



Reserve Memory for Console Access

The Reserve Memory for Console Access feature implements command-line interface (CLI) and software enhancements that allow you to reserve sufficient memory to log in to the router console and perform administrative tasks and troubleshooting. These enhancements give administrators the ability to log in to the router in any situation even when the router is running low on memory.

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Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Information About Reserve Memory for Console Access

More Reserved Memory for Console Access Benefit

Before the release of Cisco IOS 12.0(22)S software, you could not access the router console if a router was low on memory or was heavily fragmented. To maintain routers at optimum performance levels, you need to be able to access the console and perform troubleshooting when necessary.

With the release of the Reserve Memory for Console Access feature, the benefit is that you can reserve sufficient memory to log in to the router console and perform administrative tasks and troubleshooting in any situation, even when the router is running low on memory or is heavily fragmented.

Guidelines for Increasing Reserved Memory for Console Access

Cisco IOS software reserves a default of 256 kilobyte (KB) of memory for console access. You can increase the reserved memory through the use of the **memoryreservedconsole** command provided by the Reserve Memory for Console Access feature.

You may need to increase the amount of memory reserved for console access if the router is low on memory or is heavily fragmented. Increasing the memory allows console access to perform troubleshooting or other administrative tasks to maintain routers at optimum performance levels.

The guideline we suggest for using the command is to configure a value greater than three times the number of the used bytes in NVRAM. You can obtain the number of used bytes in NVRAM from the output of the **dirnvram:** command. For example, if the total number of used bytes of NVRAM displayed in the command **dirnvram:** output is 129016 bytes, the nearest kilobyte value rounded off is 129 KB. This value multiplied by 3 is 387 KB. Following the guideline, you would enter 387 as the value for the *number-of-kilobytes* argument in the **memoryreservedconsole** command. You can increase the reserved memory for console access to a maximum of 4096 KB.

To display the current operational size of the memory reserved for the console, you can use the **showmemoryconsolereserved** command.

How to Configure Reserve Memory for Console Access

To configure reserve memory for console access, complete the task in this section:

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **memory reserved console *number-of-kilobytes***
4. **exit**
5. **show memory console reserved**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. • Enter your password if prompted.

	Command or Action	Purpose
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	memory reserved console <i>number-of-kilobytes</i> Example: Router(config)# memory reserved console 512	Increases the amount of memory reserved for console access. The <i>number-of-kilobytes</i> argument is the amount of memory to be reserved in kilobytes. Valid values are 1 to 4096 KB.
Step 4	exit Example: Router(config)# exit	Exits to privileged EXEC mode.
Step 5	show memory console reserved Example: Router# show memory console reserved	Displays the actual amount of memory that has been reserved.

Examples

The following is sample output from the **showmemoryconsolereserved** command:

```
Router# show memory console reserved
Memory reserved for console is 201400
```

Configuration Examples for Reserve Memory for Console Access

Example Configuring Reserve Memory for Console Access

The following example shows how to increase the reserve memory for console access to 1024 KB:

```
enable
!
configure terminal
!
memory reserved console 1024
end
```

The following example shows how to disable the increase in reserved memory for the console access:

```
enable
!
configure terminal
!
no memory reserved console
end
```

Additional References

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Commands List, All Releases
Cisco IOS configuration commands	<i>Cisco IOS Configuration Fundamentals Command Reference</i>
Cisco IOS Configuration Fundamentals configuration tasks and concepts	<i>Cisco IOS Configuration Fundamentals Configuration Guide</i>

Standards

Standard	Title
No new or modified standards are supported, and support for existing standards has not been modified	--

MIBs

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

RFCs

RFC	Title
No new or modified RFCs are supported, and support for existing RFCs has not been modified.	--

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for Reserve Memory for Console Access

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/cisco/web/featurenavigator>. An account on Cisco.com is not required.

Table 1: Feature Information for Reserve Memory for Console Access

Feature Name	Releases	Feature Information
Reserve Memory for Console Access	12.0(22)S 12.2(28)SB 12.4(15)T	The Reserve Memory for Console Access feature implements command-line interface (CLI) and software enhancements that allow you to reserve sufficient memory to log in to the router console and perform administrative tasks and troubleshooting. These enhancements give administrators the ability to log in to the router in any situation even when the router is running low on memory. The following commands were modified by this feature: memory reserved console, show memory console reserved.

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