Release Note for
Cisco Universal Gateway Manager Version 2.1

This release note contains important information and caveats for the
Cisco Universal Gateway Manager Version 2.1. Information in this document supplements information in these documents:

- *Cisco Universal Gateway Manager Installation, Upgrade, and Troubleshooting Guide, Version 2.1*
- *Cisco Universal Gateway Manager User Guide, Version 2.1*

For a complete list of supporting documents, see the *Cisco Universal Gateway Manager Documentation Guide* that shipped with your product.

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CISCO SYSTEMS

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Coresidency Feature

You can install Cisco UGM 2.1 and Cisco Media Gateway Controller Node Manager (MNM) 2.3 on a single server in your network. By doing this, the Cisco EMF Map Viewer and Event Browser provide you with consolidated network management coverage for the devices in your network. To further enhance network management coverage and flexibility, you can install CiscoView 5.4 either on the same server or on a different server.

For details on coresident operation, refer to the *Release Note for Coresident Operation of Cisco MNM and Cisco UGM Network Management Systems.*

Cisco UGM System Requirements

The following table provides guidelines for your Cisco UGM installation. In making system hardware choices, consider your network deployment scenario and also see the "Network Configurations Supported by Cisco UGM" section on page 6.

Resource	Cisco UGM Server Option 1	Cisco UGM Server Option 2	Cisco UGM Client	Cisco UGM Presentation Server (for X-Terminal Session Support)
Hardware	Sun Enterprise 420R	Sun Ultra 60 or 220R workstation	Sun Ultra 10 workstation	Sun Ultra 60 workstation
Processor	4 x 450 MHz	2 x 450 MHz	440 MHz	2 x 450 MHz
Operating System	Solaris 2.6 or 8	Solaris 2.6 or 8	Solaris 2.6 or 8	Solaris 2.6 or 8
Memory	4 GB RAM	2 GB RAM	512 MB RAM	2 GB RAM
Disk Space	4 to 6 x 9 GB 10,000 rpm disks	2 x 9 GB internal disks 9 GB 10,000 rpm external disk	9 GB disk	1 GB disk
Swap Space	8 GB	4 GB	2 GB	2 GB
Monitor	17" monitor	17" monitor	17" monitor	None
Graphics card	24-bit	24-bit	24-bit	None

Software Requirements

> **Note** CiscoView and Cisco MNM are not shipped with Cisco UGM. They can be purchased separately for use with Cisco UGM.

Software	Version	Patch Level	Operating System
Cisco EMF	3.2	Patch 2[1] Or Patch 3 Or Service Pack 4[2]	Solaris 2.6[3] or 8
CiscoView[4] (to operate with Cisco UGM only, and installed on the same server as Cisco UGM)	5.3 Or 5.4	None	Solaris 2.6 or 8
CiscoView (to operate with Cisco UGM only, and installed on a different server from Cisco UGM)	5.3 Or 5.4	Refer to the *Installation and Setup Guide for CiscoView 5.3* or the *Installation and Setup Guide for CiscoView 5.4*	
CiscoView (to operate in a coresident configuration, and installed on the same server as Cisco MNM and Cisco UGM)	5.4	None	Solaris 8
CiscoView (to operate in a coresident configuration, and installed on a different server from Cisco MNM and Cisco UGM)	5.4	Refer to the *Installation and Setup Guide for CiscoView 5.4*	

1. Cisco UGM version 2.1 can operate on the same server as Cisco MNM version 2.3. The coresident network management systems were tested with Cisco EMF Patch 2. You can operate your coresident network management systems with subsequent patches if both the network management systems support the same patch. To determine if subsequent Cisco EMF patches are supported, refer to the *Release Note for Coresidence of Cisco MNM and Cisco UGM Network Management Systems*.

2. If you are planning to run Cisco EMF Service Pack 4 with Cisco UGM 2.1, see the "About Cisco EMF Service Pack 4" section on page 4.

3. If you are running Solaris 2.6, you may need additional software patches. See the "About Solaris 2.6 Patches for Operating Cisco UGM 2.1" section on page 4.

4. CiscoView is an optional product that can be used with Cisco UGM in a standalone installation or with Cisco UGM and Cisco MNM in a coresident installation.

About Cisco EMF Service Pack 4

The Service Pack 4 upgrade has been certified for use with Cisco UGM 2.1 and includes all Cisco EMF patches made available in earlier service packs. For information on Service Pack 4 features and improvements, refer to the *Release Notes for the Cisco Element Management Framework v3.2 Service Pack 4 Cisco Element Manager November 2002 Upgrade* located at:

http://www.cisco.com/en/US/products/sw/netmgtsw/ps829/products_release_and_installation_notes_chapter09186a008010b5cb.html

Resource Manager Essentials

Service Pack 4 includes the Resource Manager Essentials (RME) feature that can be optionally installed. For more information on RME, refer to this URL:

http://www.cisco.com/en/US/products/sw/cscowork/ps2073/index.html

Note
- Install RME on a separate server from that on which Cisco UGM 2.1 is installed. For system requirements, refer to the *Release Notes for the Cisco Element Management Framework v3.2 Service Pack 4 Cisco Element Manager November 2002 Upgrade.*

- RME does not currently provide software image management support for the Cisco AS5850 Universal Gateway. However, all other RME functions are supported for the Cisco AS5850 device.

About Solaris 2.6 Patches for Operating Cisco UGM 2.1

After installation, Cisco UGM sometimes fails to create objects in the NAS-File-Repository tree. If your Map Viewer shows this condition, check the IOSConfigCtrl.log file for this error message:

```
IOSConfigMgr::getConfigVersionObjectContents: Could not open the filename file for reading
```

Where:

- *filename* is similar to *<CEMF_ROOT>*/config/IOSConfigCtrl/IOSFiles/EnableT38
- *<CEMF_ROOT>* is the directory (usually /opt/cemf) where you installed Cisco EMF

Tip During installation, the EnableT38 configlet is the first file that Cisco UGM attempts to read.

To rectify this condition, install one of these:

- Solaris 2.6 patch 101242-11 or later patches
- Solaris 2.6 patch 105591

You can download these patches from either of these locations:

- http://sunsolve.sun.com/pub-cgi/findPatch.pl?patchId=105591
- http://sunsolve.sun.com/pub-cgi/show.pl?target=patches/patch-access

Cisco IOS Compatibility Matrix for Cisco UGM 2.1

Platform	IOS Image	Modem Image	SPE Image	VFC Image
Cisco AS5300	c5300-js-mz.121-4.T4 c5300-js-mz.121-5.XV3 c5300-js-mz.122-1 c5300-js-mz.122-1.4 c5300-js-mz.122-6 c5300-js-mz.122-2.XA2 c5300-js-mz.122-2.XA3 c5300-js-mz.122-2.XA4 c5300-js-mz.122-2.XB c5300-js-mz.122-2.XB5 c5300-js-mz.122-2.XB6 c5300-js-mz.122-2.XU c5300-js-mz.122-2.XU4	mica-modem-pw.2.7.3.0.bin mica-modem-pw.2.7.2.0.bin	N/A	vcw-vfc-mz.c542.7.16.bin vcw-vfc-mz.c549.hc.7.23.bin vcw-vfc-mz.c549_mc_7_16.bin
Cisco AS5350	c5350-js-mz.121-5.XM3 c5350-js-mz.121-5.XV3 c5350-js-mz.122-2.XA2 c5350-js-mz.122-2.XA3 c5350-js-mz.122-2.XA4 c5350-js-mz.122-2.XB c5350-js-mz.122-2.XB5 c5350-js-mz.122-2.XB6 c5350-js-mz.122-2.XU	N/A	np.6.93.spe np.6.106.spe	N/A
Cisco AS5400	c5400-js-mz.121-5.XM3 c5400-js-mz.121-5.XV3 c5400-js-mz.122-6 c5400-js-mz.122-2.XA2 c5400-js-mz.122-2.XA3 c5400-js-mz.122-2.XA4 c5400-js-mz.122-2.XB c5400-js-mz.122-2.XB5 c5400-js-mz.122-2.XB6 c5400-js-mz.122-2.XU	N/A	np.6.93.spe np.6.106.spe	N/A

Cisco AS5800 including the UPC card	c5800-p4-mz.121-5.XM5	mica-modem-pw.2.7.3.0.bin	np.6.93.spe	N/A
	c5800-p4-mz.121-5.XV3	mica-modem-pw.2.7.2.0.bin	np.6.106.spe	
	c5800-p4-mz.122-1.XS1			
	c5800-p4-mz.122-2.XB1			
	c5800-p4-mz.122-2.XB2			
	c5800-p4-mz.122-2.XB5			
	c5800-p4-mz.122-2.XB6			
	c5800-p4s-mz.122-6			
Cisco AS5850	c5850-p9-mz.121-5.XV3	N/A	np.6.93.spe	N/A
	c5850-p9-mz.122-2.XB1		np.6.106.spe	
	c5850-p9-mz.122-2.XB5			
	c5850-p9-mz.122-2.XB6			
	c5850-p9-mz.122-2.XB2			
	c5850-p9-mz.122-2.XU			

Network Configurations Supported by Cisco UGM

Cisco UGM is designed for flexible operation. With Cisco UGM, you can select how often data is polled from the network and where SNMP traps will be forwarded. Performance, scalability, and the number of ports and devices managed all depend on your choices.

The following list describes some variables that affect the performance and scalability of Cisco UGM:

- Type and configuration of the server hardware where Cisco UGM is deployed (see the "Cisco UGM System Requirements" section on page 2)

- MIBs that are polled

- Polling frequency for polled objects

- Mix of objects polled

- Presence polling frequency

- Number of concurrent active Cisco UGM clients

- Activities performed by the concurrent active Cisco UGM clients (including discovery, viewing performance data, and viewing near real-time displays)

- Number and type of Cisco Access Servers in the network

- Number of ports in the network

- Management bandwidth between the managed device and the Cisco UGM server

- Management bandwidth between the Cisco UGM server and client

- Volume of event traffic received by Cisco UGM (steady state and burst traffic)

- Volume of SNMP event traffic forwarded by Cisco UGM

- Volume, storage duration, and frequency of inventory, fault, and performance data exported by Cisco UGM

- Uploads and downloads of IOS images, firmware images, and configuration files.

There are many permutations for all the variables listed. The following section describes a scenario that was successfully tested. You can use this scenario as a guide to size a network domain managed by Cisco UGM.

Network Configuration Scenarios

The following table shows tested deployment scenarios for a single management server with the associated qualifying parameters.

Note Performance testing for Cisco UGM 2.1 is ongoing. This release note will be updated as additional test results become available.

Cisco UGM manages high-density systems such as multi-DS3 Cisco AS5800 devices and low-density systems such as 2 x PRI Cisco AS5350 devices. Depending on the mix of devices in your network, different ceilings will be reached for the maximum supported network size. For example, if you have Cisco UGM installed on a Sun Ultra 60 server, you cannot manage 60 Cisco AS5850 devices each with a 2 x CT3 configuration. This would exceed the 75,000 port limit.

Cisco UGM Network Element	Option 1[1]	Option 2[2]
Type of server	Sun Enterprise 420R	Sun Ultra 60
Number of ports	150,000	75,000
MIBs polled	All Cisco UGM-supported MIBs	All Cisco UGM-supported MIBs
Performance polling interval	15 minutes	15 minutes
Presence polling interval	5 minutes	5 minutes
Modem status polling interval	5 minutes	5 minutes
Number of user sessions on the server	8	8
Trap rates and duration[3]	15 traps per second for 4 hours; 30 traps per second for 30 minutes.	15 traps per second for 4 hours; 30 traps per second for 30 minutes.

1. Option 1 system requirements are described in the "Cisco UGM System Requirements" section on page 2.
2. Option 2 system requirements are described in the "Cisco UGM System Requirements" section on page 2.
3. These trap rates were maintained for the entire duration of the test. The duration of each test scenario was 96 hours or more.

Note If you are already managing more than 50,000 ports and wish to deploy additional devices, Cisco recommends that you first suspend all performance polling activities on the Cisco UGM server.

The number of ports already managed added to the number of additional ports to be deployed should not exceed the number of ports specified in the table.

About Management Bandwidth

The following table and figure shows the minimum bandwidth requirements for managing a network.

Network Point	Minimum Bandwidth Required
1	56 kbps
2	1544 kbps
3	56 kbps
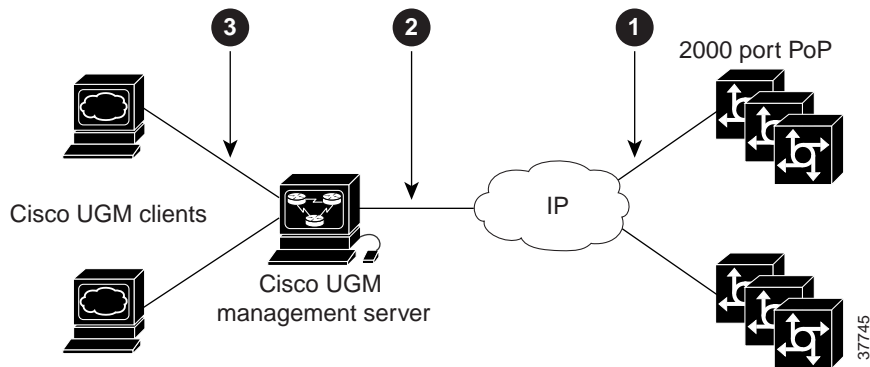
Operating Tips

This section contains the following topics:

- About Deleting Device Component Objects, page 8
- About the Event Browser, page 8

About Deleting Device Component Objects

The number of device component objects that you can delete at a time depends on the load and activities on your system.

If your network contains 60,000 ports and operates with a load and activities as described in the "Network Configuration Scenarios" section on page 7, you can delete up to 2,000 ports at a time.

Tip If you attempt to delete more than 2,000 ports, the Deletion Wizard window may freeze; then, you may have to stop and restart Cisco EMF.

About the Event Browser

Open the Event Browser window before you start performance polling operations. If Cisco UGM has started processing traps, the volume of traps may delay the Event Browser window from opening.

Once the window is open, it is updated in real time.

Caveats

This section contains the following caveats:

Manual Deletion of Device Component Objects Does Not Update Cache (CSCdt57107)

Symptom

Manual deletion of device component objects is not detected by the deployment code, and the internal cache is not synchronized with the database. Any operations that use the cache are now unpredictable as they attempt to manipulate non-existent objects. This could result in database corruption including the deletion of objects in ASMainEMSConfig.

Workaround

⚠️ **Caution** Do not alter the device component hierarchy by reparenting, renaming, and deleting objects.

To resynchronize the internal cache with the database, complete these steps:

Step 1 To decommission the device in order to start rediscovery choose **AS5xxx object> Chassis > Chassis Commissioning**.

Step 2 Click **Decommission**.

Step 3 To decommission and commission the device to trigger a transition into the discovering state, choose **AS5xxx object> Chassis > Chassis Commissioning**.

Step 4 Click **Decommission**.

Step 5 Choose **AS5xxx object> Chassis > Chassis Commissioning**.

Step 6 Click **Commission**.

Step 7 Check for the state transitions:

decommissioned > commissioned > discovering > normal.

Step 8 Repeat Step 3 through Step 7.

Step 9 Delete the device object and rediscover it.

Step 10 Stop and restart Cisco EMF.

Rediscovery Causes Unnecessary Object Creation and Loss Of Performance Data (CSCdv65454)

Symptom of Unnecessary Object Creation

This condition is seen when this sequence of events occurs:

1. Configuration changes are made to a device object without reloading it.

2. Cisco UGM rediscovers the device and its components.

3. The device is reloaded.

   This creates a new set of SNMP indices for the device object.

4. Cisco UGM recreates device and component objects.

   The newly created objects operate normally.

Workaround

None.

Symptom of Loss of Performance Data

Universal ports and modems are usually identified by slot number and port number. However, Cisco AS5800 devices also include the dial-shelf-id in this identifier.

Since a configuration change alters the dial-shelf-id, the universal ports and modems on the device get new identifiers as well. Cisco UGM detects the parent device as being new, deletes all the device components, and proceeds to recreate the objects. Performance and alarm data for this device object are lost.

Workaround

Before making configuration changes, export data to file. (In the Map Viewer, choose **ASEMSConfig > File Export > Open File Export Properties**.)

CISCO-POP-MGMT-MIB cpmDS0UsageTable does not Contain DS0 Data (CSCdy29558)

Symptom

When a managed device, its E1 trunk card, and E1 ports are discovered, no DS0 objects are shown under the port. This condition is seen on the Cisco AS5300, AS5350, AS5400, AS5800, and AS5850 platforms when these requisites are present:

- The managed device is running Cisco IOS image 12.2(11)T

- The managed device has an E1 trunk card installed

- The E1 port in the trunk card is configured as ds0-group

Workaround

None.

This condition will be fixed in a future Cisco IOS image release.

RFC1406-MIB ds*x*1ConfigTable and ds*x*1CurrentTable do not Contain Data (CSCdx94617)

Symptom

When the Cisco AS5300 managed device and its T1 or E1 trunk card are discovered, no T1 or E1 ports are shown under the card. This condition is seen when these requisites are present:

- The managed device is running Cisco IOS image 12.2(11)T
- The managed device has a T1 or E1 trunk card installed

Workaround

None.

This condition will be fixed in a future Cisco IOS image release.

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
- http://www-europe.cisco.com

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or as an annual subscription.

Ordering Documentation

Cisco documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco Product documentation from the Networking Products MarketPlace:

  http://www.cisco.com/cgi-bin/order/order_root.pl

- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:

  http://www.cisco.com/go/subscription

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, in North America, by calling 800 553-NETS(6387).

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Attn Document Resource Connection
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools. For Cisco.com registered users, additional troubleshooting tools are available from the TAC website.

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http://www.cisco.com

Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC website:

http://www.cisco.com/tac

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

P1 and P2 level problems are defined as follows:

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

- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.