



Configuring E-SRST Site Provisioning

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When enabled on a site, the Cisco UMG E-SRST functionality provides automated remote site provisioning of the following advanced telephony features in survivable mode by gathering the information from CUCM:

- End-user phones and extensions (speed dials, lines, softkeys)
- Voicemail and call forward configuration
- Call routing restrictions (local and long distance, and time of day)
- Call pickup and group pickup
- Hunt groups

This section describes the high-level tasks required to configure a site to support E-SRST. Enabling E-SRST requires configuration on Cisco UMG, the CUCM central call agent, and on the CUCME-as-SRST call agent at the branch. Most of the configuration on Cisco UMG is handled using the GUI. For more information, see the online help and the [Configuring Cisco Unified Messaging Gateway 8.5 Using the GUI: SRSV and E-SRST](#).

This procedure assumes that the security certificates have been installed on the Cisco UMG. For more information, see the [“Preparing Cisco UMG to Support E-SRST and SRSV Functionality”](#) section on page 51.

Using E-SRST to Pull an Advanced Telephony Configuration from CUCM to the Branch Site

This section describes the high-level configuration tasks required to pull advanced telephony configuration information from CUCM to the remote site. This section is divided into the following sections:

- [Preparing the Central CUCM Call Agent for E-SRST Provisioning, page 52](#)
- [Adding the Central Call Agent Using the Cisco UMG Central Call Agent Wizard, page 54](#)
- [Configuring the CUCME Branch Call Agent to Prepare for E-SRST Provisioning, page 54](#)
- [Enabling E-SRST Provisioning on the Site Using the Cisco UMG GUI, page 56](#)
- [Verifying the Updated Configuration on the Branch Call Agent Router, page 57](#)

Initial Configuration Using the Cisco UMG GUI

Before you can configure Cisco UMG to support E-SRST on branch sites, you must first perform the following high-level tasks using the Cisco UMG GUI:

1. Configure the Cisco UMG initial values using the setup wizard.
For more information, see “Using the Setup Wizard” in the GUI online help.
2. Add central CUCM call agents using the Central Call Agent Wizard
For more information, see “Using the Central Call Agent Wizard to Add Cisco Unified Communications Manager Information” in the GUI online help.
3. Import the Cisco Unified SRST sites.
For more information, see “Importing Cisco Unified SRST Sites” in the GUI online help.

Information in the GUI online help is also available in the document [Configuring Cisco Unified Messaging Gateway 8.5 Using the GUI: SRSV and E-SRST](#).

Preparing the Central CUCM Call Agent for E-SRST Provisioning

This section assumes that the advanced telephony features have already been configured on CUCM. For more information, see the [Cisco Unified Communications Manager](#) documentation.

To configure CUCM to prepare for E-SRST provisioning, perform the following steps:

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- Step 1** Configure the SRST references on CUCM with the following:
- site name
 - port number for CUCME-as-SRST.
 - IP address of the router
- Step 2** Create a device pool in CUCM that has the SRST reference.
- Device pool name
 - SRST reference, must match the site name
 - Devices and phones
- For each phone that you want to be registered for survivable mode, set the device pool to match the device pool configured in the previous step.
- Step 3** Configure the advanced telephony configuration on CUCM that will be downloaded to the branch site using E-SRST provisioning.
- Cisco UMG 8.5 supports selected CUCM features to be downloaded using E-SRST site provisioning, and operates in survivable fallback mode. [Table 1](#) lists the supported features and instructions for preparing for the E-SRST site provisioning.

Table 1 *CUCM Advanced Telephony Features Supported in Cisco UMG 8.5*

CUCM Advanced Telephony Configuration	Instructions for Preparing CUCM Feature for E-SRST Site Provisioning
Call list and assigned call list to the ephone domain name	- Under Directory Number Information, the Directory number and route partition for a given phone are translated by E-SRST to the dial-peer cor configuration at the branch site. - The Calling Search Space option under Directory Number Settings must be set to International. - The route partition must be set to internal.
Call pickup and group pickup	
Hunt groups	- Select the Hunt Pilot setting. - Select Hunt Pilot. The route partition must be set to internal. - Select Hunt List. - Select Device Settings --> Softkey Templates. This is the template that you assign to all your e-phones. In fallback mode, these templates are translated into an ephone template, and assigned to the e-phones as well. As a result, the same softkey templates that appear in normal connected mode will appear in fallback mode.

Table 2 lists the softkey states and keys that E-SRST provisioning supports.

Table 2 *Softkeys Supported for E-SRST Provisioning*

Phone States	Softkey
Alerting	Endcall
Connected	Endcall, HLog, Hold, Join, Park, RmLstC, Select, TrnsfVM, Trnsfer
Hold	Join, Newcall, Resume, Select
Idle	Cfwdall, Dnd, Gpickup, Hlog, Join, Newcall, Pickup, Redial, RmLstC
Remote-in-use	Ccharge, Newcall
Ringing	Answer, Dnd, Hlog
Seized	CallBack, Cfwdall, Endcall, Gpickup, Hlog, Pickup, Redial

Adding the Central Call Agent Using the Cisco UMG Central Call Agent Wizard

The central call agent is added using the Central Call Agent Wizard in the GUI. See the Cisco Unified Messaging Gateway online help or the section “Using the Central Call Agent Wizard to Add Cisco Unified Communications Manager Information” in the document [Configuring Cisco Unified Messaging Gateway 8.5 Using the GUI: SRSV and E-SRST](#).

The required steps when using the Central Call Agent Wizard are:

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- Step 1** Add the CUCM so the UMG knows the CUCM.
 - Step 2** Enter the IP address of the CUCM.
 - Step 3** Enter the AXL username and password, which are the same ones you used to log into the CUCM.
 - Step 4** Set Enable Provisioning to On to enable Cisco UMG to access the CUCM device.
 - Step 5** Set the Site Provisioning Defaults values:
 - Set Site Provision Enable Default to On to enable provisioning for any new sites learned from CUCM.
 - Set SRSV Provision Enable Default to On to enable SRSV provisioning on any new sites learned from CUCM.
 - Set E-SRST Provisioning to On to enable E-SRST provisioning on any new sites learned from CUCM.

These settings establish the default values for this CUCM device and the settings are applied directly to the sites. You can enable or disable provisioning on individual sites as needed.
 - Step 6** Click **Finish** to complete the Central Call Agent Wizard and save this information.
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Configuring the CUCME Branch Call Agent to Prepare for E-SRST Provisioning

The E-SRST solution requires that CUCME be configured in CUCME-as-SRST mode, also known as SRST Fallback Mode. For more information, see the [Cisco Unified Communications Manager Express Administrator Guide](#).

This section describes the following tasks:

- [Configuring the CUCME Branch Call Agent to Support E-SRST Provisioning, page 54](#)
- [Configuring CUCME Dial Peers to Support E-SRST Provisioning of Ephone-dns and Hunt Groups, page 55](#)

Configuring the CUCME Branch Call Agent to Support E-SRST Provisioning

The CUCME branch call agent must be configured so that it can contact the Cisco UMG. This ensures that the CUCM central site configuration can successfully be pulled through the Cisco UMG device to the remote branch site.

Perform the following steps:

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- Step 1** Configure the IP address for the interface on the branch router that connects back to the UMG, such as in the following example:

```
interface GigabitEthernet 0/1
 ip address 192.108.1.27 255.255.255.0
```

Step 2 Configure the user telnet name and password for the interface that connects back to the UMG.

username *name* **privilege 15 password** *password*



Note Privilege 15 is required for Cisco UMG to push the configurations to the branch site.

Step 3 Enter the line terminal configuration and enter line configuration mode.

line vty 0 4

Step 4 Enable local password checking at login.

login local

Step 5 Define which protocol to use to connect to the branch call agent.

- If TLS is not enabled on the Cisco UMG, enter the following command:

transport input telnet

- If TLS is enabled on the Cisco UMG, enter the following command:

transport input ssh

Step 6 Enable the IP HTTP server using the following command:

ip http server

Step 7 Set the IP HTTP authentication to the local setting using the following command:

ip http authentication local

Step 8 Enable or disable the HTTPS secure server, depending on whether TLS is enabled on the Cisco UMG:

- If TLS is enabled on the Cisco UMG, enter the following command:

ip http secure-server

- If TLS is disabled on the Cisco UMG, enter the following command:

no ip http secure-server

If TLS is disabled on the Cisco UMG, this setting is required for the CUCM voice configuration to be downloaded to the branch router.

Step 9 Set the IP HTTP timeout policy using the following command:

ip http timeout policy

Configuring CUCME Dial Peers to Support E-SRST Provisioning of Ephone-dns and Hunt Groups

To support E-SRST provisioning of hunt groups and ephone-dns, the CUCME dial peers require additional configuration steps. This additional configuration is required for each site only if the CUCME device is configured for H.323 or SIP; these configuration steps are not required if the CUCME device is configured for MGCP.

**Note**

Cisco UMG 8.5.1 requires that specific settings for the e-phone and voice hunt-group **preference** commands be configured on the CUCME branch call agent. For more information, see the description for CSCtl98820 in the [Release Notes for Cisco Unified Messaging Gateway 8.5](#).

To configure the dial-peer to support the hunt selection order required for E-SRST provisioning, perform the following step:

- Step 1** Configure the dial-peer setting to support the predefined hunt selection order 2.

dial-peer hunt 2

For more information about this command, see the [Cisco IOS Voice Command Reference](#).

Enabling E-SRST Provisioning on the Site Using the Cisco UMG GUI

You must enable E-SRST provisioning using the Cisco UMG GUI for each branch site that will download CUCM telephony configuration during the provisioning process. You can either perform on-demand site provisioning for the site(s), or configure Cisco UMG to perform scheduled provisioning on the site.

For more information, see [Configuring Cisco Unified Messaging Gateway 8.5 Using the GUI: SRSV and E-SRST](#).

**Note**

Make sure all the router login credentials are the same for all your branch sites if you are provisioning multiple sites using the Bulk Edit option.

Procedure

- Step 1** Log in to the Cisco UMG GUI.
- Step 2** Select **Configure > Sites**.
- The system displays the Sites page.
- Step 3** To enable E-SRST on one site, click the underlined name of any site to see more information. The system displays the Site Profile page.
- Under Feature Enable, select **E-SRST**.
 - Click **Update**.
- Step 4** To enable E-SRST on multiple sites, check the checkboxes next to the sites that you want to modify.
- Click **Bulk Edit Selected Sites**.
 - Check the checkbox next to **E-SRST Provisioning Enable** and click **On**.

**Note**

Make sure you have enough E-SRST feature licenses installed for the number of sites being provisioned. If there are not enough feature site licenses installed, then the system will provision only the number of sites with installed licenses.

- Enter the Router Login Credentials.

**Note**

The router login credentials apply to the CUCME router at each site configured using the Site Profile Bulk Edit page. The router login credentials must be the same for all the branch sites being edited using the Bulk Edit tool. This field overwrites the router login credentials for a site configured on the Site Profile Bulk Edit page. If the router login credentials for a site are not configured, then the site will not be included in the provisioning process.

- Click **Update**.

Step 5 To perform an on-demand provisioning of the sites, check the checkbox next to the name of the sites that you want to provision.

- Click **Provision Selected Sites**.

The system displays a warning message.

- Click **OK** to continue.

The selected sites are provisioned. If E-SRST was enabled on the sites and the required steps above performed, then the advanced telephony configuration on CUCM is downloaded to the branch site configuration.

**Note**

The length of time required for provisioning the selected sites may depend on various factors. These include number of sites selected, number of items to be configured at each site (phones, phone numbers and other items), network bandwidth and system loads. Using the GUI, go to **Monitor > Provisioning Status** to monitor the provisioning progress.

Step 6 To perform scheduled provisioning, enter the schedule requirements when performing the wizard for adding a site.

Step 7 Verify that the site provisioning successfully completed by checking the Site Provisioning Report.

In the Cisco UMG GUI, choose **Reports > Site Provisioning History**. The status of the provisioned sites is displayed.

Verifying the Updated Configuration on the Branch Call Agent Router

Once the E-SRST provisioning is complete, the dial plan and ephone configuration settings configured on the central CUCM should now be propagated to the branch call agent router. Verify that the updated settings are now configured on the site by viewing the dial peer and ephone configuration settings.

