/CML/JMA/java/properties/JdmServerProtperties.txt` to change the section:

```
# The services property identifies the service classes to be started
# when the JDM server is started.
#      ibm.nways.jdm.TrapCatcher          \
services=ibm.nways.jdm.RemoteModelFactoryManager \
          ibm.nways.jdm.modelgen.InstrContextFactoryMgr \
          ibm.nways.jdm.SnmpService       \
          ibm.nways.jdm.browser.BrowserService \
          ibm.nways.perfhook.PerfService   \
          ibm.nways.jdm.traceroute.TraceRouteService \
          ibm.nways.perfhook.ModelListener
```

to:

```
# The services property identifies the service classes to be started
# when the JDM server is started.
#      ibm.nways.jdm.TrapCatcher          \
#      ibm.nways.perfhook.PerfService     \
services=ibm.nways.jdm.RemoteModelFactoryManager \
          ibm.nways.jdm.modelgen.InstrContextFactoryMgr \
          ibm.nways.jdm.SnmpService       \
          ibm.nways.jdm.browser.BrowserService \
          ibm.nways.jdm.traceroute.TraceRouteService \
          ibm.nways.perfhook.ModelListener \
```

3. Save the file.
4. Restart the JMA server using the command:

ovstart JMAintegrator

In addition to minimizing both network traffic and the size of your performance database, stopping automatic polling will have these effects:

- No performance polling is done for newly or previously managed devices.
- Performance bullets in the JMA navigation tree will be blue (status=unknown).
- Clicking on the performance bullets will result in a panel containing only the performance toolbar.
- You will receive several "Cannot find PollingService" messages in your log files.

To restore automatic polling, reverse the changes described above to return the *JdmServerProperties.txt* file to its original state.

Note: Over-polling devices can result in degradation of performance for both the device and the device-management application. If you encounter these types of performance degradation, review your polling configuration.

Web Server Settings

All the Web servers have to be configured to listen to the client on port 80 (the default port in most of the servers).

Apache Web Server

Add the following lines in the given order to the file:

```
/Server_root/conf/srm.conf.  
Alias /nways "/usr/CML/JMA/java/websvr"  
Alias /cgi/code "/usr/CML/JMA/java/websvr/code"  
ScriptAlias /cgi "/usr/CML/JMA/java/websvr"
```

Server_root: The directory where the Apache Websvr is installed.

usr: The directory where the Nways product is installed.

Netscape Web Server

1. Go to the server main page and check whether the Server is ON.
2. Select **Programs** menu from the top of the page.
 - a. Select **CGI File Type**.
 - b. Select **Yes** for Activate CGI as a file type.
3. Select **Content Management** from the top menu.
Select **Additional Document Directories** and add the following lines:

```
URL prefix: nways  
Map To Directory: /usr/CML/JMA/java/websvr  
URL prefix: cgi  
Map To Directory: /usr/CML/JMA/java/websvr
```

Domino Web Server

1. Go to
`http://Machine/Frntpage.html`

(Machine—where you have installed the Domino Web Server.)
2. Select **Configuration and Administration Forms**
(`http://Machine/admin-bin/Cfgin/initial`)
3. Select **Request Routing**
(`http://Machine/admin-bin/Cfgin/mpfrule`)
4. Add the following lines in the given order:

Action	Request Template	Replacement File Path
Pass	<code>/nways/*</code>	<code>/usr/CML/JMA/java/websvr/*</code>
Exec	<code>/cgi/CgiLauncher*</code>	<code>/usr/CML/JMA/java/websvr/CgiLauncher*</code>
Pass	<code>/cgi/*</code>	<code>/usr/CML/JMA/java/websvr/*</code>

Web Access for ATM Manager

Before you can use the ATM Manager via a Web browser, you must configure your Web server as follows:

1. Enter the following commands in the configuration file of your Web server, making sure that the two “Pass” statements are entered in this order:

```
Exec      /atm-bin/*      /usr/CML/ATMWEB/bin/*
Pass      /atm-html/*    /usr/CML/ATMWEB/html/*
Pass      /*       /a directory path/*
```

2. Reset the Web server by entering the appropriate command; for example:
refresh -s httpd

Remote Monitor

Before you can use Remote Monitor, you must set the RMONHOME environment variable to point to the directory where it has been installed. It is installed by default in `/usr/LANReMon/rmon`. To set the RMONHOME environment variable in your `.profile` and add it to your default path, add the following to your `.profile`:

```
RMONHOME=/usr/LANReMon/rmon
export RMONHOME
PATH=$RMONHOME:$PATH
export PATH
```

Traffic Monitor

Before you can use Traffic Monitor, you must set the TRAFFICMONHOME environment variable to point to the directory where it has been installed. It is installed by default in `/usr/LANReMon/trafficmon`. To set the TRAFFICMONHOME environment variable in your `.profile` and add it to your default path, add the following to your `.profile`:


```
TRAFFICMONHOME=/usr/LANReMon/trafficmon
export TRAFFICMONHOME
PATH=$TRAFFICMONHOME:$PATH
export PATH
```

Before starting Traffic Monitor, you must also create the following database:

```
/usr/LANReMon/trafficmon/tfm_dbcreate <db_dir> <db_link>
ln -s <db_dir>.dbs /usr/LANReMon/trafficmon/<db_link>.dbs
```

Where <db_dir> is the directory where the database will be stored, and <db_link> is the name of the database and the name of the link that must be created in the /usr/LANReMon/trafficmon directory.

The <db_link> is normally **tfm** and the actual link name is **tfm.dbs**.

Nways Deployment Manager

Nways Deployment Manager requires a DB2 database named CfgMan. Refer to the DB2 installation instructions for the required steps to create this database.

You should also consider the space requirements for this database. The Deployment Manager stores its software inventory in the database. So, for example, if you have 20 different 2210 load images stored in the inventory and each one averages 2 MB, you will need approximately 40 MB for the software inventory alone. For further information on Deployment Manager, see *Nways Deployment Manager User's Guide*.

Chapter 5. Starting Nways Manager for AIX

The first time you start an application, be sure to log in as a root user. To start the Nways Manager applications that you have installed, enter the command:

```
nv6000
```

The NetView root map is displayed, from which you can open Nways Manager applications.

- **To open Element Manager:**
 - Click on NetView root map *Hubs Topology* icon to display the IBM Hubs topology.
 - Click on NetView root map *LAN* icon to display the LAN Network submap.
 - Click on NetView root map *Router and Bridge Manager* icon to open the Router and Bridge Manager.
 - Click the *Nways Device Management* icon to display the Device Manager topology.
- **To open Nways Manager ATM:**
 - Click on the *ATM Campus* icon to display the ATM topology.
 - Click on the *VLANs* icon to use the LAN-Emulation function.
- To open Remote Monitor, select from the NetView menu bar **Monitor -> Nways Manager-Remote Monitor -> Nways Manager-Remote Monitor Tools**.
- To open Traffic Monitor, from the NetView menu bar, select **Monitor -> IBM Traffic Monitor -> Start Traffic Monitor** and then select **Monitor -> IBM Traffic Monitor -> Start Map**.

You can also run Remote Monitor and Traffic Monitor in stand-alone mode without starting NetView.

Starting Remote Monitor In Stand-Alone Mode

To run Remote Monitor in stand-alone mode, enter:

- **\$RMONHOME/rmon**

Starting Traffic Monitor In Stand-Alone Mode

To run Traffic Monitor in stand-alone mode, do the following:

- To start the Collector, enter:
 - cd \$TRAFFICMONHOME
 - ./trafficmon start
- To start the Map, enter:
 - cd \$TRAFFICMONHOME
 - ./trafficmon map
- To start Error Log Monitor, enter:
 - cd \$TRAFFICMONHOME

- ./trafficmon log

Web Access to the ATM Manager

To use your Web browser to access the ATM Manager function, use the following Web page:

`http://hostname/atm-html/AtmWebMngt.html`

where *hostname* is the AIX station where you installed the ATM Manager with Web access support.

Accessing README Files

You can elect to view the README files as part of the Installation process. The following README files are also installed:

Component	README File
Element Manager	/usr/lpp/cml/lpp.README
Distributed Intelligent Agent	/usr/CML/JMA/dia/README.txt
Nways Manager ATM	/usr/lpp/ahm6000/lpp.README
Remote Monitor	/usr/lpp/lanReMon/lpp.README
Traffic Monitor	/usr/lpp/trafficMon/lpp.README
VPN Manager	/usr/lpp/cml/lpp.README
Nways Deployment Manager	/usr/lpp/cml/lpp.README

Information about how to use ObjectStore is located in the file:

`/usr/lpp/ODI/OS5.0/common/doc/mo/index.htm`

Accessing Online Documentation

After starting Nways Manager, you can access online User's Guides for Nways Manager applications:

Element Manager Online Documentation

- Select **Help -> Element Manager User's Guide** to access online documentation for the following applications:
 - 8250 Multiprotocol Intelligent Hub Device Manager
 - 8260 Nways Multiprotocol Switching Hub Device Manager
 - 8265 Nways ATM Switch Device Manager
 - FDDI Management using 8244 FDDI Workgroup Concentrator
 - SNMP Bridge/Switch Manager
 - Token-Ring Management accessing LAN Network Manager for OS/2
 - Token-Ring Management using SNMP Token-Ring Devices

- Use the Acrobat Reader 3.0 to access online documentation of the IBM 8260 LAN Switching Modules Series, available under directory
/usr/CML/doc/cm1.nsmm.pdf
- Select **Help -> IBM Device Managers User's Guide** to access online documentation for:
 - 8224 Ethernet Stackable Hub Device Manager
 - 8225 Fast Ethernet Stackable Hub Device Manager
 - 8230 Token-Ring Controlled Access Unit Device Manager
 - 8235 Dial-In Access to LANs (DIALs) Server Device Manager
 - 8238 Token-Ring Stackable Hub Device Manager
 - 8273/8277 Nways Ethernet RouteSwitch Device Manager
 - 8274 Nways LAN RouteSwitch Device Manager
 - 8276 Nways Ethernet RoutePort Device Manager
 - 8281 Nways ATM LAN Bridge Device Manager
 - 8282 Nways ATM Workgroup Concentrator Device Manager
 - 8285 Nways ATM Workgroup Switch Device Manager

Nways Manager ATM Online Documentation

- Select **Help -> Nways Manager -> ATM User's Guide** to access online documentation for the following applications:
 - ATM Manager
 - LAN Emulation Manager

Remote Monitor and Traffic Monitor Online Documentation

- Use the Acrobat Reader 3.0 to access online documentation for Remote Monitor and Traffic Monitor, available in directories:
 - /usr/LANReMon/doc/ecam.pdf
 - /usr/LANReMon/doc/ttmm.pdf
 - /usr/LANReMon/doc/lanremon.pdf
 - /usr/LANReMon/doc/trafficMon.pdf

Installing and Using Acrobat Reader 3.0

Acrobat Reader 3.0 is provided on the CD-ROM. To install it:

1. Untar file aixreader.tar located in /cdrom/acrobat using the following command:
tar -xvf aixreader.tar
2. Uncompress the resulting file.
3. Type INSTALL and follow the procedure.
4. When prompted, enter the Installation directory. By default it is
/usr/lpp/Acrobat3
5. Update your .profile with the Acrobat Reader installation directory:
export PATH=\$PATH:/usr/lpp/Acrobat3/bin

To start Acrobat Reader 3.0 enter **acroread** then select the directory where the documentation you are looking for is stored.

Chapter 6. Removing Nways Manager Applications

To remove Nways Manager applications, follow these steps:

1. Log in as the root user.
2. Make sure that you have stopped all NetView daemons.
3. At the prompt, enter `smit`.
4. From the SMIT main menu, click **Communications**.
5. Select **Nways Campus Manager**.
6. Select **Maintain**.
7. Select **Campus Manager general maintenance**.
8. Select **Remove Nways Campus Manager Software**.

If you want remove selected components, use the option that appears under the **Campus Manager general maintenance** menu.

Note: This procedure will not remove the Router and Bridge Manager component of Nways Campus Manager LAN, nor will it remove Nways Remote Monitor. To remove these applications:

1. Log in as the root user.
2. Make sure that you have stopped all the NetView daemons.
3. At the prompt, enter `smit`.
4. From the SMIT main menu, click **Software Installation and Maintenance**. The Software Installation and Maintenance menu is displayed.
5. Select **Maintain Installed Software**.
6. Select **Remove Software Products**.
7. In the Remove Software Products window, select the filesets for the component you want to remove and then select **OK**. Filesets are listed on the following page.
8. Select **Exit -> Exit SMIT** from the menu bar to exit SMIT.

During the removal procedure, the removal and de-configuration steps are displayed in the SMIT window. These steps are logged in the `smit.log` file and in the log files for each component. See "Log Files" on page 27.

Filesets

In order to remove (uninstall) Nways Manager for AIX Version 2.1 applications, you must specify the filesets in each component.

License Fileset - Shared By All Components

The license fileset: `cml.license.cat` is used by all components of Nways Manager. **Do not remove this fileset unless you are uninstalling the entire product.**

Element Manager Filesets

alertman.obj
cml.baseLan
cml.books
nwaysmgr.jma
ahm6000.base.msg.En_US
cml.br
cml.fddi
cml.Jjim
cml.Jjim.msg.En_US
smcfg.dtext.En_US.eui.obj
cml.license.ncml
smcfg.eui.obj
cml.lnme
smm1m.subagent.obj
cml.tr
cml.baseLan.msg.En_US
cml.br.msg.En_US
cml.fddi.msg.En_US
cml.lnme.msg.En_US
cml.tr.msg.En_US
nwaysmgr.jma.msg.En_US
cml.8250-60
cml.8250-60.msg.En_US

Campus Manager - ATM Filesets

ahm6000.atmweb	cml.Jfault
ahm6000.atmweb.msg.En_US	cml.Jpnni
ahm6000.base	cml.jvnet
ahm6000.base.msg.En_US	cml.license.ncma
ahm6000.books.En_US.base	cml.vnet

Common Filesets Shared By Nways Manager ATM and Element Manager

cml.base
cml.base.msg.En_US
ostore_runtime.base
cml.Jcomm
cml.Jcomm.msg.En_US

Remote Monitor Filesets

cml.license.rmon	lanReMon.base.obj
lanReMon.advance.obj	lanReMon.En_US.books

Traffic Monitor Filesets

cml.license.traffic	trafficMon.traffic_Mon
trafficMon.En_US.books	

Common Filesets Shared By Remote Monitor and Traffic Monitor

rmonCommon.rmon_Common

Log Files

Table 1. Log Files for Nways Manager for AIX Version 2.1 Components

Component and Directories	Log Files
Element Manager log files are available in directories: /usr/CML/install_log /usr/CML/deinstall_log	cml.base.log cml.baseLan.log cml.books.log cml.br.log cml.fddi.log cml.lnme.log cml.smm.log cml.tr.log nwaysmgr.jma.log
Nways Manager ATM log files are available in directories: /usr/CML/install_log /usr/CML/deinstall_log	ahm6000.base.log cml.base.log
Remote Monitor log files are available in directories: /usr/LANReMon/install_log /usr/LANReMon/deinstall_log	lanReMon.base.obj.log lanReMon.advance.obj.log rmonCommon.rmon_Common.log
Traffic Monitor log files are available in directories: /usr/LANReMon/install_log /usr/LANReMon/deinstall_log	trafficMon.traffic_Mon.log rmonCommon.rmon_Common.log

Appendix. Notices

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Installation Guide

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