Configuring 1:1 Redundancy

Prerequisites for 1:1 Redundancy

All the switches in the stack must be running the same license level as the active switch. For information about license levels, see the *System Management Configuration Guide.*

All the switches in the stack must be running compatible software versions.

Information About 1:1 Redundancy

1:1 redundancy is used to assign active and standby roles to specific switches in the stack. This overrides the traditional N+1 role selection algorithm, where any switch in the stack can be active or standby. In 1:1 redundancy, the stack manager determines the active and standby role for a specific switch, based on the flash ROMMON variable. The algorithm assigns one switch as active, another switch as standby, designating all remaining switches in the stack as members. When an active switch reboots it becomes standby and the existing standby switch will become active. The existing member switches remain in the same state.

How to Configure 1:1 Redundancy

Enabling 1:1 Redundancy Stack Mode

Follow these steps to enable the 1:1 redundancy stack mode, and set a switch as the active switch in a stack, or as the standby:

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** Device> **enable**	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**switch** *switch-number* **role** {**active** | **standby**} **Example:** Device#**switch 1 role active**	Changes stack mode to 1:1 mode and designates the switch as active or standby.

Disabling 1:1 Redundancy Stack Mode

On a switch where 1:1 redundancy is enabled, follow these steps to disable the feature. This changes the stack mode to N+1:

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** Device> **enable**	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	switch clear stack-mode **Example:** Device# **switch clear stack-mode**	Changes stack mode to the N+1 mode and removes active and standby assignments.

Verifying the Stack Mode

To verify the current stack mode on a switch, enter the **show switch stack-mode** command in priviledged EXEC mode. The output displays detailed status of the currently running stack mode.

```
Device# show switch stack-mode
Switch   Role    Mac Address      Version   Mode   Configured   State
---------------------------------------------------------------
1        Member 3c5e.c357.c880             1+1'    Active'      Ready
*2       Active 547c.69de.cd00   V05       1+1'    Standby'     Ready
3        Member 547c.6965.cf80   V05       1+1'    Member'      Ready
```

The Mode field indicates the current stack mode

The Configured field refers to the switch state expected after a reboot.

Single quotation marks (') indicate that the stack mode has been changed.

Configuration Examples for 1:1 Redundancy

Example: Enabling 1:1 Redundancy Stack Mode

This example shows how to enable 1:1 redundancy stack mode. The stack will run in the 1:1 stack mode with the designated switches as active and standby, after reboot.

```
Device#
Device# Device 1 role active
WARNING: Changing the Device priority may result in a configuration change for that Device.
 Do you want to continue?[y/n]? [yes]: yes
Device#
Device# Device 2 role standby
WARNING: Changing the Device priority may result in a configuration change for that Device.
 Do you want to continue?[y/n]? [yes]: yes
Device#
```

Example: Disabling 1:1 Redundancy Stack Mode

This example shows how to disable 1:1 redundancy stack mode.

```
Device# switch clear stack-mode
WARNING: Changing the switch priority may result in a configuration change for that switch.
 Do you want to continue?[y/n]? [yes]: yes
Switch#
```

Additional References for 1:1 Redundancy

Related Documents

Related Topic	Document Title
For complete syntax and usage information for the commands used in this chapter.	See the *Stack Manager and High Availability* section of the Command Reference guide for the release

MIBs

MIB	MIBs Link
All the supported MIBs for this release.	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

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	http://www.cisco.com/support

Feature History and Information for 1:1 Redundancy

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.

Release	Modification
Cisco IOS XE Everest 16.6.1	This feature was introduced.