



CentreWare for Microsoft Operations Manager *User Guide*

The screenshot displays the CentreWare for Microsoft Operations Manager interface, which is organized into several panes and tables.

Alert Views

- Alerts** (later than 4/7/2006 5:00 AM)

Severity	Domain	Computer	Time Last Modified	Resolution State	Time in State
Warning	DOM1	13-231-30-55	7/6/2006 4:59:33 AM	New	2 hours, 56
Warning	DOM1	13-250-82-55	7/6/2006 4:59:33 AM	New	2 hours, 56
Service Unava...	DOM1	13-231-28-15	7/6/2006 4:59:33 AM	New	2 hours, 56
Information	DOM1	13-231-30-76	7/6/2006 4:59:33 AM	New	2 hours, 56

State Views

- State**

State	Domain	Computer	MOM Agent	MOM Server	Xerox Printer
Service Unava...	DOM1	13-250-82-47	✓	✓	✗
Service Unava...	DOM1	13-250-80-18			✗
Service Unava...	DOM1	13-231-30-59			✓

Event Views

- Events** (later than 7/3/2006 5:00 AM)

Type	Time	Domain	Computer	Description	Source
Error	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 7760DN~IP...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 7750GX~IP...	Xerc
Information	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 4500DT~IP...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 7750GX~IP...	Xerc

Computers and Group...

- Devices**

State	Domain	Name	Last Heartbeat	New Alerts
Service Unava...	DOM1	13-231-28-15		6
Warning	DOM1	13-231-28-3		7
Service Unava...	DOM1	13-231-28-8		2
Service Unava...	DOM1	13-231-30-54		5

Diagram Views

- Diagram**

The diagram view shows a network topology with several computer icons connected by lines. The icons are labeled with their IP addresses: 13-231-30-55, 13-231-30-18, 13-231-30-47, 13-231-30-54, and 13-231-28-3.

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Getting Started

Introduction

Xerox CentreWare for Microsoft Operations Manager (MOM) provides the capability to discover, identify, and add Xerox devices to the MOM database. A management pack is also included to provide Xerox device management within the MOM user interface. The CentreWare management pack enables you to see all discovered Xerox printers under one Xerox device folder. Operators and administrators can use the management pack **Alerts, State, Events, Computers & Groups**, and **Diagram** views to manage Xerox devices.

Key Features and Benefits

Xerox CentreWare for Microsoft Operations Manager (MOM) includes several standard features which enable certain benefits to the user. Key features and benefits include:

Printer Discovery - adds Xerox devices to the MOM database.

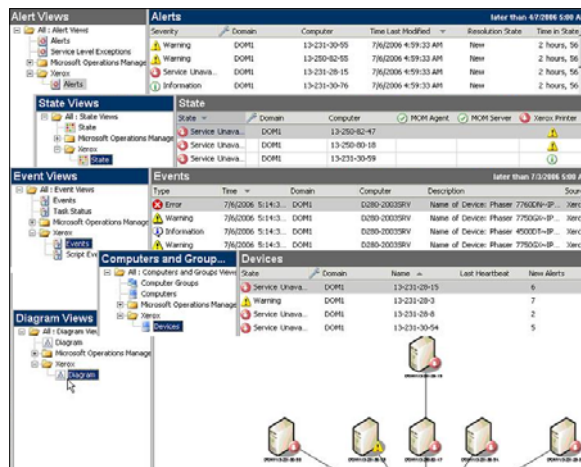
State View - changes the color of device icons to reflect the printer status.

Internet Services - provides remote access to CentreWare Internet Services.

Xerox Devices Group - displays all the discovered Xerox devices in a single group for easier management.

Events & Alerts View - displays events and alerts for various conditions, such as no paper, offline, low toner, no toner, etc.

Trap Registration - provides trap registration and reception for Xerox devices.



System Requirements Checklist

Server installation and configuration is the foundation for using CentreWare for Microsoft Operations Manager (MOM). Please confirm that the following system requirements are in place **before** installing the CentreWare for MOM Management Pack:

- ☐ Microsoft SQL Server Enterprise Edition with 2000 SP4 or later must be installed and running on the MOM 2005 server, or on a remote server.
 - ☐ Verify that the SQL database is properly installed and accessible.
 - ☐ Record the SQL server database server name (*servername\SQL servername*), and the SQL Login ID and Password. (You will need this information while installing the CentreWare for MOM Management Pack.

 **A Domain User account with administrative rights is recommended for configurations where the SQL database is not installed on the MOM server.**

- ☐ The SQL Server must be configured to support **Mixed-Mode Authentication**.
- ☐ Microsoft Operations Manager 2005 (Service Pack 1) must be installed and running on **ONE** of the following server operating systems:
 - ☐ Microsoft Windows 2000 Server or Advanced Server with the latest service packs and updates installed.
- OR -**
- ☐ Microsoft Windows 2003 Server (32-bit version) with the latest service packs and updates installed.

 **The MOM server must have a minimum of 512 MB RAM and 30 MB of available hard disk space to support the CentreWare for MOM Management Pack installation.**

- ☐ Microsoft SNMP Services is installed and running on the MOM server. Select **Start > Programs > Administrative Tools > Services** to confirm that the SNMP service is running. If necessary, add the SNMP service as follows: **Start > Settings > Control Panel > Add/Remove Programs > Add/Remove Windows Components > Management and Monitoring Tools > Simple Network Management Protocol (Enable)**.
- ☐ TCP/IP Protocol is installed and running on the MOM server.
- ☐ Microsoft .NET Framework 1.1 is installed and running on the MOM server.
- ☐ Microsoft Internet Information Services (IIS) is installed and running on the MOM server.
- ☐ Microsoft Internet Explorer® or Netscape Navigator® versions 4.0 or later is installed on the MOM server.

Installing CentreWare for MOM

Proper installation and configuration of Xerox CentreWare for Microsoft Operations Manager (MOM) and its supporting software components will ensure reliable operation of the program. The following software installation and configuration sequence must be followed to avoid service problems:

- 1) Install and configure the MOM 2005 database... (see *System Requirements Checklist*).
- 2) Install and configure the MOM 2005 Management Server... (see *System Requirements Checklist*).
- 3) Install CentreWare for MOM... (see below).
- 4) Import Management Pack... (see below).
- 5) Discover devices... (see *Discovery Utility*).

To install CentreWare for MOM:

1. Download the latest available version of CentreWare for MOM from the Xerox web site at <http://www.xerox.com>. On the Xerox home page, search for **CentreWare**, then select the **Software - System Management and Administration** category. Locate and download the **CentreWare for Microsoft Operations Manager** distribution file.
2. Extract or copy the distribution files onto the server that is running Microsoft Operations Manager.
3. Locate the install file (.msi) on your computer and open it. The installer will load after a few moments, and the installation wizard will begin.
4. Read and accept the End User License Agreement, then click **Next**.
5. Provide the SQL Database Server name. If the database is on the same server as MOM 2005, use the default name (**local**). If the SQL database is on a remote server, use the following format to specify the database server: **servername\SQL servername**. When you are done, click **Next**.
6. Provide the SQL **login** and **password** for the database, then click **Next**.
7. Click **Next** on the Confirm Installation screen. Wait for the installer to finish the software installation process.
8. Click **Close** on the Installation Complete screen.

 **The CentreWare for MOM Management Pack must be imported into the MOM 2005 Administrator Console after you have installed the CentreWare for MOM application. Perform the following procedure to import the management pack.**

To Import the CentreWare Management Pack:

1. Open the MOM 2005 Administrator Console: **Start > Programs > Microsoft Operations Manager 2005 > Administrator Console**.
2. Right-click on **Management Packs**, then choose **Import/Export Management Packs**.
3. Follow the steps in the Management Pack Import/Export Wizard, for the choice select the folder where the Management Pack (report files) are located, select the Browse to "C:\Program Files\Xerox\Xerox CentreWare MOM Management Pack\". Close the wizard when done.
4. Right-click on **Management Packs**, then choose **Commit Configuration Change**.

 **Use the Configuration Utility and the Discovery Utility to discover devices after CentreWare for MOM and the CentreWare Management Pack have been installed.**

Upgrading CentreWare for MOM

The CentreWare for MOM upgrade process is basically the same as the installation process. When a new version of CentreWare for MOM is provided by Xerox, the new installer will detect a previous installation and will perform the upgrade automatically.

To upgrade CentreWare for MOM:

1. Download the latest available version of CentreWare for MOM from the Xerox web site at <http://www.xerox.com>. On the Xerox home page, search for **CentreWare**, then select the **Software - System Management and Administration** category. Locate and download the **CentreWare for Microsoft Operations Manager** distribution file.
2. Extract or copy the distribution files onto the server that is running Microsoft Operations Manager.
3. Locate the install file (.msi) on your computer and open it. The installer will load after a few moments, and the installation wizard will begin.
4. Follow all instructions in the installation wizard, then select **Finish** to exit the installer.
5. Open the Administrator Console and import the CentreWare Management Pack.



If the option to remove the database is selected, a valid connection to the database must be available.

Uninstalling CentreWare for MOM

The CentreWare for MOM Management Pack can be uninstalled using the standard Windows Add/Remove Programs features (**Start > Settings > Control Panel > Add/Remove Programs**). All CentreWare for MOM software and database components will be removed from the computer(s) when the application is removed.

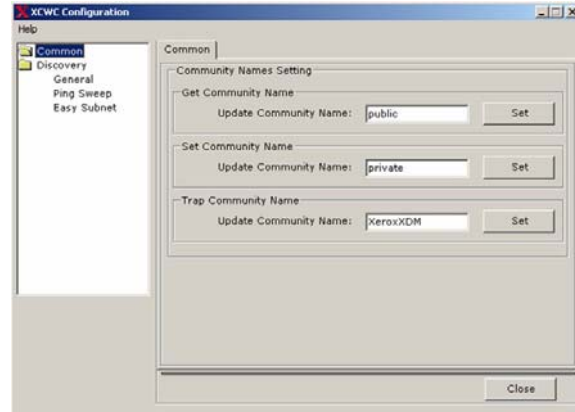


The database will not be removed unless a valid connection to the database is available during the uninstall process.

Configuration Utility

Configuration Utility: Common Tab

The Common tab within the Xerox CentreWare for Microsoft Operations Manager (MOM) Configuration utility allows you to modify the SNMP Community Names which are used for various discovery and communication tasks. When configuring CentreWare for Microsoft Operations Manager (MOM), it is important to correctly configure all SNMP Community Names used for printer management. All GET values must be set correctly in order to ensure device discovery, efficient status retrieval, and historical data collection. All SET values must be correctly configured in order to ensure the ability to edit printer parameters.



 Remove any outdated SNMP Community Names that are not in use. This practice will improve performance and reduce network traffic.

SNMP Community Name Settings

GET - used when retrieving information from networked printers. This is normally set to "public" by default.

SET - used when setting parameters on networked printers. This is normally set to "private" by default.

Trap - used to monitor printer states. The default value is "XeroxXDM." Most configurations will function properly with the default value. Do not change this default setting unless your trap configuration does not work due to site-specific network or other security-related standards.

SNMP Traps

SNMP Traps generate messages that indicate a change in a printer's operating state, such as an open door, a reboot, or a paper jam. Applications that do not support traps must make frequent status checks of each managed device to maintain updated status information. In large installations, the time and bandwidth required can negatively impact network performance. With trap support enabled, network traffic due to periodic status retrieval may be reduced.

To modify SNMP Community Names:

1. Launch the Configuration Utility.
2. Select the **Common** section.
3. Enter the new value(s) in the appropriate **Community Name** (GET, SET, Trap) text box.
4. Click the corresponding **Set** button.
5. Click the **Close** button.

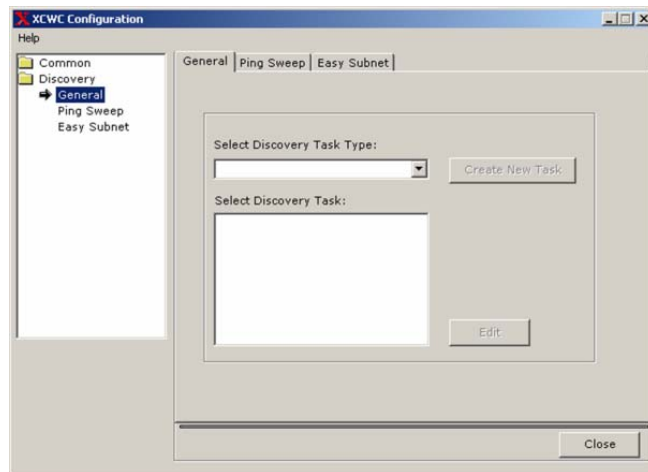
 If traps have already been registered for devices in the Operator Console and the trap community string is subsequently modified, traps must be re-registered for each device.

Discovery

Discovery Settings: General Tab

The **General** tab allows you to create a new discovery task or edit an existing task. Discovery tasks provide a convenient way to configure and run different types of customized device discovery processes. Once tasks are created, you can run them by selecting **Start > Programs > Xerox > Xerox CentreWare Management Pack for MOM > Discovery Configuration**.

- To create a new discovery, select the appropriate Task Type from the drop-down list. Then click the **Create New Task** button
- To edit an existing discovery, select it from the list then click the **Edit** button.

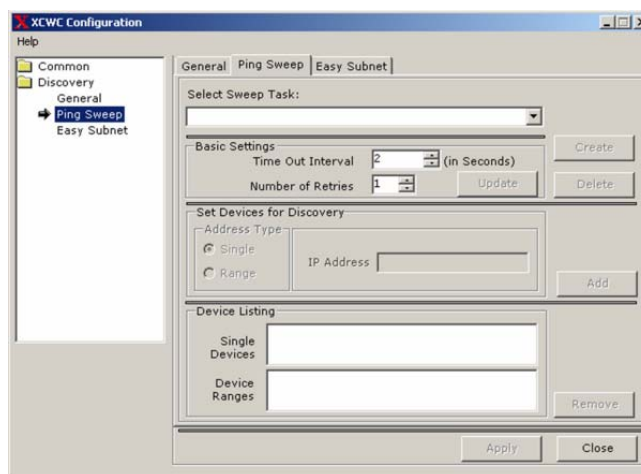


Ping Sweep

A Ping Sweep discovery sends SNMP GET REQ packets to a collection of IP addresses on your network to locate printers. This option will attempt to query all the IP addresses that you specify, regardless of the printer type or the validity of the address. You can configure a Ping Sweep by entering a single address or an address range.

To configure a Ping Sweep discovery:

1. Start the Xerox Discovery Utility: **Start > Programs > Xerox > Xerox CentreWare Management Pack for MOM > Discovery Configuration.**
2. From the menu on the left select the **Ping Sweep** discovery task type.
3. In the **Select Sweep Task** text box, enter a name for the discovery that describes the type of discovery (e.g. - a location or subnet description).
4. Select the **Create** button. The task will be created. (If needed, click the Delete button to delete any selected task.)
5. Set the **Time Out Interval** and **Number of Retries** as needed, then click the **Update** button to save the changes. Keep in mind that network traffic will increase and performance will decrease as the values for Time Out Interval and Number of Retries increases.
6. Next, define the devices to discover with this task. Select the **Single** or **Range** button, then enter the IP address or range of addresses you would like to add. Multiple entries of ranges and single addresses can be added. Click the **Add** button after each entry. If needed, select any of the entries in the Device Listing area, and click **Remove** to delete an item from the list.
7. Select **Apply** to save the Ping Sweep settings when you are done.




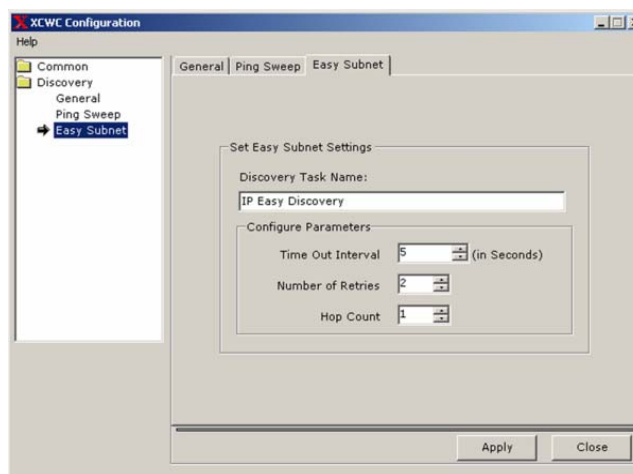
Easy Subnet

Easy Subnet discovery is an alternative to Ping Sweep discovery. Instead of searching for specific devices and IP address ranges, it searches for subnets within the hop count value, then searches for Xerox devices within all the subnets found.

To configure the Easy Subnet method:

1. Start the Xerox Discovery Utility: **Start > Programs > Xerox > Xerox CentreWare Management Pack for MOM > Discovery Configuration.**
2. From the menu on the left select the **Easy Subnet** discovery task type.
3. Change the Discovery Task Name (if needed).
4. Set the **Time Out Interval** and **Number of Retries** as needed. Keep in mind that network traffic will increase and performance will decrease as the values for Time Out Interval and Number of Retries increases.
5. Enter the **Hop Count**, as needed to define the number of hops away from the MOM server you would like to discover.
6. Click **Apply** to save the Easy Subnet settings when you are done.

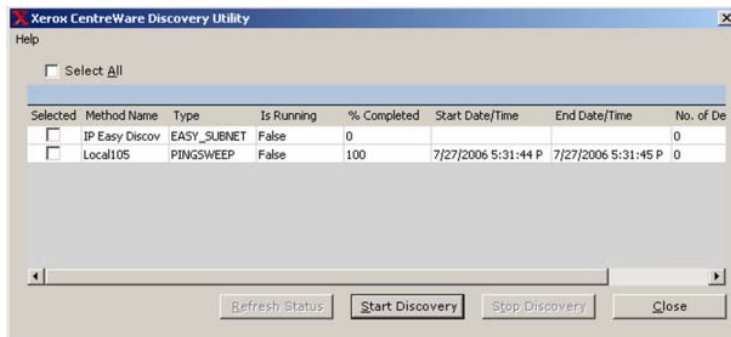
 **The Easy Subnet tool will search for subnets, then search for Xerox devices within all subnets within the hop count value. This process can be very time and resource intensive if a high hop count value is specified.**



Device Discovery

Discovery Utility

The Xerox CentreWare Device Discovery Utility finds networked Xerox devices and adds discovered devices to the Microsoft Operations Manager (MOM) database.



Selection boxes - select the desired task by clicking the check box next to the task, or click **Select All** to select every task.

Refresh Status - updates the status of a running task (if applicable).


Start Discovery - runs the selected discovery task(s).

Stop Discovery - cancels the selected discovery task(s).

Close - exits the utility.

To run a discovery task:

1. Launch the utility by selecting the following: **Start > Programs > Xerox > Xerox CentreWare Management Pack for MOM > Xerox Device Discovery**.
2. Choose the discovery to run by selecting the check box next to the desired discovery method.
3. Select the **Start Discovery** button. The utility will automatically update the discovery statistics.

 **When the discovery is completed successfully, the "Discovery Successful!" message appears and the number of devices added to the MOM database will be displayed. Devices are not added to the MOM database until the "Discovery Successful!" message appears.**

To cancel a discovery task:

1. Click the **Stop Discovery** button.
2. Click the **Close** button to cancel any discovery tasks and close the discovery utility.

To Refresh the status of discovery task:

1. Select at least two check box's next to the desired discovery method.
2. Select the **Start Discovery** button. The utility will start discovering the devices.
3. Click the **Refresh Status** button to know the status of the selected discovery methods. The devices will be updated in the discovery method only if all the devices in it are discovered.

MOM Administrator Console

Management Packs

A management pack consists of a collection of rules, knowledge, and public views. The management pack makes it possible to collect a wide range of information from different sources. Management packs are used to determine how a Microsoft Operations Manager server collects, handles, and responds to data.

Administration

In the console root tree, choose/expand **Administration > Computer > Unmanaged Computers**. All of the discovered Xerox devices will be listed here. Double-click on any device to find a complete device description and the count and breakdown of alerts categorized by severity. All Xerox devices listed must be deleted before reinstalling CentreWare for MOM.

Management Pack Properties

The management pack for CentreWare for Microsoft Operations Manager (MOM) is implemented in the following categories:

- Computer Groups
- Rule Groups
- Event Rules
- Tasks

Category	Explanation
Computer Groups	Collections of computers with some attribute in common. They are defined by grouping rules to facilitate management of similar events.
Rule Groups	A rule group is a set of rules grouped together under a single name. Grouping rules together allows you to associate more than one event rule with a computer group.
Event Rules	Event rules are rules for logging specific events. CentreWare for MOM has two event rules, Xerox CentreWare Event Rule and Xerox CentreWare Monitoring-Connector Rule . These rules are grouped together under the Xerox Devices rule group by default, and they must stay enabled at all times.
Tasks	The Management Pack includes several standard tasks which provide the administrator with tools to manage the Xerox devices from within the Operator console.

Xerox CentreWare Event Rule

The CentreWare for Microsoft Operations Manager management pack contains a rule called the Xerox CentreWare Event Rule. This rule looks for events created by the monitoring connector application. The rule then generates alerts based on these events. The Xerox CentreWare Event Rule can be modified to prevent certain events from being generated by CentreWare for MOM.

To modify the Xerox CentreWare Event Rule: *(optional)*

- 1) Modify the default **CentreWare Alert State Monitoring Script** as needed and save the file with a unique descriptive name. See the Example VBScript section below for instructions.
- 2) Launch Microsoft Operations Manager and open the Xerox CentreWare Event Rule: **Start > Programs > Microsoft Operations Manager 2005 > Administrator Console > Management Packs > Rule Groups > Xerox Devices > Event Rules > Xerox CentreWare Event Rule.**
- 3) Select **Properties**, then click on the **Responses** tab.
- 4) On the Responses tab, select **Xerox CentreWare Alert State Monitoring**, then click **Edit**.
- 5) Select the **Script** tab to open the VBScript file, then modify the script as needed, or replace the current script with an alternate script (e.g. - the example VBScript below). Simply copy and paste the entire alternate script into the dialog.
- 6) **Close** the dialog, then **Apply** the changes.

Example VBScript

Included below is an example VBScript where a function has been added to disable the Low Paper alert messages in CentreWare for MOM. This function is not included in the default VBScript installed with CentreWare for MOM. However, this sample script can be modified to customize the alerts generated by CentreWare for MOM, and then used to replace the default VBScript that is installed with the CentreWare Event Rule.

The lines changed from the default script are highlighted in the code below. Locate the "Low Paper" line that reads "**if LastMessage <> "Low Paper" then**". This Low Paper alert can be changed to any one of the following state strings:

- Status Unknown to Printer
- Low Paper
- Out of Paper
- Toner Low
- No Toner
- Door Open
- Paper Jammed
- Offline
- Service Requested
- Input Tray Missing
- Output Tray Missing
- Marker Supply Missing
- Output Bin Near Full
- Output Bin Full
- Input Tray Empty
- Overdue Preventative Maintenance



Multiple alerts can be filtered using the OR operator in the If statement. For example: **if LastMessage <> "Low Paper" || "Toner Low" || "Output Bin Near Full" then...**

```
' VBScript source code
Const ALERT_TYPE_SUCCESS = 10
Const ALERT_TYPE_INFORMATION = 20
Const ALERT_TYPE_WARNING = 30
Const ALERT_TYPE_ERROR = 40
Const ALERT_TYPE_CRITICAL_ERROR = 50
Const ALERT_TYPE_SECURITY_ISSUE = 60
Const ALERT_TYPE_SERVICE_UNAVAILABLE = 70
Const EVENT_NUMBER_ERROR = 11111
Const EVENT_NUMBER_WARNING = 22222
Const EVENT_NUMBER_INFORMATION = 33333
Const EVENT_NUMBER_SERVICE_UNAVAILABLE = 44444
Const PROBLEMSTATE_NOTSET = 0
Const PROBLEMSTATE_GREEN = 1
Const PROBLEMSTATE_YELLOW = 2
Const PROBLEMSTATE_RED = 3
Dim objAlert
Dim objEvent
Dim OErrEvent
Dim sErrMsg
Dim sDeviceName
Dim sDeviceIP
Dim sMessage
Dim iPos
Dim sMsgArray
Dim LastMessage
On Error Resume Next
sErrMsg = ""
Function MakeEvent(strDescription)
    Dim objErrEvt
    Set objErrEvt = ScriptContext.CreateEvent()
objErrEvt.EventSource = "Xerox CW Script"
objErrEvt.EventNumber = 99999
objErrEvt.EventType = 1
objErrEvt.LoggingDomain = "workgroup"
objErrEvt.SourceDomain = "workgroup"
objErrEvt.Message = strDescription
    Set MakeEvent = objErrEvt
End Function
If (ScriptContext.IsEvent()) Then
    Set objEvent = ScriptContext.Event
    Set objAlert = ScriptContext.CreateAlert()

' Set the role, subgroup role and instance details
objAlert.ServerRole = "Xerox Printer"
objAlert.Component = "Printer Status"
objAlert.ServerRoleInstance = ScriptContext.TargetComputer
if objEvent.Category = "Availability" Then
    objAlert.Component = "Availability"
Elseif objEvent.Category = "Paper Input" Then
    objAlert.Component = "Paper Input"
Elseif objEvent.Category = "Output" Then
    objAlert.Component = "Output"
Elseif objEvent.Category = "Paper Output" Then
    objAlert.Component = "Output"
Elseif objEvent.Category = "Supplies" Then
    objAlert.Component = "Supplies"
Elseif objEvent.Category = "Cover" Then
    objAlert.Component = "Cover"
Elseif objEvent.Category = "Service" Then
    objAlert.Component = "Service"
End if
if objEvent.EventNumber = EVENT_NUMBER_ERROR Then
    objAlert.AlertLevel = ALERT_TYPE_CRITICAL_ERROR
    objAlert.ProblemState = PROBLEMSTATE_RED
elseif objEvent.EventNumber = EVENT_NUMBER_WARNING Then
    objAlert.AlertLevel = ALERT_TYPE_WARNING
    objAlert.ProblemState = PROBLEMSTATE_RED
elseif objEvent.EventNumber = EVENT_NUMBER_INFORMATION Then
    objAlert.AlertLevel = ALERT_TYPE_INFORMATION
    objAlert.ProblemState = PROBLEMSTATE_GREEN
```

```

elseif objEvent.EventNumber = EVENT_NUMBER_SERVICE_UNAVAILABLE Then
    objAlert.AlertLevel = ALERT_TYPE_SERVICE_UNAVAILABLE
    objAlert.ProblemState = PROBLEMSTATE_RED
else
    objAlert.AlertLevel = ALERT_TYPE_INFORMATION
    objAlert.ProblemState = PROBLEMSTATE_GREEN
end if
objAlert.AlertSource = objEvent.EventSource
objAlert.Computer = objEvent.SourceComputer
objAlert.ComputerDomain = objEvent.SourceDomain
sMsgArray = Split(objEvent.Message, "~")
sDeviceName = Trim(Right(sMsgArray(0), Len(sMsgArray(0)) - InStrRev(sMsgArray(0), ":")))
sDeviceIP = Trim(Right(sMsgArray(1), Len(sMsgArray(1)) - InStrRev(sMsgArray(1), ":")))
if Err.number <> 0 Then
sErrMsg = sErrMsg + vbCrLf + "sDeviceIP: " + vbCrLf + CStr(Err.number) + vbCrLf + Err.Description
end if
Err.Clear
sMessage = sDeviceIP
if UBound(sMsgArray) >= 2 Then
for iPos = 2 to UBound(sMsgArray)
    sMessage = sMessage + vbCrLf + sMsgArray(iPos)

    Next
End if
LastMessage = Trim(Right(sMsgArray(UBound(sMsgArray)), Len(sMsgArray(UBound(sMsgArray))) -
InStrRev(sMsgArray(UBound(sMsgArray)), ":")))

if Err.number <> 0 Then
    sErrMsg = sErrMsg + vbCrLf + "For Loop" + vbCrLf + CStr(Err.number) + vbCrLf + Err.Description
end if
Err.Clear

objAlert.Owner = sDeviceName
objAlert.Description = sMessage

if LastMessage <> "Low Paper" then
ScriptContext.Submit(objAlert)
if Err.number <> 0 Then
sErrMsg = sErrMsg + objAlert.ServerRoleInstance + vbCrLf + objAlert.Component + vbCrLf + "Submit" + vbCrLf +
CStr(Err.number) + vbCrLf + Err.Description
end if
End if
Err.Clear
Else
    Set objAlert = Nothing
End If
if sErrMsg <> "" Then
Set OErrEvent = MakeEvent(CStr(Err.number) + vbCrLf + objEvent.Message + vbCrLf + sErrMsg)
ScriptContext.Submit(OErrEvent)
Set OErrEvent = Nothing
End if
Set objEvent = Nothing

```

Xerox CentreWare Monitoring - Connector Rule

The CentreWare for Microsoft Operations Manager (MOM) management pack contains a rule called **Xerox CentreWare Monitoring-Connector Rule**. This rule uses a timed-event data provider, and its purpose is to periodically retrieve status updates from Xerox devices on the network. The monitoring connector will retrieve status updates from devices every fifteen minutes by default.

To change the polling interval:

1. Open the Administrator console and go to **Microsoft Operations Manager > Management Packs > Rule Groups > Xerox Devices (enabled) > Event Rules (2)**.
2. In the right pane, double-click the **Xerox CentreWare Monitoring-Connector Rule**.
3. Select the **Data Provider** tab.
4. Use the pulldown menu for the **Provider Name** to set the desired polling interval, or use the **New** or **Modify** buttons to create different polling options.
5. Click on **Apply** to save the changes, then click **OK**.

Management Pack Tasks

There are five tasks included in the Xerox CentreWare for Microsoft Operations Manager (MOM) Management Pack. These tasks provide the administrator with tools to manage the Xerox devices from within the Administrator console.

Open Web Console of the Device - launches CentreWare Internet Services (the web page for the selected Xerox device) in the Operator Console.

Register All Devices - registers all devices in the MOM database to send traps when an alert is generated at the device.

DeRegister All Devices - removes all trap registrations for all devices in the MOM database.

Register Single Device - registers the selected device in the MOM database to send traps when an alert is generated at the device.

DeRegister Single Device - removes the trap registration for the selected device in the MOM database.

Update Device Status - checks Xerox devices for new events and updates the Events, Alerts, and other views accordingly.

Ping Xerox Devices - pings the Xerox device that is currently selected in the Operator Console.

Xerox Help - launches the Xerox CentreWare for MOM Help system.

To view the Tasks in the Administrator Console go to: **Microsoft Operations Manager > Management Packs > Tasks > Xerox Devices**

MOM Operator Console

Operator Console Overview

The Microsoft Operations Manager Operator Console is a utility that enables an operator to view and respond to information being generated by CentreWare. It plays a major role in successfully managing networked Xerox printers. To open the MOM Operator console, click: **Start > Programs > Microsoft Operations Manager 2005 > Operator Console**.

The following views are available in the Operator Console in the **Go** drop-down menu:

Alerts View - shows alerts generated by the CentreWare Event Rule. Operators can view the alert as well as additional information such as domain, device and problem state.

State View - shows the current state of open alerts. Alerts will show in this view if they have not yet been resolved.

Events View - shows events created by the CentreWare for MOM monitoring connector rule. These events will always appear as being sent from the MOM server running the CentreWare solution.

Performance View - this provides print counters for Xerox devices. Print counters retrieve Printer Marker Life Count data from each device and store the data in the MOM database.

Diagram View - provides a graphical representation of all discovered Xerox devices. This view can be used to identify machines and relationships on the network.

Alerts View

The Alerts view shows alerts from devices created by the CentreWare for Microsoft Operations Manager (MOM) management pack. Alerts are created from printer events via the Xerox CentreWare Event Rule.

To view the alerts:

1. Open the **Operator Console**.
2. Select the **Xerox Devices** group from the Group drop-down menu.
3. Select the **Alerts** view in the lower left of the Operator Console.
4. In the upper left area of the navigation pane, open the Xerox folder and select **Alerts**.

Each alert lists the error condition(s) at the device. There may be multiple alerts for a single device in the Alert view. These alerts can be managed using the Operator Console interface for disposition and resolution. Some attributes can be modified by the operator. For more information please see the Microsoft Operations Manager help system.

Severity	Domain	Computer	Time Last Modified	Resolution State	Time in State
Warning	DOM1	13-231-30-55	7/6/2006 4:59:33 AM	New	2 hours, 56
Warning	DOM1	13-250-82-55	7/6/2006 4:59:33 AM	New	2 hours, 56
Service Unava...	DOM1	13-231-28-15	7/6/2006 4:59:33 AM	New	2 hours, 56
Information	DOM1	13-231-30-76	7/6/2006 4:59:33 AM	New	2 hours, 56
Information	DOM1	13-231-30-56	7/6/2006 4:59:33 AM	New	2 hours, 56
Information	DOM1	13-250-82-45	7/6/2006 4:59:32 AM	New	2 hours, 56
Critical Error	DOM1	13-231-40-26	7/6/2006 4:59:32 AM	New	2 hours, 56
Critical Error	DOM1	13-231-40-26	7/6/2006 4:59:32 AM	New	2 hours, 56
Critical Error	DOM1	13-231-40-26	7/6/2006 4:59:32 AM	New	2 hours, 56
Warning	DOM1	13-250-82-47	7/6/2006 4:59:32 AM	New	2 hours, 56
Warning	DOM1	13-250-82-47	7/6/2006 4:59:32 AM	New	2 hours, 56
Information	DOM1	13-250-82-48	7/6/2006 4:59:32 AM	New	2 hours, 56
Warning	DOM1	13-250-80-18	7/6/2006 4:59:32 AM	New	2 hours, 56
Warning	DOM1	13-250-82-50	7/6/2006 4:59:31 AM	New	2 hours, 56
Warning	DOM1	13-250-82-50	7/6/2006 4:59:31 AM	New	2 hours, 56
Information	DOM1	13-231-30-59	7/6/2006 4:59:31 AM	New	2 hours, 56
Information	DOM1	13-231-30-54	7/6/2006 4:59:31 AM	New	2 hours, 56
Warning	DOM1	13-231-28-3	7/6/2006 4:59:31 AM	New	2 hours, 56

Alert Details - 1 Alert

Properties	Custom Properties	Events	Product Knowledge	Company Knowledge	History
Description: 13.250.82.50 Details: Low Paper		Name: Severity: Warning Resolution State: New Domain: DOM1 Computer: 13-250-82-50 Time of First Event: 7/6/2006 2:14:31 AM Time of Last Event: 7/6/2006 4:59:31 AM Alert latency: 0 sec			

State View

The State view provides a listing of the Xerox devices. State view provides a single point of reference for the current status of a device.

To view the state of a device on the network:

1. Open the Operator Console.
2. Select the **Xerox Devices** group in the Group drop-down menu.
3. Select the **State** view in the lower left of the Operator Console.
4. In the upper left area of the navigation pane, open the Xerox folder and select **State**. The **State Details** window will show the status for the device.

State Views

- All : State Views
 - State
 - Microsoft Operations Manager
 - Xerox
 - State

State

State	Domain	Computer	MOM Agent	MOM Server	Xerox Printer	All Open
Service Unavailable	DOM1	13-250-82-47	✓	✓	⚠	⚠
Service Unavailable	DOM1	13-250-80-18			⚠	⚠
Service Unavailable	DOM1	13-231-30-59			ⓘ	⚠
Service Unavailable	DOM1	13-231-30-56			ⓘ	⚠
Service Unavailable	DOM1	13-250-82-45			ⓘ	⚠
Service Unavailable	DOM1	13-231-30-54			ⓘ	⚠
Service Unavailable	DOM1	13-231-28-15			ⓘ	⚠
Service Unavailable	DOM1	13-250-82-50			⚠	⚠
Service Unavailable	DOM1	13-250-82-48			ⓘ	⚠
Critical Error	DOM1	13-231-30-76			ⓘ	⚠
Critical Error	DOM1	13-231-40-26			✗	⚠
Warning	DOM1	13-231-28-3			⚠	⚠
Warning	DOM1	13-231-30-55			⚠	⚠
Warning	DOM1	13-250-82-55			⚠	⚠
Success	DOM1	D280-2003SRV	✓	✓		○

State Details - Computer: 13-250-82-47

Computer	Open Alerts	Events	Last Heartbeat
13-250-82-47	12	40	

Navigation Pane:

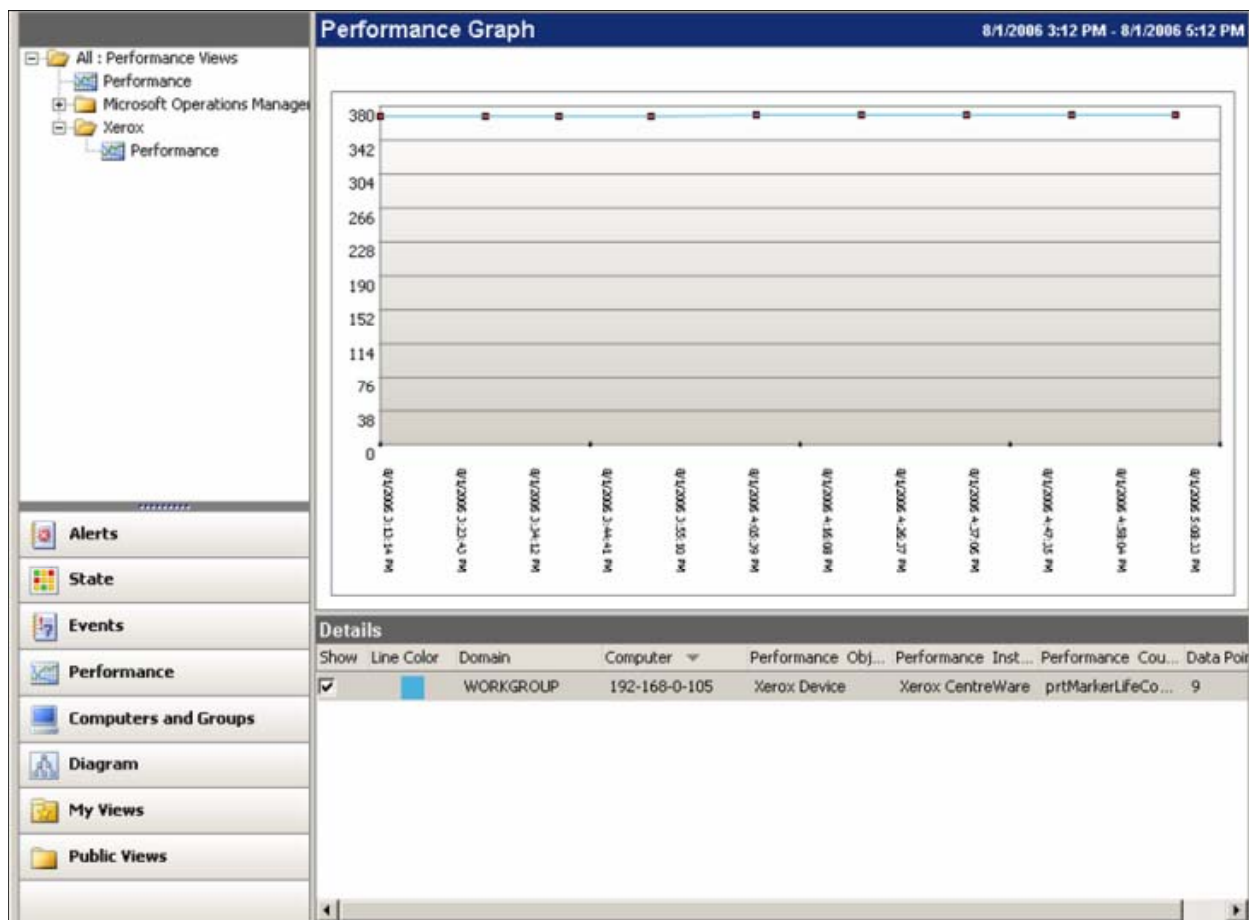
- Alerts
- State**
- Events
- Performance
- Computers and Groups
- Diagram
- My Views

Performance View

The Performance View provides print counters for Xerox devices. Print counters retrieve Printer Marker Life Count data from each device and store the data in the MOM database.

To view the Performance View counters:

1. Open the **Operator Console**.
2. Select **Xerox Devices** from the Group drop-down menu.
3. Select **Performance** in the lower left area of the Operator Console.
4. In the upper left area of the navigation pane, open the Xerox folder and select **Performance**.
5. Select one of the Xerox devices and click the **Select Counters** button.
6. Select the check box for the desired counter and click the **Draw Graph** button to view the graph.



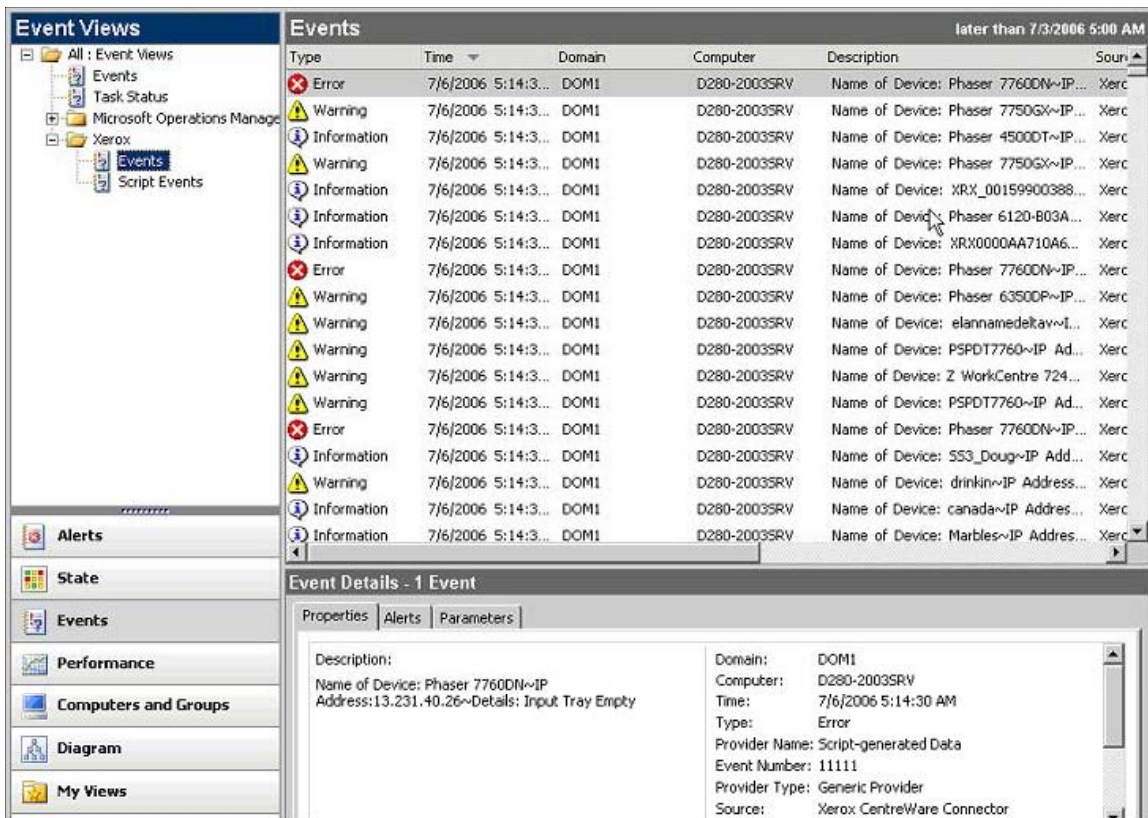
Events View

The Events view shows the events created by the CentreWare for Microsoft Operations Manager (MOM) monitoring connector rule. The events contain details of the Xerox device(s) generating the event. The CentreWare Event rule will create events as required.

To view Events:

1. Open the **Operator Console**.
2. Select the **Xerox Devices** group in the Group drop-down menu.
3. Select the **Events** view in the lower left of the Operator Console.
4. In the upper left area of the navigation pane, open the Xerox folder and select **Events**.
5. In the upper left area of the navigation pane, open the Xerox folder and select Script Events. The default action will display all discovered Xerox devices that currently have low paper. Page 15 describes how to modify the default script to add or remove functionality.

 These events will always appear as being sent from the MOM server running the CentreWare solution. This is normal behavior.



Type	Time	Domain	Computer	Description	Source
Error	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 7760DN~IP...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 7750GX~IP...	Xerc
Information	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 4500DT~IP...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 7750GX~IP...	Xerc
Information	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: RX_00159900388...	Xerc
Information	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 6120-B03A...	Xerc
Information	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: RX0000AA710A6...	Xerc
Error	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 7760DN~IP...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 6350DP~IP...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: elannamedeltav~I...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: PSPDT7760~IP Ad...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Z WorkCentre 724...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: PSPDT7760~IP Ad...	Xerc
Error	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Phaser 7760DN~IP...	Xerc
Information	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: SS3_Doug~IP Add...	Xerc
Warning	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: drinkin~IP Address...	Xerc
Information	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: canada~IP Address...	Xerc
Information	7/6/2006 5:14:3...	DOM1	D280-2003SRV	Name of Device: Marbles~IP Address...	Xerc

Event Details - 1 Event	
Properties	Alerts Parameters
Description:	
Name of Device: Phaser 7760DN~IP	Domain: DOM1
Address: 13.231.40.26~Details: Input Tray Empty	Computer: D280-2003SRV
	Time: 7/6/2006 5:14:30 AM
	Type: Error
	Provider Name: Script-generated Data
	Event Number: 11111
	Provider Type: Generic Provider
	Source: Xerox CentreWare Connector

Computers and Groups View

The Computers and Groups view shows information and states for discovered machines or groups of machines on the network. From this window you can view details related to the machines.

To view Computers and Groups:

1. Open the Operator Console.
2. Select the **Xerox Devices** group in the Group drop-down menu.
3. Select the **Computers and Groups** view in the lower left of the Operator Console.
4. In the upper left area of the navigation pane, open the Xerox folder and select **Devices**.

State	Domain	Name	Last Heartbeat	New Alerts	Service Unavailable
Service Unavailable	DOM1	13-231-28-15		6	2
Warning	DOM1	13-231-28-3		7	0
Service Unavailable	DOM1	13-231-28-8		2	1
Service Unavailable	DOM1	13-231-30-54		5	1
Warning	DOM1	13-231-30-55		6	0
Service Unavailable	DOM1	13-231-30-56		8	2
Service Unavailable	DOM1	13-231-30-59		7	1
Critical Error	DOM1	13-231-30-76		5	0
Critical Error	DOM1	13-231-40-26		19	0
Service Unavailable	DOM1	13-250-80-18		6	1
Service Unavailable	DOM1	13-250-82-45		6	1
Service Unavailable	DOM1	13-250-82-47		12	2
Service Unavailable	DOM1	13-250-82-48		8	4
Service Unavailable	DOM1	13-250-82-50		13	3
Warning	DOM1	13-250-82-55		5	0
Success	DOM1	D280-2003SRV	7/6/2006 5:19:0...	0	0

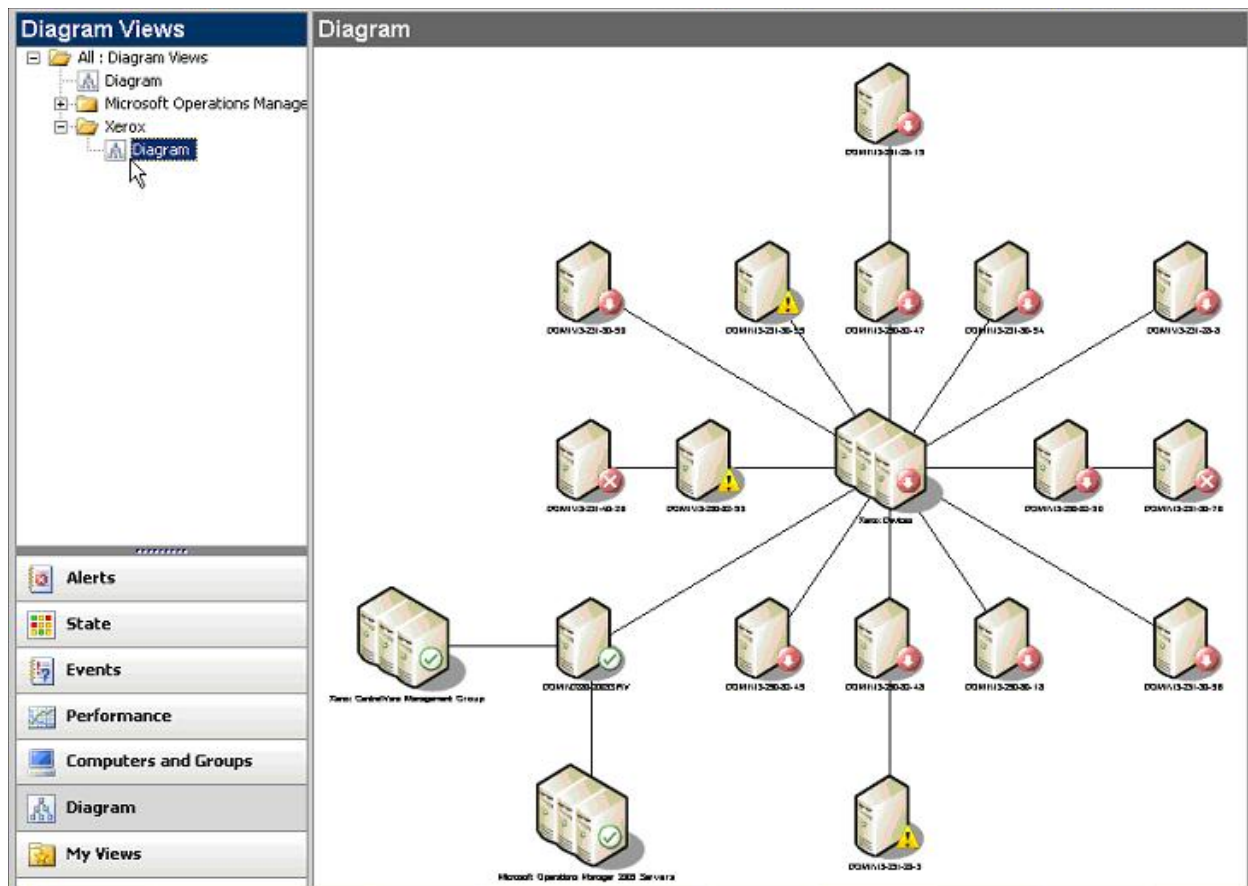
Attribute Name	Value	Computer Name
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Diagram View

The Diagram view displays a visual representation of discovered machines on the network, enabling you to see relationships between machines and the Microsoft Operations Manager (MOM) application.

To view the Diagram:

1. Open the Operator Console.
2. Select the **Xerox Devices** group in the Group drop-down menu.
3. Select the **Diagram** view in the lower left of the Operator Console.
4. In the upper left area of the navigation pane, open the Xerox folder and select **Diagram**.



Troubleshooting

Common Messages

Various messages may appear while using CentreWare for Microsoft Operations Manager. Some messages indicate error conditions that require intervention, while others are informational or provide supplemental status information. The following list describes some of the common messages that you may encounter under various conditions.

SQL Server does not exist or access denied

Indicates that the SQLSERVERAGENT service is stopped. Restart the SQLSERVERAGENT service to resolve this issue.

Login failed for user *username*.

Indicates that a server, user name, or password was changed on the SQL server after CentreWare for MOM was installed. The password must be reset to match the password that is configured in CentreWare for MOM, or CentreWare for MOM must be reinstalled and configured with the new password.

Cannot open database requested in login "XrxDBDiscovery." Login fails. Login failed for user *username*.

Indicates that the DTS parameters, such as user name, password, or server, are not correct. Open the DTS package from the Enterprise Manager and change the values of the parameters to resolve this issue.

Object reference not set to an instance of an object. - OR - Execution against runtime failed. See inner exception for more details...

Indicates that the MOM service has stopped and is not running. Start MOMService.exe manually to resolve this issue.

TrapJobProcessor.UpdateResults() Registration Failure(invalidGetCommunity)Device Address is: 13.243.100.160 ...

Indicates that CentreWare for MOM is unable to communicate with the printer at the specified address. This usually indicates that the printer is no longer at the specified address, or the GET community string for the device is unknown.

Address: System.Threading.ThreadAbortException: Thread was being aborted...

Usually indicates that the server was shutdown, or the Xerox Discovery service was stopped. Restart the server or start MOMService.exe manually to resolve this issue.

Error Calling Xerox.CWW.CWWLib.Device.deletePrinters. System.Data.SqlClient.SqlException: Timeout expired. The timeout period elapsed prior to completion of the operation or the server is not responding.

Database timeouts may occur when managing a large number of devices with server hardware that is inadequate for the task. Either reduce the number of managed devices per server, or upgrade the server hardware to handle the demand.

For Address: 10.24.56.16 And Oid:1.3.6.1.2.1.43.18.1.1.2.1.240 Exception occurred: System.OverflowException: Value was either too large or too small for a UInt64...

Indicates that a particular device returned information that does not conform to the RFC specification, and this information will not be available within the application. If this error occurs, please report it to Xerox technical support.

UNKNOWN state in the operator console...

After a new install and discovery, devices may be shown in an Unknown state. This should change on or before the first status poll. If it does not change after the first poll (no more than 15 minutes), then this is an indication that the CentreWare for MOM software components are not installed in the proper sequence. For example, if device discovery is done before importing the Xerox CentreWare management pack, the devices information is updated in the XRxDBDiscovery and XCWC databases, but the alerts, events and views cannot be updated and the state remains UNKNOWN.

The correct software installation sequence is:

- 1) Install the MOM 2005 database
- 2) Install the Management Server
- 3) Install CentreWare for MOM
- 4) Import Management Pack
- 5) Discover devices

If you encounter UNKNOWN state consistently in the operator console, perform the following procedure to resolve the problem:

- 1) Manually delete the discovered devices in the Administrator console from the following path: Microsoft Operations Manager > Administrator > Computers > Unmanaged Computers. This will delete the device information from the database.
- 2) Import the management pack from the following path: C:\Program Files\Xerox\Xerox CentreWare Management Pack. After importing the management pack, the "Copy of Xerox Devices" will be created in the computer group (Microsoft Operations Manager > Management Packs > Computer Group).
- 3) Manually delete the "Copy of Xerox Devices" from the computer group.
- 4) Run device discovery.

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