



Cisco Unified SRST Manager Overview

This module provides an overview of Cisco Unified SRST Manager Release, and technical information that you need for using and maintaining Cisco Unified SRST Manager.

Migration from Unified SRST Manager to Unified E-SRST

Cisco Unified Survivable Remote Site Telephony (SRST) Manager is **End-of-Life (EOL)**. Hence, provisioning for Unified E-SRST through Unified SRST Manager is not supported for Unified E-SRST Release 12.2 and later releases. Unified E-SRST is provisioned only using CLI commands (manual provisioning) to support fall back of phones registered to Unified Communications Manager. For more information on configuring Unified E-SRST, see [Cisco Unified SCCP and SIP SRST System Administrator Guide \(All Versions\)](#).

Overview



Note

Cisco Unified SRST Manager software does not support provisioning Media Gateway Control Protocol (MGCP) dial plan. Cisco has removed the support for this feature due to the complexity of and differences between dial plans across the globe. These complexities and differences must be analyzed by a Cisco engineering team member to understand whether the Cisco Unified SRST Manager dial plan logic can meet customer requirements. If you are interested in automatic dial plan provisioning, contact srstmgr@cisco.com. The Cisco engineering team member requires a copy of your Cisco Unified Communications Manager dial plan (.tar file) for analysis. After analysis, a private build of the Cisco Unified SRST Manager with the dial plan provisioning feature enabled will be delivered.

Cisco Unified SRST Manager Release operates within a virtual machine, running in the VMware ESXi (4.1, 5.0, 5.1, or 5.5) hypervisor environment. The software is packaged as an open virtualization archive (OVA) template for installation within the VM environment. The OVA file includes the Cisco Unified SRST Manager software, as well as the virtual machine system settings preconfigured to operate with Cisco Unified SRST Manager.

Cisco Unified SRST Manager includes the following features:

- Support for traditional SRST and enhanced E-SRST.
- Failover support for SCCP and SIP phones.
- Management of the dial plan configuration on SRST routers, enabling internal/external dialing in survival mode (supported with MGCP gateways only).

- Advanced features, such as hunt groups, call park/group call park, and call pickup (on E-SRST routers).
- Advanced scheduling options to configure exactly when Cisco Unified SRST Manager retrieves configuration information from CUCM and provisions the branch office routers.
- Option to configure the branch router as a traditional SRST or E-SRST. Traditional SRST supports basic telephony features and a higher count of phones and extensions. E-SRST provides enhanced features, with more limited scalability.

Enhanced Survivable Remote Site Telephony (E-SRST)

This section describes the Cisco Enhanced Survivable Remote Site Telephony (E-SRST) solution.

- [Overview of E-SRST Telephony](#)
- [Prerequisites](#)
- [E-SRST Limitations](#)
- [Cisco Unified SRST Manager Limitations](#)
- [Cisco Unified SRST Manager Telephony Features Limitations](#)
- [Cisco Unified SRST Manager Support of VMware Features](#)

Overview of E-SRST Telephony

Cisco Unified SRST Manager operates as part of the Cisco Enhanced Survivable Remote Site Telephony (E-SRST) solution. Survivable Remote Site Telephony (SRST) and E-SRST solutions provide telephone functionality in remote branch sites during temporary WAN outages that prevent communication between the central site and the branch site.

[Table 1](#) describes the features of the Cisco Unified SRST and Cisco Unified E-SRST solutions.

Table 1 *Cisco Unified SRST and Cisco Unified E-SRST Features*

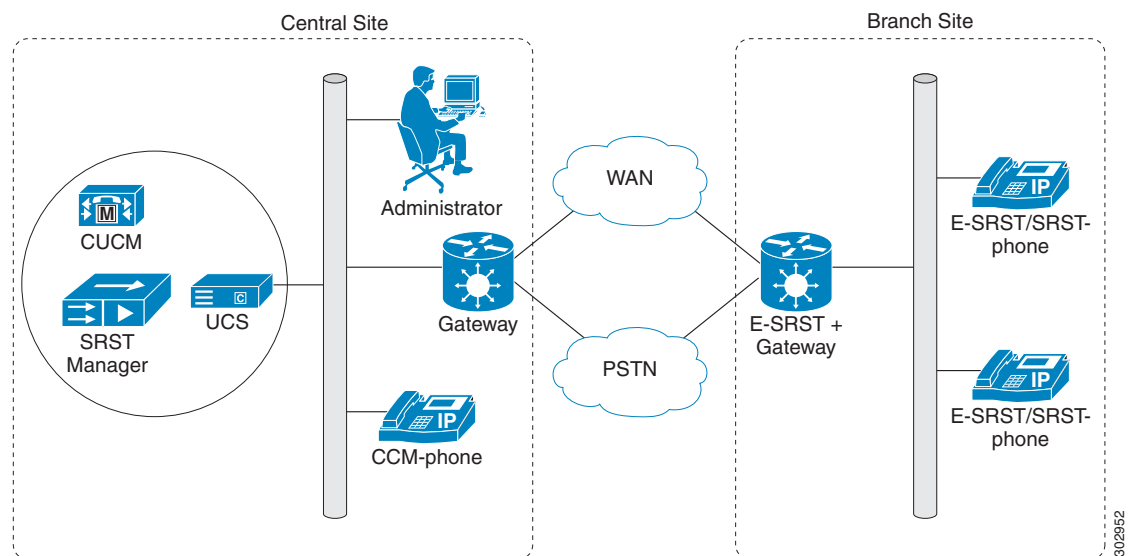
Cisco Unified SRST Solution	Cisco Unified E-SRST Solution
Features	
Basic telephone features during failover	Advanced telephone feature support during failover Simplified administration Automated provisioning and deployment Improved security features
Telephone Support	
Support of SIP and SCCP phones	Support of SIP and SCCP phones
Call Manager Support	
Cisco Unified Communications Manager Cisco Business Edition 6000	Cisco Unified Communications Manager Cisco Business Edition 6000

The E-SRST solution supports advanced Cisco Unified Communications Manager Express (CUCME) telephony features such as hunt groups and pick-up groups, but reduces the complex and manual configuration required at the branch site.

In the E-SRST solution, Cisco Unified SRST Manager resides at the central site and collects information from Cisco Unified Communications Manager. Cisco Unified SRST Manager collects configuration information required for advanced features such as hunt groups and pick-up groups, and distributes the configuration information to the branch sites. In the event of a WAN outage, when the E-SRST service running on the branch office routers takes over call processing, it applies the configuration provisioned by Cisco Unified SRST Manager to provide enhanced telephony services at the branch sites.

Figure 1 shows the supported topology model for E-SRST on a branch site.

Figure 1 *E-SRST Topology*



For Cisco Unified E-SRST deployments, the branch office is configured in Cisco Unified Communications Manager Express-as-SRST mode on a Cisco Integrated Services Router (ISR) or a Cisco Integrated Services Router Generation 2 (ISR G2). The number of phones supported for SRST mode and E-SRST mode are available in the datasheet at [Cisco Unified Survivable Remote Site Telephony and Cisco Unified Enhanced Survivable Remote Site Telephony Version 11.0 Data Sheet](#).

The E-SRST feature provides automated remote site provisioning of the following advanced telephony features in survivable mode by collecting the configuration information from Cisco Unified Communications Manager:

- After-hours
- Call pickup and group pickup
- Call routing restrictions (local and long distance, and time of day)
- Class of restrictions
- Dial Plan
- Hunt groups
- Phones and extensions (speed dials, lines, softkeys)
- Pick-up groups

Cisco Unified SRST Manager enables you to set up provisioning schedules for defining when and how often to retrieve configuration information from Cisco Unified Communications Manager and provision the branch site E-SRST routers. You can also perform provisioning on-demand to synchronize a specific E-SRST router with the Cisco Unified Communications Manager information.

The E-SRST solution enables a phone in Cisco Unified SRST mode to operate similarly to when the system is in normal Cisco Unified Communications Manager mode. The look and feel of the phone displays and softkeys in Cisco Unified E-SRST mode are similar to those in normal Cisco Unified Communications Manager mode.

For more information about Cisco Unified Survivable Remote Site Telephony, see:

[*Cisco Unified SCCP and SIP SRST System Administrator Guide \(All Versions\)*](#)

Prerequisites

Cisco Unified SRST Manager works only with the Primary Node Publisher of the Cisco Unified Communications Manager (CUCM) cluster. More than one cluster is not supported.

E-SRST Limitations

- E-SRST requires Cisco Unified Communications Manager Express Release 8.6 and later.
- E-SRST does not support secure Cisco Unified SRST.
- E-SRST does not support special characters such as @, !, +
- COR lists can be applied to a maximum of 4 DN's on a SIP phone (voice register pool).

Cisco Unified SRST Manager Limitations

- Extension mobility on Cisco Unified Communications Manager is not supported.
- Dial plan provisioning is supported only for MGCP gateways.
- Supports only button layouts that have line numbers first, followed by speed dials. Interleaving of speed dials and line numbers is not supported.
- Cisco Unified SRST Manager Release does not support IPv6 addressing.
- VMware tools are part of the system and cannot be upgraded.
- Only one network interface (vNIC) is supported. Do not add additional network interfaces.
- If clock sync to hardware is enabled for the Cisco Unified SRST Manager VM on the vSphere/vCenter application, disable NTP configuration on Cisco Unified SRST Manager.
- When a Cisco Unified SRST Manager user initiates a browser session, the previous session is terminated automatically.

Cisco Unified SRST Manager Telephony Features Limitations

After Hours

- Supports single partition only.

Call Park

- Supports general purpose call park only
- A maximum of 10 park slots can be created
- It is recommended to create only one park slot range. In case of multiple call park slot numbers or range configured, only one of them gets picked up randomly. Determining which call park got picked up is not supported.

COR

- Calling privileges (CSS and partition) in translation pattern is not supported. Translation patterns are configured as number expansions in E-SRST and configuring calling privileges in number expansions is not supported.

Dial Plan**Note**

Cisco Unified SRST Manager software does not support provisioning Media Gateway Control Protocol (MGCP) dial plan. Cisco has removed the support for this feature due to the complexity of and differences between dial plans across the globe. These complexities and differences must be analyzed by a Cisco engineering team member to understand whether the Cisco Unified SRST Manager dial plan logic can meet customer requirements. If you are interested in automatic dial plan provisioning, contact srstmgr@cisco.com. The Cisco engineering team member requires a copy of your Cisco Unified Communications Manager dial plan (.tar file) for analysis. After analysis, a private build of the Cisco Unified SRST Manager with the dial plan provisioning feature enabled will be delivered.

- The @ wildcard in the route pattern is not supported. Cisco Unified SRST Manager converts the @ wildcard to T. In Cisco Unified Communications Manager, the @ wildcard is a special macro function that expands into a series of patterns representing the entire national numbering plan for a certain country. For example, configuring a single unfiltered route pattern such as 9.@ with the North American Numbering Plan really adds 166 individual route patterns to the Unified CM internal dial plan database.
- PreDot is the only Digit Discard Instruction (DDI) supported. All the other configured DDIs are ignored.
- Calling party transformation in translation pattern is ignored. Translation patterns are configured as number expansions in E-SRST and there is no way to configure calling party transformation using number expansion.
- A maximum of 250 translation patterns are supported because E-SRST supports a maximum of 250 number expansions.
- Calling number transformation is configured in the router using voice translation rules. If an external phone number mask is selected in the calling number transformation and if the external phone number mask is not same for all the DNs in Cisco Unified SRST Manager, then the calling number transformation is ignored.
- The following items in the device pool of all DNs for a site must be the same: SRST reference, external phone number mask, local route group, calling/called party settings, and so on. Otherwise dial plan will not be provisioned correctly.
- Caller ID, Num Digits or Prefix Dn from the port configuration of a T1 CAS port is only used if these configurations are same for all the ports in a T1 CAS.

Hunt Groups

- The E-SRST Hunt Group feature is based on the Cisco Unified Call Manager Express (CME) Voice Hunt Group feature. The hunt group membership is configured within CME using the Cisco IOS **list** command within the “voice hunt-group” CLI sub-mode. The **list** command typically limits the number of hunt group members to a maximum of 32. Limits may vary, depending on the specific IOS release version running on the router. If the Cisco Unified Communications Manager hunt group has more than this number of hunt group members, only the first 32 members will be configured on the E-SRST router.

For current details on the CME CLI limitations of the voice hunt-group list command, see:

http://www.cisco.com/en/US/docs/voice_ip_comm/cucme/command/reference/cme_11ht.html#wp1045524

Phones

- One user per phone. The Cisco Unified Call Manager Express (CME) router does not support using the same username on multiple ephones. Phones will be provisioned by using MAC address as the username.
- Softkeys on SIP phone do not survive after failover. Some of the softkey features are disabled in the phone firmware. As a result any features that requires softkeys will not function, such as call-park, call-pickup, and so on.
- Cisco Unified SRST Manager does not support softkey template for SIP phones.
- For the list of supported phones, see *Cisco Unified SRST Manager Supported Phones and Platforms*

Voicemail

- When Cisco Unified Communications Manager has the same voicemail pilot configured for all of the phones in a branch router, Cisco Unified SRST Manager will provision the voicemail pilot in the router. When Cisco Unified Communications Manager has different voicemail pilots configured on different phones in a branch router, Cisco Unified SRST Manager cannot determine only one vmpilot, and it deletes the voicemail from the branch router.
- Only numeric characters [0-9] are supported for voicemail pilot number.
- If voicemail is configured in both Cisco Unified Communications Manager and Cisco Unified SRST Manager then, voicemail from Cisco Unified SRST Manager is configured on the router.
- Default voicemail profile from Cisco Unified Communications Manager is configured on router if there is at least one phone associated for that Cisco Unified SRST reference.
- If none of the phones of Cisco Unified SRST reference is associated with any voicemail then, default voicemail is configured on the router.

Shared Line

- Shared line provides SIP-SIP, SCCP-SCCP, and SIP-SCCP support.
- Shared line support is available only in ESRST mode.
- Need to have phone firmware which supports version negotiation features on phone.
- Shared line between SIP-SIP and SIP-SCCP is supported from SRST 10.0, IOS version 15.3(3)M.
- All instances of shared lines that share a particular extension should have same name and label. If the name and label are not same across all instances of a shared line, it results in incorrect name and label.

Video

Video and camera is not supported in SRST (classic as well as ESRST mode).

Call Park/Pickup

- Call park/pickup configurations are provisioned by Cisco Unified SRST Manager. However, due to SIP phone softkey firmware limitations during failover, call park/pickup on SIP phones do not work during failover mode.

Music-On-Hold (MOH)

- Music On Hold (MOH) on SIP phones is only supported with SIP phone firmware load 9.2.
- The default Music On Hold audio file is “cusem-music-on-hold.au”. MOH is provisioned regardless of the Cisco Unified Communications Manager configuration. Provisioning can be disabled using the Cisco Unified SRST Manager GUI.

Single Number Reach (SNR)

- SIP SNR is only supported with CME 9.0.
- SNR is not supported for DNs that are shared.
- SNR mobility softkeys in the phone do not survive during failover mode. Current phone firmware defaults to its own phone softkeys defaults during failover.

Cisco Unified SRST Manager Support of VMware Features

Table 2 describes the Cisco Unified SRST Manager support of VMware features.

Table 2 **Support of VMware Features**

Feature	Support
VM Templates (OVAs)	Yes
Copy Virtual Machine	Yes
Restart Virtual Machine on Different ESXi Host	Yes
Resize Virtual Machine	No
VMware Hot Add	No
Multiple Physical NICs and vNICs	Yes for pNICs, only 1 vNIC
VMware High Availability (HA)	No
VMware Site Recovery Manager (SRM)	No
VMware vNetwork Distributed Switch	Yes
VMware vMotion	No
VMware Dynamic Resource Scheduler (DRS)	No
VMware Dynamic Power Management	No
Long Distance vMotion	No
VMware Storage vMotion	No
VMware vCenter Update Manager (VUM)	No

Table 2 **Support of VMware Features**

Feature	Support
VMware Consolidated Backup (VCB)	No
VMware Data Recovery (DR, VDR)	No
VMware Snapshots	Yes
VMware Fault Tolerance (FT)	No
VMware vCenter Converter	No
VMsafe	No
VMware vShield	No
Virtual Appliance Packaging of UC apps	No
3rd-party VM-based backup tools (for example, Veeam, Viziocore, esXpress)	No
3rd-party VM-based deployment tools (for example, rPath, Platespin)	No
3rd-party Physical To Virtual (P2V) Migration Tools	No
Identity	No
VMware Boot from SAN	No
All other vSphere features	No