



Enhanced Crashinfo File Collection

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The Enhanced Crashinfo File Collection feature allows you to configure a Cisco IOS device to automatically delete old crashinfo files using a new command-line interface (CLI) command. This functionality helps the device create space to write the new crashinfo files when the device crashes. This feature also allows you to configure the number of most recent crashinfo files on a device to be saved when no file system has enough space in which to write new crashinfo files.

Finding Feature Information in This Module

Your Cisco IOS software release may not support all of the features documented in this module. To reach links to specific feature documentation in this module and to see a list of the releases in which each feature is supported, use the [“Feature Information for Enhanced Crashinfo File Collection”](#) section on page 8.

Finding Support Information for Platforms and Cisco IOS Software Images

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS and Catalyst OS software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

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Restrictions for Enhanced Crashinfo File Collection

If you configure a new crashinfo location in your file system, you must not change the crashinfo prefix for the crashinfo files. The file system deletes only those files that have a crashinfo prefix during the process of writing new crashinfo files to the configured location. The Disk File Systems (DFS) does not provide a way to distinguish between crashinfo file types and other file types if you change the crashinfo prefix.

Information About Enhanced Crashinfo File Collection

To configure the Enhanced Crashinfo File Collection feature, you should understand the following concept:

- [Enhanced Crashinfo File Collection Operation and Benefits, page 2](#)

Enhanced Crashinfo File Collection Operation and Benefits

The Enhanced Crashinfo File Collection feature allows you to enable a Cisco IOS device to automatically delete old crashinfo files through the use of the **exception crashinfo maximum files** command. This command allows the device to create the space needed in which to write the new crashinfo files when the device reboots after a crash. The *file-numbers* argument of the **exception crashinfo maximum files** command allows you to configure the number of most recent crashinfo files to save across all device file systems during the automatic deletion of crashinfo files, which occurs when not enough space is available across the device file systems to write new crashinfo files.



Note

The Enhanced Crashinfo File Collection feature is enabled only if the **exception crashinfo maximum files** configuration command is available in startup configuration.

Before the Enhanced Crashinfo File Collection feature, you could enable crashinfo collection if you specified a non-remote path to a location in which to write the crashinfo files. When a Cisco IOS device crashes, the software would try to write the crashinfo file to this configured file path. If the file system reports insufficient space in the configured path, the software tries to write the crashinfo file to a default location. Although this location is platform-specific, the default location for crashinfo files on most platforms is bootflash. If the default bootflash location does not have enough space, the software tries to recover crashinfo files by searching through all the non-remote file systems registered with the IOS File Systems (IFS) and tries to write in any file system the software finds that has sufficient free space.

When you enable the Enhanced Crashinfo File Collection feature and the system software fails to find sufficient free space after searching all non-remote registered file systems, the device selects a file system from which old crashinfo files can be deleted after considering the following priorities:

1. If old crashinfo files exist on the disk and if sufficient space exists to write the new crashinfo files, the Disk File System (DFS) is selected as it does not require a squeeze operation.
2. If a file system that offers more free space by deleting the old crashinfo files is available, then this file system is selected.

On Linear File Systems (LFS), after the old crashinfo files are deleted, the Enhanced Crashinfo File Collection feature must perform a squeeze operation to reclaim space. When a **squeeze** command is entered, the router copies all valid files to the beginning of Flash memory and erases all files marked “deleted.” After the squeeze process is completed, you can write to the reclaimed Flash memory space. The squeeze operation may take up to several minutes.

The Enhanced Crashinfo File Collection feature provides another enhancement to crashinfo file collection: when you configure a new crashinfo location, a warning is displayed if the configured location does not have enough free space to accommodate the new crashinfo files.

To configure the crashinfo file collection location, use the **exception crashinfo file** command.

How to Configure the Enhanced Crashinfo File Collection

This section contains the following procedure:

- [Enabling Automatic Deletion of Crashinfo Files, page 3](#) (required)

Enabling Automatic Deletion of Crashinfo Files

Perform this task to enable a Cisco IOS device to automatically delete old crashinfo files to help create space for the writing of new crashinfo files when a system crashes.

Restrictions

When you configure a new crashinfo location in your file system, you must not change the prefix “crashinfo” for the crashinfo files. The file system deletes only those files that have a prefix “crashinfo” when it writes new crashinfo files to the configured location.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **exception crashinfo maximum files** *file-numbers*
4. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.

	Command or Action	Purpose
Step 3	<pre>exception crashinfo maximum files file-numbers</pre> <p>Example: Router(config)# exception crashinfo maximum files 22</p>	<p>Enables a Cisco IOS device to automatically delete old crashinfo files to help create space for the writing of new crashinfo files when a system crashes.</p> <ul style="list-style-type: none"> The <i>file-numbers</i> argument identifies the number of most recent crashinfo files across all file systems in a device to be saved when crashinfo files are deleted automatically.
Step 4	<pre>end</pre> <p>Example: Router(config)# end</p>	Exits to privileged EXEC mode.

Configuration Examples for Enhanced Crashinfo File Collection

This section provides the following configuration example:

- [Enabling Automatic Deletion of Crashinfo Files: Example, page 4](#)

Enabling Automatic Deletion of Crashinfo Files: Example

The following example shows how to enable a Cisco IOS device to automatically delete old crashinfo files to help create space for writing new crashinfo files when a system crashes. In this example, the device is configured to preserve the 22 most recent crashinfo files from previous crashinfo collections:

```
configure terminal
!
exception crashinfo maximum files 22
end
```

Additional References

The following sections provide references related to the Enhanced Crashinfo File Collection feature.

Related Documents

Related Topic	Document Title
Additional information about file management	The “ File Management ” section of the <i>Cisco IOS Configuration Fundamentals and Network Management Configuration Guide</i> , Release 12.3
Additional general troubleshooting commands	Cisco IOS Configuration Fundamentals and Network Management Command Reference , Release 12.3T
Troubleshooting router crashes	Tools, Maintenance, and Troubleshooting Tips for Cisco IOS Software , Release 12.3

Standards

Standards	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	—

MIBs

MIBs	MIBs Link
No new or modified MIBs are supported by this feature, and support for existing MIBs has not been modified by this feature.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFCs	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	—

Technical Assistance

Description	Link
The Cisco Technical Support & Documentation website contains thousands of pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content.	http://www.cisco.com/techsupport

Command Reference

This section documents one modified command only.

- [exception crashinfo maximum files](#)

exception crashinfo maximum files

To enable a Cisco IOS device to automatically delete old crashinfo files to help create space for the writing of new crashinfo files when a system crashes, use the **exception crashinfo maximum files** command in global configuration mode. To disable automatic deletion of crashinfo files, use the **no** form of this command.

exception crashinfo maximum files *file-numbers*

no exception crashinfo maximum files *file-numbers*

Syntax Description	<i>file-numbers</i>	The number of most recent crashinfo files across all file systems in the device to be saved when crashinfo files are deleted automatically. Valid values are from 0 to 32.
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Command Default	This command is disabled by default.
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Command Modes	Global configuration
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Command History	Release	Modification
	12.3(11)T	This command was introduced.
12.2(33)SRA	This feature was integrated in Cisco IOS Release 12.2(33)SRA.	

Usage Guidelines	This command is effective only when a device crashes. If the value of the <i>file-numbers</i> argument is given as zero (0), all old crashinfo files across all file systems are deleted when the crashinfo files are deleted automatically.
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While booting a device, the default file location is bootflash.

If the file system does not have free space equivalent to or more than 250 KB, the system displays a warning. You can verify the available disk space and create free space for writing the crashinfo files.

Examples	The following example shows how to enable a Cisco IOS device to automatically delete old crashinfo files if the device needs space for writing new crashinfo files when a system crashes. In this example, the device is configured to preserve the 22 latest crashinfo files from previous crashinfo collections.
-----------------	--

```
configure terminal
!
exception crashinfo maximum files 22
```

Related Commands	Command	Description
	exception crashinfo buffersize	Changes the size of the crashinfo buffer.
	exception crashinfo file	Creates a diagnostic file at the time of unexpected system shutdown.

Feature Information for Enhanced Crashinfo File Collection

Table 1 lists the release history for this feature.

Not all commands may be available in your Cisco IOS software release. For release information about a specific command, see the command reference documentation.

Cisco IOS software images are specific to a Cisco IOS software release, a feature set, and a platform. Use Cisco Feature Navigator to find information about platform support and Cisco IOS software image support. Access Cisco Feature Navigator at <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.



Note

Table 1 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

Table 1 Feature Information for Enhanced Crashinfo File Collection

Feature Name	Releases	Feature Information
Enhanced Crashinfo File Collection	12.3(11)T, 12.2(33)SRA	<p>The Enhanced Crashinfo File Collection feature allows you to configure a Cisco IOS device to automatically delete old crashinfo files using a new command-line interface (CLI) command. This functionality helps the device create space to write the new crashinfo files when the device crashes. This feature also allows you to configure the number of most recent crashinfo files on a device to be saved when no file system has enough space in which to write new crashinfo files.</p> <p>In 12.3(11)T, this feature was introduced.</p> <p>In 12.2(33)SRA, support was added for a Cisco IOS 12.2SR release.</p> <p>The following sections provide information about this feature:</p> <ul style="list-style-type: none"> • Enhanced Crashinfo File Collection Operation and Benefits, page 2 • Enabling Automatic Deletion of Crashinfo Files, page 3 <p>The following command was modified by this feature: exception crashinfo maximum files.</p>

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