



# Release Notes for Cisco Cable Manager Release 2.3

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Note

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Cisco Cable Manager (CCM) Release 2.3 requires the Cisco Element Management Framework (CEMF) 3.2 patch, which is available at [/auto/emsbu/CEMF/3.2/patches/CEMF3.2\\_Patch3](/auto/emsbu/CEMF/3.2/patches/CEMF3.2_Patch3).

For more information, go to:

<http://www.cisco.com/warp/public/707/cisco-malformed-snmp-msgs-non-ios-pub.shtml>.

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Note

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CEMF 3.2 requires additional system resources for large deployments. For more information, go to: [http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cemf/3\\_2/install/checklst.htm](http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cemf/3_2/install/checklst.htm).

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## Introduction

These release notes describe important information and caveats for the Cisco Cable Manager Release 2.3. Information in this document supplements information in the *Cisco Cable Manager Users' Guide Release 2.0*.

Cisco Broadband Troubleshooter 2.2 and DOCSIS CPE Configurator 3.7 are bundled with this release.

This release supports:

- Solaris 2.8.
- Cisco uBR devices with 12.1(11)EC and 12.2(4)BC IOS release images.

Cisco Cable Manager can deploy the Cisco uBR 10012 chassis with single or dual performance routing engines (PRE1) and can discover the NPE-G1 card if it is present in the Cisco uBR chassis.



Note

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CCM 2.3 does not support integration with LDAP.

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The following information will be added to the *Cisco Cable Manager Users' Guide* with the next release of the document.

## Solaris Installation Matrix



Note

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CCM 2.x means releases CCM 2.0, CCM 2.1, or CCM 2.2.

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### Solaris 2.6

If you are using Solaris 2.6 and are upgrading from CCM 2.x, follow the instructions for upgrading in the [“Upgrading Cisco EMF 3.1 and CCM 2.x”](#) section on page 4.

### Solaris 2.6 and 2.8 with no previous CCM installation

If you are using Solaris 2.6 or Solaris 2.8 and have not installed CCM on your machine, install CEMF 3.2 and CEMF 3.2 patch 3; then, install CCM 2.3.

### Upgrading from Solaris 2.6 to Solaris 2.8

Follow the instructions for upgrading from CCM 2.x in the [“Upgrading Cisco EMF 3.1 and CCM 2.x”](#) section on page 4.

# About Installation and Uninstallation Related Changes



## Caution

Performance data captured with CEMF 3.1 and CCM 2.x cannot be reused with CEMF 3.2 and CCM 2.3 directly. In order to minimize data loss due to this upgrade, export CCM 2.x performance data with the CEMF tool historyAdmin. For details on how to use historyAdmin, go to [http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cemf/3\\_1/install/perfmgmt.htm](http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cemf/3_1/install/perfmgmt.htm).

The master installation and uninstallation scripts have been renamed `install_CCM` and `uninstall_CCM` respectively.



## Note

If you want to save all existing configuration files, use the `unintstall_CCM` script from the CCM 2.3 release ONLY to uninstall a previous installation of Cisco Cable Manager.

The installation and uninstallation procedures remain the same.

When installing CCM, you must configure the raw partition in order to utilize the hard-disk capacity effectively with a large-scale deployment.

When you install CEMF 3.2, do NOT select `/tmp` for storing the database transaction log file `transact.log`.

## Preinstallation Procedure

Extract the files you need for installation from the software CD-ROM.

- 
- Step 1 Log in as root.
  - Step 2 Create a `CCM_INSTALLDIR` directory with at least 700 MB of disk space available for the CCM installations.
  - Step 3 Copy the following files from the Cable Manager 2.3 CD-ROM to the `CCM_INSTALLDIR` directory:
    - `CCM2.3.tar.Z` (Cisco Cable Manager release 2.3)
    - `ccm2book.pdf` (*Cisco Cable Manager Users' Guide*)
    - `CEMF3.2P3.tar.Z` (CEMF 3.2 Patch 3)
  - Step 4 Uncompress the `CCM2.3.tar.Z` file.
  - Step 5 To untar the following file, enter:
 

```
tar xvpf CCM2.3.tar
```
- 

## New Installation of CCM 2.3

### Task 1: Installing CEMF 3.2

- 
- Step 1 Run the install script. As root, enter:
 

```
cd dir where CEMF 3.2 was extracted.
```

- Step 2 Enter `./cemfinstall`
  - Step 3 Follow the procedure in the script.
- 

## Task 2: Installing CEMF 3.2 Patch 3

---

- Step 1 Run the install script. As root, enter:  
`cd dir` where CEMF 3.2 was extracted.
  - Step 2 Enter `./cemfinstall`
  - Step 3 Follow the procedure in the script.
- 

## Task 3: Installing CCM 2.3

---

- Step 1 To install CCM 2.3, run the install script. As root, enter:  
`cd dir` where the CCM package was extracted.
  - Step 2 Enter `./install_CCM`
- 

## Upgrading Cisco EMF 3.1 and CCM 2.x



**Caution**

Patch 3 is a mandatory patch. To deploy a Cisco EMF 3.2 based system, use the Patch 3 release or later release. Deployment of Cisco EMF 3.2 without this patch (or later patches) is not supported. Refer to the *Release Notes for Cisco Element Management Framework v3.2, Patch 3* for more information.

---

## Task 1: Backing Up Databases and Uninstalling CCM 2.x

---

- Step 1 Log in as the superuser (**su**) to the machine where Cisco EMF is installed.
- Step 2 To change to the Cisco EMF bin directory, enter:  
`cd CEMF_ROOT/bin`
- Step 3 Back up all databases.  
  
For backup instructions for the version of Cisco EMF that you are upgrading from, refer to the ‘Cisco EMF Database Backup and Restore’ chapter in the *Cisco EMF v3.x Installation and Administration Guide*.



**Note**

As a precautionary measure, in case there are problems with the subsequent upgrade, backup all databases and copy these databases to a non-default location other than `/tmp` by using the **cp** command. If the upgrade is successful, this backup is not required.

---



**Tip** Make sure that you have sufficient disk space for the backups.

**Step 4** To remove the g.histCriteria file, enter:

```
rm CEMF_ROOT/config/selfManagement/actions/g.histCriteria
```

**Step 5** To view a list of all Cisco EMF packages, enter:

```
./cemf install -show
```

A list of the versions of Cisco EMF and its package type and all element managers and their package types appears.

**Step 6** Use one of the following commands to uninstall the existing CCM installation with the upgrade option.

To save all existing configuration files, enter:

```
uninstall_CCM upgrade
```

or

To delete the existing configuration files, enter:

```
./cemf load -upgrade cblMgrm
```



**Caution** Use the uninstall\_CCM script from the CCM 2.3 release only.

**Step 7** To backup the databases, enter:

```
./cemf backup
```



**Note** These databases are created with the upgrade option and are the backups that will be restored later.

**Step 8** Copy the upgradePackages files to a temporary location, so that the files can be restored on the upgraded system before startup. Enter:

```
cp -r CEMF_ROOT/config/selfManagement/upgradePackages/* /opt/upgradePackages/
```



**Caution** You can copy these files to any temporary location except /tmp/ (/opt/ is used in the example). Do not use /tmp as the reboot (Task 2, Step 4) will remove any files saved in /tmp.

## Task 2: Uninstalling Cisco EMF Version 3.1

**Step 1** To stop Cisco EMF, enter:

```
./cemf stop
```

**Step 2** To remove the current Cisco EMF installation and any Cisco EMF patches, enter:

```
./cemf install -remove
```

**Step 3** Choose the CEMF version and patch that you are uninstalling from the list which appears.



**Note** The order in which components are removed is important. You must uninstall the patch first; then Cisco EMF itself.

Cisco EMF version 3.1 is now removed.

**Step 4** Reboot your system.



**Note** A reboot is necessary to ensure that no processes that can interfere with Cisco EMF version 3.2 working successfully remain.

### Task 3: Installing Cisco EMF Version 3.2

- Step 1** Insert the Cisco EMF product CD-ROM into the CD-ROM device. To access the required files, enter:  
**cd /cdrom/cdrom0**
- Step 2** To install Cisco EMF Version 3.2, enter:  
**./cemfinstall**
- Step 3** To install Cisco EMF Version 3.2 Patch 3, go to the directory where the patch was extracted and enter:  
**./cemfinstall**
- Step 4** Change to the Cisco EMF bin directory by entering:  
**cd CEMF\_ROOT/bin**
- Step 5** To start Cisco EMF, enter:  
**./cemf start**
- Cisco EMF processes start, and Cisco EMF is initialized.

### Task 4: Restoring Databases and Installing CCM 2.3

- Step 1** To stop Cisco EMF, enter:  
**./cemf stop**
- Step 2** To restore the databases backed up in Task 1, Step 7, enter:  
**./cemf restore -t date of backup -u**
- Refer to *Cisco EMF v3.x Installation and Administration Guide*. for complete details. The *date of backup* value is the date the backups were created. Always specify the date in US format, which is *mm-dd-yyyy*.



**Note** The -u flag implements the correct required behavior by preventing the configuration files from the backup being copied to the new installation.




---

**Note** You may see the message Backup system catalog file is missing. Ignore the message and choose **y**.

---

**Step 3** To remove the attribute history server databases, you determine the method used by whether you have configured Cisco EMF with rawFS or not.

If Cisco EMF is not configured with rawFS, enter:

```
rm CEMF_ROOT/db/attributeHistoryCollector.db
```

```
rm CEMF_ROOT/db/attributeHistoryServer.db
```

or

If Cisco EMF is configured with rawFS, enter:

```
CEMF_ROOT/ODI/OS5.1/ostore/bin/osrm rawFS_DB_dir/attributeHistoryCollector.db
```

```
CEMF_ROOT/ODI/OS5.1/ostore/bin/osrm rawFS_DB_dir/attributeHistoryServer.db
```




---

**Note** You must remove the databases because it is not possible to guarantee the integrity of any existing performance data.

---

**Step 4** To restore the files copied in Task 1, Step 8, enter:

```
cp /opt/upgradePackages/* CEMF_ROOT/config/selfManagement/upgradePackages/
```

**Step 5** To start Cisco EMF version 3.2, enter:

```
./cemf startupgrade
```

**Step 6** Go to the directory where the CCM 2.3 package was extracted and enter:

```
./install_CCM
```




---

**Caution** Only remove the backups created in Task 1, Step 3 after the upgraded Cisco EMF and CCM 2.3 installation have been fully tested and verified.

---

## Uninstalling CCM 2.3

To uninstall CCM 2.3, you must run the uninstall script.

---

**Step 1** To change to the directory where the CCM package was extracted, enter:

```
cd dir
```

**Step 2** To uninstall CCM 2.3, enter:

```
./uninstall_CCM
```

---

## About EM Upgrade Questions

During the upgrade, to reuse the CCM 2.x database, enter **y** to the following questions:

```
The package cblMgrm is already installed on the system.
Do you wish to upgrade this package? [y][y.n,?] y

Are you sure you wish to upgrade the package cblMgrm? [y][y.n,?] y

Are you sure you wish to install the package cblMgrm? [y][y.n,?] y
```

## About EM Upgrade Errors

Two error messages appear as a result of the Cisco element manager upgrade and do not affect the CCM 2.3 installation. Ignore them. Sample messages are:

```
objectspec      - Running "/opt/cemf/config/selfManagement/actions/p.objectspec"
ObjectFileParser: create/delete failure. Object Name = 'ldapConfigObj' (Path error)
ERROR: Action returned an error.

viewspec       - Running "/opt/cemf/config/selfManagement/actions/p.viewspec"
ObjectFileParser: create/delete failure.
ERROR: Action returned an error.
```

## About Migrating CCM Configuration Files

During the CCM installation and uninstallation, you can save and restore the existing configuration.

The configuration includes:

- The autodiscovery spec file
- The UBR configuration file
- The thresholding files
- The inventory/performance report setup information, including user id/password/port information
- Saved inventory/performance reports



### Caution

You must ensure the saved files were created by CCM to guarantee the integrity of the file names and the contents. Do not manually edit these files because any syntax errors will cause a controller or application failure. Do not rename them because CCM processes look for specific file names.

Here is an example of the configuration save and restore process during an upgrade:

Assume the following directory structure /tmp/save where all the configuration files are saved:

```
ls -l /tmp/save
total 80
drwxrwxrwx  5 root    other    211 Jun 19 11:11 InventoryReportLog
drwxrwxrwx 13 root    other    614 Jun 19 11:54 PerformanceReportLog
drwxrwxrwx  2 root    other     69 Jun 18 17:17 auto
drwxrwxrwx  2 jyan    eng4     69 Jun 19 10:43 thresholding
drwxrwxrwx  3 root    other    123 Jun 18 17:17 ubrConfig
```

### Saving existing configuration during CCM uninstallation (uninstall\_CCM)

```
.....
Starting CEMF Manager system.
```



```

CEMF Manager startup complete.
CSCOcemfm is installed

AV_ROOT=/opt/cemf
Do you want to save the Java report setups [y] (y/n)? -> y
Please specify the directory for saving the Java report setups to:/tmp/save
Copying file /opt/cemf/cirt/UbrInvReport to /tmp/save/UbrInvReport ...
Copying file /opt/cemf/cirt/InventoryReport to /tmp/save/InventoryReport ...
Copying file /opt/cemf/pert/PerformanceReport to /tmp/save/PerformanceReport ...

Do you want to save performance and inventory reports [y] (y/n)? -> y
Chose to save performance and inventory reports

Please enter the directory where you want to save the reports to: /tmp/save
Saving performance reports under /tmp/save/PerformanceReportLog ...
Saving inventory reports under /tmp/save/InventoryReportLog ...

Do you want to save uBR configuration files [y] (y/n)? ->
Default chosen which is to save uBR configuration files
Please enter the directory where you want to save the uBR config files to:
/tmp/save/ubrConfig
Saving uBR configuration files ...

Do you want to save the auto-discovery spec. file [y] (y/n)? ->
Chose to save auto-discovery spec. file.

Please enter the directory where you want to save the auto-discovery spec. file to:
/tmp/save
Saving auto-discovery spec. file ...
Do you want to save the thresholding and software download configuration files [y] (y/n)?
-> y
Please specify the directory for saving the thresholding and software download
configuration files to: /tmp/save
Copying file /opt/cemf/config/cblCtrl/*.txt to /tmp/save ...

Exiting script to save reports and uBR configuration files

Now removing uBR Configuration Files..
Now removing the apps info file
Now removing the brower directory
CSCOcemfm is installed
.....

Restoring configuration during upgrade/installation(install_CCM)
.....
CCM not installed ... so continuing
Do you want to restore uBR configuration files [y] (y/n)? ->
Chose to restore uBR configuration files

Please enter the directory where you want to restore the uBR config files from:
/tmp/save/ubrConfig
Restoring uBR configuration files ...

Do you want to load an autodiscovery spec. file [y] (y/n)? -> y
Chose to load the autodiscovery spec. file

Please enter the full path(including file name) to the autodiscovery spec. file:
/tmp/save/AutoDiscoveryConfig.spec
Copying file /tmp/save/AutoDiscoveryConfig.spec to
/opt/cemf/config/ubrController/datafiles/AutoDiscoveryConfig.spec ...
Do you want to load thresholding and software download configuration files [y] (y/n)? -> y
Chose to load the thresholding and software download configuration files

```

```

Please enter the full directory path to the thresholding and software download
configuration files:
/tmp/save
Copying file /tmp/save/*.txt to /opt/cemf/config/cblCtrl/ ...

Installation of the Reports completed successfully

Do you want to load Java Report Setups[y] (y/n)? ->
Chose to load the Java Report Setups

Please enter the full directory path to the Java Report Setups:
/tmp/save
Copying file /tmp/save/UbrInvReport to /opt/cemf/cirt/UbrInvReport ...

Copying file /tmp/save/InventoryReport to /opt/cemf/cirt/InventoryReport ...

Copying file /tmp/save/PerformanceReport to /opt/cemf/pert/PerformanceReport ...

Do you want to restore performance and inventory reports [y] (y/n)? ->
Do you want to restore performance and inventory reports [y] (y/n)? ->
Chose to restore performance and inventory reports

Please enter the directory where to restore the reports from:
/tmp/save
Restoring performance reports ...
Restoring inventory reports ...

```

## About Configuring ModemTransmitPowerLevelException Threshold

The threshold attribute "cblCtrl:CblCtrl-FM-MIB.ModemTransmitPowerLevelException" listed under *ThresholdsOnCM* is replaced by "SNMP:DOCS-IF-MIB.docsIfCmStatusTxPower". If this threshold regime was configured before the upgrade, modify it after the upgrade, such that the "Trigger" and "Reset" conditions refer to "SNMP:DOCS-IF-MIB.docsIfCmStatusTxPower".

## About Configuring Upstream SignalToNoiseRatio Threshold

The threshold attribute "cblCtrl:CblCtrl-FM-MIB.US\_SignalToNoiseRatio" listed under *ThresholdsOnUpstream* is replaced by "SNMP:DOCS\_IF\_MIB.docsIfSigQSignalNoise". If this threshold regime was configured before the upgrade, modify it after the upgrade such that the "Trigger" and "Reset" conditions refer to "SNMP:DOCS\_IF\_MIB.docsIfSigQSignalNoise".

## About Configuration Management

The device configuration and diagnostic requests will not function if you don't have the Expect and TCL utilities installed on your system. A cblCtrl core dump appears if these utilities are missing.

For the Solaris 2.6 platform, check the CCM2.3.tar.Z file for the following Expect/TCL libraries:

```

expect.5.31.5_PkgOnSolaris2.6.tar.Z
tcl.8.3.0_PkgOnSolaris2.6.tar.Z

```

For the Solaris 2.8 platform, check the CCM2.3.tar.Z file for the following Expect/TCL libraries:  
 expect.5.32\_PkgOnSolaris2.8.tar.Z  
 tcl.8.3.3\_PkgOnSolaris2.8.tar.Z

## Loading the Expect and TCL Utilities if You Don't Find Them Installed on Your System

To load the Expect package for the Solaris 2.6 platform, enter the following commands:

---

```
Step 1  uncompress -d expect.5.31.5_PkgOnSolaris2.6.tar.Z
Step 2  tar -xvf expect.5.31.5_PkgOnSolaris2.6.tar
Step 3  pkgadd -d directory containing the Expect program
```

---

For the Solaris 2.8 platform, enter the following commands:

---

```
Step 1  uncompress -d expect.5.32_PkgOnSolaris2.8.tar.Z
Step 2  tar -xvf expect.5.32_PkgOnSolaris2.8.tar
Step 3  pkgadd -d directory containing the Expect program
```

---

To load the TCL package for the Solaris 2.6 platform, enter the following commands:

---

```
Step 1  uncompress -d tcl.8.3.0_PkgOnSolaris2.6.tar.Z
Step 2  tar -xvf tcl.8.3.0_PkgOnSolaris2.6.tar
Step 3  pkgadd -d directory containing the TCL program
```

---

For the Solaris 2.8 platform, enter the following commands:

---

```
Step 1  uncompress -d tcl.8.3.3_PkgOnSolaris2.8.tar.Z
Step 2  tar -xvf tcl.8.3.3_PkgOnSolaris2.8.tar
Step 3  pkgadd -d directory containing the TCL program
```

---

## About Renaming Objects from Map Viewer



**Note** Do not rename any objects in Map Viewer; do not use the menu option **View Manipulation > Rename Objects**.

CEMF provides the menu option View Manipulation > Rename Objects to rename objects (icons) shown in the Map Viewer. Some internal caches in CCM are based on the ObjectName, such as the cable modem MAC Address, the group name under each cell name, or an unprovisioned object in the Tree View (Map Viewer). Renaming an object in Map Viewer can corrupt these caches and cause Cable Manager not to function properly

## About Bundled Software

The following information describes software that is bundled with Cisco Cable Manager Release 2.3.

### Netscape Navigator

Netscape Navigator is bundled with Cisco Cable Manager Release 2.3. The Cisco Cable Manager (CCM) installation procedure automatically installs the browser, which starts CiscoView Web and Cisco Broadband Troubleshooter 2.0 if those packages have been purchased separately and if they have been registered with CCM (see [“Registering CVW 5.2 with CCM 2.3” section on page 13](#)). The browser is installed automatically on both the CCM server and client machines.



#### Note

The CCM uninstallation script will remove the browser from both the server and client machines automatically.

When installing Netscape Navigator, you are asked the following questions.



#### Note

Make sure you choose the default answer for both the questions; DO NOT change the directory name for the installation.

Query 1

-----

Please specify the directory path under which the software will be installed. The default directory is *auto-generated directory name*, but you may install anywhere you wish (if you have permission to do so).

Location for Navigator software [*auto-generated directory name*):

Query 2

-----

Existing '*auto-generated directory name*' directory found.

The existing contents may be modified or replaced if you install in this directory. If you choose not to install in '*auto-generated directory name*', you will be prompted for a different directory.

Do you wish to install in '*auto-generated directory name*'? (y/n)[y] y

### CiscoView Classic

CiscoView Classic 4.2 is bundled with CCM 2.3 and has been updated to include support for the Cisco uBR925, the Cisco uBR10012, the Cisco CVA122E, and the Cisco uBR7100 series.

## Cisco Broadband Troubleshooter 2.2

Cisco Broadband Troubleshooter (CBT) 2.2 is bundled with CCM 2.3 and has been updated to include support for the Cisco uBR7100 series and the Cisco uBR10012.

CBT 2.2 can be installed as part of the CCM 2.3 installation. The installation script checks to see if CBT is installed on the CCM server, and if the version is CBT 2.2. At this point, you can install CBT 2.2 on the CCM server. If you have already installed CBT 2.2 on a different server, you must register that installation on the CCM server and the CCM client by specifying the name and port number of the server where CBT 2.2 is installed.



Note

---

The CCM 2.3 installation script always installs CBT 2.2 on the same server as CCM 2.3.

---

The uninstall CCM script also can remove the CBT 2.2 installation.



Note

---

CCT 1.0 is replaced by CBT 2.2 with the CCM 2.3 release.

---

## Cisco DOCSIS CPE Configurator

Cisco DOCSIS CPE Configurator 3.7 is bundled with this release.

## About Starting CiscoView Web 5.2 from CCM 2.3



Note

---

CCM 2.3 supports CiscoView Web Release 5.2 (CVW 5.2). Other releases of CiscoView Web are not supported currently.

---

## Registering CVW 5.2 with CCM 2.3

You can register CVW 5.2 with CCM 2.3 if you have a previous installation of CVW 5.2. `install_ciscoview_web` and `uninstall_ciscoview_web` scripts are bundled with CCM 2.3. Run these scripts manually. These scripts DO NOT install or uninstall CVW 5.2. They register already installed information with CCM 2.3. The `install_ciscoview_web` script registers the CiscoView Web (CVW 5.2) server name and port number with CCM 2.3.

When registering CVW 5.2 with CCM 2.3, the JAVA plug-in and the identity database needed for starting CVW 5.2 are installed automatically. These components are needed to start CVW 5.2. [To start CiscoView 5.3 or other releases, different components may be needed. Make sure that you install them.]

After running `install_ciscoview_web`, you can only start CiscoView Web from the CCM menus.



Note

---

You must register CVW on the CCM server and on the client machine.

---

To register CiscoView Web with CCM 2.3 as root, enter the following commands:

---

**Step 1** `cd dir` where the CCM package was extracted.

Step 2 `./install_ciscoview_web`

## Unregistering CVW 5.2 with CCM 2.3

The `uninstall_ciscoview_web` script removes the JAVA plugin, the identity database, the CVW 5.2 server, and port number entries. After running `uninstall_ciscoview_web`, only CiscoView Classic (CVC) starts from the CCM menus.

**Note**

You must purchase CVW 5.2 separately. You can install CVW 5.2 on the same machine as the CEMF/CCM server machine or any other machine that is accessible by the CCM server or client machine. The machine with the CVW 5.2 installation must have IP and SNMP connectivity to the managed devices.

## About General Polling Behavior

The uBR object "ENTITY-MIB.entLastChangeTime" is polled every 15 minutes (default) to detect any changes. If a change is detected, rediscovery is initiated. Polling of ENTITY-MIB.entLastChangeTime is spread across a 15-minute interval to evenly distribute the load on the system. The spread poll interval depends on the number of uBRs to be polled and the poll interval. The spread poll interval is impacted when uBRs are added (deployed) or removed (deleted). All subsequent polls occur at 15-minute intervals.

**Scenario 1:**

```
poll interval = 15 minutes
number of UBRs successfully deployed = 3
spread poll interval = 5 minutes ( poll interval / number of UBRs )
Assuming deployment started around 10:00am.
```

```
first poll cycle:
  ubr-1 is polled at 10:05 am
  ubr-2 is polled at 10:10 am
  ubr-3 is polled at 10:15 am
```

```
subsequent poll cycles:
  ubr-1 is polled at 10:20 am
  ubr-2 is polled at 10:25 am
  ubr-3 is polled at 10:30 am
```

**Scenario 2:**

If a uBR is added (deployed) or removed (deleted), the process of calculating the spread poll interval is repeated.

```
Assume 2 additional uBRs are deployed at 10:30 am.
Poll interval = 15 minutes
number of uBRs successfully deployed = 5
spread poll interval = 3 minutes (poll interval / number of UBRs)
```

```
next poll cycle:
  ubr-1 is polled at 10:33 am
```

```
ubr-2 is polled at 10:36 am
ubr-3 is polled at 10:39 am
ubr-4 is polled at 10:42 am
ubr-5 is polled at 10:45 am
```

```
subsequent poll cycles:
ubr-1 is polled at 10:48 am
ubr-2 is polled at 10:51 am
ubr-3 is polled at 10:54 am
ubr-4 is polled at 10:57 am
ubr-5 is polled at 11:00 am
```

#### CABLE MODEM PERIODIC DISCOVERY

Cable modem periodic rediscovery is initiated every 24 hours (default). The 24 hour interval starts from the time the uBR was first polled.

```
ubr-1 CM rediscovery will start at 10:05am + 24 hrs
ubr-2 CM rediscovery will start at 10:10am + 24 hrs
ubr-3 CM rediscovery will start at 10:15am + 24 hrs
ubr-4 CM rediscovery will start at 10:42am + 24 hrs
ubr-5 CM rediscovery will start at 10:45am + 24 hrs
```

## About Rehoming Cable Modems

The secondary uBR IP address is not required to perform the rehoming/reparenting operation.



Note

---

Rehoming (redundancy) is not supported on the same uBR. You cannot rehome or reparent a cable modem from one card to another card within the same chassis.

---

## Discovering Cards After a Card Is Inserted or Removed

Cisco Cable Manager 2.3 can detect if a card has been inserted or removed from a uBR chassis in the following ways:

- Polling the uBR chassis for the attribute <entLastChangeTime> every 15 minutes
- Decommissioning/commissioning the uBR:

- 
- Step 1** In the uBR Commission/Decommission template, click **Decommission**. This moves the uBR state from Idle to Decommission.
- Step 2** Insert a card into or remove a card from the selected uBR chassis.
- Step 3** In the uBR Commission/Decommission template, click **Commission**.



Note

---

The Tree View shows the following states: Card Removed is reported as a "minor" alarm; Card Inserted is reported as a "normal" alarm.

---

## About Deleting Cable Modems

An out-of-service cable modem (a cable modem which is no longer registered on any uBR) is not automatically deleted from the Map Viewer.



Note

You must manually delete all cable modems that are no longer registered with any uBR.

## About Diagnostic Tool Enhancements

You can now ping a provider or customer edge router, or show a list of VPN routing and forwarding instance names by using the Virtual Routing Forwarding (VRF) capability.



Note

Use this feature only for newly deployed objects.

### Task 1: Updating the uBR Access Parameters

With CCM 2.3, you can specify and store the Cisco uBR7200Series Universal Broadband Router configuration access parameters for later reference. These settings are required to ping the modem, upload and download template features, and can be helpful to establish a Telnet session.

- 
- Step 1 From the Physical Tree View, select a Site or uBR.
  - Step 2 From the right-click menu, choose **Configuration > uBR Access Parameters**.  
The uBR Access Parameters dialog box appears.
  - Step 3 Enter the User Password and Router Enable Password.
  - Step 4 To apply the device settings in the local database, specify the device settings and click **Apply**.

### Task 2: Showing a List of VPN Routing and Forwarding Instance Names

You can show a list of VPN routing and forwarding instance names associated with a cable interface or sub-interface.

- 
- Step 1 From the Physical Tree View, select a Site or uBR.
  - Step 2 From the right-click menu, select **Diagnostic > Ping VRF**.  
The VRF dialog box appears.
  - Step 3 Click **Show**.  
The VRF instance names associated with the selected Cable Interface/Sub-Interface appear.

### Task 3: Pinging a Provider Edge Router or Customer Edge Router From a Selected uBR

- 
- Step 1 From the Physical Tree View, select a Site or uBR.



- Step 2** From the right-click menu, select **Diagnostic > Ping VRF**.  
The VRF dialog box appears.
- Step 3** Enter the Instance name and IP Address of the edge router from the Show button output.
- Step 4** Click **Ping**.  
The result of the Ping will be shown in a separate window.
- 

## About Performance Management Data Modeling

This section serves as a comprehensive guide for the you to model your performance data in your local network environment, creating a customized polling setup and database configuration.



**Note** Read this entire section before improving performance by modeling your data.

---



**Note** The following information about database modeling is only for raw data. By default, CCM polling does not use summary rules. If you implement summary rules, consider the summarized data size. No performance management application currently requires summarized data.

---

Cisco Cable Manager performance management includes performance polling and performance reporting tools.

### Polling Groups

UBR polling groups contains uBR, downstream, upstream, RF card, Mac layer, and some cable modem information. These MIB objects are stored on the Cable Modem Termination System (CMTS) and can be polled from the CMTS directly.

Some cable modem information is stored in the cable modem, requiring the direct polling of cable modems.



**Note** If cable modem polling groups are turned on for a large number of cable modems, the database size can grow rapidly.

---

### ObjectStore Database

CEMF uses ObjectStore, an Object-Oriented database.

The polling data is stored in attributeHistoryServer.db and attributeHistoryCollector.db.

For detailed information about performance polling and performance report tools or CEMF, see the *Cisco Cable Manager Users' Guide Release 2.0* and the *Cisco Element Management Framework Release 3.2 User Guide*.

## Database Purging

You can set the `maxValueCount` in the `attributeHistoryServer.ini` file to determine purging frequency. When ‘`maxValueCount`’ values are known for a sample, the oldest values will be deleted first.

For example, if the default polling rate is 15 minutes, and the `maxValueCount` is set to 1000, polling table data will be purged after approximately 10 days. Each day, 96 samples are generated, which total 960 samples for 10 days.

If you set the default polling rate to 30 minutes and set the `maxValueCount` to 1000, the polling table will be purged after approximately 20 days.

`AttributeHistoryServer` is the process in CEMF that collects and manages polling data. This server purges polling data periodically according to the purging rules set in `/opt/cemf/config/init/attribiteHistoryServer.ini`.

## Assessing Your Information Needs

Your hard-disk capacity affects performance, which is dependent on how many days of polling data you need to retain (data storage requirements) and how frequently you purge the polling data (purging frequency). To manage performance effectively, determine how often you need what performance reports, which also determines your data storage requirements and the purging frequency. After you determine these requirements, you can effectively resize your database.

## Data Storage Requirements

Determine how many days of data you need to maintain. This number affects the purging frequency and your minimum hard-disk capacity requirement.

Remodel the database size based on the new polling parameters and database configuration.

## Performance Management Requirements

Use Tables 1, 2, and 3 to assess which reports you want to generate and the schedule for generating those reports. Turn off unnecessary polling groups and reduce the performance polling rate.

## Polling Group and Performance Report Mapping

Table 1 shows performance polling tables related to each performance report.

*Table 1 Polling Group and Report Mapping*

Performance Report	Polling Group
USSignalQualityReport	cbIUbrGroup.CblUsSigTbl
USUtilizationReport	cbIUbrGroup.cbIUStbl
DSUtilizationReport	cbIUbrGroup.CblDSTbl
MacThroughputReport	cbIUbrGroup.CblRFCardIfTbl cbIUbrGroup.cbIUStbl
MacStatisticsReport	cbIUbrGroup.CblRFCardDiagTbl
PAPortThroughputReport	cbIUbrGroup.CblPAPortTbl

**Table 1** *Polling Group and Report Mapping*

Performance Report	Polling Group
CMUsageReport	cblUbrGroup.CblCMSIDTbl cblUbrGroup.cblCMStatusTbl
CMQualityReport	cblCM
CMCpeReport	cblubrGroup.CblCmCpeTbl

To run a specific set of performance reports, you can turn on polling for certain polling groups and set polling intervals. Cisco recommends that you remodel the performance data sizing after making configuration changes. Also consider the hard-disk capacity and the database purging rates.

## Polling Matrix

Table 2 shows the MIB objects or polling attributes included in each polling group. Polling is enabled for the polling group as a whole. You cannot enable or disable individual polling attributes.



### Note

The cblCM and cblCMEther polling tables are polled from cable modems directly.

**Table 2** *Polling Matrix*

Polling Table	Polling Attributes
cblUbrGroup.cblUBRTbl	OLD-CISCO-CPU-MIB.avgBusy5 CISCO-MEMORY-POOL-MIB.ciscoMemoryPoolUsed CISCO-MEMORY-POOL-MIB.ciscoMemoryPoolFree
cblUbrGroup.CblDSTbl	IF-MIB.ifSpeed IF-MIB.ifOutOctets IF-MIB.ifOutUcastPkts IF-MIB.ifOutDiscards IF-MIB.ifOutErrors IF-MIB.ifOutMulticastPkts IF-MIB.ifOutBroadcastPkts DOCS-IF-MIB.docsIfDownChannelPower
cblUbrGroup.cblUSTbl	IF-MIB.ifSpeed IF-MIB.ifInOctets IF-MIB.ifInUcastPkts IF-MIB.ifInDiscards IF-MIB.ifInErrors IF-MIB.ifInUnknownProtos IF-MIB.ifInMulticastPkts IF-MIB.ifInBroadcastPkts CISCO-DOCS-EXT-MIB.cdxCosCtrlUpAdmissionRejects CISCO-DOCS-EXT-MIB.cdxCosCtrlUpReservedBW
cblUbrGroup.CblUsSigTbl	DOCS-IF-MIB.docsIfSigQUnerrored DOCS-IF-MIB.docsIfSigQCorrecteds DOCS-IF-MIB.docsIfSigQUncorrectables DOCS-IF-MIB.docsIfSigQSignalNoise

**Table 2** *Polling Matrix*

Polling Table	Polling Attributes
cblUbrGroup.CblRFCardIfTbl	IF-MIB.ifInOctets IF-MIB.ifInUcastPkts IF-MIB.ifInNUcastPkts IF-MIB.ifInDiscards IF-MIB.ifInErrors IF-MIB.ifInUnknownProtos IF-MIB.ifOutOctets IF-MIB.ifOutUcastPkts IF-MIB.ifOutNUcastPkts IF-MIB.ifOutDiscards IF-MIB.ifOutErrors
cblUbrGroup.CblRFCardDiagTbl	DOCS-IF-MIB.docsIfCmtsStatusInvalidRangeReqs DOCS-IF-MIB.docsIfCmtsStatusRangingAborted DOCS-IF-MIB.docsIfCmtsStatusInvalidRegReqs DOCS-IF-MIB.docsIfCmtsStatusFailedRegReqs DOCS-IF-MIB.docsIfCmtsStatusInvalidDataReqs DOCS-IF-MIB.docsIfCmtsStatusT5Timeouts
cblUbrGroup.CblPAPortTbl	IF-MIB.ifSpeed IF-MIB.ifInOctets IF-MIB.ifInUcastPkts IF-MIB.ifInNUcastPkts IF-MIB.ifInDiscards IF-MIB.ifInErrors IF-MIB.ifInUnknownProtos IF-MIB.ifOutOctets IF-MIB.ifOutUcastPkts IF-MIB.ifOutNUcastPkts IF-MIB.ifOutDiscards IF-MIB.ifOutErrors
cblUbrGroup.cblPALocTbl	OLD-CISCO-INTERFACES-MIB.locIfInputQueueDrops OLD-CISCO-INTERFACES-MIB.locIfOutputQueueDrops OLD-CISCO-INTERFACES-MIB.locIfInRunts OLD-CISCO-INTERFACES-MIB.locIfInGiants OLD-CISCO-INTERFACES-MIB.locIfInFrame OLD-CISCO-INTERFACES-MIB.locIfInOverrun OLD-CISCO-INTERFACES-MIB.locIfInIgnored OLD-CISCO-INTERFACES-MIB.locIfInAbort OLD-CISCO-INTERFACES-MIB.locIfResets OLD-CISCO-INTERFACES-MIB.locIfCollisions
cblUbrGroup.CblCMSIDTbl	DOCS-IF-MIB.docsIfCmtsServiceInOctets DOCS-IF-MIB.docsIfCmtsServiceInPackets CISCO-DOCS-EXT-MIB.cdxIfCmtsServiceOutOctets CISCO-DOCS-EXT-MIB.cdxIfCmtsServiceOutPackets
cblubrGroup.CblCmCpeTbl	SNMP:CISCO-DOCS-EXT-MIB.cdxCmCpeMacAddress SNMP:CISCO-DOCS-EXT-MIB.cdxCmCpeIpAddress

**Table 2** *Polling Matrix*

Polling Table	Polling Attributes
cblUbrGroup.cblCMStatusTbl	DOCS-IF-MIB.docsisfCmtsCmStatusIpAddress DOCS-IF-MIB.docsisfCmtsCmStatusMacAddress DOCS-IF-MIB.docsisfCmtsCmStatusRxPower CISCO-DOCS-EXT-MIB.cdxisfCmtsCmStatusPercentOnline CISCO-DOCS-EXT-MIB.cdxisfCmtsCmStatusAvgOnlineTime CISCO-DOCS-EXT-MIB.cdxisfCmtsCmStatusAvgOfflineTime
cblCM	DOCS-IF-MIB.docsisfDownChannelPower DOCS-IF-MIB.docsisfCmStatusTxPower DOCS-IF-MIB.docsisfSigQSignalNoise DOCS-IF-MIB.docsisfSigQMicroreflections
cblCMEther	IF-MIB.ifType IF-MIB.ifInOctets IF-MIB.ifOutOctets

## Polling Data Characteristics

Table 3 lists the characteristics for polling data that is generated at each polling interval for each object type.

**Table 3** *Polling Data Characteristics*

Object	Polling Group and Table	Polling Data	Default Polling Rate (in minutes)
uBR	cblUbrGroup.cblUBRTbl	3 integer	Not polled
Down Stream	cblUbrGroup.CblDSTbl	8 integer	15
Up Stream	cblUbrGroup.cblUSTbl cblUbrGroup.CblUsSigTbl	10 integer 4 integer	15 30
RF Card	cblUbrGroup.CblRfCardIfTbl cblUbrGroup.CblRfCardDiagTbl	11 integer 6 integer	15 30
PA Port	cblUbrGroup.CblPAPortTbl cblUbrGroup.cblPALocTbl	12 integer 10 integer	15 Not polled
Cable Modem	cblUbrGroup.CblCMSIDTbl cblubrGroup.CblCmCpeTbl cblUbrGroup.cblCMStatusTbl cblCM cblCMEther	4 integer 3 integer 14 integer 4 integer 3 integer	Not polled Not polled 30 30 Not polled

## Resizing Your Database

You can use the following formula to estimate the database size:

db size per obj = (no of attrs per obj) \* (bytes required if value changes | bytes required if value does not change) \* (no. of values collected over time interval) \* (4/3 = overhead of using ObjectStore collection)

According to the CEMF 3.2 documentation on performance data storage, each attribute data sample of integer type (AttrInt32Value) has a size of 24 bytes (including a pointer to value, timestamp, and a status flag). If a value does not change, only 4 bytes are required to store the timestamp. However, because it is impossible to predict how frequently the value changes, it is reasonable to assume that each sample value changes over time to get an estimate for the worst case scenario.

### Daily Polling Data Example

To calculate 24 hours of polling data for a cable network of 14 Cisco uBR7223 devices and Cisco 12000 cable modems, based on the default polling interval, the following calculations apply:

```
per UBR: not polled by default
per DS: 8 * 24 * 96 * 4/3 = 24576 B
per US: 10 * 24 * 96 * 4/3 + 4 * 24 * 48 * 4/3 = 36864 B
per RFCard: 11 * 24 * 96 * 4/3 + 6 * 24 * 48 * 4/3 = 43008 B
per PA Port: 12 * 24 * 96 * 4/3 = 36864 B
per CM: 14 * 24 * 48 * 4/3 + 4 * 24 * 48 * 4/3 = 27648 B
```

Each Cisco uBR7223 has 2 radio frequency (RF) cards and one port adapter (PA) port; each RF card has one downstream and six upstream channels.

```
total DB size = 14 * 2 * 1 * 24576 B + 14 * 2 * 6 * 36864 B + 14 * 2 * 43008 B + 14 * 1 * 36864 B +
12000 * 27648 B = 340377600 B = 340 MB
```

The raw daily polling data size for all default polling groups, using default polling rate, is about 340 MB.

### Maximum Database Size Example

In another example, assume all polling groups are turned on and the maxValueCount is set to 1000 in the attributeHistoryServer.ini file. Assume that after some days of polling, all attributes of all objects have more than 1000 samples and are purged. Therefore there are a maximum of 1000 samples each. The data size per object is calculated as follows:

```
UBR: 3 * 24 * 1000 * 4/3 = 96 kb
DS: 8 * 24 * 1000 * 4/3 = 256 kb
US: 14 * 24 * 1000 * 4/3 = 448 kb
RFCard: 17 * 24 * 1000 * 4/3 = 544 kb
PA Port: 22 * 24 * 1000 * 4/3 = 704 kb
CM: 27 * 24 * 1000 * 4/3 = 864 kb
```

For 14 uBRs and 12000 cable modems with all polling groups (including cable modem polling) turned on after an extended period, each polling attribute should have 1000 samples as set by the maxValueCount in the attributeHistoryServer.ini file. The estimation of the attributeHistoryServer.db size is:

```
ubr data size = <number of UBR> * 96KB + <number of DS> * 256KB + <number of US> * 448KB +
<number of RFCard> * 544KB + <number of PA port> * 704KB
```

with the default

```
cm data size = 12000 * 864kb = 10368 mb = 10GB
```

Based on this example and assuming that the hard-disk 10GB, the hard-disk will be full before purging begins. Therefore, you must adjust the maxValueCount to a smaller value, so that purging takes place frequently. If you intend to keep a large number of samples per polling attribute, increase the hard-disk capacity.

Because there are multiple variables in database modeling, when one or two of the variables change, follow the steps described in the [“Resizing Your Database” section on page 21](#), readjust the other variables if necessary, and recompute the database sizing.

## About Performance Reports

The Cable Modem (CM) Usage and Customer Premise Equipment (CPE) reports—in addition to other reports—have been redesigned to improve response time.

The CPE Type column in the CM CPE report has been eliminated because the CPE Type is set to a constant value on the agent.

### Spikes in Performance Reports Attribute Value

If you see a spike in a performance chart or an unusually large delta value in a tabular report, the uBR or cable modem has probably been rebooted.



Note

---

This is not an error.

---

In performance reports, when a delta value is calculated for Counter32-type polling of raw data, it takes counter-rollover into consideration. The delta value is adjusted by adding the Counter32 maximum value of 4294967295L. If the counter value decreases between two consecutive intervals due to counter-resets triggered by the uBR or to cable modem reboots, the performance report treats the event as a counter-rollover case.

### Save or Load Function for All Performance Reports

The save or load function can now accept user-specified directories. However, the user-specified directory must have a subdirectory structure that is consistent with the structure in the default directory to ensure that all reports are categorized by the report type. Also, set the directory permissions correctly and ensure that the files in each directory are of the proper report type.

The directory structure for performance reports is *default dir* or *user specified dir/PerformanceReportLog/report type specific dir*

The specific report type directory name can be one of the following:

- USSignalQualityReport
- USUtilizationReport
- DSUtilizationReport
- MacThroughputReport
- MacStatisticsReport
- PAPortThroughputReport
- CMUsageReport
- CMQualityReport
- CMCpeReport



Note

---

You can only specify the top level directory.

---

## Dynamically Starting Polling for Newly Added Cable Modems

The performance polling controller periodically checks for new cable modems (default time interval is 3600 seconds). If any new cable modems are discovered for a uBR in "AllCMsPerfPolling" state, polling is enabled automatically within 3600 seconds after the cable modems are added to the Physical Tree view.

To disable the feature or to reconfigure the discovery interval, restart the performance polling controller:

- 
- Step 1** As root, enter:
- ```
cd $CEMF_ROOT/bin
cemf shell
./sysmgrClient -k perfPollCtrl
```
- Step 2** Modify the following two variables in the config file `$CEMF_ROOT/config/perfPollCtrl/perfPollCtrlUserData.ini` under the CmPollingChecking section:
- ```
periodicCheckingEnable = 1; 0 for disable, 1 for enable
periodicCheckingInterval = 3600; unit is seconds
```
- Step 3** Save the changes.
- Step 4** Enter:
- ```
./sysmgrClient -x perfPollCtrl
```
- Step 5** To check whether a uBR is in "AllCMsPerfPolling" state, choose:
- Site object > Performance Polling > Start/Stop uBR/CM Polling**
- The Start/Stop UBR/CM Polling dialog box appears. The current state in the Cable Modem Polling frame indicates whether all cable modems under selected uBRs are in a polling state.
- Step 6** To set the state variable, click the **Start (or Stop) Polling All CMs** button in the **Start/Stop UBR/CM Polling** dialog box.
- 

## About General Maintenance Management

In order to maintain your system over time, it is important that you look at the size of your database and the particular needs of your network. Many factors can affect the overall performance of your system, which can impact your server over long-term use.

The following can affect overall system performance:

- Total Objects Discovered
- Rate of Alarms/Events
- Number of Groups Polled
- Frequency of Polled Groups
- Number of Thresholds Configured
- Frequency of Thresholds
- Cable Modem Thresholds



# Caveats

This section describes known CCM 2.0, CCM 2.1, CCM 2.2 and CCM 2.3 software caveats and their related behaviors.

## CEMF Caveats

### DDTS: CSCdx07323

#### Limitation: CCM Cannot Handle a Flood of Traps

##### Symptom

When CCM receives a flood of traps (approximately 4-8 traps per second), CCM only processes the traps and all other functionality is blocked.

##### Problem Description

When there is a continuous flooding of traps, especially from cable modems changing online or offline status, CCM will not be able to create a new cable modem, update the status index of existing modems, or update the index of upstream or downstream ports on uBRs. This could result in incorrect data in the Performance Reports. Continuous flooding of traps could also affect other CCM functions, such as discovery, polling, and threshold.

##### Workaround

To disable traps being forwarded to CCM from the uBR generating the traps:

- 
- Step 1 Telnet to the router generating the flood of traps.
  - Step 2 Enter **enable** to turn on privileged commands.
  - Step 3 Enter **configure t** to configure from the terminal.
  - Step 4 Enter **no snmp-server host ipaddress read community string**, replacing *ipaddress* with the ipaddress of the machine on which CCM is currently running and *read community string* with the read community string of the uBR.
- 

### DDTS: CSCdw91164

#### Large Number of Cable Modems On/Off trap at a time, could fail the CM Creation

##### Symptom

A large number of cable modems sending online or offline traps could cause a cable modem creation to fail.

## Problem Description

Generating a large number of cable modem online or offline traps overloads the uBrController and the SNMP Stack. This could cause a cable modem creation to fail. This problem is related to an Agent DDTS CSCdw66359 (Flood of Traps being sent for Offline/flapping modems).

## Workaround

Don't generate a flood of traps. Attach only a few (5 - 6) upstream modems at any given time. The uBR should be in IDLE state, and the cell-name (unprovisioned) and group-name should already be created. Or enter the following CLI command: **clear cable modem mac-Address reset** for a few modems at a time and make sure the uBR is in IDLE state. SNMP community string are set for cable modems in CCM.

## DDTS: CSCdw78340

### Failed to Create Modem on Trap, if No Cell or Cell-Group Present Under Upstream

## Symptom

If there is no Cell or Cell\_Group under an Upstream, a new cable modem will not be created on TRAP.

## Problem Description

Cable modem creation on trap fails if the respective Cell and Group objects are not present in the Map Viewer. This feature is not supported by CCM 2.3 or any prior release.

## Workaround

None.

## Installation Caveats

### DDTS: CSCdy38198

#### startCblMgrHelper Error Message Seen in Log

## Symptom

During CCM installation, error messages are generated in sysmgr.log :

```
16/08/2002 12:11:37 : ERROR processControl.cc:278 Can't exec process [cblMgrHelpers].
```

```
16/08/2002 12:11:37 : ERROR sysmgrImpl.cc:655 Unable to start process [cblMgrHelpers]
```

## Problem Description

Invoker script is not installed at the initial installation stage, and *cemf start* is not run, causing an error message. Invoker is a script that invokes the httpServer used by Java Reports. This error message does not indicate a real problem, since httpServer is started after Java Report is installed.

## Workaround

Ignore this error message.

## DDTS: CSCuk35716 CEMF Client Bug

### Symptom

An application started from the launch3rdPartyApp service does not launch.

### Problem Description

If you use a different installation path for the client than the one used for the server, the third-party application will not start on that client.

### Workaround

Install third-party applications in the same location on both clients and servers.

## DDTS: CSCdx70448 Upgrade Failed Due to Controller Busy

### Symptom

When the controllers are extremely busy, the CCM upgrade fails with error messages such as:

```
cblCtrl - Upgrade Check : Call timed out.  
ERROR: One or more controllers returned unready.  
## Program Finished.  
ERROR: Program exited with error.
```

### Problem Description

When the controllers are extremely busy, they are not able to handle the uninstall check request from the CEMF load script. Thus, the uninstall operation, which is mandatory for an upgrade, cannot proceed. This error message informs you as to what is happening. Either wait until the controllers are less busy to do the upgrade, or perform the workaround if the situation warrants it.

### Workaround

Switch off thresholding and decommission the UBRs. Afterwards, enter the following command to make sure that the controllers are ready for upgrade:

```
$AV_ROOT/cemf/bin/deinstallClient [-c port name]
```

where the port name is actually the controller name.

## DDTS: CSCdx76829 cblUbrGroup Created in Objects Group

### Symptom

When you open Groups in the CEMF launchpad, a user group called "cblUbrGroup" is already created under Objects Group. When you view this group, it contains all the objects discovered. Since there is no threshold that can be run on all object types, this group is not necessary. Also, since this group is named cblUbrGroup, it may give you the impression that this group is created for uBR thresholds.

### Problem Description

The default "cblUbrGroup" displayed in the objects group is used by the perfPollCtrl. Do not associate this group with a user-defined threshold regime because the threshold regime may not work correctly.

### Workaround

None.

## Deployment Caveats

### DDTS: CSCdt95650 DDTS: CSCdu01000 DDTS: CSCdu02253 Cable Modem Grouping

### Symptom

Group names are not in order. Extra group names are generated.

### Problem Description

A group is supposed to have 100 cable modems before another group is created during the discovery process. There are instances when additional empty groups are created, or multiple groups are created, each containing less than 100 cable modems. Alternatively, some groups contain more than 100 cable modems, which could affect performance reporting.

Also, group names are not created in numerical sequence.

### Workaround

No workaround.

### DDTS: CSCdw75413 Discovery/Polling Status Is Mixed Up

### Symptom

Discovery or Polling State may appear in the wrong window.

### Problem Description

This problem is seen when an attribute on an Element Manager dialog box exists in multiple dialog boxes. All dialog boxes displays the attribute that needs to be updated.

### Workaround

Close and reopen the window; the correct state appears.

## DDTS: CSCdw92201 uBR 10012: No entAliasMappingEntry for PRE-1

### Symptom

The Fast Ethernet Interface on the Performance Routing Engine (PRE or PRE-1) will not appear in CCM2.3 Map Viewer GUI if the PRE or PRE-1 is moved from the primary to a secondary slot.

### Problem Description

When the Performance Routing Engine (PRE or PRE-1) is moved from the primary to a secondary slot on the uBR100012 chassis, the Fast Ethernet Interface will not appear under the secondary Performance Routing Engine in Map Viewer.

### Workaround

No workaround.

## Performance Management [Polling and Reports] Caveats

### DDTS: CSCdt57598 Cable Modem Polling Affects Polling Cycle Intervals

### Symptom

Cable modem polling interval skewed with every cable modem polling start.

### Problem Description

After starting cable modem polling on one or more uBRs, subsequently starting cable modem polling on any other uBR causes an adjustment in the poll sample time for the uBRs that had polling turned on initially. This is a result of the design of the poller: the poller spreads the load of polling over time to ensure that CPU usage is at a constant low level. When new objects are added to the object list maintained by the poller, it redistributes all the objects that need polling over the polling interval. This is a transient issue in that it only occurs when polling configuration parameters are changed. The poller will then return to a steady state and the times between subsequent cable modem polls will again become constant.

### Workaround

None.

## DDTS: CSCdt44418 Cable Modem Polling Takes Too Long

### Symptom

Cable modem polling takes too long to start for large-scale deployments.

### Problem Description

The latency between the time that cable modem polling is started on a large number of modems and the first polled sample is received can be quite large, up to 2 times the configured polling interval. After the initial latency, the poller reaches a steady state, and the polling interval is fairly constant between subsequent polls.

### Workaround

None

## DDTS: CSCds46075 DDTS: CSCds91305 Polling Takes Place even after uBR Is Decommissioned

### Symptom

Polling takes place and alarms are received, even after a uBR is decommissioned.

### Problem Description

Polling takes place and alarms relating to that uBR are received, even after the uBR has been decommissioned (from the user's perspective). Theoretically, polling should end if a uBR is decommissioned and should start if the uBR is recommissioned.

### Workaround

None.

## DDTS: CSCdw89817 Polling Offline Modems Could Severely Impact CCM System Performance

### Symptom

There is a Snmp stack busy message in the asyncSnmpDataRepository.log file, and a Snmp timeout message in the perfPollCtrl.log file.

### Problem Description

Modems that are currently offline are being polled, which causes SNMP timeouts. Depending on the number of SNMP retries associated with the number of offline modems and on network conditions that affect response time, the snmp stack busy condition can generate a missed poll for reachable devices.

## Workaround

You can turn off cable modem polling on any uBR with a large number of offline modems. You can resume polling on that uBR after the majority of modems are online again.

## DDTS: CSCdw83052 Polling Anomaly on uBR After Card Swap

### Symptom

After a card swap, the two original radio frequency (RF) card objects remain in the object tree while two new RF card objects are added.

### Problem Description

Instead of removing the old card object and its children when you swap out an RF card, the `entPhysicalIndex` of the old card object is set to -1 to preserve all historical data, such as performance polling data and event/alarms.

Choose **Tools > Open Object Configuration** and select `ENTITY-MIB.entity PhysicalcblRFCard` for Object Type. The `EntityPhysicalIndex` is set to -1 for the old card. All the new data collected will be stored against the new card object and its children. Based on this information, you know which card is actually in the slot. You can also monitor the Event log in the Event Browser to catch the OIR occurrence.

#### Poller Behavior

When the OIR occurs, the poller continues to poll the uBR. It is the new card and all its children (related attributes) that are being polled. However, this polling data is not stored unless a workaround is applied. For the old card, the `macLayer` is not polled but a missed poll message is recorded for all attributes associated with the children of the old card.

#### Impact on Performance Reports

For the old card, you can run performance reports without any workaround; all polling data before the OIR is reported. You must apply the workaround as soon as possible after the card swap to avoid data loss for the new object.

#### Impact on CEMF Performance Manager

For the old card, all polling data associated with it and its children appear as 'missed poll' or simply no polling data recorded for `macLayer` after OIR. After applying the workaround, polling data for the new card object and its children appear.

## Workaround

Stop and start polling to force the object group to update after an OIR or other configuration change, such as inserting a new card.

## Fault Management Caveats

**DDTS: CSCdx07354**

### **Limitation: Default Threshold Regime Frequency Cannot Sustain Poll**

#### Symptom

Limitation: Default Threshold Regime Frequency Cannot Sustain Poll.

#### Problem Description

While creating a threshold regime, the default frequency is 5 minutes. This default is supplied by the CEMF Threshold Manager. This value will overload the SNMP stack, causing lots of failures if a large number of objects are selected.

#### Workaround

Change the frequency value to 15-30 minutes while creating the threshold.

## Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

### World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following sites:

- <http://www.cisco.com>
- <http://www-china.cisco.com>
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P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

<http://www.cisco.com/register/>

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following website:

<http://www.cisco.com/tac/caseopen>

### Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

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- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.
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