

# Avaya Solution & Interoperability Test Lab

# Application Notes for INI OutboundStudio™ Version 1.1 with Avaya Proactive Outreach Manager Release 4.0 and Avaya Experience Portal Release 8.0 − Issue 1.0

#### **Abstract**

These Application Notes describe the configuration steps required to integrate INI OutboundStudio™ Version 1.1 with Avaya Experience Portal Release 8.0 and Avaya Proactive Outreach Manager Release 4.0. INI OutboundStudio is an automated form application for Avaya Experience Portal.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any 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 required to integrate INI OutboundStudio Version 1.1 with Avaya Experience Portal Release 8.0 and Avaya Proactive Outreach Manager (POM) Release 4.0.

OutboundStudio is a Proactive Outreach Manager "helper" application suite consisting of two Experience Portal applications: OutboundStudioVoice of type POM and OutboundStudioSMS of type SMS. OutboundStudio replaces most of the Avaya "primitives" for leaving messages/announcements, providing the IVR interaction for automated voice campaigns, and simplifying SMS one-way and two-way (request/reply) campaigns. OutboundStudio is configured on a campaign-by-campaign basis with OutboundStudio campaigns mapping one-to-one with POM campaigns.

The secure, roles-based, web interface to configure OutboundStudio simplifies the creation and configuration of the VoiceXML and SMS application behavior in support of the Proactive Outreach Manager campaigns. The Proactive Outreach Manager campaign merely references OutboundStudio as the custom application in the appropriate places and the OutboundStudio campaign configuration takes care of the rest.

# 2. General Test Approach and Test Results

This section describes the interoperability compliance testing used to verify the INI OutboundStudio application with Experience Portal. If the testing was successfully concluded but it was necessary to implement workarounds or certain non-critical features did not work, it should be noted in **Section 2.2**.

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 this Application Note, the interface between Avaya systems and the INI OutboundStudio did not include the use of any specific encryption features.

## 2.1. Interoperability Compliance Testing

Interoperability compliance testing included feature and serviceability testing. The feature testing focused on the following functionality:

- Verify correct user behavior for voice using DTMF to enter options from 1-3,0, and # with the correct code set received
- Verify incorrect user behavior for voice using DTMF to enter wrong options or no input with the correct code set received
- Verify correct user behavior for SMS to reply SMS message with "Yes" or "No" and the correct code set received
- Verify incorrect user behavior for SMS to reply SMS message other than "Yes" or "No" and the correct code set received

The serviceability testing focused on verifying the ability of INI OutboundStudio and Experience Portal to recover from adverse conditions, such as power failures and disconnecting cables to the IP network.

#### 2.2. Test Results

All test cases passed.

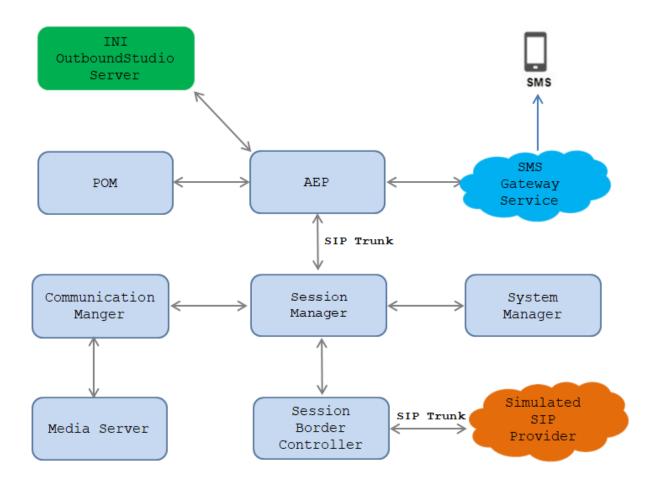
## 2.3. Support

To obtain technical support for INI OutboundStudio, contact Interactive Northwest via web, email or phone.

- Web: https://www.interactivenw.com/company/support/
- Email: support@interactivenw.com
- Phone: (800) 808-8090, say "Support".

# 3. Reference Configuration

**Figure 1** illustrates the configuration used for testing. In this configuration, Avaya Experience Portal interfaces with Session Manager via a SIP trunk and has SMPP connection to SMS gateway service. Session Manager has a SIP trunk to the SIP service provider through Avaya Session Border Controller. INI OutboundStudio server was connected on the same LAN with Avaya Experience Portal and Proactive Outreach Manager.



**Figure 1: Test Configuration Diagram** 

The following table indicates the IP addresses that were assigned to the systems in the test configuration diagram:

Description	IP Address
System Manager	10.33.1.10
Session Manager	10.33.1.11
Communication Manager	10.33.1.6
Experience Portal	10.33.1.3
ASR and TTS Server	10.33.1.61
Media Server	10.33.1.30
Session Border Controller	10.33.10.100
INI OutboundStudio Server	10.33.1.60

# 4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Experience Portal running on	8.0
Virtualize Environment	
Avaya Proactive Outreach Manager on	4.0
Virtualize Environment	
Avaya Aura® Communication Manager	8.1.3
running on Virtualized Environment	(8.1.3.0.0.890.26568)
Avaya Aura® System Manager running on	8.1.3
Virtualized Environment	(8.1.3.0.1011784)
Avaya Aura® Session Manager running on	8.1.3
Virtualized Environment	(8.1.3.0.813014)
Avaya Aura® Media Server running on	8.0
Virtualized Environment	
Avaya Session Border Controller for	8.1.1
Enterprise	(8.1.1.0-26-19214)
INI OutboundStudio	1.1

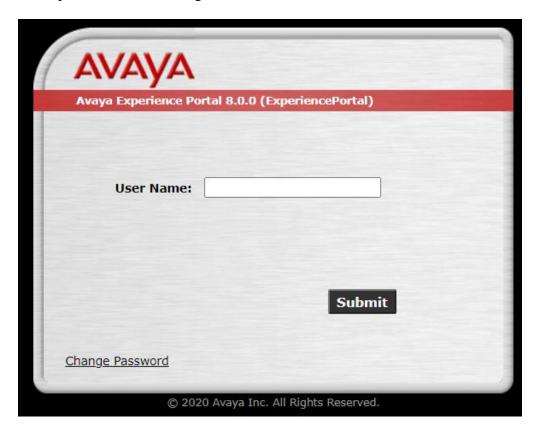
# 5. Configure Avaya Experience Portal

Configuration and verification operations on the Experience Portal illustrated in this section were all performed using either the Experience Portal Management web interface or an SSH connection to the server. The information provided in this section describes the configuration of Experience Portal for this solution. It is implied a working system is already in place, including Media Processing Platform, Apache Tomcat application Server. Installation of POM applications is also outside the scope of this document. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. The configuration operations described in this section can be summarized as follows:

- Add Web Service User
- Add SMS Processor
- Add SMPP Connection
- Add VoIP Connection
- Configure Application Settings

### 5.1. Add Web Service User

Log into the Experience Portal Manager web interface.



To add a web service user, navigate to **User Management**  $\rightarrow$  **Users** and click on **Add** (not shown). The **Add User** page is displayed. Enter the following values for a new user.

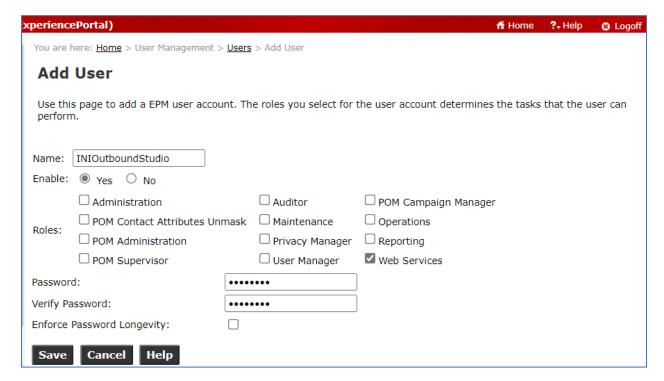
• Name: enter an user name, in this case INIOutboudStudioI name is entered

• Enable: select Yes

Roles: select Web ServicesPassword: enter a password

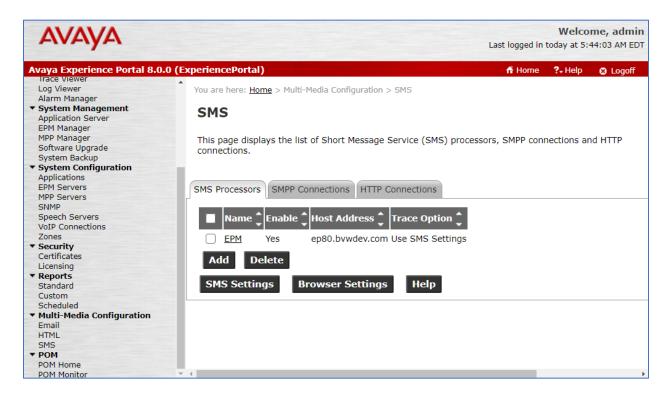
• Verify Password: re-enter the password

On completion, select **Save**.



#### 5.2. Add SMS Processor

From the left hand menu, go to **Multi-Media Configuration** → **SMS**. On the **SMS Processors** tab, click on **Add** button.



Add a **Name** and Select the Primary Experience Portal from the **Host Address** drop down. Click on **Save** to commit the changes.

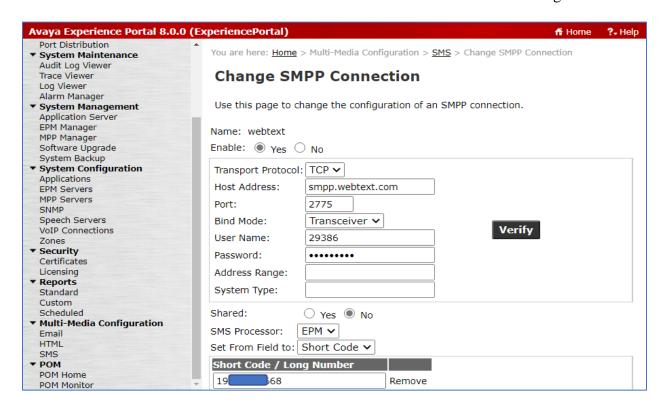


#### 5.3. Add SMPP Connection.

Click on the **SMPP Connections** tab and click on **Add**.



Connection details for the SMS Gateway Service will be provided by WEBTEXT and used here to establish the connection. Give the SMPP connection a Name. Enter the Host Address, Port, Bind Mode, User Name, Password, and Set From Field to: Short Code of the SMS Gateway Service. Select the SMS Processor added above and click on Save to commit changes.

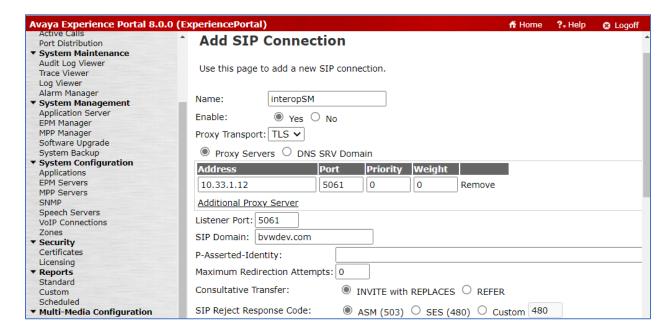


#### 5.4. Add VoIP Connections

From the homepage of Experience Portal, navigate to **System Configuration** → **VoIP Connections** and select **SIP** tab. In the **SIP** tab, select **Add** button.



In the **Add SIP Connection** page, enter SIP proxy information as shown in the sample in screenshot below. Note that in the compliance test, Session Manager was used as SIP proxy.



Scroll down to the **Call Capacity** section, select the **All Calls can be either inbound or outbound** radio button and enter number of simultaneous calls in the **Maximum Simultaneous Calls** field.

In the SRTP section, add a supported SRTP crypto in the Configured SRTP List box.

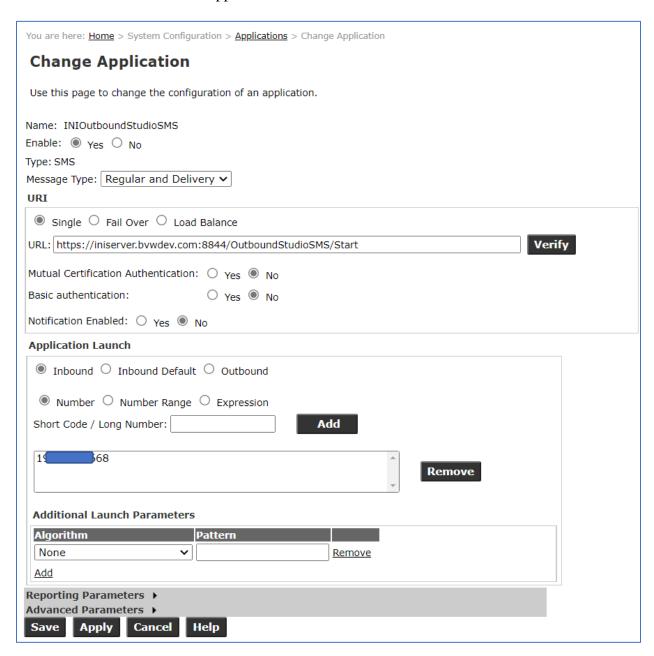
Click Save button to complete.

Call Capacity	
Maximum Simultaneous Calls	:: 10
All Calls can be either in	bound or outbound
O Configure number of inb	ound and outbound calls allowed
SRTP	
Enable:	● Yes ○ No
Encryption Algorithm:	■ AES_CM_128 ○ NONE
Authentication Algorithm:	■ HMAC_SHA1_80 ○ HMAC_SHA1_32
RTCP Encryption Enabled:	○ Yes ● No
RTP Authentication Enabled:	● Yes ○ No Add
Configured SRTP List	
SRTP-Yes,AES_CM_128,H	MAC_SHA1_80,RTCP Encryption-No,RTP Authentication-Yes  Remove
Save Cancel He	lp

## 5.5. Configure Application Settings

To add an application, navigate to **System Configuration** → **Applications**, the **Application** page displays in the right side and select **Add** button (not shown). In the compliance test, there were two applications added for the INI OutboundStudio: one for SMS and another for Voice.

Below is the OutboundStudio application was used for SMS.



# And below is the OutboundStudio application was used for voice.

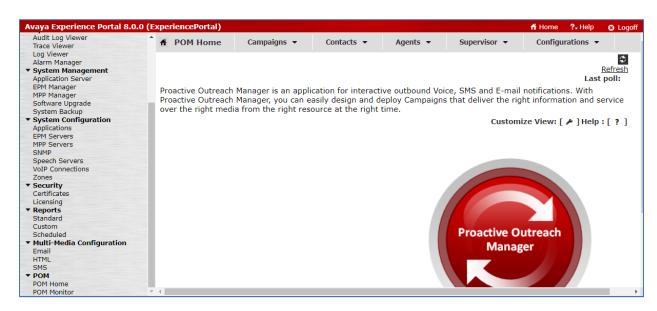
You are here: <u>Home</u> > System Configuration > <u>Applications</u> > Change Application					
Change Appli	Change Application				
Use this page to chang	e the configuration of an application.				
Name: I	NIOutboundStudioVoice				
Enable:	● Yes ○ No				
Type: P URI	OM:Application				
Single O Fail Ove	Single ○ Fail Over ○ Load Balance				
VoiceXML URL:	https://iniserver.bvwdev.com:8844/OutboundStudioVoice/Start  Verify				
Mutual Certificate Authentication: ○ Yes  No					
Basic Authentication: ○ Yes ® No					
Application Launch ▼					
○ Inbound ○ Inbound Default ● Outbound					
Save Apply Cancel Help					

# 6. Configure Avaya Proactive Outreach Manager

This section describes the steps required to create SMS and voice campaigns.

## 6.1. Navigate to POM home page

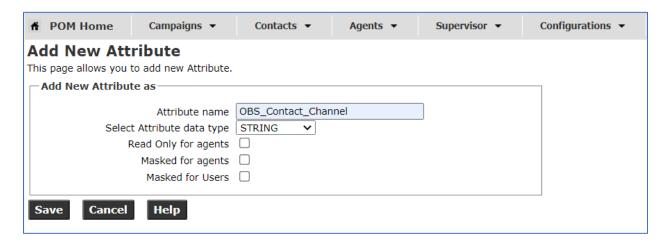
From the left hand menu select  $POM \rightarrow POM$  Home. The POM homepage displays as below.



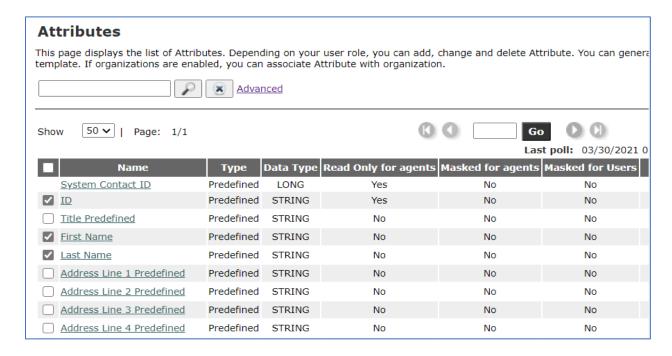
#### 6.2. Create a Contact List

A contact attribute was created to indicate whether SMS and Voice contact is used for reaching out to the contact as the campaign run. To create a contact attribute, navigate to **Contacts > Attributes**, click on **Add**. The **Add New Attribute** window is displayed, enter an attribute name and select the data type as **STRING** as shown in the screenshot below.

Click **Save** button to save the change.



A contact list can be added based on a CSV template. In order to generate a CSV template, select Contacts → Attributes. In the list of attributes, select name of attributes that is needed for the contact list. In the testing, the attribute ID, First Name, Last Name, Phone1, and OBS\_Contact\_Channel were used for the contact list. Select Generate CSV Template button (not shown) to generate this template.



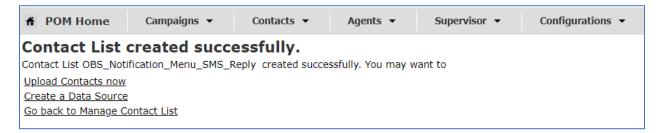
Open the **ContactsTemplates.csv** file and update the contact as shown in the table below.

```
Id, firstname, lastname, phonenumber1, OBS_Contact_Channel
1, Contact, One, 613917xxxx, VOICE
2, Contact, Two, 423468xxxx, SMS
3, Contact, Threee, 613967xxxx, VOICE
4, Contact, Four, 613909xxxx, SMS
```

Navigate to Contacts → Contact List and select Add. The Add New Contact List window is displayed, enter a name in the Name field and select Save.



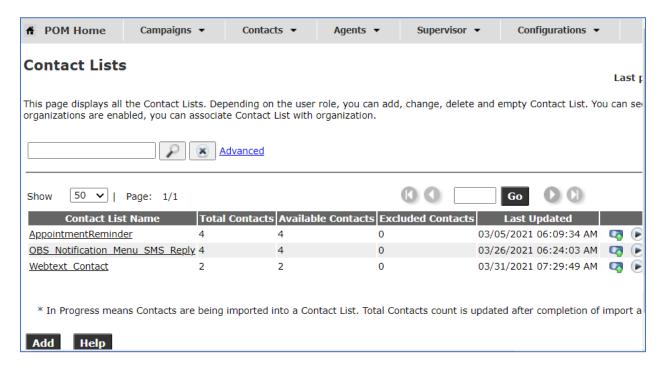
The Contact List created successfully message is displayed along with three selections. Select the Upload Contacts now link to upload the contact by using the CSV file above.



The **Upload Contacts** popup displays, select **Choose File** button to browse to the CSV file, select **Import Contacts** option in the **What to Do** section and select Upload button (not shown).

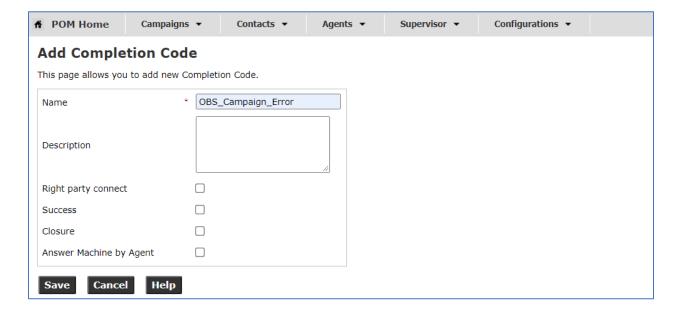
Upload Contacts					
Select the file that contains the Contacts you wish to upload or exclude. You can upload any comma delimited file. Contacts from the file will be imported or excluded from the selected Contact List depending on the Import Contacts or Exclude Contacts option selected.					
File to upload: Choose File ContactsTemplate.csv					
— What to Do	What to Do				
Import Contacts					
Exclude Contacts					
Advanced Options					
Empty Contact List before import					
Pause Associated Campaigns if Emptying Contact List					
Ignore Active Exclude Contacts if Emptying Contact List					
Ignore Callback On Contacts if Emptying Contact List					
Automatically update time zone for phone numbers					
Check phone numbers for reject patterns					
Check phone numbers for phone formats rule					

The screen below shows the contact list **OBS\_Notification\_Menu\_SMS\_Reply** with four contacts imported successfully.



## 6.3. Create Completion Code

To create completion code from the POM home, navigate to **Campaigns** → **Completion Codes**. The **Completion Codes** page displays, select **Add** button (not shown) to add new completion code. Select **Save** button to save the new creation.



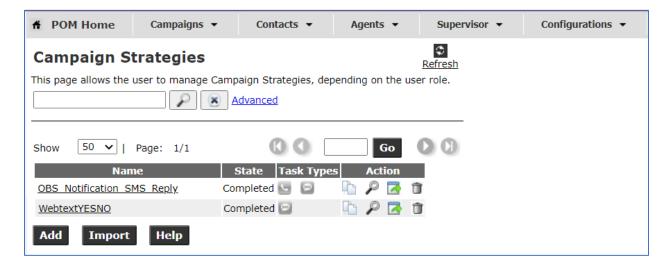
The following completion codes are created for the testing with INI OutboundStudio.

•	Completion Code ID↑	Completion Code	Right party connect	Success	Closure	Answer Machine by Agent	Descript
	74	SMS Reply					
	75	OBS No Campaign Found					Used when no OBS campaign is found matchir
	76	OBS Campaign Error					Used when OBS is not able to process the call
	77	OBS AH Abandoned					Detected a Human answer and the call discon
	78	OBS AM Abandoned					Detected a Machine answer and the call discor
	79	OBS AM Message Left					Used to indicate POM detected a Machine answ
	80	OBS AH Menu Abandoned					Detected a Human answer, the call disconnect
	81	OBS AH Menu Max Tries					Used when the called party failed to make a v
	82	OBS AH Option1 Selected					Used when the called party selected option 1 :
	83	OBS AH Option2 Selected					Used when the called party selected option 1 :
	84	OBS AH Option3 Selected					Used when the called party selected option 1 :
	85	OBS AH Option0 Selected					Used when the called party selected option 1 :
	86	OBS SMS Response Timeout					Used to indicate contact timed out before a re
	87	OBS SMS Max Invalid Response					Used to indicate too many invalid responses w
	88	OBS SMS Option1					Used to indicate a valid response to was receiv
	89	OBS SMS Option2					Used to indicate a valid response to was receiv
Ad	d Add N	Multiple Delete Help					

# 6.4. Create Campaign Strategy

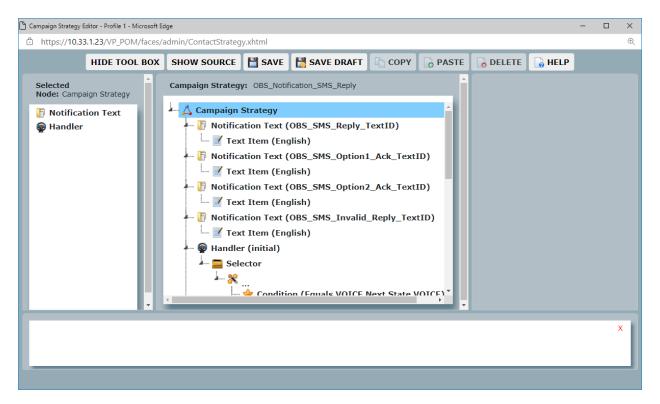
To create a campaign strategy, navigate to Campaign → Campaign Strategies, the Campaign Strategies page displays, select Add.

Enter a strategy name in the **Name** field and select **Continue**. In the testing, the campaign strategy name was "OBS\_Notification\_SMS\_Reply".



The Campaign Strategy Editor window displays as shown in the screen below.

In the testing, the campaign strategy below was used. The strategy examines the value of OBS\_Contact\_Channel in the initial handler. If the value is VOICE, it jumps to a voice handler that places a phone call. If the value is SMS, it jumps to a handled that sends an SMS.



# 6.5. Create Campaign

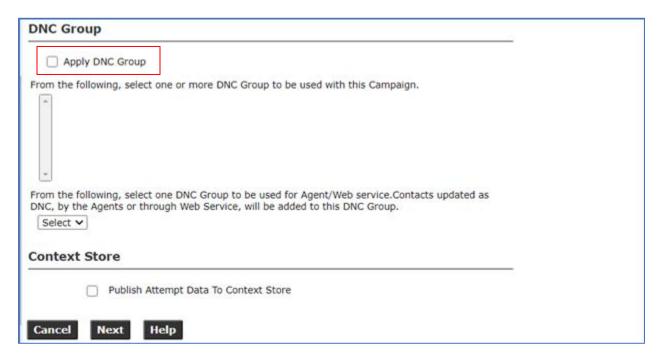
To create a campaign strategy, navigate to Campaign → Campaign Manager, the Campaign Manager page displays, select Add (not shown). The Create Campaign window displays, enter a name in the Name field and click Continue.



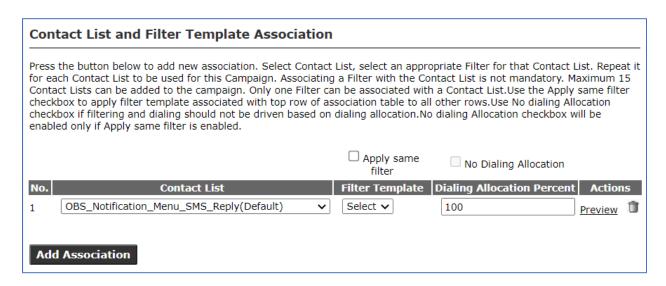
In the Campaign Strategy section, select the campaign strategy "OBS\_Notification\_Menu\_SMS\_Reply" created in Section 6.3 from the list and select the option Finite for the Campaign type.



In the **DNC Group** section, remove the check mark in the **Apply DNC Group** and select **Next**.



In the **Contact List and Filter Template Association** section, select **Add Association** and in the entry No.1 select the contact list "**OBS\_Notification\_Menu\_SMS\_Reply**" that is created in **Section 6.2**.



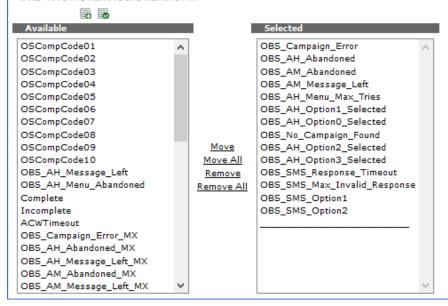
#### Completion Code Association (optional)

Name: OBS\_Notification\_Menu\_SMS\_Reply

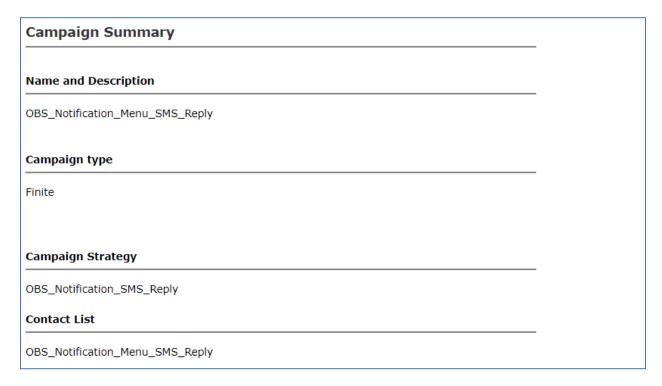
#### Completion Codes For Campaign

This section allows you to associate custom Completion Codes with a Campaign. Completion Codes selected here can be used in subsequent steps of this wizard to define Finish Criteria.

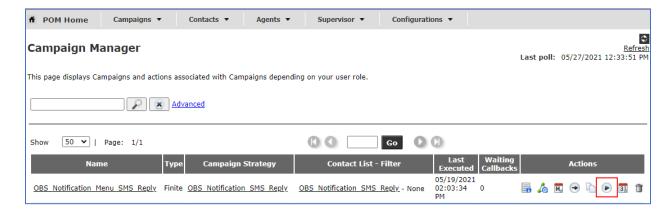
Available list shows all the Completion Codes defined. Current Completion Codes associated with the Campaign are shown in the selected Completion Codes list. You can move the items between list of available and currently selected Completion Codes by using Move, Move All, Remove and Remove All.



Select **Finish** (not shown) to complete the creation. The Campaign Creation Wizard – Summary page displays to summarize the selections of the campaign manager.

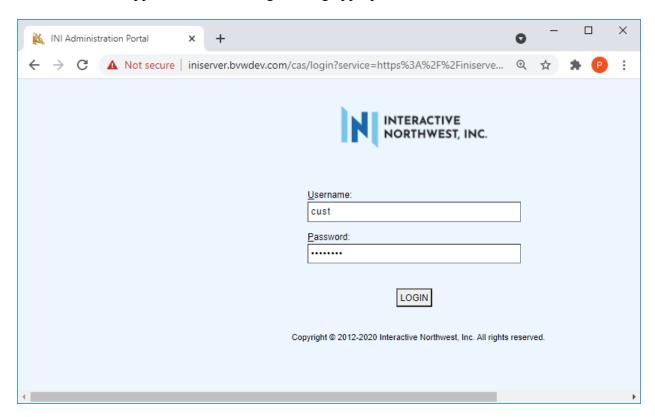


To run the campaign, select the play icon in the Actions column.



# 7. Configure INI OutboundStudio

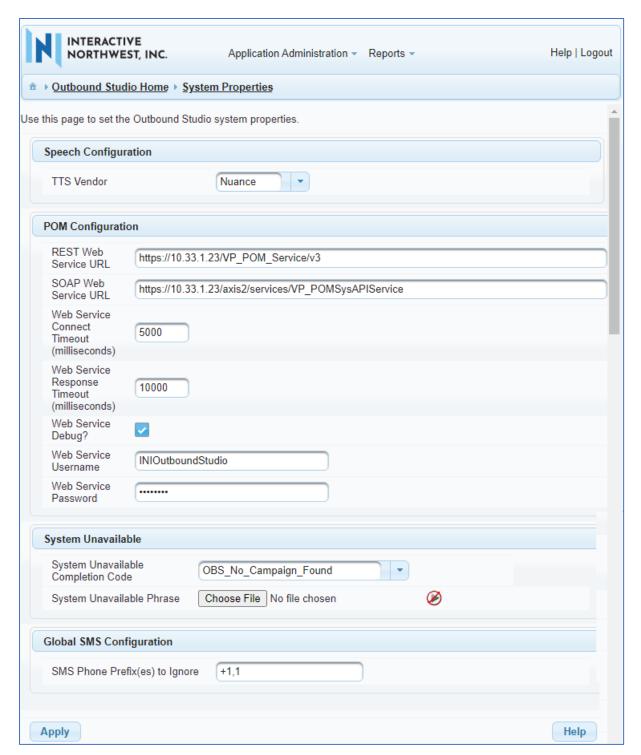
To access the web interface for INI OutboundStudio, enter <a href="http://<FQDN">http://<FQDN</a>> as the URL in an internet browser, where <FQDN> is the Fully Qualified Domain Name of the INI OutboundStudio application server. Log in using appropriate credentials.



From the home page, select **Outbound Studio** link.

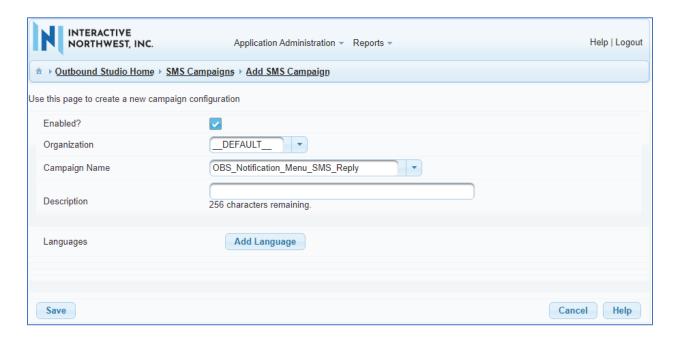


From the Outbound\_Studio\_Home, select Application Administration → System Properties. The System Properties page is displayed. Provide POM configuration in the POM Configuration section as shown in the screenshot below. Note that the Web Service user and its password is the one that is created in Section 5.2.

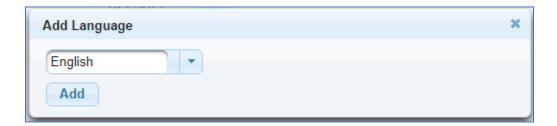


# 7.1. Configure SMS Campaign

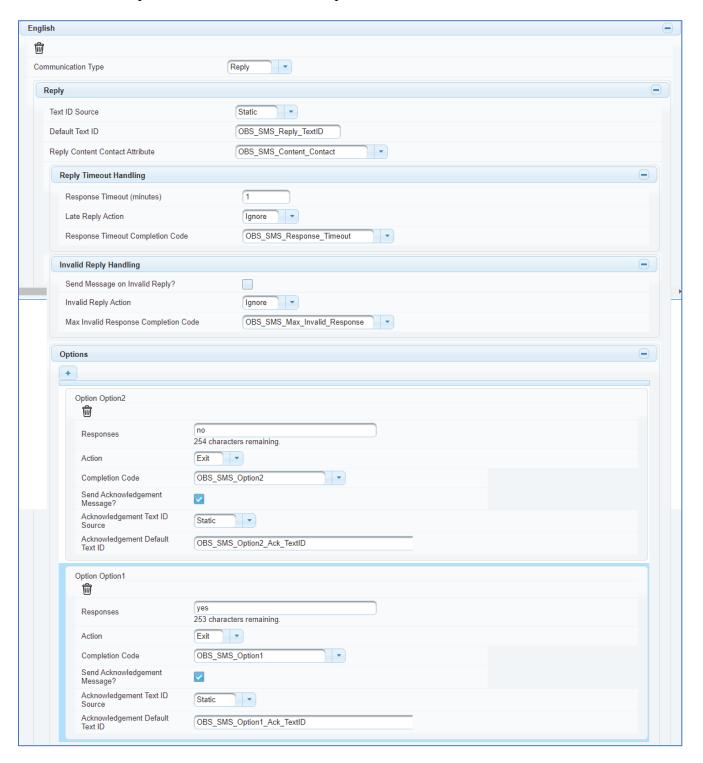
To add a SMS campaign, navigate to **Application Administration** → **SMS Campaigns**. The **SMS Campaigns** page displays, select **Add** button (not shown). In the **Add SMS Campaign**, enable the campaign by selecting the checkbox in the **Enable?** field, select **OBS\_Notification\_Menu\_SMS\_Reply** from the dropdown menu in the **Campaign Name** list. Note that, list of campaign is imported from POM. Select **Add Language** button.



The pop-up window is displayed, select **English** from the list and click on **Add**.



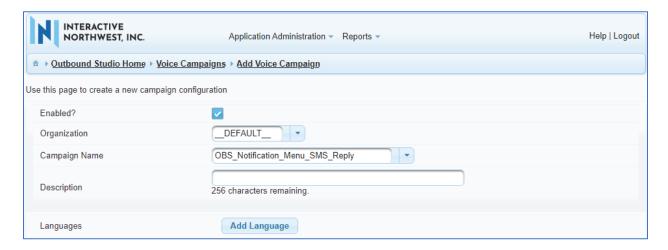
Expand the English section and select **Reply** in the **Communication Type** field. In the Reply subsection, set the parameter as shown in the sample of the screenshot below.



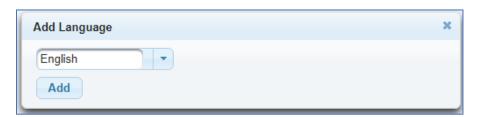
# 7.2. Configure Voice Campaign

Repeat the same procedure above to add voice campaign. Navigate to **Application**Administration 

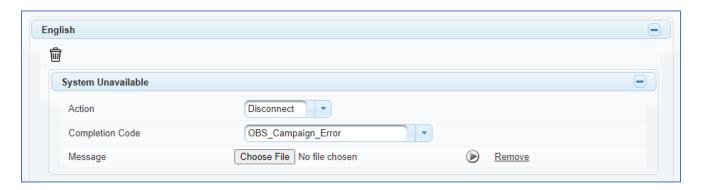
Voice Campaigns. The Voice Campaigns page displays, select Add button (not shown). In the Add Voice Campaign, enable the campaign by selecting the checkbox in the Enable? field, select OBS\_Notification\_Menu\_SMS\_Reply from the dropdown menu in the Campaign Name list. Note that, the voice campaign is imported from POM. Select Add Language button.



The pop-up window is displayed, select **English** from the list and click on **Add**.



Expand the **English** section and then expand the **System Unavailable** subsection. Select **Disconnect** in **Action** dropdown menu and select **OBS\_Campaign\_Error** in the **Completion Code** dropdown.

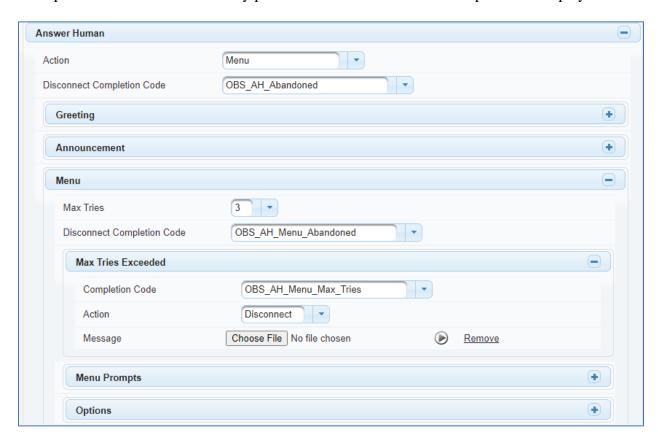


Exapand the **Anwser Human** subsection from the **English** section. Select **Menu** and **OBS\_AH\_Abandoned** in the **Action** and **Disconnect Completion Code** field, respectively.

Expand the **Menu** subsection from the **Answer Human** section, select **OBS\_AH\_Menu\_Abandoned** from the **Disconnect Completion Code** field.

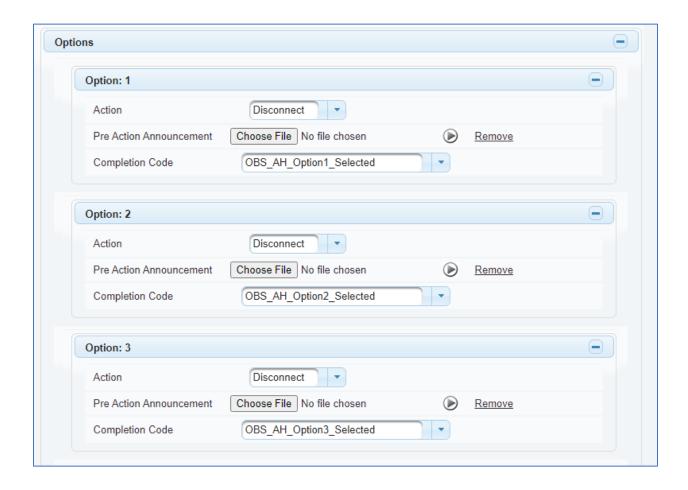
Expand the **Max Tries Exceeded** subsection from the **Menu** section, select **OBS\_AH\_Menu\_Max\_Tries** and **Disconnect** from the **Completion Code** and **Action** field respectively.

To provide the WAV file that will be played to the contact when the maximum tries have been exhausted, click the **Choose File** button. A selection dialog box will be opened in your browser. Navigate to the WAV file that should be played at this point and **Save**. OutboundStudio will upload the WAV file and the play icon and the word <u>Remove</u> will be displayed as shown. This same process can be followed at any place that a WAV file needs to be provided for playback.



Expand the **Options** subsection from the **Menu** section. Enter values for the Option1,Option2, Option3, Option0 and Option # as shown below.

- Option: 1
  - o Action: Disconnect
  - Completion Code: OBS\_AH\_Option1\_Selected
- Option: 2
  - o Action: Disconnect
  - Completion Code: OBS\_AH\_Option2\_Selected
- Option: 3
  - o Action: Disconnect
  - o Completion Code: OBS\_AH\_Option3\_Selected



• Option: 0

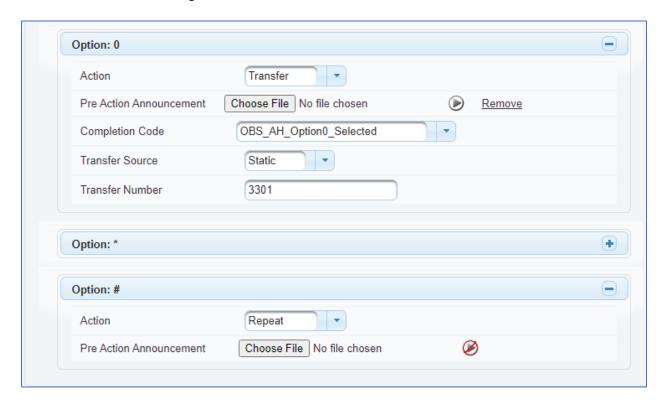
Action: Transfer

o Completion Code: OBS\_AH\_Option0\_Selected

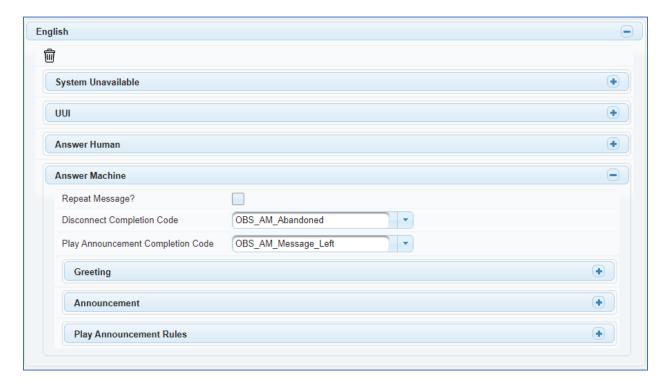
Transfer Source: StaticTransfer Number: 3301

• Option: #

o Action: Repeat



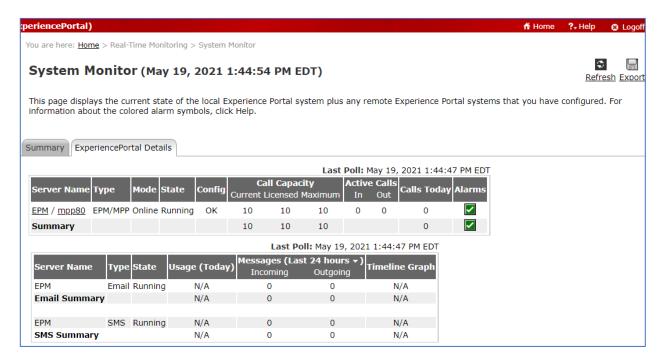
Expand the **Answer Machine** subsection from the **English** section. Select the **OBS\_AM\_Abandoned** and **OBS\_AM\_Message\_Left** in the **Disconnect Completion Code** and **Play Announcement Completion Code**, respectively.



# 8. Verification Steps

This section provides the verification steps that may be performed to verify that Experience Portal can run INI OutboundStudio applications.

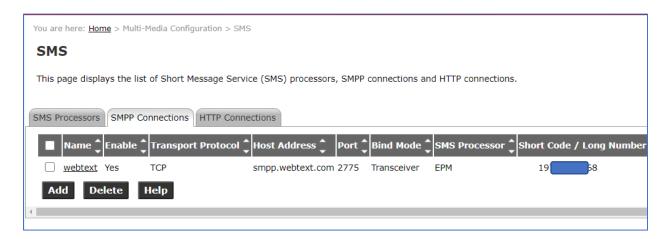
1. From the EPM web interface, verify that the EPM, MPP and SMS servers are online and running in the System Monitor page shown below.



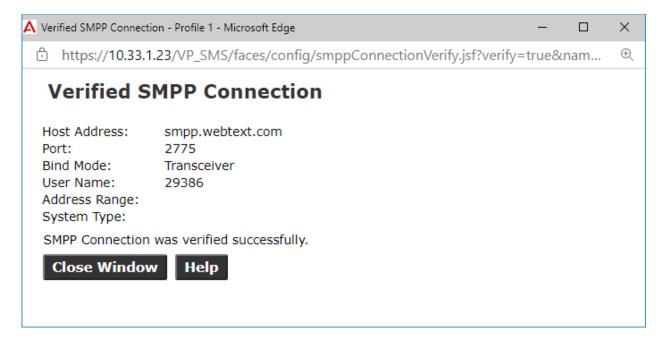
2. From the EPM web interface, verify that the ports on the MPP server are in-service in the Port Distribution page shown below.



3. Verify the SMPP connection to the SMS gateway service, navigate to **Multi-Media**Configuration → SMS → SMPP Connections. Select the SMS gateway in this case is webtex in the SMPP Connections tab.

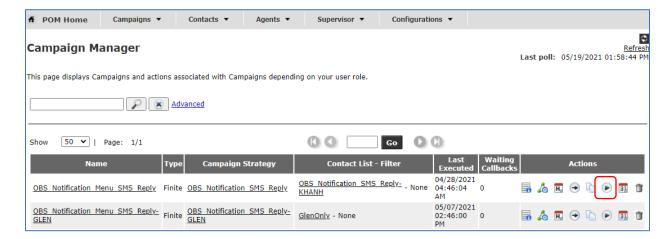


In the **Change SMPP Connection** page (not shown), select **Verify** button. The **Verify SMPP Connection** window displays, select **Verify** button (not shown), if the SMPP connection to the SMS gateway is up and running, it will show as verified successfully as shown below.

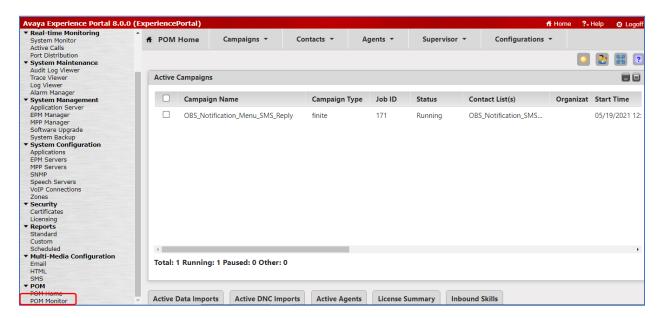


Run the campaign, from the POM home, navigate to Campaigns  $\rightarrow$  Campaign Manager. The Campaign Manger page displays with the list of campaign in the right hand side, click on the play icon to run the campaign.

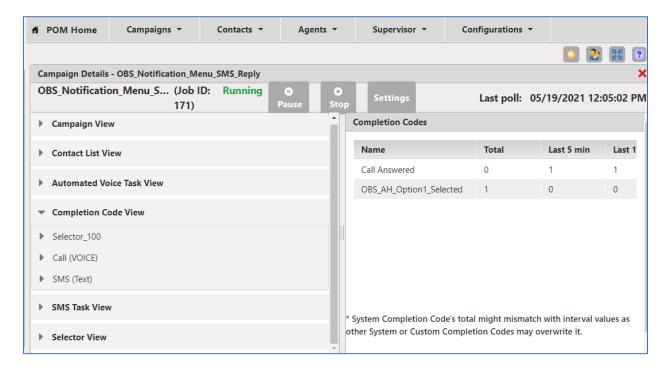
The campaign will make a phone call to the contact with the **OBS\_Contact\_Channel** attribute in the contact indicates as "VOICE" and send SMS to the contact with the **OBS\_Contact\_Channel** attribute indicates as "SMS".



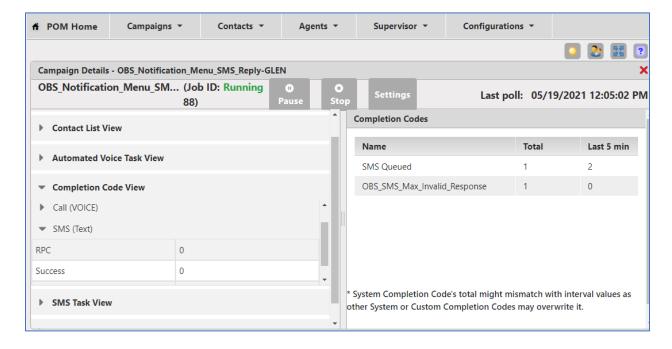
Select **POM Monitor** from the left pane menu. The POM Monitor displays list of active campaign that is running. Select the campaign name **OBS\_Notification\_Menu\_SMS\_Reply**.



The Campaign Details page is displayed. Expand the Completion Code View and select Call (Voice) to show the completion code that the caller selects.



Select SMS (Text) to show the completion code that the caller replies.



## 9. Conclusion

These Application Notes describe the configuration steps required to integrate the INI OutboundStudio application with Avaya Proactive Outreach Manager and Avaya Experience Portal. All feature and serviceability test cases were completed successfully.

## 10. Additional References

This section references the product documentation that is relevant to these Application Notes.

- [1] Administering Avaya Aura® Experience Portal, Release 1.1, October 2020
- [2] Implementing Avaya Proactive Outreach Manager, Release 4.0, December 2020
- [3] INI OutboundStudio Administration User Guide R1.1

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