



Avaya Solution & Interoperability Test Lab

Application Notes for configuring WEBTEXT Contact Center Messaging (CCM) with Avaya Aura® Contact Center R7.0 and Avaya Aura® Communication Manager R7.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps to integrate WEBTEXT Contact Center Messaging (CCM) with Avaya Aura® Contact Center and Avaya Aura® Communication Manager to allow SMS messages get passed from the customer to the Avaya Aura® Agent Desktop and from the agent desktop to the customer.

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 WEBTEXT Contact Center Messaging (CCM) with Avaya Aura® Contact Center R7.0 and Avaya Aura® Communication Manager R7.0 in order to pass SMS messages from the customer to the Avaya Aura® Agent Desktop and from the agent desktop to the customer.

These Application Notes focuses on the connection from WEBTEXT Contact Center Messaging to Avaya Aura® Contact Center 7.0 using the Aura® Contact Center Web Communications Software Development Kit (SDK) installed on an XAMPP web server and on the ability to create a screen pop when a voice call is presented to the agent, the agent gets passed a URL allowing text/SMS messages get sent from the agents desktop.

The Web Communications SDK and reference implementation is designed to provide a starting point for developers and system integrators to customize a web communications implementation suitable to their own infrastructure. It is possible to use the solution ‘out-of-box’ by simply embedding links to the ‘look-and-feel’ altered pop-ups in the appropriate location of the corporate website. Pop-ups, slightly modified to fit a particular corporate image, can be quickly harnessed to provide extensive contact centre web communications functionality.

The Web Communications SDK and reference implementation has not undergone extensive security and vulnerability assessment. It is recommended that developers and system integrators perform a full security review prior to implementing the solution.

2. General Test Approach and Test Results

The general test approach focuses on two services offered by WEBTEXT Contact Center Messaging.

1. The ability to include an SMS message to the customer while on a call to that same customer.
2. The ability of the customer to initiate an SMS chat session with a Contact Center agent.

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.

2.1. Interoperability Compliance Testing

The testing focuses on the following areas:

Avaya Aura® Contact Center Agent includes an SMS message to the customer while on a call to that same customer.

- A call comes in, the agent wants to send a message to the caller while talking to them, perhaps confirming a delivery address or reference code, so the caller doesn't need to find a pen and write it down.
- Call comes in, agent answers it.
- Screen pop 'pops' up on agent desktop.
- The 'Number' field is auto-populated with the caller id of the voice caller.
- The agent enters the required text and clicks 'Send SMS' as above.
- Message history for this caller appears on the right hand side of the screen pop.

Customer initiates an SMS chat session with an Avaya Aura® Contact Center Agent.

- Customer sends an SMS to the enterprise, that SMS is received in the agent desktop web chat. Responses from the agent go back as SMS to the customer.
- WEBTEXT connects to the Web Communications SDK using XAMPP.
- Messages to/from web chat are routed through this XAMPP connection.
- Incoming text message triggers a web chat event, opening web chat tab for agent.
- Agent replies to text messages in the web chat window, messages from the customer also appear in the same window.

2.2. Test Results

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

1. **Time delay on sending/receiving SMS messages** - Some delay in time was experienced on the sending and receiving of messages between the customer and the Contact Center agent. During the test period a large amount of packet loss was observed between the WEBTEXT Contact Center Messaging (CCM) and the Avaya Lab. If there is a poor Internet connection, performance is unpredictable at best and in order to avoid impacting on other connections, the WEBTEXT software will flag a connection as troublesome and stop trying to use it. SMPP and XAMPP connections will also fail; back off for a period before re-attempting connection. This results in stilted, sometimes disrupted, chat interactions. However this is simply an observation noted during compliance testing in the Galway lab. A stable good quality Internet connection is required for the service to function correctly.

2.3. Support

Support for WEBTEXT Contact Center Messaging can be obtained as follows:

WEBSITE

www.webtext.com

CONTACT

U.S. +1 (855)247 3232

Europe +353 1 2479000(IRL) +44 203 3285053(UK)

3. Reference Configuration

The configuration in **Figure 1** will be used to compliance test WEBTEXT Contact Center Messaging with Avaya Aura® Contact Center utilising the Avaya Aura® Contact Centre 7.0 Web Communications Software Development Kit to pass SMS messages to and from the web chat service on Contact Center.

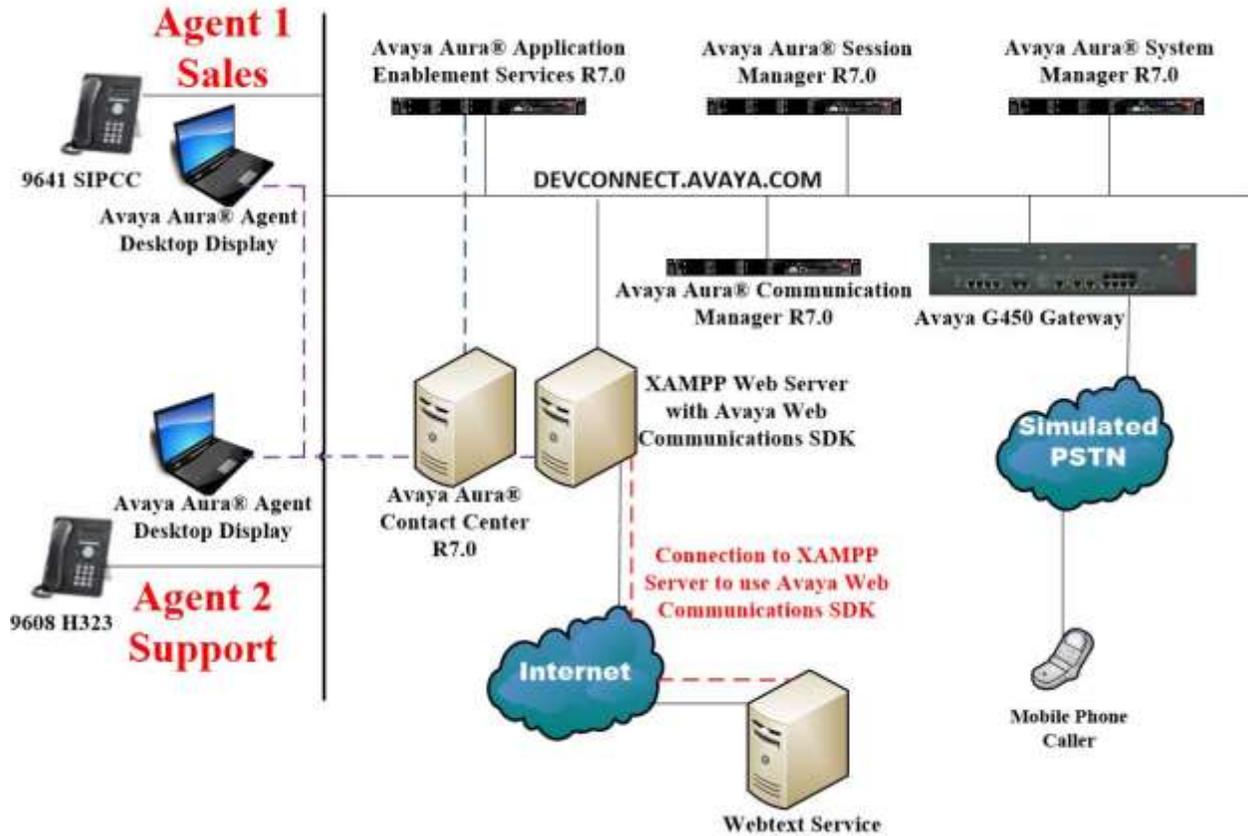


Figure 1: Connection of WEBTEXT Contact Center Messaging (CCM) with Avaya Aura® Contact Center R7.0

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 7.0.0.1 Build No. – 7.0.0.0.16266-7.0.9.7001011 Software Update Revision No: 7.0.0.1.4212
Avaya Aura® Session Manager running on a virtual server	Session Manager R7.0 Build No. – 7.0.0.1.700102
Avaya Aura® Communication Manager running on a virtual server	R7.0 SP1 00.0.441.0-22684
Avaya Aura® Application Enablement Services running on a virtual server	R7.0 Build No – 7.0.0.0.1.13
Avaya G450 Gateway	37.20.0 /1
Avaya Aura® Contact Center running on a virtual server	R7.0
Avaya Aura® Agent Desktop Display running on Windows 7 PC	R7.0
Avaya 9608 one-X® Deskphone	96x1 SIP Release 7.0.0.39
Avaya 9641 one-X® Deskphone	96x1 SIP Release 7.0.0.39
WEBTEXT Contact Center Messaging (CCM)	V2.0

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 11**.

The configuration illustrated in this section was performed using Avaya Communication Manager System Administration Terminal (SAT).

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

This is a printout of the Avaya 9608 H.323 Deskphone used during compliance testing. On **Page 1** ensure that **IP Softphone** is set to **y**.

```
add station 2016                                     Page 1 of 5
                                                    STATION
Extension: 2016                                     Lock Messages? n           BCC: M
Type: 9608                                          Security Code: *          TN: 1
Port: S00102                                       Coverage Path 1:          COR: 1
Name: CCT Agent2                                    Coverage Path 2:          COS: 1
                                                    Hunt-to Station:          Tests? y

STATION OPTIONS
Location:                                           Time of Day Lock Table:
Loss Group: 19                                     Personalized Ringing Pattern: 1
                                                    Message Lamp Ext: 2016
Speakerphone: 2-way                               Mute Button Enabled? y
Display Language: english                         Button Modules: 0
Survivable GK Node Name:
Survivable COR: internal                           Media Complex Ext:
Survivable Trunk Dest? y                          IP SoftPhone? y
                                                    IP Video Softphone? y
Short/Prefixed Registration Allowed: default
                                                    Customizable Labels? Y
```

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

```
add station 2016                                     Page 2 of 5
                                                    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: enabled
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: 2016                       Always Use? n IP Audio Hairpinning? n
```

Page 3.

```
add station 2016                                     Page 3 of 5
                                                    STATION
    Conf/Trans on Primary Appearance? n
    Bridged Appearance Origination Restriction? n   Offline Call Logging? y
    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**.

```
add station 2016                                     Page 4 of 5
                                                    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:
    2: call-appr                                6:
    3: call-appr                                7:
    4:                                             8:
    voice-mail
```

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. The configuration of Contact Center for this solution focuses on the following:

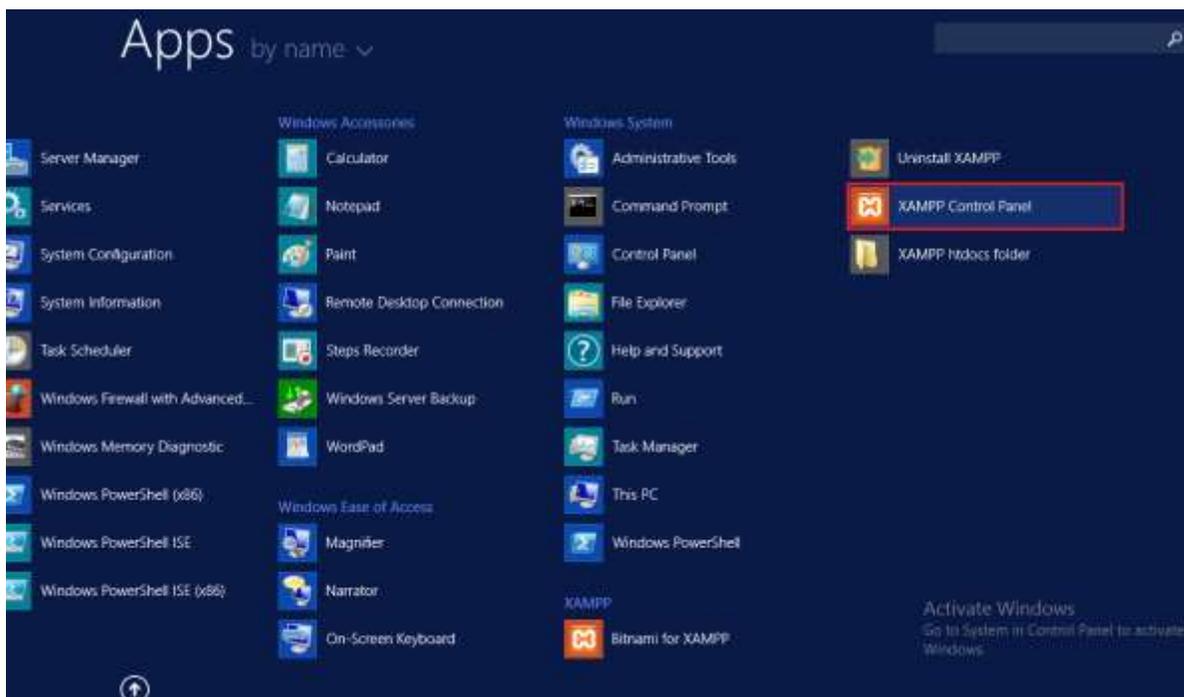
1. Ensuring the Web Chat server is running correctly, this uses the XAMPP open source cross-platform web server.
2. Configure Avaya Aura® Agent Desktop for screen pop.

6.1. Configure the XAMPP Server

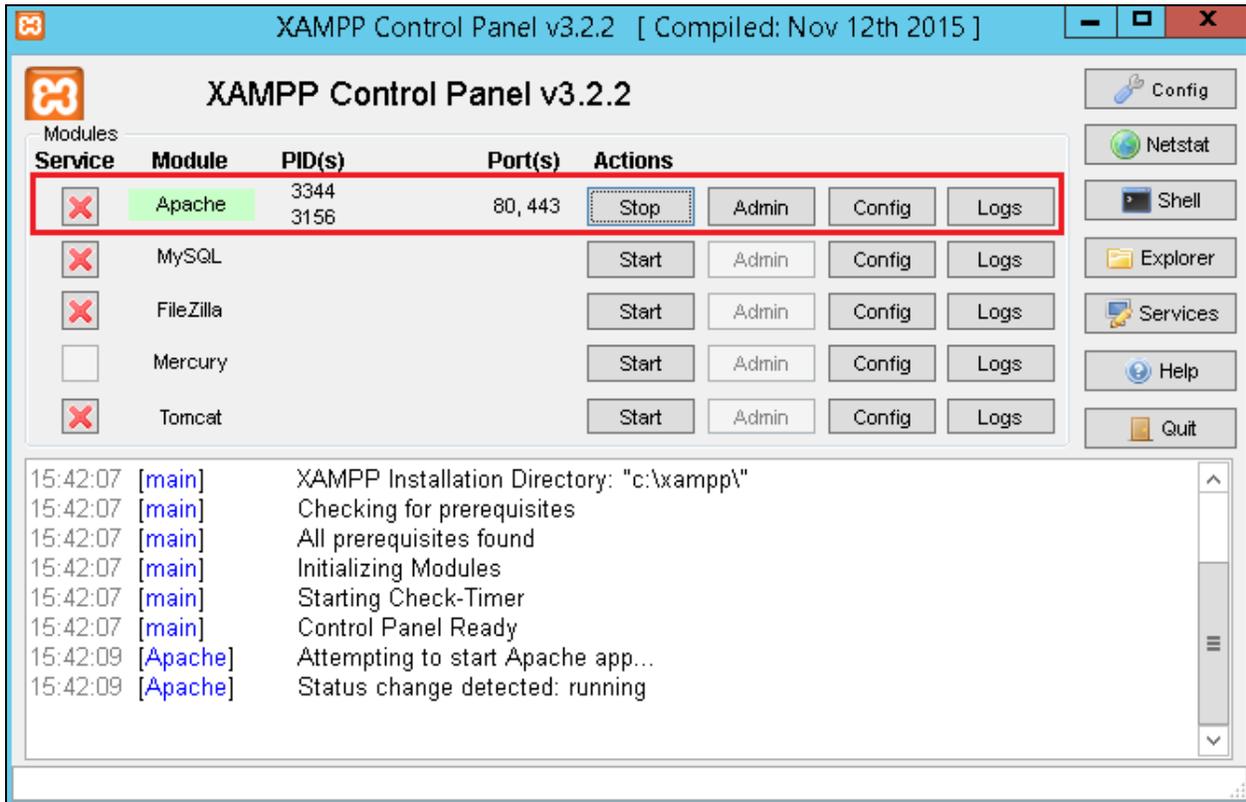
It is assumed that XAMPP is installed on a separate windows server to that of Contact Center. This section explains what needs to be started on the XAMPP server in order for WEBTEXT to connect successfully.

XAMPP is a free and open source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P). It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing purposes. Everything needed to set up a web server – server application (Apache), database (MariaDB), and scripting language (PHP) – is included in an extractable file. XAMPP is also cross-platform, which means it works equally well on Linux, Mac and Windows. For compliance testing XAMPP was installed on a Windows 2012 Server.

To open the XAMPP control panel, locate the application as shown below and click on **XAMPP Control Panel**.



With the control panel running ensure that the Apache Module is running, if it is not running, as shown below, click on **Start** under **Actions**.



6.2. Configure Avaya Aura® Agent Desktop

Avaya Aura® Agent Desktop (AAAD or Agent Desktop) needs to be configured to allow a screen pop when a call is presented to the agent. Changes to the agent desktop are made from the Multimedia Client.

Open a web session to the Contact Center server and **Log In** with the proper credentials as shown below.



The screenshot shows the Avaya Contact Center Manager login interface. At the top left is the AVAYA logo. The page title is "Contact Center - Manager". In the top right corner, there are links for "About" and "Change Password". Below the title bar, there is a "Login" section. A red box highlights the "User ID" field containing "webadmin" and the "Password" field containing "*****". A "Log In" button is located at the bottom right of the login area.

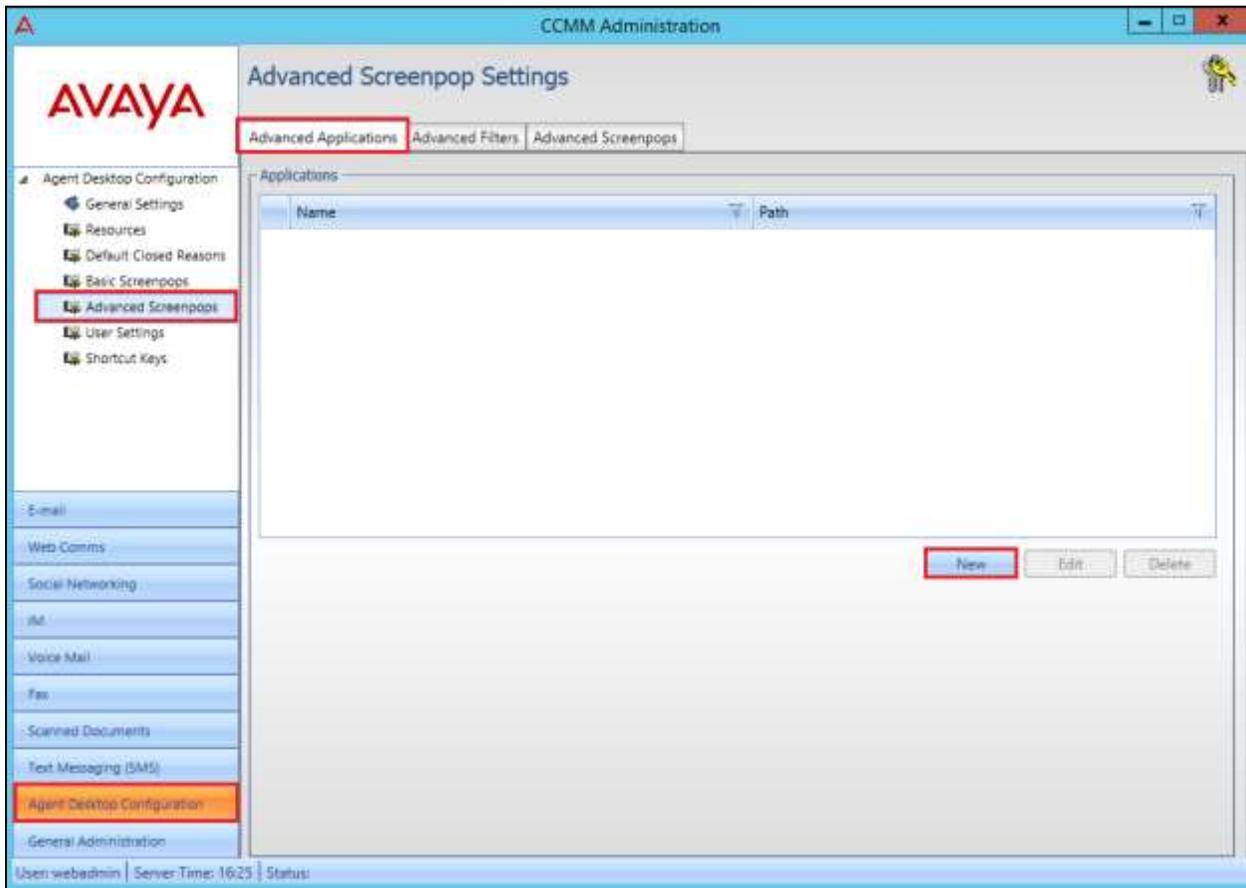
Click on **Multimedia**.



Select the Multimedia Server from the left window and click on **Launch Multimedia Client** from the main window.



Click on **Agent Desktop Configuration** at the bottom of the left window and select **Advanced Screenpops** in the left window. From the main window click on the **Advanced Applications** tab and click on **New**.

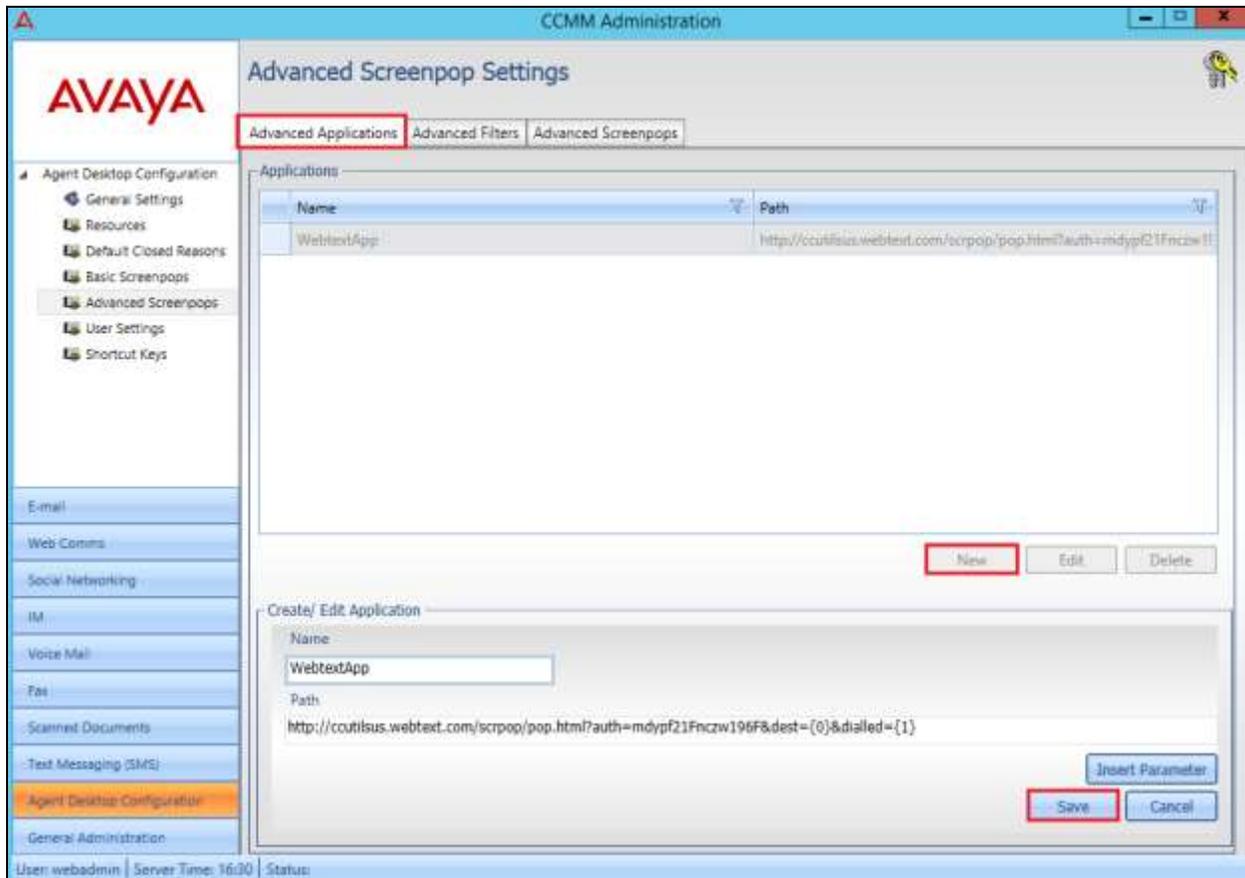


6.2.1. Create an advanced Application

Enter a suitable name and enter the path for the WEBTEXT URL, which is **http://ccutisus.webtext.com/scrpop/pop.html?auth=yfpsz8Vhky132M&dest={0}&dialled={1}**, where 0 and 1 are two parameters.

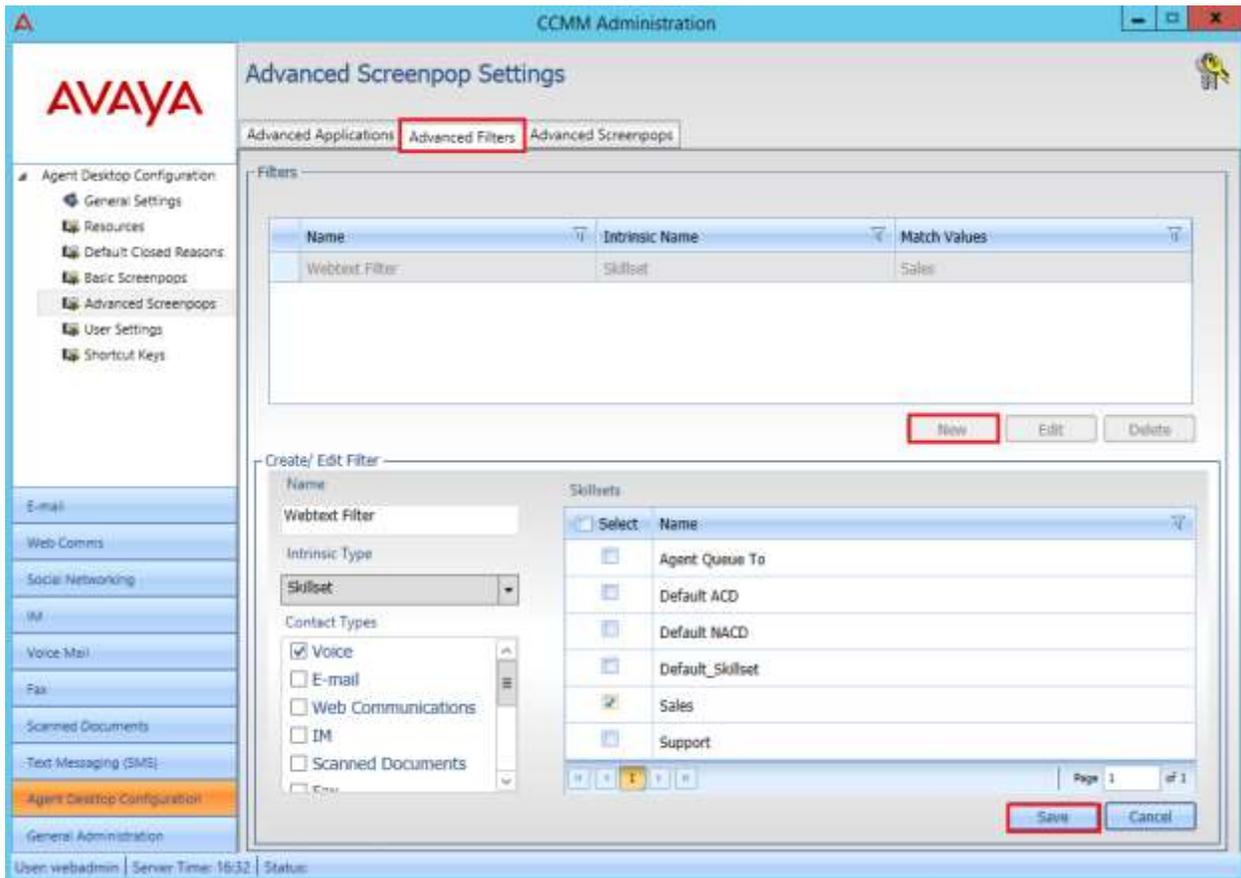
There are two parameters inserted into the URL, these are 0 and 1. Values for these parameters are added in **Section 6.2.3**.

Click on **Save** to continue.



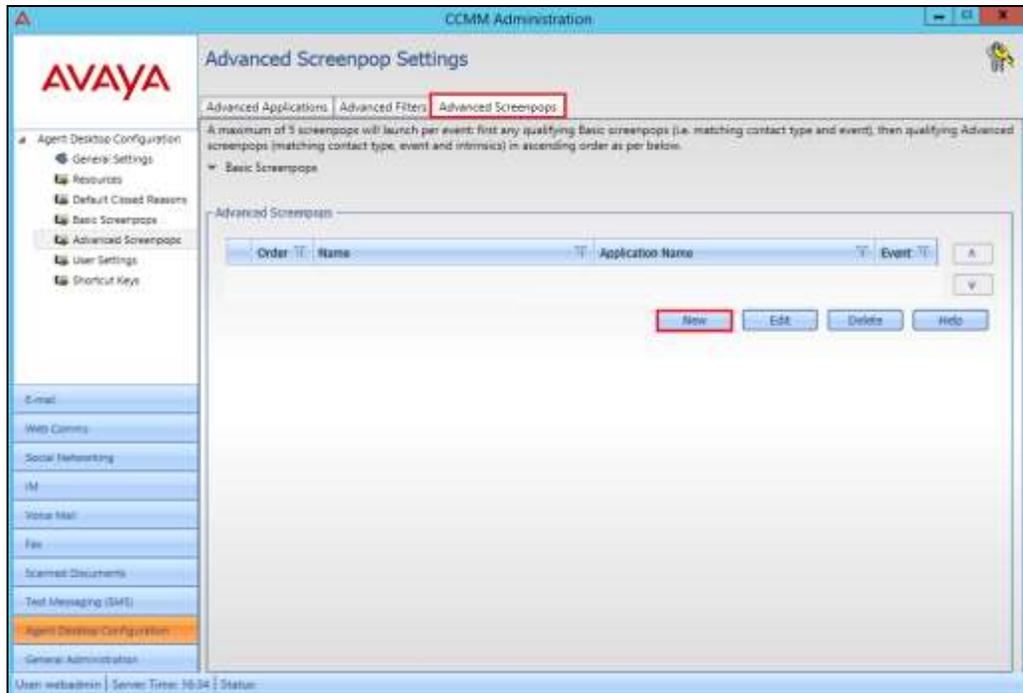
6.2.2. Create an Advanced Filter

Click on the **Advanced Filters** tab and select **New**. Enter a suitable name for the filter and select **Skillset** as the **Intrinsic Type** and ensure that the correct Contact Type and Skillset are chosen. In the example below a screen pop will be initiated when a caller calls into the **Voice** skillset called **Sales**. Click on **Save** to continue.

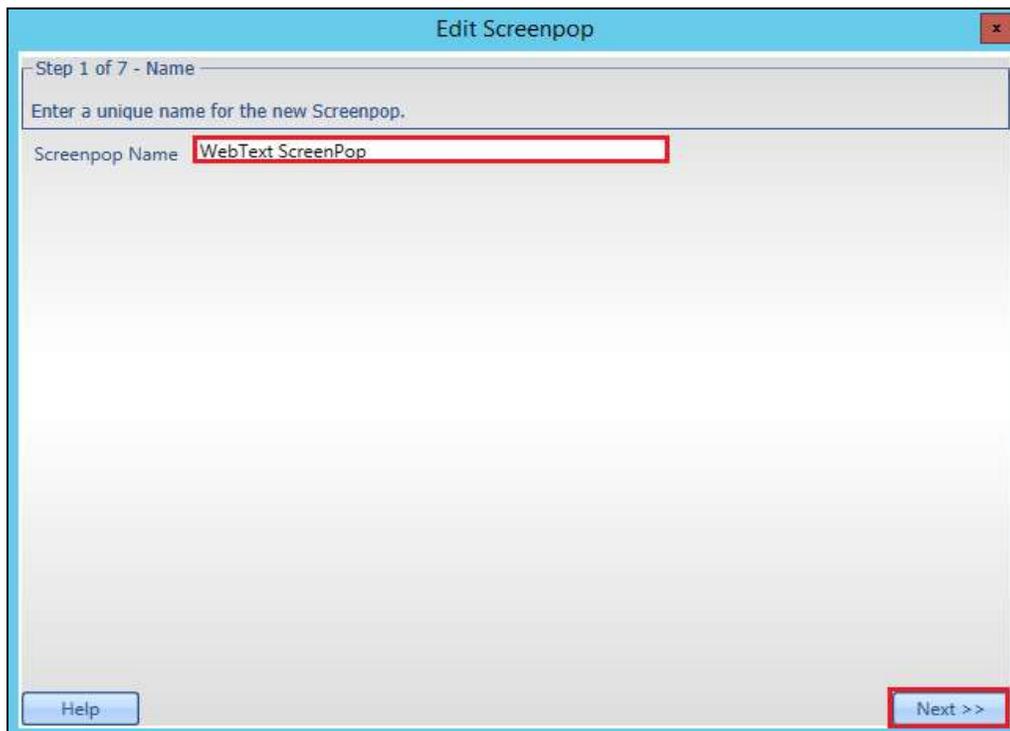


6.2.3. Create an Advanced Screen Pop

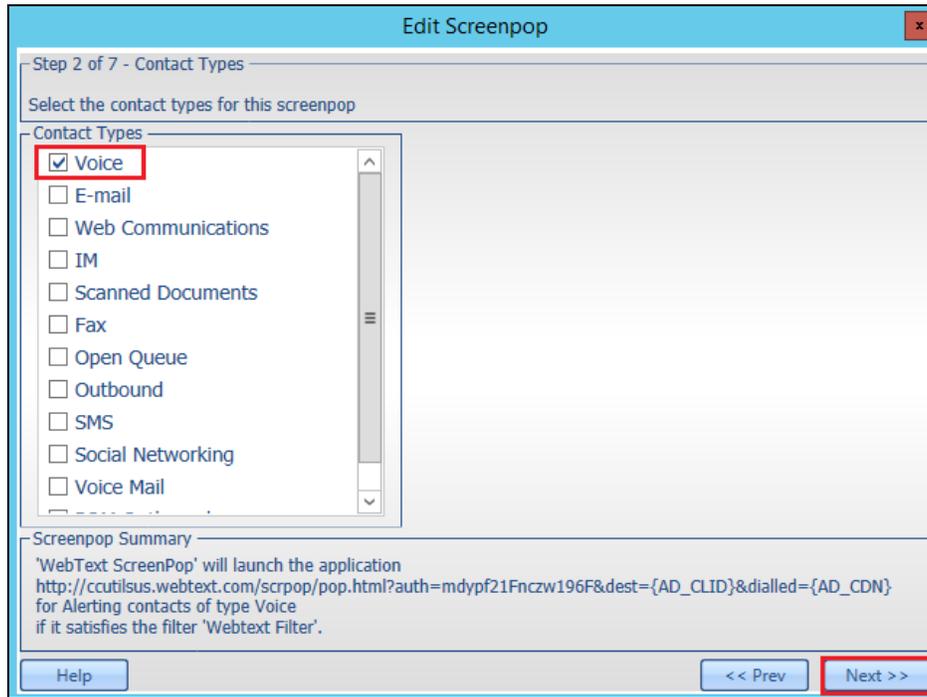
Click on the **Advanced Screenpops** tab and click on **New** in the main window.



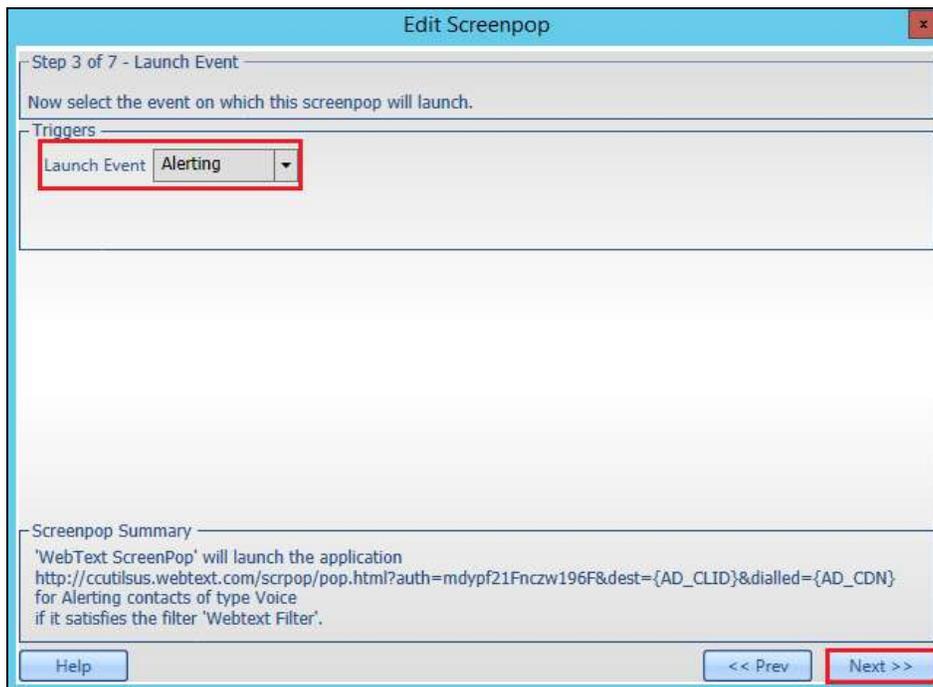
A new window opens; enter a suitable name for the screen pop and click on **Next**.



Select the correct **Contact Type**, the example below a **Voice** contact is chosen, this may vary depending on the contact type that initiates the screen pop. Click on **Next** to continue.



Select a suitable trigger to initiate the screen pop, in the example below **Alerting** is chosen to initiate the screen pop, so when a voice call is presented to the agent the screen pop is initiated. Click on **Next** to continue.



Select the **Application Name** that was created in **Section 6.1.1** from the drop-down menu and click on **Next** to continue.

Edit Screenpop

Step 4 of 7 - Application

Select the application that will launch when this Screenpop is displayed

Application Name: **WebtextApp** + Edit

Path: http://ccutilsus.webtext.com/scrpop/pop.html?auth=mdypf21Fnczw196F&dest={0}&dialled={1}

Screenpop Summary

'WebText ScreenPop' will launch the application
http://ccutilsus.webtext.com/scrpop/pop.html?auth=mdypf21Fnczw196F&dest={AD_CLID}&dialled={AD_CDN}
for Alerting contacts of type Voice
if it satisfies the filter 'Webtext Filter'.

Help << Prev **Next >>**

The **Parameters** that were added in **Section 6.1.1** are now set. The parameter **0** is set to the **CLID** of the incoming call and parameter **1** is set to the number dialled which is the **CDN**. These parameters are then sent on to the WEBTEXT server as a part of the URL called. Click on **Next**.

Edit Screenpop

Step 5 of 7 - Customise Application

Match each parameter with an intrinsic value by selecting values from the drop down boxes and clicking set.
Use the application path as a guide.
The summary will update as parameters are set.

Application Path: http://ccutilsus.webtext.com/scrpop/pop.html?auth=mdypf21Fnczw196F&dest={0}&dialled={1}

Set Parameters

Parameter **0** Intrinsic **AD_CLID** Set

Parameters

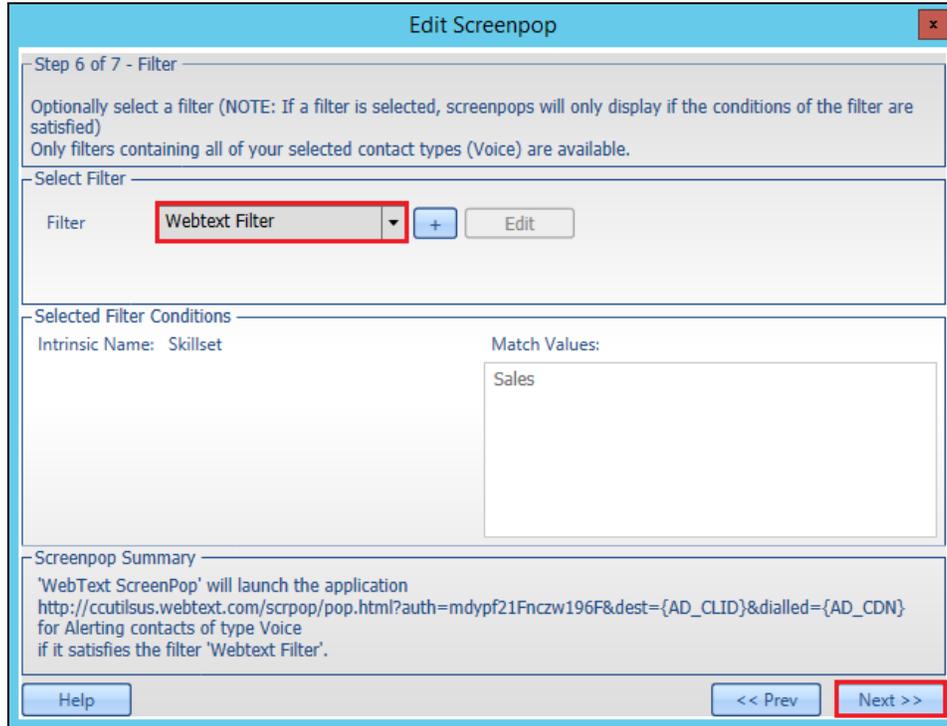
0 = AD_CLID
1 = AD_CDN

Screenpop Summary

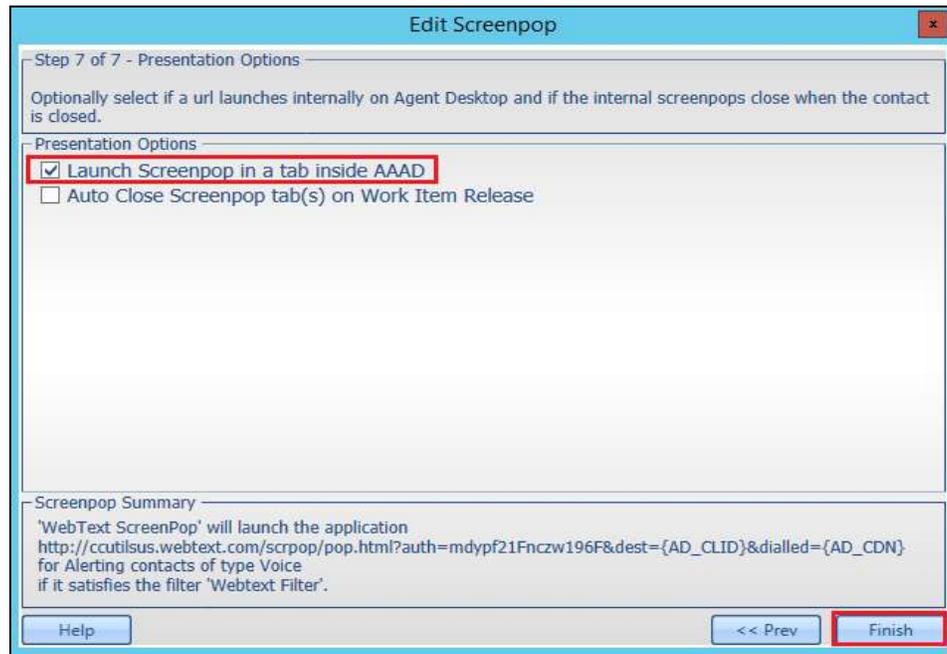
'WebText ScreenPop' will launch the application
http://ccutilsus.webtext.com/scrpop/pop.html?auth=mdypf21Fnczw196F&dest={AD_CLID}&dialled={AD_CDN}
for Alerting contacts of type Voice
if it satisfies the filter 'Webtext Filter'.

Help << Prev **Next >>**

Select the **Filter** that was created in **Section 6.1.2** from the drop-down menu and again click on **Next** to continue.



Tick the **Launch Screenpop in a tab inside AAAD** box and click on **Finish**.



7. Configure WEBTEXT Contact Center Messaging (CCM)

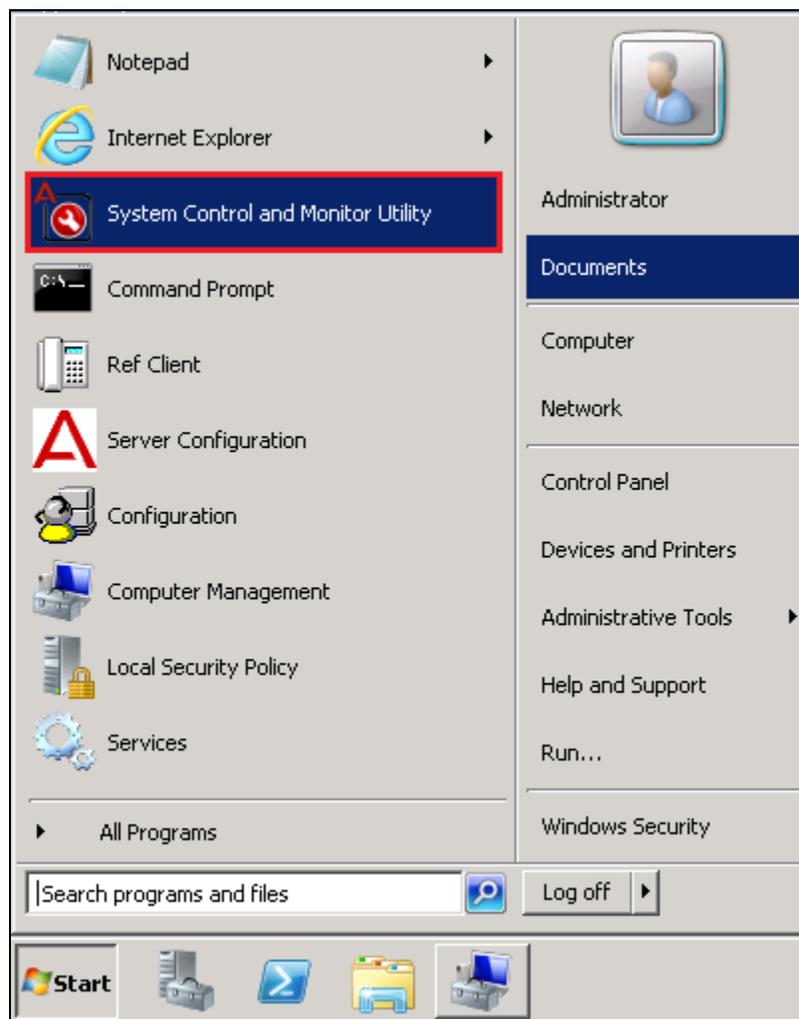
All configurations of WEBTEXT Contact Center Messaging are performed by a WEBTEXT engineer and are outside the scope of these Application Notes.

8. Verification Steps

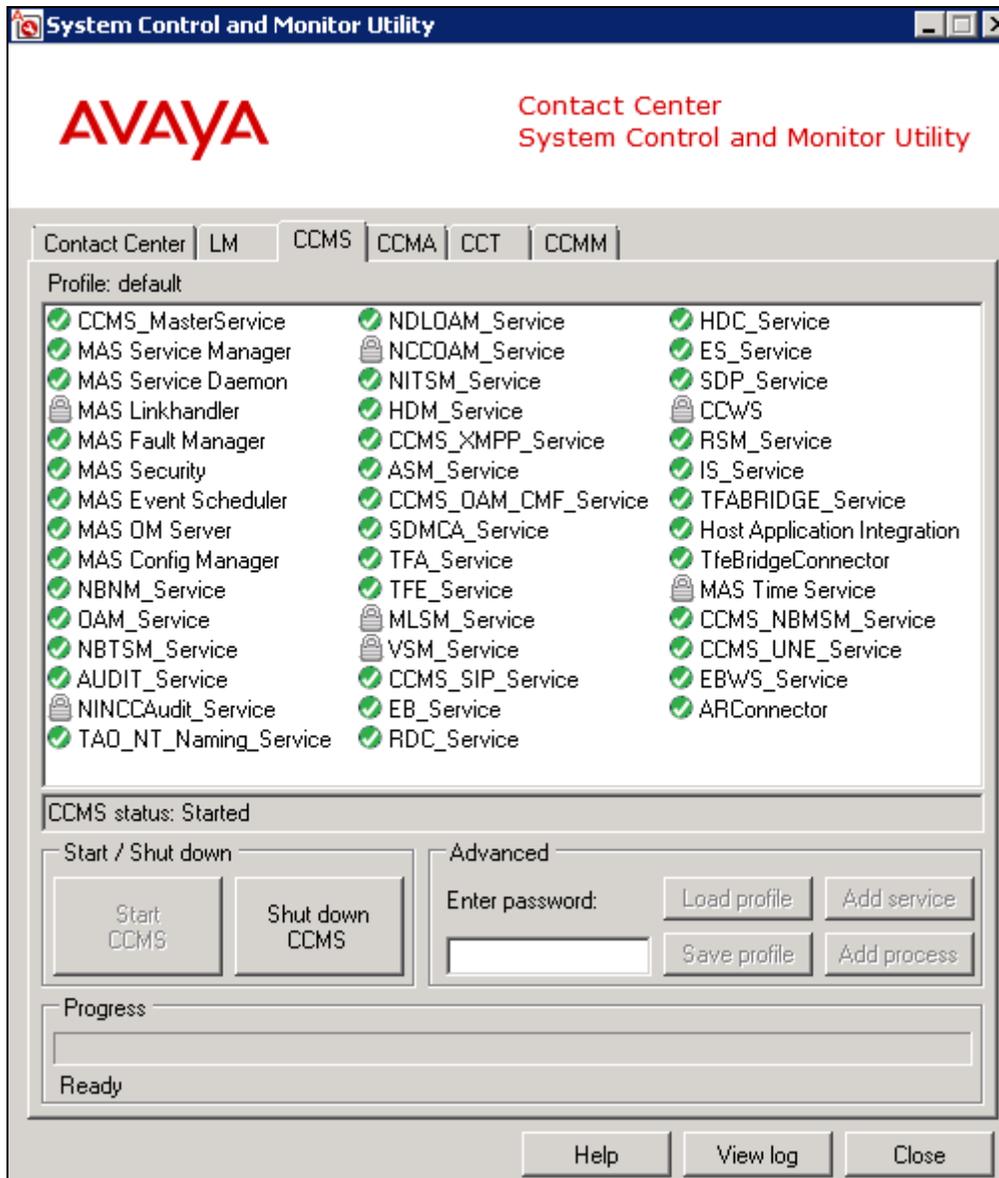
This section provides the tests that can be performed to verify correct configuration of WEBTEXT Contact Center Messaging with Avaya Aura® Contact Center.

8.1. Verify Avaya Aura® Contact Center Services

From the Contact Center Server, open **System Control and Monitor Utility**.

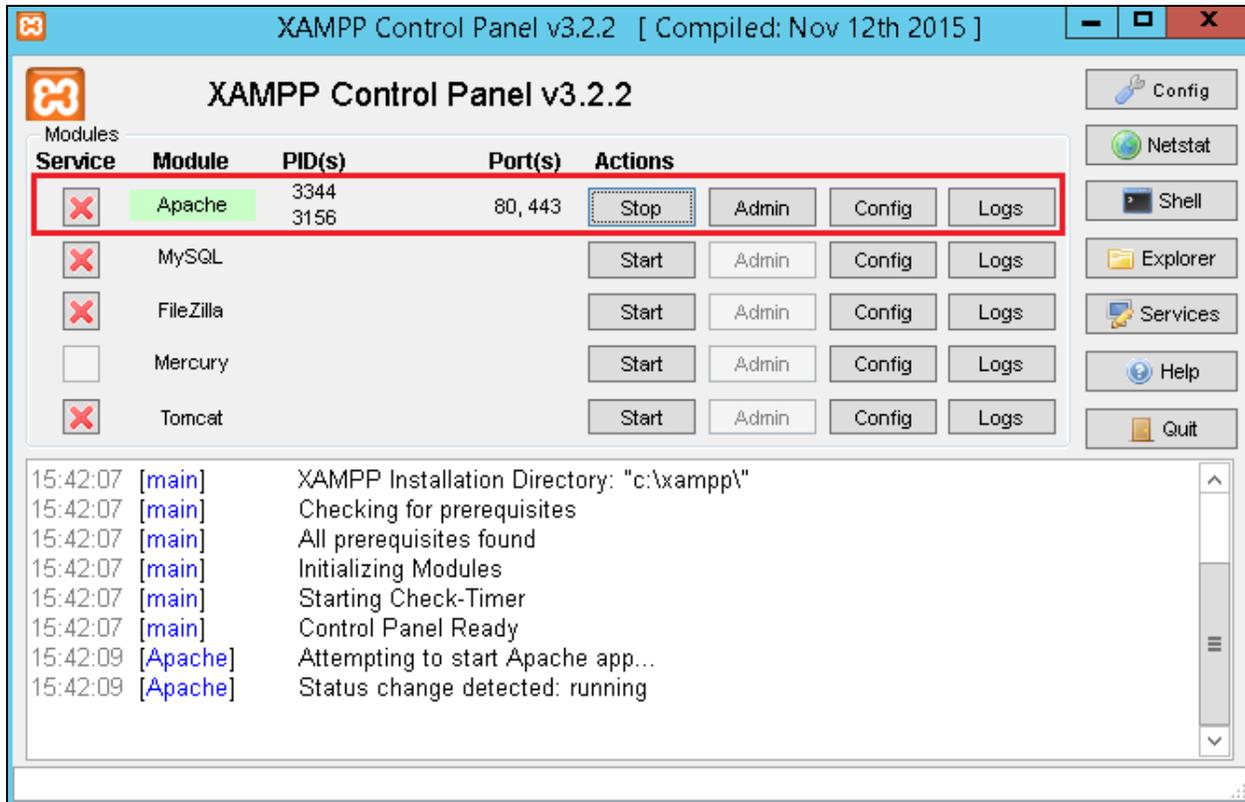


Navigate across each of the tabs, paying special attention to any service that may not be running. The **CCMS** services are all showing green below which indicates that the Contact Center Manager Server is fully operational.



8.2. Verify XAMPP Server is running correctly

Login to the XAMPP Server and check that the XAMPP control panel is running as per **Section 6.1**.

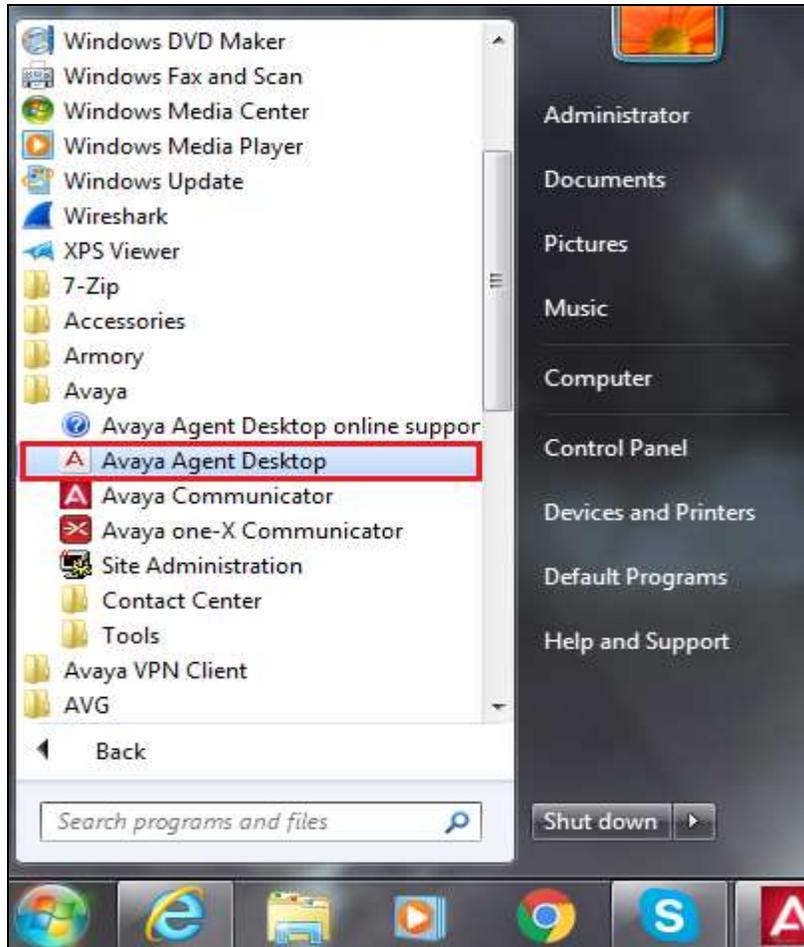


Service	Module	PID(s)	Port(s)	Actions
<input checked="" type="checkbox"/>	Apache	3344 3156	80, 443	<input type="button" value="Stop"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input checked="" type="checkbox"/>	MySQL			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input checked="" type="checkbox"/>	FileZilla			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input type="checkbox"/>	Mercury			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>
<input checked="" type="checkbox"/>	Tomcat			<input type="button" value="Start"/> <input type="button" value="Admin"/> <input type="button" value="Config"/> <input type="button" value="Logs"/>

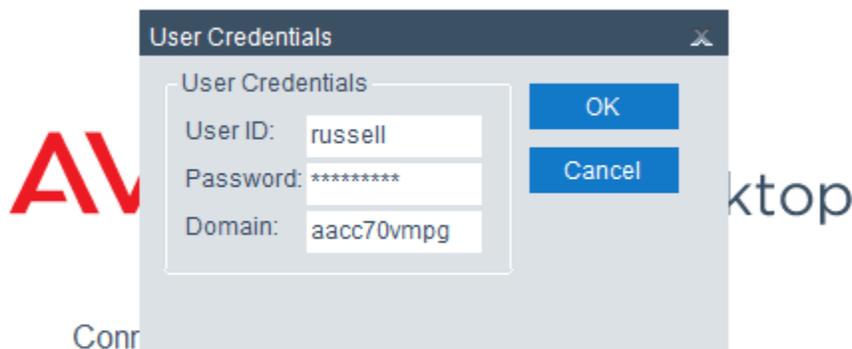
15:42:07 [main] XAMPP Installation Directory: "c:\xampp\
15:42:07 [main] Checking for prerequisites
15:42:07 [main] All prerequisites found
15:42:07 [main] Initializing Modules
15:42:07 [main] Starting Check-Timer
15:42:07 [main] Control Panel Ready
15:42:09 [Apache] Attempting to start Apache app...
15:42:09 [Apache] Status change detected: running

8.3. Login to Avaya Aura® Agent Desktop

From a client PC where AAAD is installed, open Avaya Agent Desktop.



Enter the appropriate credentials and click on **OK**.



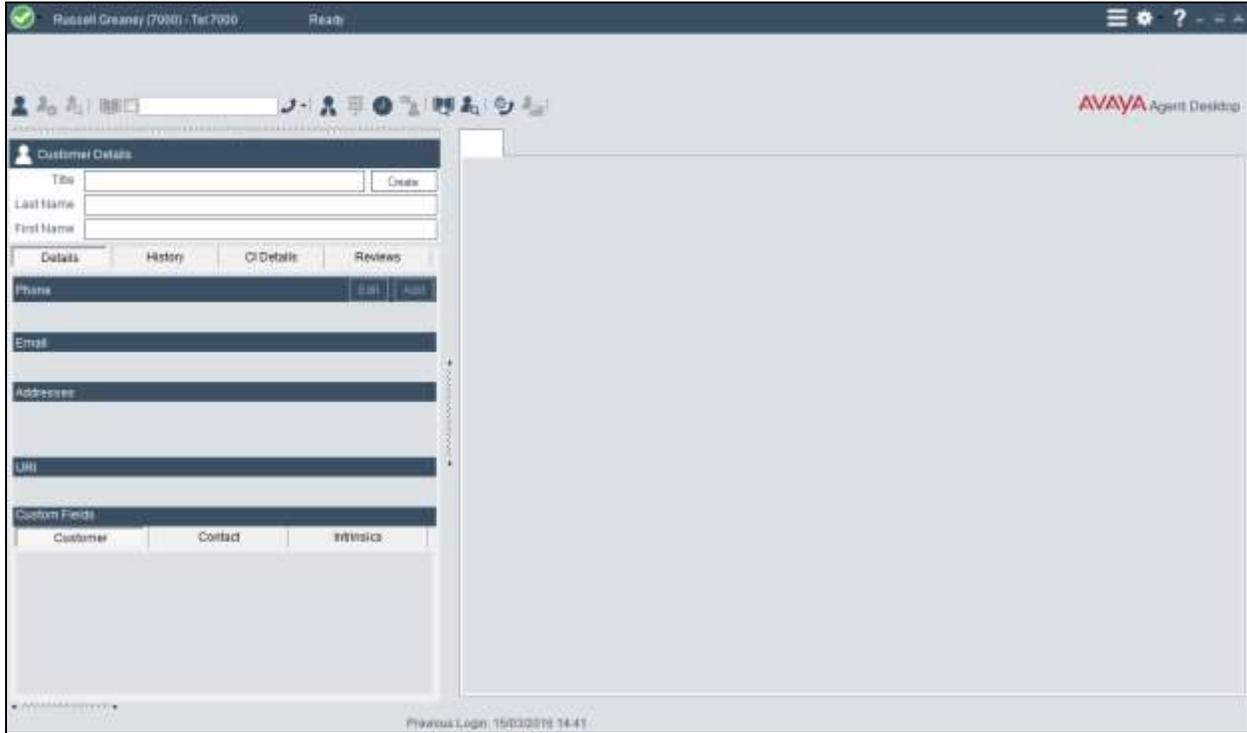
Once the Desktop opens click on **Login** as shown below.



Log in to Contact Center Multimedia, under the **Multimedia** tab, and click on **Login**.

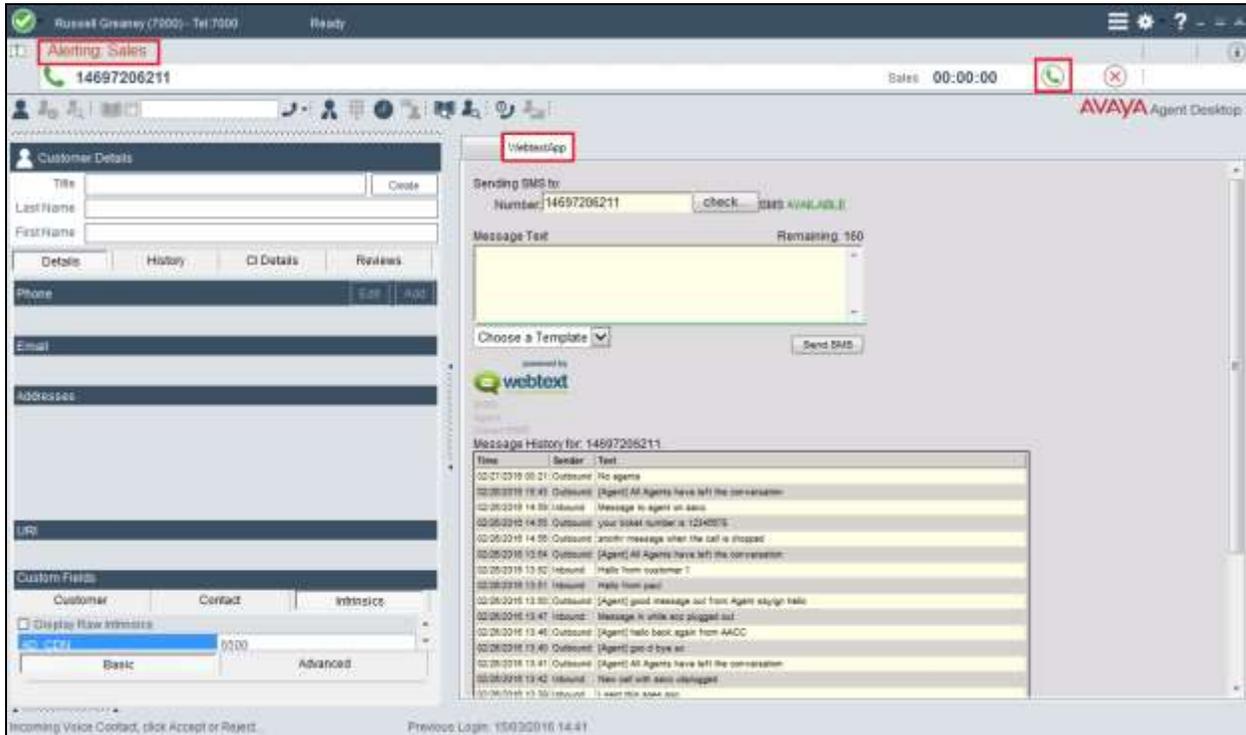
A screenshot of the 'Enter Login details' dialog box. It has two tabs: 'Telephony' and 'Multimedia', with 'Multimedia' selected and highlighted with a red box. The 'Account Info' section contains two input fields: 'ID:' with the value '7000' and 'Password:' with the value '*****'. At the bottom right, there are two buttons: 'Login' (highlighted with a red box) and 'Cancel'.

The following screen appears showing the agent logged in and **Ready**.

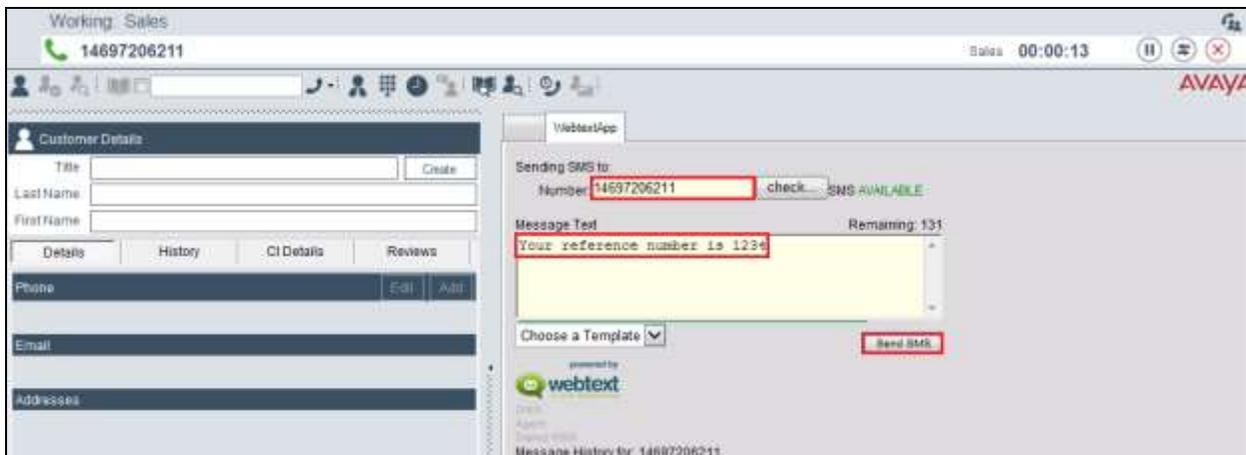


8.4. Verify the ability to include an SMS message to the customer while on a call to that same customer

A voice call is made to the **Sales** CDN in order to present a call to the Contact Center agent. When the call is presented to the agent's desktop display the screen will display **Alerting** as shown below and because the screen pop is setup to trigger on alerting the **WebtextApp** screen pop is displayed. The agent answers the call by pressing the answer icon highlighted.

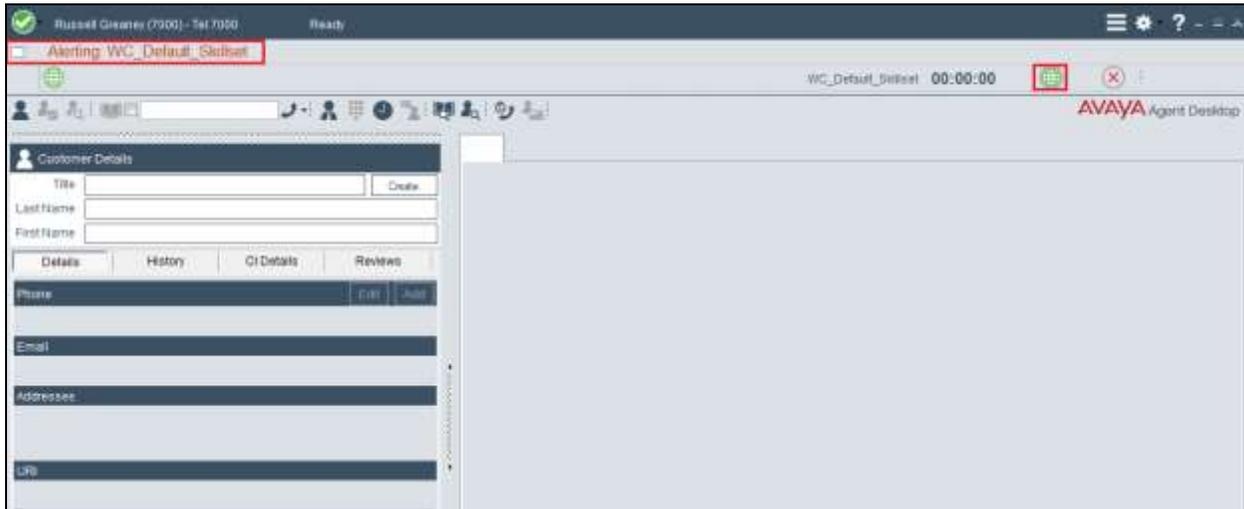


The **Number** is automatically populated with the CLID of the caller and the agent can simply enter the SMS message that needs to be sent and the **Send SMS** button is pressed. This will send a text message to the phone number highlighted below.

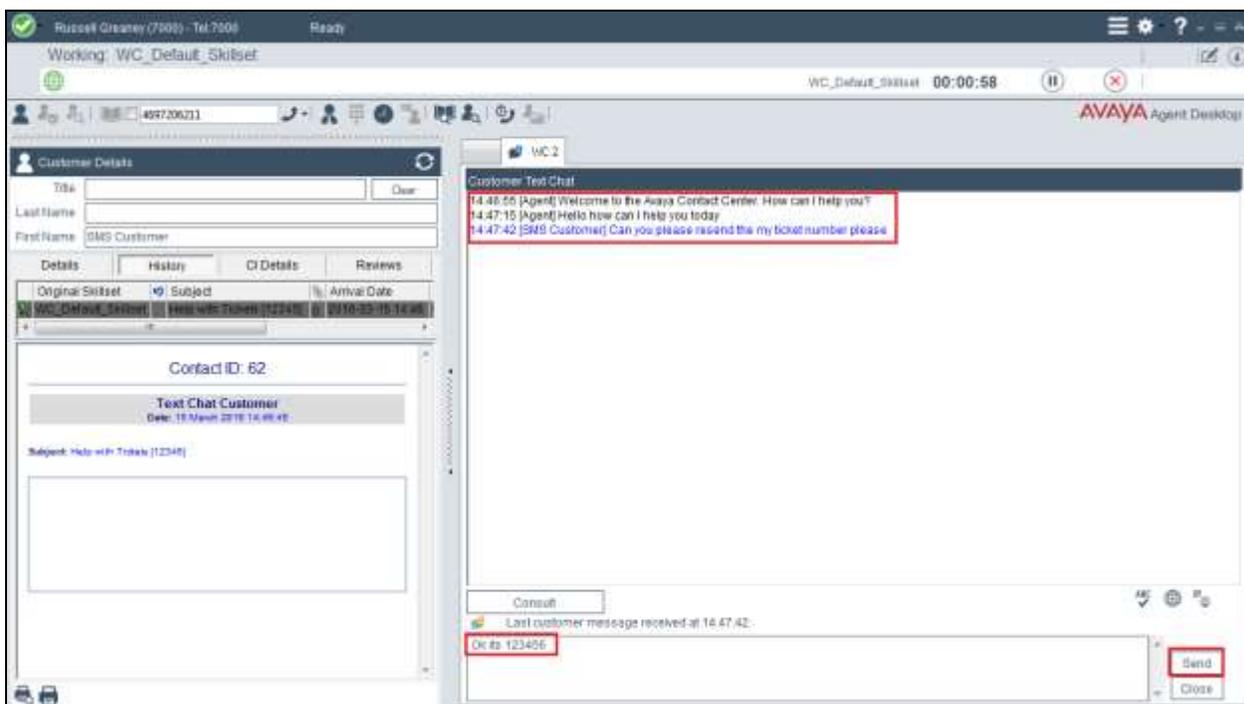


8.5. Verify the ability of the customer to initiate an SMS chat session with a Contact Center agent

A customer creates a new text/SMS message and sends this to the Contact Center SMS number. This will then be routed to the Web Chat skillset as shown below. The agent then answers the call by pressing on the answer icon highlighted at the top right of the screen.



Once the call is answered the agent can send and receive SMS messages using the web chat window as shown below.



9. Conclusion

These Application Notes describe the configuration steps to integrate WEBTEXT Contact Center Messaging (CCM) with Avaya Aura® Contact Center R7.0 and Avaya Aura® Communication Manager R7.0 in order to pass SMS messages from the customer to the Avaya Aura® Agent Desktop and from the agent to the customer. 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 7.0*
- [4] *Avaya Aura® Session Manager Overview*, Doc # 03603323
- [5] *Avaya Aura® Contact Centre SIP Commissioning*, Doc # NN44400-511, Release 7.0
- [6] *Avaya Aura® Contact Center Installation Release 7.0*, NN44400-311, 05.02, 16 June 2014
- [7] *Avaya Aura® Contact Center Commissioning Release 7.0*, NN44400-312, 05.01, Feb 2014

Technical documentation for WEBTEXT Contact Center Messaging can be obtained as follows:
www.webtext.com

U.S. +1 (855)247 3232

Europe +353 1 2479000(IRL) +44 203 3285053(UK).

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