

Release Notes for Cisco Content Routing Software, Release 1.2

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Introduction

These release notes document new features and caveats for Cisco Content Routing software, Release 1.2. Cisco Content Routing software, Release 1.2 contains boomerang technology for the Content Router 4430. Boomerang is a DNS-based content routing process used by the Content Router and devices such as Content Engines that have been configured to act as content routing agents for the Content Router.

Refer to the *Cisco Content Routing Software Configuration Guide and Command Reference, Release 1.1* for a description of the content routing process, for details on configuring Release 1.2 on the Content Router, and for a reference to all of the commands in Release 1.2.

For details on how to configure a device as a content routing agent, refer to the documentation associated with the software running on that device. Cisco Content Routing software, Release 1.2 operates on the Content Router, *not* the content routing agent. As of the printing of these release notes, the following devices can be configured as content routing agents:

- 500 Series Cisco Cache Engines with Cisco Cache software, Release 2.5.1
- 500 Series Cisco Content Engines with Cisco Cache software, Release 2.5
- Cisco CSS 11000 Content Services Switches
- WebNS 5.0

System Requirements

Cisco Content Routing software, Release 1.2 is designed to operate on the Cisco Content Router 4430. It is compatible with the content routing agent software contained in Cisco Cache software, Release 2.5. It is *not* compatible with the content routing agent software contained in Cisco Cache software, Release 2.4.

Determining the Software Version

**Note**

We recommend that you install the most recent software version available for your model of the Content Router.

To determine the version of the software currently running on the Cisco Content Router, log on to the Content Router and enter the **show version EXEC** command.

Downloading Content Router Software

Content Router software can be downloaded from the Cisco Systems Software Center at the following URL:

<http://www.cisco.com/cgi-bin/tablebuild.pl/content-router>

Upgrading to a New Software Release

Two types of Content Router software files are available on Cisco.com to download: files with the .pax suffix and files with the .bin suffix. The .pax file contains the full-image software with the graphical user interface (GUI) and is the file routinely installed. The .bin file software is for recovery situations that require booting from the network, or restoring Flash memory. Refer to the section “Recovering the Software” in Chapter 3 of the *Cisco Content Routing Software Configuration Guide and Command Reference, Release 1.1* for instructions on loading your system image with the .bin file.

To install the software from the .pax file:

Step 1 Use an FTP client to transfer the .pax file to the */local* directory of your Content Router.

Step 2 Log on to the Content Router, and at the privileged level EXEC command prompt enter:

```
install filename.pax
```

where *filename* is the name of the .pax file.

Step 3 Follow the command-line interface instructions as prompted. At the following prompt, enter **y**:

```
Copy new image to flash memory?[yes]:
```

After the Content Router has rebooted, use the **show version** command to display the current software release number.

New and Changed Information

The following section describes new features in Release 1.2:

New Software Features in Release 1.2

Cisco Content Routing software, Release 1.2 has the following new software features:

- A user-configurable degree of fuzziness in searches for matching Content Routing agents. For more information on this feature, see caveat [CSCdu09953](#) in the “Caveats” section.
- The option of turning off all debugging and selectively enabling only race logging. For more information on this feature, see caveat [CSCdv12642](#) in the “Caveats” section.
- The ability to disable frequent-request denial of service (DoS) suppression or modify the threshold at which it is activated. For more information on this feature, see caveat [CSCdv12664](#) in the “Caveats” section.

Important Notes

Before upgrading your Content Router to Cisco Content Routing software, Release 1.2, upgrade any associated content routing agents to software that is compatible with Content Routing software, Release 1.2. For example, if you are using Content Engines as content routing agents, upgrade them to Cisco Cache software, Release 2.5 before installing a new Content Router.

**Caution**

There is no supported path for downgrading to Cisco Content Routing software, Release 1.0 or 1.1 after you upgrade to Release 1.2. Save a backup copy of your Release 1.0 and 1.1 configurations.

**Note**

Cisco Content Routing software, Release 1.2 is not compatible with Cisco Cache software, Release 2.4.

Caveats

Caveats describe unexpected behavior in Cisco Content Routing software. Severity 1 caveats are the most severe caveats; severity 2 caveats are less serious. Severity 3 caveats are moderate caveats, and only select severity 3 caveats are included.

Open Caveats

This section lists and describes caveats that are open in Release 1.2 of the Cisco Content Routing software.

- CSCed55332

Symptom: The Content Router 4430 reboots on receiving request for some websites.

Condition: This problem occurs when the Content Router receives a request for a website that has been configured with a nonexistent client group.

Workaround: Use only valid client groups (that is, those that have been defined on the Content Router) while configuring websites.

Resolved Caveats

This section details caveats that are resolved for Release 1.2 of the Cisco Content Routing software.

- CSCdu09953

Previously, when you had a Content Routing agent (CRA) configured with a content server and you used the **show boomerang all** command to obtain statistics on which CRA won the DNS race, the statistics would not increment because the server would look only for a configured agent address and not for a response returned with a content server address. You can now avoid this because you can configure a degree of fuzziness in the DNS search for a matching CRA. The IP address of the CRA and the IP address of the servers behind the CRA should be close enough that, to the fuzzy search, they appear to be the same. For example, if you configure 8 bits of fuzziness, the CRA and the content server should be in the same IP address Class C range.

To configure the fuzziness of the search, enter the **boomerang annealing past-winners win-number agent-count agent-number fuzzy-bits** command. The optional *fuzzy-bits* parameter can have a range of 0 to 16; the default value is 0, which means that an exact match between the CRA IP address and the server IP address is required. For more information on this command, refer to Appendix C in the *Cisco Content Routing Software Configuration and Command Reference, Release 1.1*.

- CSCdv12642

Debugging is disabled by default on Content Routers, and issuing **debug** commands can adversely and unpredictably affect the real-time performance of your Content Router. If you want to scrutinize the routing process and also reduce the likelihood of compromising routing performance, enter the **no debug all** command to turn off all debugging and then enable race logging by entering the **boomerang log races** global config-mode command. Once the DNS queries have passed through, dump the race log to disk by entering the **boomerang log dump** command. The log is written to `/local/var/log/boomlog.txt`.

- CSCdv12664

Previously, frequent name server lookup operations activated boomerang denial of service (DoS) suppression. This would cause the server to incorrectly log a DoS attack. You can now prevent this from happening in one of two ways:

- Disable boomerang frequent-request DoS suppression by entering the **no boomerang dos suppression** global config-mode command. Frequent-request DoS suppression is enabled by default, so only the negative form (**no boomerang dos suppression**) shows up in configurations.
- Modify the threshold at which frequent-request DoS suppression is activated. The threshold is defined as the period of time that must elapse between successive requests for a given domain from a given DProxy. You can change the threshold by entering the **boomerang dos hold-down threshold** config-mode command, in which the value for *threshold* can be anywhere from 10 to 3600000 milliseconds, in 1-millisecond increments.

- CSCdv87007

The archive log that logs winners of boomerang DNS races previously had no length limits. The archive log now contains logs of fixed size, each log taking up a maximum of 200 bytes. The archive log capacity is limited to 100,000 logs (for a total of 20,000,200 bytes, including the header). When the archive log reaches the maximum number of logs, it wraps and logs are overwritten, starting with the oldest log.

Related Documentation

- *Cisco Content Routing Software Configuration Guide and Command Reference, Release 1.1*
- *Cisco Cache Software Command Reference, Release 2.5.0*
- *Cisco Cache Software Configuration Guide, Release 2.5.0*
- *Release Notes for Cisco Cache Software, Release 2.5.0*
- *Cisco Content Engine 500 Series Hardware Installation Guide*
- *Regulatory Compliance and Safety Information for the Cisco Content Networking Product Series*
- *Cisco Content Router 4430 Hardware Installation Guide*
- *Site Preparation and Safety Guide*

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:
<http://www.cisco.com/en/US/partner/ordering/index.shtml>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit e-mail comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour-a-day, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance. If you do not hold a valid Cisco service contract, please contact your reseller.

Cisco TAC Website

The Cisco TAC website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year. The Cisco TAC website is located at this URL:

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

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Opening a TAC Case

Using the online TAC Case Open Tool is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using the recommended resources, your case will be assigned to a Cisco TAC engineer. The online TAC Case Open Tool is located at this URL:

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

For P1 or P2 cases (P1 and P2 cases are those in which your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

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

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Go to this URL to visit the company store:

<http://www.cisco.com/go/marketplace/>

- The Cisco *Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:

<http://cisco.com/univercd/cc/td/doc/pcat/>

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press online at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:

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

- *iQ Magazine* is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqmagazine>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

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

- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:

<http://www.cisco.com/en/US/learning/index.html>

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