Avaya Solution & Interoperability Test Lab

Application Notes for Acqueon iAssist Call Back Manager with Avaya Aura® Experience Portal - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Acqueon iAssist Call Back Manager with Avaya Aura® Experience Portal. The iAssist Call Back Manager offers callers queued to a call center the option to continue to wait in queue for an agent or request a call back when either an agent becomes available or schedule a call back for a specified date and time.

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.

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1. Introduction

These Application Notes describe the configuration steps required to integrate the Acqueon iAssist Call Back Manager with Avaya Aura® Experience Portal. The iAssist Call Back Manager offers callers queued to a call center the option to continue to wait in queue for an agent or request a call back when either an agent becomes available or schedule a call back for a specified date and time.

The iAssist Call Back Manager (CBM) consists of two modules: the Inbound Module and the Outbound Module. The Inbound Module is designed to take a call back request from a caller waiting to be serviced by an agent. The Outbound Manager retrieves the call back request based on priority and time of the callback and then dials the agent queue. If the agent is available, the call details are voiced to the agent and then an outbound call to the telephone number specified by the caller is made. The incoming call flow is described below.

- Customer calls the contact center and gets routed to an agent queue.
- If the wait time in queue is more than the threshold set (Expected Wait Time), calls are routed to the inbound CBM application on Avaya Aura® Experience Portal.
- Once the call is answered by the CBM inbound channel on Avaya Aura® Experience Portal, CBM offers various options to leave a call back request. The following are the call back options:
    - Call back as soon as an agent is available
    - Call back on same day at a later time
    - Call back on a future day and time
- CBM then prompts the customer to enter the call back contact number, account information, and appropriate date/time of call back. A request is then registered into the CBM database.

The CBM outbound module running on the iAssist Admin server continuously polls the database on a regular interval to retrieve pending callback requests. The outbound module then calls the appropriate agent group number to get an agent to process the callback. Once the agent answers the call, CBM plays the customer's information to the agent. CBM then dials the customer's number and conferences the call with the agent. If the customer call cannot be completed, CBM reschedules the call based on a pre-defined schedule interval. CBM reschedules the call for a specified number of times. Once the maximum attempts have been made unsuccessfully, the call is marked as failed.

Another Acqueon related solution is described in Application Notes for Acqueon iAssist Call Survey Manager with Avaya Aura® Experience Portal

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2. General Test Approach and Test Results

This section describes the interoperability compliance testing used to verify the iAssist CBM applications with Avaya Aura® Experience Portal.

The interoperability compliance test included feature and serviceability testing. The feature testing focused on routing calls to Experience Portal and running the iAssist CBM applications to allow the caller the option to request a call back. All of the call back request options available in the Inbound CBM application were tested. In addition, the Outbound CBM application was also verified. The iAssist Outbound CBM Module initiated the call back to the agent and caller and established a two-way talk path. Conditions where the call back could not be established were also verified. In these cases, the call was either rescheduled or marked as failed, if the number of retries were exceeded. Finally, the registered call back requests and call back status were verified in iAssist reports.

The serviceability testing focused on verifying the ability of iAssist Admin server and Avaya Aura® Experience Portal to recover from adverse conditions, such as power failures and disconnecting cables to the IP network.

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.

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2.1. Interoperability Compliance Testing

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

- Routing incoming calls to Avaya Aura® Experience Portal when the expected wait time for an agent exceeds a configured threshold.
- Experience Portal successfully running the iAssist Inbound CBM application and all of the call back options tested.
- The ability of the caller to continue waiting in queue for an agent.
- The ability of the caller to make a call back request. Call back options described above were tested.
- iAssist CBM servicing pending call back requests and running the iAssist Outbound CBM application.
- Failure conditions, such as the call back failing due to network problems, and verifying that the call back was rescheduled.
- The ability to reschedule a call back if the call to the agent or caller is not completed within a specified timeout value.
- iAssist reports showing the registered call back requests and the call back status.

The serviceability testing focused on verifying the ability of the iAssist Admin server 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 with the following observations below.

- There is no ring back tone on the agent's phone while the customer's phone ringing for the call back. This is design intent from iAssist Call Back Manager when their application uses Call Control XML from Experience Portal to create a conference call between agent and customer.

2.3. Support

For technical support on the iAssist Call Back Manager, contact Acqueon via phone, email, or internet.

- **Phone:** +9198403 57893 (or) +1 888 946 6878
- **Email:** support@acqueon.com
- **Web:** http://acqueon.issuetrak.com

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Reference Configuration**Error! Reference source not found.** illustrates the configuration used for testing. In this configuration, Avaya Experience Portal interfaces with Avaya Aura® Communication Manager via SIP. The iAssist Admin Server server hosted the iAssist CBM applications supporting the CBM inbound and outbound modules. The Acqueon iAssist Admin server contained the Microsoft SQL database and also was used to configure the iAssist CBM application.

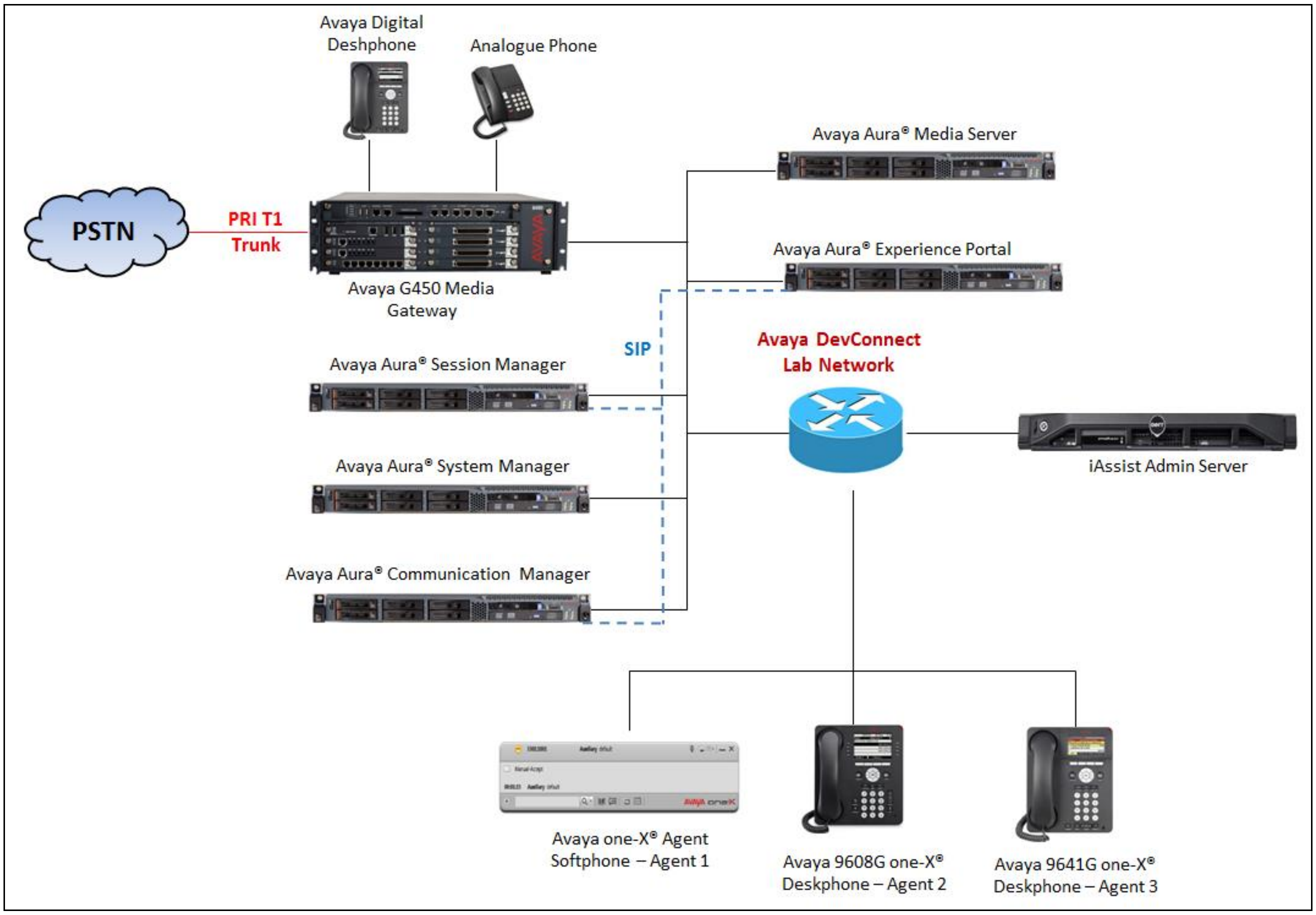

Figure 1: Test Configuration Diagram

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3. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Communication Manager running on Virtualized Environment	R017x.00.0.441.0 Patch 23523
Avaya Aura® System Manager running on Virtualized Environment	7.1.0.0.116662
Avaya Aura® Session Manager running on Virtualized Environment	7.1.0.0.710028
Avaya Aura® Media Server running on Virtualized Environment	7.8
Avaya Aura® Experience Portal running on Virtualized Environment	7.1.0.0.1107
Avaya G450 Media Gateway	38.19.0
Avaya 9641GS H323 IP Deskphone	6.6.4
Avaya 9621G SIP IP Deskphone	7.1.29
Acqueon iAssist Callback Manager application running on Windows Server 2012	2.2.1.16

4. Configure Avaya Aura® Communication Manager

This section provides the procedures for configuring Communication Manager via the System Access Terminal (SAT). The procedures include the following areas:

- Administer Hunt Groups for Agents.
- Administer Agent IDs for Agents.
- Administer Call Vectoring.
- Administer Signaling Group.
- Administer Trunk Group.
- Administer Route Pattern.
- Administer Dial Plan
- Administer AAR Table

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4.1. Administer Hunt Groups

This section provides the Hunt Group configuration for the call center agents. Agents will log into Hunt Group 1 configured below. Provide a descriptive name and set the **Group Extension** field to a valid extension. Enable the **ACD**, **Queue**, and **Vector** options. This hunt group will be specified in the **Agent LoginIDs** configured in Section **Error! Reference source not found.**.

```
add hunt-group 1                                                Page   1 of   4
                                  HUNT GROUP

            Group Number: 1                                    ACD? y
              Group Name: Skill-1                            Queue? y
         Group Extension: 3320                              Vector? y
              Group Type: ucd-mia
                      TN: 1
                     COR: 1                       MM Early Answer? n
           Security Code:                  Local Agent Preference? n
 ISDN/SIP Caller Display:

            Queue Limit: unlimited
 Calls Warning Threshold:     Port:
  Time Warning Threshold:     Port:
```

On Page 2 of the Hunt Group form, enable the **Skill** option.

```
change hunt-group 1                                           Page   2 of   4
                              HUNT GROUP

                    Skill? y      Expected Call Handling Time (sec): 180
                      AAS? n        Service Level Target (% in sec): 80 in 20
                 Measured: both
      Supervisor Extension:

       Controlling Adjunct: none

         VuStats Objective:

    Multiple Call Handling: none

 Timed ACW Interval (sec):          After Xfer or Held Call Drops? n
```


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4.2. Administer Agent IDs

This section provides the Agent Login IDs for the agents. Add an **Agent Login ID** for each agent in the call center as shown below. In this configuration, agent login IDs 1000 to 1002 were created for three agents.

```
add agent-loginID 1000                                          Page   1 of   2
                                 AGENT LOGINID

                Login ID: 1000                                      AAS? n
                    Name: Agent 1000                              AUDIX? n
                      TN: 1
                     COR: 1
           Coverage Path:                               LWC Reception: spe
           Security Code: 1234                 LWC Log External Calls? n
           Attribute:                        AUDIX Name for Messaging:

                                         LoginID for ISDN/SIP Display? n
                                                             Password:1234
                                               Password (enter again):1234
                                                          Auto Answer: station
 AUX Agent Remains in LOA Queue: system            MIA Across Skills: system
AUX Agent Considered Idle (MIA): system    ACW Agent Considered Idle: system
             Work Mode on Login: system    Aux Work Reason Code Type: system
                                              Logout Reason Code Type: system
                       Maximum time agent in ACW before logout (sec): system
                                             Forced Agent Logout Time:   :
    WARNING:  Agent must log in again before changes take effect
```

On Page 2 of the **Agent LoginID** form, set the skill number (**SN**) to hunt group 1, which is the hunt group (skill) that the agents will log into.

```
change agent-loginID 1000                                          Page   2 of   2
                                 AGENT LOGINID
      Direct Agent Skill:                                Service Objective? n
Call Handling Preference: skill-level               Local Call Preference? n

    SN   RL SL          SN   RL SL
 1: 1       1       16:                 31:                 46:
 2:                 17:                 32:                 47:
 3:                 18:                 33:                 48:
 4:                 19:                 34:                 49:
 5:                 20:                 35:                 50:
 6:                 21:                 36:                 51:
 7:                 22:                 37:                 52:
 8:                 23:                 38:                 53:
 9:                 24:                 39:                 54:
10:                 25:                 40:                 55:
11:                 26:                 41:                 56:
12:                 27:                 42:                 57:
13:                 28:                 43:                 58:
14:                 29:                 44:                 59:
15:                 30:                 45:                 60:
```


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4.3. Administer Call Vectoring

This section describes the procedures for configuring call vectoring for the Agent and inbound call to iAssist CallBack Manager

Configure the **Vector Directory Number** (VDN) that will handle incoming customer calls. The VDN invokes a vector that will queue the call to an agent split and also route the call to the iAssist CBM application on Avaya Aura® Experience Portal if the call is queued and the expected wait time exceeds a configured threshold in the associated vector. In this example, VDN 3347 and vector 8 were used.

```
add vdn 3347                                                Page   1 of   3
                            VECTOR DIRECTORY NUMBER

                             Extension: 3347
                                 Name*: Accquen CBM Inbound
                           Destination: Vector Number        8
                   Attendant Vectoring? n
                  Meet-me Conferencing? n
                    Allow VDN Override? n
                                   COR: 1
                                   TN*: 1
                              Measured: none     Report Adjunct Calls as
ACD*? n


        VDN of Origin Annc. Extension*:
                            1st Skill*:
                            2nd Skill*:
                            3rd Skill*:
```


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Vector 8 queues the call to the agent split (skill 1), checks the expected wait time for the agent split (skill 1), and if it exceeds 30 seconds they will give an option to the caller whether they want to stay in the queue or they want agent to call back. If the caller select #1 they will continue to wait in the queue otherwise the call will be routed to second VDN and from the second VDN the call is routed to Experience Portal via SIP trunk. Experience Portal will then direct the call to the iAssist CBM application.

```
add vector 8                                                  Page   1 of   6
                                  CALL VECTOR

    Number: 8                Name: Acqueon Inbound
Multimedia? n      Attendant Vectoring? n    Meet-me Conf? n           Lock?
n
     Basic? y   EAS? y   G3V4 Enhanced? y   ANI/II-Digits? y   ASAI Routing?
y
 Prompting? y   LAI? y  G3V4 Adv Route? y   CINFO? y   BSR? y   Holidays? y
 Variables? y   3.0 Enhanced? y
01 wait-time    5   secs hearing 1100     then silence
02 goto step    6             if expected-wait    for skill 1    pri m  >  30
03 check        skill 1    pri m if unconditionally
04 queue-to     skill 1    pri m
05 wait-time    15  secs hearing 1100     then silence
06 collect      1    digits after announcement 1105     for none
07 goto step    3             if digits           =      1
08 route-to     number 3349             with cov n if unconditionally
09 stop
10 disconnect   after announcement none
```

Below is the second VDN 3349 and vector 11 to route the contact center call to Experience Portal.

```
add vdn 3349                                                  Page   1 of   3
                            VECTOR DIRECTORY NUMBER

                             Extension: 3349
                                 Name*: Second VDN for CBM
                           Destination: Vector Number        11
                   Attendant Vectoring? n
                  Meet-me Conferencing? n
                    Allow VDN Override? n
                                   COR: 1
                                   TN*: 1
                              Measured: both     Report Adjunct Calls as
ACD*? n
        Acceptable Service Level (sec): 20

        VDN of Origin Annc. Extension*:
                            1st Skill*:
                            2nd Skill*:
                            3rd Skill*:
```


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And vector 11

```
add vector 11                                                   Page   1 of   6
                                  CALL VECTOR

    Number: 11               Name: To route call to CBM
Multimedia? n      Attendant Vectoring? n    Meet-me Conf? n           Lock?
n
     Basic? y   EAS? y   G3V4 Enhanced? y   ANI/II-Digits? y   ASAI Routing?
y
 Prompting? y   LAI? y  G3V4 Adv Route? y   CINFO? y   BSR? y   Holidays? y
 Variables? y   3.0 Enhanced? y
01 route-to     number 4905            with cov n if unconditionally
```

4.4. Administer Signaling Group

Use the "add signaling-group n" command, where "n" is an available signaling group number, in this case "1". Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Group Type:** "sip"
- **Transport Method:** "tls"
- **Near-end Node Name:** An existing C-LAN node name or "procr".
- **Far-end Node Name:** The existing node name for Session Manager.
- **Near-end Listen Port:** An available port for integration with Session Manager
- **Far-end Listen Port:** The same port number as in **Near-end Listen Port**.
- **Far-end Network Region:** An existing network region to use with Session Manager.
- **Far-end Domain:** The applicable domain name for the network.
- **Direct IP-IP Audio Connections:** "y"

```
change signaling-group 1                                        Page   1 of   3
                                SIGNALING GROUP

 Group Number: 1             Group Type: sip
  IMS Enabled? n       Transport Method: tls
        Q-SIP? n
     IP Video? n                                  Enforce SIPS URI for SRTP? n
  Peer Detection Enabled? n  Peer Server: SM
 Prepend '+' to Outgoing Calling/Alerting/Diverting/Connected Public Numbers? y
Remove '+' from Incoming Called/Calling/Alerting/Diverting/Connected Numbers? n
Alert Incoming SIP Crisis Calls? n
   Near-end Node Name: procr                Far-end Node Name: interopASM
 Near-end Listen Port: 5061               Far-end Listen Port: 5061
                                       Far-end Network Region: 1

Far-end Domain: bvwdev.com
                                            Bypass If IP Threshold Exceeded? n
Incoming Dialog Loopbacks: eliminate                 RFC 3389 Comfort Noise? n
         DTMF over IP: rtp-payload           Direct IP-IP Audio Connections? y
Session Establishment Timer(min): 3                    IP Audio Hairpinning? n
         Enable Layer 3 Test? y                    Initial IP-IP Direct Media? n
```


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```
H.323 Station Outgoing Direct Media? n          Alternate Route Timer(sec): 6
```

4.5. Administer Trunk Group

Use the "add trunk-group n" command, where "n" is an available trunk group number, in this case "1". Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Group Type:** "sip"
- **Group Name:** A descriptive name.
- **TAC:** An available trunk access code.
- **Service Type:** "tie"
- **Signaling Group:** The signaling group number from **Section 5.4**.
- **Number of Members:** The desired number of members, in this case "14".

```
add trunk-group 1                                             Page   1 of  22
                                TRUNK GROUP

Group Number: 1                    Group Type: sip          CDR Reports: y
  Group Name: Private Trunk               COR: 1        TN: 1        TAC: #01
   Direction: two-way        Outgoing Display? n
 Dial Access? n                                  Night Service:
Queue Length: 0
Service Type: tie                   Auth Code? n
                                              Member Assignment Method: auto
                                                       Signaling Group: 1
                                                     Number of Members: 14
```

Go to the page 3, set **UUI Treatment** as "shared" and **Send UCID?** to **y**. The iAssist Callback Manager application needs to obtain the UCID information of incoming call from Communication Manager to Experience Portal.

```
add trunk-group 1                                                Page   3 of  22

TRUNK FEATURES
          ACA Assignment? n            Measured: none
                                                          Maintenance Tests? y

   Suppress # Outpulsing? n  Numbering Format: private
                                                UUI Treatment: shared
                                              Maximum Size of UUI Contents: 128
                                                 Replace Restricted Numbers? y
                                                Replace Unavailable Numbers? y

                                                  Hold/Unhold Notifications? y
                                Modify Tandem Calling Number: no
               Send UCID? y



 Show ANSWERED BY on Display? y
```


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```
 DSN Term? n
```

4.6. Administer Route Pattern

Use the “change route-pattern n” command, where “n” is an existing route pattern number to be used to reach Expeirence Portal, in this case “1”. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Pattern Name:** A descriptive name.
- **Grp No:** The SIP trunk group number from **Section 5.4**.
- **FRL:** A level that allows access to this trunk, with 0 being least restrictive.

```
change route-pattern 1                                          Page   1 of   3
                    Pattern Number: 1      Pattern Name: SIP-TLS-To-SM
    SCCAN? n    Secure SIP? n     Used for SIP stations? n

    Grp FRL NPA Pfx Hop Toll No.  Inserted                             DCS/ IXC
    No          Mrk Lmt List Del  Digits                               QSIG
                             Dgts                                      Intw
 1: 1    0                                                              n   user
 2:                                                                     n   user
 3:                                                                     n   user
 4:                                                                     n   user
 5:                                                                     n   user
 6:                                                                     n   user

     BCC VALUE  TSC CA-TSC    ITC BCIE Service/Feature PARM Sub  Numbering LAR
    0 1 2 M 4 W     Request                                Dgts Format
 1: y y y y y n  n            rest                              lev0-pvt  next
 2: y y y y y n  n            rest                                        none
 3: y y y y y n  n            rest                                        none
 4: y y y y y n  n            rest                                        none
 5: y y y y y n  n            rest                                        none
 6: y y y y y n  n            rest                                        none
```


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4.7. Administer Dial Plan

This section provides a sample dial plan used for routing calls with dialed digits 49xx to Experience Portal. Use the “change dialplan analysis 0” command, and add an entry to specify the use of digits pattern 49, as shown below.

```
change dialplan analysis                                     Page   1 of  12
                             DIAL PLAN ANALYSIS TABLE
                                   Location: all           Percent Full: 4

    Dialed   Total  Call      Dialed   Total  Call      Dialed   Total  Call
    String   Length Type      String   Length Type      String   Length Type
   0           3   fac       43          4   aar
   1           4   ext       49          4   aar
   13          5   aar       46          4   aar
   14          5   aar       50          5   aar
   20          4   aar       546         5   aar
   23          5   aar       56          5   udp
   24          5   aar       60          5   udp
   28          5   aar       8           1   fac
   30          4   aar       9           1   fac
   33          4   ext       *           3   dac
```

4.8. Administer AAR Table

Use the “change aar analysis 0” command, and add an entry to specify how to route calls to 49xx. In the example shown below, calls with digits 49xx will be routed as an AAR call using route pattern “1” from **Section 5.6**

```
change aar analysis 49                                       Page   1 of   2
                             AAR DIGIT ANALYSIS TABLE
                                   Location: all           Percent Full: 2

          Dialed           Total     Route     Call    Node   ANI
          String          Min  Max  Pattern    Type    Num    Reqd
    49                    4    4     1         aar            n
```


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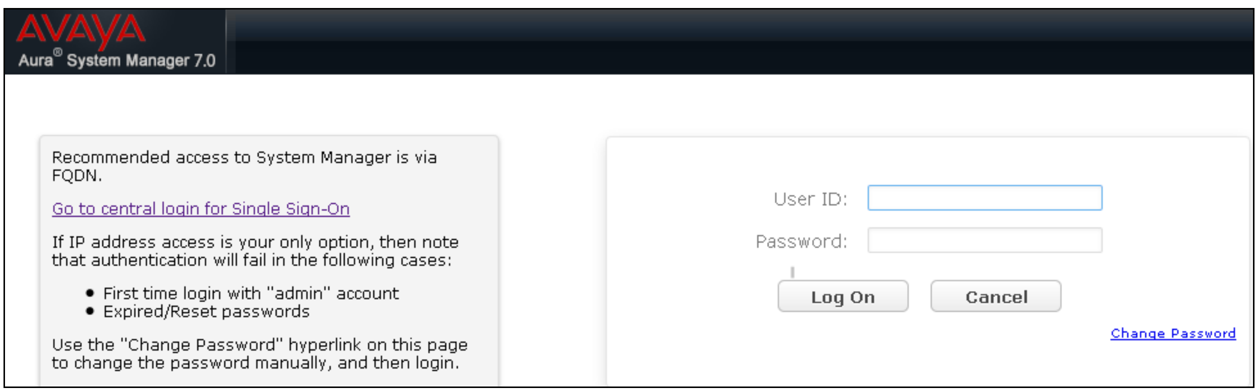
5. Configure Avaya Aura® Session Manager

This section provides the procedures for configuring Session Manager. The procedures include the following areas:

- Launch System Manager
- Administer Domain
- Administer locations
- Administer Adaptation
- Administer SIP entities
- Administer routing policies
- Administer dial patterns

5.1. Launch System Manager

Access the System Manager web interface by using the URL "https://ip-address" in an Internet browser window, where "ip-address" is the IP address of System Manager. Log in using the appropriate credentials.



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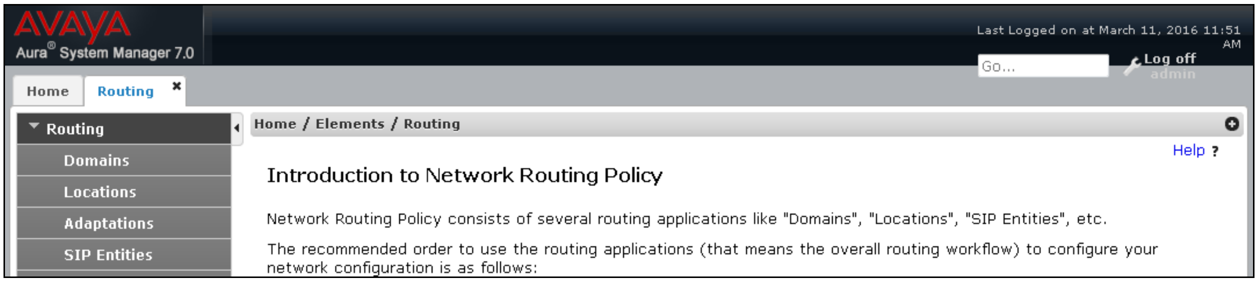
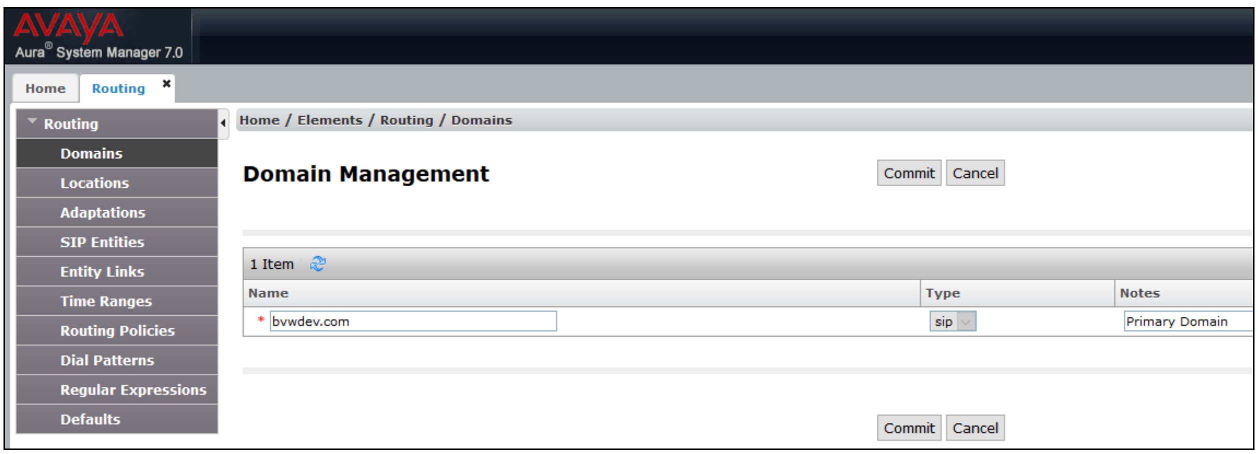
5.2. Administer Domain

In the subsequent screen (not shown), select **Elements → Routing** to display the **Introduction to Network Routing Policy** screen below. Select **Routing → Domains** from the left pane, and click **New** in the subsequent screen (not shown) to add a new domain



The **Domain Management** screen is displayed. In the **Name** field enter the domain name, select *sip* from the **Type** drop down menu and provide any optional **Notes**.



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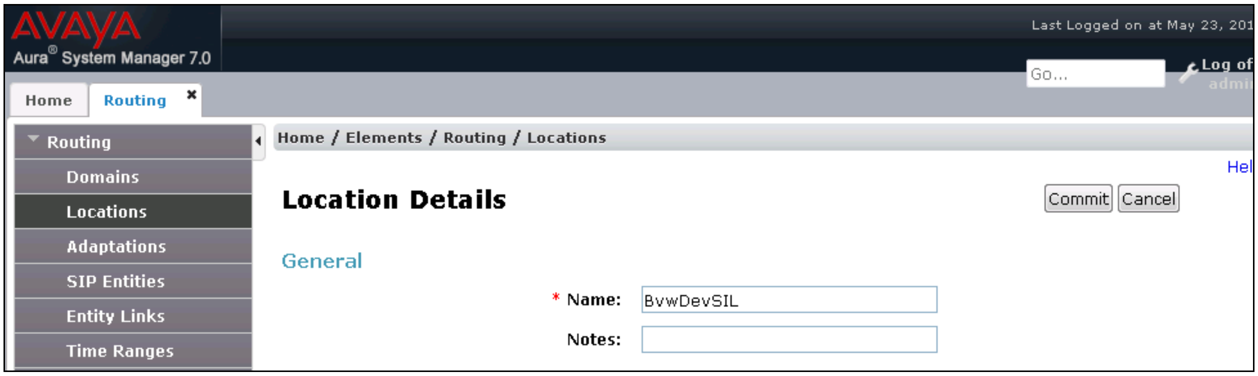
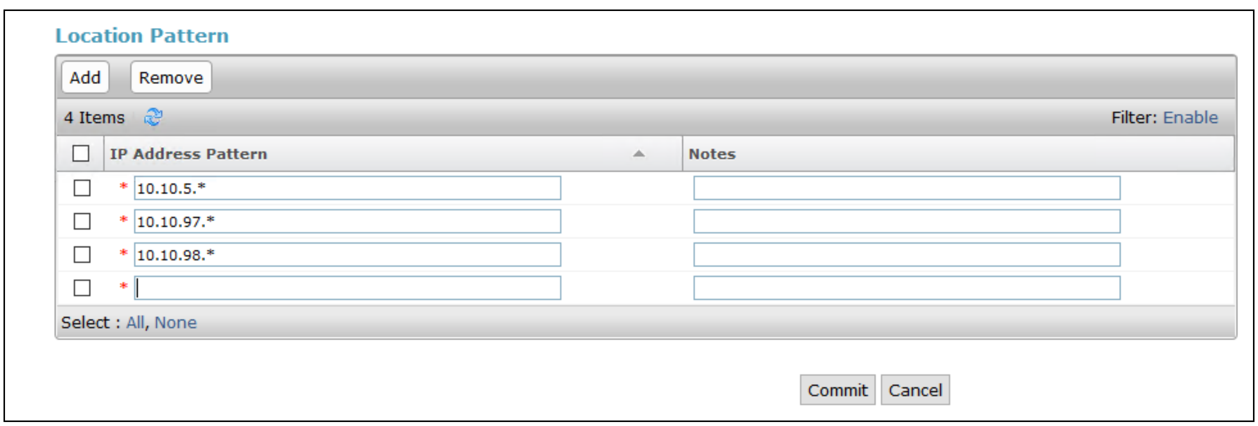
5.3. Administer Locations

Select **Routing → Locations** from the left pane, and click **New** in the subsequent screen (not shown) to add a new location for Trio Enterprise.

The **Location Details** screen is displayed. In the **General** sub-section, enter a descriptive **Name** and optional **Notes**. Retain the default values in the remaining fields.



Scroll down to the **Location Pattern** sub-section, click **Add** and enter the IP address of all devices involved in the compliance testing in **IP Address Pattern**, as shown below. Retain the default values in the remaining fields.



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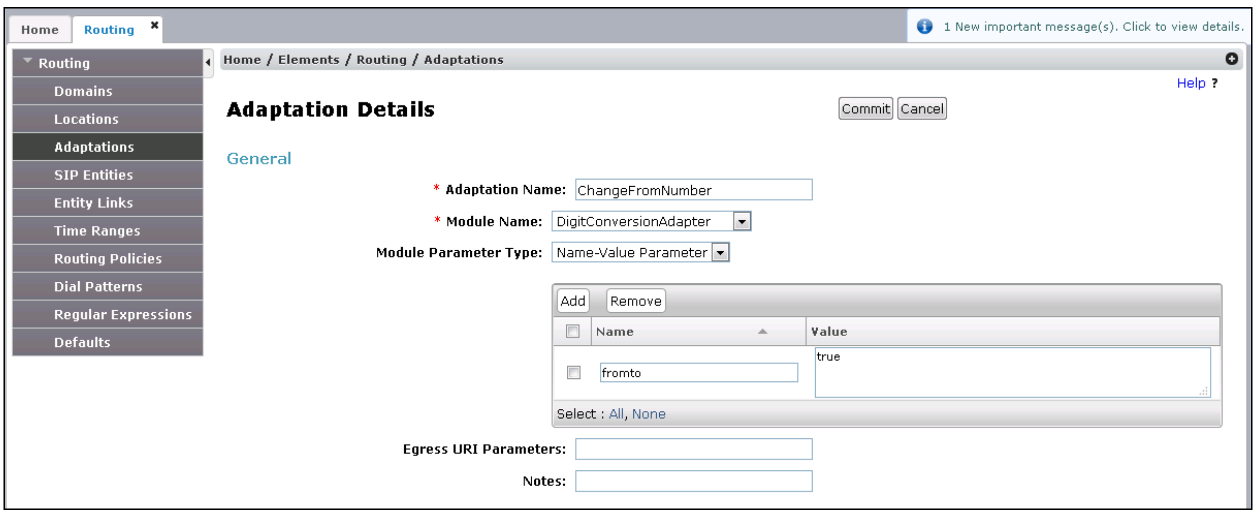
5.4. Administer Adaptation

During compliance test, the dial pattern 4905 was used to route the contact center call to Experience Portal when the caller decides to have agent call them back. When the call leaves Session Manager and arrives in Experience Portal the number 4905 in From header will be replaced by the number 3349 which is second VDN configured in **Section 5.3**. The iAssist Callback application monitors this VDN and they need to receive this number in their callback application. Here are the steps to create an Adaptation. Select **Adaptations** on the left panel menu and then click on the **New** button in the main window (not shown). Enter the following for the newly adaptation.

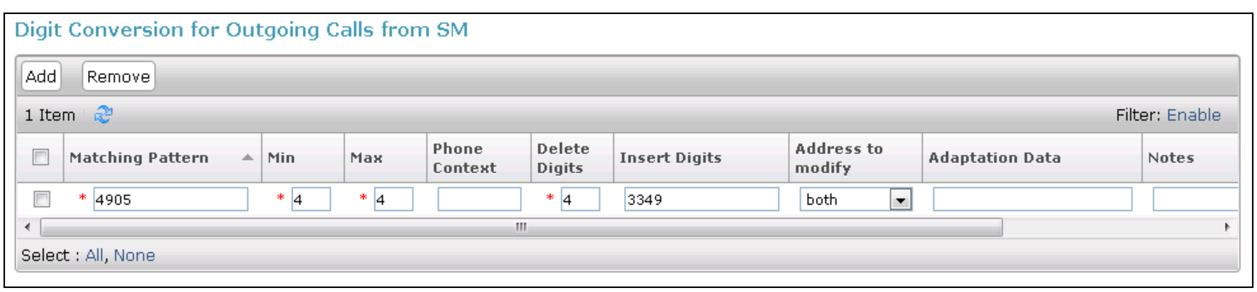
- **Adaptation Name** An informative name (e.g., ChangeFromNumber)
- **Module Name** Select **DigitConversionAdapter**
- **Module Parameter Type** Select Name-Value Parameter

Click **Add** to add a new row for the following values as shown below table:

Name	Value
fromto	true



(Continue) the screenshot shows the adaptation.



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5.5. Administer SIP Entities

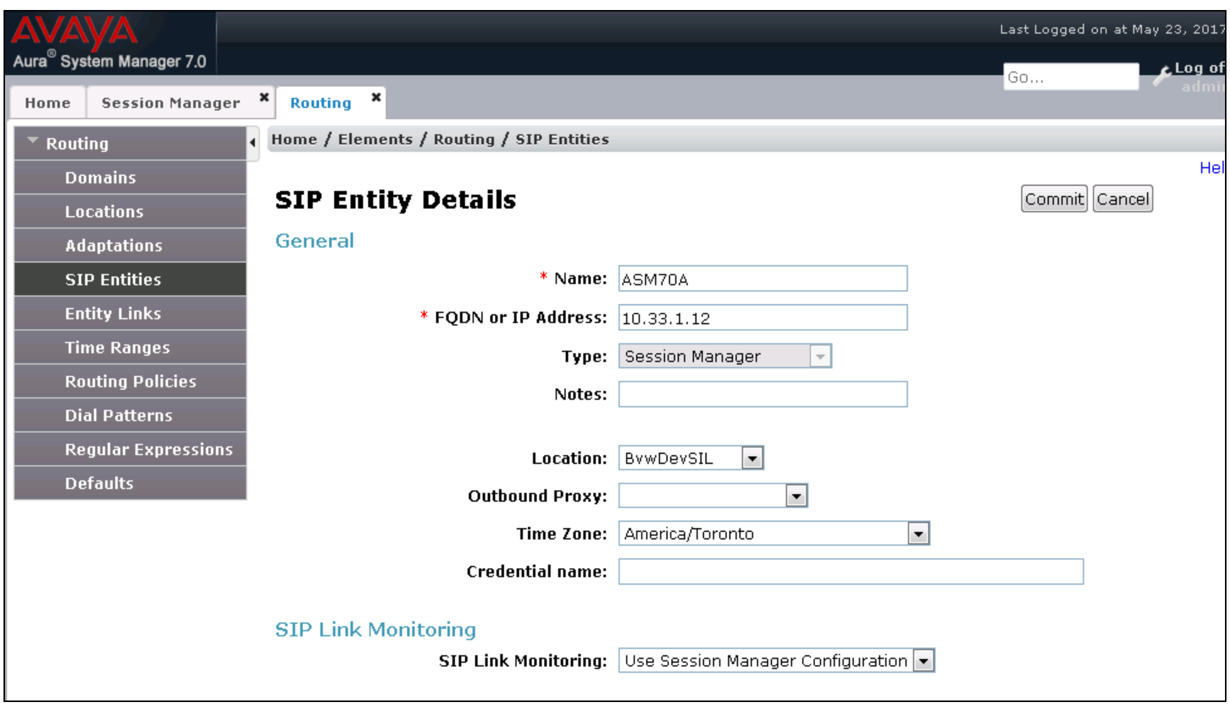
A SIP Entity must be added for Session Manager and for each SIP telephony system connected to it, which includes Communication Manager and Experience Portal.

5.5.1. SIP Entity for Session Manager

Navigate to **Routing → SIP Entities** in the left navigation pane and click on the **New** button in the right pane (not shown). In the **General** section, enter the following values. Use default values for all remaining fields:

- **Name:** Enter a descriptive name.
- **FQDN or IP Address:** Enter the FQDN or IP address of the SIP Entity that is used for SIP signaling.
- **Type:** Select ***Session Manager*** for Session Manager.
- **Adaptation:** This field is only present if **Type** is not set to **Session Manager** if Adaptations were to be created, here is where they would be applied to the entity.
- **Location:** Select the location that applies to the SIP Entity being created, defined in **Section 7.3**.
- **Time Zone:** Select the time zone for the location above.

The following screen shows the addition of the ***Session Manager*** SIP Entity for Session Manager. The IP address of the Session Manager Security Module is entered in the **FQDN or IP Address** field.



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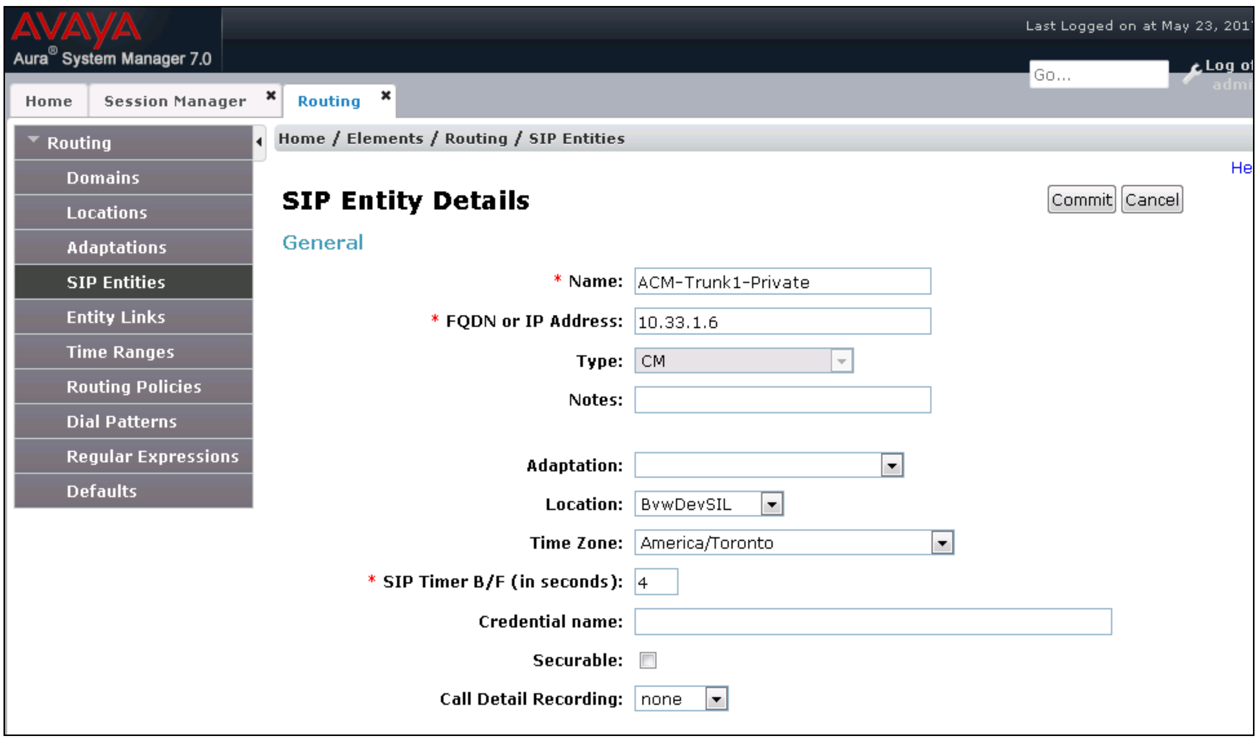
5.5.2. SIP Entity for Communication Manager

Select **Routing → SIP Entities** from the left pane, and click **New** in the subsequent screen (not shown) to add a new SIP entity for Communication Manager. Note that this SIP entity is used for integration with Trio Enterprise.

The **SIP Entity Details** screen is displayed. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Name:** A descriptive name.
- **FQDN or IP Address:** The IP address of an existing CLAN or the processor interface.
- **Type:** Select "CM" in the dropdown list.
- **Notes:** Any desired notes.
- **Location:** Select the applicable location for Communication Manager.
- **Time Zone:** Select the applicable time zone.



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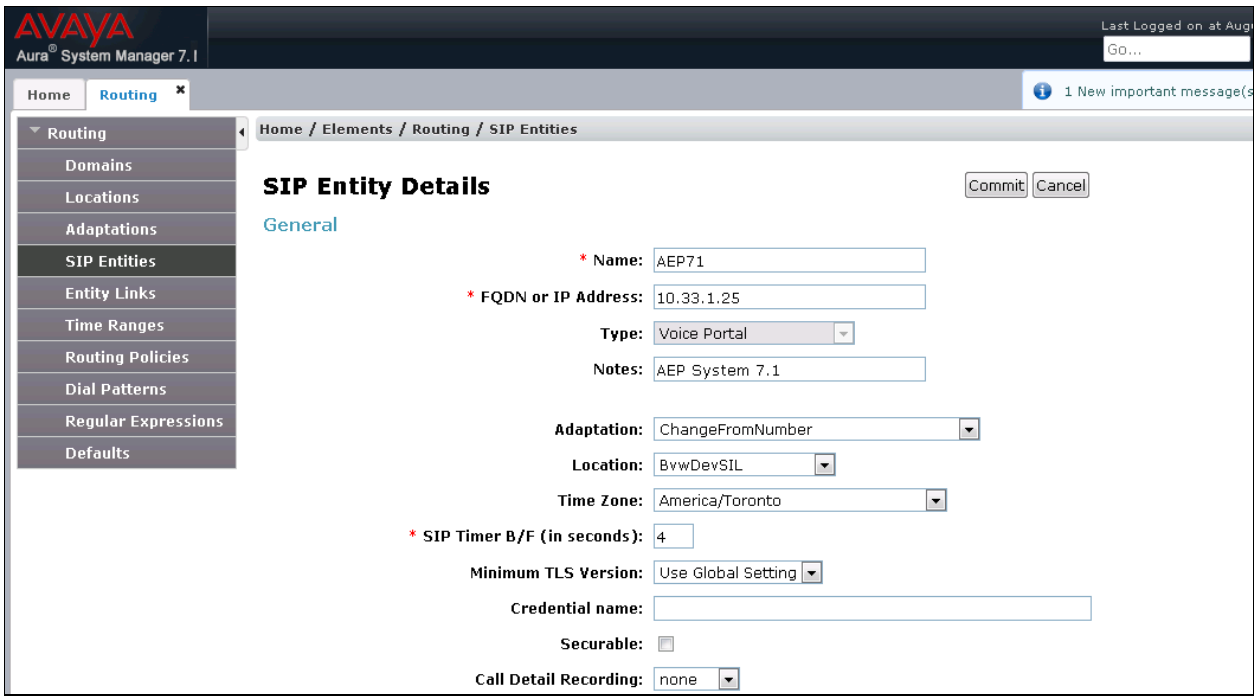
5.5.3. SIP Entity for Experience Portal

Select **Routing → SIP Entities** from the left pane, and click **New** in the subsequent screen (not shown) to add a new SIP entity for Experience Portal.

The **SIP Entity Details** screen is displayed. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Name:** A descriptive name.
- **FQDN or IP Address:** The IP address of the Experience Portal server.
- **Type:** Select "Voice Portal" in the dropdown list.
- **Notes:** Any desired notes.
- **Adaptation:** Select the adaptation configured in **Section 6.4**
- **Location:** Select the applicable location from **Section 6.3**.
- **Time Zone:** Select the applicable time zone.



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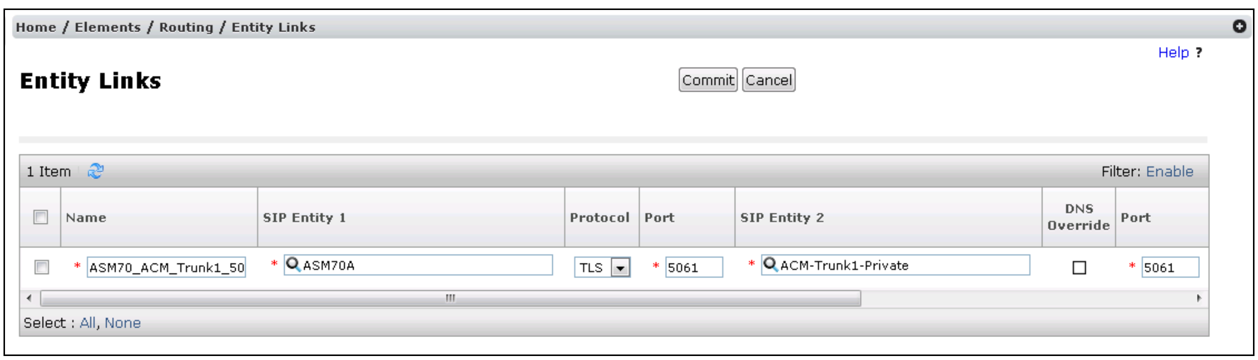
5.6. Administer Entity Links

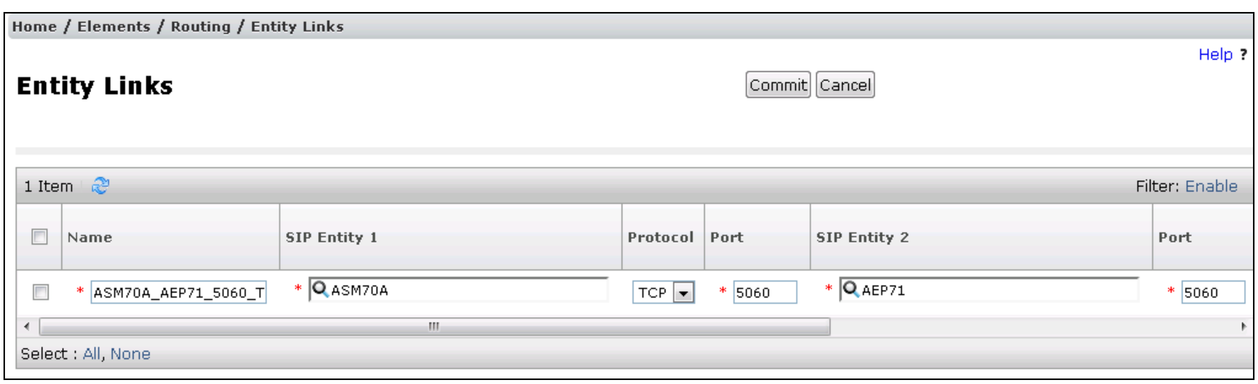
A SIP trunk between Session Manager and a telephony system is described by an Entity Link. Two Entity Links were created; one to the Communication Manager and one to Trio Enterprise. To add an Entity Link, select to **Routing → Entity Links** in the left navigation pane and click on the **New** button in the right pane (not shown). Fill in the following fields in the new row that is displayed:

- **Name:** Enter a descriptive name.
- **SIP Entity 1:** Select the Session Manager from the drop-down menu.
- **Protocol:** Select applicable transport protocol.
- **Port:** Port number on which Session Manager will receive SIP requests from the far-end.
- **SIP Entity 2:** Select the name of the other systems from the drop-down menu.
- **Port:** Port number on which the other system receives SIP requests from Session Manager.
- **Connection Policy:** Select **Trusted** to allow calls from the associated SIP Entity.

The screens below show the Entity Link to Communication Manager and Experience Portal. During the compliance test, **TLS** transport with port **5061** was used between Session Manager and Communication Manager.



The Entity Link to Experience Portal is shown below; **TCP** transport and port **5060** were used.



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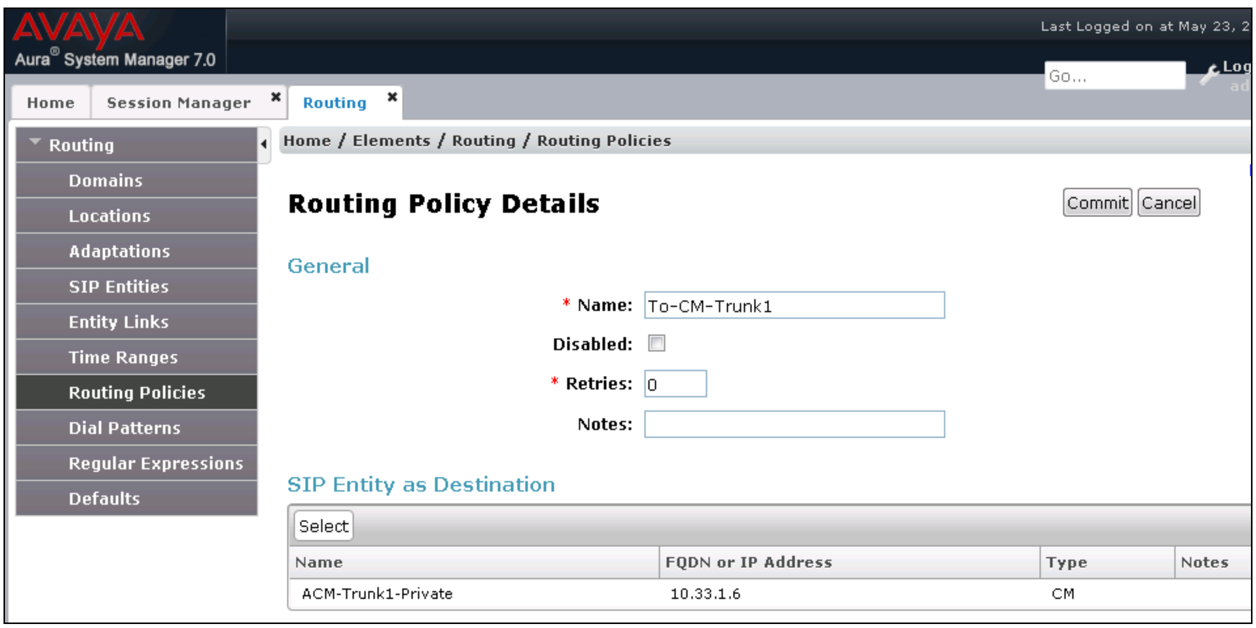
5.7. Administer Routing Policies

Routing policies describe the conditions under which calls will be routed to the SIP Entities specified in **Section 7.5**. Two routing policies were added: an incoming policy with Communication Manager as the destination, and an incoming policy to Experience Portal. To add a routing policy, select to **Routing → Routing Policies** in the left navigation pane and click on the **New** button in the right pane (not shown). The following screen is displayed:

- In the **General** section, enter a descriptive **Name** and add a brief description under **Notes** (optional).
- In the **SIP Entity as Destination** section, click **Select**. The **SIP Entity List** page opens (not shown). Choose the appropriate SIP entity to which this routing policy applies (**Section 6.5**) and click **Select**. The selected SIP Entity displays on the **Routing Policy Details** page as shown below.
- Use default values for remaining fields.
- Click **Commit** to save.

The following screens show the Routing Policy for Communication Manager.



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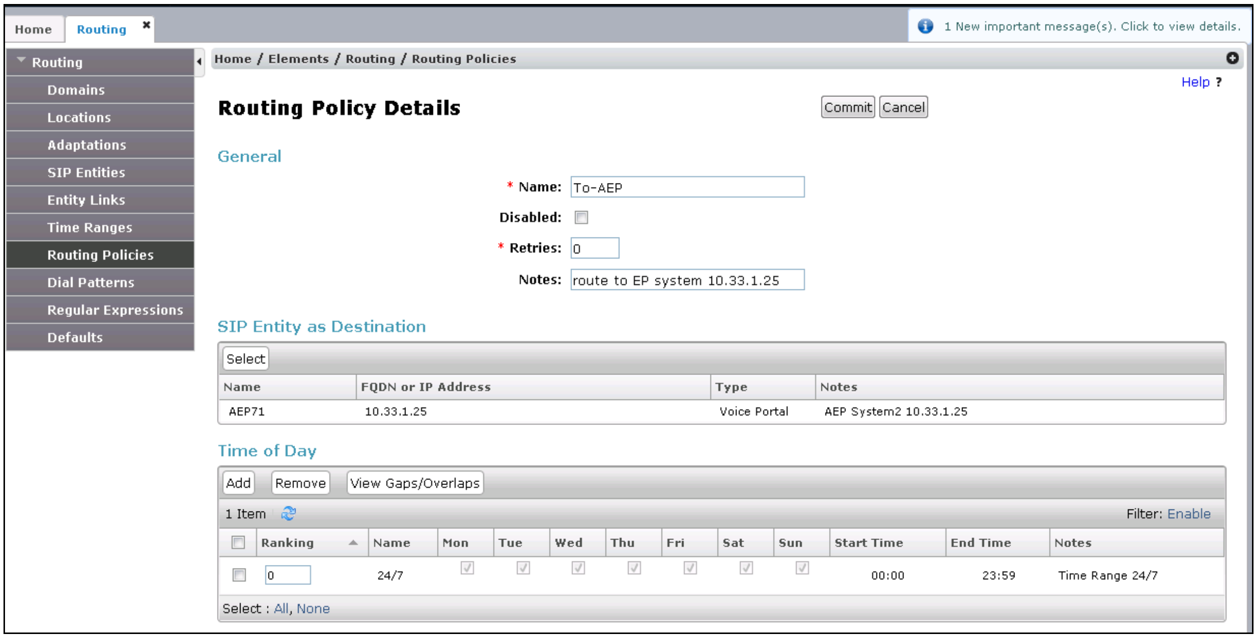
The following screens show the Routing Policy for Experience Portal.



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5.8. Administer Dial Patterns

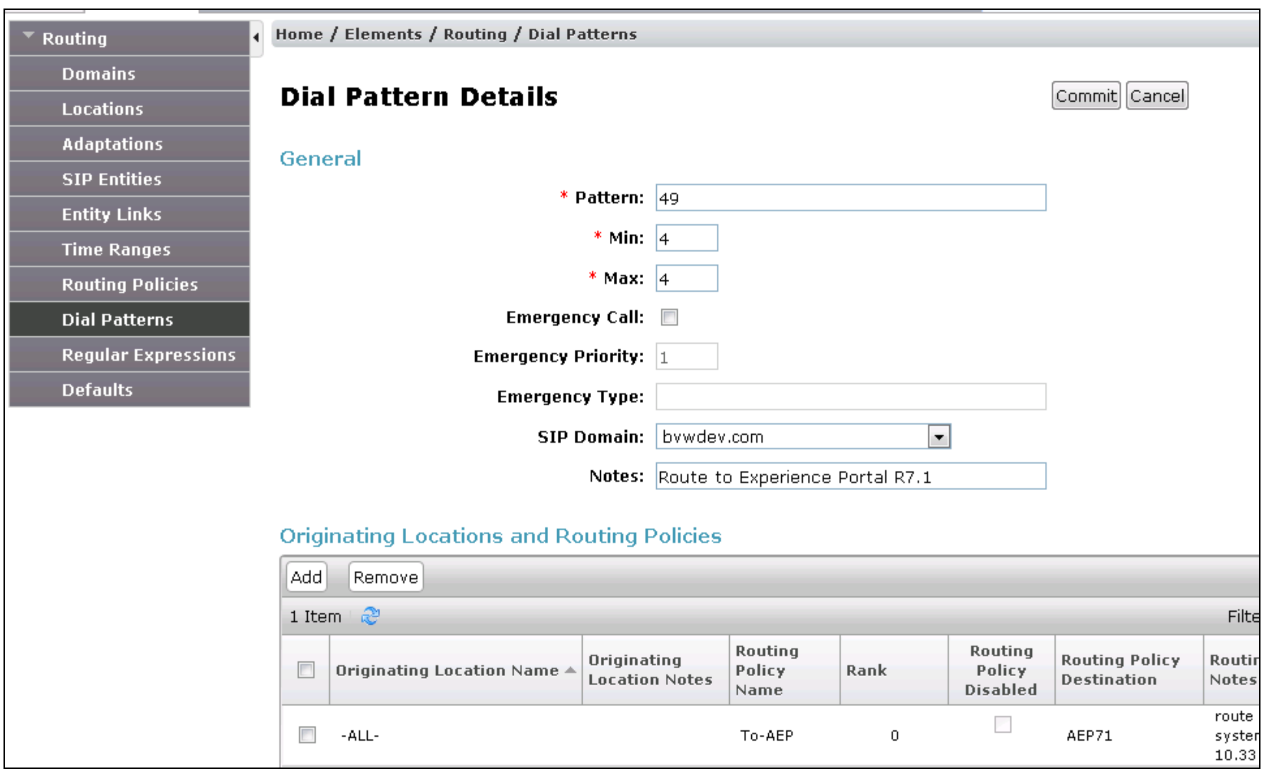
Dial Patterns are needed to route specific calls through Session Manager. For the compliance test, dial patterns were needed to route calls from Communication Manager to Experience Portal and vice versa. Dial Patterns define which route policy will be selected for a particular call based on the dialed digits, destination domain and originating location.

5.8.1. Dial Pattern for Experience Portal

Select **Routing → Dial Patterns** from the left pane, and click **New** in the subsequent screen (not shown) to add a new dial pattern to reach Experience Portal. The **Dial Pattern Details** screen is displayed. In the **General** sub-section, enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Pattern:** A dial pattern to match, in this case "49".
- **Min:** The minimum number of digits to match.
- **Max:** The maximum number of digits to match.
- **SIP Domain:** The domain name from **Section 6.2**.

In the **Originating Locations and Routing Policies** sub-section, click **Add** and create an entry for reaching Experience Portal. In the compliance testing, the entry allowed for all call originations in the location "ALL". The Experience Portal routing policy from **Section 6.5.3** was selected as shown below.



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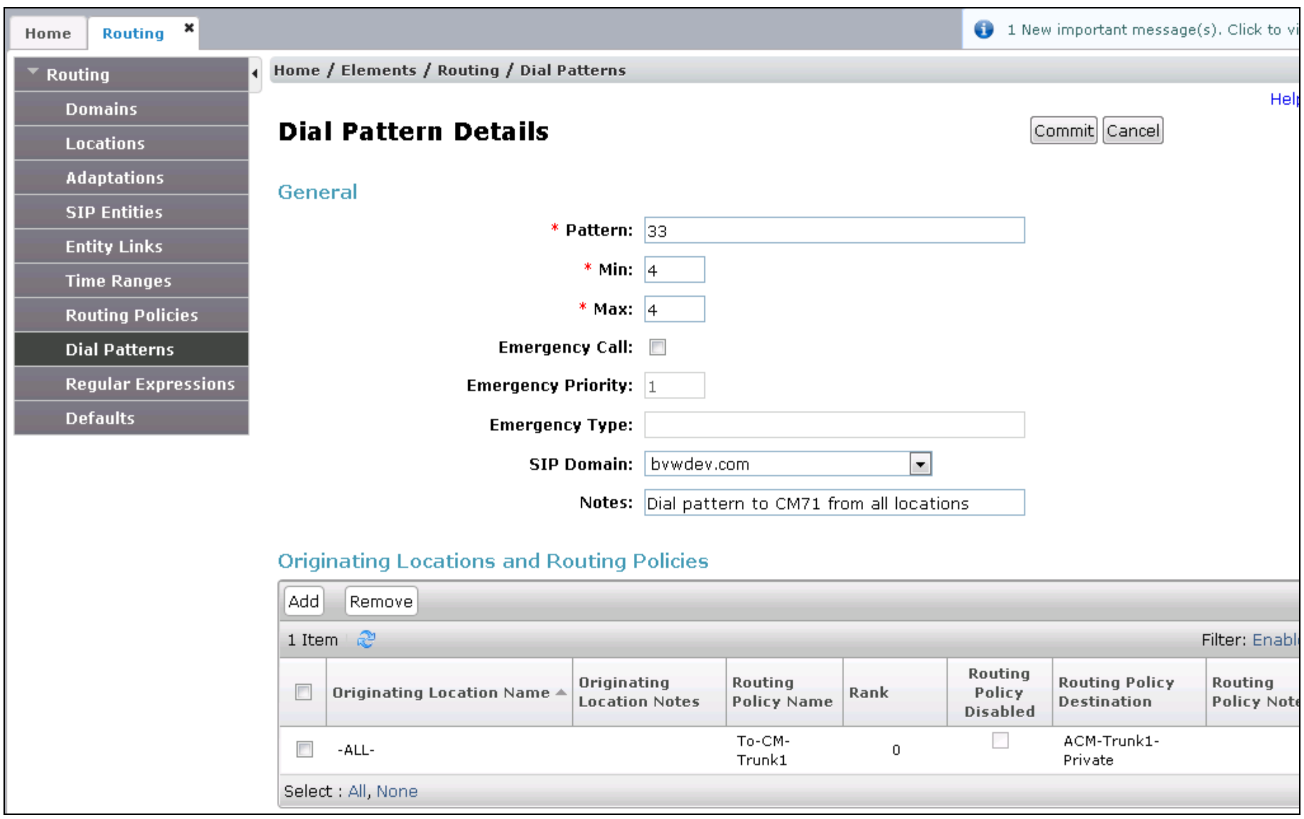
5.8.2. Dial Pattern for Communication Manager

Select **Routing → Dial Patterns** from the left pane, and click **New** in the subsequent screen (not shown) to add a new dial pattern to reach Communication Manager. The **Dial Pattern Details** screen is displayed. In the **General** sub-section, enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Pattern:** A dial pattern to match, in this case "33".
- **Min:** The minimum number of digits to match.
- **Max:** The maximum number of digits to match.
- **SIP Domain:** The domain name from **Section 6.2**.

In the **Originating Locations and Routing Policies** sub-section, click **Add** and create an entry for reaching Communication Manager. In the compliance testing, the entry allowed for all originating locations "ALL". The Communication Manager routing policy from **Section 6.5.2** was selected as shown below.



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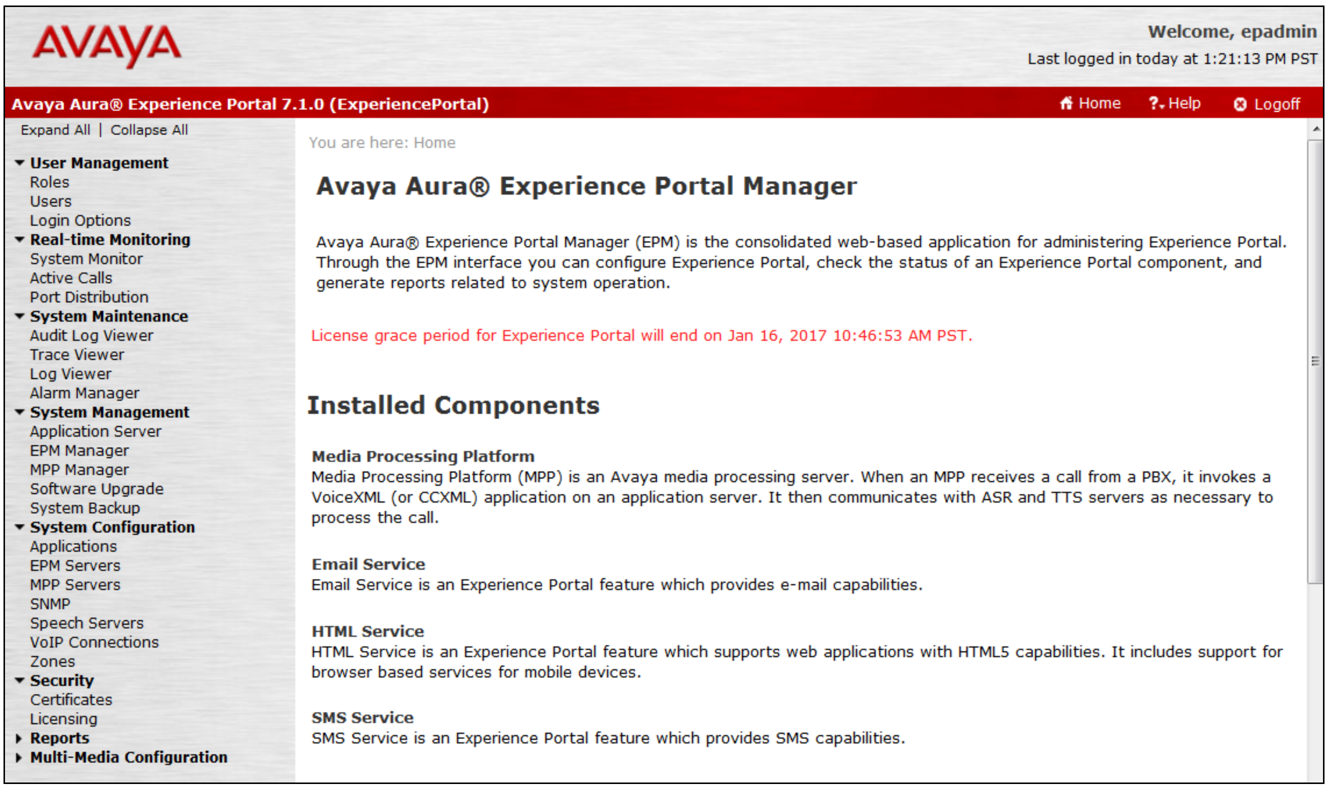
6. Configure Avaya Aura® Experience Portal

Avaya Aura® Experience Portal is configured via the Experience Portal Manager (EPM) web interface, to access the web interface, enter **http://<*ip-addr*>/** as the URL in a web browser, where <*ip-addr*> is the IP address of the EPM. Log in using the appropriate credentials.

Note: Some of the screens in this section are shown after the Experience Portal had been configured. Don't forget to save the screen parameters as you configure Avaya Aura® Experience Portal.



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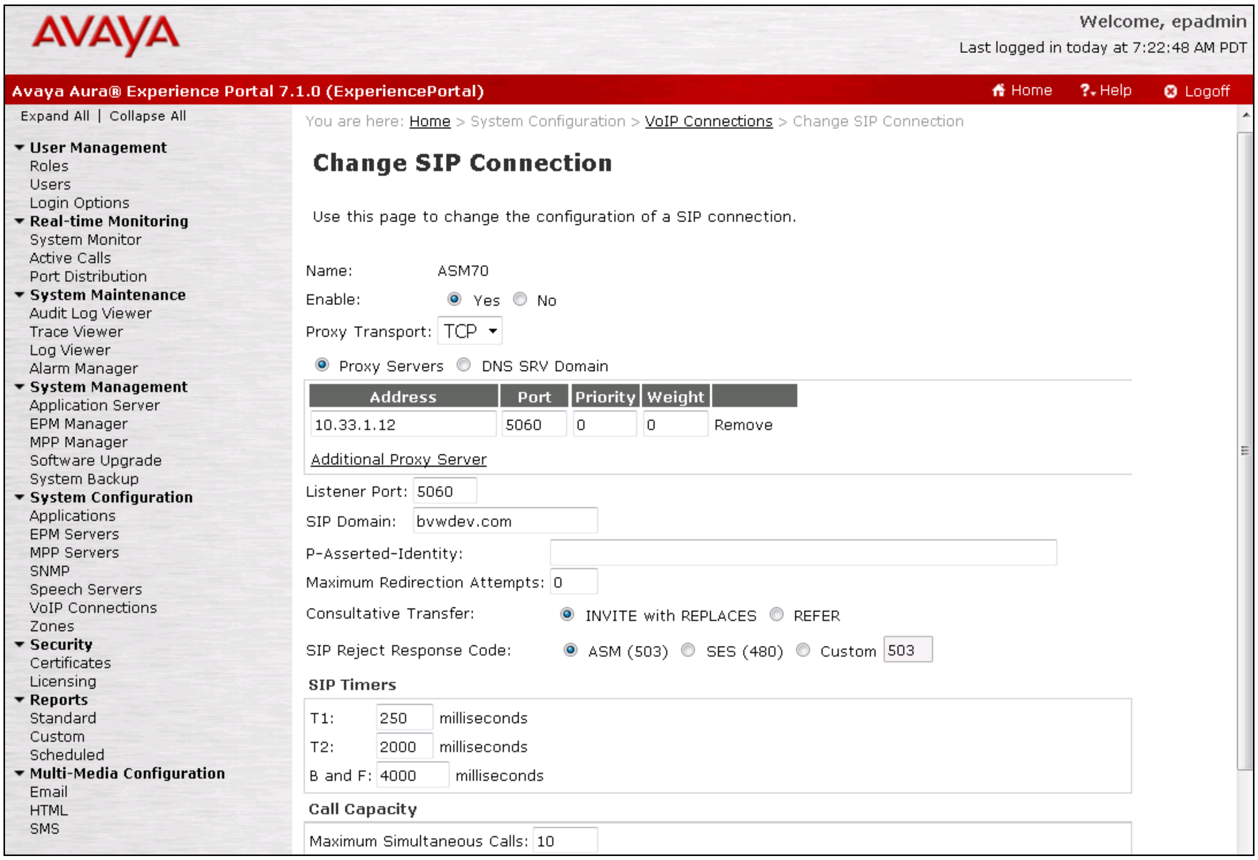
6.1. Administer VoIP Connection

On the left pane, click on the VoIP Connections under System Configuration (not shown). To add a **SIP Connection**, click on **SIP** tab on **VoIP Connections** page (not shown). Fill in **Name**, in the **Address** and **Port** boxes, select “TCP” in the **Proxy Transport** dropdown menu, fill the SM signaling IP address and Port of the SIP Proxy used for call transport, in this case Avaya Aura® Session Manager was used, in **SIP Domain,** fill in the domain and set the **Maximum Simultaneous Calls**. All other values can be left as **Default**. Click **Save** to save changes.



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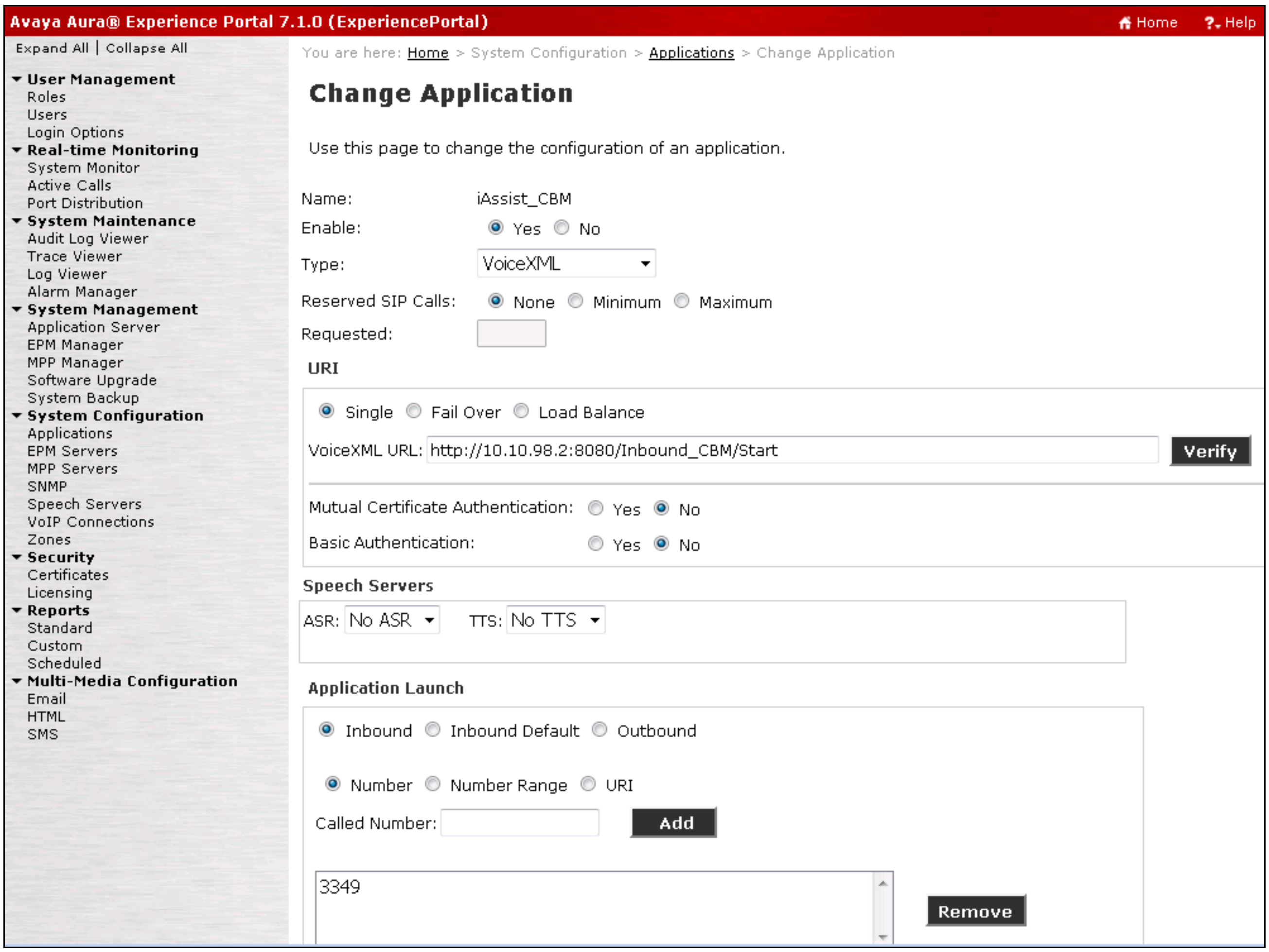
6.2. Configure iAssist CBM Applications

Two applications are configured in Avaya Aura® Experience Portal, one to handle inbound calls that are queued to the agent split and the second one to handle the call back request (i.e., outbound calls to agent and caller).

6.2.1. Configure the Inbound CBM Application

In the **Applications** page, add an Experience Portal application to handle incoming calls that are queued to the agent split. This application will provide the caller the option to either continue waiting in the agent queue or to request a call back. Configure the application as shown below.



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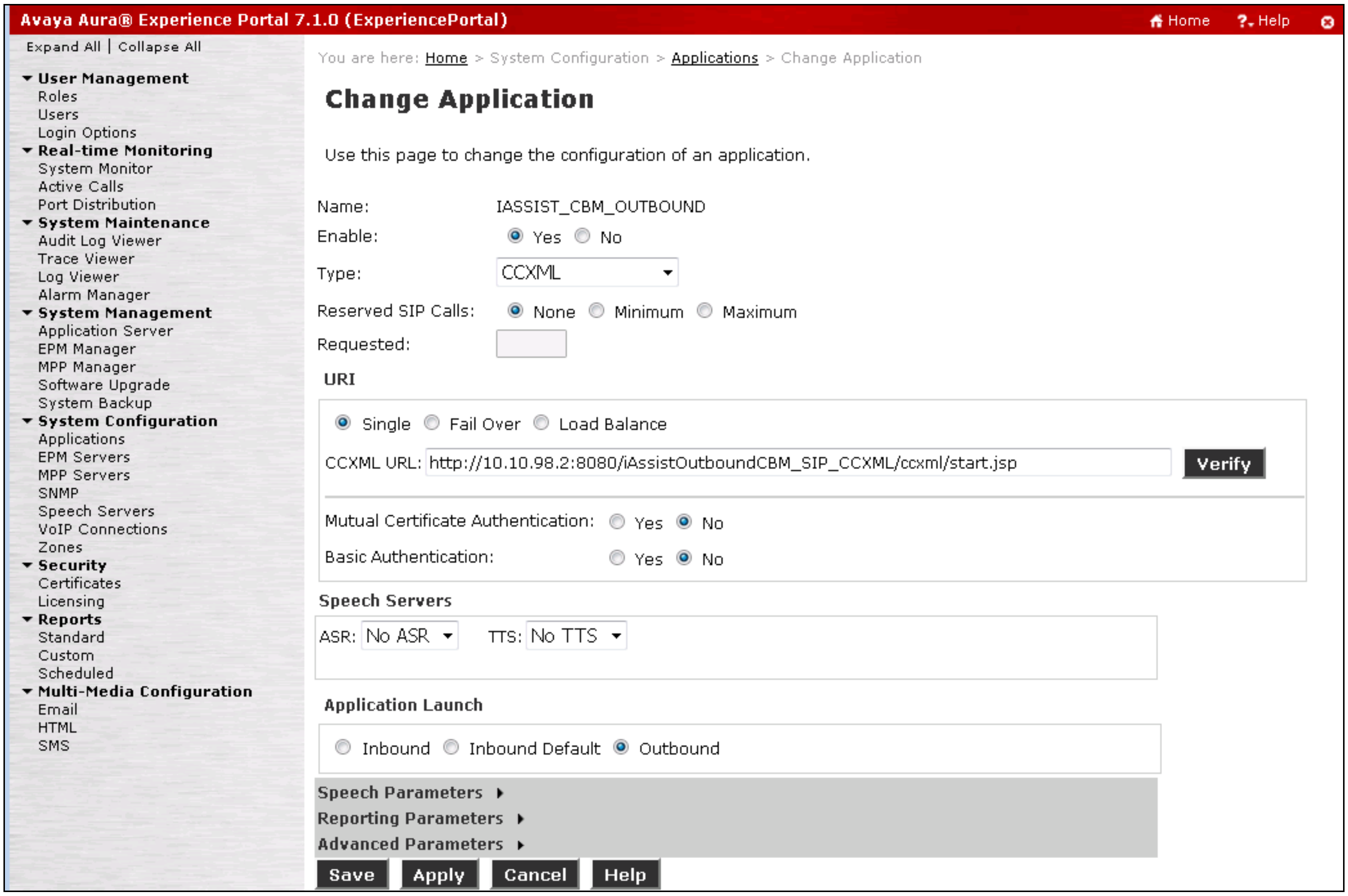
6.2.2. Configure the Outbound CBM Application

In the **Applications** page, add another Experience Portal application to handle the outbound calls to the agent and caller. Configure the application as shown below.



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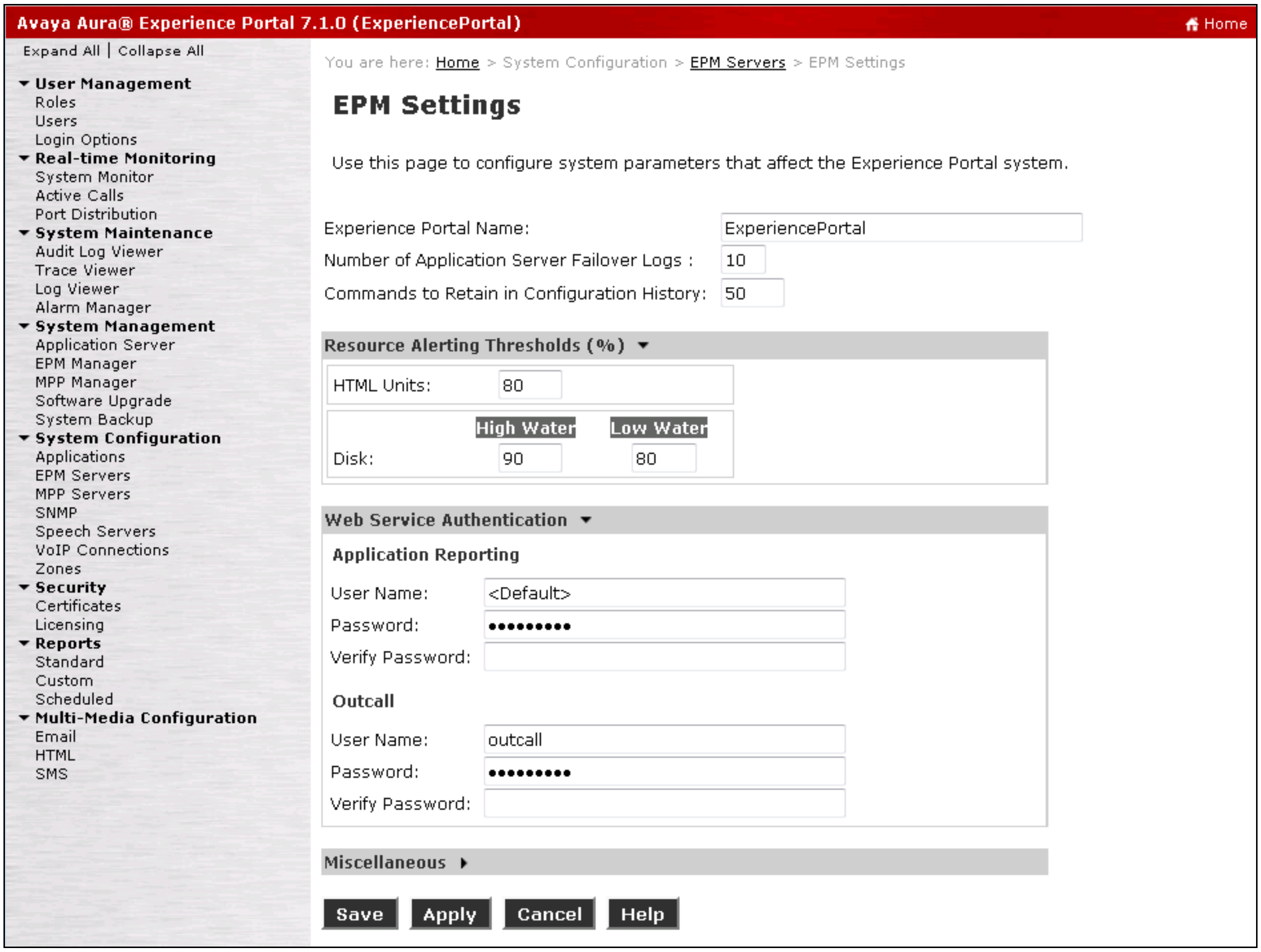
6.3. Configure the Outcall Authentication

Configure the Outcall User Name and Password that will be sent by iAssist CBM. Click on **EPM Servers** in the left pane, in the resulting page, click on **EPM Settings** to display the page below. Under the **Outcall** section, configure the **User Name** and **Password** used by iAssist CBM when it makes an outcall request to Experience Portal.



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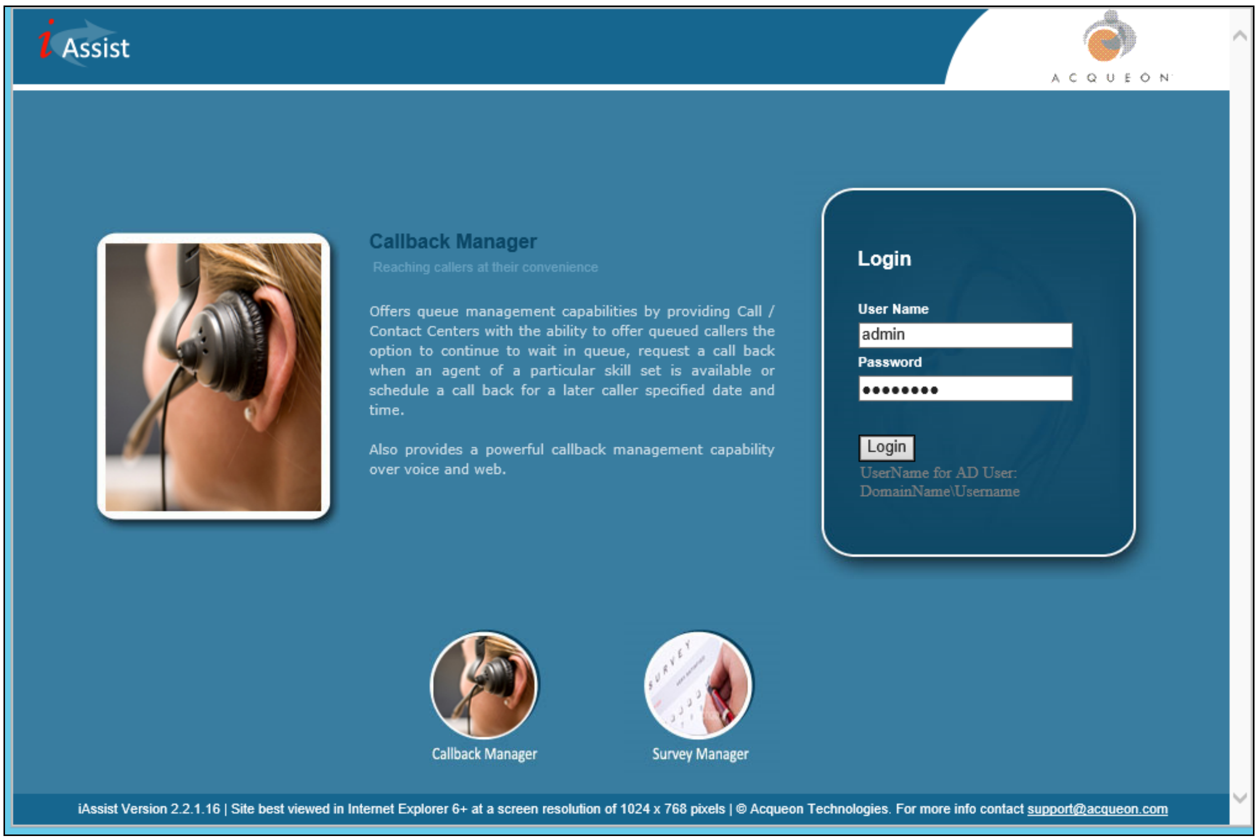
7. Configure Acqueon iAssist Call Back Manager

The configuration of iAssist Callback Manager system is done by Acqueon engineer and is outside of the scope of these Application Notes. This section covers the information on how to use the iAssist Admin application to administer the Callback Manager (CBM).

7.1. Steps to configure the Business Group

Type the URL: http://10.10.98.2/iAssist to login into the admin page followed by the User Name and the Password.

Note: The current version of iAssist Callback Manager only supports Microsoft Internet Explorer. The default Username is admin and the password is admin123.



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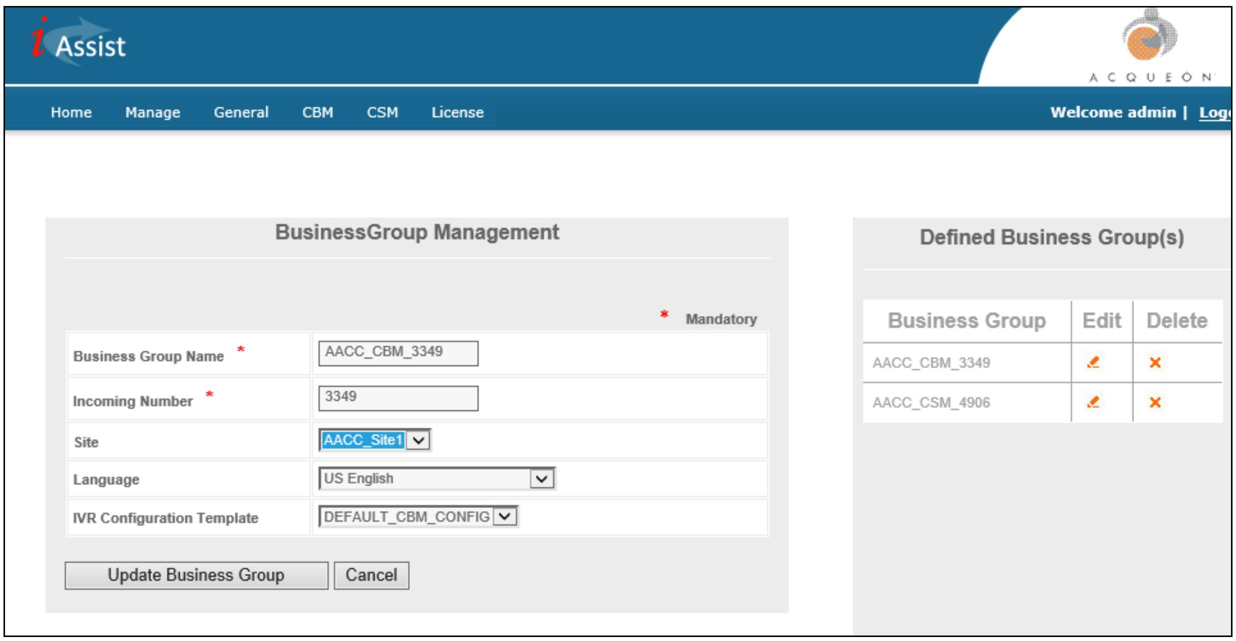
7.2. Configure the business group

Business Group refers to the type of business the application caters. Each business group will have a language and a unique number where the call will be routed to so that the application can identify the caller.

Business Group Management enables configuration and management of a business group. Use the Business Group option under the General tab to add, modify or delete a business group.

- Enter a valid Business Group Name.
- Set the Incoming Number to the number that routes calls to EP (e.g., 3349).
- Select a Site to from the dropdown menu to associate the business group to a site.
- Select the appropriate Language.
- Select the required IVR Configuration Template.



7.3. Configuring Business Group

From the menu, select the **CBM → Business Group Configuration** tab. Click the **Edit** icon of the desired business group to edit the Defined Business Group(s) displayed in the right pane. The Business Group Name will be populated automatically.

- Enter the Outgoing Number (VDN number configured to reach the available agent who is configured/ logged into a particular skill).
- Select the High Priority Queue check box, if required. If there is a separate high priority queue created to handle outbound callback requests, select the High Priority Queue checkbox.
- Provide the High Priority Queue VDN Number.

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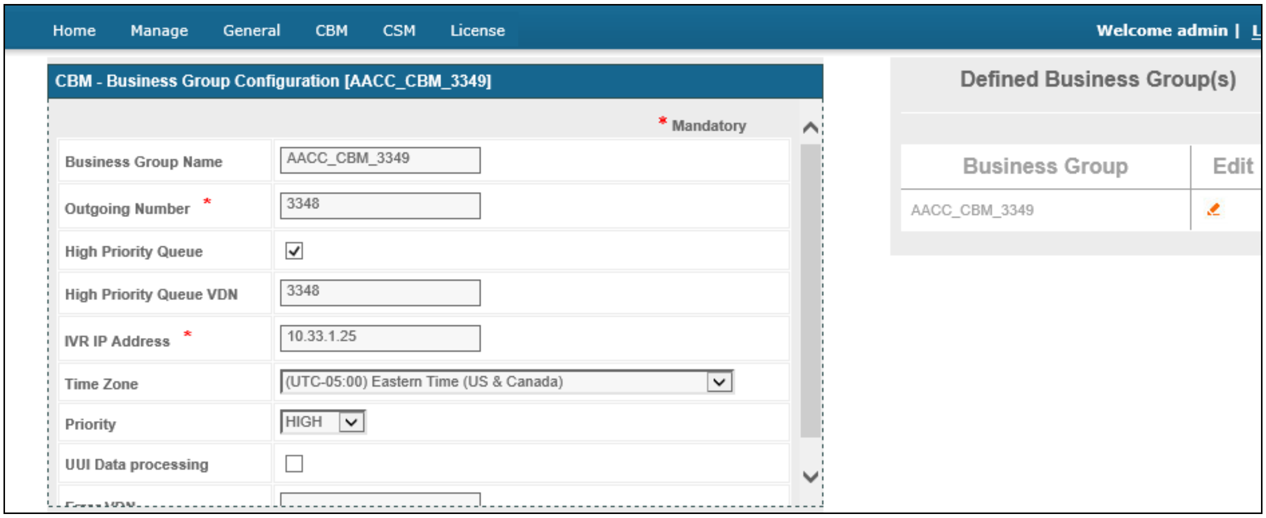
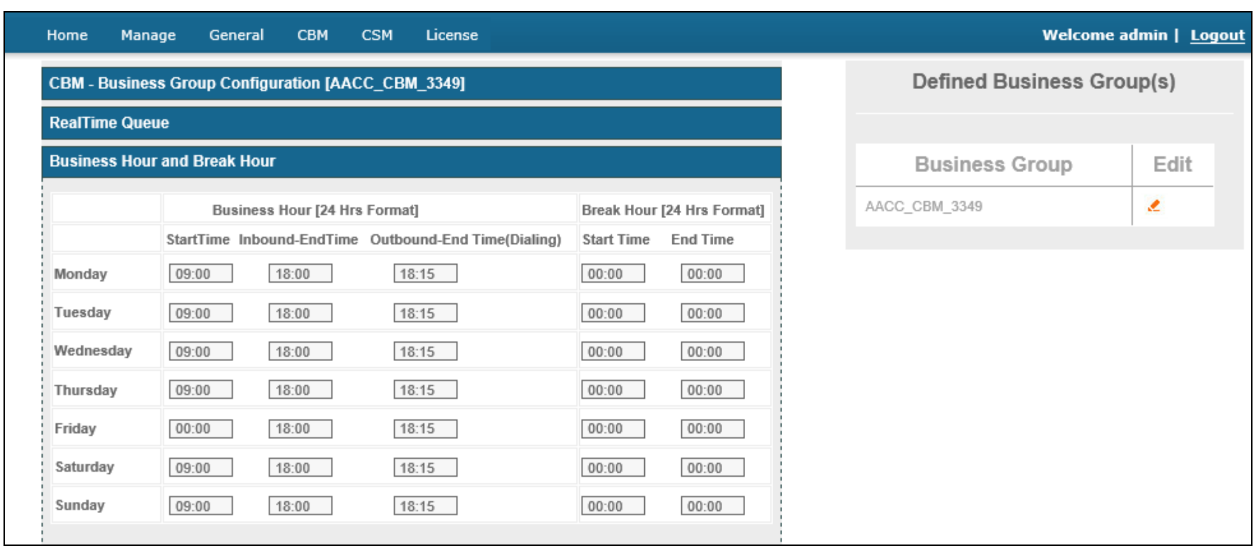
- IVR IP Address [Voice Portal Management System's (VPMS) IP that has been used for dialing the agent and/ or customer].
- Time Zone (Time zone of system in which iAssist application is deployed).
- Priority can be set as High, Medium, or Low. (Priority that needs to be set for the particular business group. If calls from many business groups are scheduled for the same time, then they will be dialed out based on the Business Group Priority set here).



7.4. Business Hours and Break Hours

Business hours and break hours have to be configured in the **Business Hours and Break Hours** tab. It should be entered in the 24-hour format, the break hour is an interval within the business hours, for example, lunch break. Callback request options will be offered to the callers based on the business hours and will not be allowed outside of this schedule. Business hours and break hours should be configured for each day of the week separately as shown.



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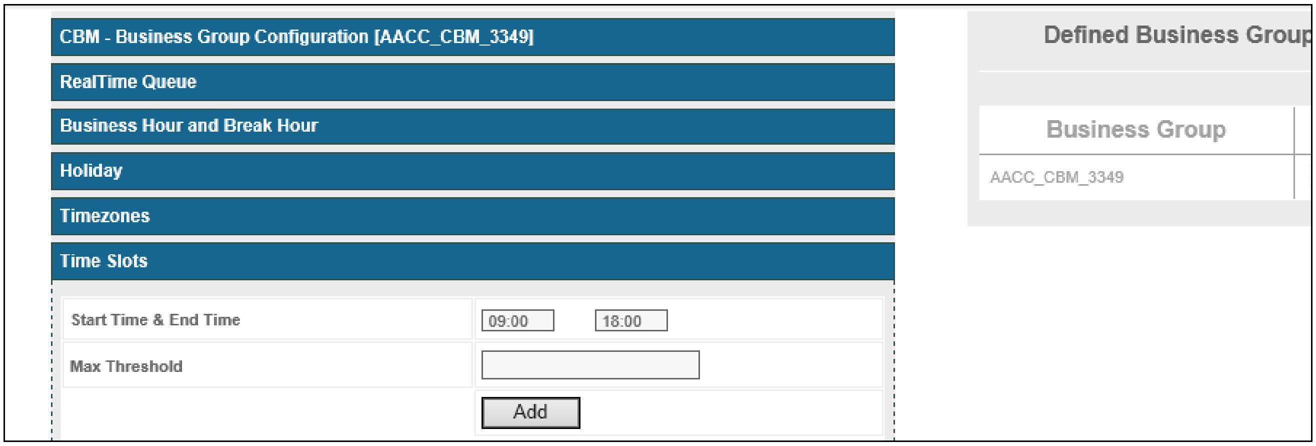
7.5. Time Slots

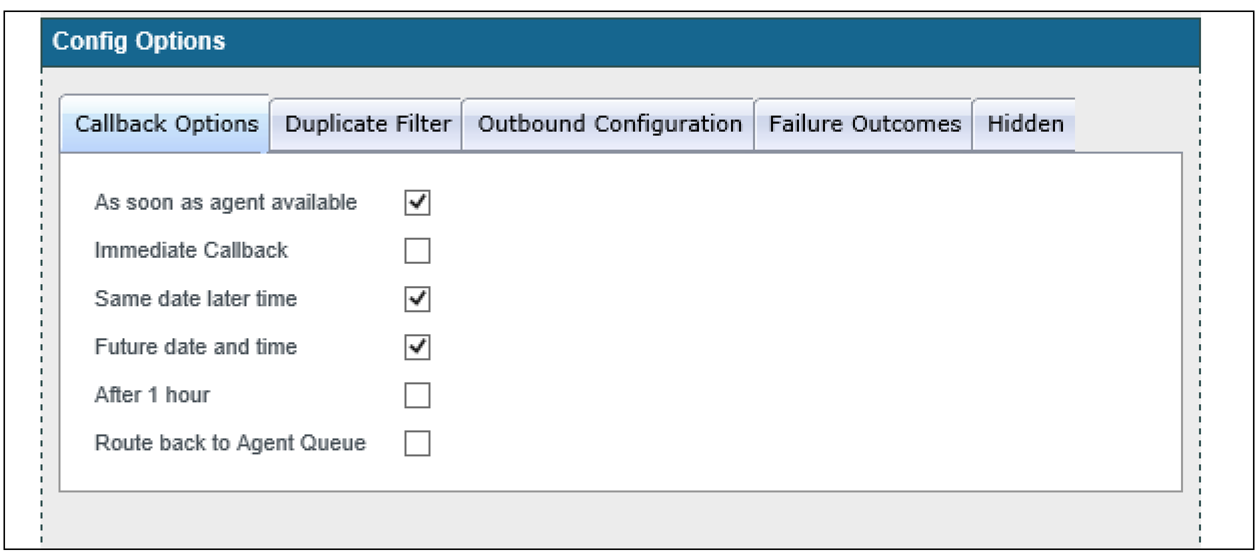
Time Slot is a defined interval, or slot of time that is offered to callers to choose the call back time. If this is configured, the Inbound CBM will offer the caller the list of configured time slots and the caller can choose one. If this is not configured, the caller will be prompted to enter a time to receive the call back. Timeslots will be played to the caller for the callback options (S- same date and later time and F- Future date and time), if configured.



7.6. Config Options

In Config Options, the **Callback Options** tab allows setting of the various options to be offered to the caller to log a callback request and receive a callback. These options will be dynamically offered based on the settings like Business Hours and Holidays, which are configured.

- As soon as agent available
- Same date later time
- Future date and time



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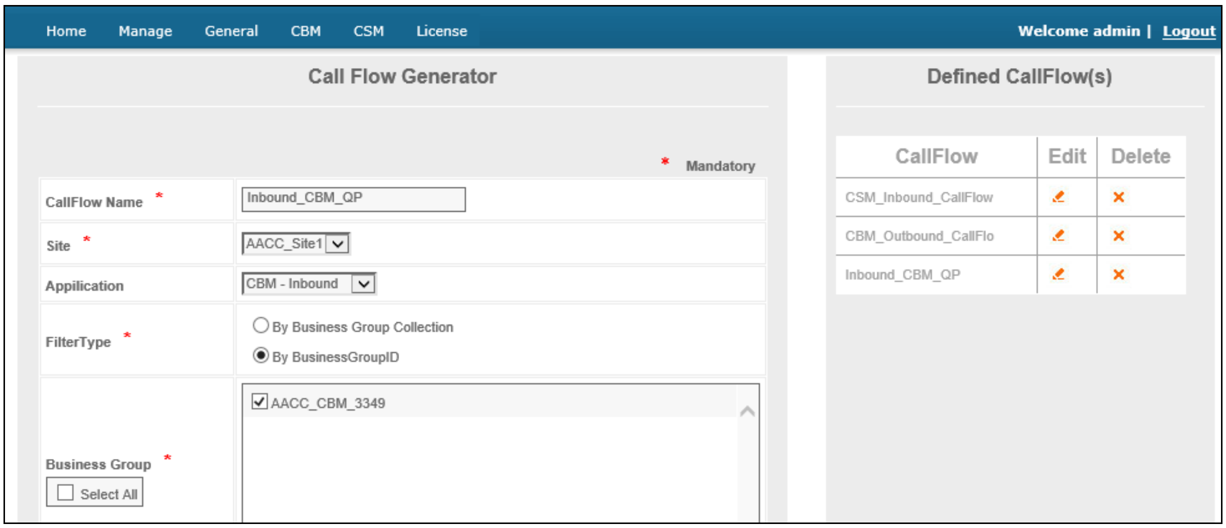
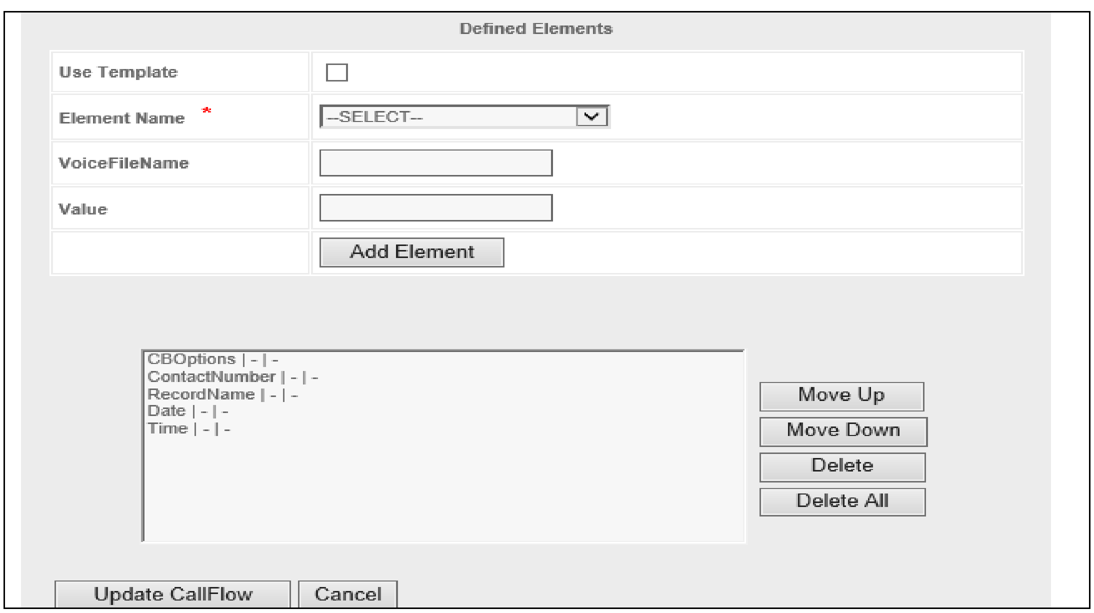
7.7. Call Flow Generator

From the menu, select General → **CallFlow Generator**. Under this section, call flows can be generated for a business group or business group collection.

- Specify a Call Flow Name.
- Select the required Site.
- Select the desired application from the drop down list in the Application field.
- Select the Filter Type.
- Select a Business Group.



In the **Defined Elements** section, select the **Element Name** and click on the **Add Element** button to be displayed below.



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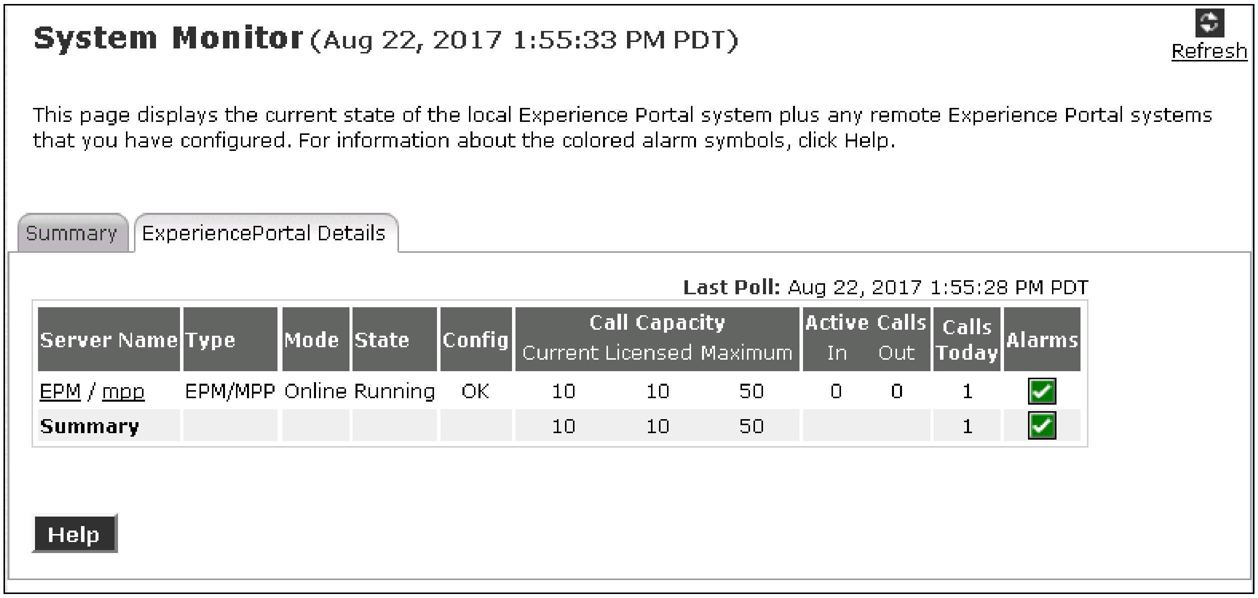
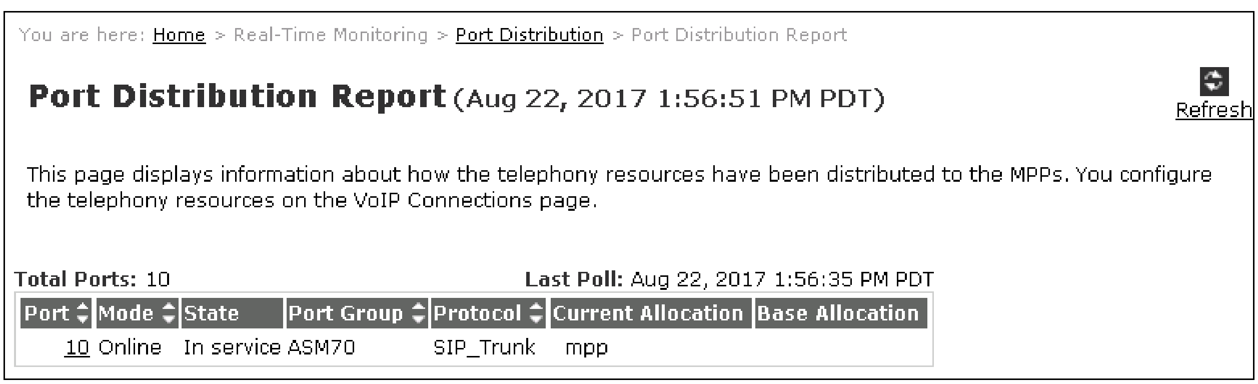
8. Verification Steps

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

1. From the EPM web interface, verify that the MPP server is 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. Log out all agents from the skillset or put them in Not Ready status, place calls to the VDN that handles incoming contact center calls and queues them to the agent skillset so that the expected wait time exceeds the threshold configured in the vector. The caller will be prompted to enter an option for call back.

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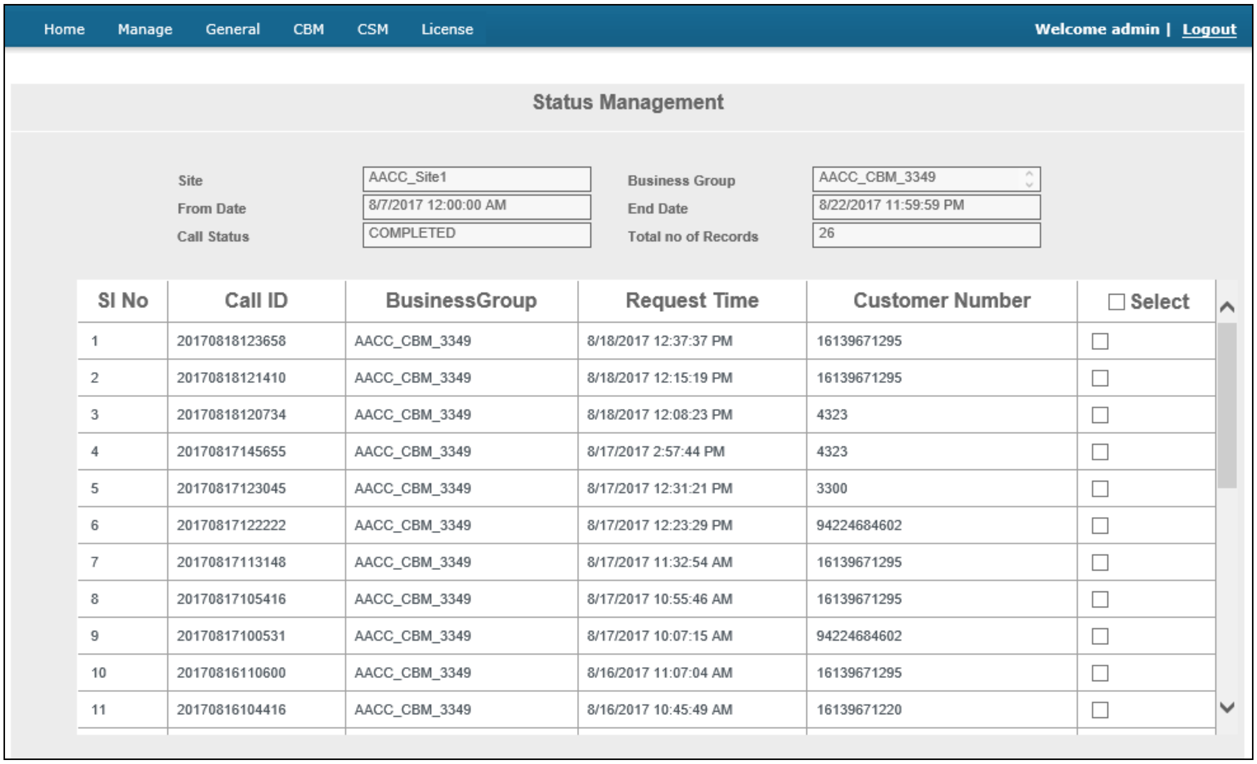
4. As soon as the caller selects the option for agent call back, the caller will be routed to iAssist Callback Manager application in Experience Portal. From there, the caller will enter the information when they want to receive a call back.
5. To check the status of callback, select **General → Status Management**, in the Call Status field (not shown) select a status to display, e.g. "Pending", "Completed", or "Failed". The screenshot below shows the "Completed" call back.



Sl No	Call ID	BusinessGroup	Request Time	Customer Number	Select
1	20170818123658	AACC_CBM_3349	8/18/2017 12:37:37 PM	16139671295	
2	20170818121410	AACC_CBM_3349	8/18/2017 12:15:19 PM	16139671295	
3	20170818120734	AACC_CBM_3349	8/18/2017 12:08:23 PM	4323	
4	20170817145655	AACC_CBM_3349	8/17/2017 2:57:44 PM	4323	
5	20170817123045	AACC_CBM_3349	8/17/2017 12:31:21 PM	3300	
6	20170817122222	AACC_CBM_3349	8/17/2017 12:23:29 PM	94224684602	
7	20170817113148	AACC_CBM_3349	8/17/2017 11:32:54 AM	16139671295	
8	20170817105416	AACC_CBM_3349	8/17/2017 10:55:46 AM	16139671295	
9	20170817100531	AACC_CBM_3349	8/17/2017 10:07:15 AM	94224684602	
10	20170816110600	AACC_CBM_3349	8/16/2017 11:07:04 AM	16139671295	
11	20170816104416	AACC_CBM_3349	8/16/2017 10:45:49 AM	16139671220	

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9. Conclusion

These Application Notes describe the configuration steps required to integrate the Acqueon iAssist Call Back Manager application with Avaya Aura® Experience Portal. All feature and serviceability test cases were completed successfully refer to **Section 2.2** for details.

10. Additional References

This section references the Avaya documentation relevant to these Application Notes. The following Avaya product documentation is available at http://support.avaya.com.

[1] Administering Avaya Aura® Communication Manager, Release 7.0.3, Document 03-300509, Issue 10, June 2016

[2] Administering Avaya Aura® Session Manager, Release 7.0, Issue 7, Jan 2016

[3] Administering Avaya Aura® Experience Portal, Release 7.0.1, April 2015

Product Documentation for Acqueon iAssist Callback Manager can be obtained at http://www.acqueon.com/avaya-products/iassist-for-avaya-aura-experience-portal/

[4] iAssist CBM 2.0 Admin Guide

[5] iAssist CBM 2.0 IVR Installation Guide

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