

What to do When Your CSS Reboots Unexpectedly (CRASH, Core Dump)

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Introduction

This document provides the steps to retrieve information from the Cisco Content Service Switch (CSS) to determine why your CSS crashes. This information helps Cisco Technical Support engineers to find the cause of the reboot. If a bug is encountered that is already fixed, a recommendation is made accordingly.

Prerequisites

Requirements

Readers of this document should have knowledge of these topics:

- Use of the CSS debug feature **llama**.

Components Used

The information in this document is based on these software and hardware versions:

- CSS 11000 – End of Sale
- CSS 11500
- CSS 11800 – End of Sale
- WebNS software

The information in this document was created from the devices in a specific lab environment. All devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Background Information

Problem

When a CSS reboots unexpectedly, it usually leaves behind some clues about why it crashed. The most important step is to gather the information that is available to determine the cause, and find a quick solution to the problem.

Solutions

The solution is to check for a mini-dump record that can be in NVRAM.

CSS 115xx and CSS 11xxx Platforms

The output in this section is specifically for the CSS 115xx platforms.

1. Login and enable the **llama** debug.

```
Username: admin
Password:
CSS501-1# llama
CSS501-1# show chassis
Configuration for CSS11501:

Product Name:      CSS11501          SW Version:      7.20 Build 405
Serial Number:    JAB063007D3        Base Mac Address: 00-05-9a-3a-e3-11

Module Number      Module Name          Status
-----
          1          CSS501-SCM-INT      primary

Port Number        Port Name            Status
-----
          1             e1                   online
          2             e2                   online
          3             e3                   online
          4             e4                   online
          5             e5                   online
          6             e6                   online
          7             e7                   online
          8             e8                   online
          9             e9                   online
```

```
CSS501-1(debug)# dump nvram show 1 1
Exception record found in NVRAM:
crashDumpNvramInfo.version = 0
crashDumpNvramInfo.excValid = 1
crashDumpNvramInfo.excTaskIdCurrent = 0x8a6e13d0
crashDumpNvramInfo.excTaskName = PDNS_KM
crashDumpNvramInfo.vecNum = 9
crashDumpNvramInfo.esf:
  param1: 0xe0000000
  param2: 0xe0000000
  param3: 0xe0000000
  param4: 0xe0000000
```

```

_errno: 0xe0000000
cause: 0x00000024
cntxt: 0xe0000000
fpcsr: 0x01000000
badva: 0xbf000004
_pad: 0xe0000000
esfRegs:
sr: 0x3401ff01
pc: 0x806978d0
more...

```

The mini-dump potentially has all the information needed to identify the bug you encountered.

2. You might need the core file that is left behind. In order to check for files that are left behind, issue the **show core** command.

```

CSS501-1(debug)# show core
<No files available>

```

If the core files are available, you get a list that displays the core files with the time, date stamp, and the size. Check the timestamp to identify the most recent core files.

Note: If the file is 130024448 bytes, or does not have a file name with .gz on the end, it is not compressed. Compress the file before you copy it from the machine. See the Compress the File section for more information.

CSS 118xx Platforms

The output in this section is specifically for the CSS 118xx platforms.

1. Login and enable the **llama** debug.

```

css800-1# llama
css800-1(debug)# show chassis
Configuration for CSS 11800:

Name:                CSS 11800  SW Version: 6.10 Build 304
HW Major Version:    05        HW Minor Version: 0
Serial Number:       14310001915
Base Mac Address:    00-10-58-57-1b-d3

```

| Slot Number | Slot Name | Status |
|-------------|-----------|------------|
| 1 | FEM | powered-on |
| 2 | GEM | powered-on |
| 3 | FEM | powered-on |
| 4 | FEM | powered-on |
| 6 | SFM2 | primary |
| 7 | SCM | primary |
| 8 | SCM | backup |
| 9 | SFM2 | primary |
| 11 | FEM | powered-on |
| 12 | GEM | powered-on |

```

css800-1(debug)# dump nvram show 7 1
Exception record found in NVRAM:
crashDumpNvramInfo.version = 2
crashDumpNvramInfo.excValid = 1
crashDumpNvramInfo.excTaskIdCurrent = 0x87a90490
crashDumpNvramInfo.excTaskName = tSnmpd
crashDumpNvramInfo.vecNum = 2
crashDumpNvramInfo.esf:
param1: 0x86005794

```

```
param2: 0x86005794
param3: 0x00000000
param4: 0x40688a32
_errno: 0x40688a32
cause: 0x00000008
cntxt: 0x00000002
fpcsr: 0x01000000
badva: 0x000f4240
_pad: 0x21202800
esfRegs:
sr: 0x3400ff01
pc: 0x808ba330
lo: 0x0027758e
hi: 0x0000027c
r00/zero: 0x00000000
r01/at: 0x80d90000
--More--
css800-1(debug)#
```

Proceed to the Compress the File section.

2. You might need the core file that is left behind. In order to check for files that are left behind, issue the **show core** command.

```
css800-1(debug)# show core
SFM0601_5.00_25.0 JUL 23 15:32:36 130024448

SFM0601_5.00_204.0 NOV 6 14:38:04 130024448

css800-1(debug)#
```

If the core files are available, you get a list that displays the core files with the time, date stamp, and the size. Check the timestamp to identify the most recent core files.

Compress the File

The procedure in this section is specifically for the CSS 118xx platforms. In order to compress the file, login and enable the **llama** debug.

```
llama
compress c:/Core/
```

This places you in debug mode and compresses the file. The compress takes a considerable amount of time, and places extra load on the CPU.

FTP From Your Workstation to the CSS

The procedure in this section is specifically for the CSS 118xx platforms.

Once the file is copied from the CSS, initiate an FTP from your workstation to the CSS to compress the file.

```
ftp
login: admin
passwd:
cd Core
binary
get
bye
```

Note: The CSS does not support passive mode FTP.

Extract Important Core Information for Cisco Technical Support

Issue these commands on the UNIX machine to view the first fifteen lines of the core file. They contain important text information that identifies the problem.

```
strings | head -20  
or  
gzcat | strings | head -20
```

Note: In order to determine the cause, send this information to Cisco Technical Support. In order to fix any outstanding bugs, be prepared to FTP your core file to Cisco Technical Support for analysis by the WebNS developers.

Related Information

- **End of Sale Announcement for the Cisco CSS 11000 Series – Product Bulletin No. 2193**
 - **Cisco CSS 11800 Content Services Switch End of Sale – Product Bulletin No. 1762**
 - **Content Networking Devices Technical Support**
 - **Technical Support – Cisco Systems**
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