

# Service Centre Manager SCM v3.0

## **Design Guide**

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### **Document History**

Date	Author	Version	Summary
22 Oct 2014	Andrew Murray	0.3	SCM version 1 updates
24 Jul 2015	Murray Lum	2.1a	Added version 2.1 features – agents are now jabber or IP phone users, update wallboard "not-ready" thresholds, apply logo to supervisor screens.
4 Aug 2015	Murray Lum	2.1b	Revised section: not-ready reason codes
5 Aug 2015	Murray Lum	2.1C	Added design checklist & summary CUCM settings. Jabber DND incompatibility.
27 Aug 2016	Murray Lum	2.1d	Corrected typos, expanded backup section, updated VM disk to 150MB from 80MB
17 July 2017	Murray Lum	3.oa	Added CTI settings, settings for 88xx phones, IP phone idle URL now includes line 1 to make external calls when in queue, added Jabber idle url's
17 July 2017	Murray Lum	3.ob	Added Jabber idle url for Mac
17 Dec 2017	Murray Lum	3.0C	Amended formatting for idle url's
19 Feb 2018	Murray Lum	3.od	Added role to account Atea_SCM_API "Standard CTI Allow of Phones supporting" updated SCM picture and software versions

### **Related Documents**

Document	Description	
SCM Supervisor Guide	Day-to-day operations guide for Agent Supervisors using	
	the Atea Service Centre Manager	
SCM Administrator Guide	Guide to add/remove Queues, Supervisors and Agents.	
	Set recording. Set "not ready" reason codes, update	
	screen logos.	

### 1 Purpose of this guide

This guide provides information, so you can plan and design a solution using the Atea Service Centre Manager (SCM). This document covers:

- Overview of the SCM features
- How the SCM appliance fits in with the rest of the CUCM infrastructure
- Basic requirements of the CUCM setup
- Requirements for setting up users
- Network and compute considerations

This guide is intended for solution architects, network architects and designers.

### 2 SCM Overview

The SCM works with your Cisco UCM phone system to provide additional features suitable for a small contact centre.



The key functions of the SCM are:

Administration: An administrator can assign CUCM queues (hunt group pilots) to supervisors. The administrator also assigns agent users to supervisors.

**Queue and agent management**: Supervisors use a dashboard to add or remove their agents to any of the queues the supervisor has access to.

**Live Reporting**: Live statistics are presented via Wallboards. These wallboards are web pages that display information about one or more queues, and update in close to real time. Atea wallboards also highlight when thresholds are exceeded. The thresholds are configurable for statistics like:

- Calls Waiting
- Longest Wait
- Calls Active
- Calls in-progress
- Agents Available

**Historical Reporting**: The Supervisor Dashboard has reports for the supervisor's queues and agents using the calling history. The Queue Reports show the inbound calls to the queues, and the Agent Reports show both the inbound and outbound calls for the agents.

The Queue Reports have these call statistics:

- Incoming calls direct in, total offered, total duration, average duration
- SLA met volume
- Wait time average, maximum, total (aggregate)
- Number of calls abandoned

The Agent Reports are similar and have these call statistics for each agent:

- Incoming calls volume, total duration, average duration
- SLA met volume
- Calls abandoned volume
- Wait time average, maximum, total (aggregate)
- Outbound calls volume, total duration, average duration

For each agent, there are individual reports showing all their calls.

For each call, you can view the individual call legs that make up the call.

**Full-Time Call Recording**: A supervisor can access recordings of their agent's calls where recording is enabled. You can listen to the recordings online (where configured) or download the file. Specific agents can be set to opt-out from recordings.

### 3 SCM Roles

There are three main roles.

#### **SCM Administrator**

The administrator manages the operation of the SCM. They are responsible for:

- Adding and removing queues to the SCM (a queue is a Cisco hunt pilot number)
- Adding users to the SCM (users will be agents or supervisors)
- Assigning who will be supervisors
- Assigning supervisors to queues
- Assigning agents (users) to supervisors
- Assigning whether calls are recorded (supervisor and user settings)
- Setting up friendly display names (aliases) for queues and users.

The administrator can also set some of the system settings including:

- Create the reason codes available when agent goes "not-ready"
- Adding a logo to the page display
- Access to the wallboard administration (separate account).

The SCM Administrator may also be a supervisor.

The SCM administrator requires browser access to the SCM admin console screen, and optionally the Wallboard administration screen (using a separate account).

#### **Supervisors**

The supervisor is responsible for one or more queues, and setting which of their agents are assigned to each queue. Supervisors are presented with a dashboard that allows them to:

- Manage their queues
- Monitor the status of queues and agents
- Allocate agents to the queues
- Listen to recordings
- View historic reports on queue and agent performance
- View a wallboard with status and statistics of all their queues and agents

Supervisors require:

- Browser access to the Supervisor dashboard and reporting screens
- Browser access to their wallboard (which can also be displayed by other users)
- An IP phone or device profile and a standard user account on the CUCM

• To be included in the CUCM user directory

#### Telephone agents

Agents are phone users that answer calls presented to them from the queues. In the CUCM, these are normal telephone users.

Agent requirements:

- Configured as a standard user in the CUCM
- Included in the CUCM user directory
- An IP phone with the built-in bridge feature, or a windows jabber phone, to allow for recording
- Browser access to the wallboard (optional)

In the SCM, agents are configured as having either an IP phone or jabber phone.

Agents with an IP desk phone are automatically configured with buttons to allow them to toggle between being ready or not-ready to take calls. The buttons are provided using an idle URL. The idle URL is only added if they are joined to a queue, and is removed if they are no longer part of a queue. The queue idle URL includes a Line1 soft key which the agent can use to make calls without leaving the queue.

Agents with a windows jabber phone get an Atea SCM tab on the softphone. This also has ready and not-ready buttons instead of the IP phone idle URL. Agents that have both jabber and an IP desk phone get the jabber controls only, and the standard phone display (idle URL setting) remains unchanged.

### 4 Solution Design

### 4.1 Solution Topology



The SCM runs on the Atea TSP server appliance. This is a virtual server appliance using Oracle Linux. This includes an Oracle database and application environment, the Tomcat web server, an Open LDAP directory and other supporting applications such as the Java run time environment, SFTP and SSH. The Atea applications are written in the Java environment.

The SCM interacts with the CUCM, IP phones and user workstations. Recordings are played back either from the SCM appliance or from the network location where the recordings are stored.

Here's how the SCM communicates with other solution components.

#### SCM and CUCM

The SCM and CUCM have several communication streams. These are:

- AXL for user information and settings
- CDR delivery of call information from the CUCM
- Call control for the SIP trunk on the SCM
- CTI for call status information

• Perfmon for user and call information

#### SCM and the SCM Administrator workstation

The SCM Administrator uses a browser to access the SCM admin console screen.

#### SCM and Supervisor workstations

The Supervisors use a browser to access the Supervisor dashboard, reports and the wallboard. Recordings are played back directly from where the recordings are stored or may be saved locally if required. Playback uses any common media player on the Supervisor's computer.

#### SCM and Agent phones (IP desk phone or windows Jabber phone)

Agent IP phones communicate with the SCM for recordings (SIP trunk). The phone uses the built-in-bridge (BIB) feature to relay the audio to the SIP trunk on the SCM.

When an agent's phone is added to a queue by a supervisor, the SCM adds their extension to the appropriate Line Group in the CUCM. In addition, for IP desk phone users only, an idle URL is set on the phone to allow them to indicate whether they ready to take calls. For Jabber phone users, the idle URL is not set as the Jabber window includes ready / not-ready buttons.

#### **Other SCM connections**

The SCM requires connections to an SMTP gateway if email alerts are required.

The main user interfaces to the SCM are via a regular web browser. Supervisors also require a media player and headset or speakers to listen to recordings from their computer. The recordings are standard audio wave files (.au) which are compatible with most common media players.

Remote access to the SCM appliance for Atea support is recommended to enable Atea Support to carry out troubleshooting and upgrades.

#### 4.2 SCM feature – Agent not-ready reason codes

We can disable this feature as a system setting if you don't need it, but it's normally on.

When agents are unavailable to take calls, they have a status of "not-ready". This status appears in two places:

- On the wallboard (against each agent including a time counter)
- On the agent Jabber phone

Agents that go "not-ready" from a Jabber soft phone must choose one of the "not-ready" options.



#### Pre-configured reason codes:

Code (system parameter)	Description (display text)	Comment
Coffee Break	Coffee Break	Code and description can be changed to suit
Lunch	Lunch	Code and description can be changed to suit
Meeting	Meeting	Code and description can be changed to suit
Personal time	Personal time	Code and description can be changed to suit
Training	Training	Code and description can be changed to suit
99992	Unregistered	Appears on wallboard only (not jabber phone) when an agent is not logged into a phone. Code is a fixed value.
99993	Agent Init	Appears on wallboard only if agent goes not-ready from an IP phone (non-jabber user). Code is a fixed value.

The SCM administrator can change, add or remove these using the Administrator Console and likewise adjust the Wallboards. These items show on the agent jabber phone, as a drop-down list next to the coloured status icon.

#### IP phone agents do not have reason codes

Agents with an IP phone rather than a jabber softphone do not have not-ready reason codes. They can only toggle between being ready or not-ready.



IP phone agents also have Line1 appearing on their phone which can be used for making calls without leaving the queue.

#### Not-ready reason codes are global for the SCM

You should consider which reason codes you want to make available. The codes apply for the whole SCM. If you do not need any reason codes at all, this feature can be disabled in the system properties.

#### Making changes to the reason codes

SCM reason-codes have two parts – the "Code" and a "Description". The code is the internal reference used by the Wallboard and SCM Jabber phone. The description is the text that appears in the wallboard and Jabber phone display. The description text may be changed without updating the reference code. These updates will automatically appear once you submit the changes.

Where a code is edited or a new reason code added, all supervisor wallboards must also be updated with the new reason code for it to appear on the wallboard. Updating the wallboard is only required if you want the reason code to appear on an existing wallboard. Instructions are in the Administrator Guide.

#### Colour thresholds on the wallboard

The wallboards are pre-configured to change the colour of the agent background if they are in a not ready state beyond a set time threshold. The threshold and the colour may be adjusted to suit your operations. Instructions are in the SCM Administration Guide.

#### 4.3 Wallboard displays

A wallboard is automatically created for each supervisor, displaying their queues and agent status. The wallboard is started from a link on the Supervisor Dashboard, or the URL can be saved. The wallboard updates information periodically during the day, with the agent status updating more frequently.

Queue	Calls Queued	Longest Wait	<u>Calls</u> Active/Ringing	Agents Available	Handled/Abandoned <u>Today</u>	Avg Wait Today	Longest Wait Today
HP 970	0	0:00	0/0	0	0/0	0:00	0:00
HP 971	0	0:00	0/0	1	1/1	0:04	0:07
HP 972	0	0:00	0/0	2	0/0	0:00	0:00
HP +973	0	0:00	0/0	0	0/0	0:00	0:00
Scm User6 (0) \+1001 Not Ready Unregistered	Scm User1 (0) \+1101 Ready	Scm User2 (1) 1102 Ready	Scm User3 (0) 1103 Not Ready (1:14:48) Meeting	Scm User4 (0) 1104 Not Ready Unregistered	- SCMUnser 1 (0) 1111 Not Ready Unregistered		

The wallboard opens in a browser window. The display is optimised for a full HD monitor (1920 x 1080 pixels), with the browser set the full screen mode. The browser zoom function can be used if a different size window is required.

The wallboard has eight columns of information. The layout appears correctly if the information presented fits within each column.

Tips to improve the visual appearance of the wallboard.

- 1. Use short agent aliases that fit within the column (SCM Administrator task)
- 2. Use short queue aliases that fit within the column (SCM Administrator task)
- 3. Make the browser full screen (usually F11 on a windows computer)
- 4. Zoom the browser window (such as ctrl-mouse wheel, or browser settings)
- 5. Use short not-ready reason-codes that fit within the column. (Wallboard administrator task).

Check the how-to articles on the website for more tips.

### 5 CUCM - Cisco UCM considerations 5.1 Design aspects

#### **Queues and Native Call Queueing**

SCM queues are hunt group pilots configured on the CUCM.

The SCM is compatible with the Cisco native call queuing introduced in CUCM 9. This is a CUCM hunt group pilot with the Queue Calls box enabled. The CUCM queueing feature allows calls to be held in a queue until hunt group members are available to answer the calls. Be sure to configure line groups for the hunt group pilots to suit.

Example queuing configuration on Hunt Pilot 970

Queueing		
Queue Calls		
Network Hold MOH Source & Announcements	< None >	View Details
Maximum Number of Callers Allowed in Queue*	32	(1-100)
When Queue is full:		
<ul> <li>Disconnect the call</li> </ul>		
Route the call to this destination		
Full Queue Calling Search Space	< None >	•
Maximum Wait Time in Queue*	900	(10 - 3600 seconds)
When maximum wait time is met:		
<ul> <li>Disconnect the call</li> </ul>		
Route the call to this destination		
Maximum Wait Time Calling Search Space	< None >	•
When no hunt members answer, are logged in, or registered:		
<ul> <li>Disconnect the call</li> </ul>		
<ul> <li>Route the call to this destination</li> </ul>	971	
No hunt members logged in or registered Calling Search Space	CSS_Internal :	•

Callers in a queue receive an initial greeting announcement followed by music-on-hold or tone-"onhold". If the caller remains in the queue for a while, a secondary announcement is played at intervals until the call can be answered - or until the maximum wait timer expires.

For more information on Native Queuing, see the 'Call Queuing' chapter in the CUCM Features and Services Guide.

#### Hunt group settings

Automatically Logout Hunt Member on No Answer (CUCM 9.x+) – this must be set to "off".

#### Telephone Users

Each user in the SCM is derived from the CUCM. The phone user configuration must include these settings:

- Standard CCM user
- Included in the CUCM directory

- User must be configured with a primary extension (DN)
- Device or device-profile settings with Built-in Bridge
- Phone device codec configured for G.711 uLaw or ALaw. Set the CUCM service parameter so that calls to these phones are *always* negotiated to G.711.

For agent users with an IP desk phone (and not a jabber phone), the SCM connects an idle URL on the agent telephone to allow the agent to toggle between being ready or not-ready to take calls.

For Jabber softphone users, the Atea SCM tab on the Jabber phone has the controls for ready and not-ready rather than using an idle URL on the phone.

#### CUCM groups

An additional group is required on the CUCM. Members of this group get administration access to the SCM application. The group name is:

ATEA\_SCM\_ADMIN

#### System accounts and connections for CUCM

The SCM requires these accounts on the CUCM:

- 1. CUCM Application User with AXL read / write and CTI permissions. This is used to gather information and associate agent users with queues.
- 2. CUCM CDR sFTP this is for the delivery of CDR records (5-minute intervals)
- 3. CUCM Perfmon account used to retrieve statistics and monitoring status information

Change the system parameter – "allowed performance queries." Increase this to 80 (max) from 50 (default) to allow for more frequent polling for the wallboard.

#### SIP trunk – if recording enabled

Configure the CUCM with a SIP trunk on the SCM as a destination for the recordings. This is mandatory where calls are to be recorded.

#### CDR - call detail records

The SCM requires CDR call detail information from the CUCM, using sFTP (secure FTP). The SCM processes the CDR information every 10 minutes. CDR information is used for queue reports, agent reports and some wallboard statistics (such as calls answered and calls per day).

#### HLOG – DO NOT USE

The HLOG function is incompatible with SCM. For all SCM users, **remove HLOG** from the softkey template on the user's phone.

### 5.2 CUCM settings summary

Setting Page	Setting details
Call Routing - Hunt - Line Group Configuration	Automatically Logout Hunt Member on No Answer = off (cucmg.x+)
System - Enterprise Parameters	Allowed Performance Queries Per Minute = 80 (default is 50)
System - Enterprise Parameters	CDR File Time Interval = 1
Service Parameters - Cisco	CDR Enabled Flag = True (on all servers running ccm)
CallManager	Show Line Group Member DN in finalCalledPartyNumber CDR Field = True
	Show Line Group Member Non Masked DN in finalCalledPartyNumber CDR Field
Device - Phone	All SCM used phones should have "Logged Into Hunt Group = On"
Device - Phone	IP phone must have built-in bridge (BIB) feature where agent is to be recorded
Device – Phone (Cisco 88XX)	For 88XX phones controlled by jabber, add this group and role:
	Standard CTI Allow Control of Phones supporting Connected Xfer and
	Standard CTI Enabled
Device - Device Settings - Softkey Template	Ensure the Softkey layout applied to the Phone/UDP <b>does</b> not have hlog
Access Control Group	Create group ATEA_SCM_ADMIN
Application User	Application user account with these roles:
ATEA_SCM_API	Standard AXL API Access
	Standard CCM Admin Users
	Standard CTI Enabled
	Standard CTI Allow Control of Phones supporting Connected Xfer and conf

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Setting Page	Setting details
	Standard SERVICEABILITY
	And member of the access control group
	ATEA_SCM_ADMIN
Users - End User	- standard user in the CUCM
(SCM agents and supervisors)	- have a primary extension (Agent only)
	- be included in the CUCM user directory
Users - End User	- standard user in the CUCM
(SCM administrators)	- member of the group ATEA_SCM_ADMIN
CDR Management	CDR sFTP destination has been set
Service Parameters - Cisco	Calls are set to G.711 if recording is on (or negotiate to
CallManager	G.711) Both Alaw and ulaw are fine.
	G.722 Codec Enabled: Disabled (or Enabled for All Devices
	Except Recording-Enabled Devices)
SIP Trunk	Create a CUCM - SIP trunk if recording is enabled
Jabber url	See url's below for Windows and Mac jabber phones

Jabber idle url for windows (caution: check there are no space characters in the url)

http://scm-server-ip-address:8088/ LineGroupMember/servlet/LineGroupManager?action=idlejabber&jabberuser=\${UserID}

Jabber idle url for Mac

http://server-address:8088/ LineGroupMember/servlet/LineGroupManager?action=idlejabber&jabberuser=\${UserID}

### 6 Network and Environment Setup

#### **Network Protocols and Ports**

#### Here are the network requirements for the SCM.

From	То	Parameter	Description
Agent and supervisor workstation	SCM	TCP 8088	Browser access to wallboard
Supervisor and Administrator workstations	SCM	TCP 8080	Browser access to appliance
IP phones	SCM	UDP 16384 - 32767	Agent and supervisor phones to appliance for recording
IP Phones	SCM	G.711 uLAW / ALAW	Voice codec for all telephony traffic for agent and supervisor telephones, and the SCM appliance for recording. Other codecs such as G.729 / G.722 cannot be recorded.
IP Phones	SCM	TCP 80	Agent status display on phone screens; Also, READY/NOT READY agent status activation
Atea / customer support	SCM	TCP 22 (SSH)	Access for support by Atea, Integrator and customer
Atea / customer support	SCM	TCP 8080 / 8088	Access for support by Atea, Integrator and customer
CUCM	SCM	TCP 22 (sFTP)	CUCM to ATEA SCM Server for CDR records
SCM	CUCM	TCP 8443	ATEA SCM Server to CUCM communications
SCM	SMTP	TCP 25	Outbound Email alerts
SCM		TCP 22 (SCP / sFTP)	Optional - backup of appliance data to backup destination
SCM	DNS	UDP 53	DNS lookups
SCM	NTP	UDP 123	Appliance time synchronisation

#### Email alerts

System alerting may be provided by email. This requires an SMTP gateway.

#### **Remote access for support**

Remote access for system support by the integrator or directly from Atea is required.

### 7 Virtual Machine appliance setup

The Atea appliance comprises includes several underlying components. These are provided as part of the virtual appliance that is delivered as an ".OVF" export.

- Oracle Linux 7 update 4 64 bit
- Oracle-XE 11.2.0.2 (64bit)
- Oracle-APEX 5.1.4
- Tomcat 8.5.24
- Java JRE 8 update 144 (64bit)

The versions will change as new releases become available (as at Feb 2018).

The standard virtual machine build is created as a VMWare ESXi 5.1 and OVF 3.0.1. Please contact Atea support if any other type of virtual machine is required.

#### **Capacity requirements**

The virtual machine minimum requirements for the Atea appliance are:

Item	Item
Processor	2 virtual CPUs
RAM	8GB
Disk	150 GB – resilient data store recommended
Additional disk	X GB – depending on recording retention requirements

Recordings may be stored in a separate repository if you expect to store lots of recordings. The capacity requirements for recordings are 28.8 MB per hour of recording.

Oracle XE has a maximum database size of 11GB. This is sufficient for most solutions, unless you plan to keep lots of call records. Recordings are not stored in the database, however a link to the recording is included.

#### **Resilience and service continuity**

The appliance is supplied as a single device. The appliance does not have a high availability configuration, however the underlying virtual infrastructure can be configured with resilience.

#### Security

The Atea appliance is supplied pre-configured with good practice security settings. These are adjusted during normal maintenance releases whilst the device is under support.

It is recommended anti-virus software be disabled for the database components.

#### **Backup and Restore**

We recommend that you implement your own backup strategy for the solution.

The items to backup are:

- 1. VM server you can back this up using suitable VM tools (such as cloning) or using other third-party solutions. A server backup will help if the disk or database becomes corrupted (which may happen if the server is not shut down gracefully).
- Application specific settings, data and Oracle database. The daily backup routine runs at 11pm and automatically saves these items to a folder on the server, overwriting the oldest files. These items are:
  - Linux configuration (7 days kept)
  - Atea applications (7 days kept)
  - Atea application properties (7 days kept)
  - Oracle database (2 days kept)

You can copy these files to a network location using sFTP or simply rely on your server backup. Check the website How-to articles for instructions on backing up the files.

3. Recordings - These are stored either on the server appliance or an alternative network location. You may want to put in place a process to back these up.

Restoring the system.

In general, here's what you do to restore a system:

- 1. Restore the VM server appliance using your backup.
- 2. If necessary, retrieve the latest application settings, data and database, to update the server. For assistance on what to restore, contact Atea Support.

#### Monitoring

We recommend you monitor these items:

#### Atea Systems – SCM Design Guide

Service Name	Service Port
Oracle	1521
Tomcat Web Server	8088
Oracle Web Server	8080

### 7.1 Details for Atea to create Virtual Machine appliance

Please provide the network details for the virtual machine using the form at:

https://www.ateasystems.com/virtual-server-config/

(See screenshot below.)

We'll provide you with a link to download your virtual machine as an OVF archive. You can then import this into your virtual environment.

Customer Company Name *	Customer Email *	
	(to receive download links)	
IP Address*	Hostname *	
The static IPv4 address of this VM	what you want your wallboard host to be called	
Subnet Mask *	DefaultGateway *	
The IP subnet for the VM e.g 255.255.255.0 or /24	The Ipv4 address of the router for the subnet	
DNS Server IP *	DNS Domain *	
The IPv4 address of your company DNS server	Your companies domain name on your DNS e.g ateasystems.com	
NTP Server IP *	Linux Time Zone *	
The IPv4 address of your companies time server	What time zone the server will be in i.e Sydney/AU	
SMTP Server IP *	VMWare Version *	
The IPv4 address of your mail server that allows email relay of noreply@ateasystems.com	(i.e. ESXi 5.5)	
CUCM Server IP *	CUCM Hostname *	
The IPv4 address of your Call Manager	Name of your Call Manager	
Export Format *	CUCM Version *	
Please Select V	Please Select	~
		Submit

**7.2 Completing the VM appliance installation – Atea remote access** The main steps to install the SCM appliance are:

- 1. Fill out the virtual server configuration form
- 2. Download the OVF for the appliance
- 3. Install the appliance as a virtual machine

- 4. Provide remote access for Atea support, along with the MAC address details for the SCM license.
- 5. Atea support will complete the configuration of the SCM to integrate with the CUCM and apply the license file to the SCM. You'll need to configure the CUCM appropriately.

#### 8 Licensing considerations SCM licensing

Atea will add the SCM license onto the VM once it is installed (MAC address required).

#### Server licensing

The server uses open source licensing including Oracle Linux.

#### **Database licensing**

Oracle 11g Express Edition is included with the SCM. As an alternative, we can use Oracle 11g standard one or 12g standard two, using your own license or one that we provide.

#### **CUCM licensing**

No additional licensing is required for the CUCM.

## 9 Dependencies and Restrictions

### 9.1 Supported browsers

For common browsers, the minimum versions are:

- Mozilla Firefox 3.0+
- Google Chrome 1+
- Apple Safari 3+
- Opera 9.5+
- Microsoft Internet Explorer 10

### 9.2 IP Phone types – BIB, G.711 and no HLOG or Jabber DND

Agent phones must have the built-in bridge (SIP forking) feature to allow recording. Windows Jabber is also supported.

All recorded phones and gateways must use the G.711 uLaw or ALaw voice codec. Phones that use the G.722 / G.729 compressed voice codec **cannot be recorded** (these will appear with a recording of zero seconds).

The hunt group HLOG feature is incompatible with SCM. Remove this from the button template of phones that are used with SCM.

The jabber phone do-not-disturb (DND) feature is incompatible with SCM. Jabber users within a queue must avoid this as it will present calls to their phone without any notification (no ringing).

### 10 Design checklist

Here is a check list of things to consider in your SCM design.

Design items		
User roles and queues	SCM and Wallboard settings	
<ul> <li>Hunt group pilots for SCM queue</li> <li>List of SCM administrator(s)</li> <li>Wallboard administrator(s)</li> <li>List of Supervisors for each queue</li> <li>List of Agents for each supervisor Agent settings for either IP phone or jabber phone</li> <li>List of Supervisors where agent recording is enabled</li> <li>List of users for which recording is suppressed</li> </ul>	<ul> <li>Aliases for queues and agents (keep short)</li> <li>Not-ready reason codes defined</li> <li>Thresholds times and colours for not-ready reason codes</li> </ul>	
SCM appliance and networking	CUCM settings	
<ul> <li>VM resources reserved including storage and IP addresses</li> <li>Virtual Server configuration form completed</li> <li>Purging regime for recording files</li> <li>Backup and alerting for appliance</li> <li>SMTP relay for emailed alerts</li> <li>Remote access for Atea support</li> <li>Network ports and protocols enabled</li> <li>Browser access to supervisor dashboard and administrator console (TCP8080)</li> </ul>	<ul> <li>Users (agents) phone and jabber configuration settings</li> <li>Agent phones have BIB and set to use only G.711 codec</li> <li>HLOG button template removed from agents</li> <li>SCM administrator group and members are set up</li> <li>Hunt groups configured</li> <li>Hunt groups configured</li> <li>App user account with AXL, CTI, Perf mon</li> <li>System performance query parameter changed to 80</li> <li>CDR delivery enabled</li> </ul>	

### 11 Terms

Term	Description
Administrator	User that administers the system by assigning supervisors to queues, and
	agents to supervisors
Supervisor	User that has the ability to assign agents to queues. Also able to view real
	time statistics, generate queue and agent reports and sets call recordings
Agent	End user that takes calls
Queue	A phone system entity that distributes incoming calls to a list of contact
	centre agents. In this context, it relates to the Hunt Group feature of Cisco
	UCM, and optionally, the Native Queuing feature of UCM vg.1 and later.
Recording	A digital copy of a call that has taken place. It can be replayed by
	appropriately authorised users.
UCM	Cisco Unified Communications Manager
G.711 ULAW /	Standard telephony audio media format or codec
A-LAW	
G.729 / G.722	Compressed telephony audio media format or codec – these are
	incompatible with SCM recording
TSP	Telephony Services Platform, the name for the Atea application
	environment
Wallboard	A web-based graphical representation of the call statistics and agent status
	for one or more queues. A wallboard is created for each supervisor.
SLA	Service Level Agreement. In this context, it refers to the target answer time
	for incoming calls, although may refer to other metrics.
FTR	Full Time Recording
SIP	Session Initiation Protocol, which is the mechanism used to stream live calls
	from an agent's prione to the TSP for recording.
AXL	One of the APIs used by the system to interact with the Cisco UCM
МОН	Music On Hold, which specifies the audio that queued callers will hear
	(assuming Native Queuing is enabled)
Perfmon Port	One of the APIs used by the system collect statistics from the Cisco UCM
СТІ	Computer Telephone Integration (JTAPI)