



Avaya Solution Interoperability Test Lab

Configuring Avaya Aura® Communication Manager and Avaya Call Management System Release 16.3 with Avaya Contact Center Control Manager™ – Issue 1.0

Abstract

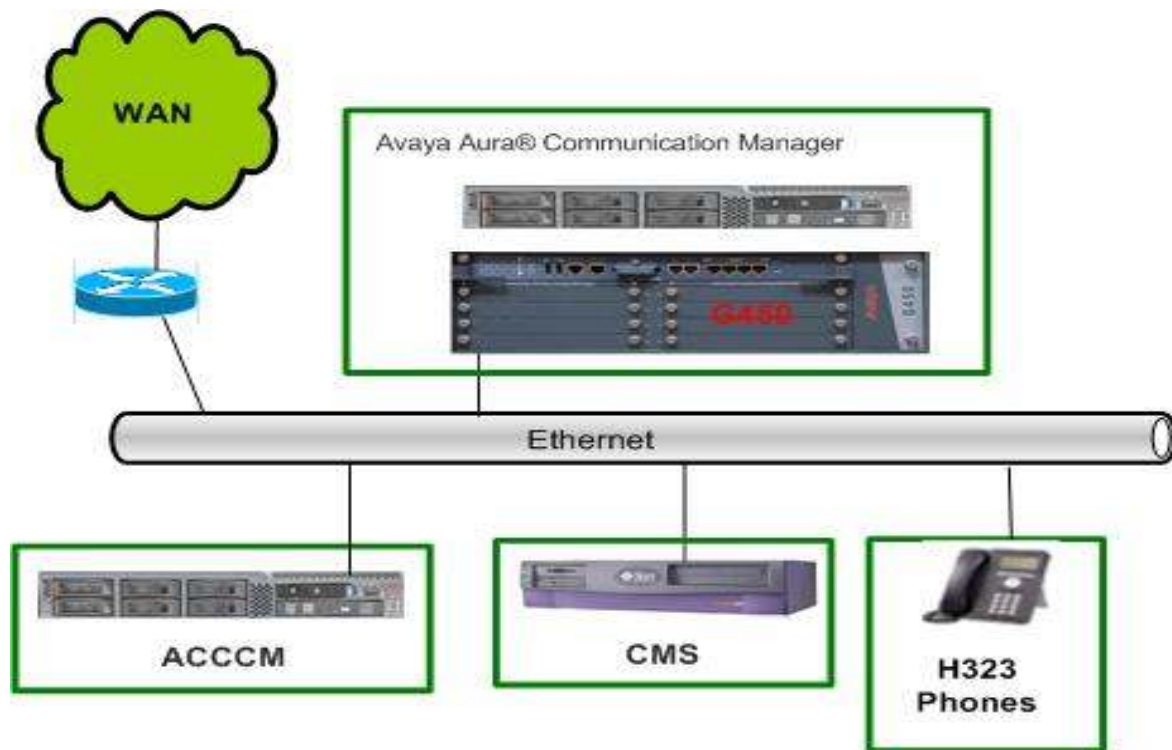
These Application Notes describe a sample configuration of a contact center environment utilizing Avaya Contact Center Control Manager™ 6.3 for centralized administration of Avaya Aura® Communication Manager 6.0.1 and Avaya Call Management System Release 16.3.

These Application Notes provide information for the setup, configuration, and verification of this solution.

1. Introduction

These Application Notes describe a sample configuration for a contact center environment in which centralized administration of Avaya Aura® Communication Manager is performed with Avaya Contact Center Control Manager™ (ACCCM). ACCCM provides centralized administration for several Avaya Contact Center Applications from a web-based interface. This sample configuration depicts a single server deployment of ACCCM on Microsoft Windows 2008 Server Enterprise R2.

These Application Notes will focus on describing a base call center configuration with integration to Avaya Aura® Communication Manager 6.01 and Avaya Call Management System (CMS) Release 16.3.



Solution and Interoperability Test Lab

Figure 1 – ACCCM Topology

2. Equipment and Software Validated

The following equipment and software were used for the sample configuration.

Component	Software Version
Avaya Aura® Communication Manager on S8800 server with a G450 Gateway	Avaya Aura® Communication Manager R6.0.1 Release R016x.00.1.510.1 • Patch 18915
Avaya Contact Center Control Manager™ (ACCCM) on Dell R610 server	Avaya Contact Center Control Manager™ 6.3 Beta (August 24 th 2011) • Microsoft Windows 2008 Server Enterprise Edition R2 • Single Server Deployment of ACCCM
Avaya Call Management System on Sun Solaris T5120 Platform	CMS 16.3 e.ba
Avaya CMS Supervisor Client Workstation	• CMS Supervisor 16.3KD.03 • Microsoft Windows XP Service Pack3
Avaya one-X® Deskphone 9650	• H.323 3.1 Service Pack 2

3. Account Creation on Avaya Aura® Communication Manager

This section describes the details for configuring a user account on Avaya Aura® Communication manager for Avaya Contact Center Control Manager™.

In order for ACCCM to connect with Avaya Aura® Communication Manager a login account for connectivity and administration is required.

For additional information on user administration for Avaya Aura® Communication Manager see **Reference [1] in Section 10.**

Using the Avaya Aura® Communication Manager web interface the following administration step will be described:

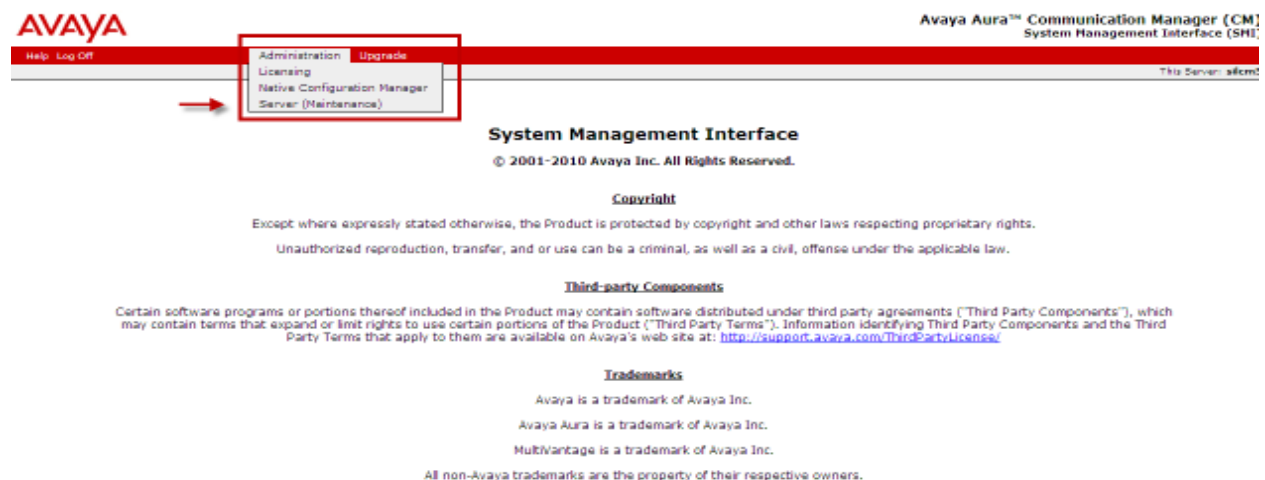
- Create User Account on Avaya Aura® Communication Manager
- Enable craft2 for the ACCCM user account

Note: Some administration screens have been abbreviated for clarity.

3.1 Create User Account on Avaya Aura® Communication Manager

Access the Avaya Aura® Communication Manager web interface by using the URL “<https://<AACM-FQDN>>”, where < AACM-FQDN > is the Fully Qualified Domain Name of Avaya Aura® Communication Manager server. The PC where the web browser is accessed has Domain Name Server (DNS) configured to resolve the AACM FQDN to an IP address. Login using the appropriate administrative credentials.

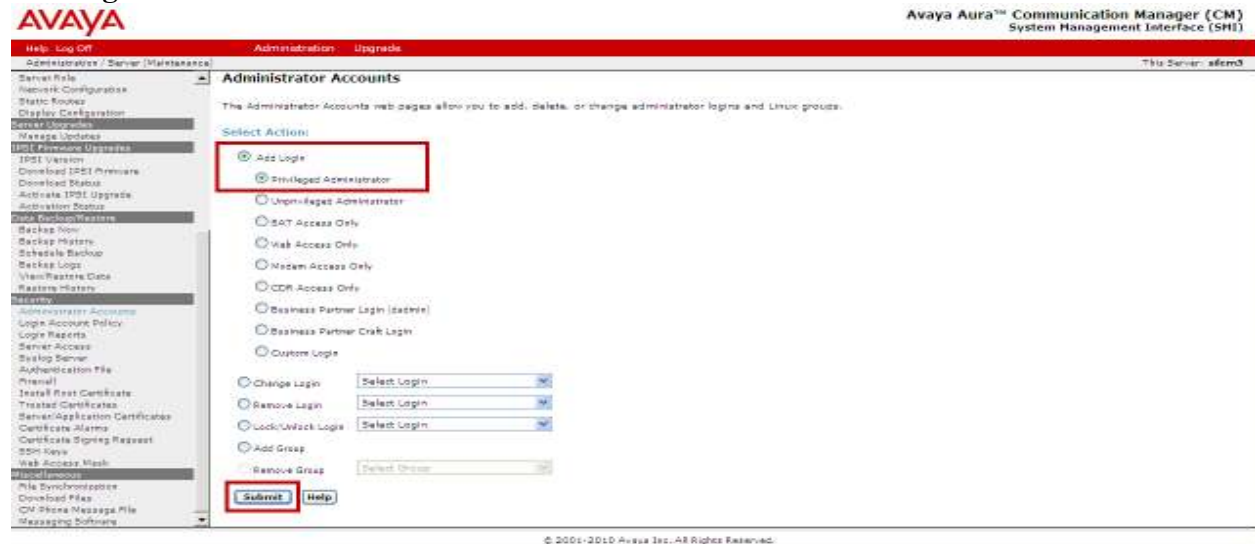
Avaya Aura® Communication Manager **Systems Management Interface (SMI)** page will be displayed. Click on **Administration** in the menu bar and select **Server (Maintenance)** from the drop down.



In the left panel under **Security** select **Administrator Accounts**



The Administrator Accounts page is displayed. Enter  to select **Add Login**. Enter  to select **Privileged Administrator** and click **Submit**.



The **Administrator Accounts – Add Login; Privileged Administrator** page is displayed. Populate and select the following values:

- **Login name** - populate with the desired user account
- **Additional groups (profile)** - select as applicable
- **Select type of authentication** - enter  for **Password**
- For **Enter password or key** and **Re-enter password or key** fields - populate with the desired password
- **Force password/key change on next login** - enter  for **No**

Administrator Accounts -- Add Login: Privileged Administrator

This page allows you to add a login that is a member of the **SUSERS** group. This login has the greatest access privileges in the system next to root.

Login name	accm
Primary group	susers
Additional groups (profile)	prof18
Linux shell	/bin/bash
Home directory	/var/home/accm
Lock this account	☐
Date after which account is disabled-blank to ignore (YYYY-MM-DD)	
Select type of authentication	☒ Password ☐ ASG: enter key ☐ ASG: Auto-generate key
Enter password or key	*****
Re-enter password or key	*****
Force password/key change on next login	☐ Yes ☒ No
Submit Cancel Help	

Click **Submit** to save changes.

3.2 Enable Craft2 for ACCCM User Account

Login to the Avaya Aura® Communication Manager SAT interface with a DADMIN user or higher level. Submit the command **enable craft2 <username>**. Where <username> is the account created in **Section 3.1**.

```
This system is restricted to authorized users for legitimate business purposes.
    Unauthorized access is a criminal violation of the law.
    Copyright 1992 - 2010 Avaya Inc. All Rights Reserved.
Except where expressly stated otherwise, this Product is protected by copyright
and other laws respecting proprietary rights. Certain software programs or
portions thereof included in this Product may contain software distributed
under third party agreements, which may contain terms that expand or limit
rights to use certain portions of the Product. Information identifying third
party components and terms that apply to them are available on Avaya's web
    site at: http://support.avaya.com/ThirdPartyLicense/.

Command: enable craft2 acccm
```

NOTE: that the sample configuration is not using PIN numbers for the user account created. If the environment has PIN numbers enabled, login to the SAT with the new account and set the PIN. If this step is performed, the PIN will be required for administration tasks in **Section 4.1**.

4. Configure Avaya Call System Manager

This section describes the details for configuring the connection with CMS.

The following administration steps will be described:

- Create ACCCM account on CMS
- Configure ODBC connector
- Set the Environment Variables on the ACCCM Server
- Grant ACCCM User Account DBA Rights on CMS
- Administer the CMS Connection

Note: Some administration screens have been abbreviated for clarity.

4.1 Create ACCCM account on CMS

Login to the CMS console with a root level account. Create an account for ACCCM on the CMS server using the command **useradd X** where **X** is the account to be created. The account created for the sample configuration is **acccm3**. The account created must have privileges to create additional users.

```
silfscms# useradd acccm3
```

Using a text editor, update the **/etc/passwd** file. Change the line entry for the new account from:

acccm3:x:107:1::/export/home/acccm3:/bin/sh

to:

acccm3:x:0:0::/export/home/acccm3:/usr/bin/ksh

```
acccm3:x:0:0::/export/home/acccm3:/usr/bin/ksh
```

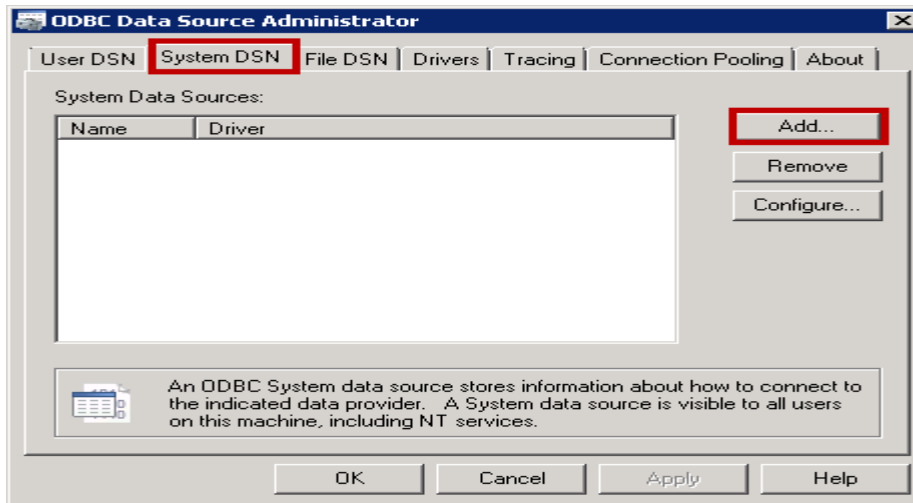
Set the password for the new account by using the command **passwd X** where **X** is the new account **acccm3**.

```
silfscms# passwd acccm3
New Password:
Re-enter new Password:
passwd: password successfully changed for acccm3
silfscms#
```

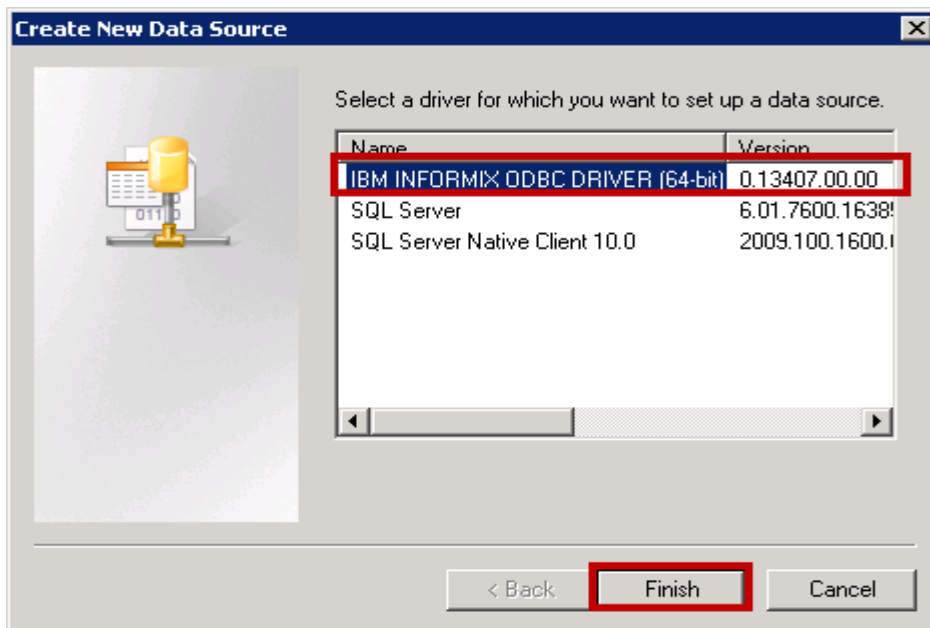
4.2 Configure ODBC Connector

These Application Notes cover the setup of the ODBC Connector on a Windows 2008 Enterprise Server R2 64-bit with connectivity for CMS servers running 15.x or greater.

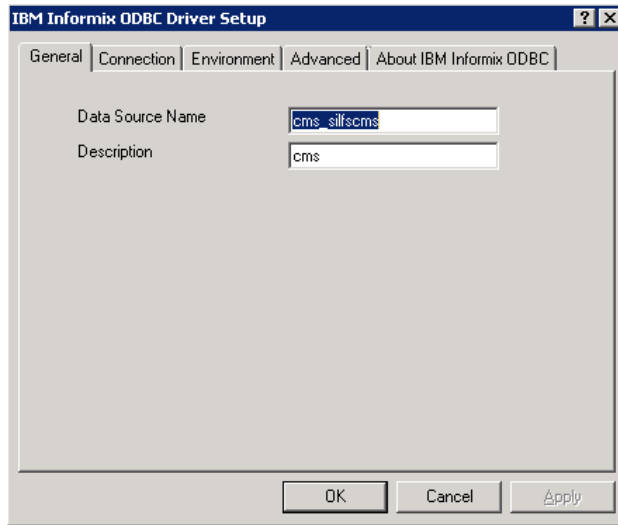
Login to the ACCCM server with administrative rights. Navigate to **Start -> All Programs -> Administrative Tools -> Data Sources (ODBC)**. Select the **System DSN** tab and click the **Add..** button.



The Create New Data Source window will be displayed. Select **IBM INFORMIX ODBC DRIVER (64-bit)** and click the **Finish** button.

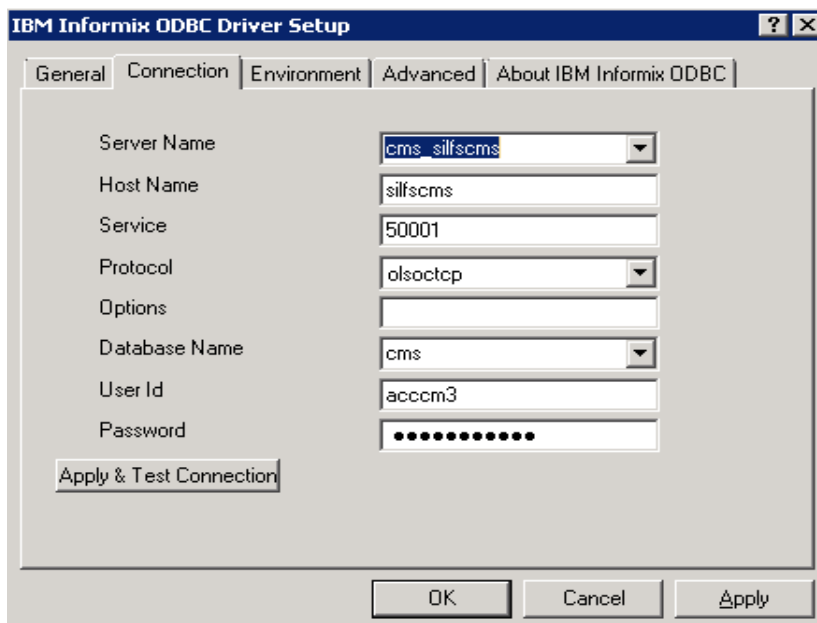


For the **Data Source Name** field, enter **cms_<CMSServername>**. The hostname of the CMS Server for the sample configuration is **silfscms**.



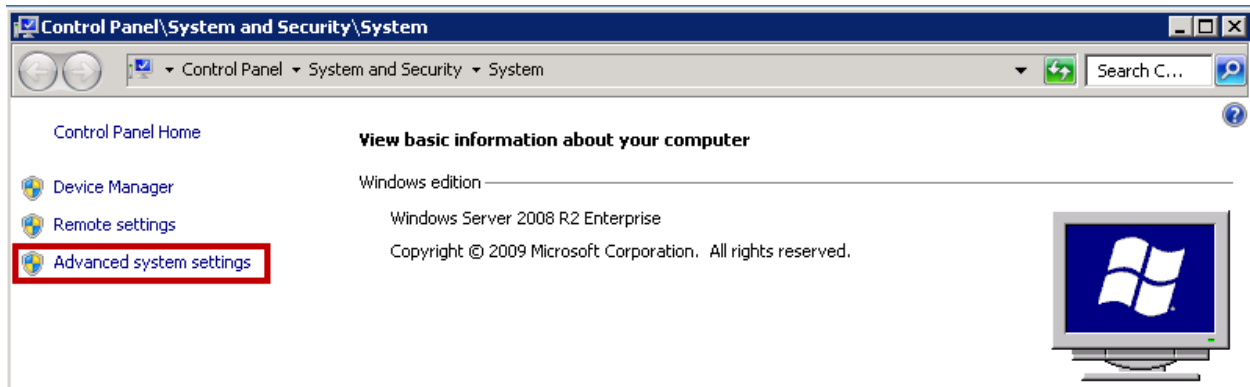
Select the **Connection** tab. Enter the following information:

- **Server Name** – Select **Data Source Name** defined in previous step. In sample configuration, “**cms_silfscms**” was used.
- **Host Name** – Enter host name which was “**silfscms**” in sample configuration.
- **Service** – Enter “**50001**”
- **Protocol** – Select “**olsoctcp**”
- **Database Name** – Select “**cms**”
- **User ID** – Enter account created in **Section 4.1**
- **Password** – Enter password created in **Section 4.1**

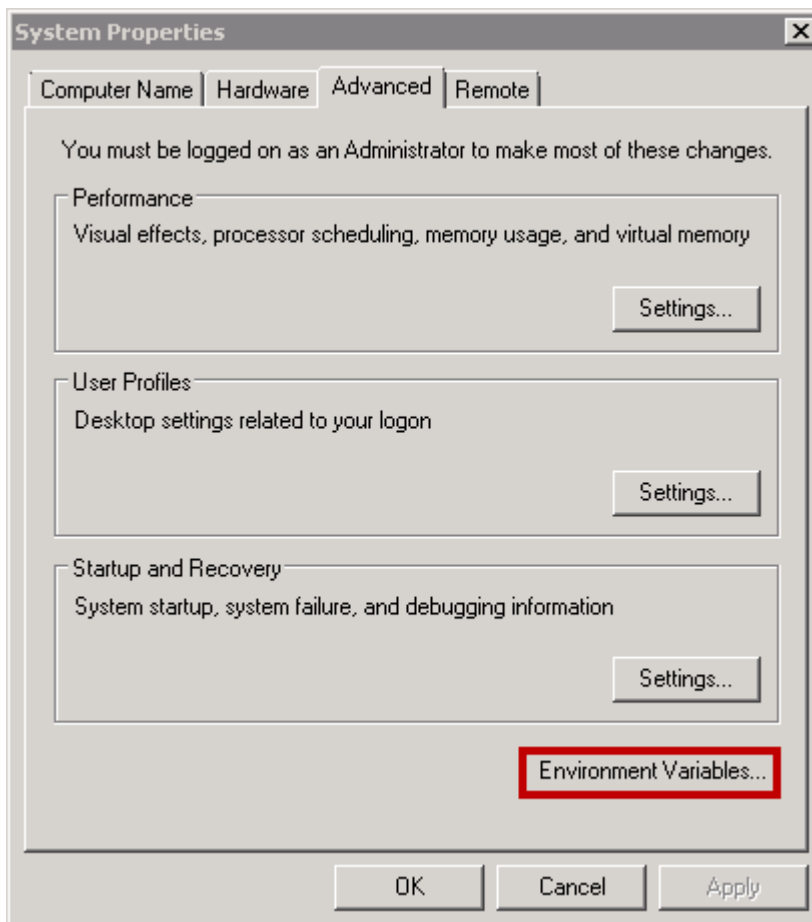


Click the **Apply & Test Connection** button. Test connection should be successful.

For 16.x CMS systems, the following environment variables on the ACCCM server should be added. Right-click **Computer** and select **Properties**. Select **Advanced system settings**.



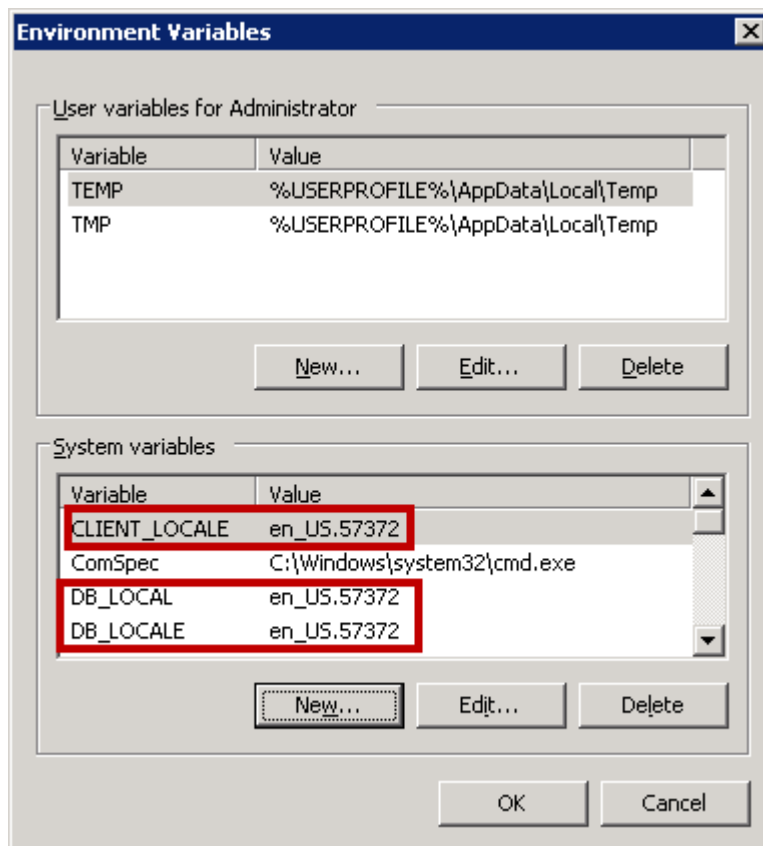
The **System Properties** page is displayed. Click the **Environment Variables** button.



Click the **New** button under **System variables**. Add the following three variables:

- Variable Name: **CLIENT_LOCALE** Variable Value: **en_US.57372**
- Variable Name: **DB_LOCAL** Variable Value: **en_US.57372**
- Variable Name: **DB_LOCALE** Variable Value: **en_US.57372**

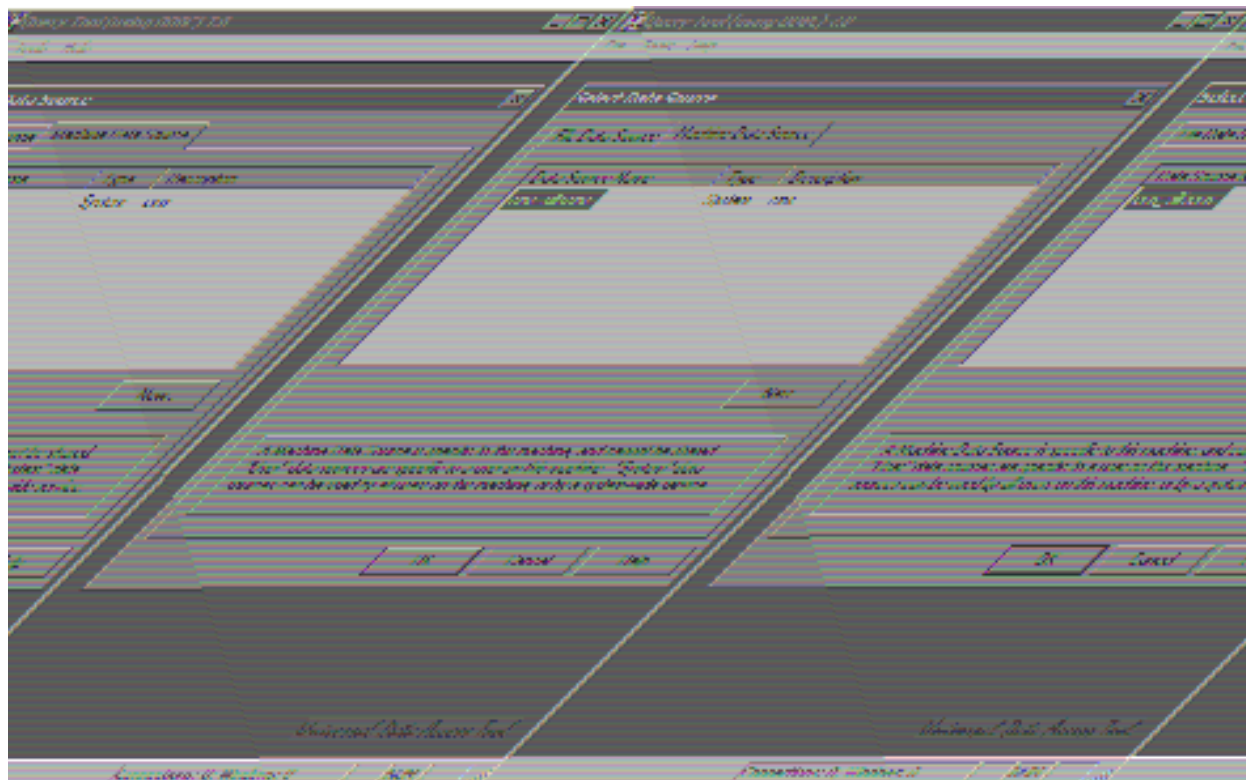
Once added, click the **OK** button and reboot the server.



4.3 Grant ACCCM User Account DBA rights on CMS

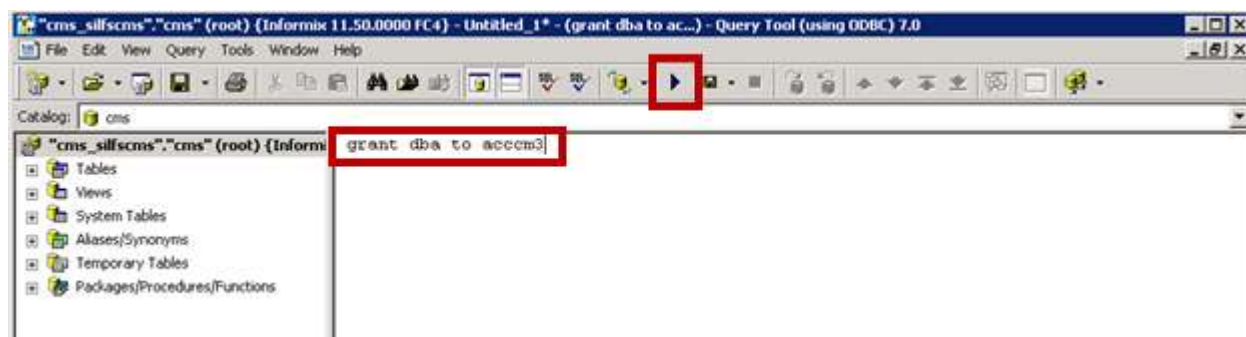
Using an ODBC query application, grant database administration rights for the ACCCM account created in **Section 4.1**. The Query Tool 7.0 provided with the ACCCM 6.3 product was used for the sample configuration.

Open **Query Tool** application and select the ODBC connection created in **Section 4.2**.



Note: it may be necessary to temporarily change the account used for the ODBC connection to a root level account in order to execute the query for the new ACCCM account created in **Section 4.1**. In order to perform this, open the ODBC connection that was created in **Section 4.2**, change the username and password to a CMS root level account and save. Once saved, execute the query noted below. Once query is executed, change the user account and password back to the original values created in **Section 4.1**.

Execute the following query against the CMS database **grant dba to <account>** where **<account>** is the account created in **Section 4.1**.



4.4 Administer the CMS connection

Access the Avaya Contact Center Control Manager™ web interface by using the URL “<http://<ACCCM-FQDN>>”, where <ACCCM-FQDN> is the Fully Qualified Domain Name of the Avaya Contact Center Control Manager™ server. The PC where the web browser is accessed has Domain Name Server (DNS) configured to resolve the ACCCM FQDN to an IP address. Login using the ACCCM administrative account.

The ACCCM Administration Interface page will be displayed. Navigate to the **CFG** and **CMS** tabs. Select the **Activate CMS Functionality** check box and populate the following fields:

- **Alias Name** – Enter CMS Server name
- **Server** – Use the ODBC DSN Name from **Section 4.2**
- **Service** – Use the Service value from **Section 4.2**
- **Database name** – Use the database name from **Section 4.2**
- **Server Type** – Select “**Informix 2000**” from the drop down list
- **Solaris Server IP** – Enter CMS Server IP Address
- **Host: Port** – Enter CMS Server IP Address
- **Open Link Driver Name** – Select “**IBM INFORMIX ODBC DRIVER (64-bit)**”
- **Solaris Server Username** – Use the account created from **Section 4.1**
- **Username** – Use the account created from **Section 4.1**
- **Password** – Use the password created from **Section 4.1**
- **Solaris Server Password** – Use the account created from **Section 4.1**
- **Protocol** – Select “**SSH**”
- **Connection Timeout (ms)** – use default value 60000

Note: IP addresses have been partially hidden for security.

Alias Name	Database name	Host: Port	Server Type	Username	Solaris Server IP	Solaris Server Username	Server Name	Service name	Protocol	Connection Timeout (ms)
aliascms	cms	135.9	Informix 2000	acccm3	135.9	acccm3		50001	SSH	60000

Click the  **Add Button**. . Click the  **Save Button**. Once the **Operation Completed Successfully** message is acknowledged (Not Shown), click the  **Close Button**.

5. Configure Avaya Contact Center Control Manager™

This section describes the details for configuring the connection with Avaya Aura® Communication Manager within the Avaya Contact Center Control Manager™ application.

For additional information on Avaya Contact Center Control Manager™ administration see **Reference [2]**, **Reference [3]** and **Reference [4]** in **Section 10**.

Using the Avaya Contact Center Control Manager™ web interface the following administration steps will be described:

- Establish Connection with Avaya Aura® Communication Manager
- Add a Dial Plan
- Assign ACCCM Objects to a Location
- Perform the Initial Synchronization

Note: Some administration screens have been abbreviated for clarity.

5.1 Establish Connection with Avaya Aura® Communication Manager

Access the Avaya Contact Center Control Manager™ web interface by using the URL “**http://<ACCCM-FQDN>**”, where **<ACCCM-FQDN>** is the Fully Qualified Domain Name of the Avaya Contact Center Control Manager™ server. The PC where the web browser is accessed has Domain Name Server (DNS) configured to resolve the ACCCM FQDN to an IP address. Login using the ACCCM administrative account.

The ACCCM Administration Interface page will be displayed. Navigate to the **CFG** and **CM** tabs. Select the **CMProvider**.

CM Provider Alias Name	CM Provider path	CM Provider OSN
CMProvider	http://localhost	1

Scroll down and populate the fields for Avaya Aura® Communication Manager as applicable:

- **CM Alias Name** – Enter Administrative name of CM. In the sample configuration, “silcm5” was used.
- **CM IP Address** – Enter IP address of the CM SAT interface which is “135.9.X.X” in sample configuration.
- **CMS ACD** – Enter CMS ACD ID for CM. By default, “1” is used.
- **CM Username** – Enter Account created in **Section 3.1**
- **CM Password** – Enter Password created in **Section 3.1**
- **CM Type** – Select Type of platform used.
 - **Note:** for all S88XX platforms, use “S8700”.
- **CM Version** – Select Version of CM which is “6.0.1” in the sample configuration.
- **Is PIN Required** – Select “No” since PIN is NOT enabled for the sample configuration.
- **Number of Support Skills** – Enter value to match agent form which is “120” in sample configuration.

For additional information on the available fields of Avaya Contact Center Control Manager™ see **Reference [2] in Section 10.**

NOTE: IP addresses have been partially hidden for security.

CM Provider Alias Name	CM Provider path	CM Provider DSN
CMProvider	http://localhost/	1

CM Alias Name *
CM IP Address *
CMS ACD *
CM Username *
CM Password *
CM Type *
CM Version
Is Pin Required *
CM PIN
Business Advocate
Location Enabled
Multiple Call Handling Enabled
Number Of Supported Agent Skills
Is Automatic

silcm5
135.9 [REDACTED]
1
accm
.....
S8700
6.0.1
No

No
No
No
120
☐

Click the  **Add** Button.

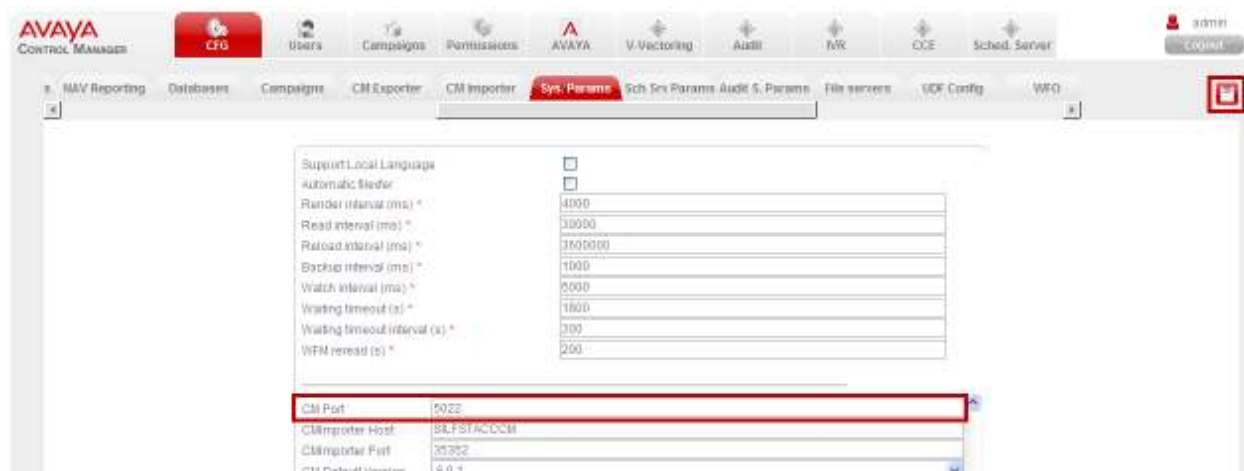
Ensure the **Activate CM Provider functionality** and **Activate Skills Synchronization** fields are both checked and click the  **Save Button** in the upper right hand side of the page.



CM Provider Alias Name	CM Provider path	CM Provider OSN
CMProvider	http://localhost	1

Navigate to the **CFG** and **Sys. Params** tabs and set the port used for communication. Set the parameter for **CM Port** to “5022”.

Click the  **Save Button**.



Support Local Language	☐
Automatic Reorder	☐
Render interval (ms) *	4000
Read interval (ms) *	30000
Reload interval (ms) *	300000
Backup interval (ms) *	1000
Watch interval (ms) *	5000
Waiting timeout (s) *	1800
Waiting timeout interval (s) *	300
WFM reload (s) *	200
CM Port	5022
CM Importer Host	SLFSTACDCM
CM Importer Port	25352
CM Default Version	6.0.1

5.2. Add a Dial Plan

Navigate to the **AVAYA** and **Dialing Plan** tabs and click the  **Add button**.



Provide a name for the associated dial plan and click the  **Save** Button. Once saved successfully, click the  **Close** button to return to the primary screen.



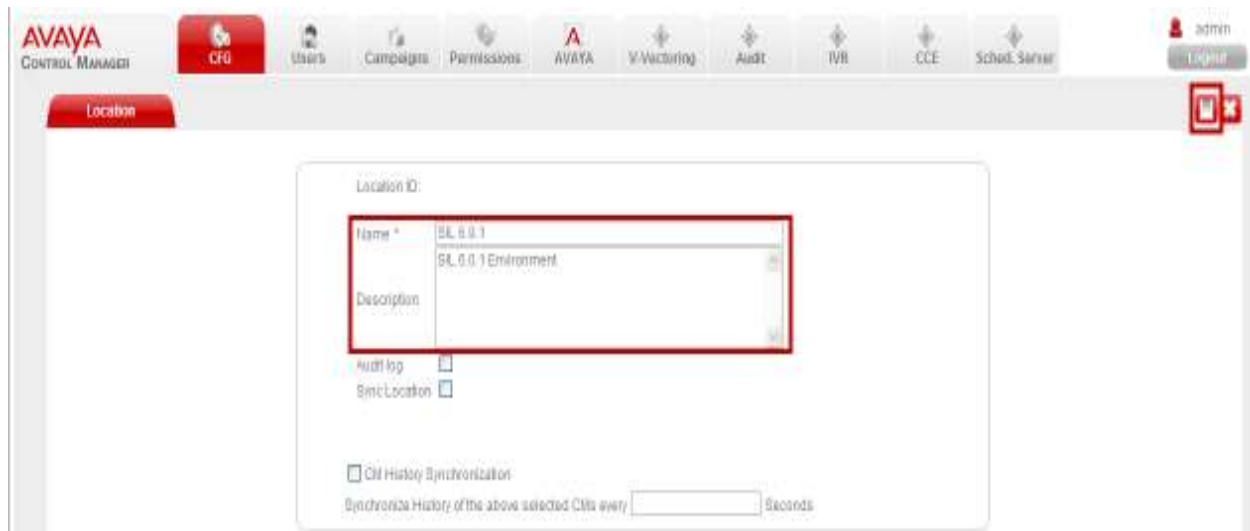
Item	Range	Range management	In Range	Do not sync
VON		☐	☐	☐
Skills		☐	☐	☐
Hunt/Call Group Extension		☐	☐	☐
Agents login ID		☐	☐	☐
Extensions Range		☐	☐	☐

5.3. Assign ACCCM Objects to Location

Navigate to the **CFG** and **Location** tabs and click the  **Add** button.

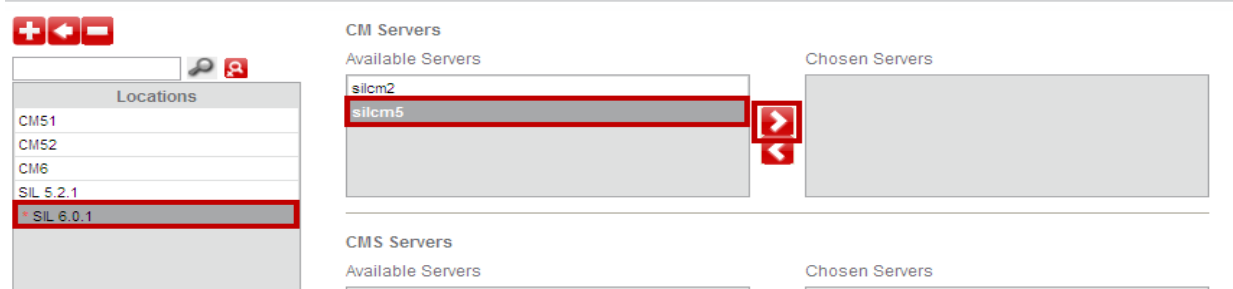


Populate the **Name** and **Description** fields. Click the  **Save** Button



Once saved, the new location will now be listed in the left hand column. Click on the new location in the left hand menu. Once highlighted, assign the Communication Manager created

from **Section 5.1** in the **Available Servers** section for **CM Servers** and assign the selection to the **Chosen Servers** section.



Scroll down and also assign the CMS from **Section 4.4** to the location. Select the CMS Server in the **Available Servers** section for **CMS Servers** and assign the selection to the **Chosen Servers** section.



Scroll down and also assign the dial plan from **Section 5.2** to the location created from **Section 5.3**. Select the Dial Plan in the **Available Dial Plans** section and assign the selection to the **Chosen Dial Plans** section.



Once the objects are assigned for Avaya Aura® Communication Manager, CMS and Dial Plan, click the  **Save Button**.

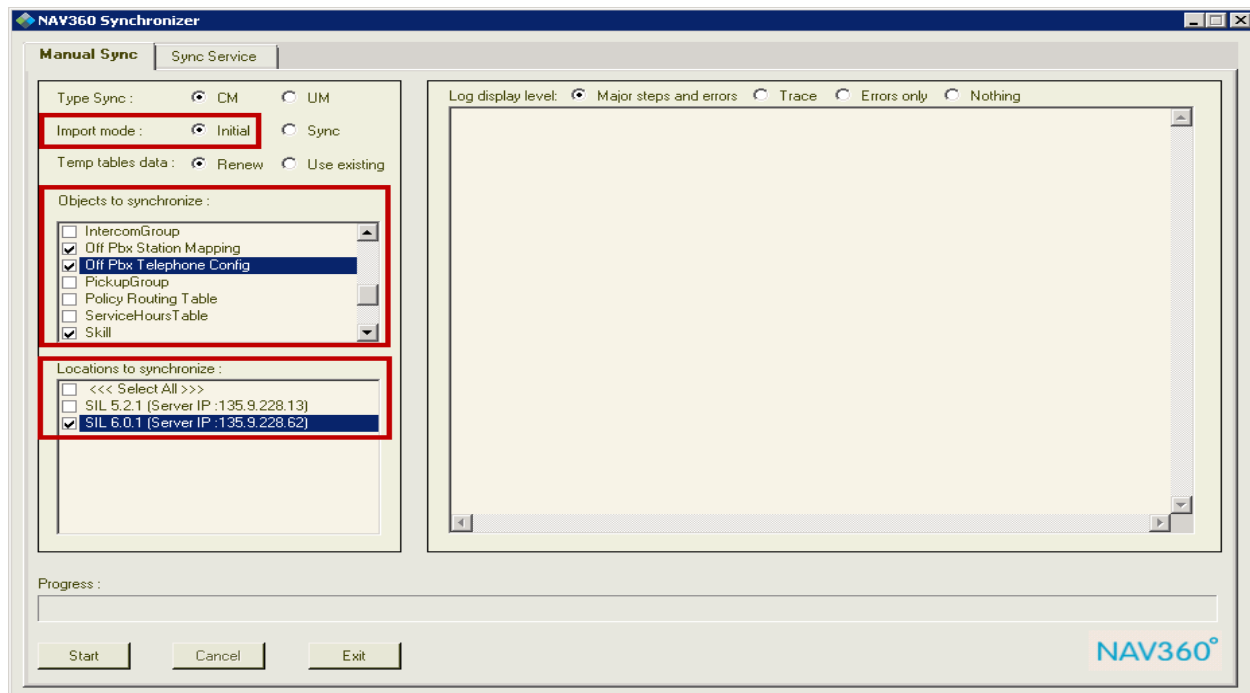


5.4. Perform the Initial Synchronization

Note: the initial synchronization is only performed during the integration of ACCCM as this process will import information from Avaya Aura® Communication Manager into the ACCCM database. If the initial synchronization has already been performed, **Section 5.4** can be skipped. Recommendation is that a full database backup is performed of ACCCM database before the synchronization is initialized.

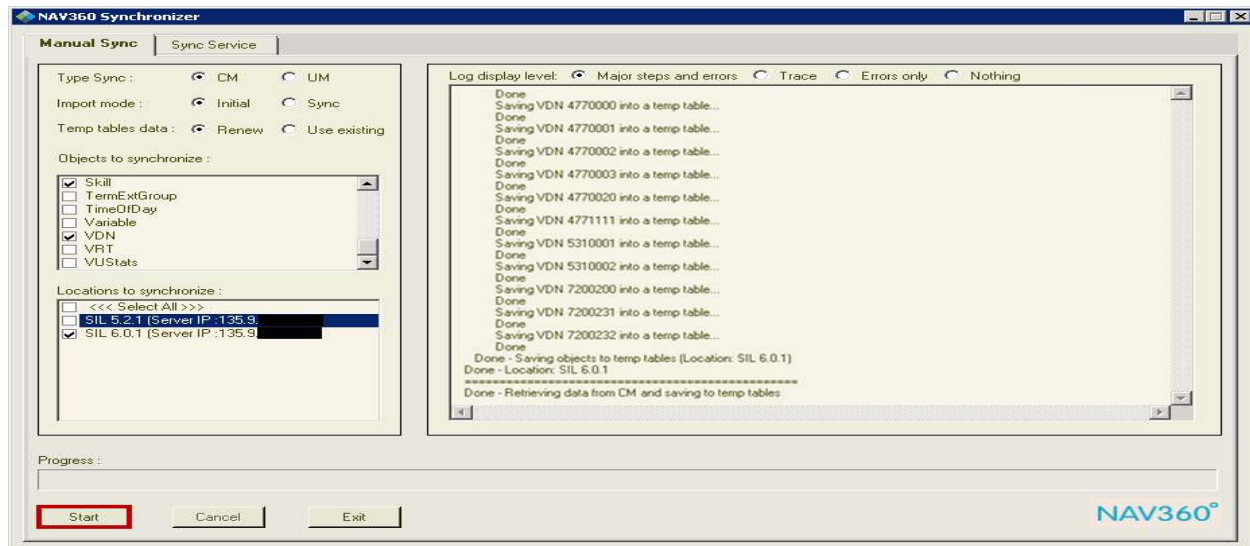
Navigate to the ACCCM Synchronization folder on the ACCCM server. Default install path
C:\Program Files (x86)\Avaya\Avaya Contact Center Control Manager™\Services\Synchronizer

Launch the ACCCM Synchronizer Application by double-clicking **NAV360_Synchronizer.exe**. The ACCCM Synchronizer Application will be displayed. Ensure the **Import mode** has **Initial** selected. For the **Objects to synchronize** section, select the applicable CM objects to import. For the sample configuration **Extensions, Off Pbx Station Mapping, Off Pbx Telephone Config, Skill**, and **VDN** are the only objects selected (Not all objects are shown). For the **Locations to Synchronize** section, select the location from **Section 4.3**.



The initial process will import the selected objects into the ACCCMSYNC database before importing into the ACCCM database.

Click the **Start** Button to begin the initial sync.

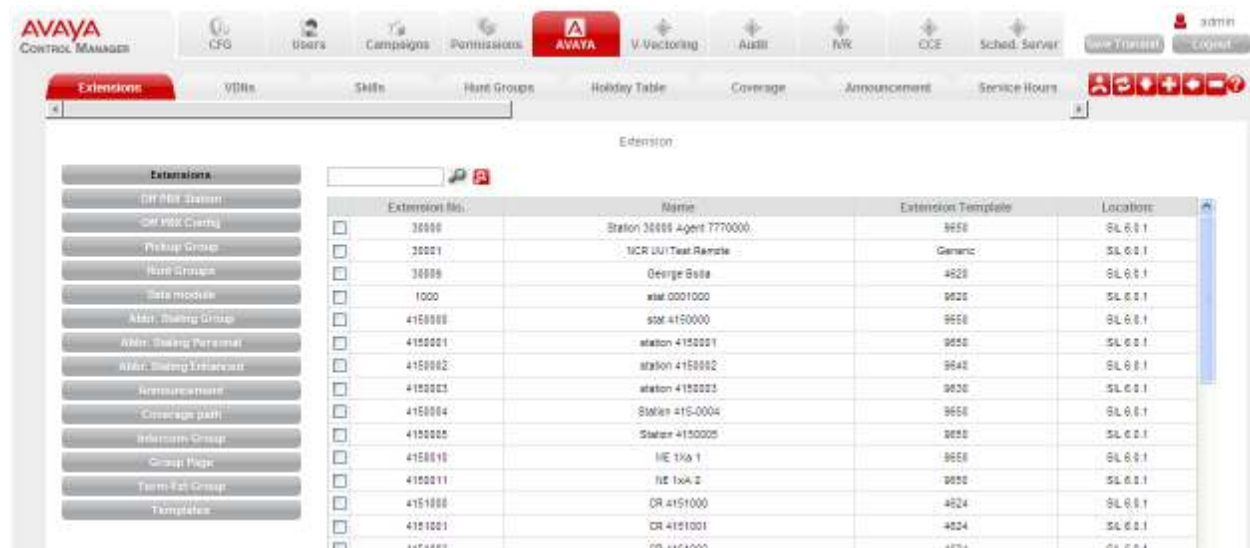


For additional information on the initial synchronization for ACCCM see **Reference [2]** in **Section 10**.

If successfully imported into the ACCCMSYNC database, the application will display a message (Not shown) noting the import is successful and prompting to now import the same data into the ACCCM database.

Note: If any failures are detected, select **No** when prompted to continue in order to fix any failures before importing the data into the ACCCM database.

Once successfully imported, the objects will be displayed within the ACCCM application. Navigate to the **AVAYA** tab to view the imported objects.



6. Create Organizational Hierarchy

This section describes the details for configuring a basic organization hierarchy.

For additional information on administration for ACCCM, see **Reference [4]** in **Section 10**.

Using the Avaya Contact Center Control Manager™ web interface the following administration steps will be described:

- Create Organization
- Create Department
- Create Team
- Create Virtual Group

Note: Some administration screens have been abbreviated for clarity.

6.1 Create Organization

Navigate to the **Users** and **Users** tabs. Select the **Org** object in the left hand column. Click the  **Add** button.



Enter a descriptive name for the **Site Name** field. Enter a site description in the **Site description** field. Select the location created in **Section 5.3** from the **Site Location** drop down list. By default the **Show in A-NAV** check box is selected. Click the  **Save** Button. Once the Save is successful message is acknowledged (Not Shown), click the  **Close** Button.

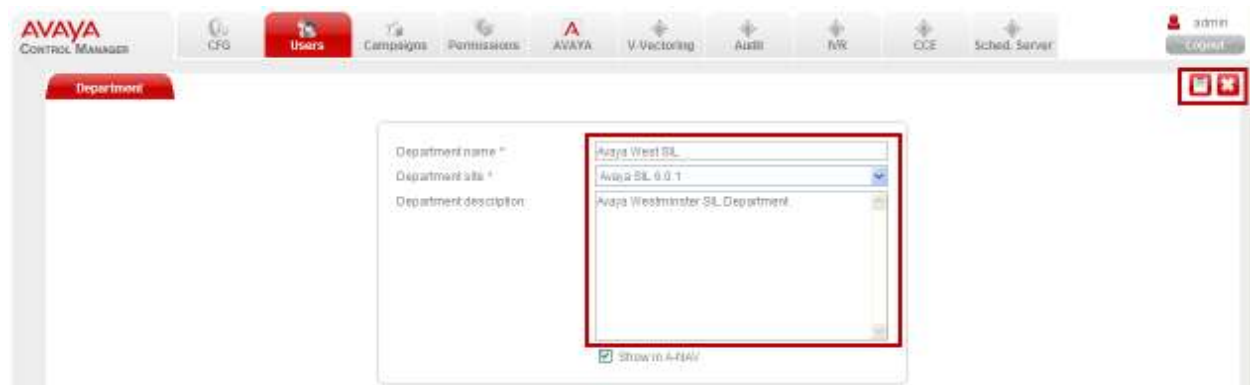


6.2 Create Department

Select the **Site** object created in **Section 6.1** within the left hand column. Click the  **Add** button.



Enter a descriptive name for the **Department Name** field. Select the created **Site** object from the drop down list for **Department site**. Enter a descriptive name for the **Department description** field. By default the **Show in A-NAV** check box is selected. Click the  **Save** Button. Once the Save is successful message is acknowledged (Not Shown), click the  **Close** Button.

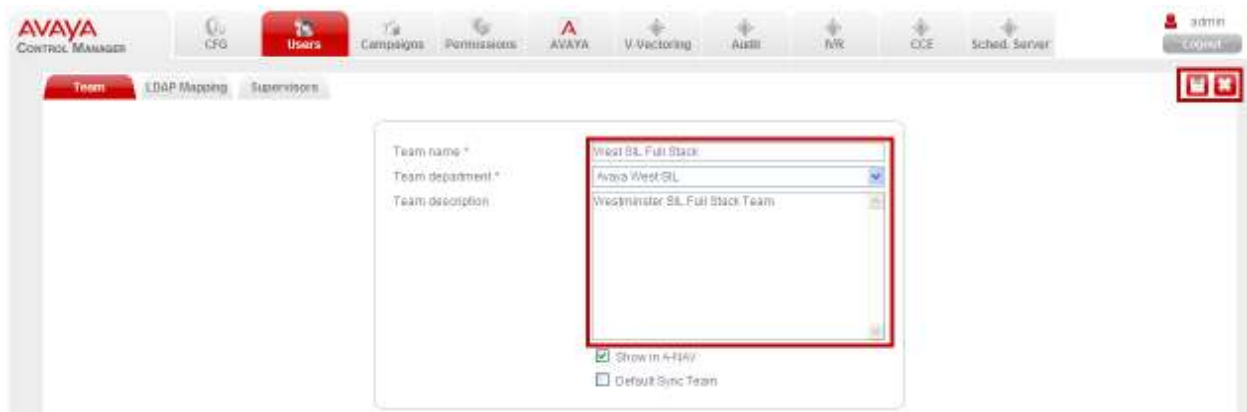


6.3 Create Team

Select the **Department** object created in **Section 6.2** within the left hand column. Click the  **Add** button.



Enter a descriptive name for the **Team Name** field. Select the created **Department** object from the drop down list for **Team department**. Enter a descriptive name for the **Team description** field. By default the **Show in A-NAV** check box is selected. Click the  **Save** Button. Once the Save is successful message is acknowledged (Not Shown), click the  **Close** Button.



The screenshot shows the AVAYA CONTROL MANAGER interface with the 'Users' tab selected. The 'Teams' sub-tab is active, displaying a form for creating a new team. The form includes fields for 'Team name', 'Team department', and 'Team description'. A red box highlights the 'Team department' dropdown menu, which is open, showing a list of departments including 'West SL Full Stack', 'Avaya West SL', and 'Westminster SL Full Stack Team'. Below the form, there are two checkboxes: 'Show in A-NAV' (checked) and 'Default Sync Team' (unchecked). The top navigation bar includes links for CFG, Users, Campaigns, Permissions, AVAYA, V-Vectoring, Audit, IVR, CCE, and Sched. Server. The user 'admin' is logged in.

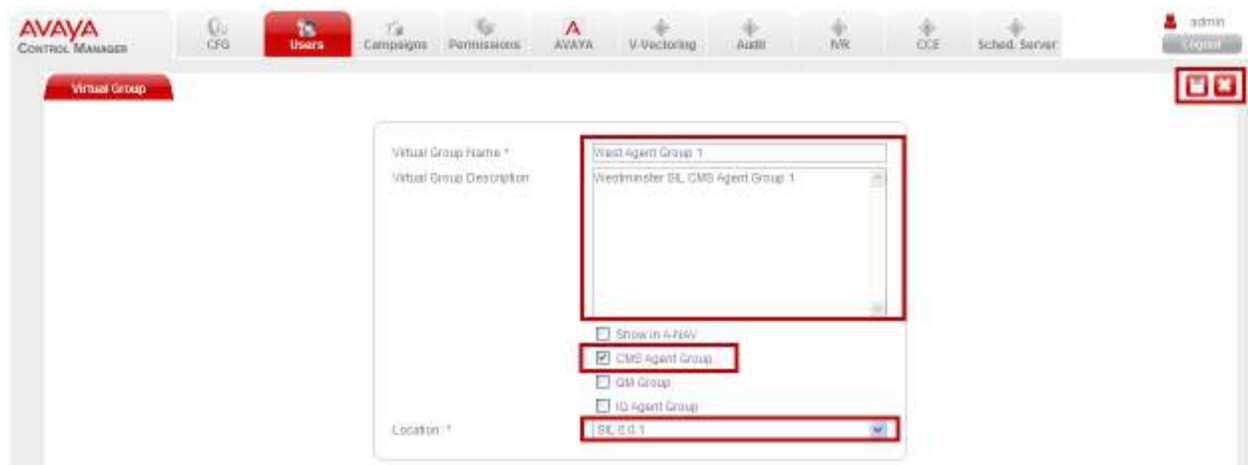
6.4 Create Virtual Group

Expand the **Virtual Site** object within the left hand column. Double-click the **Virtual Department** object.



The screenshot shows the AVAYA CONTROL MANAGER interface with the 'Users' tab selected. The 'Users' sub-tab is active, displaying a list of users. On the left, a tree view shows the hierarchy of objects: 'Org' > 'Avaya SL 5.2.1' > 'Avaya SL 5.2.1' > 'Virtual Site' > 'Virtual Department'. The 'Virtual Department' object is highlighted with a red box. The main area shows a table of users with columns: Full name, Profile, User Name, AVAYA login, Status, and Extension. The table is currently empty. The top navigation bar includes links for CFG, Users, Campaigns, Permissions, AVAYA, V-Vectoring, Audit, IVR, CCE, and Sched. Server. The user 'admin' is logged in.

Enter a name for the **Virtual Group Name**. Select the **CMS Agent Group** check box. For **Location** select the location object created in **Section 5.1** from the drop down list. Click the  **Save** Button. Once the Save is successful message is acknowledged (Not Shown) click the  **Close** Button.



7. Contact Center Administration

This section describes the details for configuring a basic call center deployment.

For additional information on administration for Avaya Aura® Communication Manager see **Reference [1]** in **Section 10**. For additional information on administration for Avaya Contact Center Control Manager™ see **Reference [4]** in **Section 10**.

Using the Avaya Contact Center Control Manager™ web interface the following administration steps will be described:

- Create Skill template
- Create VDN template
- Administer Skill
- Administer Vector
- Administer VDN
- Create Supervisor Account
- Create Agent Account
- Create Extension

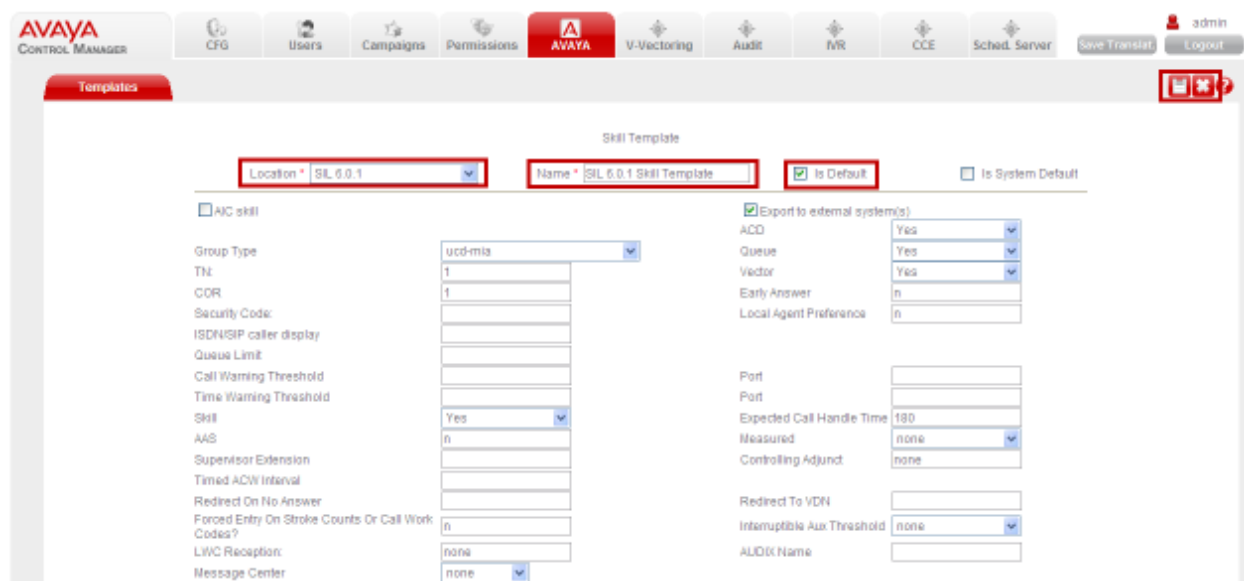
Note: Some administration screens have been abbreviated for clarity.

7.1 Create Skill Template

Navigate to the **AVAYA** and **Templates** tabs and click **Skills** button. Click the  **Add** button.



For **Location** select the location created in **Section 5.3** from the drop down list. Enter a name for the **Skill Template**. Place a check in the **Is Default** checkbox. Click the  **Save** Button. Once the Save is successful message is acknowledged (Not Shown) click the  **Close** Button.

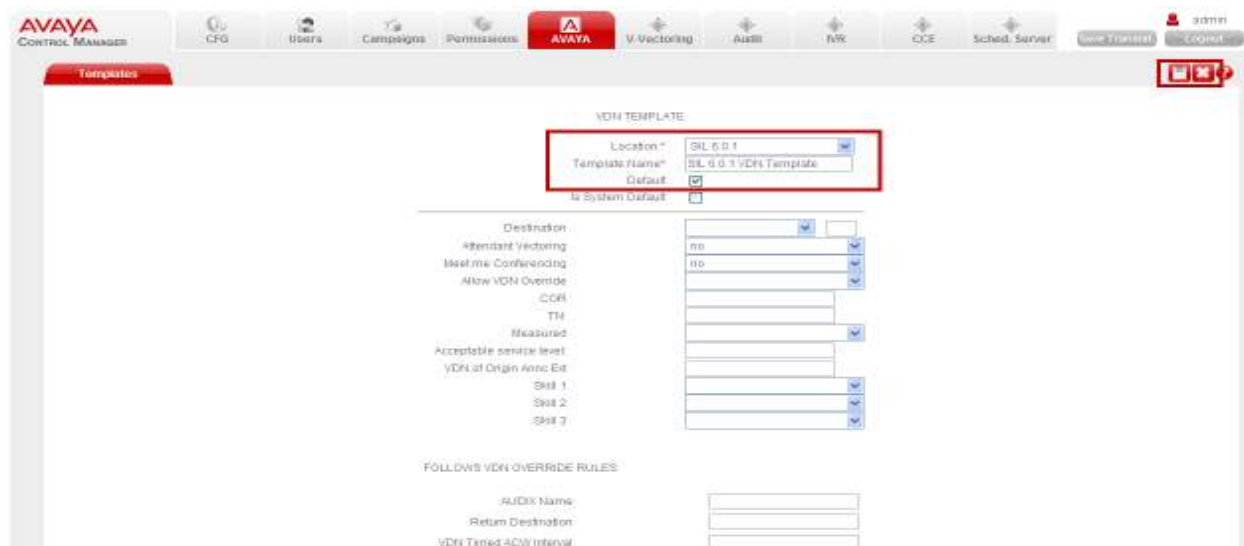


7.2 Create VDN Template

Navigate to the **AVAYA** and **Templates** tabs and click **VDNs** button. Click the  **Add** button.

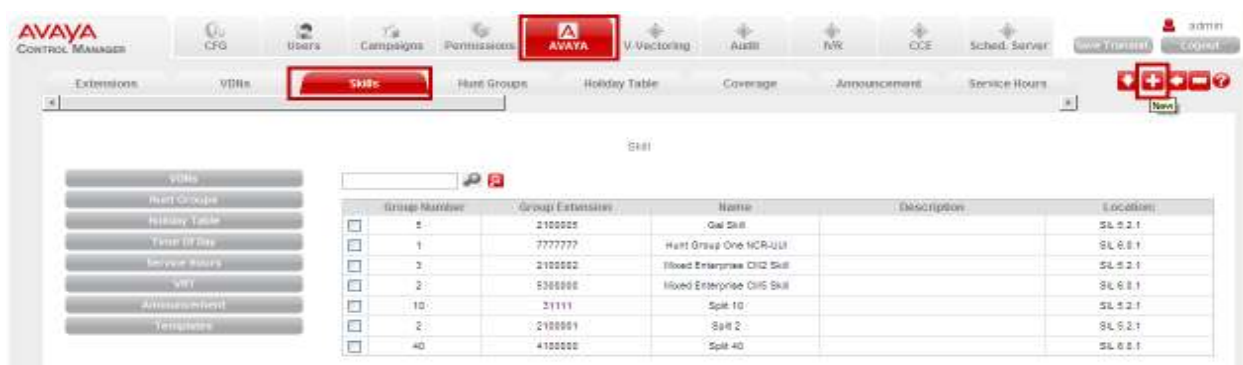


For **Location** select the location created in **Section 5.3** from the drop down list. Enter a name for the **Template Name**. Place a check in the **Default** checkbox. Click the  **Save** Button. Once the Save is successful message is acknowledged (Not Shown), click the  **Close** Button.



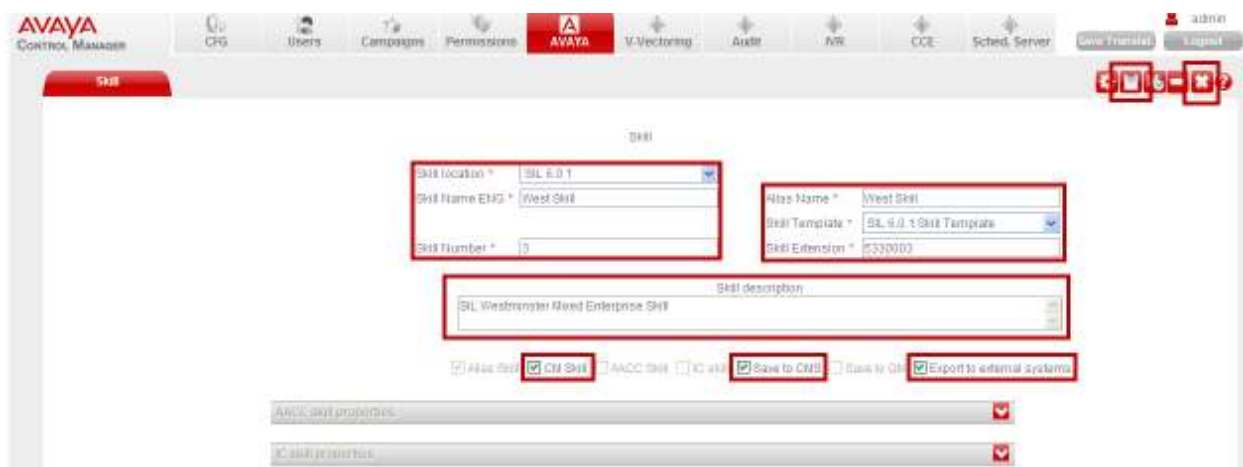
7.3 Administer Skill

Navigate to the **AVAYA** and **Skills** tabs and click the  **Add** button.



Group Number	Group Extension	Name	Description	Location
5	2100005	Gal Skill		SL 5.2.1
1	7777777	West Group One NCR-UI		SL 6.8.1
3	2100002	Mixed Enterprise CH2 Skill		SL 5.2.1
2	5300000	Mixed Enterprise CH5 Skill		SL 6.8.1
10	31111	Split 10		SL 5.2.1
2	2100001	Split 2		SL 5.2.1
40	4100000	Split 40		SL 6.8.1

For the **Skill Location** select the location created in **Section 5.3** from the drop down list. Enter a descriptive name for the **Skill Name ENG** and **Alias Name** fields. Select the Skill template created in **Section 7.1**. Enter an available skill number for the field **Skill Number**. Enter an available extension for the field **Skill Extension**. Select **CM Skill**, **Save to CMS**, and **Export to external systems**. Click the  **Save** Button. Once the **Operation Completed Successfully** message is acknowledged (Not Shown) click the  **Close** Button.



Skill location * SL 5.2.1

Skill Name ENG * West Skill

Alias Name * West Skill

Skill Template * SL 5.2.1 Skill Template

Skill Number * 3

Skill Extension * 5330003

Skill description
SL Westmoster Mixed Enterprise Skill

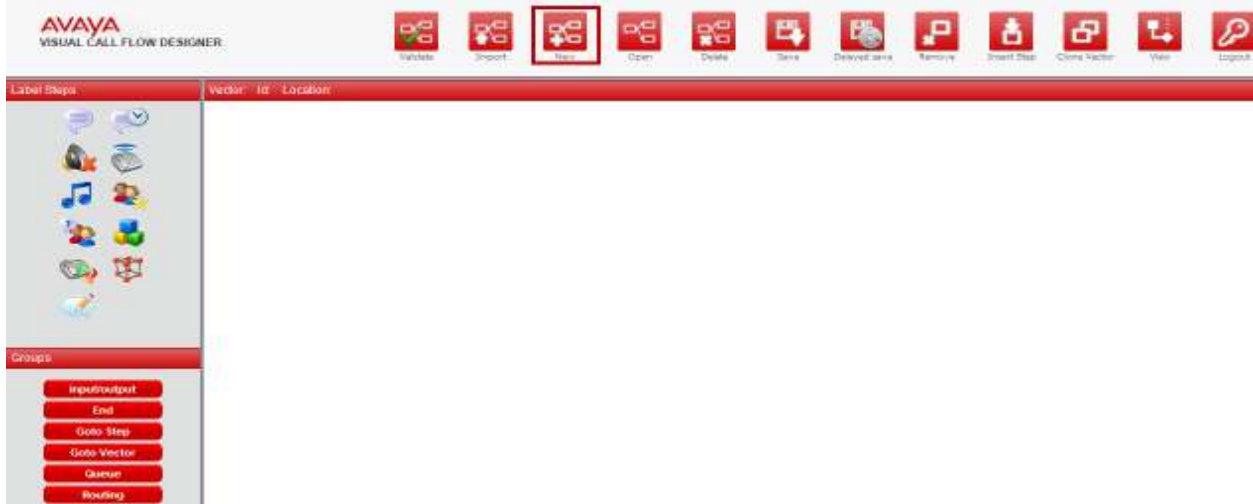
☐ Alias Skill ☒ CM Skill ☐ AACC Skill ☐ IC Skill ☒ Save to CMS ☐ Save to CM ☒ Export to external systems

7.4 Administer Vector

Navigate to the **V-Vectoring** tab.



A secondary internet browser window will open. Click the **New** button.

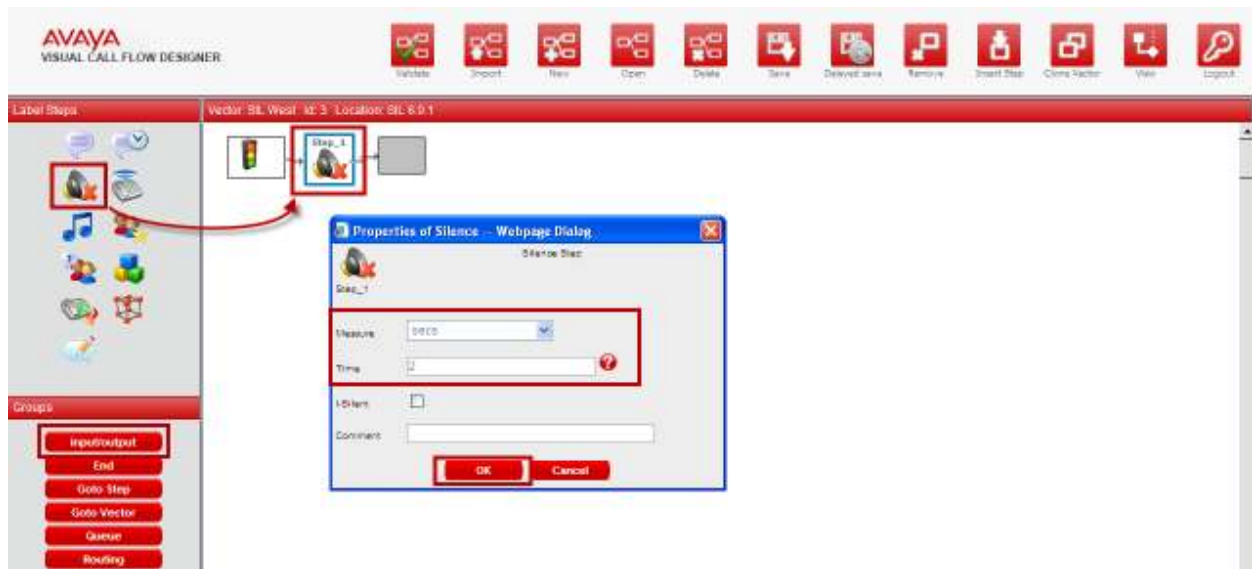


Select the location created in **Section 5.3** from the drop down list. Enter an available vector number for the CM in the **Id** field. Enter a descriptive name for the new vector in the **Name** field. Click the **OK** button.

The screenshot shows the 'Vector Name' dialog box. It has a red header bar with the text 'Vector Name'. Below the header, there are three input fields: 'Location:' with a dropdown menu showing 'SIL 6.0.1', 'Id:' with the value '3', and 'Name' with the value 'SIL West'. These three fields are grouped together and highlighted with a red box. Below the input fields, there are two checkboxes: 'Save To Avaya' and 'Draft', both of which are unchecked. At the bottom of the dialog, there are two buttons: 'OK' and 'Cancel'. The 'OK' button is highlighted with a red box.

Navigate to the **input/output** button in the left hand **Groups** column.

Drag and drop the **Silence** icon into the available box. Double-click **Step 1**. The **Properties of Silence** window will be displayed. Select “SECS” from the **Measure** drop down list. Enter “2” for the **Time** field. Click the **OK** button.

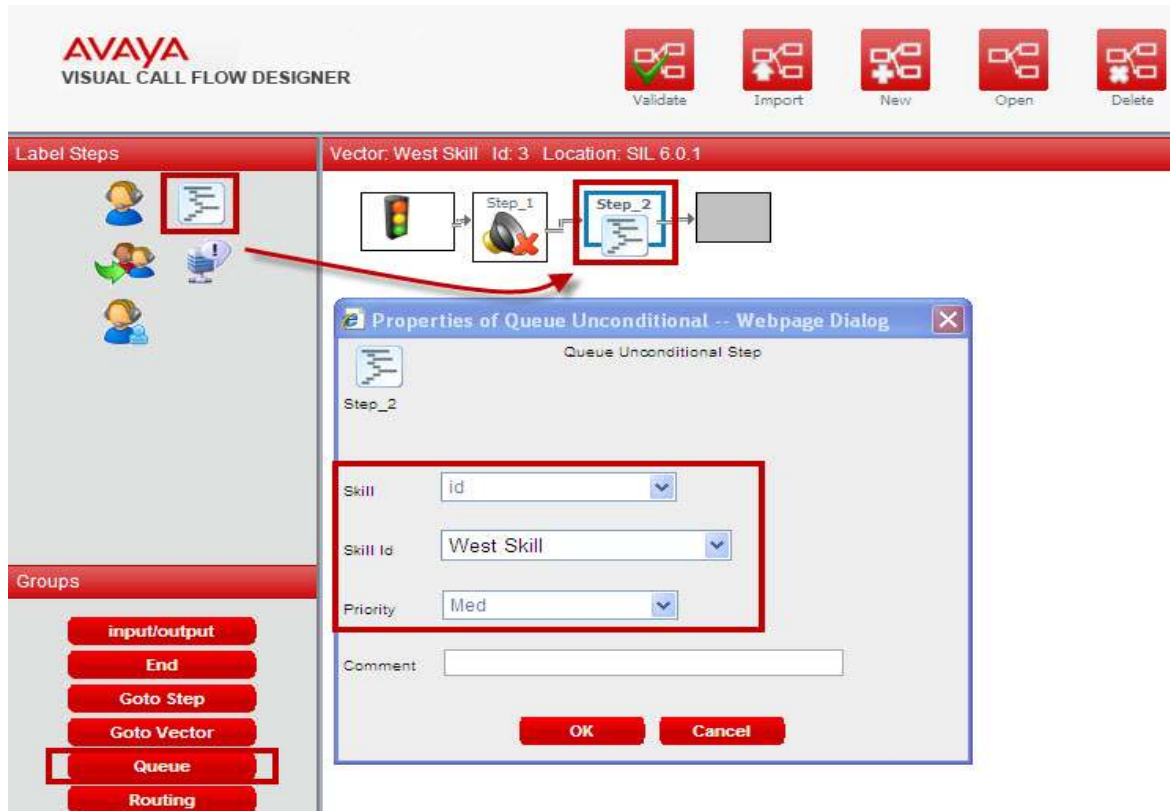


Navigate to the **Queue** button in the left hand **Groups** column.

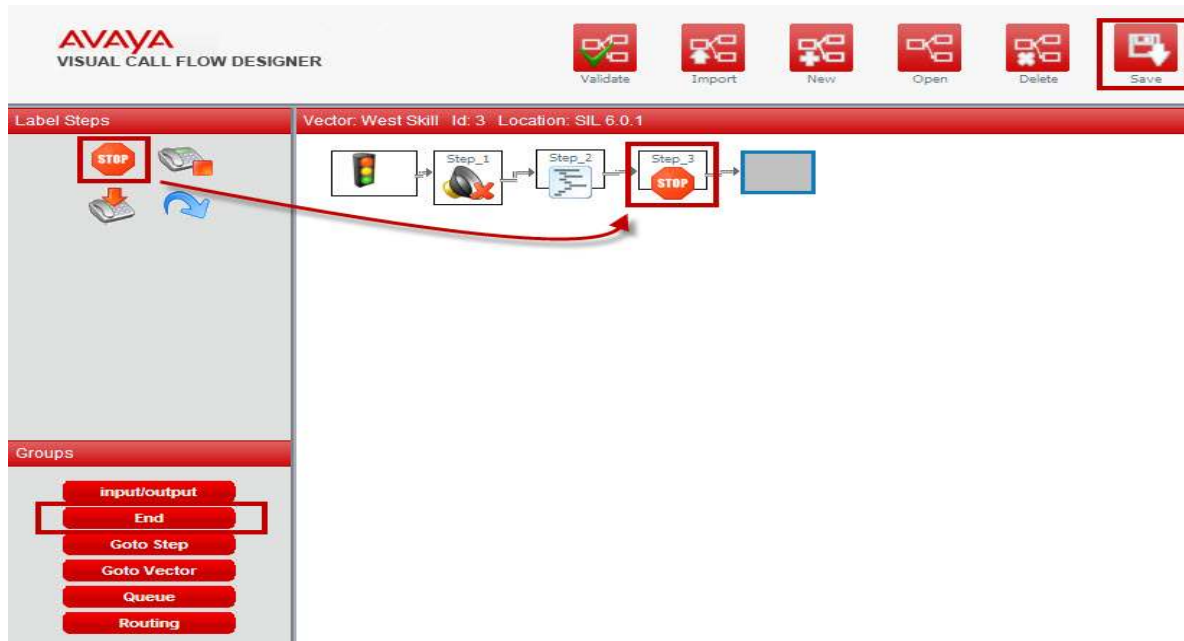
Drag and drop the **Queue Unconditional** icon into the available box.

Double-click **Step 2**. The **Properties of Queue Unconditional** window will be displayed.

Select “**id**” from the **Skill** drop down list. Select the skill created in **Section 7.3** from the **Skill id** drop down list. Select “**Med**” for the **Priority** from the drop down list. Click the **OK** button.



Navigate to the **End** button in the left hand **Groups** column. Drag and drop the **Stop** icon into the available box. Click the **Save** button in the upper right of the top menu bar.

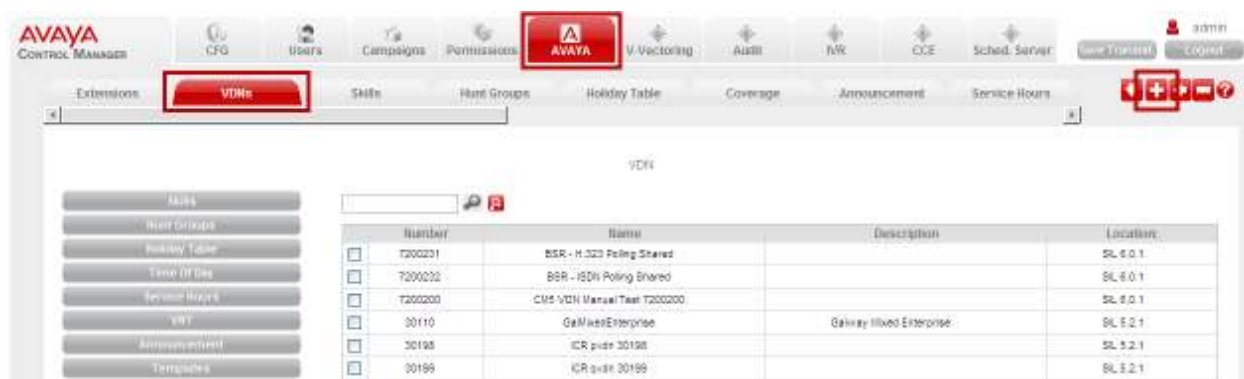


Once the **Save** button is selected, the **Vector Name** window is displayed. Enter ☒ in the **Save To Avaya** field to create the vector on Communication Manager. Click the **OK** button.

Once the new vector is saved successfully, the following message is displayed. To acknowledge and continue click the **OK** button.

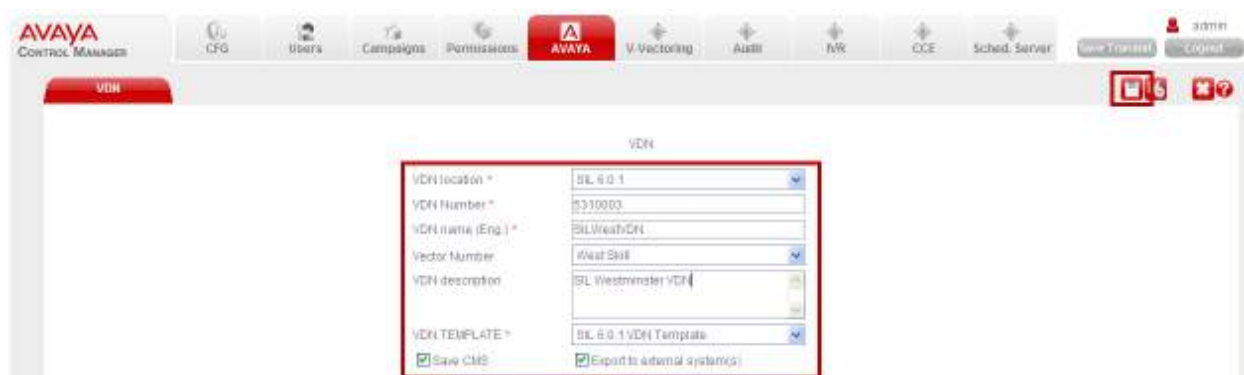
7.5 Administer VDN

Navigate to the **AVAYA** and **VDNs** tabs and click the  **Add** button.



For **Location** select the location created in **Section 5.3** from the drop down list. Enter an available extension number for the **VDN Number**. Enter a descriptive name for the **VDN Name**. For **Vector Number** select the vector created in **Section 7.4** from the drop down list. Enter a descriptive name for the **VDN description** field. For **VDN Template** select the template created in **Section 7.2** from the drop down list. Select **Save to CMS** and **Export to external systems**.

Click the  **Save Button**. Once the **Operation Completed Successfully** message is acknowledged (Not Shown) click the  **Close Button**.



7.6 Create Supervisor Account

Navigate to the **Users** and **Users** tabs. Select the **Site** object in the left hand column. Click the  **Add** button.



Enter applicable user details. The following details are used for this sample configuration:

- **First Name (Eng)** – In sample configuration, “**super1a**” was used.
- **Surname (Eng)** - In sample configuration, “**West Mixed Enterprise**” was used.
- **Username** - In sample configuration, “**super1a**” was used.
- **Password** - Enter a valid password
- **Team** - Select the team created in **Section 6.3**
- **Template** – Select “**Default**”
- **Export to external systems(s)** - Enter ☒
- **Profile** – Select ☒ for Supervisor
- **Extension** – Enter extension defined in **Section 7.8** which was “**5300011**”
- **Available applications** – Enter ☒ to select both **ACCCM** and **CMS**

super1a West Mixed Enterprise

First Name (Eng.) *	super1a
Surname (Eng.) *	West Mixed Enterprise
LDAP Username	
Username *	super1a
Password *	
Confirm password *	
Force password reset on next login	☐
AVAYA login	
Team *	West SIL Full Stack
Template	Default
Description	
	☐ Default User



☒ Export to external system(s)

Profile

☐ Agent
 ☒ Supervisor
 ☐ Manager
 ☐ Administrator

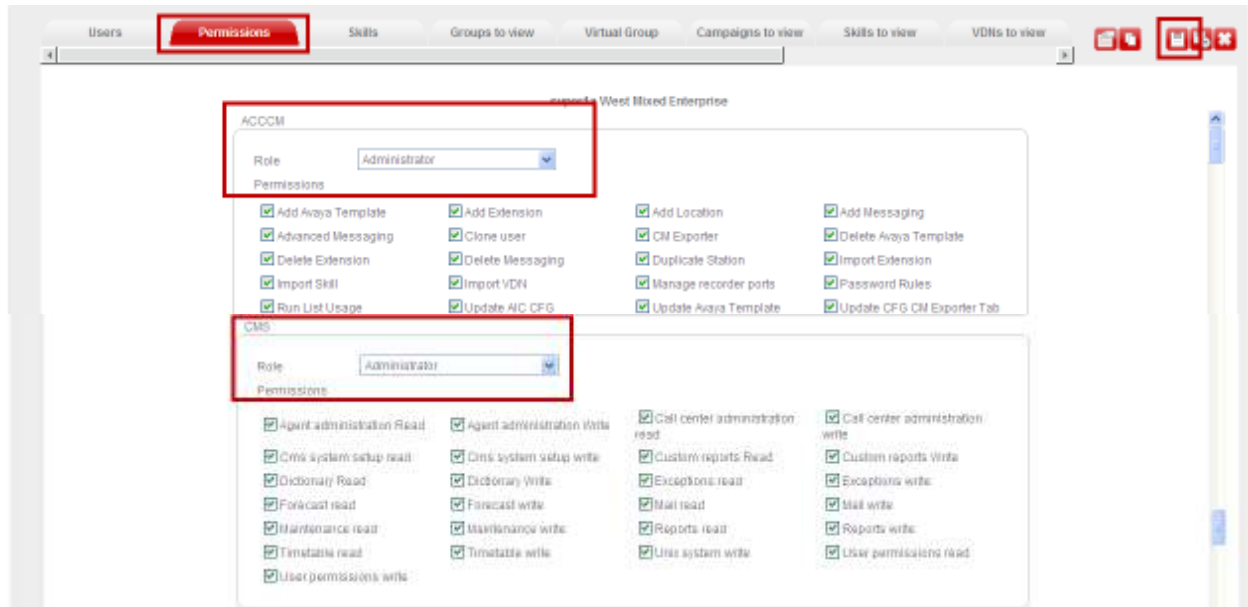
Extension * 5300011

Available applications

☐ AACC	☒ ACCCM	☐ AIC	☐ CCE Config
☐ CM	☒ CMS	☐ Dashboard	☐ EWA

Click the  **Save** Button.

Navigate to the **Users** and **Permissions** tabs. Select the **Administrator** Role from the drop down list for **ACCCM** and **CMS**.



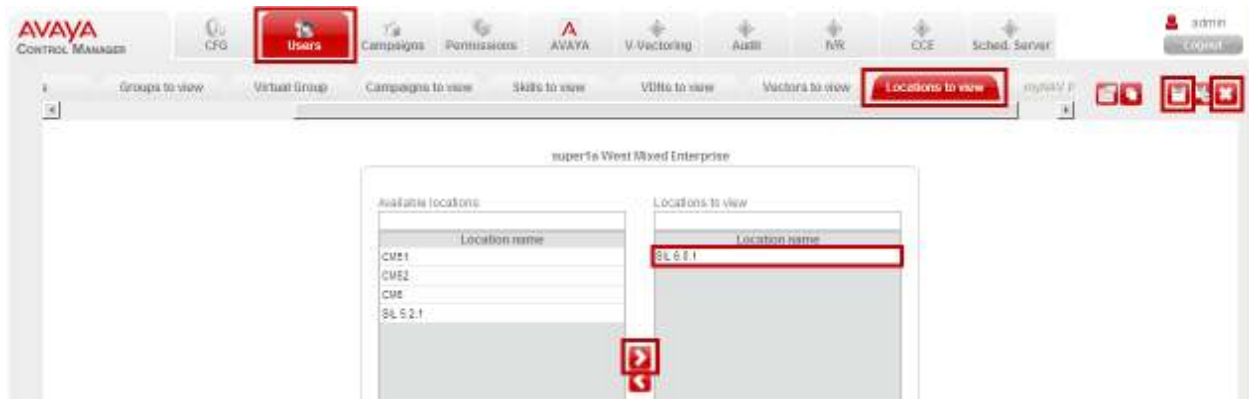
Click the  **Save** Button.

Navigate to the **Users** and **Groups to view** tabs. Select the **Site** created in **Section 6.1** and select **Virtual Site**.



Click the  **Save** Button.

Navigate to the **Users** and **Locations to view** tabs. Select the **Location** created in **Section 5.3** from the Available locations column and move the object into the **Locations to view** column by clicking the  button.



Click the  **Save Button**. Once the **Operation Completed Successfully** message is acknowledged (Not Shown) click the  **Close Button**.

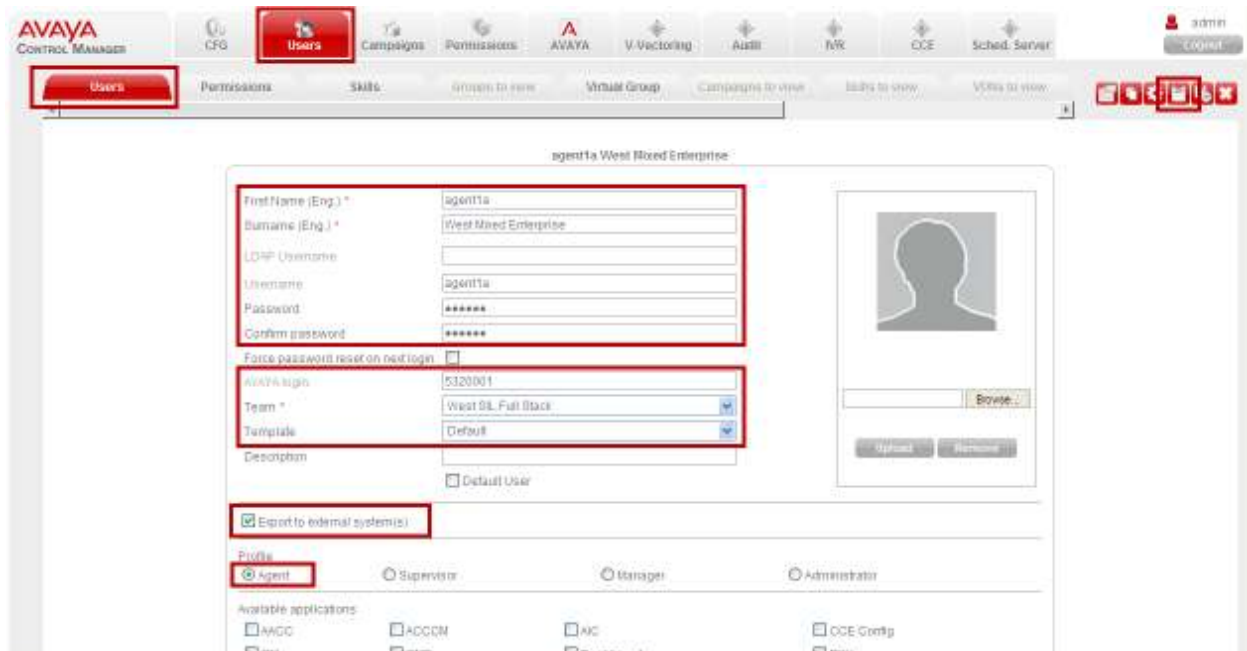
7.7 Create Contact Center Agent Account

Navigate to the **Users** and **Users** tabs. Select the **Site** object in the left hand column. Click the  **Add** button.



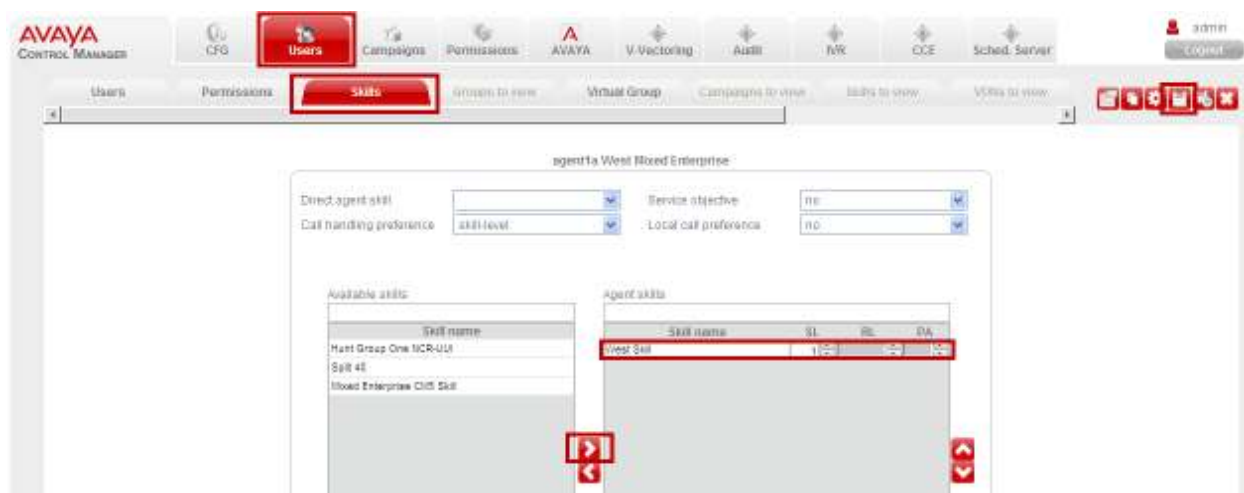
Enter applicable user details. The following details are used for this sample configuration:

- **First Name (Eng)** - In sample configuration, “**agent1a**” was used.
- **Surname (Eng)** - In sample configuration, “**West Mixed Enterprise**” was used.
- **Username** – In sample configuration, “**agent1a**” was used.
- **Password** - Enter a valid password
- **AVAYA login** – Enter 5320001
- **Team** - Select the team created in **Section 6.3**
- **Template** – Select “**Default**”
- **Export to external systems(s)** - Enter ☒
- **Profile** – Select  for Agent



Click the  **Save** Button.

The **Skill** page will now be displayed. Select the **Skill** created in **Section 7.3** from the **Available skills** column and move the object into the **Agent skills** column by clicking the  button.



Click the  **Save Button**.

Navigate to the **Users** and **Virtual Group** tabs. Select the **Virtual Group** created in **Section 6.4** from the **Available virtual groups** column and move the object into the **User virtual groups** column by clicking the  button.



Click the  **Save Button**. Once the **Operation Completed Successfully** message is acknowledged (Not Shown) click the  **Close Button**.

7.8 Create an Extension

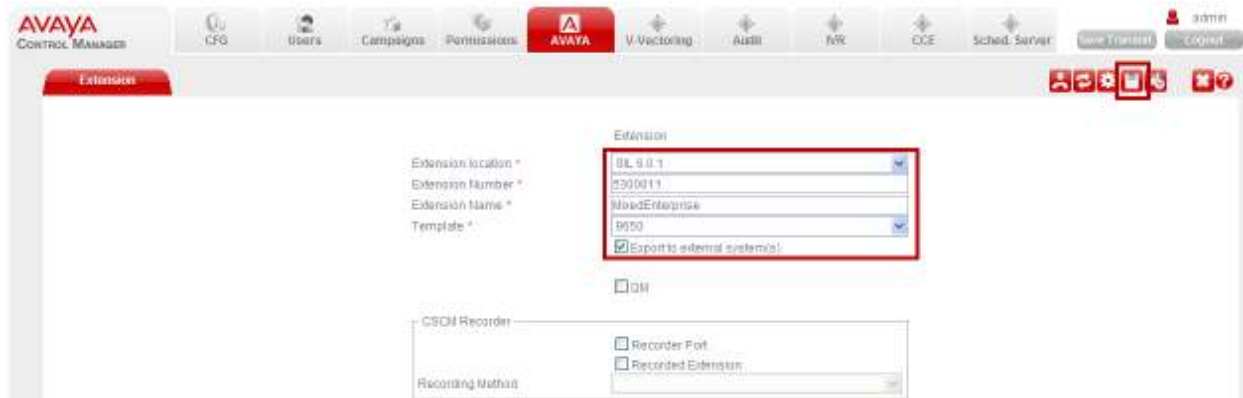
For the sample configuration two extensions are created. One extension is created for the supervisor and one extension is created for the agent. As the steps to administer both extensions are the identical, only the first extension to be created is documented.

Navigate to the **AVAYA** and **Extensions** tabs. Click the  **Add** button.



Enter applicable details for the extensions to be created.

- **Extension Location** – Select the location created in **Section 5.3**
- **Extension Number** – Enter available extension number. In sample configuration, “5300011” is used.
- **Extension Name** – Enter name which was “MixedEnterprise” in sample configuration.
- **Template** – Select “9650” from the drop down list
- **Export to external systems(s)** - Enter ☒



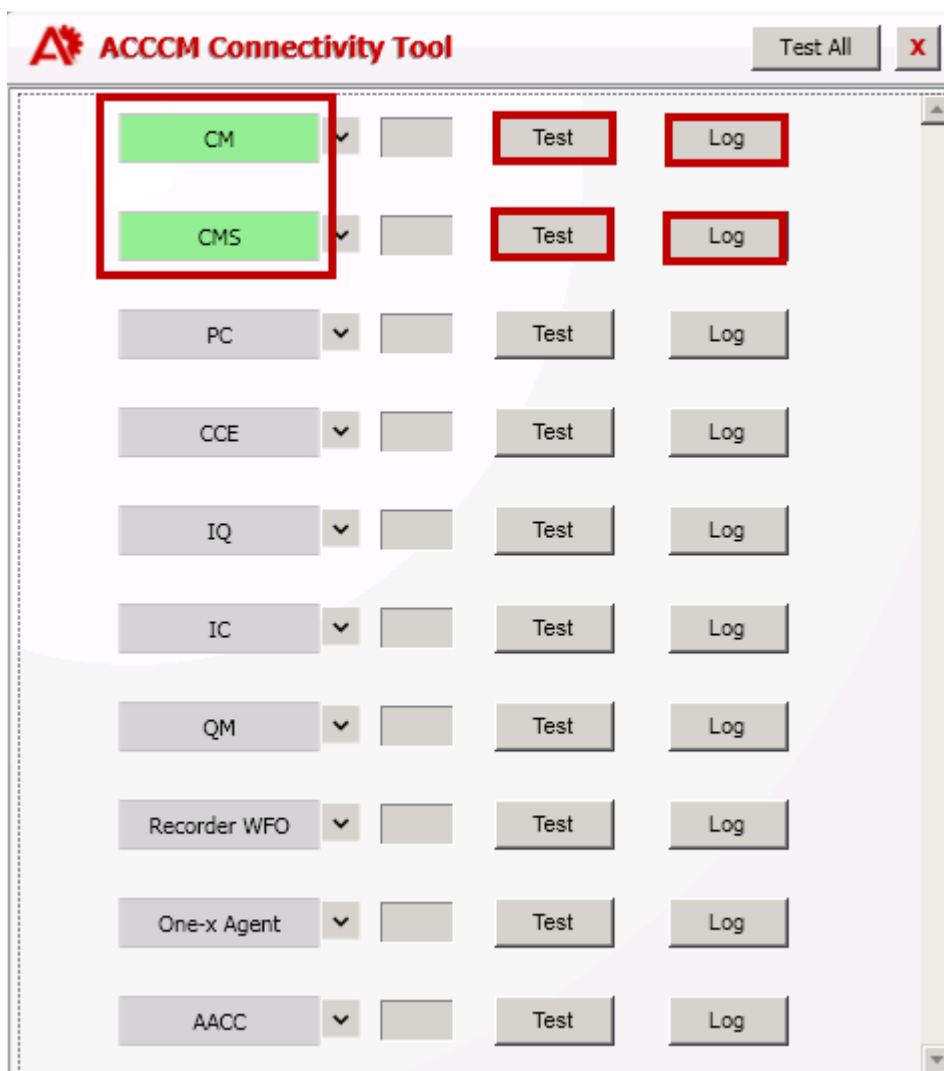
Click the  **Save** Button. Once the **Operation Completed Successfully** message is acknowledged (Not Shown) click the  **Close** Button.

8 Verification Steps

8.1 Verify Connectivity

Logon to the Windows OS of the ACCCM server with administrative rights. Navigate to folder **Dataconnectivitytool**. The default path is **C:\Program Files (x86)\Avaya\Avaya Contact Center Control Manager\Services\Dataconnectivitytool**

Launch the application **ACCCMConnectivityValidationTool.exe**. Select the **Test** button next to **CM** and **CMS**. The **CM** and **CMS** fields will change to **Green** if successful. If the **CM** and **CMS** fields show as **Red** select the **Log** button and review for errors noted.



8.2 Verify CM Objects

To help verify the administration of the CM Objects that are created/edited/deleted with ACCCM, use existing administration tools such as Avaya Site Administration. Avaya Site Administration will provide access to the SAT interface of CM.

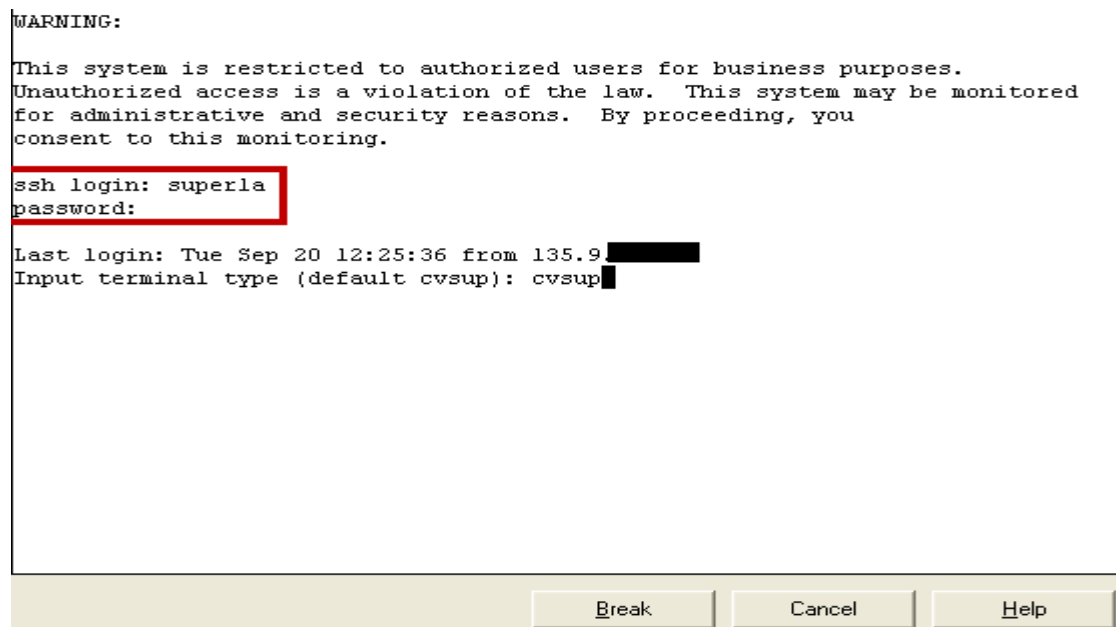
Commands from the SAT session to validate the CM Objects created within these Application Notes:

display vdn X where X is the VDN number
display vector X where X is the Vector number
display station X where X is the Station number
display hunt X where X is the Skill number

list vdn X where X is the VDN number
list vector X where X is the Vector number
list station X where X is the Station number
list hunt X where X is the Skill number

8.3 Verify CMS Objects

Verify the ACCCM Supervisor account is able to login to the CMS using CMS Supervisor. These Application Notes provided the steps to assign an administrator role. This account will be able to perform administrative task using CMS Supervisor.



WARNING:

This system is restricted to authorized users for business purposes. Unauthorized access is a violation of the law. This system may be monitored for administrative and security reasons. By proceeding, you consent to this monitoring.

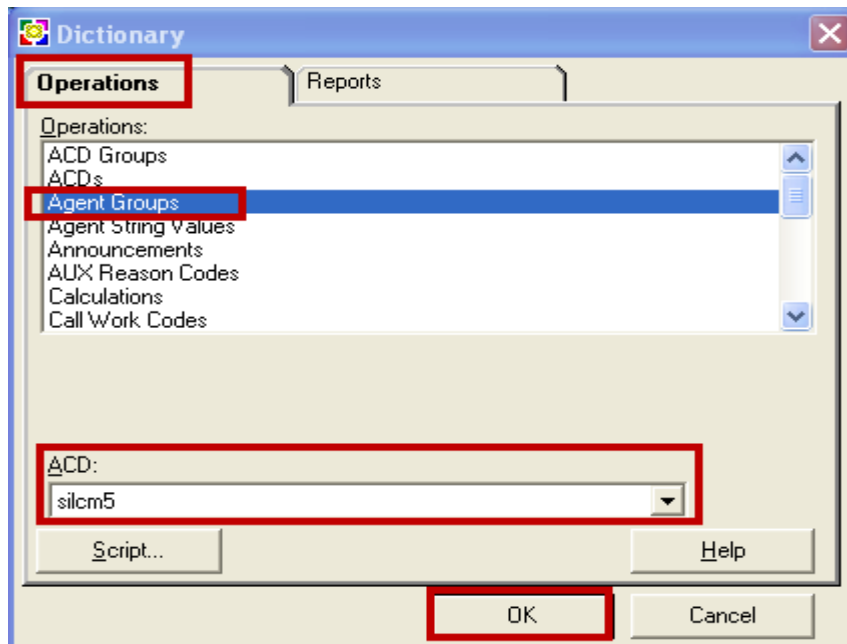
ssh login: superla
password:

Last login: Tue Sep 20 12:25:36 from 135.9 [REDACTED]
Input terminal type (default cvsup): cvsup

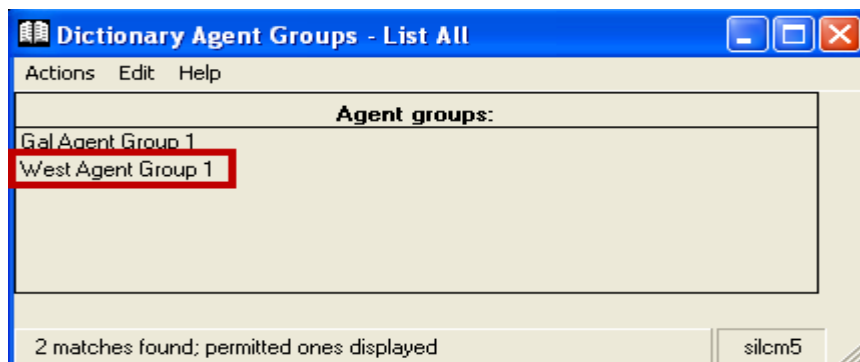
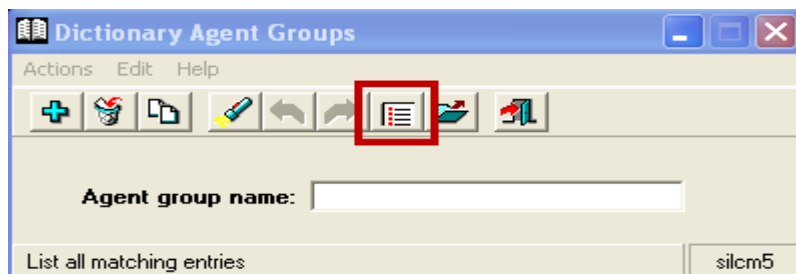
Break Cancel Help

Verify the Virtual Group from **Section 6.4** created an associated CMS Agent Group by logging into CMS Supervisor and running a Dictionary Report.

From CMS Supervisor navigate to **Commands -> Dictionary**. From the **Operations** tab select **“Agent Groups”**. Ensure the applicable ACD is selected and click the **OK** button.



The **Dictionary Agent Groups** window is displayed. Click the **“List all matching entries”** icon. The CMS Agent Group defined in **Section 6.4** should be listed.



9 Conclusion

These Application Notes describe how to configure a sample call center environment for Avaya Contact Center Manager™ with integration to Avaya Aura® Communication Manager and Avaya Call Management System Release 16.3.

10 Additional References

This section provides references to the product documentation relevant to these Application Notes which can be found at <http://support.avaya.com>

- [1] Administering Avaya Aura® Communication Manager Release 6.0, Document Number 03-300509, Issue 6.0 June 2010
- [2] Avaya Contact Center Control Manager™ Installation Guide Release 6.2 June 2011
- [3] Avaya Contact Center Control Manager™ Configuration Guide Release 6.2 June 2011
- [4] Avaya Contact Center Control Manager™ User Guide Release 6.2 June 2011

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