



Cisco Broadband Operating System 2.4 Release Notes

December 21, 2000

These release notes describe resolved and open issues for the Cisco Broadband Operating System (CBOS) Release 2.4. Please refer to previous release notes for specific information concerning past releases.

For more detailed information about the information in these release notes, refer to the “Related Documentation” section on page 9. Information about electronic documentation can be found in the “Cisco.com” section on page 10.

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Cisco Broadband Operating System

CBOS is the common operating system for Cisco customer premises equipment (CPE). The CBOS is modeled after Cisco IOS software and features a similar command syntax and format. This operating system is bundled with the CPE products listed below and can also be downloaded from Cisco Connection Online.

The CBOS Release 2.4 supports the following Cisco CPE products:

- Cisco 627
- Cisco 633
- Cisco 673
- Cisco 675
- Cisco 675e
- Cisco 677
- Cisco 677i
- Cisco 678

Upgrading

For information on upgrading your software from a previous version, see the *Cisco Broadband Operating System 2.3.0 Release Notes*.

Additions to the *Cisco Broadband Operating System 2.4 User Guide*

The following items are additions or corrections to the *Cisco Broadband Operating System 2.4 User Guide*.

Set Clock

There is an additional command named **set clock**. Valid values are from 64 to 2048. The default is 2048. This command is configurable in enable mode.

IP Precedence

Follow these steps to autoconfigure IP Precedence bits using auto-configuration tool, the Cisco Data Connection Manager (CDCM).

Entity Level

Follow these steps from the Entity Level. This is the preferred method.

-
- Step 1 Right-click the **cdmCPE-?** object.
 - Step 2 From the drop-down menu, select **Configure**.
 - Step 3 Select **IP Static Route**.
 - Step 4 In the **Routing Policy** field, enter the precedence bit value as follows.

precedence bit	Corresponding value in Routing Policy field
0	0
1	32
2	64
3	96
4	128
5	160
6	192
7	224

- Step 5 In the object **cdcpIpStaticRoutePolicy** (Routing Policy), the precedence value and the policy code are contained in the least significant byte as follows:
 - Precedence: highest 3 bits
 - Policy code: the rest of 5 bits. (not used by CBOS)
 - Raw: in the **Interface** field, enter the **PropVirtual Interface Index** number of the interface whose precedence bit will be effective.
-

Service Profile

The Service Profile method is the alternative. Follow these steps:

-
- Step 1 Right-click **cdmProxyElement...**
 - Step 2 From the drop-down menu, select **Profile**.
 - Step 3 Select **Service**.
 - Step 4 Select the **IP Static Route** tab.
 - Step 5 Enter the same value for **Routing Policy**.
 - Step 6 Enter the **next hop** address.
-

Resolved Issues in CBOS Release 2.4

This section lists resolved issues for CBOS 2.4.

- CSCdr77726

Symptom:

A Cisco 677 CPE device will not train up when using g.lite or g.dmt.

Condition:

When using g.lite or G.dmt on a 627 or 677, a Cisco 677 CPE device will not train up to a Cisco 6260 configured the same way.

Workaround:

Upgrade the ADI firmware to version 3.0. The name of the code required is RTBLD.BNM, available in a special file access area of CCO. You must be a registered CCO user. To download the RTBLD.BNM code, follow these steps:

-
- Step 1** From any browser, log in to www.cisco.com.
 - Step 2** In Service and Support, select **Software Center**.
 - Step 3** Select **Special File Access**.
 - Step 4** Enter:
cbos23.
 - Step 5** Click **RTBLD.BNM**.
-

Known Issues in CBOS Release 2.4

This section lists open issues for CBOS 2.4.

- CSCds54769

Symptom:

When attempting to use two or more PCs behind a CPE to do a file transfer with Microsoft networking to a Windows 2000 server, only one PC will be able to copy a file at a time.

Condition:

This occurs only under the following conditions:

- Microsoft networking is the file transfer mechanism
- more than one PC is attempting to do a file transfer at the same time
- the CPE is running NAT
- the file transfer is attempted from a Windows 2000 server on the far end of the connection.

Workaround:

Allow one PC at a time to do a file transfer using Microsoft networking, or use another file transfer method, such as FTP.

- CSCds60974

Symptom:

When the CPE is set up as a DHCP client and is receiving its IP address from a DHCP server behind the terminating router (NRP on a 6400 or a 7200), the CPE may not receive an IP address from the DHCP server.

Condition:

This occurs with RFC1483 routing configured on a CPE which is configured to be a DHCP client and is trying to get DHCP information from a DHCP server over the wan interface. This problem does not apply to PPP routing, as there is no reason to use DHCP client functionality on the CPE in this situation; instead, IPCP should be used to obtain the IP address. It also does not apply if the DHCP server service is running on the 6400/7200; in this case, the CPE can receive an IP address from the DHCP server on the terminating router.

The problem that occurs is that the far-end DHCP server returns the IP address forwarded as a broadcast. The terminating router (6400/7200) receives this broadcast on its ethernet address, then, as it should, does not forward it over the ATM interfaces.

Workarounds:

There are two possible workarounds:

- Put an IP helper address on the Ethernet interface of the 6400/7200 that points to the original IP address of the CPE.
- Do not attempt to have the CPE receive an IP address from a DHCP server over the WAN interface. The CPE, which is functioning as a router, should have a static IP address. If necessary, this address can be excluded from the DHCP server.

- CSCds62558

Symptom:

When using auto-provisioning to configure DHCP pools for a CPE, if the first pool is not configured, it will still be enabled and given default values of IP 10.0.0.2, netmask 255.255.255.0, and size 252. This will cause this pool to be used first.

Condition:

This occurs when auto-provisioning is used to pass DHCP pool information to a CPE and the first pool on the CPE is not configured.

Workaround:

Always configure the first pool on the CPE when using auto-provisioning.

- CSCds82039

Symptom:

When you attempt to set the DHCP relay command to an interface, only the wan0-0 interface is accepted as valid.

Condition:

This condition occurs when you attempt to use the eth0 interface for the DHCP relay command; for example, when SDSL modems are being used in a back-to-back environment.

Workaround:

No action is necessary. When the CPE is in the back-to-back configuration or the CPE mode is set to CO, the DHCP relay requests automatically go out the eth0 interface, even though the **sho dhcp relay** command shows the relay interface as wan0-0.

- CSCds83490

Symptom:

Routing table updates are not received when RIPv2 is used.

Condition:

When the CPE device is configured with RIPv2 on a network with other RIPv2 routers, it does not receive routing table updates.

Workaround:

In addition to RIPv2 configuration, you must enable multicast forwarding on the CPE device. The CPE device cannot recognize multicast addresses if multicast forwarding is not enabled.

- CSCds87618

Symptom:
When using multiple VCCs and VIP interfaces with PPP and NAT enabled, the VIP interfaces default to NAT outside interfaces.

Condition:
To use NAT across the VIP interfaces you have to change them to NAT inside interfaces.

Workaround:
Enter the following command:
set interface vip0 inside

or

Do not use NAT when using the VIP interfaces. If you must use NAT, direct all traffic to the wan0-0 interface. The wan0-0 interface remains as a NAT outside interface.
- CSCds87680

Symptom:
The **show NVRAM** command sporadically produces unintelligible results.

Condition:
This occurs occasionally when the command is abbreviated to **sh nv**.

Workaround:
Issue the complete command **show nvram**.
- CSCds49083

Symptom:
The mask for ethernet 0 (eth0) can be set to all 255s.

Condition:
When the mask of eth0 is set to 255.255.255.255, the interface will not appear in the routing table and is unusable.

Workaround:
Manually set the mask of eth0 to a number other than all 255s.
- CSCds86083

Symptom:
When **stats web** command is entered on a CPE, the value of the field **# of current connections** may be artificially high, up to a value of over 4 billion.

Condition:
This problem can occur when a web connection is established to the CPE and left up for a prolonged period of time, such as overnight.

Workaround:
There is no workaround.

- CSCds87384

Symptom:

When using multiple PVCs, for example, wan0-1 through wan0-7, and using the **stats ip wan0-x** command, only wan0-0 will display anything other than 0s for the statistics

Condition:

This occurs when using multiple PVCs and the **stats ip** command.

Workaround:

Obtain statistics on the amount of traffic by using other commands such as **show ppp**, **show rfc1483**, or **show int wan0-x**.

- CSCds87418

Symptom:

When NAT is enabled on a CPE and a global outside IP address has been assigned via the command line interface (CLI) or auto-provisioning, but an IP address is also being received via IPCP, the global outside IP address will be that received via IPCP.

Condition:

This occurs under the following circumstances:

- PPP routing is used on the CPE
- NAT is enabled on the CPE
- A global outside IP address is configured on the CPE from either the CLI or via auto-provisioning for the wan0-0 interface; the wan0-1 through wan0-7 interfaces do not have this issue
- The terminating route (6400 NRP or 7200) has been configured to pass an IP address via IPCP to the CPE

Workaround:

There are two possible workarounds:

- Configure the global outside IP address on the CPE or have the terminating router pass an IP address via IPCP. This avoids any potential conflicts between the global outside IP address on the wan0-0 interface and the IP address to be received via IPCP.
- Use the command line interface to set the following parameter:

```
set ppp wan0-x ipcp IP address
```

where *x* is the applicable interface and *IP address* is the desired global outside IP address.

- CSCds89064

Symptom:

When you try to set a password, any uppercase characters are converted to lowercase. Additionally, note that passwords set in a previous version of CBOS do retain their case after the CPE software is upgraded to Release 2.4.1.

Condition:

This occurs when using uppercase characters for both the exec or enable passwords.

Workaround:

The workaround is to use only lowercase characters.

Related Documentation

Use these release notes in conjunction with these documents:

- *Cisco Broadband Operating System Release 2.4 User Guide.*
- *Cisco 600 Series Installation and Operation Guide*
- *Cisco CPE Commander User Guide*
- *Cisco Data Connection Manager (CDCM) User Guide*

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, which ships with your product. 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.

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<http://www.cisco.com/go/subscription>
- Nonregistered CCO 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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<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.

This document is to be used in conjunction with the *Cisco Broadband Operating System 2.4 User Guide* publication.

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