CHAPTER 44

Managing Cisco Unity Connection Survivable Remote Site Voicemail in Cisco Unity Connection 9.1(1) and later

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See the following sections:

Overview of Cisco Unity Connection SRSV in Connection 9.1(1) and Later

Cisco Unity Connection Survivable Remote Site Voicemail (Connection SRSV) is a backup voicemail solution that allows you to receive voice messages during WAN outages. It works in conjunction with Cisco Unified Survivable Remote Site Telephony (SRST) for providing voicemail service to a branch when the connectivity with the central Connection voicemail service is lost.

Connection SRSV is used in the centralized Cisco Unified Communications Manager and Cisco Unity Connection environment with multiple branch offices or small sites. It provides limited voicemail and auto-attendant features that remain in synchronization with the central Connection voicemail service so that when the WAN outage or failure occurs, the Connection SRSV solution can provide voicemail service to the subscribers at the branch. However, as soon as the network is restored, all the voicemails received by the branch subscribers are automatically uploaded to the central Connection voicemail server.

Connection SRSV solution requires the following two components:

- Cisco Unity Connection: It is deployed at the central site alongside with Cisco Unified CM to deliver powerful integrated messaging and voicemail services.
- Connection SRSV: The SRSV component is natively a part of Connection which is deployed at the branch site alongside with Cisco Unified CM Express or Cisco Unified Survivable Remote Site Telephony (SRST). Connection SRSV is hosted on Cisco Integrated Service Routers Generation 2 (ISR G2) platform by using Services Ready Engine Virtualization.

Connection SRSV is a licensed feature for which you need to install licenses under **CUC_EnhancedMessaging** tag on the **License** page of Cisco Unity Connection Administration. For more information on licenses installed on the central Connection server, refer to the "Managing Licenses in Cisco Unity Connection 9.x" chapter of the System Administration Guide for Cisco Unity Connection Release 9.x at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/administration/guide/9xcucsagx.html.

See the following sections:

- Working with Connection SRSV, page 44-2
- Managing Branches in Cisco Unity Connection 9.1(1), page 44-6

Working with Connection SRSV

Connection SRSV comes into picture during WAN outages and acts as a backup of voice messaging system at the branch sites. It allows the users at branch offices to receive the voice messages during WAN outages.

In Connection 9.1(1), Connection SRSV involves provisioning of Connection through the command line interface (CLI) to run it in SRSV mode, SRST/E-SRST references Cisco Unified Communications Manager, and all the SRSV related functionalities, such as user(s) provisioning and voicemail upload, are managed by the central Connection server. Once the entire Connection SRSV system is deployed and provisioned, it remains in the idle state at the branch site and is ready to receive calls from the SRST system (either SRST or CUCME-as-SRST). The SRST component also remains idle and wait for IP phones to register with it. When the WAN outage occurs, the branch office IP phones that are registered to the central Cisco Unified Communications Manager detect the loss of connectivity and re-home to the SRST. Now, all the incoming calls to the branch are handled by the SRST. For calls that are either no-answer or reach a busy line, SRST forwards the call to the CUC-SRSV voicemail server that allows the caller to leave a voice message for the branch user. As a result, the branch office voicemail is supported during WAN outages when the central office voicemail system is unreachable.

However, when the WAN connection is restored, the IP phones automatically re-home to the central Cisco Unified Communications Manager. All the call are then managed by Cisco Unified Communications Manager and the no-answer / busy calls are forwarded to the central Connection voicemail system and all the voicemails stored on the branch get automatically synchronized with the central Connection voicemail.

See the following sections:

- Supported SRSV Topologies, page 44-2
- Methods of Provisioning and Voicemail Upload, page 44-5
- Configuring an SRSV User, page 44-6

Supported SRSV Topologies

Connection SRSV supports several topologies based on the configuration of the router. You can deploy either original SRST or CUCME-as-SRST (also known as SRST Fallback Mode) at branch.

Note If you are running SRST at the branch site, you cannot also deploy the E-SRST feature.

Following figures show three topologies supported by Connection SRSV:

Figure 44-1: Shows a topology in which SRST is deployed at the branch site. If the WAN outage occurs or PSTN goes down, Connection SRSV at the branch site provides limited voicemail support in the failover mode.

Figure 44-2: Shows a topology where CUCME-as-SRST (also known as SRST Fallback Mode) is providing call control at the branch site.

Figure 44-3: Shows a topology where multiple CUCME-as-SRST and SRSV-CUE devices are paired for load balancing at the survivable branch site. In this scenario, the administrator uses Cisco Unified Communications Manager to divide the branch users between CUCME-SRST-1 and CUCME-SRST-2. The central Connection server detects that and then sends the appropriate configuration to SRSV-1 and SRSV-2 at the branch site. In the event of WAN failure, each SRSV device will handle calls directed to it from the paired CUCME-as-SRST device.

Figure 44-1 Topology 1

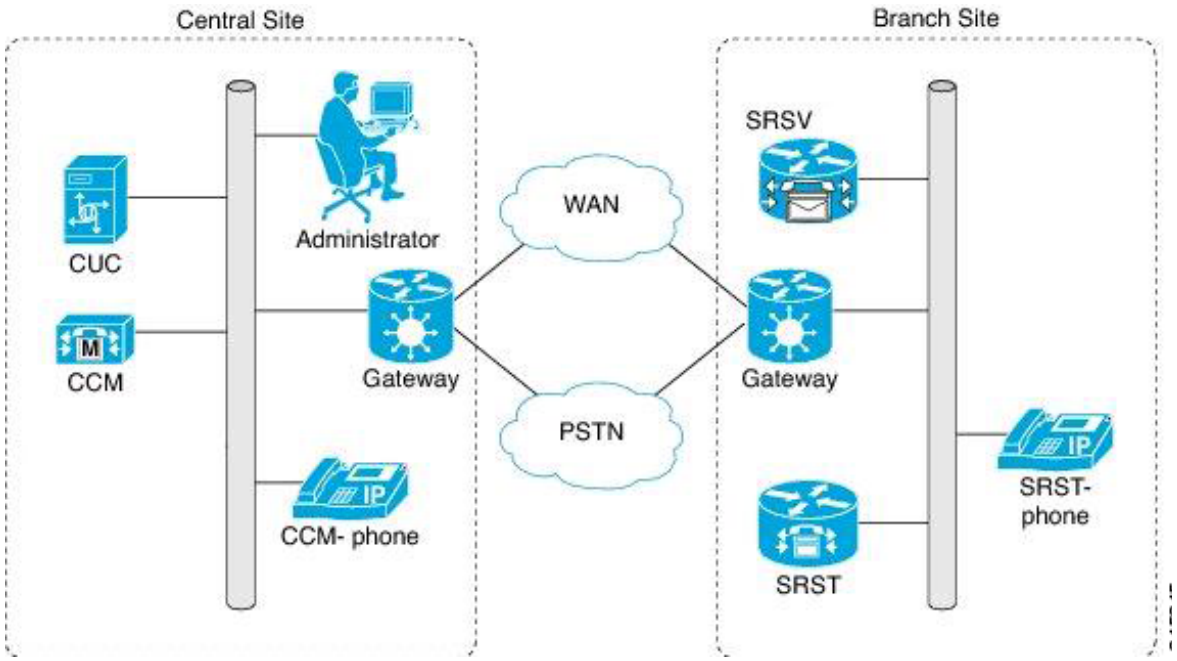


Figure 44-2 Topology 2

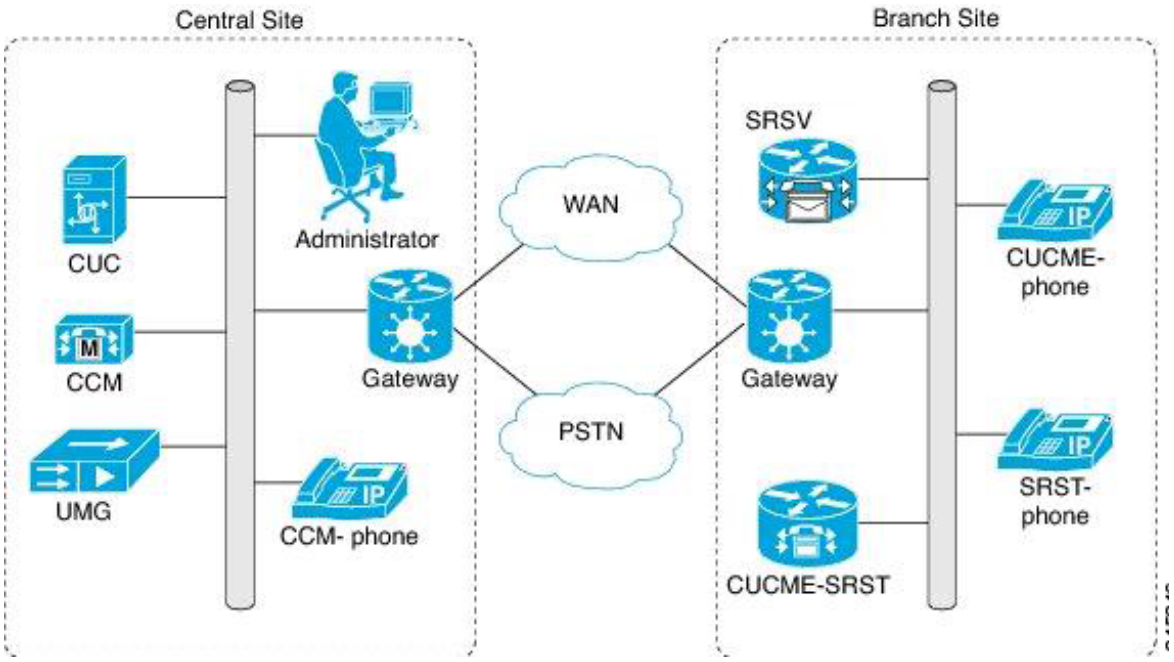
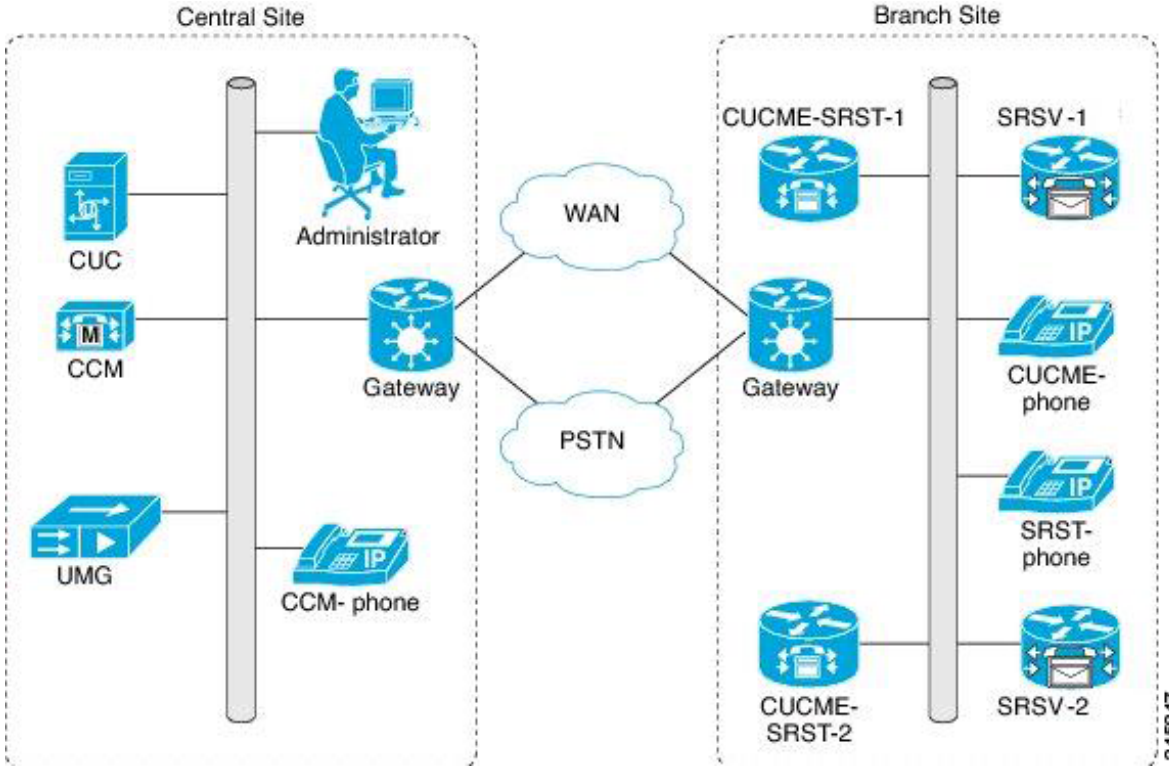


Figure 44-3 Topology 3



Note You can still install UMG in the network for E-SRST.

See also:

- Methods of Provisioning and Voicemail Upload, page 44-5
- Task List to create an Connection SRSV User, page 44-6

Methods of Provisioning and Voicemail Upload

Connection 9.1(1) supports two methods for provisioning and voicemail upload between Connection and Connection SRSV. You can use either of the following methods to provision the users from the central Connection server to the branch system:

- **Manual Synchronization of Provisioning**: To manually provision the users on the branch, navigate to **Branch Management > Edit Branch** on Cisco Unity Connection Administration (CUCA) and select **Sync Provisioning**.
- **Automatic Synchronization of Provisioning**: To automatically enable the provisioning of the users, navigate to **Tools > Task Management** on Cisco Unity Connection Administration (CUCA) and schedule **Branch Provisioning Synchronization Task**. For more information on scheduling a task, refer to the "Cisco Unity Connection 9.x Tool Settings" chapter of *Interface Reference Guide for Cisco Unity Connection Administration Release 9.x* guide at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/gui_reference/guide/9xcucgrgx.html.

By default, a maximum of 5 provisioning threads can run at a particular instant of time. However, you can also change this value to a desired number. To change the number of provisioning threads that can run simultaneously, you need to perform the following steps on command prompt of central Connection server using administrator credentials:

Step 1 Run the following command:

```
run cuc dbquery unitydirdb EXECUTE PROCEDURE
csp_ConfigurationModify(pFullName='System.SRSV.MaxProvisioningThreads', pValue='<any_value
< 50 >');
```

For example, if you want to run 15 provisioning threads simultaneously, run the following command:

```
run cuc dbquery unitydirdb EXECUTE PROCEDURE
csp_ConfigurationModify(pFullName='System.SRSV.MaxProvisioningThreads', pValue='15');
```

Step 2 Run the following command to confirm that the value of "System.SRSV.MaxProvisioningThreads" field is set to 15:

```
run cuc dbquery unitydirdb select objectid,fullname,value from vw_configuration
where fullname like '%SRSV%'
```

After changing the value of System.SRSV.MaxProvisioningThreads to 1, you need to restart the **Connection Branch Sync Service** and **Tomcat Service** to reflect the changes.

You can use either of the following methods to upload voicemails from the branch system to the central Connection server:

- **Manual Synchronization of Voicemail Messages**: To manually upload voicemails from the branch to the central Connection server, navigate to **Branch Management > Edit Branch** on Cisco Unity Connection Administration (CUCA) and select **Voicemail Upload**.

- **Automatic Synchronization of Voicemail Messages**: To automatically enable the uploading of voice messages from the branch to the central Connection server, navigate to **Tools > Task Management** on Cisco Unity Connection Administration (CUCA) and schedule **Branch Voice mail polling task**. For more information on scheduling a task, refer to the "Cisco Unity Connection 9.x Tool Settings" chapter of *Interface Reference Guide for Cisco Unity Connection Administration Release 9.x* guide at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/gui_reference/guide/9xcucgrgx.html.

Configuring an SRSV User

You can either create a new user or update an existing user to provide access to the SRSV feature. Before creating an SRSV user, make sure that all the required services, such as Connection REST Service and Connection Branch Sync Service are started on the central Connection server and on the branch. For more information on services required for SRSV feature, refer to the *Administration Guide for Cisco Unity Connection Serviceability Release 9.x* at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/serv_administration/guide/9xcucservagx.html.

Task List to create an Connection SRSV User

To create an Connection SRSV user, you need to perform the following tasks:

Step 1 *Creating a Partition*: Create a partition on the Connection server. For more information on how to create a partition, refer to the "Managing Partitions in Cisco Unity Connection 9.x" section of the "Managing Partitions and Search Spaces in Cisco Unity Connection 9.x" chapter of the *System Administration Guide for Cisco Unity Connection Release 9.x* guide at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/administration/guide/9xcucsagx.html.

Step 2 *Creating a Branch*: Create a branch on the Connection server with details of the Cisco Unity Connection SRSV server, which corresponds to the partition created above. For more information on how to create a branch, refer to the Managing Branches in Cisco Unity Connection 9.1(1), page 44-6 section.

Step 3 *Creating a New User or Assigning the Partition to an Existing User*: Assign the partition created above to an existing user or create a new user and assign the partition to the user for providing access to the SRSV feature. For more information on how to create a user, refer to the "Creating Cisco Unity Connection 9.x User Accounts in Cisco Unity Connection Administration" section of the "Adding Cisco Unity Connection 9.x Accounts Individually" chapter of the *User Moves, Adds, and Changes Guide for Cisco Unity Connection Release 9.x* guide at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/user_mac/guide/9xcucmacx.html.

Managing Branches in Cisco Unity Connection 9.1(1)

You can create a branch in Cisco Unity Connection Administration, which is further associated with a partition of users having access to SRSV functionality.

To Create a Branch

Step 1 In Cisco Unity Connection Administration, expand **Networking** > **Branch Management**, then select **Branches**.

Step 2 On the **Branch Listing** page, select **Add New**.

Step 3 On the **New Branch** page, enter basic settings, as applicable. (For field information, on the **Help** menu, select **This Page**.)

Note Fields marked with * (an asterisk) are required.

Step 4 Select **Save**.

Step 5 On the **Edit Branch** page, continue entering applicable settings.

Step 6 When you have finished entering settings on the **Edit Branch** page, select **Save**.