



Enabling Fallback to Cisco Unified SRST for Call Control on Analog (FXS) Ports

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This chapter describes how to enable remote Cisco Unified Communications Manager servers and the local Cisco Unified Survivable Remote Site Telephony (Cisco Unified SRST) router for determining the order in which the systems assume call control for analog endpoints connected to analog Foreign Exchange Station (FXS) ports on a Cisco voice gateway. Cisco Unified SRST provides fallback for analog endpoints in Cisco Unified Communications Manager only.

Finding Feature Information in This Module

Your Cisco IOS software release may not support all of the features documented in this chapter. To reach links to specific feature documentation and to see a list of the releases in which each feature is supported, see the “[Supplementary Services Features Roadmap](#)” section on page 1.

Finding Support Information for Platforms and Cisco IOS Software Images

Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. 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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Prerequisites for Enabling Fallback to Cisco Unified SRST for Call Control on Analog FXS Ports

Cisco IOS Gateway

- The Cisco voice gateway must be set up and configured for operation. For information, see the appropriate Cisco configuration documentation.
- SCCP is enabled on the Cisco voice gateway. For configuration information, see the “[Enabling SCCP on the Voice Gateway](#)” section on page 21.
- Before Cisco IOS 15.0(1)M: To ensure that the analog phones can register in Cisco Unified SRST when required, such as when the Cisco VG224 is rebooted while Cisco Unified Communications Manager is in fallback mode, the DNs for analog phones connected to FXS ports on the Cisco voice gateway and registered in Cisco Unified Communications Manager must be explicitly configured on the Cisco VG224 using the **station-id number** command in voice-port configuration mode. For information, see the [Cisco IOS Voice Command Reference](#).



Note

In Cisco IOS Release 15.0(1)M and later releases: When a directory number for an analog phone is added or changed in Cisco Unified Communications Manager, the **station-id number** command in voice-port configuration mode is automatically added for the new or modified directory number. Every time the Cisco VG224 receives DNs from Cisco Unified Communications Manager during registration, it checks the new DNs against the already-saved DNs. If at least one DN is different, then a background save is triggered and the DN is saved in the station-id number configuration. If the Cisco VG224 must register to Cisco Unified SRST after rebooting, it uses the saved DN to register the corresponding analog phone in Cisco Unified SRST.

Cisco Unified SRST

- For Cisco SRST 3.3: Cisco IOS Release 12.3(14)T or a later release.
- For Cisco SRST 3.4 and Cisco Unified SRST 4.0: Cisco IOS Release 12.4(2)T or a later release.

Cisco Unified Communications Manager

- This document does not contain details about configuring Cisco Unified Communications Manager or Cisco Unified CME. See the documentation for these products for installation and configuration instructions.

Restrictions for Enabling Fallback to Cisco Unified SRST for Call Control on Analog FXS Ports

- Switchover and switchback are supported using the graceful method only. Other switchover and switchback methods are not supported.
- Cisco Unified SRST supports basic calls only; it does not support supplementary features.
- Cisco Unified SRST does not provide fallback for analog endpoints in Cisco Unified Communications Manager Express (Cisco Unified CME).
- In an actual Cisco Unified SRST scenario, when a Cisco Unified IP phone registers with a Cisco Unified CM, the Cisco Unified CM pushes Cisco Unified SRST information (using the selected device pool) to the Cisco Unified IP phone and the phone stores the information. However, in the case of an analog phone connected to Cisco IOS SCCP voice gateways, like the VG224, that provision is not available. These voice gateways do not perform autoconfiguration through the TFTP download of XML configuration files. The ports of these voice gateways do not receive or store any Cisco Unified SRST information from Cisco Unified CM so selective fallback is not possible with VG224 and similar voice gateway ports.

How to Enable Fallback to Cisco Unified SRST for Call Control on Analog FXS Ports

To assign priority levels to remote Cisco Unified Communications Manager servers and the local Cisco Unified SRST router for determining the order in which the systems assume call control if one becomes unavailable, perform the following steps.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **scp ccm group** *group-number*
4. **associate ccm** *identifier-number* **priority** *priority-number*
5. **switchover method** {**graceful** | **immediate**}
6. **switchback method** {**graceful** | **guard** [*guard-timeout*] | **immediate** | **uptime** *uptime-timeout*}
7. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	<p>enable</p> <p>Example: Router> enable</p>	<p>Enables privileged EXEC mode.</p> <ul style="list-style-type: none"> Enter your password if prompted.
Step 2	<p>configure terminal</p> <p>Example: Router# configure terminal</p>	<p>Enters global configuration mode.</p>
Step 3	<p>sccp ccm group <i>group-number</i></p> <p>Example: Router(config)# sccp ccm group 1</p>	<p>Creates a Cisco Unified Communications Manager and Cisco Unified SRST group and enters SCCP ccm configuration mode.</p> <ul style="list-style-type: none"> <i>group-number</i>—Number that identifies the group. Range: 1 to 65535.
Step 4	<p>associate ccm <i>identifier-number</i> priority <i>priority-number</i></p> <p>Example: Router(config-sccp-ccm)# associate ccm 10 priority 1</p>	<p>Adds a Cisco Unified Communications Manager server or Cisco Unified SRST router to the group and establishes its priority within the group.</p> <ul style="list-style-type: none"> <i>identifier-number</i>—Number that identifies the Cisco Unified Communications Manager server or Cisco Unified SRST router. This is the number that was assigned with the sccp ccm command. See the “Enabling SCCP on the Voice Gateway” section on page 21. priority <i>priority-number</i>—Number that indicates the priority of this Cisco Unified Communications Manager server or Cisco Unified SRST router. Range: 1 to 4, where 1 is the highest priority. Assign the lowest priority to Cisco Unified SRST. <p>Note A second Cisco Unified Communications Manager server that is entered with a lower priority number becomes a backup system.</p>
Step 5	<p>switchover method {graceful immediate}</p> <p>Example: Router(config-sccp-ccm)# switchover method graceful</p>	<p>(Optional) Sets the switchover method that the voice gateway uses if connectivity to the primary Cisco Unified Communications Manager fails.</p> <ul style="list-style-type: none"> graceful—Switchover happens only after all active sessions are terminated gracefully. This is the only supported method. immediate—Switchover to a secondary call-control system happens immediately regardless of whether or not there are active connections. <p>Note The switchover method graceful command is enabled by default. Other switchover methods are not supported.</p>

	Command or Action	Purpose
Step 6	<pre>switchback method {graceful guard [guard-timeout] immediate uptime uptime-timeout}</pre> <p>Example: Router(config-sccp-ccm)# switchback method graceful</p>	<p>Sets the switchback method that the voice gateway uses when the primary or higher priority Cisco Unified Communications Manager becomes available again.</p> <ul style="list-style-type: none"> graceful—Switchback happens only after all active sessions are terminated gracefully. This is the only supported method. <p>Note The switchback method graceful command must be enabled. Other switchback methods are not supported.</p>
Step 7	<pre>end</pre> <p>Example: Router(config-sccp-ccm)# end</p>	<p>Exits SCCP ccm configuration mode and returns to privileged EXEC mode.</p>

Configuration Examples for SCCP and the STC Application

The following example enables SCCP communication on Fast Ethernet interface 0/0 to two Cisco Unified Communications Manager servers and a Cisco Unified SRST router. In SCCP group 1, the Cisco Unified Communications Manager server at IP address 10.4.13.20 is assigned priority 1, making it the primary call-control system. If connectivity to the primary fails, call control reverts to the backup Cisco Unified Communications Manager server at 10.4.13.70. If connectivity to both Cisco Unified Communications Manager servers fails, call control reverts to the Cisco Unified SRST router at 10.4.18.40.

```
Gateway# show running-config
.
.
.
sccp local FastEthernet0/0
sccp ccm 10.4.13.20 identifier 10
sccp ccm 10.4.13.70 identifier 12
sccp ccm 172.16.10.40 identifier 30
sccp
!
sccp ccm group 1
  associate ccm 10 priority 1
  associate ccm 12 priority 2
  associate ccm 30 priority 3
  switchback method graceful
!
!
```

Additional References

The following sections provide references related to SCCP analog phone support for FXS ports on the Cisco voice gateway.

Related Documents

Related Topic	Document Title
Cisco Unified Communications Manager	Cisco Unified Communications Manager documentation
Cisco Unified Communications Manager Express	Cisco Unified Communications Manager Express documentation
Cisco IOS debugging	Cisco IOS Debug Command Reference
Cisco IOS voice commands	Cisco IOS Voice Command Reference
Cisco IOS voice configuration	Cisco IOS Voice Configuration Library
Cisco voice gateway	<ul style="list-style-type: none"> • Cisco VG200 Series documentation • Cisco 1800 Series Integrated Services Routers documentation • Cisco 2800 Integrated Services Routers documentation • Cisco 3800 Series Integrated services Routers documentation • Cisco Unified 500 Series documentation
Conferencing and transcoding resources	<ul style="list-style-type: none"> • “Configuring Enhanced Conferencing and Transcoding for Voice Gateway Routers” chapter in the Cisco Unified CallManager and Cisco IOS Interoperability Guide. • Cisco CallManager and IOS Gateway DSP Farm Configuration Example

Technical Assistance

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>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.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	http://www.cisco.com/techsupport