

What You Make Possible



Enhanced Survivability for Enterprise and Cloud based UC (E-SRST)

BRKUCC-2350

Agenda

Survability

- ISR G2 Capabilities
- Deployment Model
- Importance of Survivability
- SRST version 9.1

Cloud Survivability

- SRST now available with HCS

Enhanced Survivability

- NEW solution
- Enhanced Capability
- SRST Manager 9.0 *** NEW Branding ***

Technical Deep Dive

Integrated UC Architecture on the ISR G2



Only Cisco UC uses the full power of the Network.

- Deployment Flexibility
- Superior Voice Quality
- Lower OpEx, Better ROI, Green
- More Efficient Use of IT Resources
- Survivability, Disaster Recovery
- Easier Migration to IP
- Application Optimisation



BRKUC-2350

UC as a Network Service

- CDP • Auto QoS • VLANs • RSVP • POE • Priority Queuing • SRST • E-911 • Protocol Translation • Codecs • DSPs

INTEGRATED APPLICATIONS ON ISRS

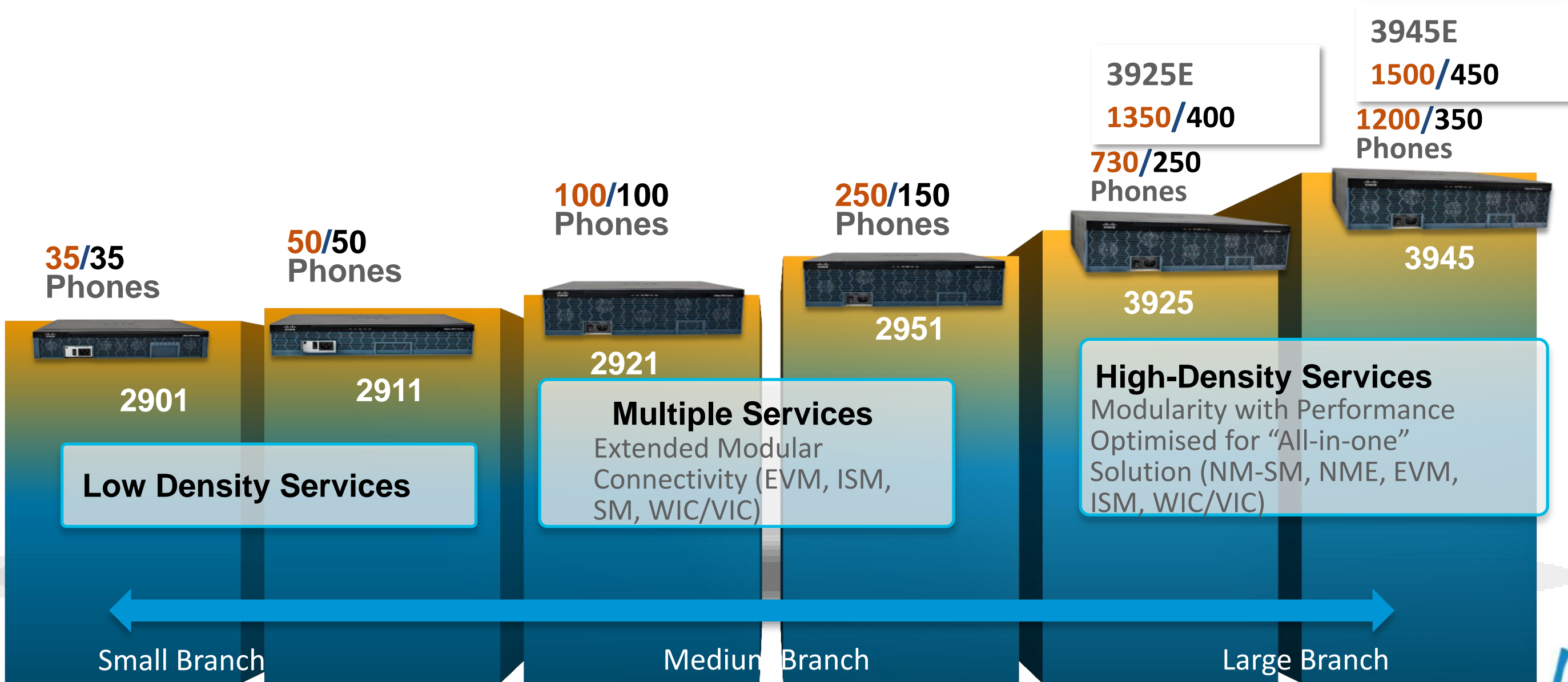


Cisco Public

Cisco SRST and E-SRST Capacity on ISR G2

Cisco Unified E-SRST
 Cisco Unified SRST

Concurrent Services and Performance

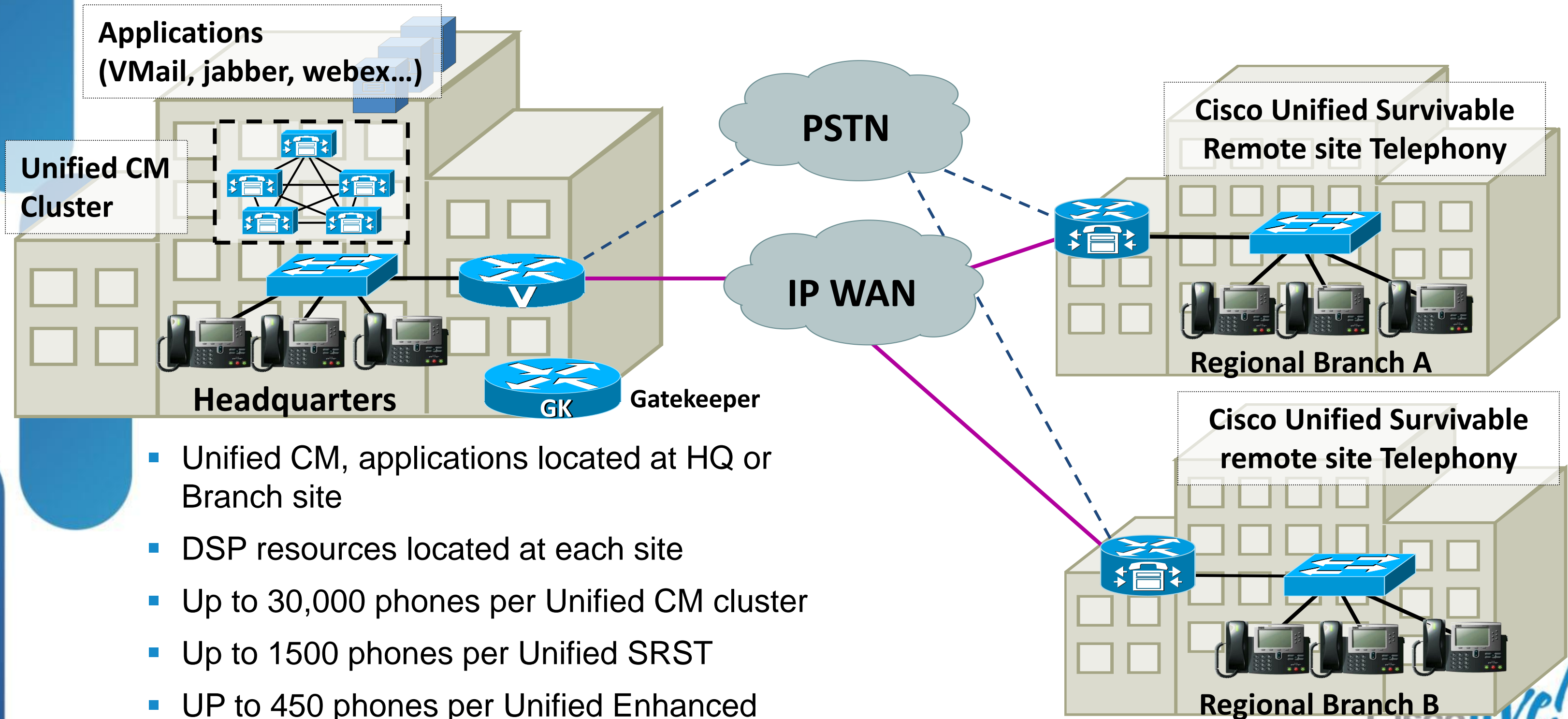


Deployment Models and Importance of Survivability



Deployment Models

Centralised Call Processing (Unified CM-Unified SRST Model)



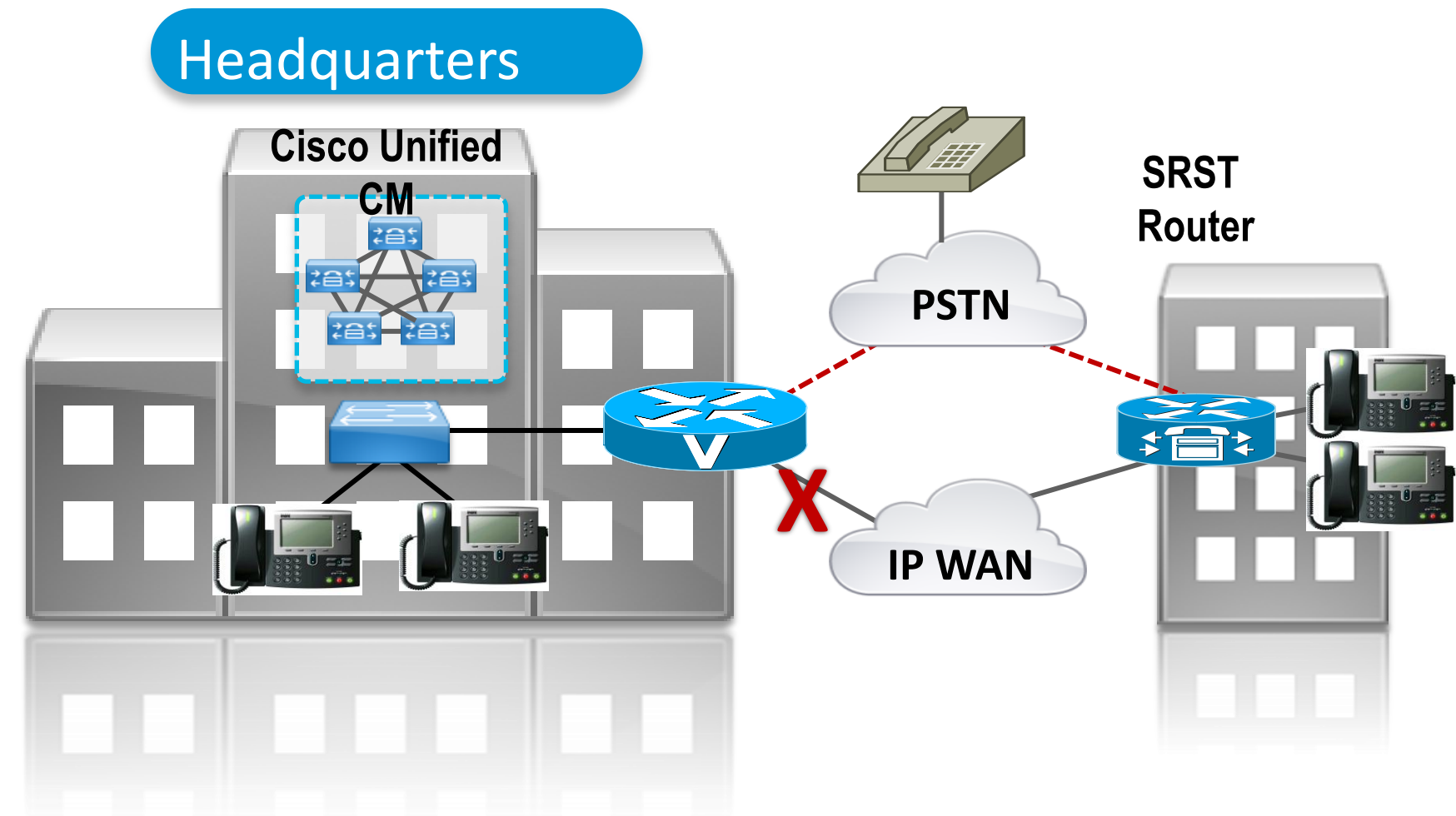
- Unified CM, applications located at HQ or Branch site
- DSP resources located at each site
- Up to 30,000 phones per Unified CM cluster
- Up to 1500 phones per Unified SRST
- UP to 450 phones per Unified Enhanced SRST

SRST Explained...

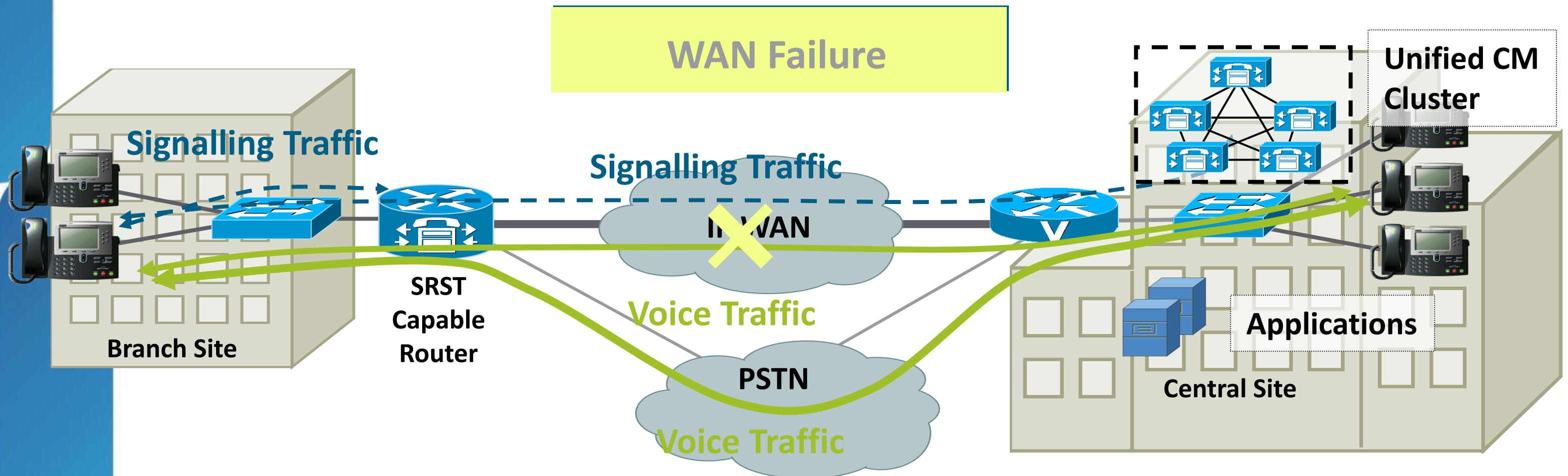


SRST Branch Telephony Survivability

- Provides Telephony Survivability during WAN outages
 - Uses Cisco router to auto register & provide local call processing — no manual intervention required
 - SRST IP phone calls remain secure
 - When WAN is available, IP phones auto-revert back to the Primary Call Control
 - Calls in progress stay connected during WAN failure/restore



SRST Call Flow: Failover and Redundancy



- IP Phones have SRST router IP as the last option in their CM GROUP configuration
- Support for both SIP and SCCP IP Phones
- With SRST, only a **subset** of features are available to the phones
- H323 PSTN GW connectivity option during failure modes via VoIP/POTS dial-peers; MGCP GWs require the 'MGCP Fallback to H323' feature

Unified SRST IOS Release Version Summary

SRST Release Version	IOS Version
CME/SRST 4.1	12.4(15)T(7 th Release)
CME/SRST 4.2	12.4(11)XW3
CME/SRST 7.0	12.4(20)T
CME/SRST 7.1	15.0(1)M2
CME/SRST 8.0	15.1.1T
CME/SRST 8.1	15.1.2T
CME /SRST 8.5	15.1.3T (Nov 2010)
CME /SRST 8.6	15.1(4)M
CME / SRST 8.8	15.2(1)T
CME / SRST 9.0	15.2(2)T
CME / SRST 9.1	15.2(4)M (July 2012)

CME/SRST 8.6 with 15.1(4)Mx is the Golden Release - recommended release for most customers



Cisco Unified SRST 9.1

FCS July 2012 (IOS 15.2(4)M)



KEM Module Support



Voice hunt group for E-SRST



Cisco Unified SRST 9.1



SRST now Supported on low end 88x

Support for small 5 user Branches

- **Maximum flexibility in minimum footprint**

Secure voice router for Managed Service Providers

- **Small Site Survivability for the Cloud**
- **Quick Time to market**

Three new platforms

- **c881-V-K9, c887VA-V-K9, c887-VA-V-W-E-K9**

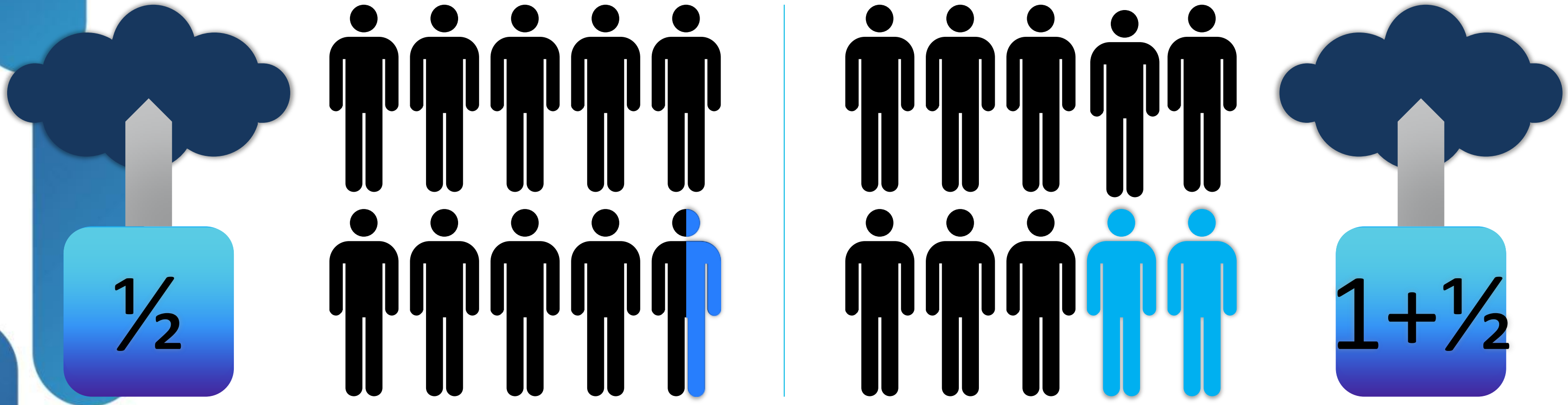


Cloud Survivability

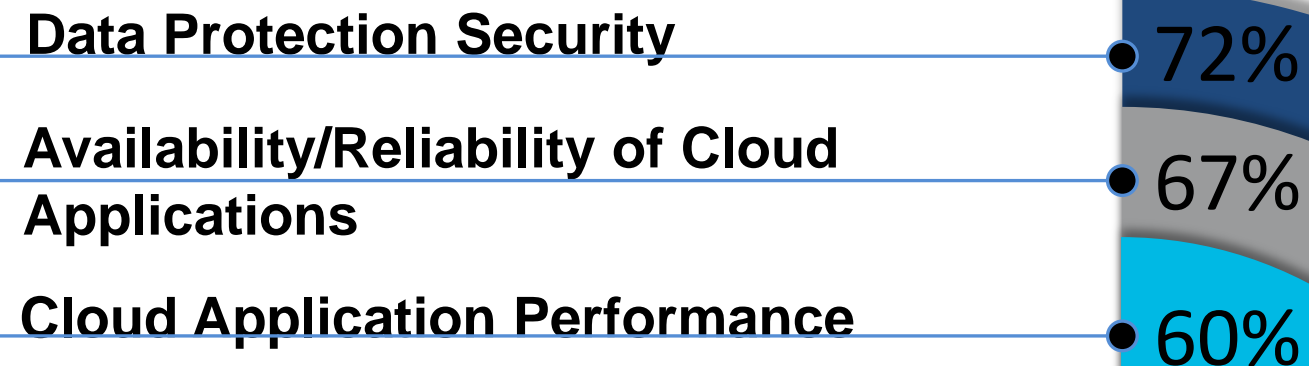


Cloud Deployments Expected to Increase Significantly by the End of 2012

NOW  END OF 2012



Top Infrastructure Roadblocks to Cloud Migration



During the cloud migration process, data protection security was cited as one of the top network challenge for preventing a successful implementation of cloud services, followed by availability/reliability of cloud applications, device-based security and cloud application performance.

SRST available with HCS 9.0 ! (FCS Aug 2012)

HCS now includes Telephony Survivability

Cisco Solution

Survivable Remote site Telephony (SRST) on ISR G2
Support for Cisco Hosted Collaboration Solution (HCS)

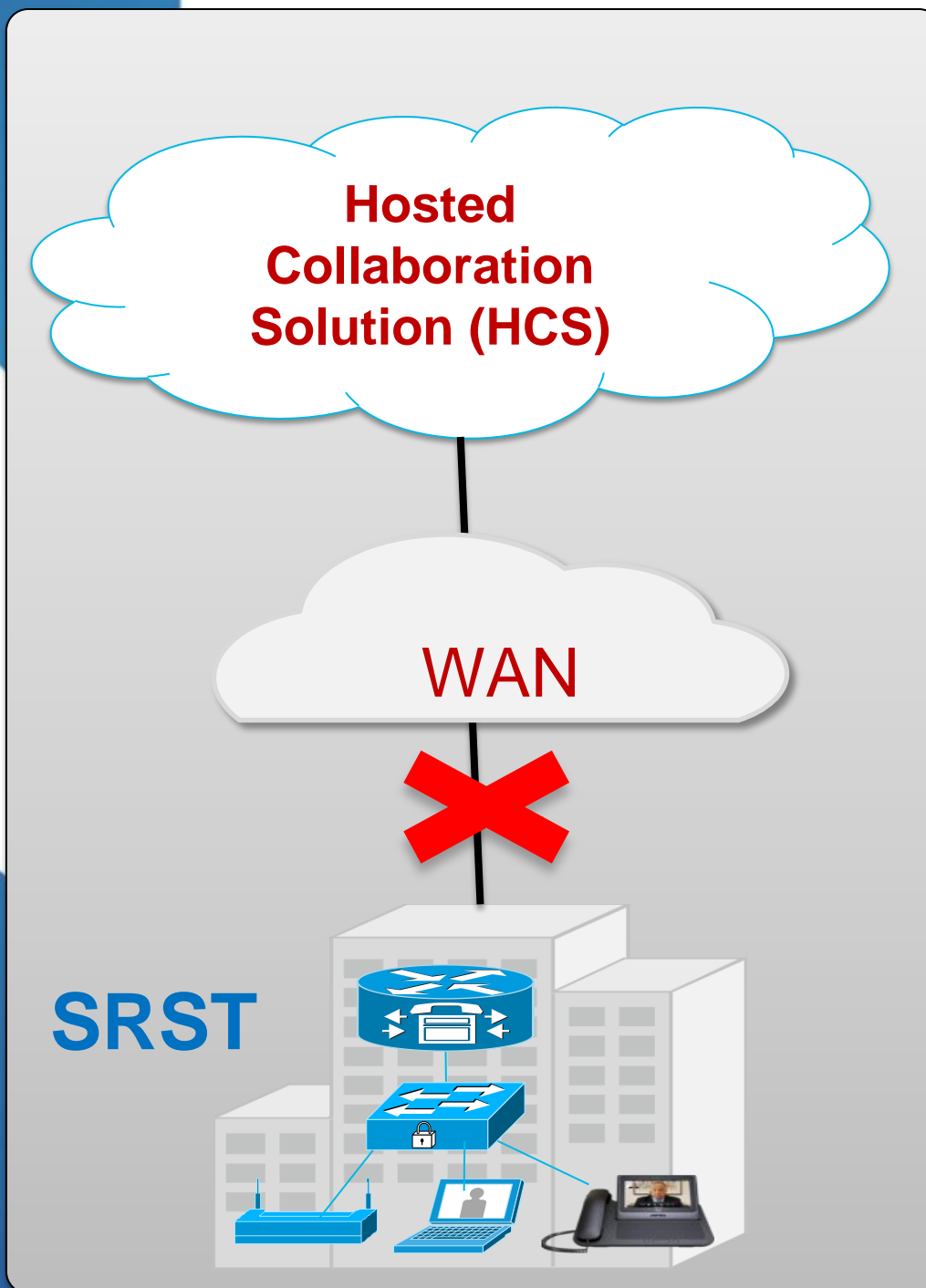
Customer Benefits

- Higher availability and business continuity for an end user when no access to cloud
- Business resiliency through Survivable Telephony- provides continuous access to services
- Intelligent and automatic failover - no manual intervention required

Partner Benefits

Easier sales process – helps overcome customer concerns about cloud reliability

Ensures continued productivity for cloud delivery



Quiz

- What IOS version contains SRST 9.1 ?
 - A 15.1(3)T
 - B 15.2(1)M
 - C 15.1(4)M
 - D 15.2(4)M

Enhanced SRST



Branch Employees are Growing

2012 Branch Growth Rebounding

90% of new employees work in branches

35% of employees work in the branch



Source: Nemerts Research Virtual Workplace—
Branch Office Strategies

Today's IT Branch Challenges

Consistent Access to Services

- Business continuity during WAN failures



Lower Operational Costs

- Moves, adds, changes
- Reduce Deployment time



80% of IT Time Spent on Keeping the Lights on (Gartner)

*Forrester Enterprise Study, 2011

**Forrester WAN Optimisation Survey, Dec 2010.

Good is NOT enough !



Need to be Fantastic

Cisco introduces Enhanced Survivability!!

Branch Survivable Provisioning Infrastructure

Enhanced user experience in survivability mode

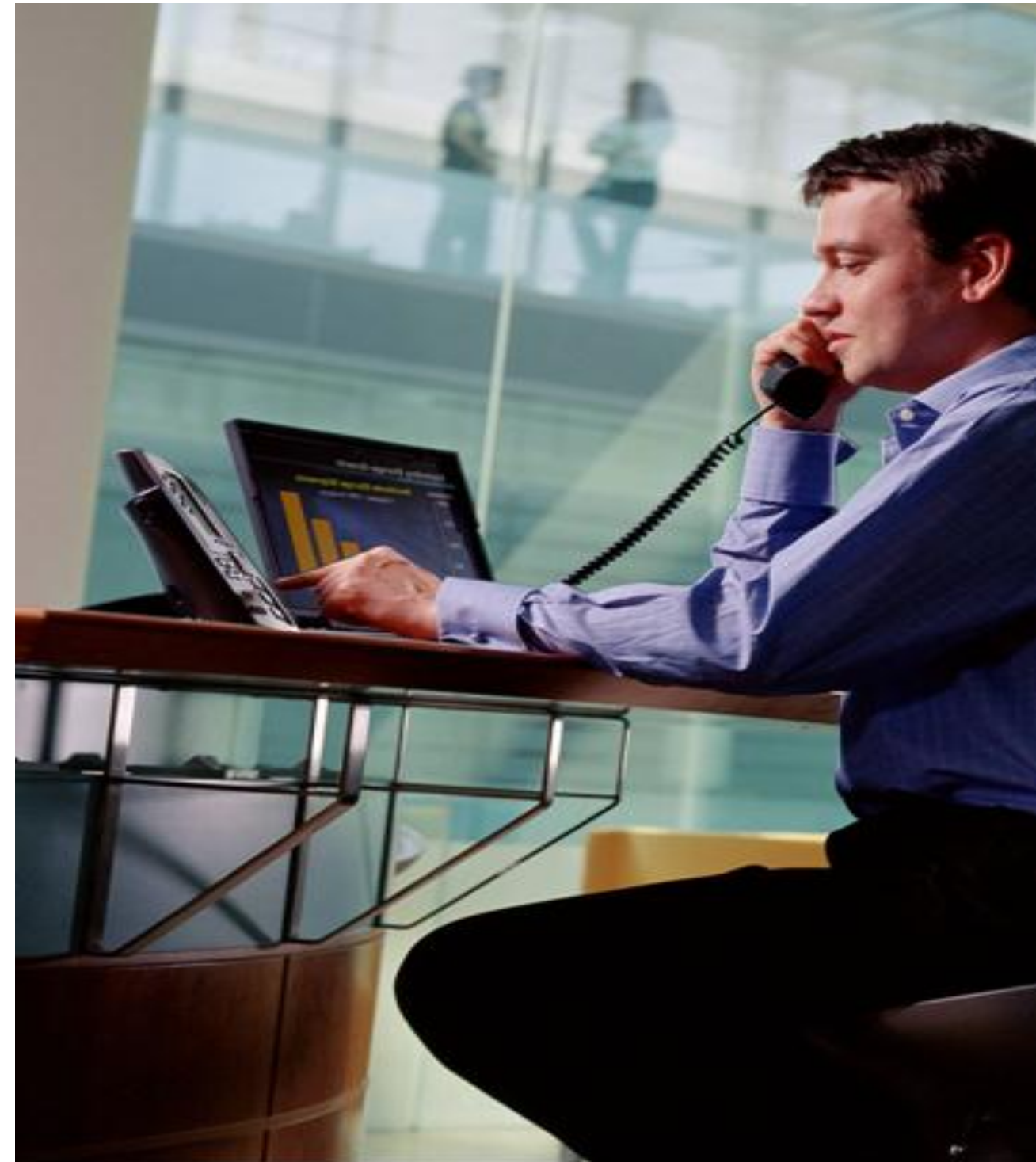
- Device display and phone user operations are identical in survivable mode

Automatic branch provisioning and centralised management

- Automatically provisions remote branch sites
- Always in-sync with the centralised Cisco UCM and pushes the updates to the Branch routers
- Manages new adds and migration

Continuous security & billing restrictions

- Access and security control
- Digit manipulation for both incoming and outgoing calls



Cisco Has Branch Telephony Survivability Options to Meet All Needs

SRST

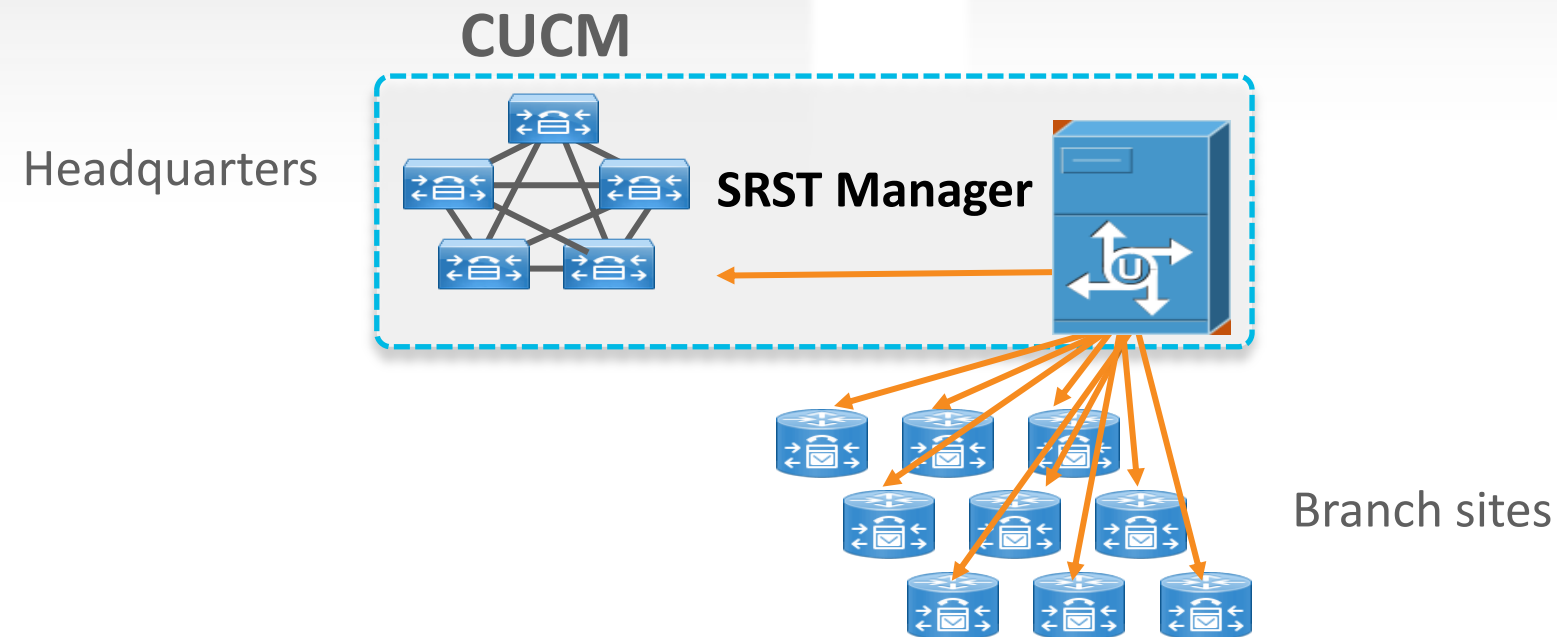
Ideal for customers who require:

- Basic phone features during failover
- Support of SIP & SCCP phones
- Supports Cisco Unified CM and Cisco Unified CMBE

E-SRST

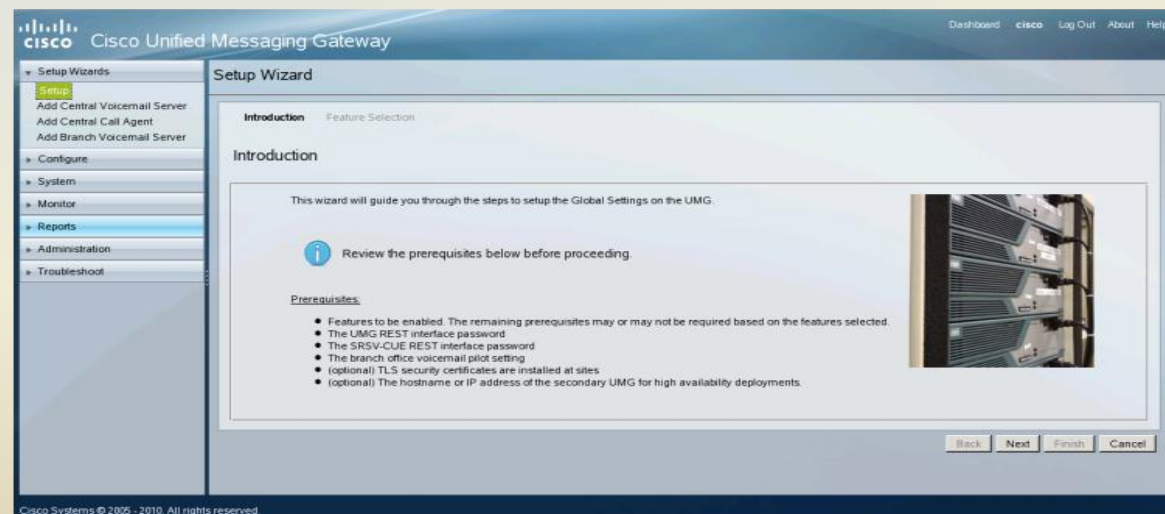
Ideal for customers who require:

- Full phone features during failover
- Hunt Group, Park Pickup, Speedials
- Simplified administration
- Automated provisioning & deployment
- Better security
- Supports Cisco Unified CM only



Enhanced Branch Survivability Experience

- **Centralised Management & Provisioning for 1000 + SRST sites**
- **Simplified GUI**
- **LOW total Cost of ownership**



Classic SRST



Enhanced SRST



Dial Plan Management



Enhanced SRST Drives Additional Savings

	SRST	E-SRST	Savings with E-SRST
Time to Deployment	Months (manual)	Days (automated)	\$\$\$\$
Branch Maintenance (moves, adds, changes)	Manual	Automatic	\$\$\$\$
Solution Cost	\$	\$	-
Employee Productivity During Failover	Good	Best	\$\$\$\$
Total Savings with E-SRST			\$\$\$\$



Cisco Enables Branch Survivability & Lower Operational Costs

Enhanced Survivability Features

Enhanced Survivable Remote Site Telephony

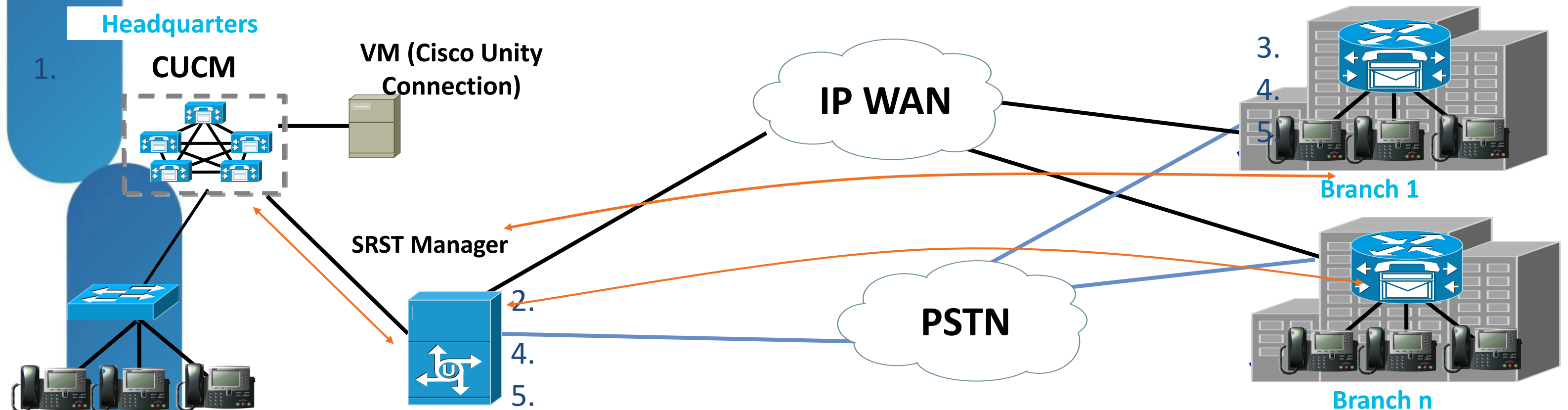
Survivable Remote Site Telephony

450

1500

Users

Enhanced SRST– Solution Provisioning



1. Provision the branch in CUCM
2. Configure SRST Manager to connect to CUCM for provisioning info
3. Provision branch router for IP connectivity and credentials
4. SRST Manager sends provisioning information to each branch Router for Phone users , dialplan restrictions etc
5. SRST Manager maintains any moves, adds and changes across HQ and branches

Quiz

- Enhanced SRST solution offers the following (Select the **Odd** one out)
- A Enhanced end user experience
- B Automatic Branch provisioning
- C Supports 300 users
- D Centralised Management

SRST Manager 9.0



SRST Manager 9.0

FCS Aug 2010

NME-UMG



Virtualisation

- SRST Manager 9.0 *** New Branding***
- Replaces the UMG module
- De-couples software from hardware
- Virtualised image
- Supported on all servers that Support Esxi version 4.1 and higher
- Supports more Nodes then UMG module
- Removes the dependency of an ISR at the datacentre

Cisco Unified SRST Manager 9.0

FCS Aug 2012



Virtualisation



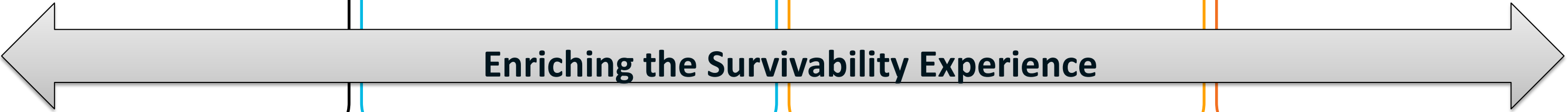
SIP Phones



Classic SRST



Dialplan
Management
(Controlled
release)



Cisco Unified SRST Manager 9.0

Enhanced Survivable Remote Site Telephony



Agenda

- Overview of SRST Manager
 - Virtual Machine
 - Configuration flow
 - Prerequisites of SRST Manager
- Features of enhanced Survivability
 - E-SRST feature survivability
 - Dialplan Management
- Performance
 - Provisioning methods
 - CPU and bandwidth utilisation
- Troubleshooting Techniques
 - Monitoring and Reporting
- Caveats

Session will end with a Quick

DEMO

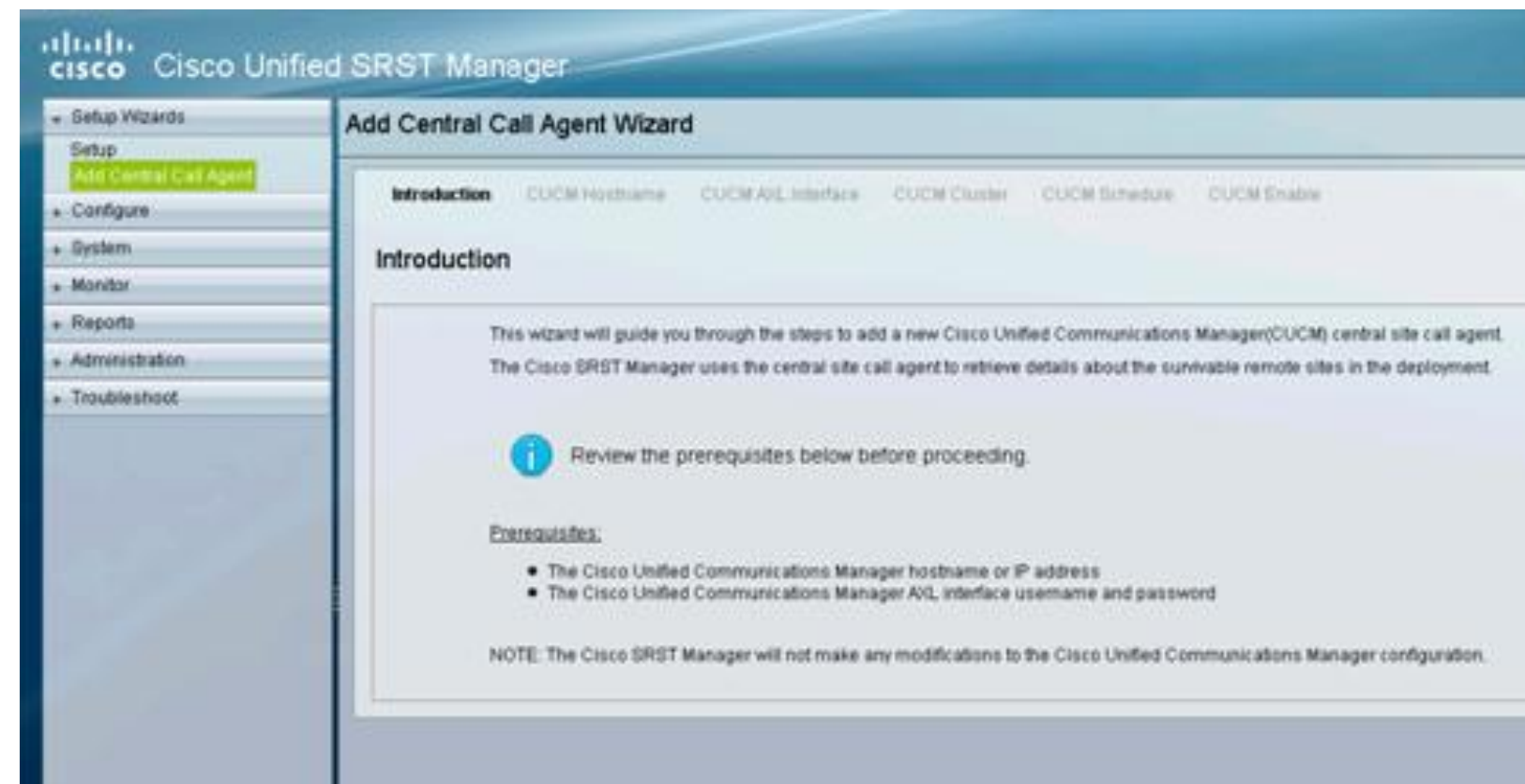
Cisco Unified SRST Manager

Benefits

- Automates E-SRST and/or SRST CLI configuration.
- Positive impact on OPEX. For example: To manage 100 E-SRST sites where each site has 30 users requires ~3000 CLI commands for basic survivability features. SRST manager automates the entire task.
- SRST Manager is a *free* application.
- SRST Manager is a virtual appliance able to run on any VMware ESXi host

Cisco Unified SRST Manager - Overview

- SRST Manager is a Cisco application that runs on a virtual machine
- Connects to Cisco UCM to read configuration and translates configuration to CLI and provisions SRST routers
- SRST manager is compatible with Cisco UCM and Cisco Business Edition 6000 versions 8.6, 9.0 and above
- Automates CLI provisioning of SRST site routers, greatly impacting OPEX and improving SRST site resiliency
- Supports classic SRST and Enhanced SRST provisioning



Cisco Unified SRST Manager

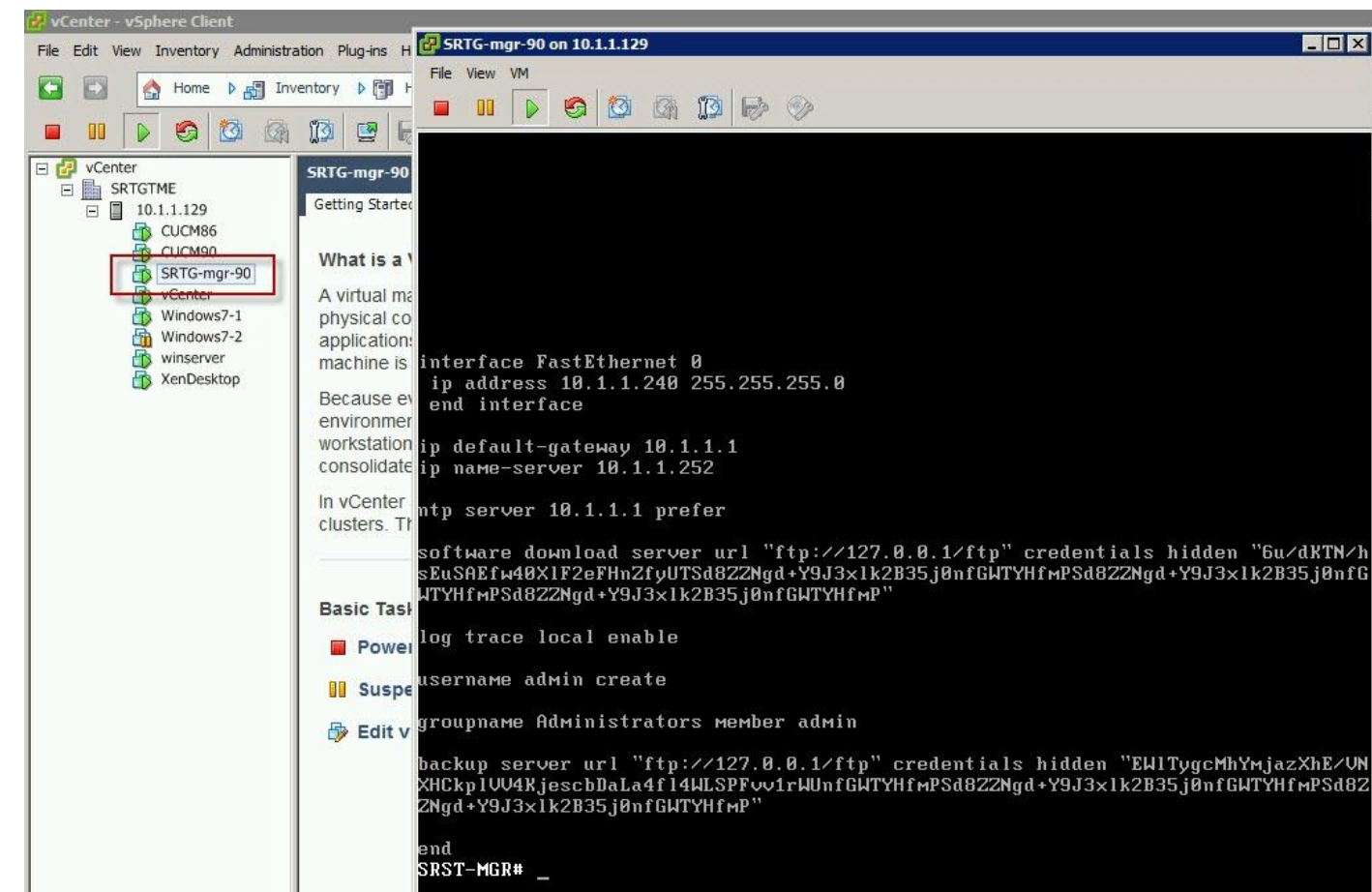
Overview

- E-SRST supports surviving enhanced features (e.g. dial plan, user specific phone configuration)
- One SRST Manager can manage ~2000 SRST or E-SRST sites
- Troubleshooting made easy with Troubleshoot tab menu and Dashboard
- Supports both SCCP and SIP end-point survivability configuration
- Supports mapping and provisioning Class of Restrictions from Central Cisco UCM to SRST site
- Supports mix of SCCP and SIP end-points
- No support for SRSV (voicemail failover)

Cisco Unified SRST Manager

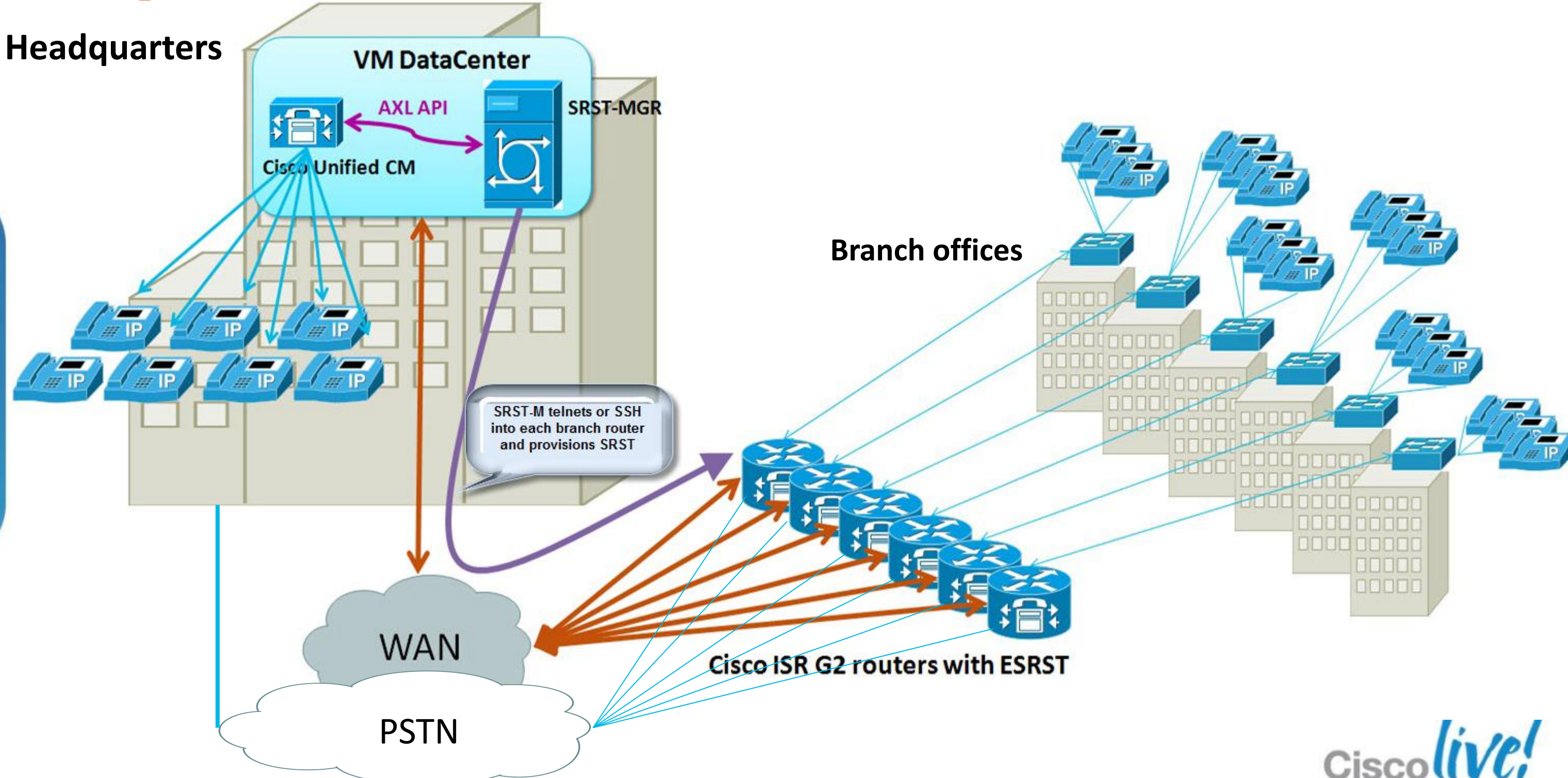
Virtual machine

- Supported on VMware ESXi 4.1 and 5.0
- SRST Manager virtual machine is delivered in a .ova file. The .ova file includes the SRST manager application software
- Virtual machine reserved resources:
 - 1 vCPU
 - 1GB memory
 - 25GB storage min. (thin provision is recommended to allow for growth as needed, 256GB max.)
 - 1 vNIC
 - OVA file will automatically configure these settings when deployed
- Runs on Cisco UCS, UCS-E and any third-party virtualised server
- Supported on UC on UCS TRC's (Tested reference configurations)



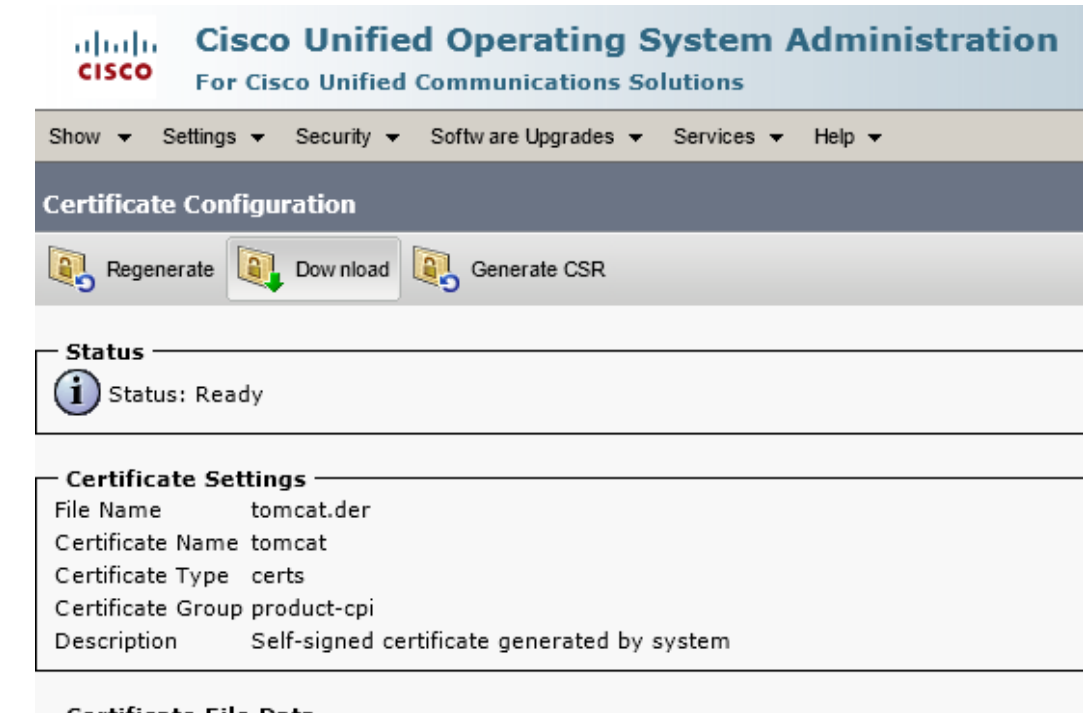
Cisco Unified SRST manager

Configuration flow



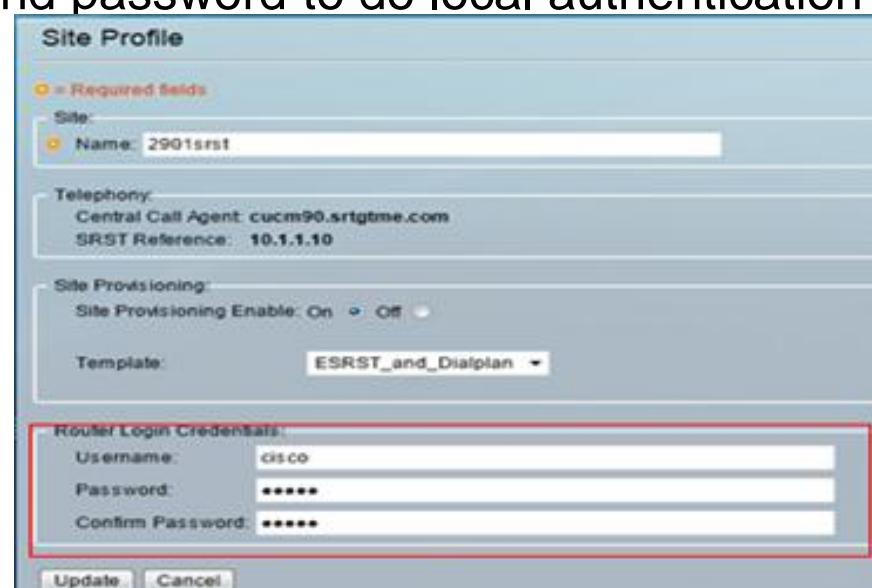
Prerequisites to configure SRST Manager

- The Tomcat certificate from Cisco UCM needs to be uploaded to SRST Manager in order to establish a trusted HTTPS connection. For certificate download details see http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/cucos/8_6_1/cucos/iptpch6.html#wp1061671
- Requires DNS network services to resolve Cisco UCM FQDN and certificate verification
- Cisco UCM has been configured with users and devices and devices have been assigned to SRST/branch sites, via the device pool configuration
- SRST site routers must be configured to allow connections from SRST manager, the connection can be telnet or SSH
- SRST manager needs to be updated with new SRST site username/password
- The 'enable' password is not required, SRST manager uses username and password to do local authentication



Configure username and password, requires privilege level 15:
username name privilege 15 password password
line vty 0 4
login local
Choose whether to use telnet or SSH:
Configure telnet:
transport input telnet
OR
Configure SSH:
transport input ssh

Configure HTTP services:
ip http server
ip http authentication local
Enable or disable the HTTPS secure server, depending on whether TLS is enabled on the Cisco Unified SRST Manager:
•If TLS is enabled on the Cisco SRST Manager, enter the following command:
ip http secure-server
•If TLS is disabled on the Cisco SRST Manager, enter the following command:
no ip http secure-server
If TLS is disabled on the Cisco SRST Manager, this setting is required for the CUCM voice configuration to be downloaded to the branch router.
Set the IP HTTP timeout policy using the following command:
ip http timeout-policy idle <1-600>



Prerequisites to configure SRST Manager

Continued

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

System ▾ Call Routing ▾ Media Resources ▾ Advanced Features ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Application User Configuration

Save Copy Add New

Status
Status: Ready

Application User Information

User ID* administrator [Edit Credential](#)

Password: [Redacted]

Confirm Password: [Redacted]

Digest Credentials: [Redacted]

Confirm Digest Credentials: [Redacted]

Presence Group* Standard Presence group ▾

Accept Presence Subscription

Accept Out-of-dialog REFER

Accept Unsolicited Notification

Accept Replaces Header

CAPF Information

Associated CAPF Profiles: [Redacted] [View Details](#)

Permissions Information

Groups: Standard Audit Users, Standard CCM Super Users [View Details](#)

Roles: **Standard AXL API Access**, Standard Admin Rep Tool Admin, Standard Audit Log Administration, Standard CCM Admin Users, Standard CCMADMIN Administration [View Details](#)

[Add to Access Control Group](#) [Remove from Access Control Group](#)

Save Copy Add New

*- indicates required item.

An Application User with the Standard AXL API Access Role must be configured. SRST Manager needs the credentials for this user to connect to Cisco UCM and retrieve SRST site configurations

Cisco Unified CM with Cisco Unified SRST Manager

- The tomcat certificate must be uploaded to SRST manager before adding the CUCM publisher server for SRST site discovery

The screenshot shows the 'Add Trusted TLS Certificate' wizard in SRST Manager. The 'Keystore' section has a 'Label' field containing 'CCMcert'. Under the 'TLS Certificate' section, the 'Certificate File' radio button is selected, and the file path 'C:\Users\Administrator\Downloads\CUCM86.srtgtme.com.der' is entered in the text field. A red rounded rectangle highlights the 'Label' field, the 'Certificate File' radio button, and the file path text field.

The screenshot shows the 'Add Central Call Agent Wizard' in SRST Manager, specifically the 'CUCM Hostname' step. The progress bar at the top shows 'Introduction' as completed and 'CUCM Hostname' as the current step. The instruction reads: 'Enter the hostname or IP address of the Cisco Unified Communications Manager.' The text input field contains 'cucm86.srtgtme.com' and is circled with a red rounded rectangle. Navigation buttons 'Back', 'Next', 'Finish', and 'Cancel' are visible at the bottom.

The screenshot shows the 'Add Central Call Agent Wizard' in SRST Manager, specifically the 'CUCM AXL Interface' step. The progress bar at the top shows 'Introduction' and 'CUCM Hostname' as completed, and 'CUCM AXL Interface' as the current step. The instruction reads: 'Enter the login credentials for the Cisco Unified Communications Manager AXL interface.' The 'AXL Username' field contains 'srstadmin'. The 'AXL Password' and 'Confirm AXL Password' fields are filled with masked characters (dots) and are circled with a red rounded rectangle. Navigation buttons 'Back', 'Next', 'Finish', and 'Cancel' are visible at the bottom.

Cisco Unified SRST Manager

Enhanced-SRST for IP phones

- SIP phones are now supported with enhanced SRST
 - Voice register global
 - Voice register pool
 - Voice hunt-group
 - Sip registrar service
- Phone configuration survivability (e.g. Speed-dials, hunt-group, call pickup/park)
 - SRST manager retrieves all SRST sites from CUCM DB and provisions all IP phones assigned to SRST site
 - In CUCM IP phones are assigned to “device pool” with which in turn has a “SRST “ site reference assigned
 - Cisco UCM IP configuration gets correlated to E-SRST “ephone” and/or “voice register pool” configuration
 - Support for both SCCP and SIP phones
- Capacity of users per SRST site
 - E-SRST supports supplementary user features and scales to numbers inline with CME

Cisco Unified SRST Manager

Feature enhancements compared to UMG E-SRST

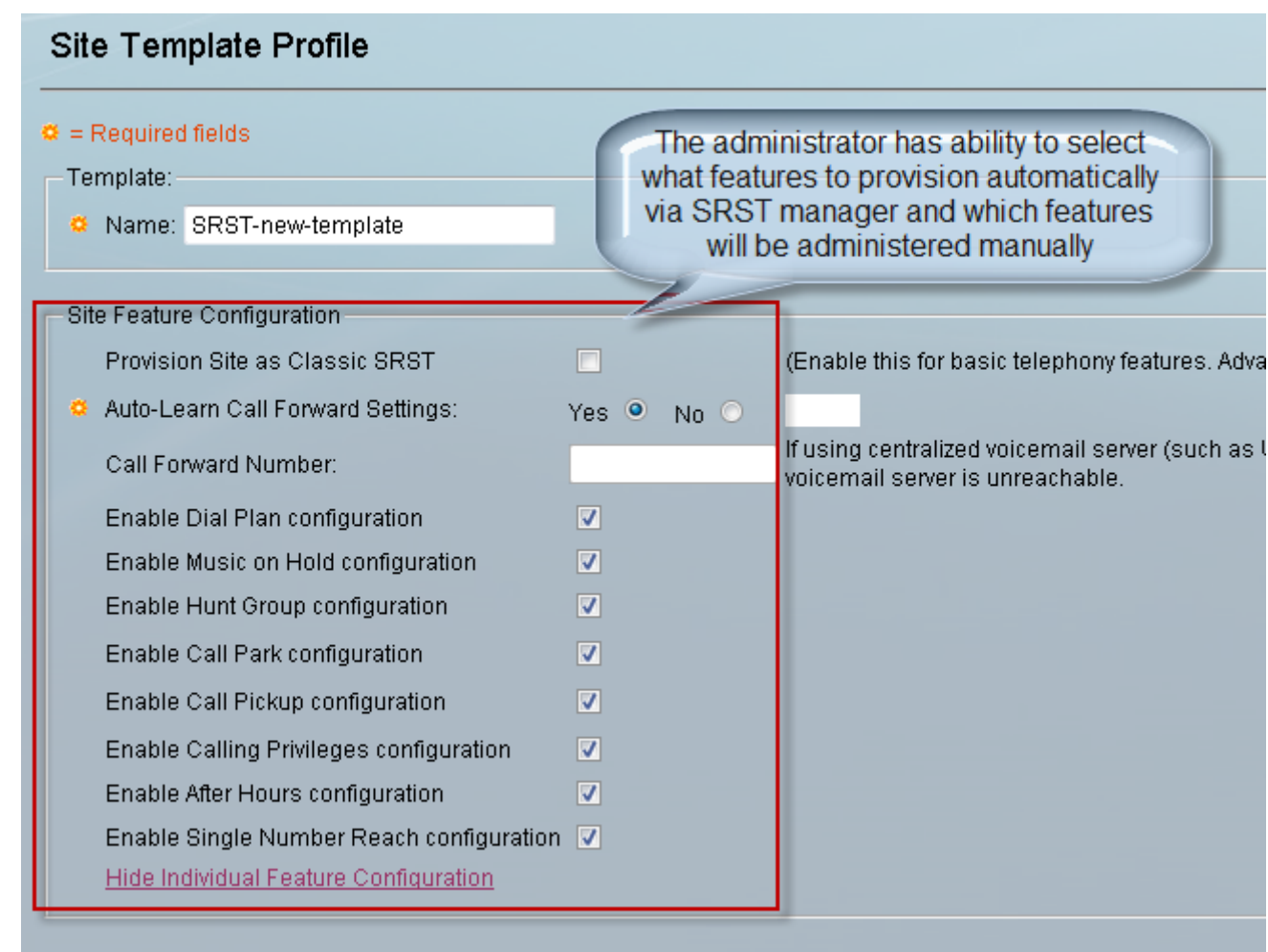
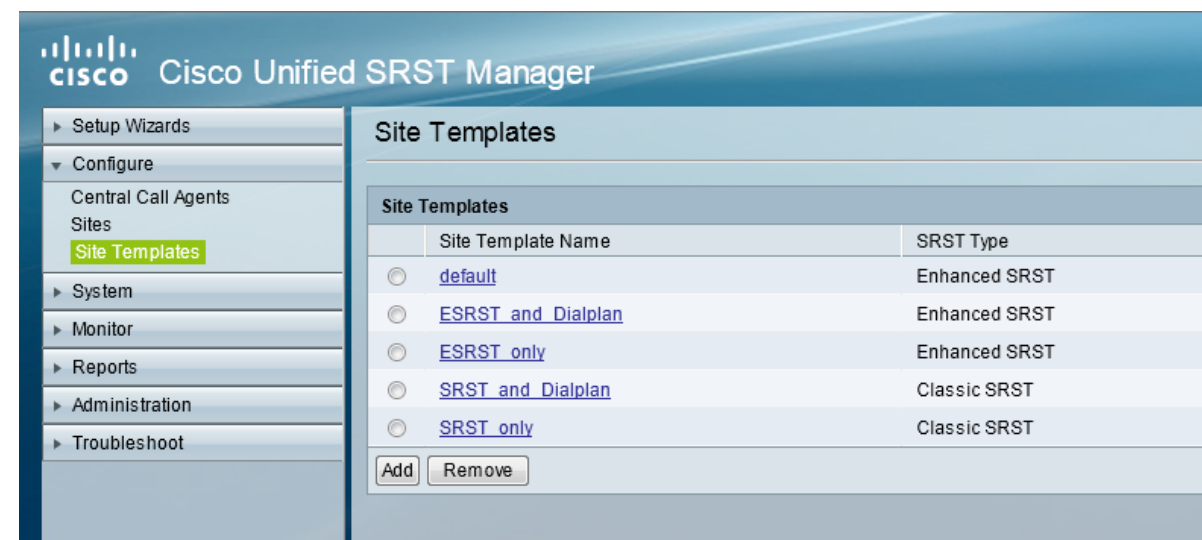
- MGCP based dial-plan
- SIP phones
- SIP hunt-group
- Class of Restrictions, including Time-of-day routing
- External mask translations
- Outbound dialing patterns
- Incoming call treatment
- Option to choose automatic provisioning of ESRST, SRST and Dial Plan per branch site
- SSH console support
- Music on-hold
- Single number reach

MGCP Dialplan feature is on a controlled release

Cisco Unified SRST Manager

SRST site configuration templates

- SRST manager allows the administrator to enable or disable automatic provisioning of features
- SRST manager comes with a default provisioning template and pre-created templates for ESRST and dialplan, SRST and dialplan, ESRST only or SRST only options.
- An administrator can also create a new template and choose the features to automatically provision through SRST manager. This would allow the administrator to manually configure and manage features. For example disabling dialplan in cases where the administrator only wants to manage IP phones via SRST manager



Cisco Unified SRST Manager

SCCP and SIP IP phone feature overview

- Using ESRST most user specific IP phone configurations are survived, but not all feature are

Survived

- Speed-dials
- Caller-id
- Softkey layout
- multi-line appearance
- Call-forward
- DN extension line
- hunt-group
- Call-park and pickup
- Class of restriction
- MGCP Dial plan
- MoH

Not Survived

- BLF-SD
- fastdials
- directory services

Note: ESRST features will continue to improve through the upcoming release cycles

Cisco Unified SRST Manager

Dialplan survivability

■ Dialplan survivability

- Correlates CUCM Calling Search Space and Partition configuration to IOS “COR list” configuration and applies to IP phones
- Cisco UCM route-patterns and translation-patterns correlate to dial-peers and number-expansions respectively
- Calling/Called party transformation in Route Patterns, Route List Detail Level and Gateway are configured as translation-profile and translation-rules
- COR policies applied to users and trunks on CUCM are carried to E-SRST sites during WAN outages
- Dial plan survivability only supports MGCP gateways T1/E1/FXO ISDN/CAS (SIP and H323 gateways in roadmap)

Only MGCP gateways supported

The screenshot displays the Cisco Unified SRST Manager interface for configuring Calling Search Spaces. It is divided into two columns, each showing a different configuration for a Calling Search Space.

Left Column (Restricted CSS):

- Calling Search Space Information:** Name: Restricted, Description: Restricted.
- Route Partitions for this Calling Search Space:** Available Partitions: Intra; Selected Partitions: International, Local.

Right Column (Unrestricted CSS):

- Calling Search Space Information:** Name: Unrestricted, Description: Unrestricted.
- Route Partitions for this Calling Search Space:** Available Partitions: International, Local; Selected Partitions: Intra-office.

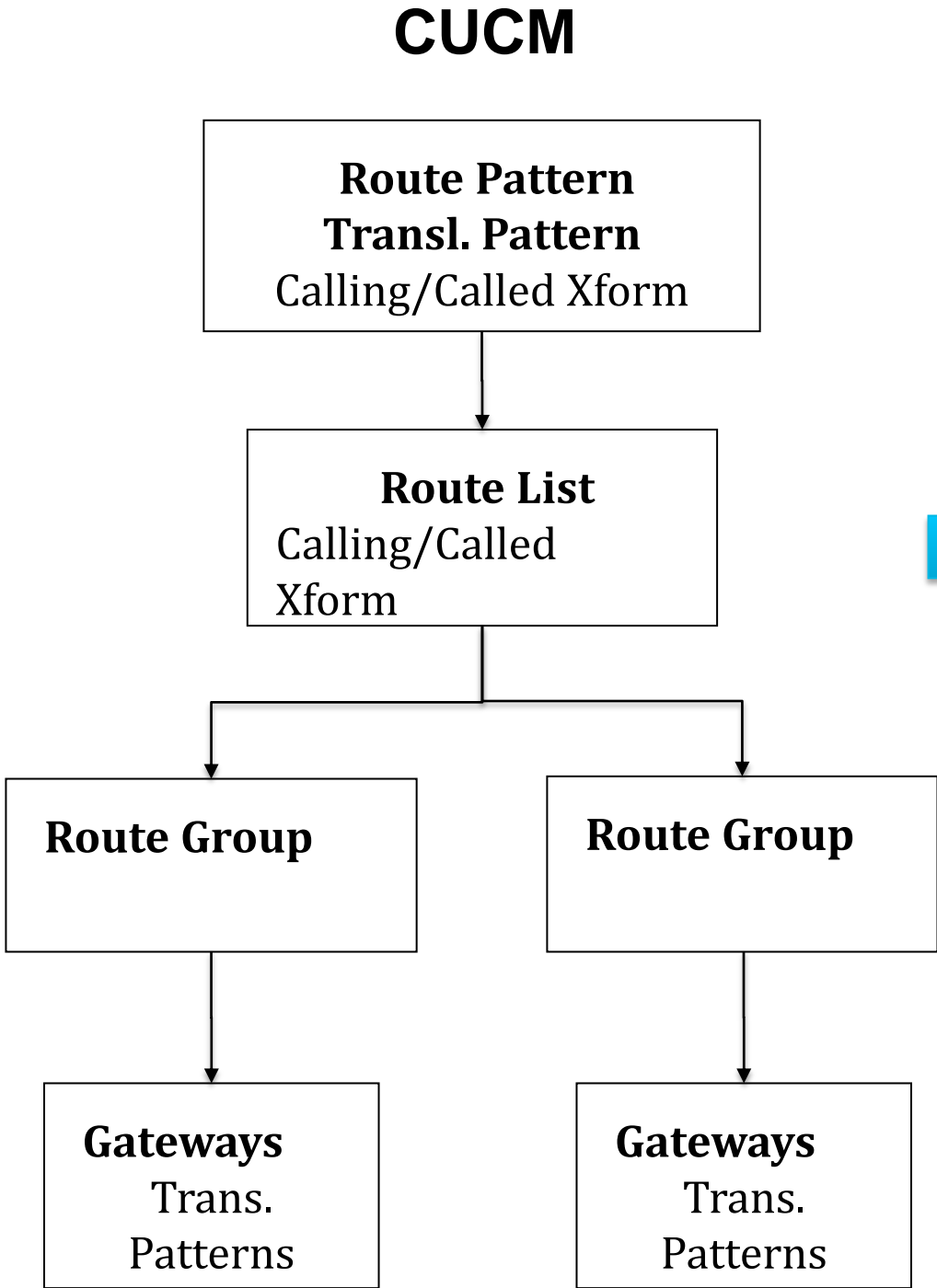
At the bottom of each column are buttons for Save, Delete, Copy, and Add New.



```
dial-peer cor custom
name International
name Local
!
!
dial-peer cor list International-pt
member International
!
dial-peer cor list Local-pt
member Local
!
dial-peer cor list Restricted-cs
member International
member Local
```

Cisco Unified SRST Manager

Dial Plan Provisioning



SRST

```
num-exp <match-pattern> <replace-pattern>
```

```
dial-peer voice 898980001 pots  
description Created by SRST Manager  
translation-profile outgoing rp97123  
translation-profile incoming gw000:23  
destination-pattern 97123  
clid strip name  
no digit-strip  
port 0/0/0:23
```

```
voice translation-profile rp97123  
translate called 898980004  
translate calling 898980005
```

```
voice translation-profile gw000:23  
translate called 898980006
```

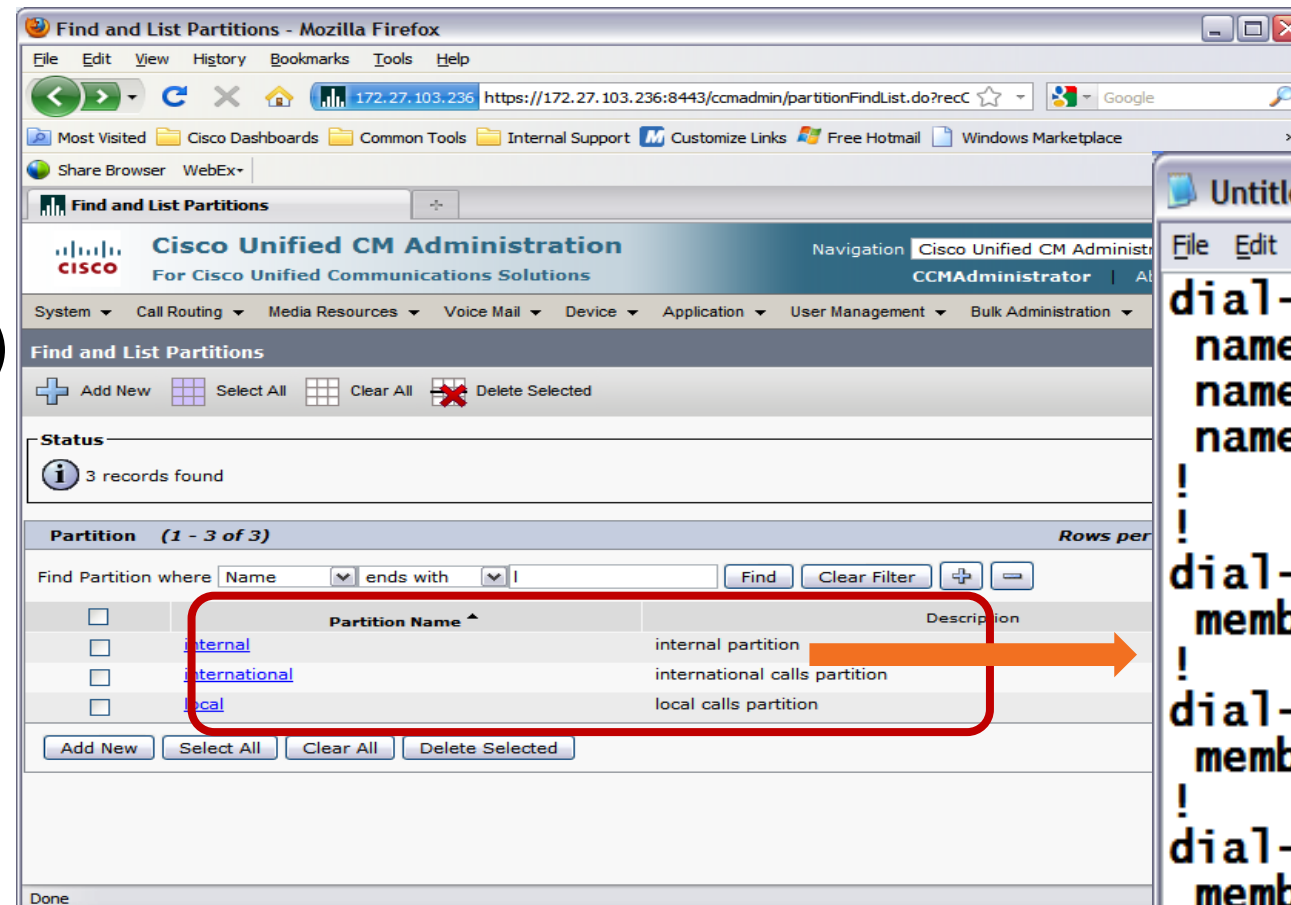
```
voice translation-rule 898980005  
rule 1 ^(.*)\(\...\)/ /1508\2/
```

```
voice translation-rule 898980012  
rule 1 ^(.*)\(\...\)/ \2/
```


Cisco Unified SRST Manager

COR Overview

- Assigns calling privileges for SIP (voice register pool) or Skinny (ephone-dn) phones on CME
- Allows or restricts DNs to call other internal DNs within a site
- Allows or restricts DNs to call external phone numbers that are local, long distance or international



```
Untitled - Notepad
File Edit Format View Help
dial-peer cor custom
name internal
name international
name local
!
!
dial-peer cor list internal-pt
member internal
!
dial-peer cor list international-pt
member international
!
dial-peer cor list local-pt
member local
```

Cisco Unified SRST Manager

Hunt-group with Time-of-Day routing

Current Line Group Members

Reverse Order of Selected DN/Route Partitions

Selected DN/Route Partition	6111/Internal access 6112/Internal access 6113/Internal access
Removed DN/Route Partition	

Directory Numbers

- 6111 in Internal access
- 6112 in Internal access
- 6113 in Internal access

Status

Status: Ready

Pattern Definition

Hunt Pilot* 6110

Route Partition Internal access

Description

Numbering Plan < None >

Route Filter < None >

MLPP Precedence* Default

Hunt List* hunt (Edit)

Alerting Name

ASCII Alerting Name

Route Option Route this pattern

Status

Status: Ready

Time Period Information

Name* 8 to 5

Description 8 to 5

Time Of Day Start* 08:00

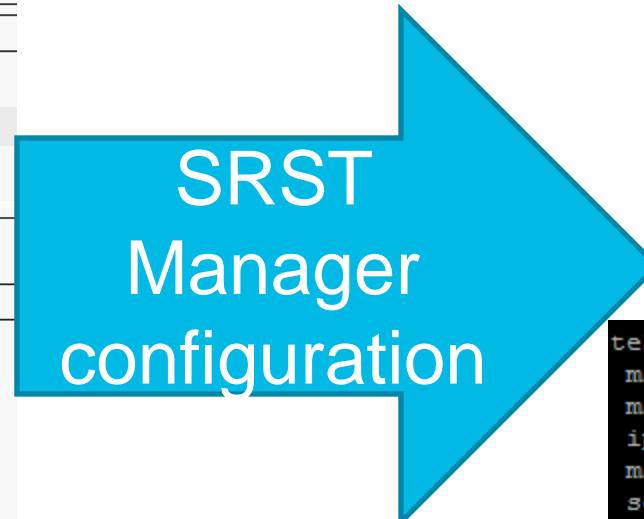
Time of Day End* 17:00

Repeat Every Week from Mon through Fri

Year on None until None

until None

Clear Repeat



SRST
Manager
configuration

```
voice register pool 1
id mac 6416.8D51.1216
type 9971
number 1 dn 1
number 2 dn 2
speed-dial 1 25001 label "Ronald"
speed-dial 2 25003 label "Victoria"
speed-dial 3 90001 label "remote-site"
!
voice register pool 2
id mac F025.7279.A6A8
type 9971
number 1 dn 3
number 2 dn 4
speed-dial 1 25001 label "Ronald"
speed-dial 2 25002 label "Phillip"
speed-dial 3 90001 label "remote-site"
!
voice register pool 3
id mac 0064.40B5.7AF5
type 9971
number 1 dn 5
number 2 dn 6
speed-dial 1 25002 label "Phillip"
speed-dial 2 25003 label "Victoria"
speed-dial 3 90001 label "remote-site"
!
voice hunt-group 1 parallel
list 6111,6112,6113
timeout 10
pilot 6110
preference 4 secondary 9
```

```
telephony-service
max-ephones 350
max-dn 900
ip source-address 172.25.12.1 port 2000
max-redirect 5
service directed-pickup gpickup
time-zone 22
time-format 24
max-conferences 8 gain -6
call-park system application
hunt-group logout HLog
web admin system name demotme secret 5 $1$vbqP$D.2/dE5bDAnJpPF6IbBXd/
transfer-system full-consult
after-hours day Sun 08:01 08:00
after-hours day Mon 17:00 08:00
after-hours day Tue 17:00 08:00
after-hours day Wed 17:00 08:00
after-hours day Thu 17:00 08:00
after-hours day Fri 17:00 08:00
after-hours day Sat 08:01 08:00
create cnr-files version-stamp /960 May 17 2012 20:26:44
```

Cisco Unified SRST Manager

Enhanced IP phone survivability -Before WAN failure-

Joe is in a ESRST site



Rob is in a SRST site



For both phones WAN is up and registered to Cisco Unified CM

Cisco Unified SRST Manager

Enhanced IP phone survivability -After WAN failure-

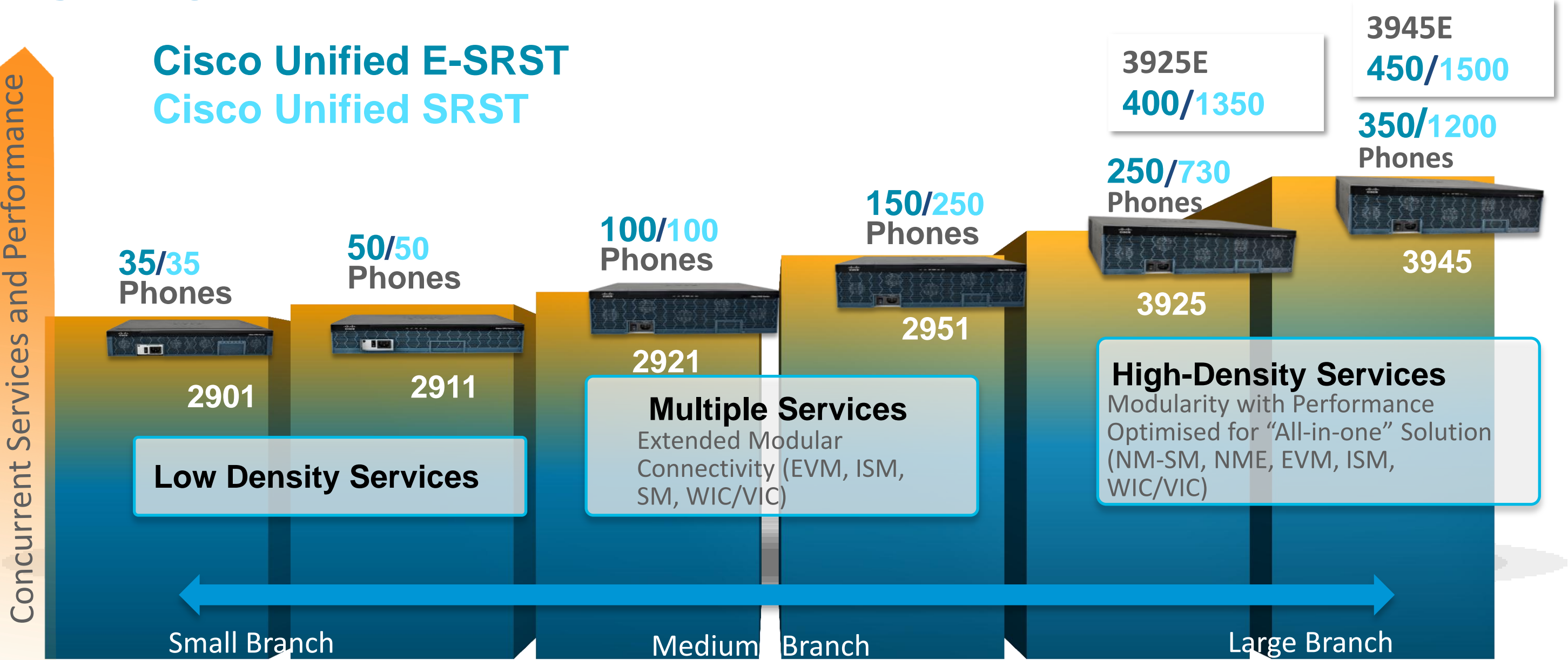
Joe survived Speed dial and DN configuration

Rob only survives assigned DN and dial-tone



WAN link is down and each IP phone registered to its respective SRST

Cisco SRST and E-SRST Capacity on ISR G2



Cisco Unified SRST Manager

Performance

- In subsequent updates SRST Manager looks for any modified, added, erased changes in CUCM. If any, it will push the new configuration; if none, it leaves SRST router alone.
- SRST configuration updates can be scheduled through the provisioning scheduler based on time of day and can be set to perform updates on a daily, weekly or monthly basis
- After SRST manager retrieves branch sites configuration from CUCM it waits for the provision the sites. SRST manager will provision 5 sites at a time (5 simultaneous threads) until all branch sites are configured
- SRST manager bandwidth utilisation of a single branch router provisioning is ~100kbps peak (1000 sites, 30 users per site)

Note: Although SRST Manager does not over use network and computing resources it is recommended to run updates during off-peak hours because CUCM queries may cause CUCM processing interruptions. Although CUCM 8.0 and above is designed to ignore CPU request other than call signalling request when CPU utilisation crosses a threshold.

SRST Manager can run on 1vCPU or assign 2 vCPU to achieve better performance during first time provisioning and subsequent configuration updates if changes are constant across the majority of sites.

No. of vCPU	500 sites, 30 users provisioned in hours	1000 sites, 30 users provisioned in hours	2000 sites, 30 users provisioned in hours	500 sites, 30 users plus dialplan provisioned in hours	1000 sites, 30 users plus dialplan provisioned in hours	2000 sites, 30 users plus dialplan provisioned in hours
1	5 hrs.	10 hrs.	22 hrs	~6 hrs	~12 hrs.	~26 hrs
2	<3 hrs.	5 hrs.	10 hrs.	<5 hrs	~6 hrs.	~12 hrs.

Cisco Unified SRST Manager

Configuring existing SRST sites

Pre-existing configuration found on ESRST router	SRST Manager Action (Keep/Overwrite with CUCM configuration)
Ephones	Keep
Ephone-dns	Keep
Ephone buttons	Keep
Ephone speed-dials	Keep
Voice register pool	Keep
Voice register dn	Keep
CoR (Class of Restrictions)	Erase all, then configure using CUCM configuration
Ephone-templates (soft keys)	Erase all, then configure using CUCM configuration
Ephone-dn-templates	Erase all, then configure using CUCM configuration
Other IOS configuration (dial-peer, interfaces etc)	Keep
Conflicting configuration between CUCM and ESRST	CUCM configuration takes precedence

Cisco Unified SRST Manager

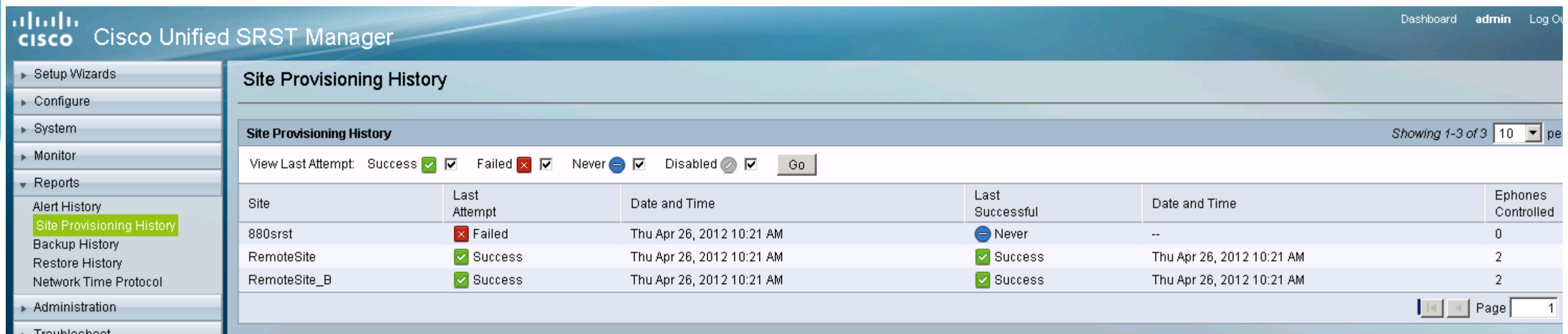
Monitor and reports

- Administrator can monitor progress of each remote site provisioning and obtain history information



The screenshot shows the 'Provisioning Status' page in the Cisco Unified SRST Manager. The left sidebar contains a navigation menu with 'Provisioning Status' highlighted under the 'Monitor' section. The main content area displays a status message: 'Provisioning active ... Please wait, page will refresh automatically ...' with a 'Pause Auto Refresh' button. Below this is a table titled 'Site Provisioning Status'.

Site	Progress	Result
880srst	In Progress	In Progress
RemoteSite	In Progress	In Progress
RemoteSite_B	In Progress	In Progress



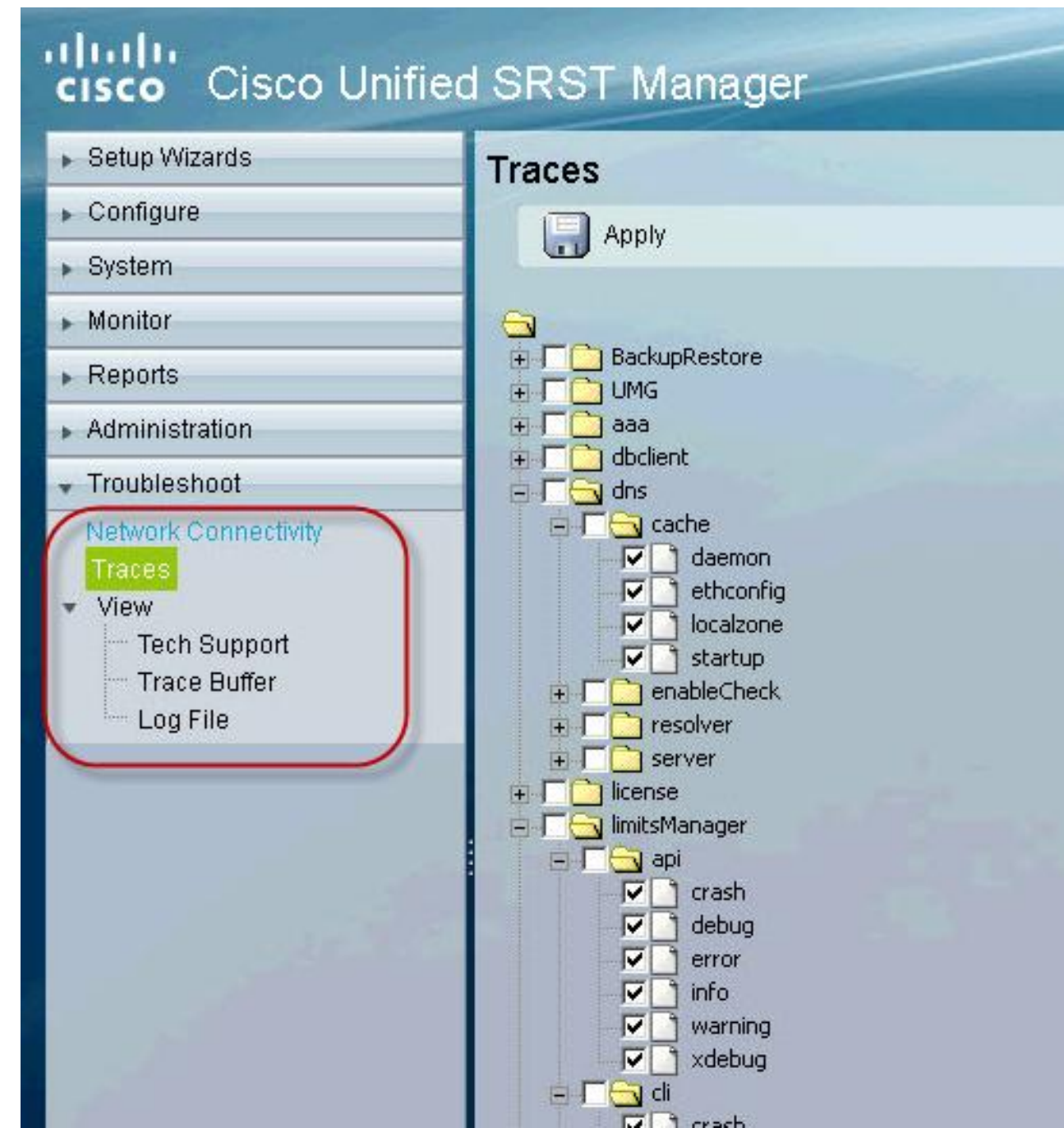
The screenshot shows the 'Site Provisioning History' page in the Cisco Unified SRST Manager. The left sidebar has 'Site Provisioning History' highlighted under the 'Reports' section. The main content area includes a filter bar for 'View Last Attempt' with checkboxes for Success, Failed, Never, and Disabled, and a 'Go' button. Below is a table with columns for Site, Last Attempt, Date and Time, Last Successful, Date and Time, and Ephones Controlled.

Site	Last Attempt	Date and Time	Last Successful	Date and Time	Ephones Controlled
880srst	Failed	Thu Apr 26, 2012 10:21 AM	Never	--	0
RemoteSite	Success	Thu Apr 26, 2012 10:21 AM	Success	Thu Apr 26, 2012 10:21 AM	2
RemoteSite_B	Success	Thu Apr 26, 2012 10:21 AM	Success	Thu Apr 26, 2012 10:21 AM	2

Cisco Unified SRST Manager

Troubleshooting

- Collect traces for specific services (e.g. cli, SRSX)
- View option allows viewing:
 - tech-support information (i.e. running-config, version, vGE interface status)
 - Logged messages via log buffer (similar to “show log” on a router)
 - You can download log file in txt format
- During provisioning if a SRST site fails to configure the GUI will display an error message
- You can view a summary of provisioning errors and system alerts via the system “Dashboard”
- Test Network Connectivity to Central Cisco UCM and remote branch SRST routers



Cisco Unified SRST Manager

More Troubleshooting –Dashboard–

Provisioning Status

Sites	Status	Report
2	Success	Review provisioning for successful sites
1	Failed	Review provisioning for failed sites
0	Never	Review sites never provisioned
0	Disabled	Review disabled sites

3 site(s) managed.

System Alerts

Alerts	Level	Report
0	Critical	Review critical alerts
11	Error	Review error alerts
27	Warning	Review warning alerts
29	Information	Review information alerts

[Clear Alerts](#)

Activity Log

No activity.

- Dashboard gives you high-level view of system status and provides link to details of each event summary
- The Failed reports will give diagnosis of each failed SRST site and the reason it failed

Alert History

Alerts History

View: Critical Error Warning Information [Go](#)

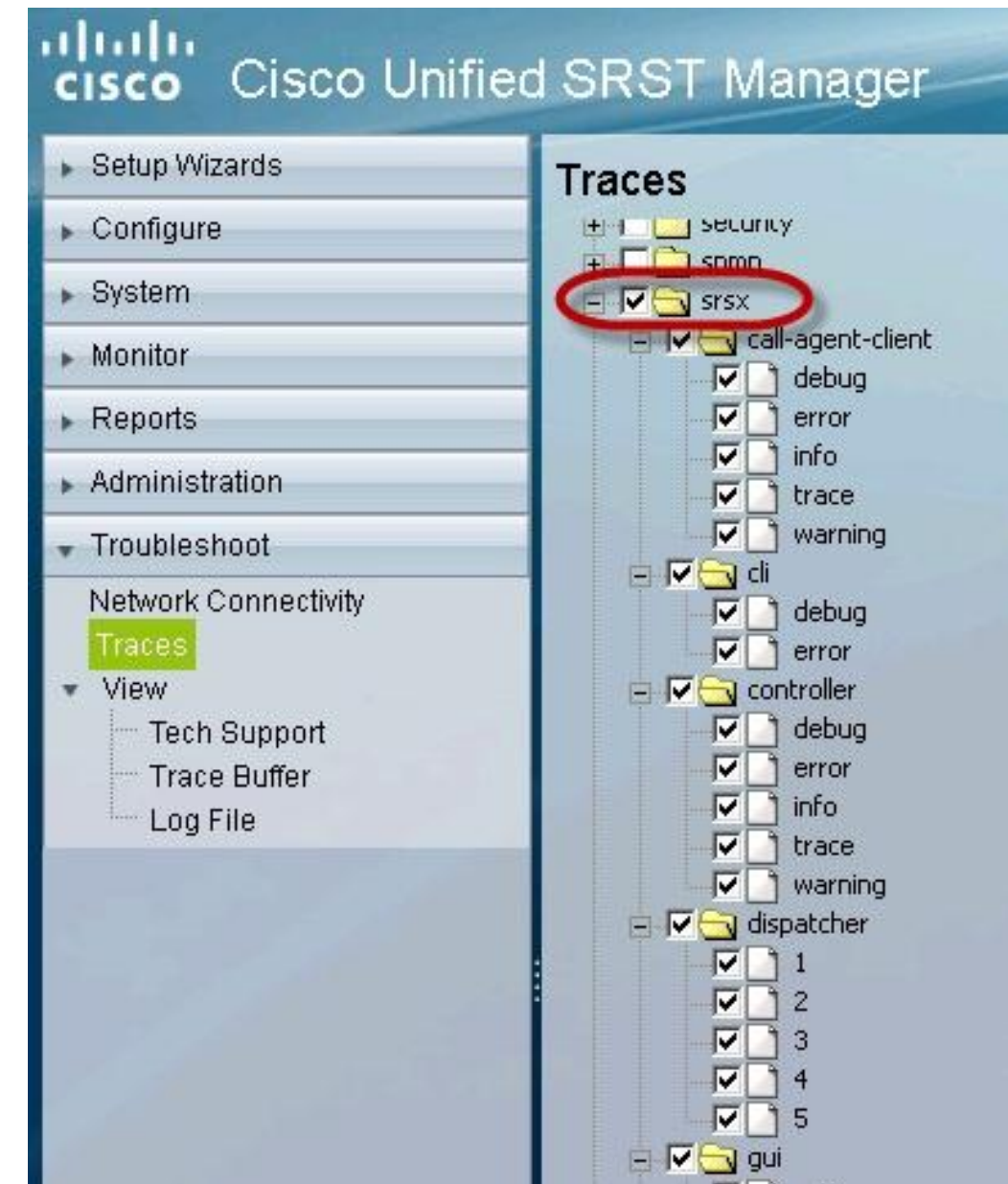
Level	System	Date and Time	Description	Help
Error	SRST-MGR	Wed Apr 25, 2012 10:00 PM	Unable to delete DN for site :10.1.1.3	details
Error	SRST-MGR	Wed Apr 25, 2012 10:00 PM	Unable to provision site :880srst	details
Error	SRST-MGR	Wed Apr 25, 2012 10:00 PM	CME/SRST not supported on router for site :880srst	details
Error	SRST-MGR	Tue Apr 24, 2012 10:00 PM	Central telephony service server could not be contacted for provisioning.	details
Error	SRST-MGR	Tue Apr 24, 2012 03:35 PM	Unable to provision site :880srst	details
Error	SRST-MGR	Tue Apr 24, 2012 03:35 PM	CME/SRST not supported on router for site :880srst	details
Error	SRST-MGR	Tue Apr 24, 2012 03:31 PM	Unable to provision site :880srst	details
Error	SRST-MGR	Tue Apr 24, 2012 03:31 PM	CME/SRST not supported on router for site :880srst	details
Error	SRST-MGR	Tue Apr 24, 2012 03:29 PM	Unable to provision site :880srst	details
Error	SRST-MGR	Tue Apr 24, 2012 03:29 PM	CME/SRST not supported on router for site :880srst	details

[Delete Alert History](#)

Cisco Unified SRST Manager

More troubleshooting –Collecting traces-

- Critical log trace is “SRSx all”
- To capture traces use tab Troubleshoot → Traces
- To clear and/or download the trace buffer use the tab Troubleshoot → Trace Buffer
- Download trace bundle file
- Reports for history performance



Cisco Unified SRST Manager

Licensing

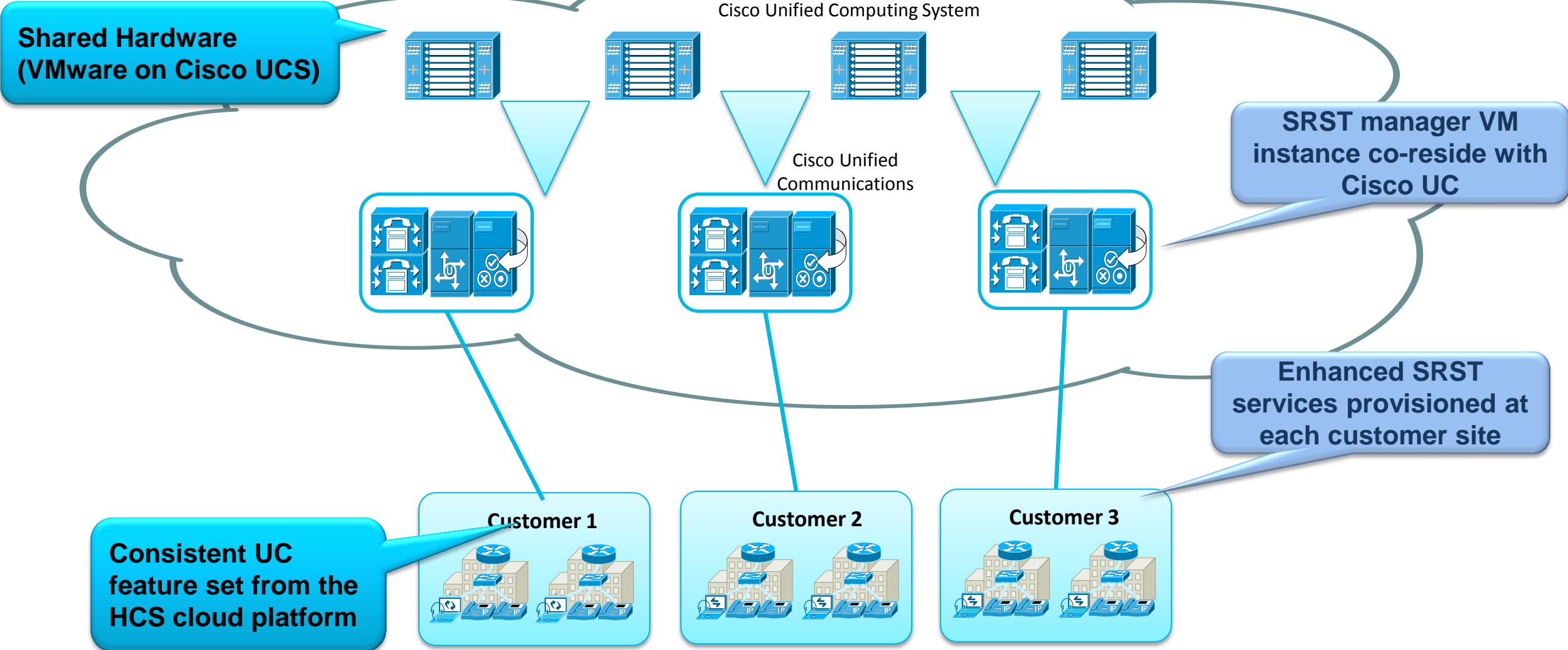
- Right to Use License
- No CSL based license
- No limit on number of Sites supported.
 - System has been verified to support 2000 sites.
 - Additional vCPUs may be needed to support higher site counts

Cisco Unified SRST Manager

HCS support in the Roadmap

Availability in 2013

Hosted Collaboration Solution



Cisco Unified SRST Manager

Caveats when in SRST mode

- MGCP dialplan feature is on a controlled release. Looking for interested customers to test and deploy
- Video phones will not support video calls (no workaround, to be fixed in next release)
- Intra-Site voip calls between remote sites are not possible, must have PSTN backup
- HTTP based services on phones will not survive (e.g. directory lookup, Extension-Mobility)
- H323 and SIP based dial-plan not supported
- Secure SRST is not supported in E-SRST mode (Classic SRST supports secure SRST but must be provisioned out-of-band)
- The following features are provisioned automatically by SRST Manager, but current SIP phone firmware do not support these features during SRST mode:
 - SIP-SIP / SIP-SCCP Share Line
 - SIP SNR
 - SIP Call Park/Pickup

(Note: The above features are disabled by the IP phone firmware when the phone enters SRST mode. Enhancement to the SIP Ip phone firmware is required and planned for an upcoming firmware release)

Summary

- SRST and E-SRST are the two survivability solutions from Cisco
- Enhanced SRST delivers true business continuity and resilient access to services
- Enhanced SRST provides rich end user experience, automatic learning and improves operational cost for the customer
- SRST Manager now available in a virtualised form
- SRST Manager provides centralised management for both SRST and Enhanced SRST

Cisco Unified SRST Manager – Important Links

- Cisco Unified SRST

<http://www.cisco.com/en/US/products/sw/voicesw/ps2169/index.html>

- Cisco Unified SRST Manager data sheet

http://www.cisco.com/en/US/products/sw/voicesw/ps2169/products_data_sheets_list.html

- Cisco Unified SRST Manager compatibility matrix

http://www.cisco.com/en/US/products/sw/voicesw/ps2169/tsd_products_support_general_information.html

- Cisco Unified SRST Manager software download

<http://www.cisco.com/cisco/software/release.html?mdfid=268439627&softwareid=284490609&release=9.0.1&relind=AVAILABLE&rellifecycle=&reltype=latest&i=rm>

- Cisco Unified SRST Manager ordering guide

http://www.cisco.com/web/partners/sell/technology/ipc/uc_tech_readiness.html#~7

DEMO/VIDEO



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