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Cisco Cache Engine Version 1.5.0 Release Notes

March 1998

These release notes are for use with *Using the Cisco Cache Engine* and contain information that was not available for inclusion in that manual. They discuss the following topics:

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Cisco Cache Engine (1.5.0) Caveats

The following conditions may occur when using the 1.5.0 version of the Cache Engine system software.

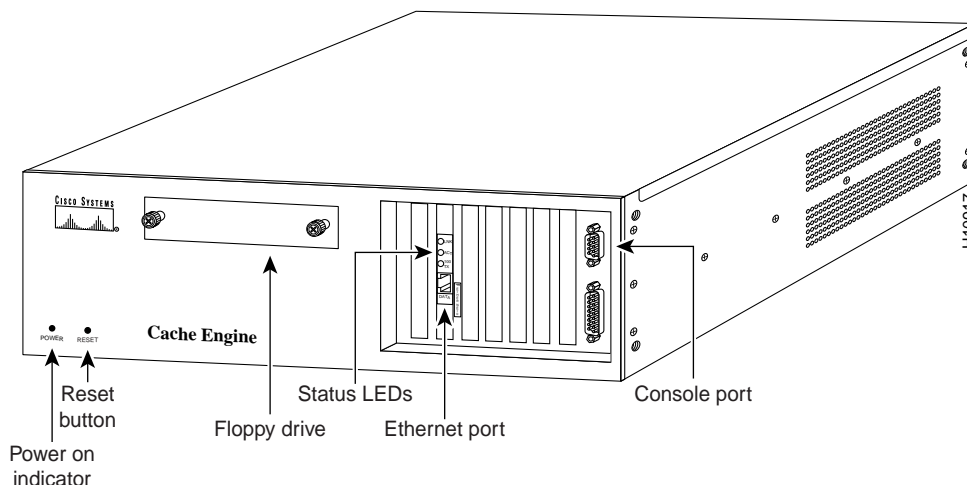- The front of the Cache Engine chassis includes an extra DB-15 serial port.

Note   This port is reserved for future feature support. Do *not* use this port. In Figure 1, this serial port is located just below the console port, and it is not labeled.

Figure 1   Front View of Cisco Cache Engine

- Occasionally when you turn the Cache Engine on and off (power cycle), the "bad label" error message displays and the boot sequence fails. This problem can persist through two or three power cycles. You can work around this problem by resetting the Cache Engine until this error message does not display. This problem has not been seen on the 233 MHz hardware. [CSCdj66667]

- Occasionally during the manufacturing process, invalid directory entries appear in the DOS partition. These directory entries, such as "928]", "-?", "?", and blank entries, are harmless and can be safely ignored. [CSCdj73856]

- Occasionally the administrative changes that you make to the Cache Engine from the web browser interface generate a server error. This problem is caused when Cache Engine attempts to parse the data contained in large forms (e.g., sys log config) before all of the data for the form is received. To work around this problem, you can repost the form or connect to the Cache Engine using a higher-speed network connection (10BaseT or greater). [CSCdj78690]

- The Cache Engine does not support persistent HTTP connections. As a result, it does not support CGI scripts running on some older versions of the Challenger web server by Roxen. If you believe a web site that your users frequent has an older version of the Challenger web server, contact that site's administrator and request that they move to a version of the server software that is HTTP compliant and does not require persistent HTTP connections. [CSCdj80159]

- The Web Content Caching Protocol (WCCP) does not support access control lists (ACLs). Currently, the Cache Engine proxies all communications between web servers and clients. As a result, the server and client IP addresses are translated to the Cache Engine's IP address. Consequently, any authentication schemes that are based on the requesting clients IP address will fail. If your site's authentication scheme relies on the IP address of the requesting client, you can work around this issue using one of the following methods: [CSCdj80231]

  — Use the Secure Sockets Layer (SSL) protocol for communications with your internal web servers. Because SSL does not listen on TCP port 80, the Cache Engine does not intercept the communication requests (i.e., the router does not forward non-port 80 communications to the Cache Engine).

  — Use an alternate authenticate scheme, such as username/password pairs or a stronger form of user authentication. This method provides better security and does not bypass the Cache Engine; however, the actual authentication information is never cached.

— Configure your internal web servers to listen on a TCP port other than 80. Again, because this configuration does not use the standard HTTP port setting, the Cache Engine will not intercept (or cache) content on behalf of these client-server communications.

— Expose your internal web servers to all external client requests by including the Cache Engine's IP address in the accepted IP address list that the web server uses to authenticate requesting client hosts. This solution is not secure and is not recommended.

- The information collected by ARP requests is overwritten by subsequent responses. This problem occurs when a routing entry is created using an invalid subnet mask. This entry causes the Cache Engine to ARP for the MAC addresses of hosts that are not connected directly to the network on which the Cache Engine resides. However, the routers actually answer the ARP requests, acting as a proxy agent. In configurations where more than one router is attached to the network on which the Cache Engine resides, multiple proxy ARP replies may be received, which causes subsequent replies to overwrite the initial reply message. When this occurs, an error message is generated by the Cache Engine that includes the phrase "(tNetTask): arp info overwritten for." This problem will be corrected in future releases of the product. Currently, you should ignore the error messages generated for this case. [CSCdj76551]

- The Cache Engine fails to detect 10 MB/sec. full-duplex network connections. It only registers as half-duplex because the line speed autosense detection of the network adapter card fails to determine this setting correctly. Currently, no work-around exists for this problem. [CSCdj42219]

- Unexplained multicast log error. [CSCdj81712] Sometimes, the Cache Engine stops broadcasting or receiving messages from its peer Cache Engines in a farm. The **MulticastDump** command reveals an improper sequence number of 0. You can work around this problem by deleting the message.dat file from the active directory and rebooting the Cache Engine. The following example demonstrates the commands for performing this task:

```
UpgradeShow
Version: CE v1.5.0 (2-20-98) [/ata0/1_5_0.dir] (shows the current active directory)
cd "/ata0/1_5_0.dir"
unlink "messages.dat"
reboot
```

- User sees a web page stating that a network server error has occurred. This behavior is normal. When a browser cannot connect to a web server (such as when the server is down or busy), a message is normally displayed by the browser stating something similar to "Unable to connect to server. The Server is either unavailable or too busy."

When using the Cache Engine, the browser considers the connection valid, however, it is really just connected to the Cache Engine, not the server. In the event that the Cache Engine cannot connect to the server, a full HTML page is delivered to the browser. If you believe that you are receiving this message in error, you can click Reload in the web browser. [CSCdj81714]

- When all available connection threads hang, the WCCP automatically shuts off. The reason that this action occurs is the Cache Engine deactivates WCCP when the number of available threads drops to 0 and the Cache Engine cannot complete a transaction within 30 seconds after detecting this condition. At this point, it is assumed that the Cache Engine is no longer functioning, so the WCCP keep-alive requests to the router are discontinued, and the router stops re-directing network packets to the Cache Engine. If the WCCP is shut off, you should type the **TechSupport** command from the console, capture the output generated by this command, and report the problem to the Cisco Technical Assistance Center (TAC). The support engineers can help you diagnose the cause of the disruption. By rebooting the Cache Engine, you can reactivate the WCCP requests. [CSCdj81716]

- Three additional diagnostic features have been added to the Cache Engine's command line interface [CSCdj81717]:

  — The **DiagDump "all"** command displays the statistics for overall disk usage.

Example
```
General Stats
Ready=900 Hit-Bytes=3168000 Miss-Bytes=3744000
Requests=723 Hits=689 Misses=747 Nearhits=0
Disk Stats For All Partitions
Creates=403 Opens=740 Closes=1143 Deletes=0
Reads=2608 Writes=2218 Stats=1243 Free=24177537000
Wraps=0 OverWrites=0 TruncatesReads=0
InodeErrors=0 CrcErrors=0 DirCollisions=0 Buffer Stats For All Drives
Hits=15546 Misses=153        Writes=9049 Reads=153
WriteErrors=0 ReadErrors=0 SeekErrors=0
```

  — The **FSReset** command flushes all of the cache's content.

Example
```
Resetting 5 disks
TID=6E26648 Creating file system! /raw0/ [filesystem.c at 1173]
TID=6E26648 Creating file system! /raw1/ [filesystem.c at 1173]
TID=6E26648 Creating file system! /raw2/ [filesystem.c at 1173]
TID=6E26648 Creating file system! /raw3/ [filesystem.c at 1173]
TID=6E26648 Creating file system! /raw4/ [filesystem.c at 1173]
```

Note   After performing a **FSReset**, you should perform a **FSSync** to ensure that the flushed data is not recovered during the next reboot.

  — The **MulticastDump** command displays the status of Cache Engine farm.

Example
```
+ Machine: 192.168.137.53 Id=0 Seq=125 Beat=877630462 Version=CE 1.5.0 (2-20-98)
+ Machine: 192.168.137.53 Id=17 Seq=61 Beat=877027287 Version=CE 1.5.0 (2-20-98)
- Machine: 192.168.137.53 Id=16 Seq=54 Beat=877423396 Version=CE 1.5.0 (2-20-98)
```

Note   The output is sorted by the Id field, and the minus sign "-" indicates that this Cache Engine is no longer broadcasting the WCCP keep-alive packets.

Supported Routers

This release of the Cache Engine works with these versions of the Cisco IOS software and router models:

- Cisco IOS Release 11.1(14)CA, and the 7500 and 7200 series routers

- Cisco IOS Release 11.2(10)P, the 2500, 36xx, 4x00, RSP7000, 7200, and 7500 series routers, and the router blade for the Catalyst 5000

In general, you can use the Cisco Cache Engine with any router or router blade that runs a version of the Cisco IOS software that supports the Web Cache Control Protocol.

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.

CD-ROM Documentation

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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This document is to be used in conjunction with the *Using the Cisco Cache Engine* guide.