CISCO SYSTEMS

78-6626-01   09/29/99

Release Notes for the Cisco 627 ADSL DMT Modem

September 29, 1999

These release notes discuss features, caveats, and open issues for the Cisco 627 asymmetric digital subscriber line (ADSL) Discrete Multitone (DMT) modem as of Release 2.2.0 of the Cisco Broadband Operating System (CBOS). This is the first supported release of the Cisco 627.

For more detailed information about the features in these release notes, refer to the "Related Documentation" section on page 5. Information about electronic documentation can be found in the "Cisco Connection Online" section on page 6 and in the "Documentation CD-ROM" section on page 6.

1. Contents

These release notes provide the following information:

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USA

2. The Cisco Broadband Operating System (CBOS)

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 Cisco 627 ADSL DMT Modem, and can also be downloaded from Cisco Connection Online.

3. New Features for the Cisco 627 as of CBOS Release 2.2.0

3.1 Support for Error log enhancements

CBOS Release 2.2.0 supports the following error log enhancements:

- All lines are marked with a timestamp designating the time elapsed since boot-up. The timestamp is in the following format:

  DDD:HH:MM:SS

  Where DDD is the number of days, HH is hours, MM is minutes and SS is seconds.

- The error log buffer now supports 20 entries with support for entries up to 80 characters (entries with more than 80 characters will be truncated).

3.2 Support for Exec Login Null

If the Exec password is null, CBOS Release 2.2.0 refuses Telnet login and displays the message "Connection refused, password not set" or equivalent.

3.3 TFTP Client Support

CBOS Release 2.2.0 supports the Trivial File Transfer Protocol (TFTP) client, which is a key feature needed to support the emerging configuration-less CPE architecture. The Cisco 627 can now request configuration files and software loads with the TFTP client support. Previous versions of CBOS supported TFTP server functionality only.

3.4 Support for Reboot Timer

This feature allows you to set a timer for reboot at a specified interval, which prevents you from correcting the configuration locally.

3.5 ATM Scrambling

ATM scrambling is now enabled by default on the Cisco 627.

3.6 Serial Download of Configuration Software

This feature allows you to download a new image file or configuration file to the Cisco 627 through the serial port using the XMODEM protocol. See the "Serial Download" section on page 3 for detailed instructions.

3.7   New Commands

The CBOS Release 2.2.0 supports the following new commands:

- **tftp** *mode host filename*

   Allows you to download a different image or configuration file via the TFTP client. The *mode* variable is either "image" or "config," *host* is the IP address of TFTP server.

- **shutdown** [**now** | **show** | **off** | *seconds*]

   Enables the shutdown reboot timer.

- **set download code** | **config**

   Starts a download of a new image file or configuration file to the Cisco 627 through the serial port using the XMODEM protocol.

4.   Upgrade Procedure

The upgrade process is the same whether you use TFTP or serially download the new image of the CBOS software. After the new file is written to the Flash memory, enter the **reboot** command from the CBOS command line to reset your system. The new image loads, decompresses two images, and programs the new images to the correct Flash memory locations.

> ⚠ **Caution**   Do not reset the system or halt its operation in any way during the upgrade process. Resetting while writing a new image to Flash memory *will corrupt* Flash memory.

4.1   TFTP Download

See the following instructions to use TFTP to download a new software image.

Step 1   Login to the Cisco equipment using the Enable password.

Step 2   Enable TFTP on the Cisco equipment.

```
set tftp enabled
```

Step 3   Determine the equipment's IP address.

```
show int atm0
```

Step 4   From the DOS window or TFTP client, transfer the image to the CPE. In a DOS window, enter:

```
tftp -i ip address of CPE put filename
```

Step 5   To ensure that file is downloaded correctly, enter:

```
show errors
```

   You should see an "Image downloaded successfully" message.

Step 6   Reboot the CPE.

4.2 Serial Download

To serially download the image, enter the following settings through a serial console connected to your system:

- 38.4 Kbaud

- No parity

- 8 data bits

- 1 stop bit

- No flow control

Step 1 To turn debug monitor on, enter:
```
debug monitor on
```

Step 2 To save your changes, enter:
```
write
```

Step 3 To reboot the device, enter:
```
reboot
```
After the modem reboots, press Enter twice. The prompt should change to =>.

Step 4 To start serial download, enter:
```
df 10008000
```

Step 5 When the download is complete, the following message appears:
```
Transferred xxxxxxxx bytes
```
Record the number of bytes transferred.

Step 6 To erase sector 0, enter:
```
es 0
```

Step 7 To erase sector 1, enter:
```
es 1
```

Step 8 To erase sector 2, enter:
```
es 2
```

Step 9 To erase sector 3, enter:
```
es 3
```

Step 10 Enter:
```
pb 10008000 fef00000 xxxxxxxx
```
where *xxxxxxxx* is the value recorded in Step 5.

Step 11 To turn debug monitor off, enter:
```
m0
```

Step 12 To reboot, enter:
```
rb
```

5. Important Caveats for the Cisco 627 as of CBOS Release 2.2.0

The following list describes known issues and functionality details:

- When you download a new configuration file, you must name it `nscfg.xxx`, where xxx can be any extension.

- The **show running** command displays configuration settings that are currently running. The **show running#** command displays configuration settings that are currently running, including comments.

- The **show nvram** command displays the configuration file in NVRAM. The **show nvram#** command displays the configuration file in NVRAM, including any comments you may have entered in the configuration file.

6. Open Caveats for the Cisco 627 as of CBOS Release 2.2.0

Table 1 lists open caveats for the Cisco 627 as of CBOS Release 2.2.0.

Table 1   Open Caveats for the Cisco 627 as of CBOS Release 2.2.0

Bug Number	Description
CSCdp04764	Prompt returns when **Enter** is pressed during TFTP client download. **Impact:** Could potentially cause a problem if the user reboots the CPE while TFTP download is still in process, or if other commands are entered that could interrupt the process. **Workaround:** Do not touch the keyboard while TFTP transfer is in progress. Wait until TFTP completes before entering any other commands.

7. Documentation Updates

This section addresses errors in the *Cisco 627 ADSL DMT Modem User Guide* and information that was not available when the user guide was printed.

- In Chapter 4—Command Reference, "show," (page 4-17)

The descriptions of the **nvram#** keyword of the **show** command should be:

Displays the configuration file in NVRAM, including any comments you may have entered in the configuration file.

The description of the **running#** keyword of the **show** command should be:

Displays configuration settings that are currently running, including comments.

8. Related Documentation

Use these release notes in conjunction with the following user documentation:

- *Cisco 627 ADSL DMT Modem User Guide* (Cisco document number 78-6627-01)

- *Quick Start for the* Cisco 627 ADSL DMT Modem (Cisco document number 78-6680-01)

- *Regulatory Compliance and Safety Information for the* Cisco 627 ADSL DMT Modem (Cisco document number 78-6681-01)

9. Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, product documentation, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

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

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

- WWW: http://www-china.cisco.com

- Telnet: cco.cisco.com

- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

Note If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

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10. Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more current than printed documentation. To order additional copies of the Documentation CD-ROM, contact your local sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at http://www.cisco.com, http://www-china.cisco.com, or http://www-europe.cisco.com.

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