Avaya Solution & Interoperability Test Lab

Application Notes for IgeaCare apoloDS and miALERT with Avaya Aura® Communication Manager – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the IgeaCare apoloDS and miALERT with Avaya Aura® Communication Manager. The IgeaCare apoloDS used the analog user interface from Avaya Aura® Communication Manager to transfer resident calls from miALERT to the nurse staff, and used the Avaya PUSH API to push text to nurses with Avaya 4610SW IP Telephones.

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 the IgeaCare apoloDS and miALERT with Avaya Aura® Communication Manager. The IgeaCare apoloDS used the analog user interface from Avaya Aura® Communication Manager to transfer resident calls from miALERT to the nurse staff, and used the Avaya PUSH API to push text to nurses with Avaya 4610SW IP Telephones.

In the compliance testing, apoloDS used an analog card to connect to Communication Manager. The analog ports were configured as analog stations, which were members of an apoloDS hunt group. In the testing, the first two analog ports on apoloDS were pre-configured to integrate with miALERT.

miALERT is essentially an analog speaker telephone that can be activated by resident users via multiple call points to reach the nurse staff. Each miALERT is configured as an analog station on Communication Manager. When the resident activates miALERT via a call point to reach the nurse staff, miALERT originates a call to the apoloDS hunt group.

apoloDS answers the resident call from miALERT, and transfers the call to the notification points configured on apoloDS, which can be a coverage answer group consisting of nurse stations on Communication Manager. Upon connection with a nurse, apoloDS can use the text-to-speech capability to playback the information received from the DTMF outpulsed from miALERT which includes resident extension and call point type. apoloDS can also push text to nurses with Avaya 4610SW and 4625SW IP Telephones.

2. General Test Approach and Test Results

All tests were performed manually.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing focused on verifying the ability of apoloDS to transfer resident calls from miALERT to the nurse staff. The verification included proper announcement playback (which included resident extension, patient name, and call point type), connected two-way talk paths, proper call termination, and proper call escalation. The feature testing also included verifying the text pushed to the notification point.

The serviceability testing focused on verifying the ability of apoloDS to recover from adverse conditions, such as disconnecting and reconnecting the analog line cable to the devices.

2.2. Test Results

All test cases were executed and passed. One observation that was noted was that the digit ‘0’ could not be used in the extension of miALERT.

2.3. Support

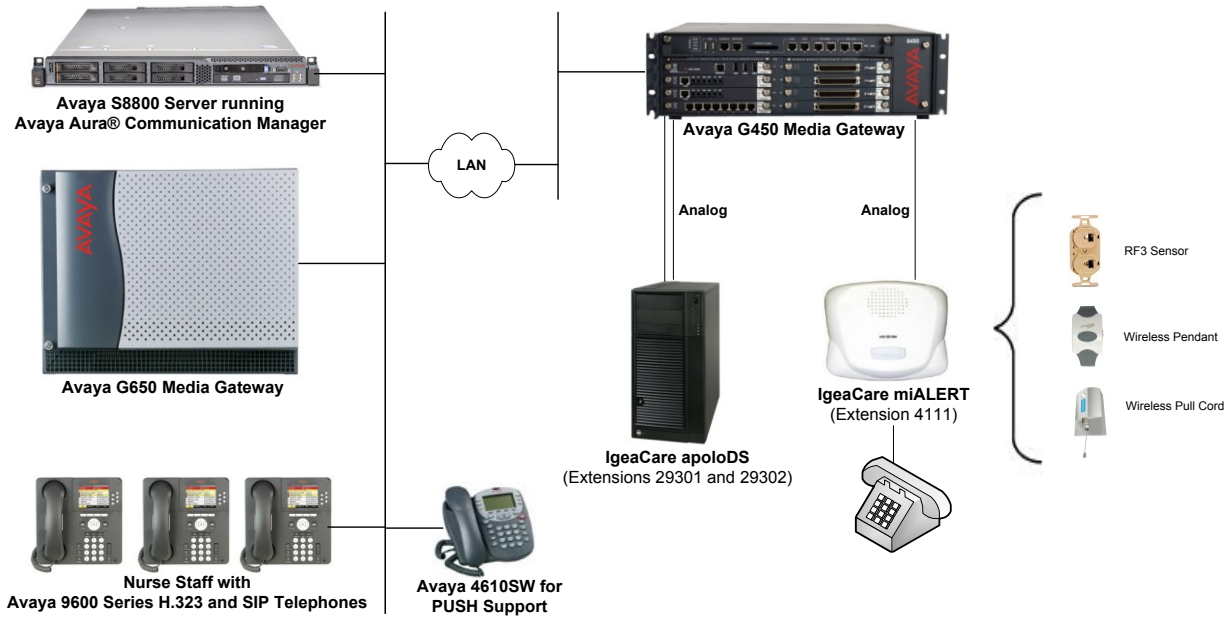
Technical support on IgeaCare apoloDS and miALERT can be obtained through the following:

- **Phone:** (866) 361-6225
- **Email:** support@igeacare.com

3. Reference Configuration

As shown in the test configuration below, the apoloDS solution with miALERT consists of the apoloDS server, which dispatches calls to the nurse staff, the miALERT emergency monitoring base unit, analog line connections to Avaya Aura® Communication Manager for the apoloDS and miALERT, and a physical analog telephone connected to miALERT used for administration purposes during the compliance test.

miALERT supports four different types of call points, including emergency button, wireless pendant, wireless pull cord, and RF3 sensor. The S8800 Server running Avaya Aura® Communication Manager managed a G650 and G450 Media Gateway. apoloDS and miALERT used analog ports on the G450 Media Gateway for connectivity. The nurse staff was equipped with Avaya 9600 series SIP and H.323 stations and Avaya 3631 Wireless Phone (not shown). The Avaya 4610SW phone was used for PUSH support.



4. Equipment and Software Validated

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

Hardware Component	Version
Avaya S8800 Servers and G650 and G450 Media Gateways	Avaya Aura® Communication Manager 6.0.1 SP 3
Avaya 9600 Series IP Telephones	3.101 (H.323) 2.6.4 (SIP)
Avaya 4610SW IP Telephone	2.83 (H.323)
IgeaCare apoloDS on Windows Vista Business	3.10 – 1006744 2007
IgeaCare miALERT	3.0

5. Configure Avaya Aura® Communication Manager

This section provides the procedures for configuring Communication Manager. The procedures fall into the following areas:

- Administer apoloDS stations
- Administer apoloDS Hunt Group
- Administer miALERT station
- Administer coverage answer groups for nurse staff
- Administer coverage paths for each coverage answer group
- Administer stations with coverage paths

Use the System Access Terminal (SAT) to configure Communication Manager and log in with the appropriate credentials.

5.1. Administer apoloDS Stations

Use the **add station** command to add stations for apoloDS. Use *2500* for the station **Type**, specify an analog port, and provide a descriptive name. Use the default values for the other fields. Two analog stations were used for apoloDS in this sample configuration. The station extensions were 23901 and 23902, which will be specified in the hunt group in the next section. The following figure shows station 23901. Repeat this configuration for station 23902.

```
add station 23901                                          Page   1 of   4
                                    STATION

Extension: 23901                        Lock Messages? n               BCC: 0
     Type: 2500                         Security Code:                  TN: 1
     Port: 001V202                    Coverage Path 1:                 COR: 1
     Name: apoloDS P1                 Coverage Path 2:                 COS: 1
                                      Hunt-to Station:               Tests? y

STATION OPTIONS
      XOIP Endpoint type: auto             Time of Day Lock Table:
              Loss Group: 1              Message Waiting Indicator: none
    Off Premises Station? n

          Survivable COR: internal
   Survivable Trunk Dest? y
                                                Remote Office Phone? n

Passive Signalling Station? n
```

5.2. Administer apoloDS Hunt Group

Use the **add hunt-group** command to add a hunt group containing the apoloDS stations. miALERT use the hunt group extension as the directory number to dial. When a resident uses a call point to contact the nurse staff, miALERT will dial the hunt group number to reach the apoloDS. In the hunt group, specify a descriptive **Group Name** and a **Group Extension**.

```
add hunt-group 100                                          Page   1 of  60
                                HUNT GROUP

           Group Number: 100                              ACD? n
             Group Name: Apolo DS                       Queue? n
        Group Extension: 29100                         Vector? n
             Group Type: ucd-mia                 Coverage Path:
                     TN: 1           Night Service Destination:
                    COR: 1                     MM Early Answer? n
          Security Code:                 Local Agent Preference? n
 ISDN/SIP Caller Display:
```

On Page 3 of the Hunt Group form, specify the apoloDS station extensions configured in the previous section.

```
add hunt-group 100                                          Page   3 of  60
                                HUNT GROUP
         Group Number: 100  Group Extension: 29100         Group Type: ucd-mia
  Member Range Allowed: 1 - 1500       Administered Members (min/max): 1   /2
                                           Total Administered Members: 2
GROUP MEMBER ASSIGNMENTS
      Ext           Name(19 characters)       Ext           Name(19 characters)
   1: 23901                                14:
   2: 23902                                15:
```

5.3. Administer miALERT Station

Use the **add station** command to add a station for miALERT. Use *2500* for the station **Type**, specify an analog port, and provide the room number in the **Name** field (e.g., *Room 4111*). The station name will be displayed on the nurse's telephone display. Use the default values for the other fields.

```
add station 4111                                            Page   1 of   4
                                   STATION

Extension: 4111                       Lock Messages? n              BCC: 0
     Type: 2500                       Security Code:                 TN: 1
     Port: 001V201                  Coverage Path 1:                COR: 1
     Name: Room 4111                Coverage Path 2:                COS: 1
                                    Hunt-to Station:              Tests? y
STATION OPTIONS
      XOIP Endpoint type: auto            Time of Day Lock Table:
               Loss Group: 1           Message Waiting Indicator: none
    Off Premises Station? n
          Survivable COR: internal
   Survivable Trunk Dest? y
                                              Remote Office Phone? n
Passive Signalling Station? n
```

5.4. Administer Nurse Coverage Answer Groups

For this solution, coverage answer groups were used to allow all nurses to receive the call simultaneously. An available nurse can then respond to the call. Two coverage answer groups were configured in order to create two escalation levels. If a nurse in the first answer group does not answer the call within a configured time interval, miALERT will place the call to the second coverage answer group.

Use the **add coverage answer-group** command to create an answer group comprised of nurse extensions. The following coverage answer group includes three nurse extensions, including an H.323, SIP, and 3631 wireless phone. When each of these phones received a call, the miALERT station name (or room number) was displayed.

```
add coverage answer-group 1                                    Page   1 of   1
                       COVERAGE ANSWER GROUP

                      Group Number: 1
                        Group Name: NURSE GROUP 1

GROUP MEMBER ASSIGNMENTS

    Extension       Name
 1: 77301           Nurse 77301
 2: 78005           Avaya 78005
 3: 71000           Wireless 71000
 4:
 5:
 6:
 7:
 8:
```

Below is the coverage answer group for the second escalation level.

```
add coverage answer-group 2                                    Page   1 of   1
                       COVERAGE ANSWER GROUP

                      Group Number: 2
                        Group Name: NURSE GROUP 2

GROUP MEMBER ASSIGNMENTS

    Extension       Name
 1: 77307           Head Nurse
 2: 77308           Asst Nurse
 3:
 4:
 5:
 6:
 7:
 8:
```

5.5. Administer Coverage Paths

This section covers two coverage paths corresponding to each coverage answer group configured in the previous section. The coverage answer groups, *c1* and *c2*, are specified in the **Point 1** field of each coverage path, respectively.

The following coverage path directs the call to coverage answer group 1.

```
add coverage path 1                                          Page   1 of   1
                               COVERAGE PATH

                  Coverage Path Number: 1
     Cvg Enabled for VDN Route-To Party? n        Hunt after Coverage? n
                       Next Path Number:          Linkage

COVERAGE CRITERIA
    Station/Group Status    Inside Call     Outside Call
             Active?            n              n
               Busy?            y              y
       Don't Answer?            y              y         Number of Rings: 2
                All?            n              n
 DND/SAC/Goto Cover?            y              y
   Holiday Coverage?            n              n


COVERAGE POINTS
    Terminate to Coverage Pts. with Bridged Appearances? n
  Point1: c1             Rng:    Point2:
  Point3:                        Point4:
  Point5:                        Point6:
```

The following coverage path directs the call to coverage answer group 2.

```
add coverage path 2                                          Page   1 of   1
                               COVERAGE PATH

                  Coverage Path Number: 2
     Cvg Enabled for VDN Route-To Party? n        Hunt after Coverage? n
                       Next Path Number:          Linkage

COVERAGE CRITERIA
    Station/Group Status    Inside Call     Outside Call
             Active?            n              n
               Busy?            y              y
       Don't Answer?            y              y         Number of Rings: 2
                All?            n              n
 DND/SAC/Goto Cover?            y              y
   Holiday Coverage?            n              n


COVERAGE POINTS
    Terminate to Coverage Pts. with Bridged Appearances? n
  Point1: c2             Rng:    Point2:
  Point3:                        Point4:
  Point5:                        Point6:
```

5.6. Administer Stations with Coverage Paths

This section covers two phantom stations with coverage paths. apoloDS will call the first station (29301), and if the call is not answered within a configured time interval, apoloDS will call the second station (29302). The following phantom station will forward the call to coverage answer group 1, consisting of nurses in the first escalation level, as specified by **Coverage Path 1**.

```
add station 29301                                          Page   1 of   5
                                  STATION

Extension: 29301                      Lock Messages? n              BCC: 0
     Type: 6408D+                     Security Code:                 TN: 1
     Port: X                        Coverage Path 1: 1              COR: 1
     Name: NURSE GROUP 1            Coverage Path 2:                COS: 1
                                    Hunt-to Station:
STATION OPTIONS
                                         Time of Day Lock Table:
             Loss Group: 2          Personalized Ringing Pattern: 1
           Data Module? n                     Message Lamp Ext: 29301
         Speakerphone: 2-way                Mute Button Enabled? y
       Display Language: english

         Survivable COR: internal               Media Complex Ext:
  Survivable Trunk Dest? y                            IP SoftPhone? n
                                                Remote Office Phone? n
                                                           IP Video? n
```

The following phantom station will forward the call to coverage answer group 2, consisting of nurses in the second escalation level, as specified by **Coverage Path 2**.

```
add station 29302                                          Page   1 of   5
                                  STATION

Extension: 29302                      Lock Messages? n              BCC: 0
     Type: 6408D+                     Security Code:                 TN: 1
     Port: X                        Coverage Path 1: 2              COR: 1
     Name: NURSE GROUP 2            Coverage Path 2:                COS: 1
                                    Hunt-to Station:
STATION OPTIONS
                                         Time of Day Lock Table:
             Loss Group: 2          Personalized Ringing Pattern: 1
           Data Module? n                     Message Lamp Ext: 29302
         Speakerphone: 2-way                Mute Button Enabled? y
       Display Language: english

         Survivable COR: internal               Media Complex Ext:
  Survivable Trunk Dest? y                            IP SoftPhone? n
                                                Remote Office Phone? n
                                                           IP Video? n
```

6. Configure Avaya 46xx IP Telephones

This section provides the procedures for configuring the Avaya 46xx IP Telephones to support the PUSH interface.

From the appropriate HTTP or TFTP server serving the Avaya 46xx IP Telephones, locate the **46xxsettings.txt** file. Set the **WMLEXCEPT, TPSLIST,** and **FILTERLIST** parameters to point to the apoloDS server. Set the **SUBSCRIBELIST** parameter to the specific path on the apoloDS server shown below.

Reboot the Avaya 46xx IP Telephones.

In the compliance testing, the Avaya 4610SW IP Telephone was used.

```
SET WMLEXCEPT  192.168.100.188
SET TPSLIST    192.168.100.188
SET FILTERLIST 192.168.100.188

SET SUBSCRIBELIST http://192.168.100.188/ASPpushsamples/subscribe.asp
```

7. Configure IgeaCare miALERT

This section provides the procedures for configuring IgeaCare miALERT.

Follow the steps in [3] to use the physically connected analog telephone to program miALERT. Below are the settings used in the compliance testing.

- **Telephone Number 1:** The apoloDS hunt group extension (239100) from **Section 5.2**.
- **Room Number:** The miALERT base extension (4111) from **Section 5.3**.
- **Mode:** Set the **Mode** to "DS".

8. Configure IgeaCare apoloDS

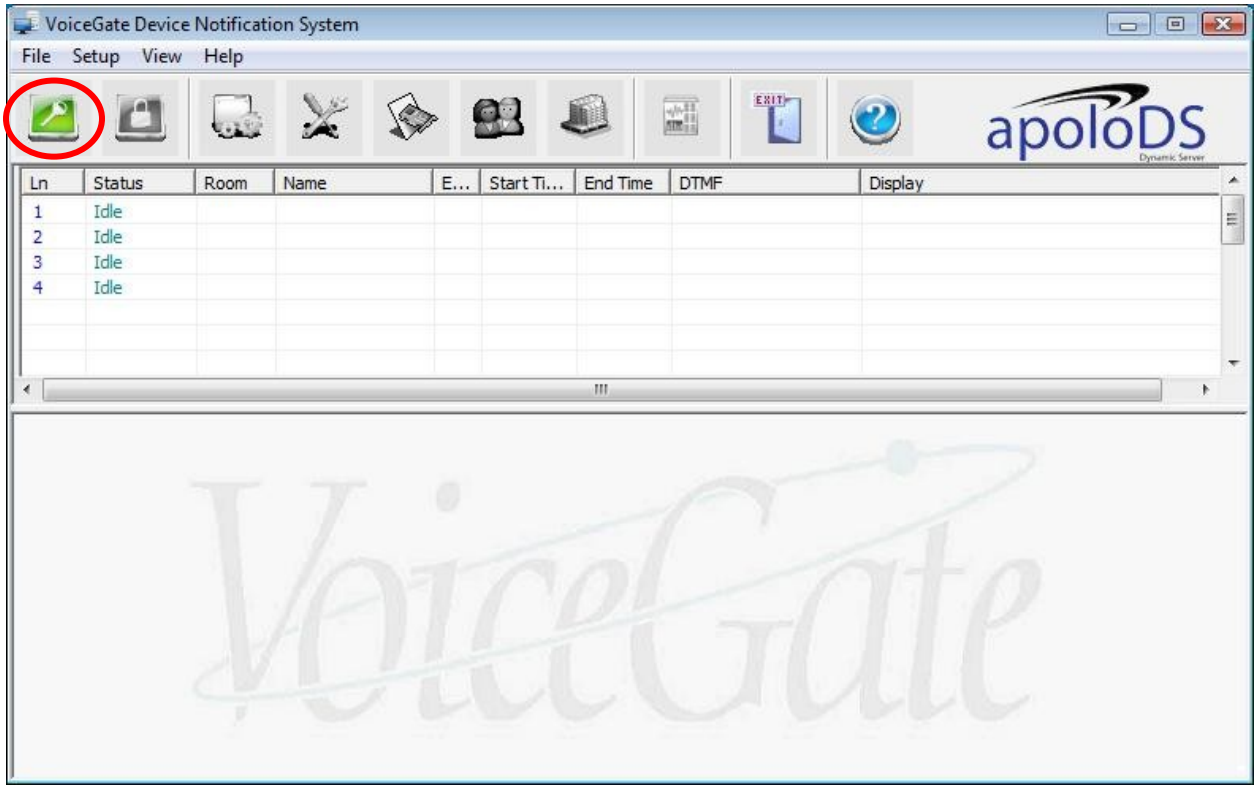
This section provides the procedures for configuring the IgeaCare apoloDS. The procedures fall into the following areas:

- Launch apoloDS
- Administer program setup
- Administer channel setup
- Administer room setup

8.1. Launch apoloDS

From the apoloDS server, double-click on the apoloDS icon  from the system tray.

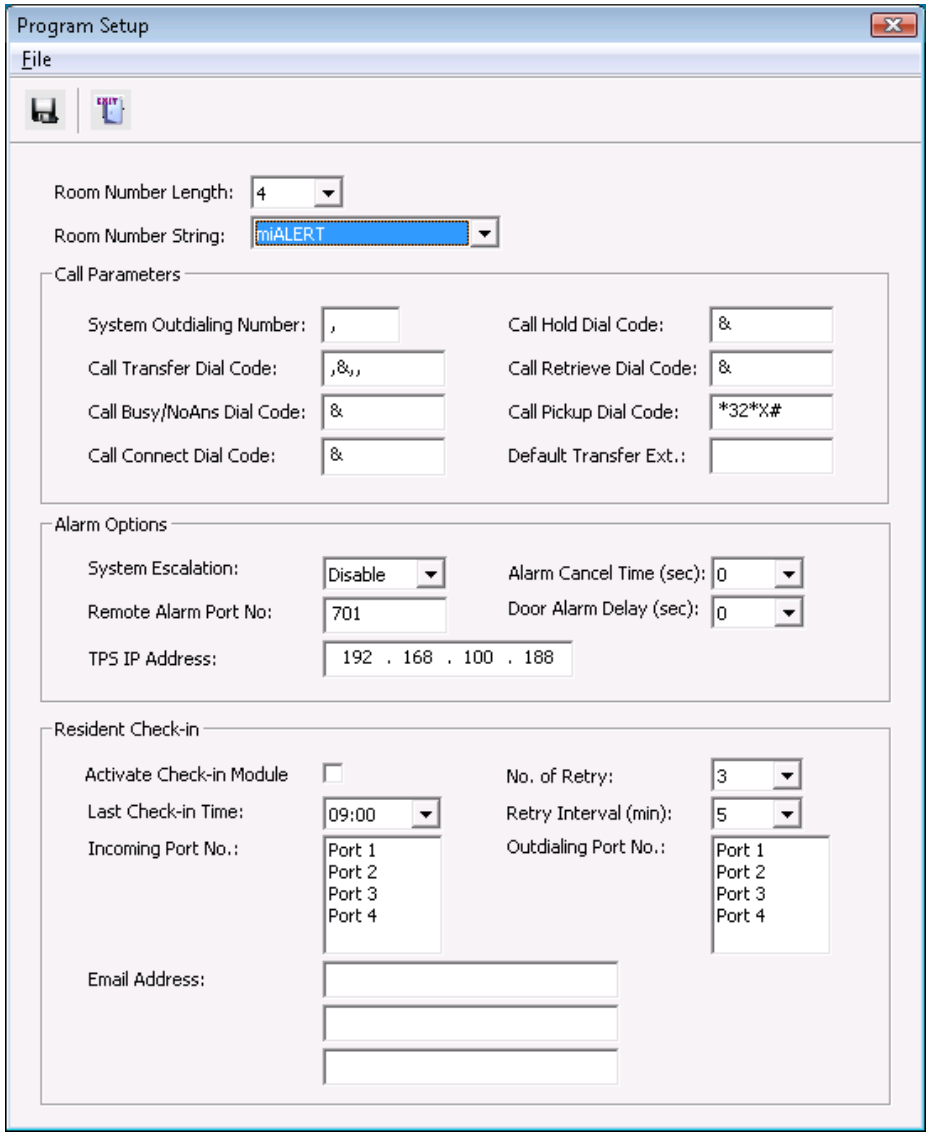
The **VoiceGate Device Notification System** screen is displayed. Click the **Logon** icon, and enter the appropriate credentials in the pop-up box (not shown).



8.2. Administer Program Setup

The **VoiceGate Device Notification System** screen is displayed again. Click the **Program Setup** icon from the top menu.

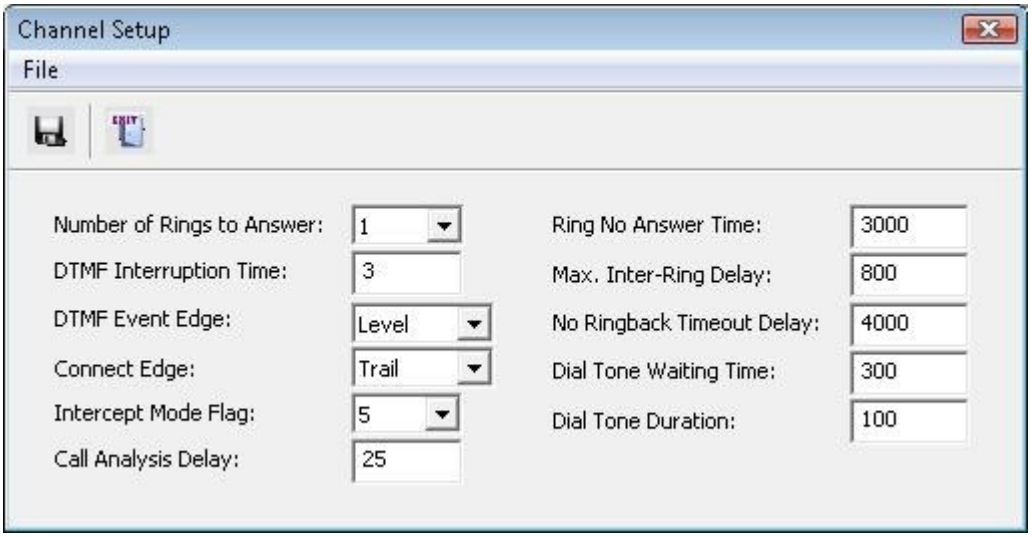
The **Program Setup** screen is displayed. For **Room Number String**, select "miALERT". For **TPS IP Address**, enter the IP address of the apoloDS server, as shown below. Retain the default values in the remaining fields.



8.3. Administer Channel Setup

The **VoiceGate Device Notification System** screen is displayed again. Click the **Channel Setup** icon from the top menu.

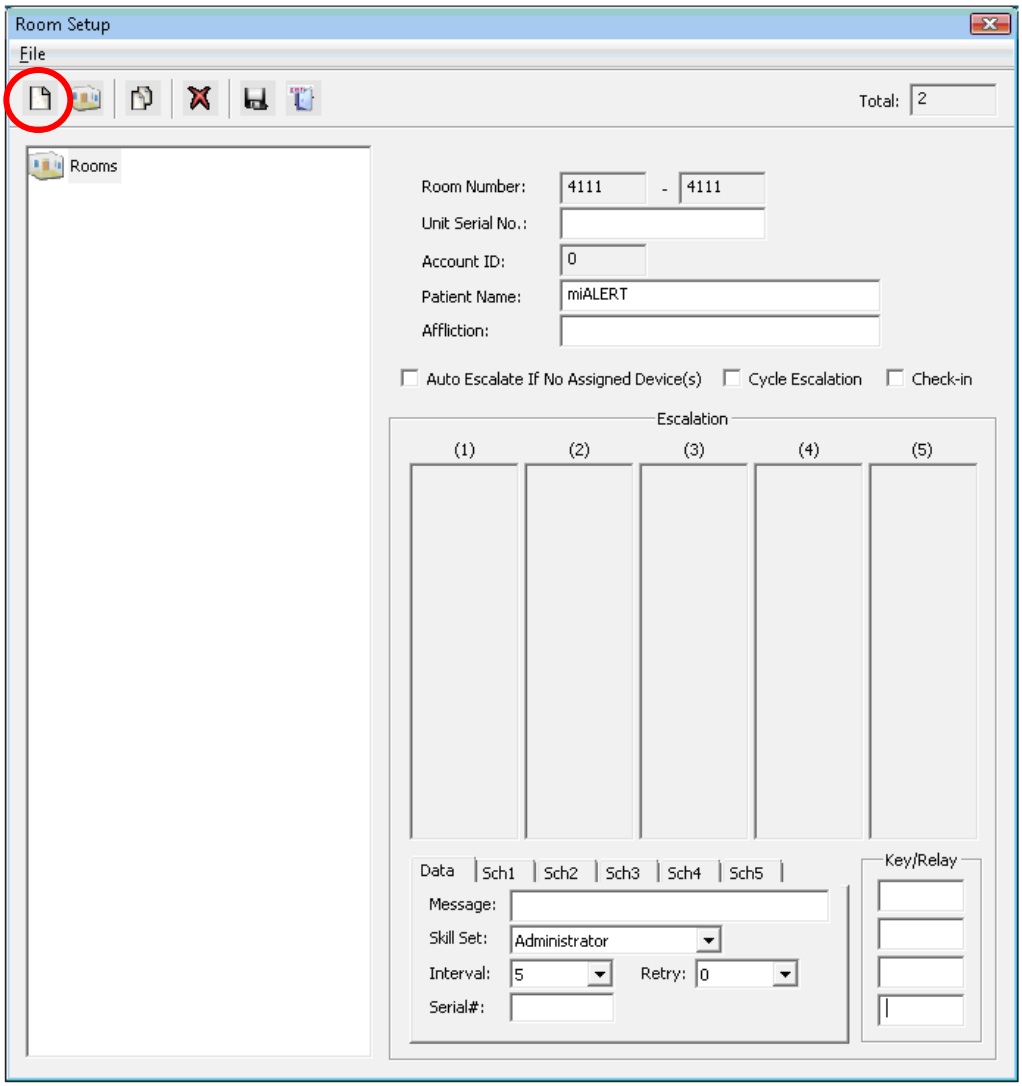
The **Channel Setup** screen is displayed. For **Number of Rings to Answer**, select "1" from the drop-down list. Retain the default values in the remaining fields.



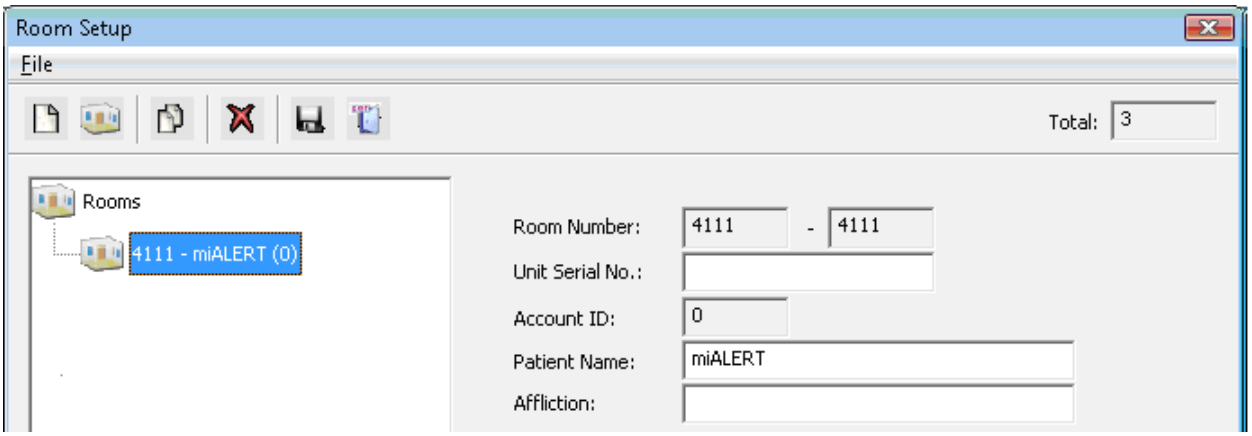
8.4. Administer Room Setup

The **VoiceGate Device Notification System** screen is displayed again. Click the **Room Setup** icon from the top menu.

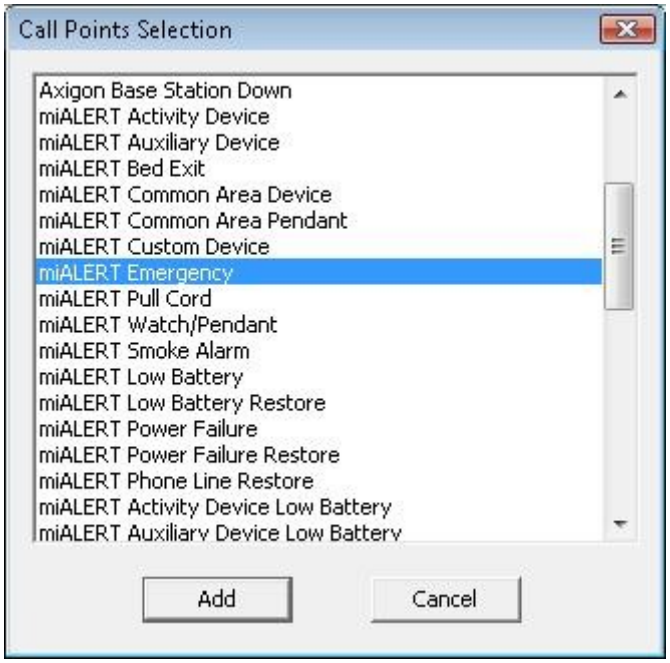
The **Room Setup** screen is displayed. Click the **New** icon to add a new room. For **Room Number**, enter the miALERT user extension from **Section 5.3**. Enter a desired **Patient Name**. Select **File → Add** to add the new room.



Right click on the newly created room entry in the left pane, and select **Add Call Point** from the pop-up box (not shown).

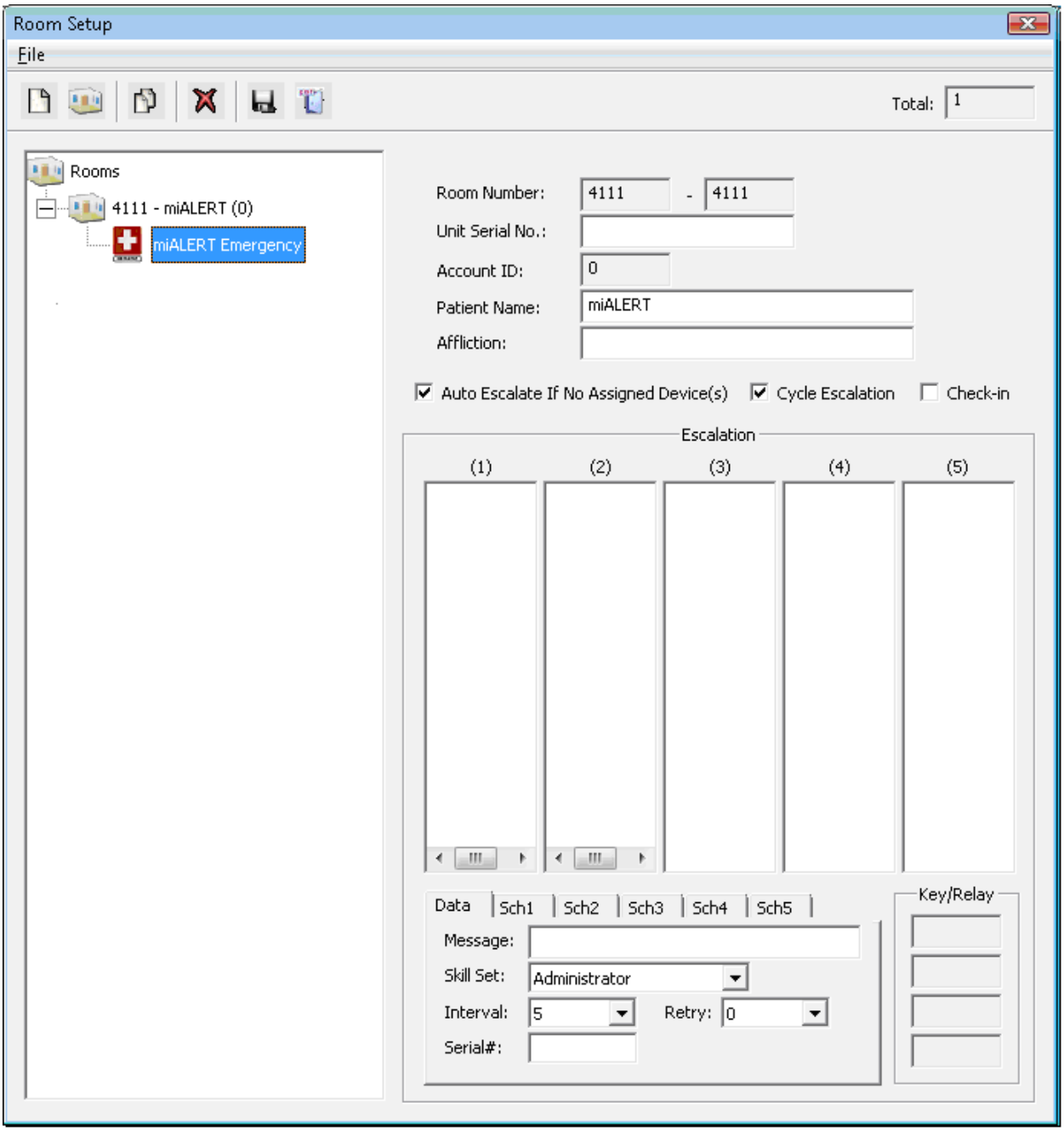


The **Call Points Selection** screen is displayed. Scroll the screen as necessary to select the entry corresponding to the first call point associated with the miALERT, in this case "miALERT Emergency".



The **Room Setup** screen is displayed again, and updated with the new call point shown in the left pane. Select the new call point in the left pane. In the right pane, check the desired escalation parameters. In the compliance testing, **Auto Escalate If No Assigned Devices(s)** and **Cycle Escalation** were checked.

In the **Escalation** sub-section, right-click on an empty column and select **Add** from the pop-up list (not shown).

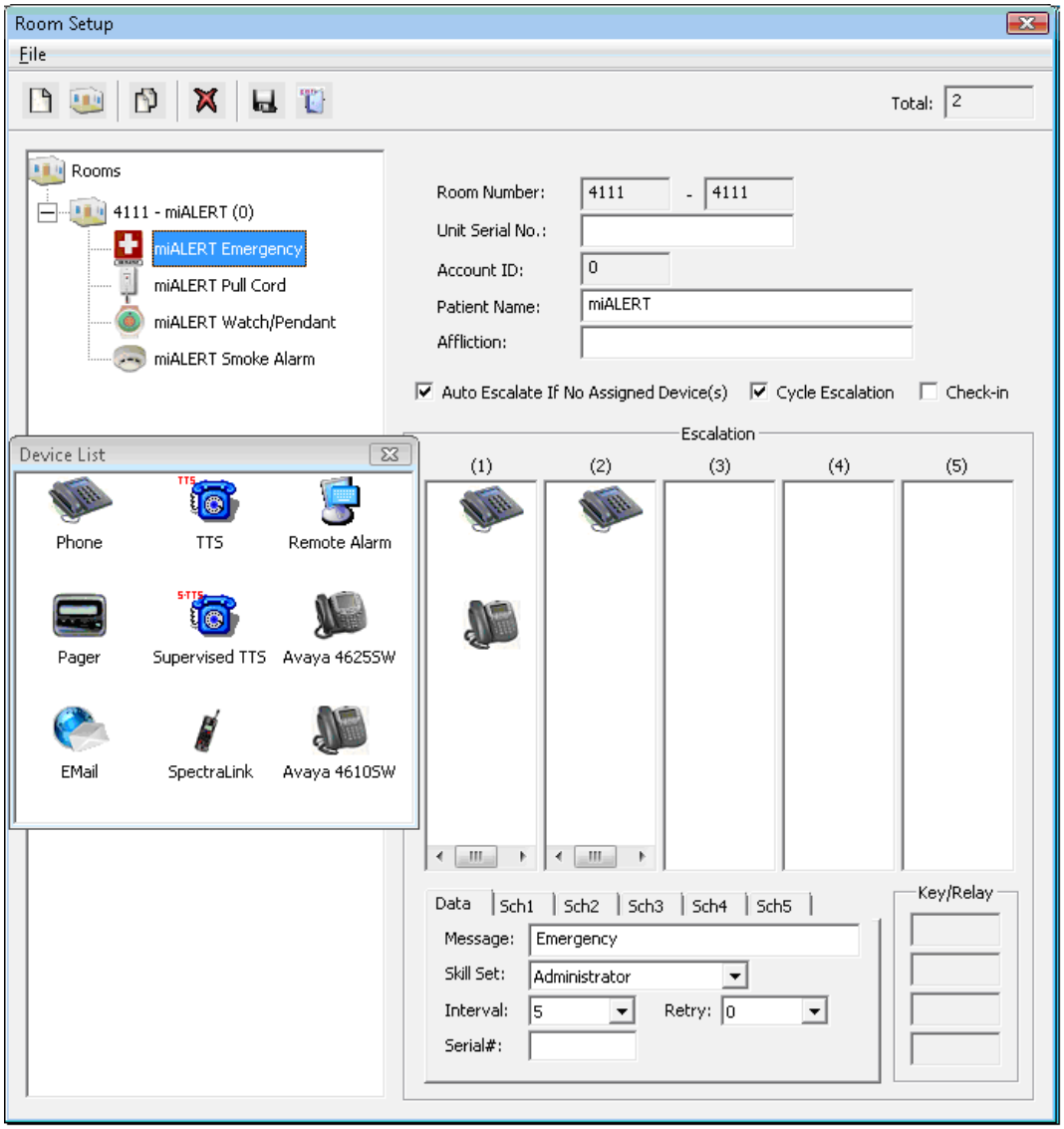


The **Device List** pop-up box is displayed. Drag and drop the desired devices to the **Escalation** sub-section. In the compliance testing, each call point type is configured with a "Phone" in the first and second escalation levels, and an "Avaya 4610SW" in the first escalation level.

For each "Phone" and "Avaya 4610SW" escalation point, configure **Data → Message** with a string to denote the call point type. Note that the text in the **Message** field will be used by apoloDS to playback to the connected nurse. For each Phone escalation point, specify the station extension that covers to a nurse answer group in **Sch1 → Number**.

For each Avaya 4610SW escalation point, configure **Sch1 → Number** with the IP address of the 4610SW telephone, which will be used to push the escalation information.

Repeat this section to add all desired escalation notification points for all call points associated with all miALERT devices, as shown below.



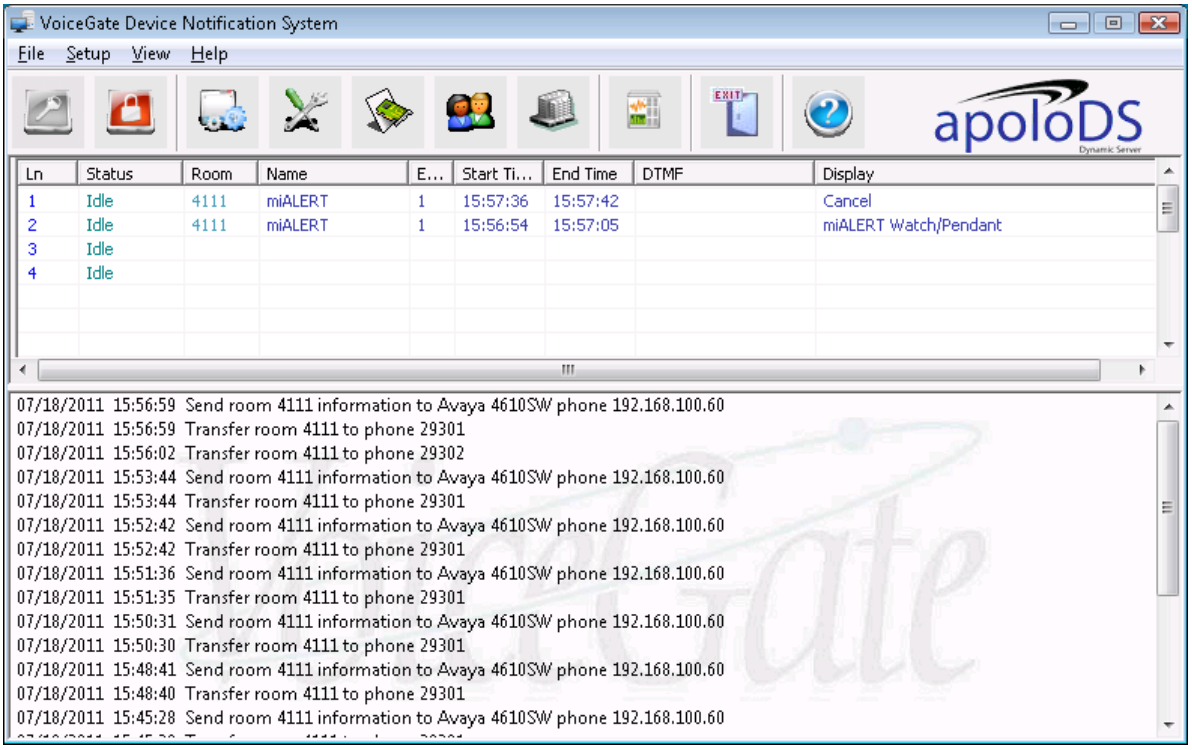
9. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Aura® Communication Manager, Avaya 46xx IP Telephones, IgeaCare miALERT, and IgeaCare apoloDS.

From a miALERT call point, activate a call to apoloDS (such as pulling the cord or pressing the button, depending on the type of call point). Verify that the call is ringing at the nurse specified in the first escalation level.

Answer the call at the nurse, and verify that an announcement is played that includes the miALERT room number from **Section 5.3**, and the patient name and call point type message from **Section 8.4**. From the nurse's telephone, press the appropriate key to accept the call, and verify that that the nurse is connected to the miALERT user with two-way talk paths. Press the appropriate keys from the nurse telephone to end the call and cancel the notification. Press and hold down the Emergency button on the miALERT to cancel the call on the unit. Also verify that the nurse telephone associated with the PUSH notification receives the appropriate text that includes the same miALERT room number, patient name, and call point type information.

From the **VoiceGate Device Notification System** screen on the apoloDS server, verify that there are entries showing the successful supervised transfer of the miALERT call to the nurse and sending of call information to the configured Avaya 4610SW telephone from **Section 8.4**, as shown below.



10. Conclusion

These Application Notes describe the configuration steps required for IgeaCare apoloDS and miALERT to interoperate with Avaya Aura® Communication Manager. All feature and serviceability test cases were completed successfully.

11. Additional References

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

[1] *Administering Avaya Aura® Communication Manager*, June 2010, Release 6.0, Issue 6.0, Document Number 03-300509.
[2] *miALERT Installation Manual*, Version 1.0, available at http://www.igeacare.com.
[3] *ApoloDS User Guide*, 2008, available at http://www.igeacare.com.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.