

Avaya Solution & Interoperability Test Lab

## Application Notes for AEi Communications SDB-8000 SIP DECT Telephone with Avaya Aura® Session Manager and Avaya Aura® Communication Manager - Issue 1.0

### Abstract

These Application Notes describe the steps required to integrate AEi Communications SDB-8000 SIP DECT Telephones with Avaya Aura® Session Manager and Avaya Aura® Communication Manager. SDB-8000 SIP DECT Telephones serve the hospitality industry and provide the following features: speakerphone, hold, message waiting indicator (MWI), and programmable buttons. In the compliance test, SDB-8000 SIP DECT Telephones successfully registered with Session Manager, established calls with the PSTN and other Avaya SIP and H.323 telephones, and executed telephony and hospitality features using Avaya Aura® Communication Manager Feature Access Codes (FACs) and Feature Name Extensions (FNEs).

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

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

## 1. Introduction

These Application Notes describe the steps required to integrate AEi Communications SDB-8000 SIP DECT Telephones with Avaya Aura® Session Manager and Avaya Aura® Communication Manager. SDB-8000 SIP DECT Telephones serve the hospitality industry and provide the following features: speakerphone, hold, message waiting indicator (MWI), and programmable buttons. In the compliance test, SDB-8000 SIP DECT Telephones successfully registered with Avaya Aura® Session Manager, established calls with the PSTN and other Avaya SIP and H.323 telephones, and executed telephony and hospitality features using Avaya Aura® Communication Manager Feature Access Codes (FACs) and Feature Name Extensions (FNEs).

## 2. General Test Approach and Test Results

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.

The interoperability compliance test included feature and serviceability testing. The feature testing focused on establishing calls between AEi Communications SDB-8000 SIP DECT Telephones and Avaya SIP and H.323 telephones. Basic telephony features, such as hold, speaker, and hospitality features including wake up calls and updating housekeeping status for a guest's room were also exercised. In addition, other extended telephony features, such as call forwarding and call pickup were also exercised using FNEs.

The serviceability testing focused on verifying that the AEi Communications SDB-8000 SIP DECT Telephone comes back into service after re-connecting the Ethernet connection or rebooting the SIP phone.

### 2.1. Interoperability Compliance Testing

Interoperability compliance testing covered the following features and functionality:

- SIP registration of SDB-8000 with Session Manager.
- Calls between SDB-8000 and Avaya SIP and H.323 telephones with Direct IP-IP Media (Shuffling) enabled and disabled.
- Support of multiple incoming and outgoing calls, using L1 and L2.
- G.711 codec support.
- Proper recognition of DTMF tones.
- Long call duration and long hold duration.
- Extended telephony features using Communication Manager FNEs and FACs, such as Hospitality Wakeup calls, Housekeeping Status Access Codes, Call Forwarding and Call Pickup.

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- Voicemail coverage, MWI support, and logging into voicemail system to retrieve voicemail messages.
- Use of programmable buttons on SDB-8000.
- Proper system recovery after a restart of the SDB-8000 and loss of IP connectivity.

### 2.2. Test Results

All test cases passed with the following observations noted:

- The SDB-8000 SIP DECT Telephone does not support conference.
- The SDB-8000 SIP DECT Telephone does not support transfer.

### 2.3. Support

For technical support on the AEi Communications SDB-8000 SIP DECT Telephone, contact AEi Communications Support via phone, email, or website.

- **Phone:** (650) 552-9416
- Email: <a href="mailto:sales@aeicommunications.com">sales@aeicommunications.com</a>
- Web: <u>http://www.aeicommunications.com/contact.html</u>

# 3. Reference Configuration

**Figure 1** illustrates a sample configuration with an Avaya SIP-based network that includes the following Avaya products:

- Avaya Aura® Communication Manager running in a virtual environment with an Avaya G450 Media Gateway and/or Avaya Aura® Media Server.
- Avaya Aura® Session Manager connected to Communication Manager via a SIP trunk and acting as a Registrar/Proxy for SIP telephones.
- Avaya Aura® System Manager used to configure Session Manager.
- Avaya Aura® Messaging served as the voicemail system.
- Avaya 9600 Series SIP and H.323 Telephones.
- AEi Communications SDB-8000 SIP DECT Telephones.

AEi Communications SDB-8000 SIP DECT Telephones registered with Session Manager and were configured as Off-PBX Stations (OPS) on Communication Manager.

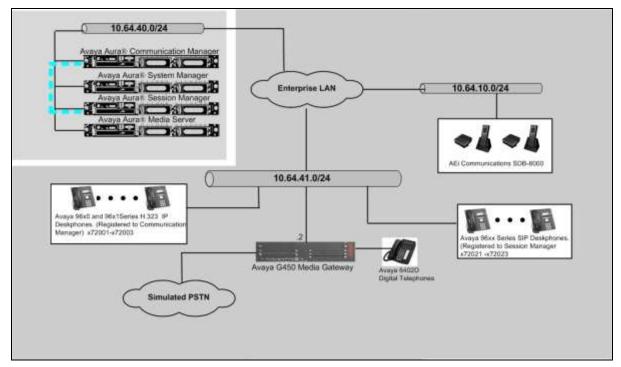


Figure 1: Avaya SIP Network with AEi Communications SDB-8000 SIP DECT Telephones

# 4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Communication Manager in a Virtual Environment with an Avaya G450 Media Gateway	7.0.1.0 FP1 (R017x.00.0.441.0 with Patch 23012)
Avaya Aura® Media-Server in a Virtual Environment	7.7.0.226
Avaya Aura® System Manager in a Virtual Environment	7.0.1
Avaya Aura® Session Manager in a Virtual Environment	7.0.0.700007
Avaya Aura® Messaging	6.3.3 SP 5
Avaya 9650C	3.25 (H.323)
Avaya 96x1 Series IP Deskphones	6.6.115 (H.323)
Avaya 96x1 Series IP Deskphones	7.0.0.39 (SIP)
AEi Communications SDB-8000 SIP DECT Telephone	IPS8XXX_A02

# 5. Configure Avaya Aura® Communication Manager

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

- Verify Communication Manager license
- Administer IP Network Region and IP Codec Set
- Administer Hospitality Features

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

**Note:** It is assumed that basic configuration of the Communication Manager has already been completed, such as the SIP trunk to Session Manager. The SIP station configuration for AEi Communications SDB-8000 is configured through Avaya Aura® System Manager in **Section 6.2**.

### 5.1. Verify License

Using the SAT, verify that the Off-PBX Telephones (OPS) option is enabled on the **system-parameters customer-options** form. The license file installed on the system controls these options. If a required feature is not enabled, contact an authorized Avaya sales representative.

On **Page 1**, verify that the number of OPS stations allowed in the system is sufficient for the number of SIP endpoints that will be deployed.

```
display system-parameters customer-options
                                                               Page
                                                                     1 of 12
                               OPTIONAL FEATURES
    G3 Version: V17
                                                Software Package: Enterprise
      Location: 2
                                                 System ID (SID): 1
      Platform: 28
                                                 Module ID (MID): 1
                                                             USED
                               Platform Maximum Ports: 6400 200
                                    Maximum Stations: 2400 47
                             Maximum XMOBILE Stations: 2400
                                                             0
                   Maximum Off-PBX Telephones - EC500: 9600 1
                   Maximum Off-PBX Telephones - OPS: 9600 22
                   Maximum Off-PBX Telephones - PBFMC: 9600 0
                   Maximum Off-PBX Telephones - PVFMC: 9600 0
                   Maximum Off-PBX Telephones - SCCAN: 0
                                                             0
                        Maximum Survivable Processors: 313
                                                             1
        (NOTE: You must logoff & login to effect the permission changes.)
```

### 5.2. Administer IP Network Region and IP Codec Set

In the **IP Network Region** form, the **Authoritative Domain** field is configured to match the domain name configured on Session Manager. In this configuration, the domain name is *avaya.com*. By default, **IP-IP Direct Audio** (shuffling) is enabled to allow audio traffic to be sent directly between IP endpoints without using media resources in the Avaya G450 Media Gateway or Avaya Aura® Media Server. The **IP Network Region** form also specifies the **IP Codec Set** to be used for calls routed over the SIP trunk to Session Manager.

```
change ip-network-region 1
                                                                Page
                                                                      1 of 20
                               IP NETWORK REGION
  Region: 1
Location: 1
               Authoritative Domain: avaya.com
   Name:
                               Stub Network Region: n
MEDIA PARAMETERS
                               Intra-region IP-IP Direct Audio: yes
     Codec Set: 1
                               Inter-region IP-IP Direct Audio: yes
  UDP Port Min: 16390
                                          IP Audio Hairpinning? n
  UDP Port Max: 16999
DIFFSERV/TOS PARAMETERS
Call Control PHB Value: 46
       Audio PHB Value: 46
       Video PHB Value: 26
802.1P/Q PARAMETERS
Call Control 802.1p Priority: 6
       Audio 802.1p Priority: 6
       Video 802.1p Priority: 5
                                     AUDIO RESOURCE RESERVATION PARAMETERS
H.323 IP ENDPOINTS
                                                        RSVP Enabled? n
 H.323 Link Bounce Recovery? y
Idle Traffic Interval (sec): 20
  Keep-Alive Interval (sec): 5
           Keep-Alive Count: 5
```

In the **IP Codec Set** form, select the audio codec type supported for calls routed over the SIP trunk to the SDB-8000 SIP DECT Telephone. The form is accessed via the **change ip-codec-set 1** command. Note that IP codec set 1 was specified in IP Network Region 1 shown above. The default settings of the **IP Codec Set** form are shown below. The SDB-8000 SIP DECT Telephone supports G.711Mu.

```
change ip-codec-set 1
                                                            Page
                                                                  1 of
                                                                         2
                        IP CODEC SET
   Codec Set: 1
Audio
Codec
1: G.711MU
              Silence Frames Packet
              Suppression Per Pkt Size(ms)
               n 2
                                      20
2:
3:
4:
5:
    Media Encryption
                                     Encrypted SRTCP: enforce-unenc-srtcp
1: none
2:
```

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### 5.3. Administer Hospitality Features

This section covers the configuration of two hospitality features: wakeup calls and housekeeping status. A hotel guest may enter the wake up feature access code (FAC) followed by the time for the wakeup call in *hhmm* format, where *hh* is the hour and *mm* is the minute. The housekeeping status of a hotel room may be changed by dialing the housekeeping status access code from the hotel room phone.

### 5.3.1. Administer Feature Name Extensions (FNEs)

Prior to dialing the wakeup call, the SIP user must first receive dial tone from Communication Manager. This is achieved by first dialing the **Idle Appearance Select FNE** configured as shown below. Afterwards, the wakeup call access code may be dialed. The housekeeping status access codes may be dialed directly (FAC) without dialing the **Idle Appearance Select FNE**.

change off-pbx-telephone feature-	name-extensions set 1	Page	2 of	2
EXTENSIONS TO CALL WHICH ACT	IVATE FEATURES BY NAME			
Exclusion (Toggle On/Off):	78018			
Extended Group Call Pickup:	78019			
Held Appearance Select:	78020			
Idle Appearance Select:	78021			
Last Number Dialed:	78022			
Malicious Call Trace:				
Malicious Call Trace Cancel:				
Off-Pbx Call Enable:	78025			
Off-Pbx Call Disable:	78026			
Priority Call:	78027			
Recall:	78028			
Send All Calls:	78029			
Send All Calls Cancel:	78030			
Transfer Complete:	78031			
Transfer On Hang-Up:	78032			
Transfer to Voice Mail:	78033			
Whisper Page Activation:	78034			

#### 5.3.2. Administer Features Access Codes (FACs)

In the **Feature Access Code (FAC)** form configure the **Automatic Wakeup Call Access Code** and the **Housekeeping Status (Client Room) Access Codes**, as needed, as shown below. The FACs should comply with the dial plan.

```
change feature-access-codes
                                                                Page
                                                                       8 of 10
                               FEATURE ACCESS CODE (FAC)
                                 Hospitality Features
              Automatic Wakeup Call Access Code: 150
  Housekeeping Status (Client Room) Access Code: 151
  Housekeeping Status (Client Room) Access Code: 152
  Housekeeping Status (Client Room) Access Code: 153
  Housekeeping Status (Client Room) Access Code: 154
  Housekeeping Status (Client Room) Access Code: 155
  Housekeeping Status (Client Room) Access Code: 156
       Housekeeping Status (Station) Access Code: 157
       Housekeeping Status (Station) Access Code: 158
      Housekeeping Status (Station) Access Code: 159
      Housekeeping Status (Station) Access Code: 160
         Verify Wakeup Announcement Access Code: 161
               Voice Do Not Disturb Access Code: 162
```

#### 5.3.3. Allow Wake-up Calls

In the **Hospitality** form, enable **Room Activated Wakeup With Tones**. Communication Manager will prompt the user with tones when enabling a wakeup call. For example, a 3-burst confirmation tone will be played to prompt the user to enter the wakeup time.

```
change system-parameters hospitality
                                                                       2 of
                                                                              3
                                                                Page
                              HOSPITALITY
                            Daily Wakeup? n
           Dual Wakeups? n
                                                  VIP Wakeup? n
                            Room Activated Wakeup With Tones? y
                    Time of Scheduled Wakeup Activity Report:
                     Time of Scheduled Wakeup Summary Report:
          Time of Scheduled Emergency Access Summary Report:
                                           Announcement Type: silence
         Length of Time to Remain Connected to Announcement: 30
            Extension to Receive Failed Wakeup LWC Messages:
           Routing Extension on Unavailable Voice Synthesis:
                    Display Room Information in Call Display? n
                         Automatic Selection of DID Numbers? n
                         Custom Selection of VIP DID Numbers? n
                                 Number of Digits from PMS:
                                          PMS Sends Prefix? n
                      Number of Digits in PMS Coverage Path: 3
                                     Digit to Insert/Delete:
```

#### 5.3.4. Allow Housekeeping Status Updates

To allow housekeeping to change the housekeeping status of a guests room by dialing the appropriate access code, **Client Room** must be enabled on the COS assigned to the SIP phone. In this example, **Client Room** was enabled for COS 1, which was assigned to the AEi SDB-8000 phone.

change cos-group 1												Pag	je	1	of	2
CLASS OF SERVICE COS Gr	oup	: 1		COS	Na	me:										
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Auto Callback	n	У	У	n	У	n	У	n	У	n	У	n	У	n	У	n
Call Fwd-All Calls	n	У	n	У	У	n	n	У	У	n	n	У	У	n	n	У
Data Privacy	n	У	n	n	n	У	У	У	У	n	n	n	n	У	У	У
Priority Calling	n	У	n	n	n	n	n	n	n	У	У	У	У	У	У	У
Console Permissions	n	У	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Off-hook Alert	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Client Room	n	У	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Restrict Call Fwd-Off Net	У	n	У	У	У	У	У	У	У	У	У	У	У	У	У	У
Call Forwarding Busy/DA	n	У	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Personal Station Access (PSA)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Extended Forwarding All	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Extended Forwarding B/DA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Trk-to-Trk Transfer Override	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n
QSIG Call Offer Originations	n	v	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Contact Closure Activation	n	'n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

## 6. Configure Avaya Aura® Session Manager

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

- Launch System Manager
- Administer SIP User

**Note:** It is assumed that basic configuration of Session Manager has already been performed. This section will focus on the configuration of a SIP user for the SDB-8000 SIP DECT Telephone.

#### 6.1. 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 the System Manager server. Log in using the appropriate credentials.

AVAYA	
Aura <sup>©</sup> System Manager 7.0	
Recommended access to System Manager is via FQDN.	
Go to central login for Single Sign-On	User ID:
If IP address access is your only option, then note that authentication will fail in the following cases:	Password:
<ul> <li>First time login with "admin" account</li> <li>Expired/Reset passwords</li> </ul>	Log On Cancel
Use the "Change Password" hyperlink on this page to change the password manually, and then login.	Change Password
Also note that single sign-on between servers in the same security domain is not supported when accessing via IP address.	<b>Supported Browsers:</b> Internet Explorer 9.x, 10.x or 11.x or Firefox 36.0, 37.0 and 38.0.

### 6.2. Administer SIP User

In the subsequent screen (not shown), select Users  $\rightarrow$  User Management  $\rightarrow$  Manage Users to display the User Management screen below. Click New to add a user.

	ngageme	en <b>X</b>			_	0	Last Logged on at July 28, 3
Home User Management *							
🔻 User Management 🛛 🖣	Home /	Users / Us	er Managen	nent / Manage Use	rs		
Manage Users							Help ?
Public Contacts							
Shared Addresses	Use	er Man	ageme	nt			
System Presence		Ji Pidin	ageme				
ACLs							
Communication	User						
Profile Password							
Policy		/iew / E	dit) 💿 Nev	w 🔊 Duplicate	Oelete More	Actions -	Advanced Search 💌
	15 Ite	ms I ಿ I She	ow All 🗸				Filter: Enable
		Last Name	First Name	Display Name	Login Name	SIP Handle	Last Login
		72028	72028	72028	72028@avaya.com	72028	
		72029	72029	72029	72029@avaya.com	72029	
		SIP	72023	SIP, 72023	72023@avaya.com	72023	
		SIP	station1	SIP, station1	72021@avaya.com		
		SIP	Station2	SIP, Station2	72022@avaya.com	72022	

#### 6.2.1. Identity

The New User Profile screen is displayed. Enter desired Last Name and First Name. For Login Name, enter "*<ext>@<domain>*", where "*<ext>*" is the desired SDB-8000 SIP DECT extension and "*<domain>*" is the applicable SIP domain name from Section 5.2. Retain the default values in the remaining fields.

AVAYA Aura <sup>®</sup> System Manager 7.0	C (Engagemen*)	Last Logged on at July 28, 201
Home User Manageme		
🔻 User Management	Home / Users / User Management / Manage Users	
Manage Users		ł
Public Contacts	New User Profile	Commit & Continue Commit Car
Shared Addresses		
System Presence	Identity * Communication Profile Membership Contacts	
ACLs	Hear Dravicianing Dula	
Communication	User Provisioning Rule 💿	
Profile Password	User Provisioning Rule:	
Policy	Identity 💿	
	* Last Name: 72028	
	Last Name (Latin Translation): 72028	
	* First Name: 72028	
	First Name (Latin Translation): 72028	
	Middle Name:	
	Description:	
	* Login Name: 72028@avaya.com	
	User Type: Basic	

#### 6.2.2. Communication Profile

Select the **Communication Profile** tab. For **Communication Profile Password** and **Confirm Password**, enter the desired password for the SIP user to use for registration.

AVAVA Aura <sup>®</sup> System Manager 7.0	Engagemen *	Last Logged on at July 28, 2016 9:07 AM
Home User Management	*	0
* User Management	Home / Users / User Management / Manage Users	0
Manage Users Public Contacts Shared Addresses	New User Profile	Commit & Continue Commit Cancel
System Presence ACLs	Identity * Communication Profile Membership Conta	icts
Communication Profile Password Policy	Communication Profile * Communication Profile Password: Confirm Password:	

#### 6.2.3. Communication Address

In the **Communication Address** sub-section, click **New** to add a new entry. The **Communication Address** sub-section is updated with additional fields as shown below. For **Type**, retain "Avaya SIP". For **Fully Qualified Address**, enter and select the SIP user extension and domain name to match the login name from **Section 6.2.1**. Click **Add**.

Communication	n Address	۲			
New / Edit	Oelete				
🔲 Туре	Hand	le	Don	nain	
No Records foun	d				
<					>
* Fully Quali	Type: fied Address:	Avaya SIP 72028		V	
					Add Cancel

#### 6.2.4. Session Manager Profile

Scroll down to check and expand **Session Manager Profile**. For **Primary Session Manager**, **Origination Application Sequence**, **Termination Application Sequence**, and **Home Location**, select the values corresponding to the applicable Session Manager and Communication Manager. Retain the default values in the remaining fields.

Session Manager Profile 🖲				
SIP Registration				
* Primary Session Manager	Q.SM7.x-1	Primary	Secondary	Maximum
	SP17.X-1	14	0	14
Secondary Session Manager	Q			
Survivability Server	Q			
Max. Simultaneous Devices	1			
Block New Registration When Maximum Registrations Active?				
Application Sequences				
Origination Sequence	AppSeq-CM7x			
Termination Sequence	AppSeq-CM7x			
Call Routing Settings				
* Home Location	41-subnet			
Conference Factory Set	(None)			
Call History Settings				
Enable Centralized Call History?				

#### 6.2.5. CM Endpoint Profile

Scroll down to check and expand **CM Endpoint Profile**. For **System**, select the value corresponding to the applicable Communication Manager, and select *Endpoint* for **Profile Type**. For **Extension**, enter the SIP user extension from **Section 6.2.1**. For **Template**, select *9650SIP\_DEFAULT\_CM\_7\_0*. For **Port**, click and select *IP*. Retain the default values in the remaining fields.

Click **Commit** to save the configuration (not shown).

CM Endpoint Profile 🖲	
* System	Element-CM70
* Profile Type	Endpoint 💟
Use Existing Endpoints	
* Extension	Q 72028 Endpoint Editor
Template	9650SIP_DEFAULT_CM_7_0
Set Type	9650SIP
Security Code	•••••
Port	IP
Voice Mail Number	
Preferred Handle	(None)
Calculate Route Pattern	
Sip Trunk	aar
Enhanced Callr-Info display for 1-line phones	
Delete Endpoint on Unassign of Endpoint from User or on Delete User	
Override Endpoint Name and Localized Name	✓
Allow H.323 and SIP Endpoint Dual Registration	

In the **CM Endpoint Profile** sub-section (not shown), click the **Endpoint Editor** button to display the page below. In the **General Options** tab, specify that coverage path that points to the voicemail system in the **Coverage Path 1** field. This provides voicemail coverage for the SIP user. In this example, coverage path 98 was used.

Home User Management	×		0	
User Management	Home / Users / User Hanagement / M	Manage Users		
Manage Users Public Contacts Shared Addresses	Edit Endpoint			Dgne Cancel
System Presence ACLs				(Save As Template)
Communication Profile Password Policy	System Template Port Name	Element-CM70 965051P_DEFAULT_CM_7_0 00 10 10 10 10 10 10 10 10 10 10 10 10	Extension Set Type Security Code	72028 965052P
	International provide and the second	ure Options (F) Site Data (S)	Abbreviated Call Dialing (A)	Enhanced Call Feed (E)
	Button Assignment (b) Grow     Class of Restriction (COR)     Emergency Location Ext     Tenant Number     SIP Trunk     Coverage Path 1     Lock Message     Multibyte Language     *Required	ep Hembership (M)	<ul> <li>Class Of Service (COS)</li> <li>Message Lamp Ext.</li> <li>Type of 3PCC Enabled Coverage Path 2</li> <li>Localized Display Name Enable Reachability for Station Domain Control</li> </ul>	1 72028 None 💌

In the **Feature Options** tab, set the **MWI Served User Type** field to *sip-adjunct*. This allows MWI to be enabled for the SIP user. The voicemail system was connected via SIP to Session Manager. Once completed, click **Done**.

General Options (G) *	Feature Options (F) Site Data (S)	Abbreviated Call Dialing (A	A) Enhanced Call Fwd (E)
Button Assignment (B)	Group Membership (M)		
Active Station Ringing Auto Answer Coverage After Forwarding Loss Group	single	Hunt-to Station Display Language Per Station CPN - Send Calling Number MWI Served User Type	english

## 7. Configure AEi Communications SDB-8000 SIP DECT Telephone

Access the SDB-8000 web interface by using the URL "https://ip-address:8000" in an Internet browser window, where "ip-address" is the IP address of the SIP phone. Log in using the appropriate credentials and then click **Login**.

VOIP PHONE	
Username: Password: login	

### 7.1. Administer LAN Port Settings

Select **Network**  $\rightarrow$  **LAN Port Settings** in the left pane and configure the SIP phone's network settings as shown below. During the compliance test, DHCP was utilized.

	Wel	b Confi	guration	>>
Phone Settings System Settings	LAN Port Setting: You could configure the Lan Po			
Global SIP Settings		LAN Port Sett	ing	
SIP Accounts	ІР Туре:	O Static IP  O DHCP Clip	ent	
Network	IP Address:	10.64.10.215		
HELWOIR	Netmask:	255.255.255.0		
	Gateway:	10.64.10.1		
	Primary DNS:	10.64.10.16		
	Secondary DNS:			
	Mac Address:	00:0e:43:b1:81:9c		

### 7.2. Administer SIP Accounts

Navigate to **SIP** Accounts in the left pane and click **Add** to add a SIP account.

	w	eb Conf	igura	atior	
>	SIP Accounts	of service domians in this page			
Phone Settings	Tou could set mormation	or service domians in this page	P		
System Settings	<i>0</i>				
Global SIP Settings		SIP Accou	nts		
SIP Accounts	Display Name	Registration Server	Status	Registration	Select
SIF ACCOUNTS					
Network					
		Add	elete		

Navigate to the **SIP Proxy** webpage as shown below. Under the **Basic SIP Proxy Settings** section, configure the following parameters.

<b>Registration ID:</b>	Specify the Registration ID (e.g., 72028, the SIP extension).
Display Name:	Specify the Display Name (e.g., 72028, the SIP extension).
Authentication Name:	Specify the SIP extension of the SDB-8000 SIP DECT Telephone (e.g., 72028).
Password:	Specify the SIP password configured in Section 6.2.2.
<b>Registration Server:</b>	Set to the domain name and port (e.g., avaya.com:5060).
<b>Proxy Server:</b>	Set to the Session Manager IP address and port (e.g., 10.64.40.226:5060).
Voice Mail:	Specify the voicemail pilot number (e.g., 72028).
Expire Time:	Specify the frequency of SIP re-registrations (e.g., 60).
DTMF Type:	Select RFC2833.
MWI:	Set to <i>Enable</i> .
	Display Name: Authentication Name: Password: Registration Server: Proxy Server: Voice Mail: Expire Time: DTMF Type:

• Retain the default values in the remaining fields.

Notice at the bottom of the screen that the status is registered with Session Manager.

	Web C	onfiguration 🎾
	SIP Account Settings	
Phone Settings System Settings	ou could set information of service domi	ians in this
Global SIP Settings		SIP Account 1
SIP Accounts	Active:	Enable O Disable
	Registration ID:	72028
Network	Display Name:	72028
	Authentication Name:	72028
	Password:	
	Registration Server:	avaya.com:5060
	Proxy Server:	10.64.40.226:5060
	Proxy Address:	
	Voice Mail:	72028
	Expire Time:	60 🔽
	DTMF Type:	RFC2833 V
	Send KeepAlive:	Disable
	Send KeepAlive Type:	Dummy V
	Send KeepAlive Interval:	60 🔽
	MWI:	Enable V
		Multi
		registered
	Status.	Submit Cancel
	12	

### 7.3. Administer Global SIP Settings

Navigate to **Global SIP Settings**  $\rightarrow$  **Port Settings** and verify the SIP Listen Port being used (e.g., 5060).

	Web Configuration	
Phone Settings	Port Settings You could set the port number in this page.	_
System Settings Global SIP Settings	SIP Listen Port: 5060 (10~65533)	
SIP Accounts	RTP Port Base: 10000 (10~65533)	
Network	RTP Port Range: 100 (12~1000)	
	Submit Reset	

Navigate to **Global SIP Settings**  $\rightarrow$  **Codec Settings** to verify the codec priority. In this example, the first priority is G.711u-law. AEi Communications SDB-8000 SIP DECT Telephones supports G.711.

	Web Configuration	>>
Phone Settings	Codec Settings You could set the codec settings in this page.	
System Settings Global SIP Settings	Codec Priority	
SIP Accounts	First Priority: G.711 u-law	
Network	Second Priority: Disable	
	Third Priority: Disable	
	Fourth Priority: Disable	
	RTP Packet Length	
	G.711 Frame Size: 20 ms 🔽	
	G.723 Frame Size: 60 ms 💟	
	G.729 Frame Size: 20 ms	
	Submit	

Solution & Interoperability Test Lab Application Notes ©2016 Avaya Inc. All Rights Reserved. Navigate to **Global SIP Settings**  $\rightarrow$  **Other Settings**, and verify the Caller ID was set to *Enable*, so that the calling party ID can be displayed during the conversation.

	Web Configuration	X
Phone Settings System Settings	Other Settings You could set the other settings in this page.	_
Global SIP Settings	Signaling Precedence(ToS) 0(Routing)	
SIP Accounts	Voice Precedence(ToS) 0(Routing)	
Network	RFC2833 Payload Type: 101 (96~127) Hotel Name Avaya	
	Room Number 101	
	SIP Mode Master	
	Log Server	
	Replace Sharp Disable	
	Caller ID Enable 💌	
	Submit Reset	

## 8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of the AEi Communications SDB-8000 SIP DECT Telephone with Avaya Aura® Communication Manager and Avaya Aura® Session Manager.

 Verify that the SDB-8000 SIP DECT Telephone has successfully registered with Session Manager. In System Manager, navigate to Elements → Session Manager → System Status → User Registrations to check the registration status. The SIP registration status can also be seen in the SIP Account page of the SDB-8000 web interface seen in Section 7.2.

me Session Manager							5							
Session Manager	Home	/ Element	s / Session Manager	/ System Stat	us / tise	r Registratio	15							
Dashboard Session Manager Administration	Select	A. G. OL 1975	istrations d notifications to device	s. Click on Deta	ile column	for complete								Help
Communication												0	untorn	ize
Profile Editor	Vier	v • Def	ault Force Unre		Device	st Reboot	Reload +	Failback	As of 2:3	2 PM		Advan	net S	en ci
Network Configuration	14 R	erns 🧟 S	ihow Al									Ŧ	Iter: E	nabl
Device and Location	0	Details	Address	First Name -	tast	Actual	IP Address	Remote	Sharnd	Simult.	AST	Regist		
Configuration	100	estres.	Converse	Vent Vroisen	Name	Location	72000001000	Office	Cuntrol	Devices	Device	Prim	Set	Sur
Application		Show	72028@avaya.com	72028	72028	1.000	10.64.10.215			1/1		(AC)		
Configuration		> Show	72029@avaya.com	72029	72029		10.64.10.209	-		1/1	8	100		
* System Status		> Show	72022@avays.com	Station2	SIP		10.64.41.212			1/1		D D A D		
SIP Entity	1	> Show	72021@avaya.com	station1	SIP	1.777	10.64.41.211			1/1	2	(AC)	1	
Monitoring	a second second	t = All, None												-
Managed	NOTIFIES .	- Second Property												
Randwidth Usage														
Security Module														
Status														
SIP Firewall														
Status														
Registration														
Summary														

2. Verify basic telephony features by establishing calls between a SDB-8000 SIP DECT Telephone with and another phone.

## 9. Conclusion

These Application Notes have described the administration steps required to integrate the AEi Communications SDB-8000 SIP DECT Telephone with Avaya Aura® Session Manager and Avaya Aura® Communication Manager. The AEi Communications SDB-8000 SIP DECT Telephone successfully registered with Session Manager and basic telephony and hospitality features were verified. All test cases passed with observations noted in **Section 2.2**.

## 10. References

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

- [1] Administering Avaya Aura® Communication Manager, Release 7.0.1, Issue 2, May 2016, Document Number 03-300509.
- [2] Administering Avaya Aura® System Manager for Release 7.0.1, Release 7.0.1, Issue 2, June 2016

The following document was provided by AEi Communications. [3] SDB-8000 Configuration Guide 1.0, May 2016

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