



## Avaya Solution & Interoperability Test Lab

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# Application Notes for Configuring AMC Technology's DaVinci Premise Server Version 7.0 with Avaya Aura® Contact Center Release 7.1 – Issue 1.0

### Abstract

These Application Notes describe the configuration steps to integrate AMC Technology's DaVinci Premise Server with Avaya Aura® Contact Center and Avaya Aura® Communication Manager to allow various Customer Relationship Management (CRM) applications, using AMC Technology's DaVinci, connection to the Avaya solution.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in Section 2.2, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

# 1. Introduction

These Application Notes describe the configuration steps to integrate AMC Technology's DaVinci Premise Server R7.0 with Avaya Aura® Contact Center Release 7.1 and Avaya Aura® Communication Manager R8.1 in order to allow various Customer Relationship Management (CRM) applications, using AMC Technology's DaVinci Premise Server, connection to the Avaya solution.

AMC Technology's DaVinci CRM integration solution for Avaya provides pre-packaged, server-based integration that delivers real-time connectivity with business applications including Microsoft Dynamics 365, SAP C4C, ServiceNow, Zendesk, Salesforce, Oracle Siebel and SAP CRM. Companies can enable full CTI functionality in their CRM desktop including softphone controls, caller identification, and screen population. Agents can place, receive, and transfer customer interactions with full, real-time access to CRM customer data.

AMC Contact Center solutions are built on the AMC DaVinci Platform, which includes DaVinci Premise Server. Through its open architecture, the AMC product suite enables contact centers to integrate a variety of communication channels across different platforms, using new or existing infrastructure, creating a true multi-channel and multi-vendor contact center.

Contact center agents and knowledge workers can place, receive, transfer and conference customer interactions with full, real-time access to customer information. Screen Pop is enabled through DaVinci's ability to transfer data from the CTI into an instant, convenient display of customer information in the CRM application.

AMC Technology's DaVinci solution for Avaya Aura® Contact Center has four (4) main components:

- 1) DaVinci Premise Server.
- 2) AMC Driver, which provides Computer Telephony Integration (CTI) through the Communication Control Toolkit (CCT) that enables Call Control, Agent Session Control and Screen Pops.
- 3) AMC Adapter which provides connectivity by directly integrating to premise-based CRM applications.
- 4) AMC DaVinci Premise Gateway, which provides connectivity to cloud-based CRM applications through DaVinci CRM Apps.

**Note:** Integration for cloud-based CRM applications – Microsoft Dynamics 365, Salesforce, SAP C4C, ServiceNow and Zendesk – is through the DaVinci Agent UI and the DaVinci Premise Gateway. DaVinci Agent UI is a browser toolbar component that is embedded within the CRM application iFrame. It connects to DaVinci Premise Server through DaVinci Premise Gateway, a web service for hybrid deployments.

Integration for premise-based CRM applications – SAP CRM and Oracle Siebel – is through application channel toolbars that connect through adapters that reside on the DaVinci Premise Server, for a pure premise deployment.

## 2. General Test Approach and Test Results

The general test approach was to configure a Contact Center to enable the DaVinci Premise Server to connect to the Communication Control Toolkit (CCT) module of Contact Center, see **Figure 1** for a network diagram. Contact Center was connected to Communication Manager using Session Manager for a SIP connection. The Contact Center was installed with the following co-resident components:

- Contact Center Manager Server (CCMS).
- Contact Center Manager Administrator (CCMA).
- Communication Control Toolkit (CCT).

The adapters for the following seven CRMs were tested during compliance testing: five cloud-based and two premise-based CRMs.

### Cloud-based CRM Applications.

1. Salesforce.
2. MS Dynamics 365.
3. ServiceNow.
4. Zendesk.
5. SAP C4C.

### Premise-based CRM Applications.

6. Oracle Siebel.
7. SAP CRM.

Each CRM was tested separately using the same test cases for each CRM/adaptor. The connection to the Avaya solution was identical for each of the seven adaptors that were tested, and the piece of middleware called DeVinci Premise Server was the product compliance tested.

An Avaya Reference Client was used to verify the call state of each adaptor to ensure that they were fully compliant.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and AMC Technology's DaVinci Premise Server did not include use of any specific encryption features as requested by AMC Technology.

This test was conducted in a lab simulating a basic customer environment. The testing focused on the standards-based interface between the Avaya solution and the third-party solution. The results of testing are therefore considered to be applicable to either a premise-based deployment or to a hosted or cloud deployment where some elements of the third-party solution may reside beyond the boundaries of the enterprise network, or at a different physical location from the Avaya components.

Readers should be aware that network behaviors (e.g. jitter, packet loss, delay, speed, etc.) can vary significantly from one location to another and may affect the reliability or performance of the overall solution. Different network elements (e.g. session border controllers, soft switches, firewalls, NAT appliances, etc.) can also affect how the solution performs.

If a customer is considering implementation of this solution in a cloud environment, the customer should evaluate and discuss the network characteristics with their cloud service provider and network organizations and evaluate if the solution is viable to be deployed in the cloud.

The network characteristics required to support this solution are outside the scope of these Application Notes. Readers should consult the appropriate Avaya and third-party documentation for the product network requirements. Avaya makes no guarantee that this solution will work in all potential deployment configurations.

## **2.1. Interoperability Compliance Testing**

Feature functionality testing included:

- Agent Log In/Log Out
- Agent Ready/Not Ready
- Agent State Synchronization with Agent Telephones
- Hold/Unhold
- Transfers, Blind/Consultative
- Conferencing
- Customer calls to Agents (Calls to the Contact Center Skillset)
- Calls from Agent to Agent
- Calls from Agent to Non-Agent

## **2.2. Test Results**

All test cases were executed and passed with the following exceptions, issues and observations.

### **Oracle Siebel experienced the following issues.**

1. Some lag in time was experienced on the Siebel toolbar. This was on the AMC side between the premise Siebel server and client so when a call is presented to the phone set it may ring there for up to 5 seconds before the softphone shows the incoming call and gets answered. These lag times are consistent with several mitigating factors:
  - a. A complex network connection through two VPNs between the AMC-based premise Siebel application server, the DaVinci Premise Server, and the Avaya Aura® Contact Center CCT server running within the Avaya lab.
  - b. The AMC-based premise Siebel application server is not tuned for production and running on a lab VM environment with limited operating system resources (amount of memory, storage, etc.)
  - c. High local traffic and limited Internet connection bandwidth within the AMC lab environment.
2. The “transfer complete” seemed to take some time lag on the Siebel side, the screen pop was not transferred as a result.

### **SAP CRM experienced the following issues.**

1. As the agent opens the conference call it cannot drop individual joined party instead of disconnecting itself from the conference by selecting the Hang Up button.
2. Some lag in time was experienced on the SAP toolbar softphone as the agent controls the call. Again, these lag times are consistent with the mitigating factors identified above for the Siebel application integration.

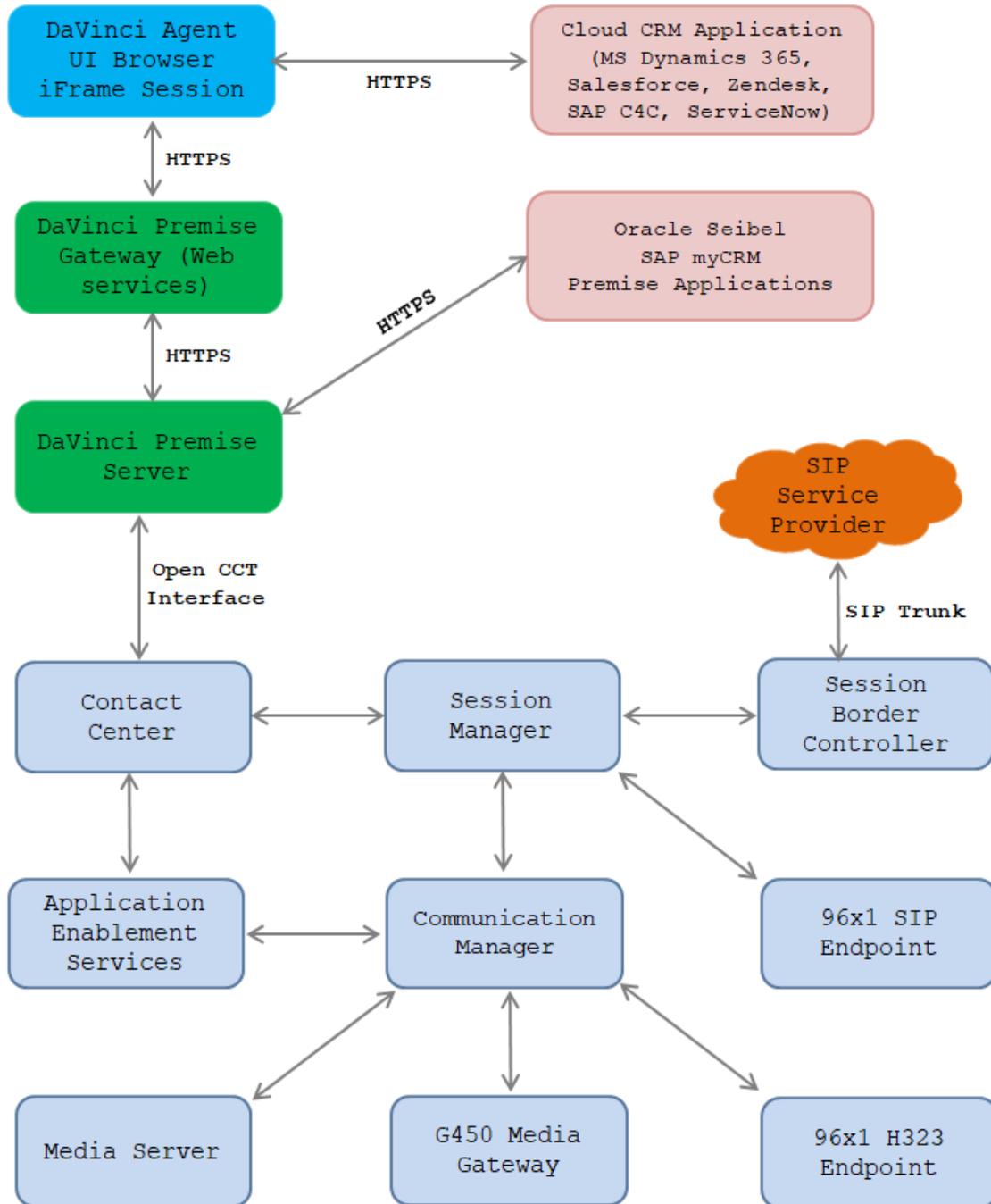
## **2.3. Support**

Technical support for AMC Technology can be found as follows:

- Web Portal: <http://www.amctechnology.com/support/>
- Phone contact: +1 804 419 8600 or +1 800 390 4866

### 3. Reference Configuration

The configuration in **Figure 1** was used to compliance test AMC Technology DaVinci Premise Server using various CRM adaptors with Avaya Aura® Contact Center and Avaya Aura® Communication Manager.



**Figure 1: Test Configuration Diagram**

## 4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

| Equipment/Software   | Release/Version   |
|--|---|
| Avaya Aura® System Manager running on a virtual server   | System Manager 8.1.1.0<br>Build No. - 8.1.0.0.733078<br>Software Update Revision No:<br>8.1.1.0.0310503<br>Feature Pack 1   |
| Avaya Aura® Session Manager running on a virtual server  | R8.1.1.0<br>Build No. – 8.1.1.0.811021  |
| Avaya Aura® Communication Manager running on a virtual server  | R8.1.1.0<br>R018x.01.0.890.0<br>01.0.890.0-25763  |
| Avaya Aura® Application Enablement Services running on a virtual server  | R8.1.1.0<br>Build No – 8.1.1.0.2.8-0  |
| Avaya Aura® Contact Center running on a virtual server (SIP-Based)   | R7.1 SP3  |
| Avaya Session Border Controller for Enterprise (used to simulate PSTN)   | Version 8.1.0.0-14-18490  |
| Avaya G450 Gateway   | 41.16   |
| Avaya 9621G H323 Deskphone   | 96x1 H323 Release 6.8304  |
| Avaya 9641GS SIP Deskphone   | 96x1 SIP Release 7.1.7.0.11   |
| DaVinci Premise Server (resides on a Windows 2016 64-bit Operating System)<br>AMC Connector <ul style="list-style-type: none"> <li>• Salesforce Open CTI</li> <li>• Oracle Siebel</li> <li>• SAP CRM</li> <li>• MS Dynamics 365</li> <li>• SAP C4C</li> <li>• ServiceNow</li> <li>• Zendesk</li> </ul> | DaVinci Premise Server 7.0<br>DaVinci Driver for Avaya Aura® Contact Center 7.0<br><br>DaVinci Premise Gateway 7.0.0.3<br>DaVinci Adapter for SAP CRM 7.0<br>DaVinci Adapter for Siebel CRM 7.0 |

## 5. Configure Avaya Aura® Communication Manager

There are no specific configuration changes on Communication Manager required for this solution, for all provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 10**.

The configuration illustrated in this section was performed using Communication Manager System Administration Terminal (SAT). Some screens in this section have been abridged and highlighted for brevity and clarity in presentation. The general installation of the servers and Avaya G450 Media Gateway is presumed to have been previously completed and is not discussed here

### 5.1. Verify System Features

Use the **display system-parameters customer-options** command to verify that Communication Manager has permissions for features illustrated in these Application Notes. On **Page 3**, ensure that **Computer Telephony Adjunct Links?** is set to **y** as shown below.

```
display system-parameters customer-options                               Page 3 of 11
                                OPTIONAL FEATURES

Abbreviated Dialing Enhanced List? y                               Audible Message Waiting? y
Access Security Gateway (ASG)? n                                   Authorization Codes? y
Analog Trunk Incoming Call ID? y                                   CAS Branch? n
A/D Grp/Sys List Dialing Start at 01? y                           CAS Main? n
Answer Supervision by Call Classifier? y                           Change COR by FAC? n
ARS? y                                                             Computer Telephony Adjunct Links? y
ARS/AAR Partitioning? y                                           Cvg Of Calls Redirected Off-net? y
ARS/AAR Dialing without FAC? y                                     DCS (Basic)? y
ASAI Link Core Capabilities? n                                     DCS Call Coverage? y
ASAI Link Plus Capabilities? n                                     DCS with Rerouting? y
Async. Transfer Mode (ATM) PNC? n
Async. Transfer Mode (ATM) Trunking? n                             Digital Loss Plan Modification? y
ATM WAN Spare Processor? n                                         DS1 MSP? y
ATMS? y                                                            DS1 Echo Cancellation? y
Attendant Vectoring? y
```

## 5.2. Configure the Agent Stations

There are some settings that need to be confirmed on the Avaya IP sets that are being monitored.

Type **change station x**, where x is the extension number of the station that is to be changed.

Below is an example showing an Avaya **9641** H.323 deskphone used during compliance testing.

On **Page 1** ensure that **IP Softphone** is set to **y**.

```

change station 3301                                     Page 1 of 6
                                                    STATION
Extension: 3301                                         Lock Messages? n          BCC: 0
  Type: 9641                                           Security Code: *         TN: 1
  Port: S000011                                         Coverage Path 1: 1      COR: 1
  Name: H323-3301                                       Coverage Path 2:        COS: 15
Unicode Name? n                                         Hunt-to Station:        Tests? y
STATION OPTIONS
                                                    Time of Day Lock Table:
  Loss Group: 19                                         Personalized Ringing Pattern: 1
                                                    Message Lamp Ext: 3301
  Speakerphone: 2-way                                     Mute Button Enabled? y
  Display Language: english                             Button Modules: 1
Survivable GK Node Name: lsp
  Survivable COR: internal                               Media Complex Ext:
Survivable Trunk Dest? y                               IP SoftPhone? y
                                                    IP Video Softphone? n
Short/Prefixed Registration Allowed: default
                                                    Customizable Labels? y
  
```

On **Page 2** ensure that **Multimedia Mode** is set to **enhanced**.

```

change station 3301                                     Page 2 of 6
                                                    STATION
FEATURE OPTIONS
  LWC Reception: spe                                     Auto Select Any Idle Appearance? n
  LWC Activation? y                                     Coverage Msg Retrieval? y
  LWC Log External Calls? n                             Auto Answer: none
  CDR Privacy? n                                       Data Restriction? n
  Redirect Notification? y                               Idle Appearance Preference? n
  Per Button Ring Control? n                           Bridged Idle Line Preference? n
  Bridged Call Alerting? n                             Restrict Last Appearance? y
  Active Station Ringing: single
                                                    EMU Login Allowed? n
  H.320 Conversion? n                                   Per Station CPN - Send Calling Number?
  Service Link Mode: as-needed                           EC500 State: disabled
  Multimedia Mode: enhanced                             Audible Message Waiting? n
  MWI Served User Type:                                 Display Client Redirection? n
  AUDIX Name:                                           Select Last Used Appearance? n
                                                    Coverage After Forwarding? s
                                                    Multimedia Early Answer? n
  Remote Softphone Emergency Calls: as-on-local Direct IP-IP Audio Connections? y
  Emergency Location Ext: 3301                           Always Use? n IP Audio Hairpinning? n
  
```

On **Page 3**, keep all fields at default.

```
change station 3301                                     Page 3 of 6
                                                    STATION

    Conf/Trans on Primary Appearance? n
    Bridged Appearance Origination Restriction? n      Offline Call Logging? y
    Bridging Tone for This Extension? n
    Require Mutual Authentication if TLS? n

    Call Appearance Display Format: disp-param-default
    IP Phone Group ID:
    Enhanced Callr-Info Display for 1-Line Phones? n

                ENHANCED CALL FORWARDING
                Forwarded Destination              Active
Unconditional For Internal Calls To:                n
                External Calls To:                n
    Busy For Internal Calls To:                      n
                External Calls To:                n
    No Reply For Internal Calls To:                  n
                External Calls To:                n

                SAC/CF Override: n
```

On **Page 4** there are three call appearance buttons configured, **call-appr**.

```
change station 3301                                     Page 4 of 6
                                                    STATION

SITE DATA
    Room:                Headset? n
    Jack:                Speaker? n
    Cable:              Mounting: d
    Floor:              Cord Length: 0
    Building:           Set Color:

ABBREVIATED DIALING
    List1:                List2:                List3:

BUTTON ASSIGNMENTS
    1: call-appr          5: manual-in          Grp:
    2: call-appr          6: after-call         Grp:
    3: call-appr          7: auto-in           Grp:
    4:                    8: aux-work          RC:   Grp:

    voice-mail 3333
```

## 6. Configuration of Avaya Aura® Contact Center

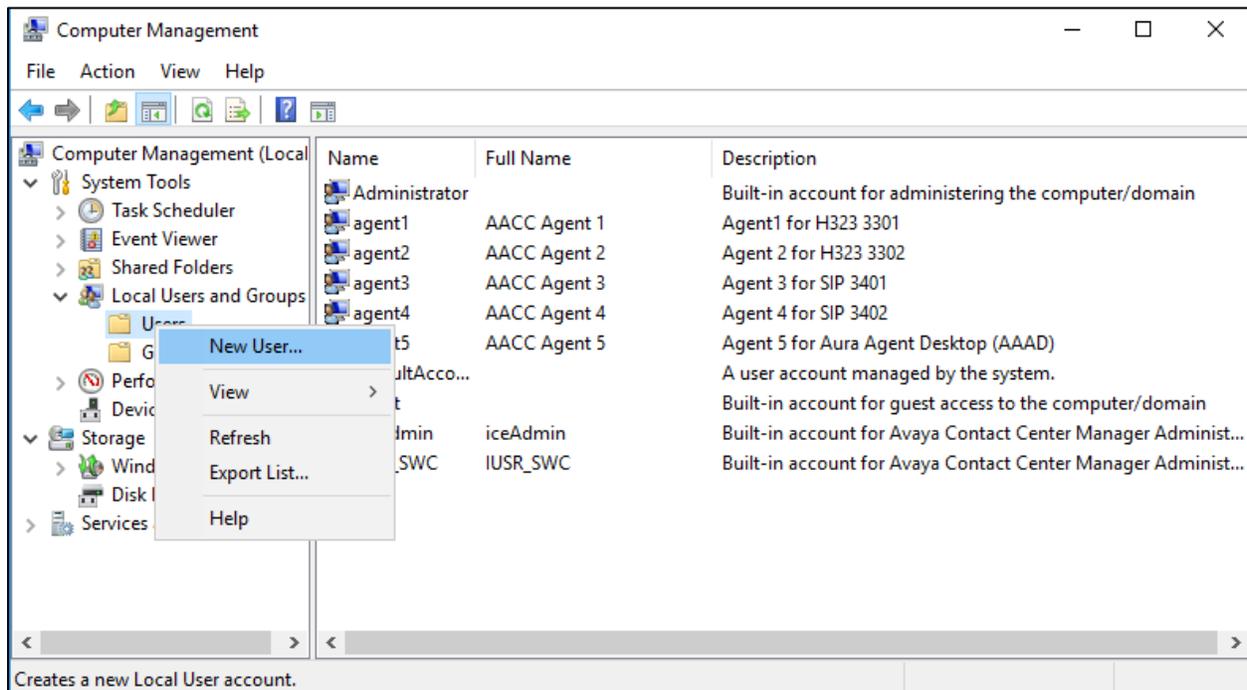
It is assumed that a fully working Contact Center is already in place with call routing and skillsets configured. Communication Control Toolkit (CCT) is a module of Contact Center and this is a client/server application that implements Computer-Telephony Integration (CTI) for installed and browser-based client integrations. This section describes the steps required to add a new Agent and CCT user and associate that CCT user with a windows domain user.

### 6.1. Create a Windows user on the Avaya Aura® Contact Center Server

All CCT users must be associated with a user account on Windows Active Directory/Domain user account. When a Contact Center user is created, there is an option to create a CCT user and there is an association made there with a Windows domain user, see **Section 6.2**. Users who can access multiple domains can also access the CCT client as long as trust is established between the domains; the user does not have to log on to separate domains to use the CCT client.

If there is no Active Directory already in place, then a windows user must be added to the Contact Center server before a CCT user is added. In the example below a new user called **agent1** was created on the local Windows Server. To add a new windows user, navigate to **Computer Management**. On windows 2016 server simply type in Computer Management on the screen and the program will appear.

From **Computer Management**, in the left window, expand **System Tools** → **Local Users and Groups** → **Users** and right click on **Users** and select **New User** as shown below.



Enter the **User name** and **Password** noting that this same user name and password will be required in configuring the CRM Client in **Section 7**. Ensure that **Password never expires** is ticked. Click on **Create** once the information is filled in correctly.

New User

User name: agent 1

Full name: AACC Agent 1

Description: H.323 Agent

Password: ●●●●●●

Confirm password: ●●●●●●

User must change password at next logon

User cannot change password

Password never expires

Account is disabled

Help Create Close

## 6.2. Create an agent on Avaya Aura® Contact Center

Open Contact Center Manager Administrator (CCMA) web session to the Contact Center server and **Log In** with the proper credentials as shown below.

**AVAYA** Contact Center - Manager [About](#)

Contact Center - Manager

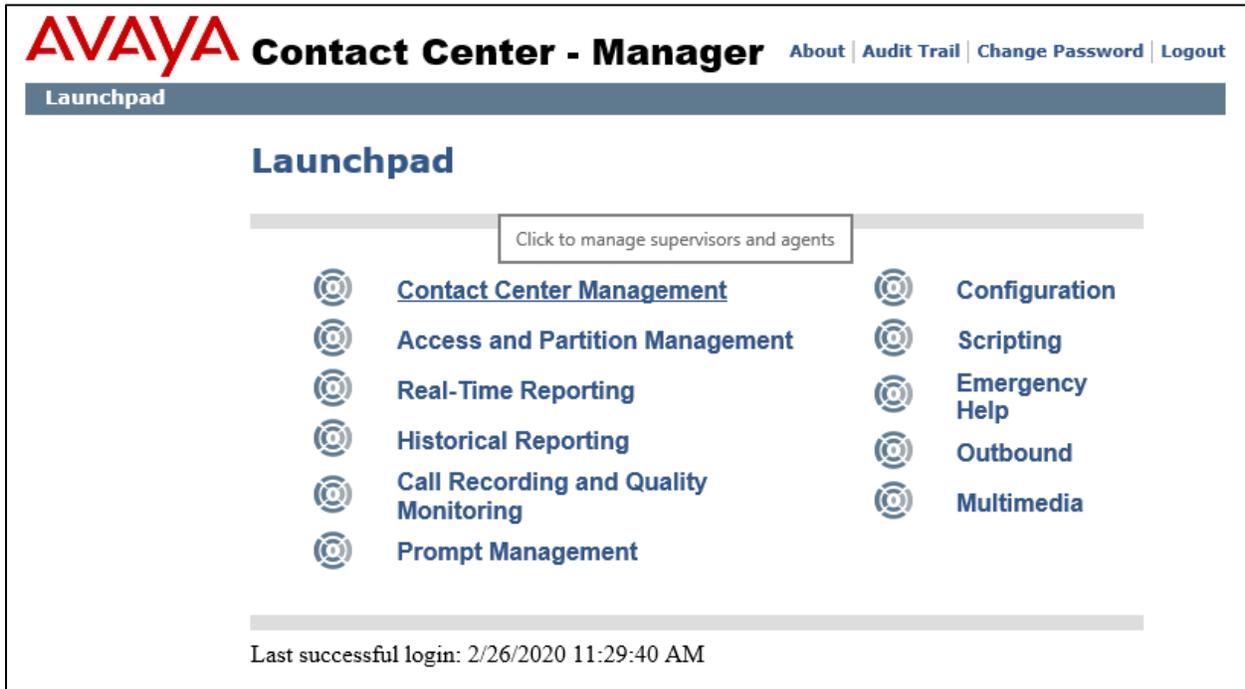
**Login**

User ID: webadmin

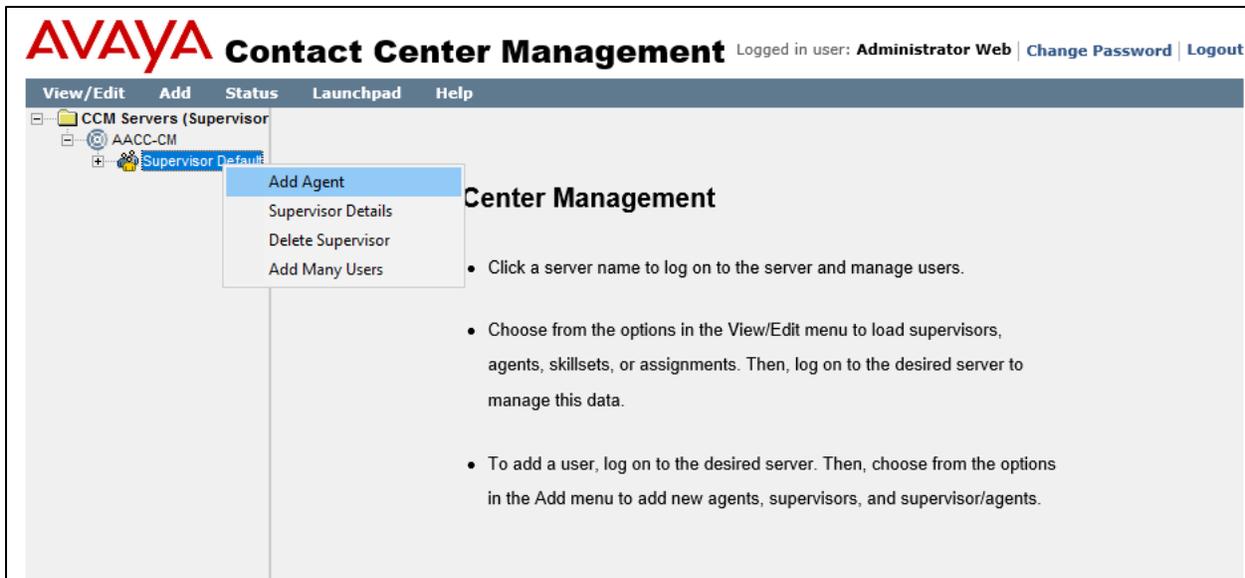
Password: ●●●●●●●●●●

Login

Click on **Contact Center Management**.



Right click on the **Supervisor** in the left window and click on **Add Agent**.



Enter the details of the agent including:

- **User Type:** Select *Agent* in the dropdown menu.
- **Login ID:** enter a login ID e.g. *1001* as shown in the configuration.
- **Voice URI:** enter an URI format as user@domain, in this case is the extension *3301@bvwddev.com*. Note that the SIP domain bvwddev.com is already defined in Session Manager.
- **Create CCT Agent:** Tick on this check box to associate the agent with CCT. As the **Create CCT Agent** is selected, the **Associate User Account** section will be displayed. Expand this section, select **Search local operating system** and click on **List All** button, it will list all local operating system users including the Windows user **agent1** created in the section above. Select the Windows agent1, the agent1 is now displayed in the **CCT Agent Login Details**.

**AVAYA Contact Center Management** Logged in user: Administrator Web | Change Password | Logout

View/Edit Add Status Launchpad Help

CCM Servers (Supervisor) AACC-CM

Agent Details: **AACC Agent 1** Server: **AACC-CM**

**User Details**

First Name: **AACC Agent** User Type: Agent  
Last Name: **1** Login ID: 1001  
Title: Voice URI: sip:3301@bvwddev.com  
Department: IM URI: sip:  
Language: English Account Type:  Create CCT Agent  
Comment: **CCT Agent Login Details**  
Domain: AACC-CM  
User ID: agent1

**Associate User Account**

Search local operating system  Search local security server  Search domain users

Search all user accounts where:  
Full Name starts with and includes all users  
Search List All

| User Name                               | Full Name (10) | Status    |
|---|----------------|-----------|
| <input type="radio"/> Administrator     |                | Available |
| <input checked="" type="radio"/> agent1 | AACC Agent 1   | Available |
| <input type="radio"/> agent2            | AACC Agent 2   | Available |

Clear Submit Create Copy Create Many Logout Agent

Expand the **Contact Types**, select the correct contact type in this example this is an agent answering voice calls, so **Voice** is chosen. Expand **Skillsets** and **Assign Skillsets** and assign the necessary skillset to this user, in the example below **Default\_Skillset** was selected. Click on **Submit** at the bottom of the page once this is completed to save the changes.

▼ [Contact Types](#)

| Contact Type       | ▼                                   |
|--------------------|-------------------------------------|
| SMS                | <input type="checkbox"/>            |
| Social_Networking  | <input type="checkbox"/>            |
| Video              | <input type="checkbox"/>            |
| Voice              | <input checked="" type="checkbox"/> |
| Voice_Mail         | <input type="checkbox"/>            |
| Web_Communications | <input type="checkbox"/>            |

---

▼ [Skillsets](#)

| Skillset Name (1) | Contact Type | Priority |
|-------------------|--------------|----------|
| Default_Skillset  | Voice        | 1 ▼      |

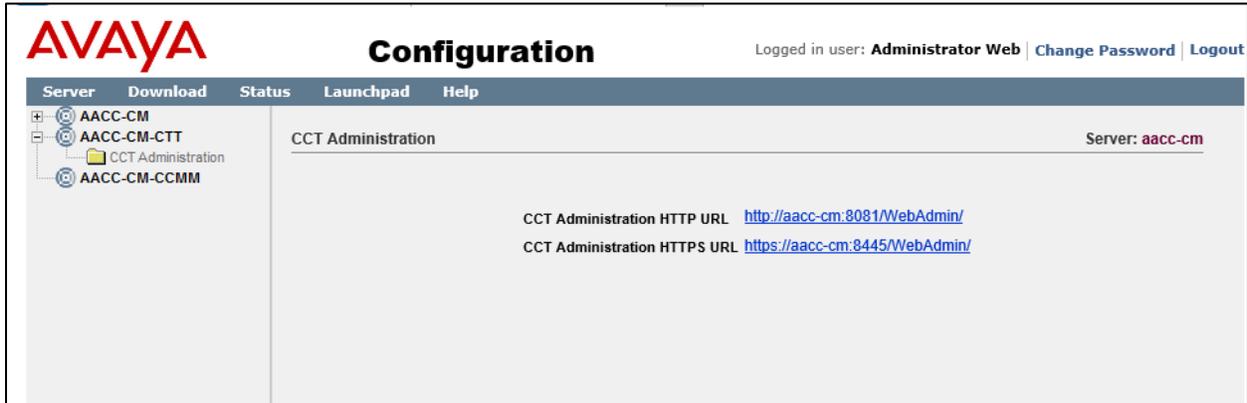
▶ [Assign Skillsets](#)

### 6.3. Verify CCT User Association

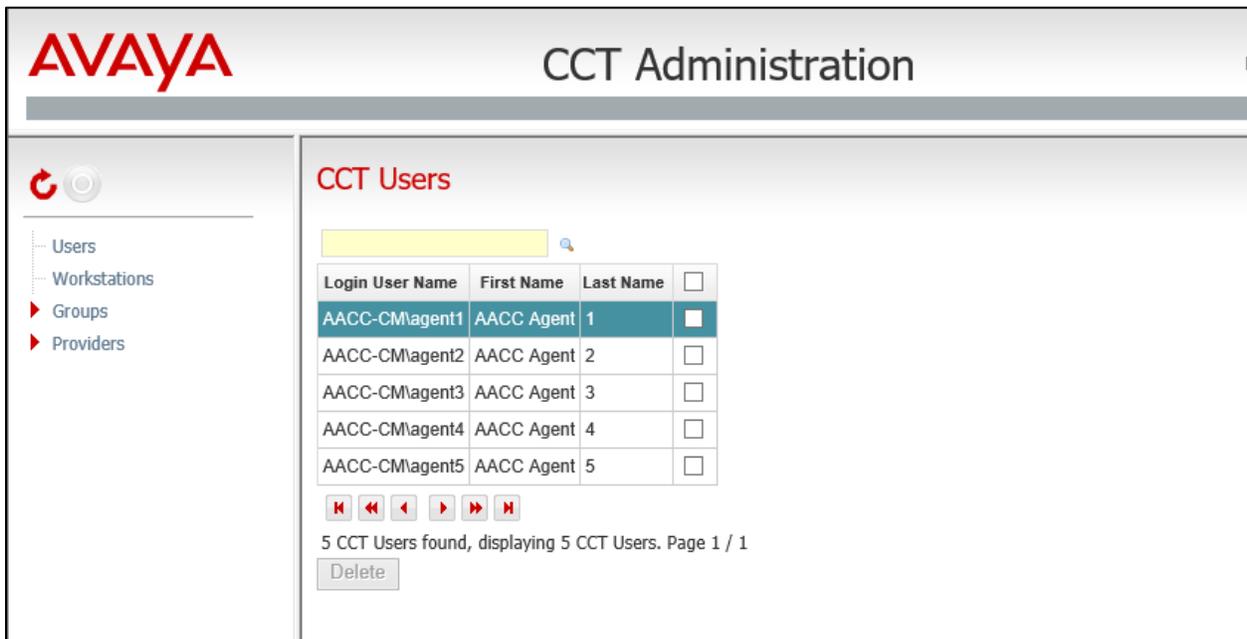
To check to see that the CCT User and Contact Center Agent are associated correctly, navigate to **Configuration** on the Launchpad as shown below.



Expand the CCT Server in the left window and click on **CCT Administration**. Click on **CCT Administration URL** in the main window.



The **CCT Administration** window opens in a separate browser session. Click on **Users** in the left window and double-click on the user added from **Section 6.2**.



The agent **1001** is associated with this user. There are no changes required in this section only to observe that the association is correct. Note that only one agent can be associated with a CCT user.

**AVAYA** CCT Administration Logged in as webadmin [Help](#)

**Update CCT User**

**User Details**

Login User Name: AACC-CM\agent1  
 First Name: AACC Agent  
 Last Name: 1

**Address Assignments**

**Terminal Assignments**

**Terminal Group Assignments**

**Address Group Assignments**

**Agent Assignments**

**Agents available**

| <input type="checkbox"/> | Agents |
|--------------------------|--------|
| <input type="checkbox"/> | 3304   |
| <input type="checkbox"/> | 1004   |
| <input type="checkbox"/> | 1003   |
| <input type="checkbox"/> | 1002   |

4 Agents found. Page 1 / 1

**Agents mapped**

| <input type="checkbox"/> | Agents |
|--------------------------|--------|
| <input type="checkbox"/> | 1001   |

1 Agents found. Page 1 / 1

## 7. Configuration of AMC DaVinci Premise Server

The DaVinci Premise Server (DPS) is configured through server profiles. Server profiles are config.ini files that configure core modules and the channel connector (CTI Module) that connects with and integrates Avaya Aura® Contact Center CCT, and the application adapter module which integrates CRM applications.

Three (3) different server profiles were used. Cloud applications (Microsoft Dynamics 365, Salesforce, SAP C4C, ServiceNow and Zendesk) used the SOAP web services adapter. Siebel used the .NET remoting adapter, which connects using .NET remoting protocol. SAP CRM used the SAP Web adapter, which connects through SAP APIs.

As these profiles differ only in the application adapter configuration, the full Cloud Application SOAP web services profile is listed, and only the adapter configuration differences for SAP CRM and Oracle Siebel are listed. These include differences in the Module Manager, which defines the loadable modules, and the adapter module configuration sections.

### Cloud Application (SOAP) Server Profile [base]

[Global]

TraceEnabled=1

TraceLevel=4

# TraceMaxSize=1024

# TracePath=C:\Program Files\AMC Technology\MCIS\Server\Logs

TracePath=C:\Program Files (x86)\AMC Technology\MCIS\Server\Logs

[ModuleManager]

# TraceEnabled=1

# TraceLevel=4

# TraceMaxSize=1024

ModuleCheckInterval=3000000

CreateDumpOnUnhandledException=True

OutOfProcessModule=CTIModule

ModuleTerminateOnStart=cmsrgt\_CCT.exe

ModuleTerminateOnShutdown=cmsrgt\_CCT.exe

ModuleTerminateOnStart=CMGateway.exe

ModuleTerminateOnShutdown=CMGateway.exe

ModuleClass=AgentManagerClass,AgentManager.AMCAgentManagerModule

Module=AgentManager,AgentManagerClass

ModuleClass=DataStoreClass,DataStore.AMCMemoryDataStore

Module=DataStore,DataStoreClass

ModuleClass=EventManagerClass,AMCEventManagerModule.AMCEventManagerModule

Module=EventManager,EventManagerClass

ModuleClass=LicenseManagerClass,LicenseManager.AMCLicenseManagerModule

Module=LicenseManager,LicenseManagerClass

ModuleClass=WorkManagerClass,WorkManager.AMCWorkManager

Module=WorkManager,WorkManagerClass

ModuleClass=StandardizedClass,AMCMultiChannelInterface.AMCApplication  
Module=StandardizedInterface,StandardizedClass

ModuleClass=CMGatewayClass,CMGateway.CMGatewayModule  
Module=CMGateway,CMGatewayClass

ModuleClass=SoapAdapter4DotNet\_ProgID,SoapAdapter4DotNet.SoopAdapterModule  
Module=SoapAdapter,SoapAdapter4DotNet\_ProgID

ModuleClass=NortelCCTClass,NortelCCT8Connector.TelephonyConnector  
Module=CTIModule,NortelCCTClass

[AgentManager]  
# TraceEnabled=1  
# TraceLevel=4  
# TraceMaxSize=1024  
TraceMaxSize=50240  
SuppressPendingWorkModeChange=False  
RaiseWMChangedSynchronous=False  
RaiseNewWorkSynchronous=False  
SynchronizeChannelWorkModes=True  
RaiseNewWorkForUnknownWorktops=False

[DataStore]  
# TraceEnabled=1  
# TraceLevel=2  
# TraceMaxSize=1024  
# CleanupInterval=1440  
# DataExpiration=30  
CleanupInterval=240  
DataExpiration=240

[EventManager]  
# TraceEnabled=1  
# TraceLevel=2  
# TraceMaxSize=1024  
# IoPortReadTimeout=3000  
# UseSafeMode=Yes  
ThreadPoolSize=20

[StandardizedInterface]  
# TraceEnabled=1  
# TraceLevel=2  
# TraceMaxSize=1024  
# AgentManager=AgentManager  
ReturnErrorCodes=False

[CMGateway]  
# TraceEnabled=1  
# TraceLevel=2  
# TraceMaxSize=1024  
InstanceName=Default

```
[LicenseManager]
# TraceEnabled=1
# TraceLevel=2
# TraceMaxSize=1024
```

```
MCIS=[license key removed]
```

```
[WorkManager]
# TraceEnabled=1
# TraceLevel=2
# TraceMaxSize=1024
```

```
[SoapAdapter]
# TraceEnabled=1
# TraceLevel=4
# TraceMaxSize=1024
# MessageLibrary=AMCMessages.dll
TraceMaxSize=50240
EventManager=EventManager
DataStore=DataStore
AppURL=http://localhost/event-jaxrpc/eventraiser
EventRaiser=AMCDotNetEventAdapterRaiser.MSMQEventRaiser
```

```
[CTIModule]
# TraceEnabled=1
TraceLevel=5
TraceMaxSize=50240
Channel=CTI1
KnownQueues=ANNC,9999,4000,5000
CCTServer=10.33.1.55
# CCTUserName=<CCT User associated with the TNs to be used with AMC Software>
# CCTPassword=<Password for above user>
CCTDomain=aacc-cm
CCTEncryptionLevel=None
CCTDataStoreFormat=BIN
UseLegacyCADFormat=True
CompressAdditionCAD=False
DefaultObjectName=KEYVALUE
ReasonCodeWidth=4
DefaultAcwAuxCode=0001
MultipleClientsPerExt=N
SetStateOnLogin=False
UseLoginWorkaround=False
InternalExtLen=4
CCTConnectAttempts=1
CCTRetryConnectSeconds=5
ReconnectDelayMinutes=1
SupportHotdesking=False
# CCTUsersFileName=C:\Program Files\AMC Technology\Connectors\Nortel
CCT8\CCTUserExt.txt If SupportHotdesking=True
SupportKnowledgeWorker=False
SupportSIP=True
```

SupportMultiMediaReason=False  
EnableCCMMOutboundDialer=False  
CCMMOutboundWebServicesUserName=xxxxxx  
CCMMOutboundWebServicesPassword=xxxxxx  
OutboundUtilityWS=http://aaccserver/ccmmoutboundwebservices/OutboundUtilityWS.asmx  
OutboundCampaignWS=http://aaccserver/ccmmoutboundwebservices/OutboundCampaignWS.a  
smx  
OutboundContactWS=http://aaccserver/ccmmoutboundwebservices/OutboundContactWS.asmx  
CCMMWebServicesUserName=xxxxxx  
CCMMWebServicesPassword=xxxxxx  
CIUtilityWS=http://aaccserver/ccmmwebservices/CIUtilityWs.asmx  
CIContactWS=http://aaccserver/ccmmwebservices/CIContactWs.asmx  
CICustomerWS=http://aaccserver/ccmmwebservices/CICustomerWs.asmx  
RejectReasonCode=0  
CCMMPreviewWrapupTimeoutSeconds=0  
DefaultPreviewWrapupCode=1  
CCMMCampaignsReloadFrequencyMinutes=120  
CCMMDialerANIFormat=IntCode,AreaCode,PhoneNo  
CCMMCADFilter=CampaignID,CampaignName  
RequestTimeoutSeconds=5  
EnableCCMMGetContacts=False  
RescheduleTimeZoneOffset=-300  
RescheduleCustomVariables=CampaignID,CampaignName,DialingPrefix  
RescheduleCampaignTimeZoneVariable=RescheduleTimeZoneOffset  
AfterCallWorkInterval=0  
SupportCCTOneToOne=True

[AdministrationTool]

AdminToolHost=localhost  
WebServiceHost=localhost  
MCISName=localhost  
#AdminRemotingPort=65372  
#SMTPServer=<smtpserver>  
TraceLevel=5  
TraceMaxSize=1000000  
TracePath=C:\Program Files (x86)\AMC Technology\MCIS\Server\Logs\  
TraceFileName=AdministrationTool.log

**Siebel CRM Server Profile** [differences for adapter configuration only]

[ModuleManager]

# TraceEnabled=1  
# TraceLevel=4  
# TraceMaxSize=1024  
ModuleCheckInterval=3000000  
CreateDumpOnUnhandledException=True

ModuleTerminateOnStart=CMGateway.exe  
ModuleTerminateOnShutdown=CMGateway.exe

ModuleClass=AgentManagerClass,AgentManager.AMCAgentManagerModule  
Module=AgentManager,AgentManagerClass

ModuleClass=DataStoreClass,DataStore.AMCMemoryDataStore

Module=DataStore,DataStoreClass

ModuleClass=EventManagerClass,AMCEventManagerModule.AMCEventManagerModule  
Module=EventManager,EventManagerClass

ModuleClass=LicenseManagerClass,LicenseManager.AMCLicenseManagerModule  
Module=LicenseManager,LicenseManagerClass

ModuleClass=WorkManagerClass,WorkManager.AMCWorkManager  
Module=WorkManager,WorkManagerClass

ModuleClass=StandardizedClass,AMCMultiChannellInterface.AMCApplication  
Module=StandardizedInterface,StandardizedClass

ModuleClass=CMGatewayClass,CMGateway.CMGatewayModule  
Module=CMGateway,CMGatewayClass

ModuleClass=RemotingEndpointClass,AMCDotNetAdapterRemotingLibrary.RemotingModule  
Module=RemotingEndpoint,RemotingEndpointClass

ModuleClass=CentreVuCTI,CentreVuCTI.CentreVuCTIModule  
Module=CTIModule,CentreVuCTI

[RemotingEndpoint]  
TraceLevel=4  
TraceMaxSize=50240  
RemotingPort=5623  
# EventBroadcastPort=4555  
# DataStore=DataStore  
DataStore=CTIModule

### **SAP CRM Server Profile** [differences for adapter configuration only]

[ModuleManager]  
# TraceEnabled=1  
# TraceLevel=4  
# TraceMaxSize=1024  
ModuleCheckInterval=3000000  
CreateDumpOnUnhandledException=True

ModuleTerminateOnStart=CMGateway.exe  
ModuleTerminateOnShutdown=CMGateway.exe

ModuleClass=AgentManagerClass,AgentManager.AMCAgentManagerModule  
Module=AgentManager,AgentManagerClass

ModuleClass=DataStoreClass,DataStore.AMCMemoryDataStore  
Module=DataStore,DataStoreClass

ModuleClass=EventManagerClass,AMCEventManagerModule.AMCEventManagerModule  
Module=EventManager,EventManagerClass

ModuleClass=LicenseManagerClass,LicenseManager.AMCLicenseManagerModule

Module=LicenseManager,LicenseManagerClass

ModuleClass=WorkManagerClass,WorkManager.AMCWorkManager  
Module=WorkManager,WorkManagerClass

ModuleClass=StandardizedClass,AMCMultiChannelInterface.AMCApplication  
Module=StandardizedInterface,StandardizedClass

ModuleClass=CMGatewayClass,CMGateway.CMGatewayModule  
Module=CMGateway,CMGatewayClass

**ModuleClass=ICIAdapterClass,ICIAdapter.ICIAdapterModule**  
**Module=IciAdapter,ICIAdapterClass**

ModuleClass=CentreVuCTI,CentreVuCTI.CentreVuCTIModule  
Module=CTIModule,CentreVuCTI

```
[IciAdapter]
TraceLevel=6
TraceMaxSize=50240
CTIChannel=CTI1
ConfigDBHost=PETDaVinci7\SQLExpress
ConfigServerName=petdavinci7
# ConfigDBUser=<If using Named Authorization, SQL user with proper Authorization>fd
# ConfigDBPass=<Password for above SQL User>
EventHandlingLevel=5
NewHandleOnWarmTransfer=False
NewHandleOnConference=False
WaitForCallStateUpdateDelay=1500
DropCreatedItemAfterFailedDial=True
DropCreatedItemAfterFailedConsult=True
CheckCallStateAfterDial=True
CheckCallStateAfterConosult=True
WaitCallStateAfterDial=200
LetDropEventCleanItem=True
FilterDropForTransferredCall=False
# RejectQueue=<Rejection Queue number>
DataStore=CTIModule
ContactDataKeyName=CAD
ListenForImmediateChannelArrivalEvent=True
ListenForNewWorkEvent=False
UpdateTransferHandleTelephony=True
AllowWorkCenterList=False
PostImmediateChannelArrivalDelay=1000
WrapupMode=1
#   WorkCenterMode=3
#   WorkCenterMode=2,100
NotReadyReasonACWlan=ZH|EN|DE|FR
NotReadyReasonCode=3,Break ZH|Break|Pause|Pause FR
NotReadyReasonCode=4,LunchZH|Meeting|Mittag| Mittag FR
ACWText=After Call ZH|After Call|After Call DE|After Call FR
InboundDispositionCode=3012,WIB-Task Completed ZH|WIB-Task Completed|Wrapup|B-Task
Completed DE|WIB-Task Completed FR
```

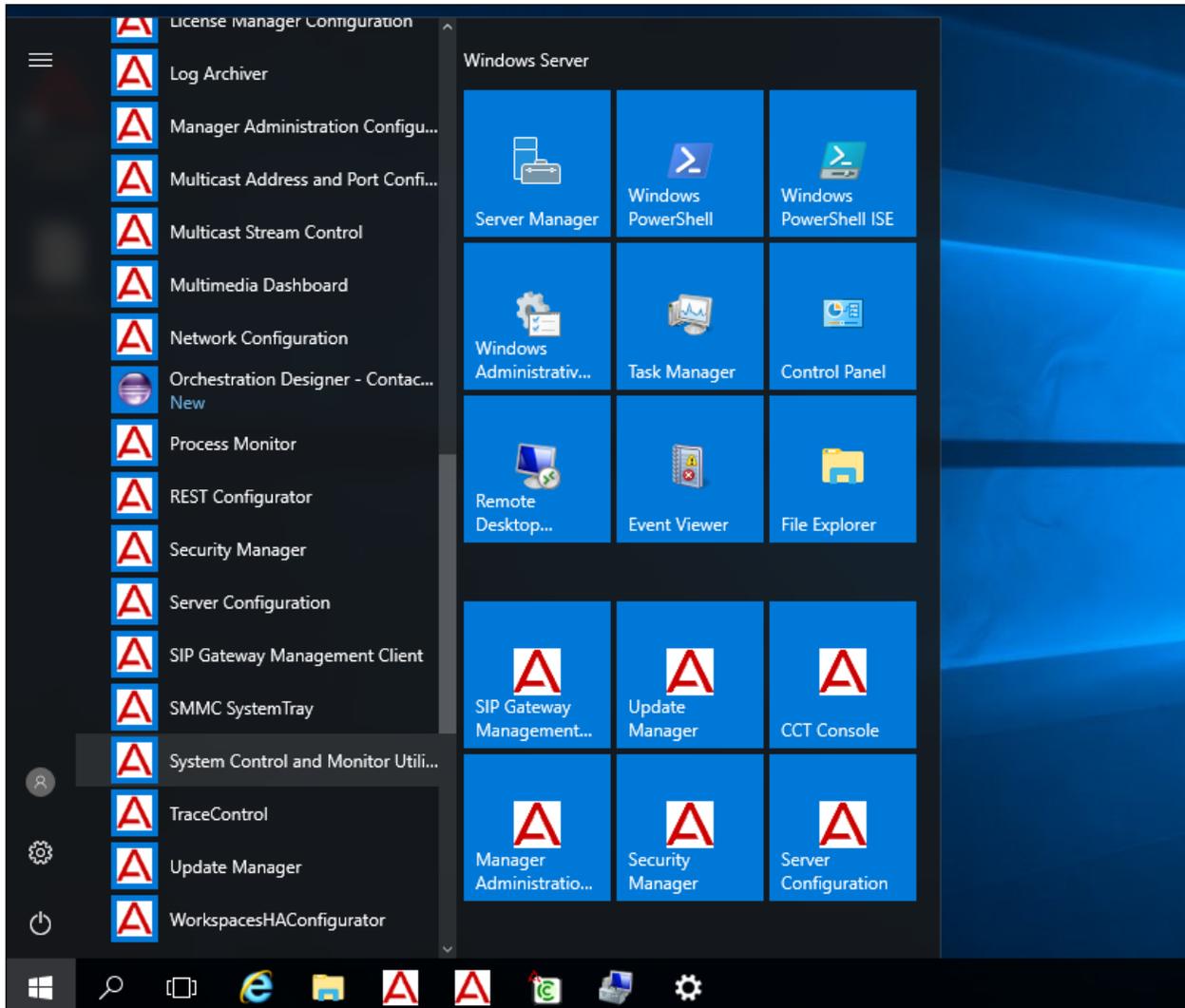
InboundDispositionCode=3013,WIB-Hang Up/Transfer ZH|WIB-Hang Up/Transfer|WIB-Hang Up/Transfer DE|WIB-Hang Up/Transfer FR  
OutboundDispositionCode=3015,WOB-Contacted ZH|WOB-Contacted|WOB-Contacted DE|WOB-Contacted FR  
OutboundDispositionCode=3016,WOB-Left Message ZH|WOB-Left Message|WOB-Left Message DE|WOB-Left Message FR  
NotReadyReasonCode=9999,-- Select -- ZH|-- Select --|-- Select -- DE|-- Select -- FR  
ShowSelectForFailedWorkMode=True  
EnablePreviewWrapup=False  
EnableCallDisposition=False  
EnablePreviewWrapupNumericCode=False  
EnableCallDispositionNumericCode=False  
PreviewANIFromCADField=PhoneNumber  
CallTypeForPreviewPopup=Inbound  
EnablePhantomInboundPopup=False  
# NumberTranslationFile=D:\Program Files\AMC Technology\Application Adapters\SAP Web Client Adapter\Default.tfs  
# NumberTranslationANIRule=Strip000|Replace00w86|ADD\_PLUS  
#  
NumberTranslationDialingRule=StripPLUS|Add000IfGreaterThanSeven|Replace00086With00|Replace00000w00  
# DialerConnectedStatusText=PDS CALL  
# ContactDataOnReadScript=  
# ANITranslationScript=

## 8. Verification Steps

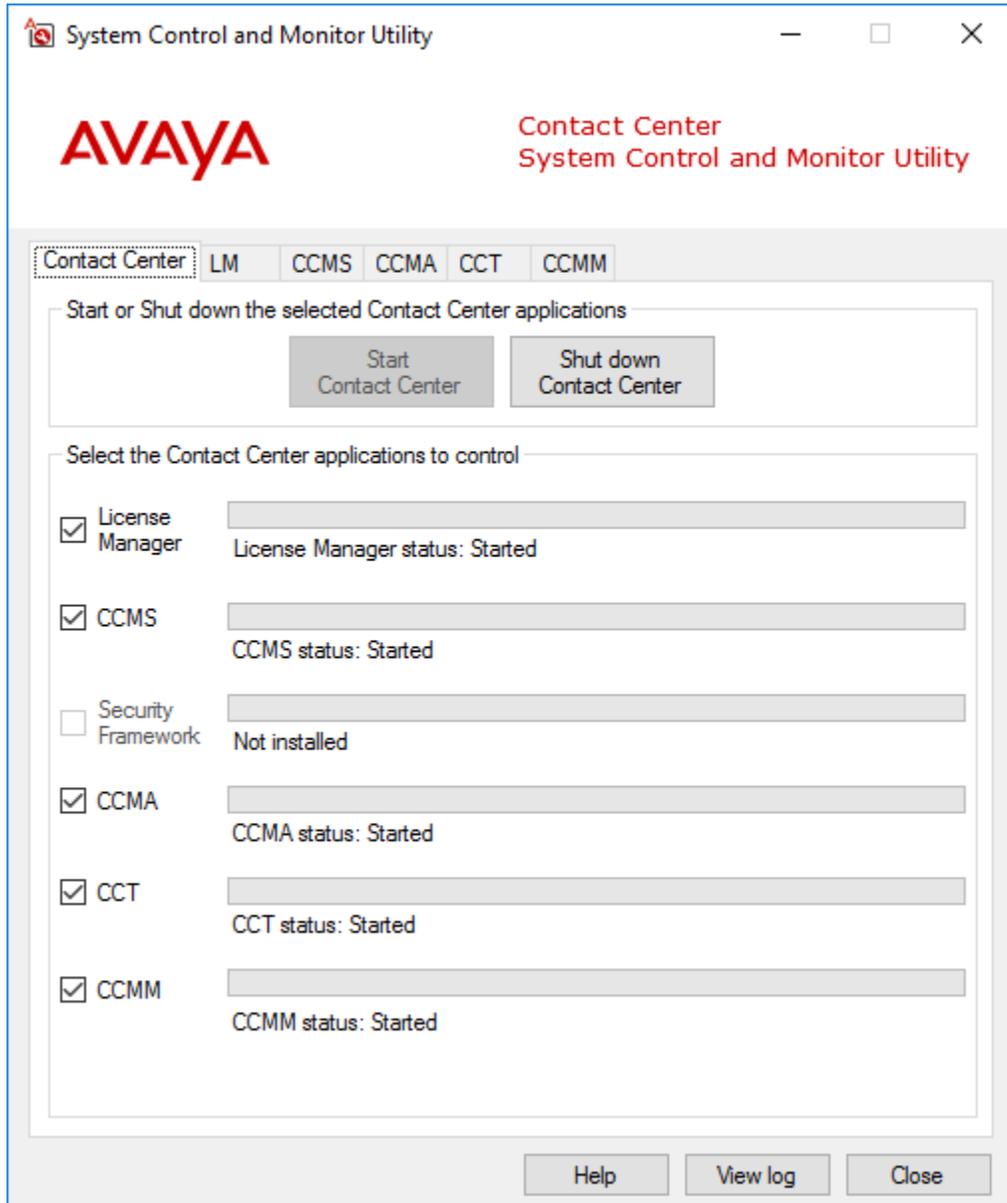
This section provides the tests that can be performed to verify correct configuration of the AMC DaVinci Premise Server with Avaya Aura® Contact Center.

### 8.1. Verify Avaya Aura® Contact Center Services

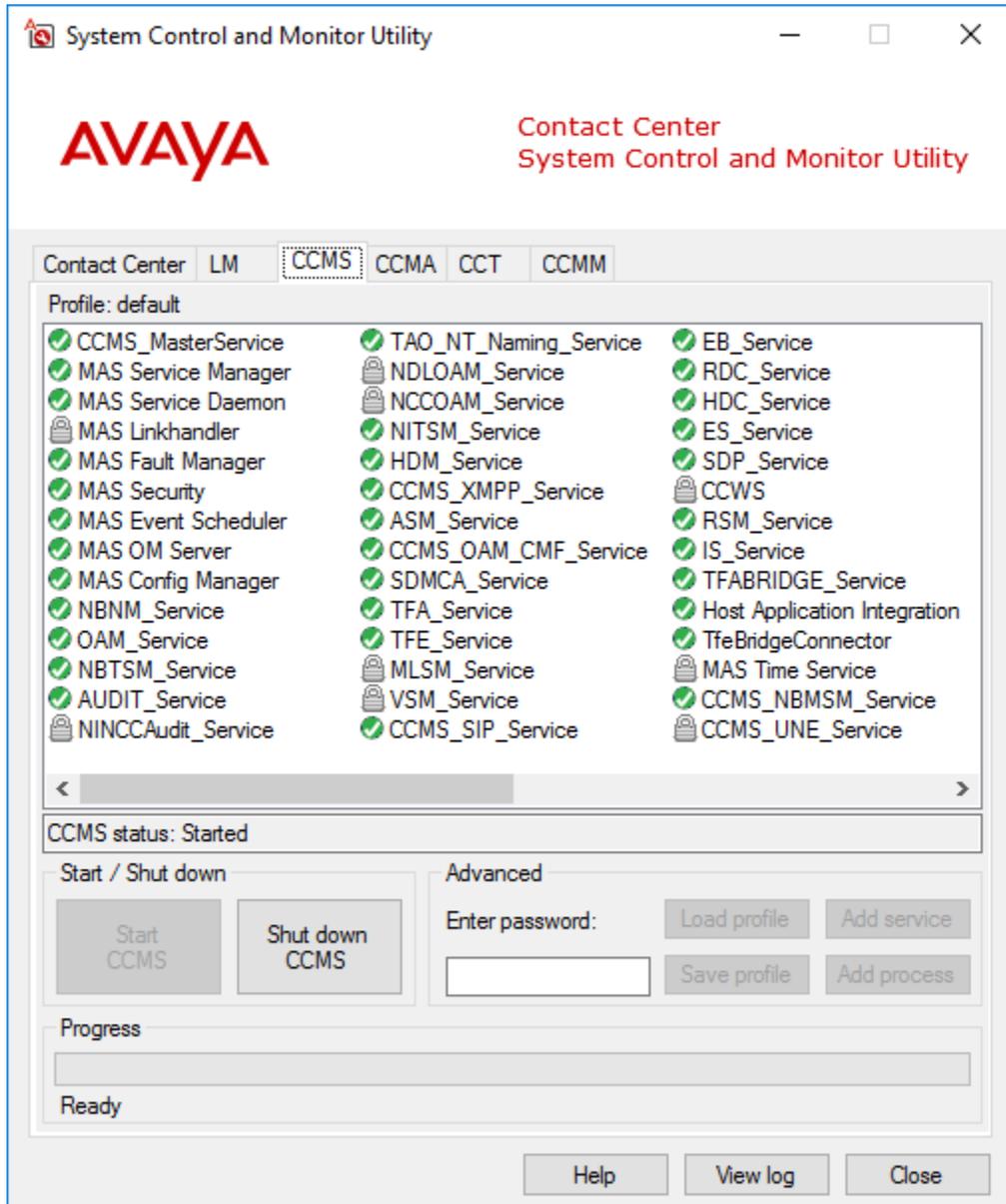
From the Contact Center Server, open **System Control and Monitor Utility**. On Windows 2016 server, navigate to menu **Start → Avaya → System Control and Monitor Utility**.



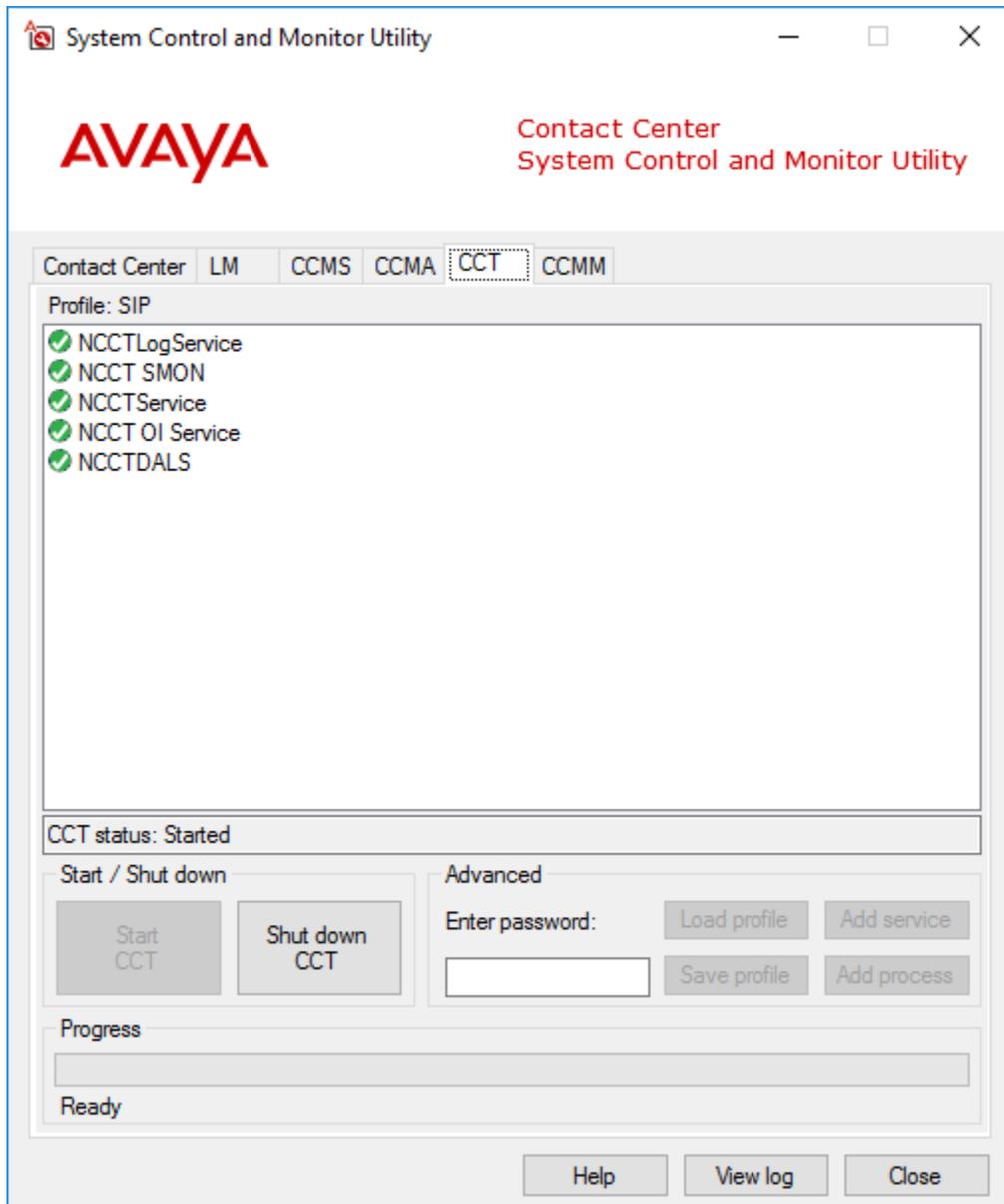
Navigate across each of the tabs, paying special attention to any service that may not be running.



The **CCMS** services are all showing green below which indicates that the Contact Center Manager Server is fully operational.



Click in on the **CCT** Tab, the screen below shows that the CCT services are all green which indicates that the Communication Control Toolkit module is fully operational. All the tabs should show similar results.

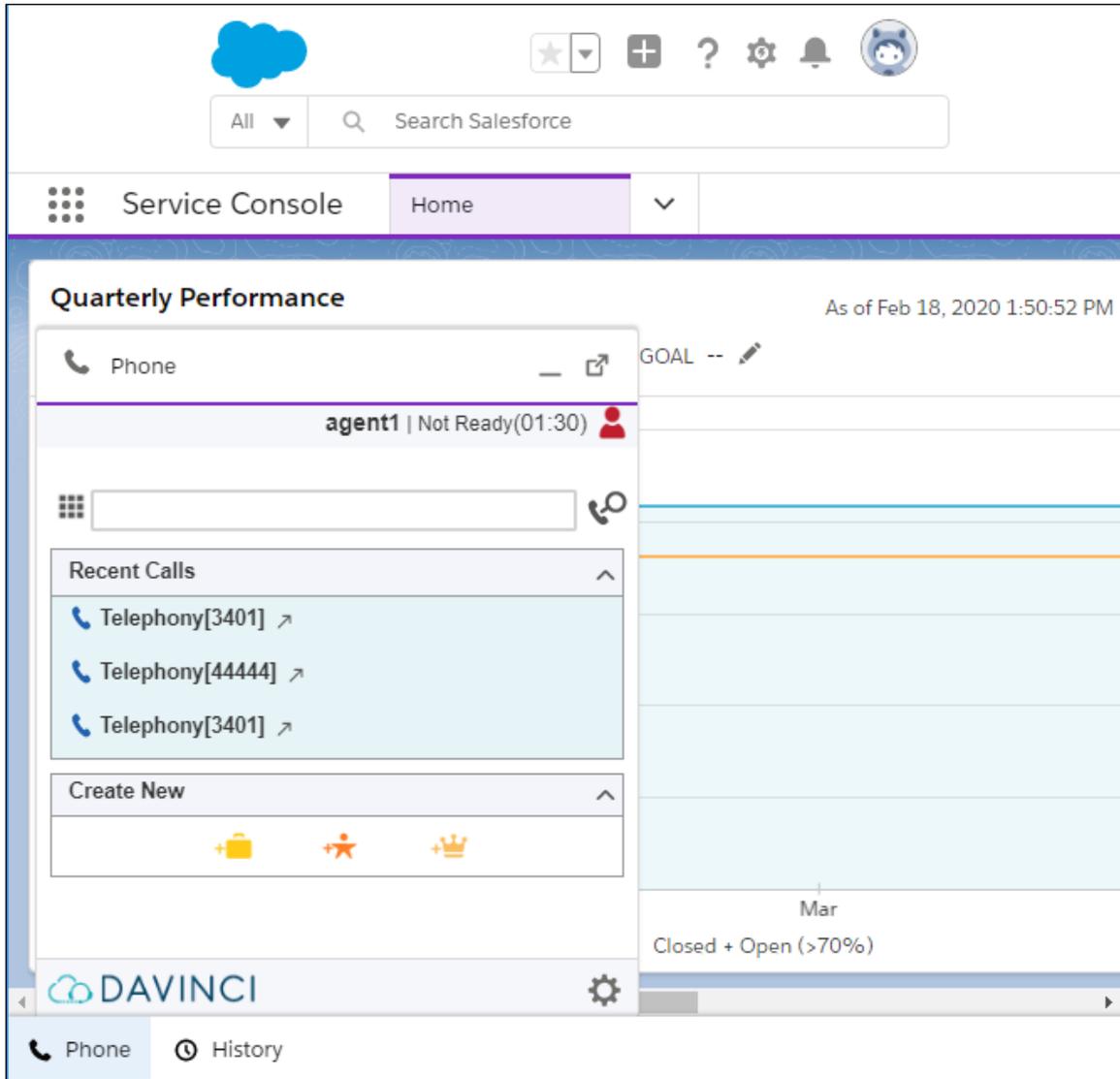


### 8.3. Verify the CTI CRM

This section shows typical CRM applications that were used during the compliance test.

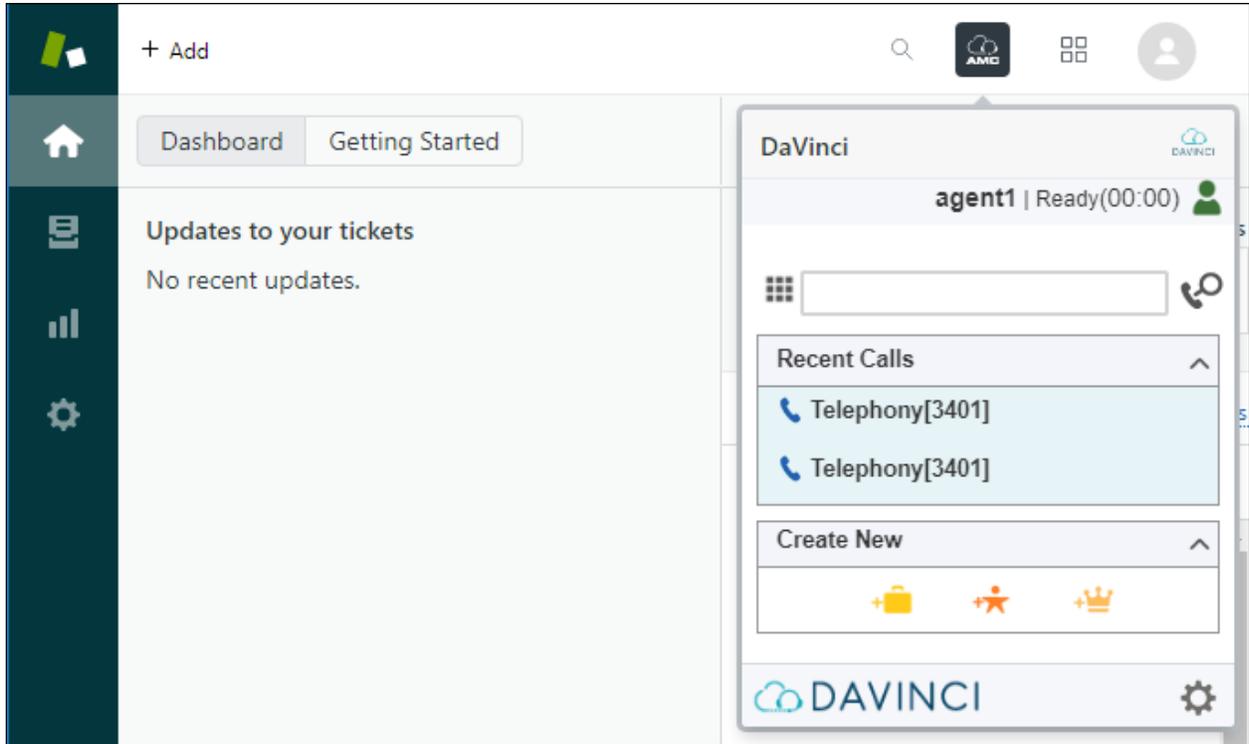
#### 8.3.1. Salesforce CRM

The screen below shows the DaVinci Agent UI logs in to Salesforce CRM and placed in **Not Ready** mode.



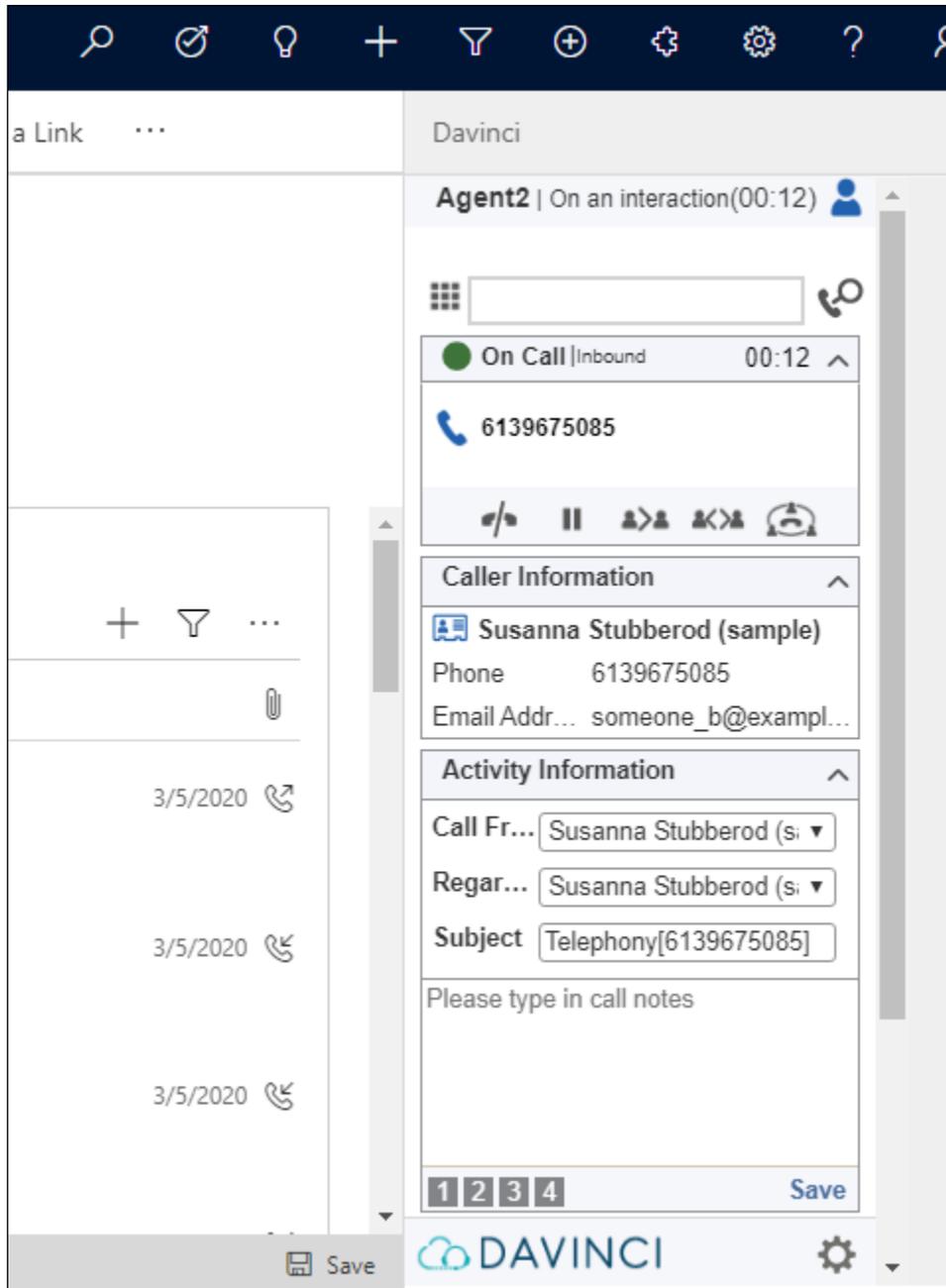
### 8.3.2. Zendesk CRM

The screen below shows the DaVinci Agent UI is integrated with Zendesk CRM and placed in the **Ready** mode.



### 8.3.3. Microsoft Dynamics 365 CRM

The screen below shows the DaVinci Agent UI is integrated with MS Dynamics 365 and answers an inbound call.

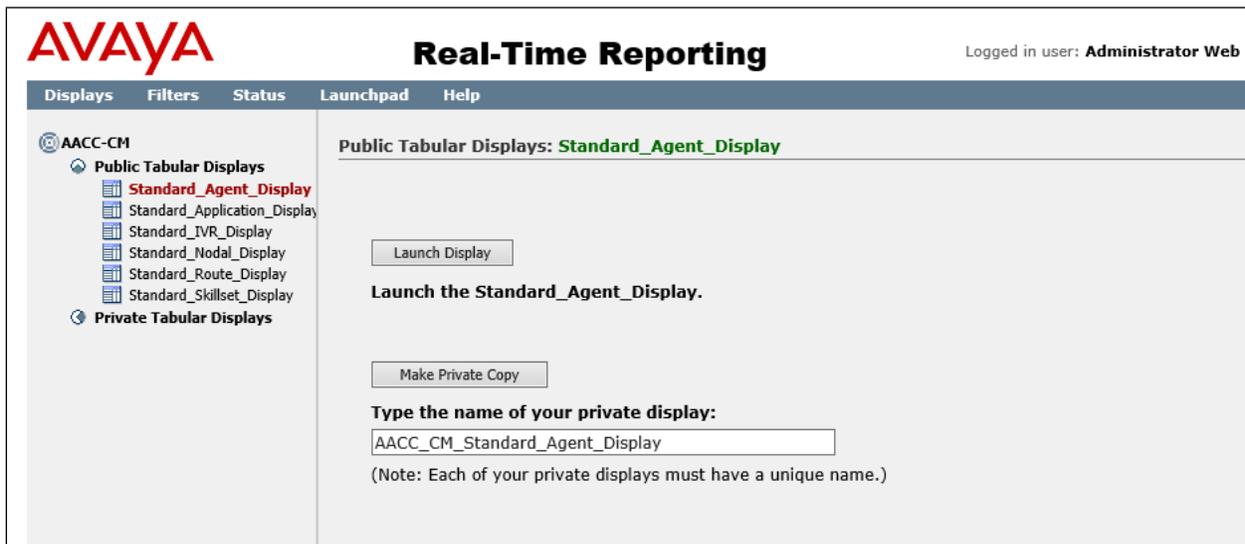


## 8.4. Verify Agent State on Avaya Aura® Contact Center

From the Contact Center **Launchpad**, click on **Real-Time Reporting**.



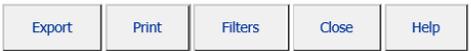
Select the **Standard\_Agent\_Display** from the left window and click on **Launch Display** in the main window.



The **Standard Agent Display** shows agent **1001** logged in and the status shows as **Not Ready**.

Header

**Standard Agent Display (AACC-CM)**



| Agt ID               | Agt First Name | Agt Last Name | Supr First Name | Supr Last Name | Ans SklSet | In Contacts Status | DN In | DN Out |
|----------------------|----------------|---------------|-----------------|----------------|------------|--------------------|-------|--------|
| <a href="#">1001</a> | AACC Agent     | 1             | Default         | Supervisor     |            | Not Ready          |       |        |

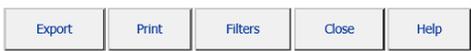
Moving Window, refreshing every 2 seconds  
Page 1 of 1  
Information as of 4/18/2020 9:51:10 AM

The **Standard Agent Display** shows agent **1001** logged in and the status shows as **Idle (Ready mode)**.

http://aacc-cm/7D=Standard\_Agent\_Display%7CAACC-CM%7CAACC-CM%7C4 - Standard Agent Display (AACC - Internet Explorer)

Header

**Standard Agent Display (AACC-CM)**



| Agt ID               | Agt First Name | Agt Last Name | Supr First Name | Supr Last Name | Ans SklSet | In Contacts Status | DN In | DN Out | Time In State |
|----------------------|----------------|---------------|-----------------|----------------|------------|--------------------|-------|--------|---------------|
| <a href="#">1001</a> | AACC Agent     | 1             | Default         | Supervisor     |            | Idle               |       |        | 05:15         |

Moving Window, refreshing every 2 seconds  
Page 1 of 1  
Information as of 4/18/2020 9:51:10 AM

The **Standard Agent Display** shows agent **1001** logged in and answer the contact center call, the status shows as **Active**.

Header

**Standard Agent Display (AACC-CM)**



| Agt ID               | Agt First Name | Agt Last Name | Supr First Name | Supr Last Name | Ans SklSet       | In Contacts Status | DN In | DN Out | Time In State |
|----------------------|----------------|---------------|-----------------|----------------|------------------|--------------------|-------|--------|---------------|
| <a href="#">1001</a> | AACC Agent     | 1             | Default         | Supervisor     | Default_Skillset | Active             |       |        | 00:09         |

Moving Window, refreshing every 2 seconds  
Page 1 of 1  
Information as of 4/18/2020 10:00:08 AM

## 9. Conclusion

These Application Notes describe the configuration steps required to integrate AMC Technology's DaVinci Premise Server Version 7.0 with Avaya Aura® Contact Center R7.1 and Avaya Aura® Communication Manager R8.1. All test cases have passed with any issues and observations noted in **Section 2.2**.

## 10. Additional References

These documents form part of the Avaya official technical reference documentation suite. Further information may be had from <http://support.avaya.com> or from your Avaya representative.

- [1] *Administering Avaya Aura® Communication Manager, Document ID 03-300509*
- [2] *Avaya Aura® Communication Manager Feature Description and Implementation, Document ID 555-245-205*
- [3] *Avaya Aura® Application Enablement Services Administration and Maintenance Guide Release 8.1*
- [4] *Avaya Aura® Session Manager Overview, Doc # 03603323Avaya Aura ® Contact Centre SIP Commissioning, Doc # NN44400-511, Release 7.0*
- [5] *Avaya Aura® Contact Center Installation Release 7.1, NN44400-311, 05.02, 16 June 2019*
- [6] *Avaya Aura® Contact Center Commissioning Release 7.1, NN44400-312, 05.01, October 2019*

Technical documentation for AMC Technology can be obtained by contacting AMC Technology Support. See **Section 2.3** for contact details.

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