

CentreWare™ for Tivoli



THE DOCUMENT COMPANY
XEROX

CentreWare for Tivoli NetView User Guide

"Your Autopilot to Productive Printing"

Version 1.0.6

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Introduction

Xerox CentreWare for Tivoli NetView provides the added identification of several different types of Xerox printers in the general discovery performed by Tivoli NetView.

Once successfully installed you will be able to see all the discovered Xerox printers under one Smartset in NetView. In addition, CentreWare for Tivoli NetView provides full integration with the Event Browser, and the choice to integrate with Tivoli Enterprise Console (TEC).

Key Benefits and Features

Feature	Benefits
Printer Discovery	Provides the automatic identification of Xerox printers on your network and presents them with recognizable icons.
Color-Coded Device Status	Automatically changes the color in the printer icon to reflect the printer status.
Access to the printer embedded web server, CentreWare Internet Services	If your printer contains an embedded web server (CentreWare Internet Services), you can easily access it through the Home Page selection in the Xerox Smartset. Also, the Vendor Page selection is directed to the Xerox Corporation web site.
Custom Smartset	Managing the Xerox printers on your network will be made easier by displaying all the discovered Xerox printers in a single Smartset.
Full integration with the features of Tivoli NetView	Provides full use of the features of NetView and the Event Browser.
Integration with Tivoli Enterprise Console (TEC)	By following the step-by-step instructions given in this document, you can forward printer events to TEC.

System Requirements **Hardware Requirements**

This solution modifies existing Tivoli NetView files and adds a few small files to your hard disk. The total hardware requirement is less than 50KB of hard disk space.

Software Requirements

Following software must be installed on your PC before installing CentreWare for Tivoli NetView.

- Windows NT 4.0 or later
- Microsoft SQL server 6.5
- Tivoli Netview 5.1.1 server
- Tivoli Enterprise Framework 3.6.1
- Tivoli Enterprise Console 3.6.1
- Tivoli Management Environment desktop for Windows
- Microsoft Internet Explorer or Netscape Navigator v4.0 or greater

Before You Start CentreWare for Tivoli NetView

For new printers

Unpack and set up your printer with all consumables and optional equipment according to the instructions provided with your printer.

If the printer did not come with the network card installed, install it with the instructions included with the card.

Turn on your printer. If your printer supports it, review the startup page to verify proper operation.

Connect your printer to an active network with appropriate cabling.

Ensure the printer has a valid unique IP address.

For existing printers

If your printer was not previously networked, add the network card and appropriate cabling.

Ensure the printer has a valid unique IP address.

How to use this Document

This document assumes that you have a working knowledge and familiarity with Tivoli NetView. Only procedures that differ from the normally expected operation of Tivoli NetView are described.

You may print all or part of this document at any time from your Adobe Acrobat reader by clicking the **File** menu and the selecting **Print**. You may then select a single page, a range of pages, or the entire document for printing.

For initial installation

Read and follow these sections:

- 1 [CenterWare for Tivoli NetView Software Installation](#)

For day-to-day tasks

Read and follow these sections:

- 1 [Using CenterWare for Tivoli NetView](#)
- 2 [Troubleshooting](#)

CenterWare for Tivoli NetView Software Installation

Via the CD Navigator

- 1** Shut down NetView if it is currently running on your server.
- 2** Insert the **Xerox Printer Management Software** CD into your server CD-ROM drive.
- 3** If the CD Navigator program does not start automatically, double click on your CD ROM drive icon. Then double click on **Setup32.exe**.
- 4** Select your language from the first screen.
- 5** Select **Additional Software Utilities**.
- 6** Select **Install CenterWare for Tivoli**.
- 7** The software will begin the installation process. After a few moments, the Install Shield Wizard will load.
- 8** This software must be installed in the same folder that contains the Tivoli NetView software. If the folder shown is incorrect, select the **Browse** button and select the correct folder, then select **Next**.

- 9 Select **Next** again to begin. The necessary files in your Tivoli NetView environment will be modified and copied to the selected folder along with any additional files required.
- 10 The installation process will take some time to complete. Follow the instructions on your screen.
- 11 When the install is complete, start Tivoli NetView.



If you wish to have events forwarded to TEC you must manually alter some files. The procedure is given in section ["The TEC enablement procedure for CentreWare for Tivoli NetView"](#) (page -11)

Manual installation from CD

- 1 Click the Start button then select Run.
- 2 A dialog box will prompt you for the Command Line.
- 3 Insert the **Xerox Printer Management Software** CD into your server CD-ROM drive.
- 4 TYPE <drive>:\instal\Tivoli\setup.exe [ENTER]
(substitute your drive letter for <drive>).
- 5 The software will begin the installation process. After a few moments, the Install Shield Wizard will load.
- 6 Follow the steps described in the previous section beginning with [Step 8](#)

Web Installation

The latest version of CentreWare for Tivoli NetView is available from the Xerox web site at www.xerox.com

- 1 After downloading the file to a temporary folder, double click on the icon to extract the files.
- 2 Double click on the file **setup.exe**.
- 3 The software will begin the installation process. After a few moments, the Install Shield Wizard will load.
- 4 Follow the steps described in the previous section beginning with [Step 8](#)

The TEC enablement procedure for CentreWare for Tivoli NetView

The Tivoli Enterprise Console, or TEC, is a separate product for concentrating corporate wide events. It also provides a mechanisms for filtering undesired events and categorizing events so that different network administrators will receive the most relevant event messages.

Customization is required of both the NetView process for forwarding the printer events and the Event Server rule base to properly display any new events.

After following the directions in the Tivoli documentation for integration of TME 10 NetView and TME 10 TEC, complete the following steps.

- 1 Locate the file **xrxsniffer.conf**
- 2 Open this file and locate the entries for **-c**, **-w** and **-o**. Note the trap number for each item. Close this file.
- 3 Locate the file **xrx_events.cds**
- 4 Open this file in your text editor. For each CLASS replace the value for **\$SPECIFIC=** with the corresponding trap number noted above. (-c for Critical, -w for Warning and -o for Other) Save this file but do not close it yet.
- 5 Locate the file **tecad_nv6k.cds**.
- 6 Copy the text from the file **xrx_events.cds** and Paste it into the file **tecad_nv6k.cds** just before the **IBM_Default_Trap** entry. Save and close both files.
- 7 Close and restart NetView.

Addition of Xerox Rule Base to TEC

- 1** Open the **TME** window and double click on the **EventServer** icon. The **Event Server Rule Bases** window will open.
- 2** Select **Create** then select **Rule Base**. . .
- 3** Enter a name for the new Rule Base. Enter the **PATH** to the file **tecad_xerox.baroc**. This should be located in a folder named **Xerox** in the folder containing your Tivoli Enterprise Console files.
- 4** Select **Close and Save**.
- 5** Right click on the icon for the new Rule Base and select **Import**.
- 6** Click **Import Class Definition**.
- 7** Enter the **PATH** to the file **tecad_xerox.baroc**.
- 8** Select **Insert After**.
- 9** From the list, select **tecad_nv6k.baroc**.
- 10** Select **Import and Close**.

- 11 Right click on the icon for the new Rule Base and select **Compile**.
- 12 Right click on the icon for the new Rule Base and select **Load**.
- 13 Close this window.



If a TEC dbase does not exist, create one following the instructions in your TEC documentation.

- 14 On the TME server (by opening the start menu start\programs\Tivoli) create an Administrator with Username, Label, and groupname of NetView.
- 15 Edit login to include:
NetView@hostname_of_machine_running_NetView
- 16 Create the event console under the NetView administrator.
- 17 Right click on the EventServer icon and select **Shut down** then **Start-up**.

Using CenterWare for Tivoli NetView

Printer Discovery

Tivoli NetView provides the discovery of Xerox devices. CentreWare for Tivoli NetView has added the identification of these printer types as Xerox printers and the assignment of a unique Xerox icon to them.

Creation of Xerox SmartSet

After successful installation of CenterWare for Tivoli NetView, the user will see all the discovered Xerox printers under one SmartSet. It will also display the current status of all the discovered Xerox printers. The name of this Smartset is **Xerox Printers**.

The printers will now be displayed in the Xerox Printers SmartSet as well as the General Printer SmartSet. Printers featuring an embedded web server will also appear in the Web SmartSet.



CentreWare for Tivoli NetView will automatically add Xerox printers to this view as they are attached to the network and discovered by Tivoli NetView.

Color-Coded Device Status

Each printer will be denoted by an icon. Each icon will be color-coded to represent the current status of the printer. The color-coded status is provided via the `xrxstatus.dll` utility.

The color of the icon is determined by the return code from the printer. The color will also propagate to the top of the network.

The relation between the color-code and the printer status is presented in the following table.

Printer Status	Color
Critical	Red
Warning	Yellow
Other or no alert	Green

Polling Interval

NetView contains an event browser that displays all NetView specific as well as remote object traps and events. However, the implementation of some Xerox printer SNMP agents do not generate traps. The printer status information must be requested from the printer using a polling mechanism. Then the desired trap is generated locally on behalf of the printer.

The polling interval is set at installation to 10 minutes. That is, every 10 minutes the printers on the network will be polled for status.

This function is accomplished through the Windows NT scheduler. To view the scheduler type **at** at the dos prompt. You will see a line of the form:

```
nvsniffer -t 1 -c %NV_DRIVE%\usr\ov\conf\xrxsniffer.conf -r <polling interval>
```

You can change this polling interval to any value by editing the event in the **at** command.

Launch of CentreWare Internet Services

Many Xerox printers contain embedded web servers. Tivoli NetView automatically detects whether a printer contains one and enables the selection of this server home page through the Home Page menu selection.

When you select the Home Page menu item you access Xerox CentreWare Internet Services. Xerox CentreWare Internet Service provides a variety of features for configuring and monitoring your printer. Consult the manuals and CDs delivered with your device for details on Xerox CentreWare Internet Services.

Troubleshooting

If you have problems after you have installed CentreWare for Tivoli NetView, consult the table below for a possible remedy.

Symptoms	Possible causes	Solution
The icon for the Xerox Printer SmartSet is not the proper icon	<ul style="list-style-type: none"> Errors were encountered during the installation process. 	<ul style="list-style-type: none"> Check the error log file for possible causes Uninstall the plug-in and restart your PC Run the install again
The Xerox Printer SmartSet is not found	<ul style="list-style-type: none"> Errors were encountered during the installation process. 	<ul style="list-style-type: none"> Check the error log file for possible causes Uninstall the plug-in and restart your PC Run the install again
A Xerox Printer is not discovered.	<ul style="list-style-type: none"> The SNMP agent is not working properly on the node. There is a problem with the network connectivity. The network in which the printer exists is unmanaged. 	<ul style="list-style-type: none"> Ping to that node. Ping to that node. Contact the network administrator
The Xerox Printer is still not discovered	<ul style="list-style-type: none"> The sysObjectId entry in the <code>/usr/ov/conf/oid_to_sys</code> file and <code>/usr/ov/conf/oid_to_type</code> file is missing. 	<ul style="list-style-type: none"> Make the sysObjectId entries in the specified files using the proper format. (See Appendix B for the sysObjectId format).

continued . . .

Symptoms	Possible causes	Solution
The SmartSet is not displaying the proper color.	<ul style="list-style-type: none"> The status source for the SmartSet is not set to "propagated from children." 	<ul style="list-style-type: none"> Set the SmartSet status source object property to "propagated from children."
Icon on the map is not the proper Xerox printer icon.	<ul style="list-style-type: none"> The object's sysObjectId entry in the /usr/ov/conf/oid_to_sym file is missing. 	<ul style="list-style-type: none"> Make the sysObjectId entry in the specified file using the proper format. (See Appendix B for the sysObjectId format).
The SNMP node appears as a Non-SNMP node	<ul style="list-style-type: none"> The SNMP agent is returning the wrong information. 	<ul style="list-style-type: none"> Contact the node administrator.
The event adapter tecad_nv6k during TEC installation does not start by entering the command: ovstart tecad_nv6k	<ul style="list-style-type: none"> The environment variable BINDIR is not properly set. 	<ul style="list-style-type: none"> Set BINDIR to the correct path as given in the script setup_env.cmd.
After a successful TEC configuration, events are not being displayed in the TEC event console.	<ul style="list-style-type: none"> The Administrator has not been created with the proper user login name of NetView (N and V in NetView must be in capital letters) 	<ul style="list-style-type: none"> Edit the login to include: NetView@hostname_of_machine_running _Netview_Server

Appendix A – Xerox Installer / Un-Installer

Installer

- The installer is a simple Install-Shield utility that will automate the modification and addition of the files used for Tivoli NetView functionality.
- The installer will copy files to new a Xerox folder in the Tivoli NetView installation directory. It will also edit several files to enable the identification of Xerox printers in Tivoli NetView.

The modifications performed by the installer are as follows:



Substitute the path to your Tivoli NetView folder for c:\usr\.

- 1** Edit the file c:\usr\ov\conf\oid_to_type. The type list is given in Appendix B.
- 2** Edit the file c:\usr\ov\conf\c\oid_to_sym. The device list is given in Appendix B.
- 3** Adds new file **xrx_fields** under c:\usr\ov\fields\c for xerox printer specific database fields.
- 4** Adds new bitmaps for Xerox printers to the c:\usr\ov\bitmaps\c folder and registers them.
- 5** Adds the new file **xrxsym** to the c:\usr\ov\symbols\ folder to add new xerox printer device symbol class definitions
- 6** Creates the SmartSet **Xerox Printers**.
- 7** Edits the file c:\usr\ov\conf\homepage.conf to include the line Xerox= www.xerox.com.

- 8 The installer searches the file **trapd.conf** for three empty event slots between 1000 and 2000. The three traps are then registered using the Addtrap application.
- 9 The installer sets up the polling interval by entering an **at** command.
- 10 Edits the file `xrxsniffer.conf` to include the new trap value and saves it to the `c:\usr\ov\conf\` folder.
- 11 Copies the Xerox MIB files to the `c:\usr\ov\smnp_mibs\` folder. Loads the MIBs in the Bindery.

Uninstaller

The un-installer will remove all files copied to your system by the Installer, undo any file changes done. To run the un-installer, use the “Add/Remove Programs” in the “Control Panel”.

- 1 Remove the lines added to the files in the install portion.
- 2 Delete all files copied.

Appendix B Type and Device Definition Text

Type The following are examples of lines are added to the oid_to_type file:

1.3.6.1.4.1.253.8.62.1.2.2.2.1:Xerox:Xerox Printer Agent: # XeroxPrinter Model N17

1.3.6.1.4.1.253.8.62.1.2.3.1.1:Xerox:Xerox Printer Agent: # XeroxPrinter Model NC60

1.3.6.1.4.1.253.8.62.1.2.3.1.2:Xerox:Xerox Printer Agent: # XeroxPrinter Model NC60

1.3.6.1.4.1.253.8.62.1.2.3.2.1:Xerox:Xerox Printer Agent: # XeroxPrinter Model NC60

1.3.6.1.4.1.253.8.62.1.3.2.1.1:Xerox:Xerox Printer Agent: # XeroxPrinter Model N24/N32

1.3.6.1.4.1.253.8.62.1.3.2.1.2:Xerox:Xerox Printer Agent: # XeroxPrinter Model N24/N32

1.3.6.1.4.1.253.8.62.1.3.2.2.1:Xerox:Xerox Printer Agent: # XeroxPrinter Model N24

1.3.6.1.4.1.253.8.62.1.3.2.3.1:Xerox:Xerox Printer Agent: # XeroxPrinter Model N40

Device The following are examples of lines are added to the oid_to_sym file:

1.3.6.1.4.1.253.8.62.1.2.3.1.1:Device:Xerox Printer # XeroxPrinter Model NC60

1.3.6.1.4.1.253.8.62.1.2.3.1.2:Device:Xerox Printer # XeroxPrinter Model NC60

1.3.6.1.4.1.253.8.62.1.2.3.2.1:Device:Xerox Printer # XeroxPrinter Model NC60

1.3.6.1.4.1.253.8.62.1.3.2.1.1:Device:Xerox Printer # XeroxPrinter Model N24/N32

1.3.6.1.4.1.253.8.62.1.3.2.1.2:Device:Xerox Printer # XeroxPrinter Model N24/N32

1.3.6.1.4.1.253.8.62.1.3.2.2.1:Device:Xerox Printer # XeroxPrinter Model N24

1.3.6.1.4.1.253.8.62.1.3.2.3.1:Device:Xerox Printer # XeroxPrinter Model N40