

Avaya Solution & Interoperability Test Lab

Application Notes for INI AudioMenus[™] with Avaya Aura® Experience Portal – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the INI AudioMenus[™] with Avaya Aura[®] Experience Portal. INI AudioMenus provides tools and a framework to build an IVR menu structure that integrates with Avaya Aura[®] Experience Portal.

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 in Thornton, CO.

1. Introduction

These Application Notes describe the configuration steps required to integrate the INI AudioMenus™ (AudioMenus) with Avaya Aura® Experience Portal. The calls were initiated from Avaya Aura® Communication Manager using either SIP trunks or H.323 connections to Experience Portal.

AudioMenus is a web-based administration tool that creates IVR menus and announcements for the Avaya Aura® Experience Portal platform. Dynamic, scalable routing applications can be deployed in real-time using the AudioMenus interface by users with little or no programming knowledge. AudioMenus includes features for uploading recorded prompts, scheduling application behavior based on date and time of day, and generating visual representations of call flows. A validation tool ensures error-free deployments, and the success and popularity of menu options can be measured using the built-in AudioMenus reporting functionality.

2. General Test Approach and Test Results

The general test approach was to place calls from Communication Manager to Experience Portal from where the AudioMenus application is launched. The main objectives were to verify the following:

- Calls using SIP connection between Experience Portal and Communication Manager
- Calls using H.323 connection between Experience Portal and Communication Manager
- The AudioMenus VXML application is initiated by Experience Portal
- Calls can be transferred to another extension/agent from the AudioMenus application
- The AudioMenus application can recognize DTMF tones
- The AudioMenus application can recognize speech
- Serviceability

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

2.1. Interoperability Compliance Testing

The interoperability compliance testing included feature and serviceability testing. The focus of interoperability compliance testing was primarily to verify that the AudioMenus application can be initiated from Experience Portal. The scope of testing included the navigation of the paths provided by the AudioMenus sample application using DTMF and Speech recognition.

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

2.2. Test Results

All test cases passed.

2.3. Support

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

- Web: <u>http://www.interactivenw.com/support.php</u>
- Email: support@interactivenw.com
- Phone: (800) 808-8090, say "Support"

3. Reference Configuration

Figure 1 illustrates the configuration used for testing. In this configuration, Avaya Aura® Experience Portal interfaces with Avaya Aura® Communication Manager via SIP or H.323 connection. INI AudioMenus was connected on the same LAN.



Figure 1: Avaya Aura® Experience Portal and INI AudioMenus

3.1. Equipment and Software Validated

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

Equipment	Software
Avaya Aura® Experience Portal (EPM/MPP)	R7.0.2
Avaya Aura® Communication Manager running in HP DL360 G7 server	R03.0.124.0-22450 – R6.3 SP11.1
INI AudioMenus	R1.0.0

4. Avaya Aura® Communication Manager

Configuration of Communication Manager is beyond the scope of this document. Please refer to **Section 9** [2] in this document for configuration of SIP Trunk between Communication Manager and Experience Portal.

Additionally, for H.323 connection, Experience Portal can register with Communication Manager as an IP phone for H.323. The following screen shows the station configured for H.323 connection.

change station 50200	Pa	ge 10	f 6
	STATION		
Extension: 50200	Lock Messages? <u>n</u>	BC	C: 0
Type: <mark>7</mark> 434ND	Security Code: 12345	Т	N: 1
Port: S00016	Coverage Path 1:	CO	R: 1
Name: AEP Station	Coverage Path 2:	CO	S: 1
	Hunt-to Station:		
STATION OPTIONS			
	Time of Day Lock Table:	_	
Loss Group:	2 Personalized Ringing Pattern:	1	
Data Module?	n Message Lamp Ext:	50200	
Display Module?	- ¥		
Display Language:	english Coverage Module?	n	
		—	
Survivable COR:	internal Media Complex Ext:		
Survivable Trunk Dest?	y IP SoftPhone?	Y	
	Remote Office Phone?	n	
	IP Video Softphone?	n	
	Short/Prefixed Registration Allowed:	default	

Note that **Type** field needs to be set to **7434ND** and **IP SoftPhone** needs to be set to **y**.

On **Page 2**, make sure that **Multimedia Mode** is set to **enhanced**. For rest of the fields on the station form, the default values can be used.

change station 50200	Pag	je 2	of	6
	STATION			
FEATURE OPTIONS				
LWC Reception: a	pe Auto Select Any Idle App	earan	ce?	n
LWC Activation? y	Y Coverage Msg Re	triev	al?	Y
LWC Log External Calls? n	n Auto	Answ	er:	none
CDR Privacy? n	n Data Rest	ricti	on?	n
Redirect Notification? y	Idle Appearance Pre	feren	ce?	n
Per Button Ring Control? n	n Bridged Idle Line Pre	feren	ce?	n
Bridged Call Alerting? n	n Restrict Last App	earan	ce?	Y
Active Station Ringing: s	single			
H.320 Conversion? n	Per Station CPN - Send Calling	Numb	er?	_
Service Link Mode: a	as-needed EC500 State	ena	blea	<u>d</u>
Multimedia Mode: e	enhanced Audible Message	Waiti	ng?	n
MWI Served User Type:	Display Client Redi	.recti	on?	n
AUDIX Name:	Select Last Used App	earan	ce?	n
	Coverage After Fo	wardi	ng?	3
	Multimedia Early	Answ	er?	n
Remote Softphone Emergency	y Calls: as-on-local Direct IP-IP Audio (lonnec	tio	ns? <u>y</u>
Emergency Location Ext: 5	50200 Always Use? <u>n</u> IP Audio Hair	pinni	ng?	<u>n</u>

For each H.323 connection to Experience Portal, a separate station needs to be created. For this compliance test, an additional station **50201** was created.

5. Configure Avaya Aura® Experience Portal

This section covers the administration of Avaya Aura® Experience Portal. The following Experience Portal configuration steps will be covered:

- Verify SIP or H.323 Connection
- Configuring INI AudioMenus Applications
- Starting the MPP server

Experience Portal is configured via the Experience Portal Management (EPM) web interface. To access the web interface, enter http://<*ip-addr*>/ as the URL in an internet browser, where <*ip-addr*> is the IP address of the EPM. Log in using the Administrator user role (not shown). The screen shown below is displayed.

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Coar Researched Scheller	Avaya Aura@ Experience Portal Manager
Login Dature • And Ann Rentring Souther Venture	Annual local Systems (Intel Hanger (Intel a considered with based application for advancements) Train Transport (Intel Terration and an original Systems Intel Annual
Rafina Calify Rant Clash Rashani * Byrchens Materianana	Installed Components
Trans Linear Ing Topol	Hode Processing Flatform Failures (1975) is in Arry codd possessing server. Now as 1979 warrang of here #100, 4 toolet a (yourld, (ar SONL) application on to application terms. 3 their communities with ANL and TTE among the process for and
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5.1. Verify SIP or H.323 Connection

Navigate to System Configuration \rightarrow VoIP Connections and click on the SIP connection ToCM3 (not shown) and the following screen is displayed. Make sure that the Enable field is set properly and the Address field has the IP address of the CLAN on Communication Manager. Also, the SIP Domain field is set to match the domain used for AudioMenus.

AVAYA	
Avaya Aura® Experience Po	ortal 7.0.2 (ExperiencePortal)
Expand All Collapse All	You are here: Home > System Configuration > VoIP Connections > Change SIP Connection
▼ User Management Roles Users	Change SIP Connection
Login Options • Real-time Monitoring	Use this page to change the configuration of a SIP connection.
Active Calls	Name: ToCM63
Port Distribution System Maintenance	Enable: O Yes O No
Audit Log Viewer Trace Viewer	Proxy Transport: TCP 🔻
Log Viewer Alarm Manager	Proxy Servers O DNS SRV Domain
▼ System Management	Address Port Priority Weight
Application Server EPM Manager	10.80.130.204 5060 0 0 Remove
MPP Manager Software Upgrade	Additional Proxy Server
System Backup System Configuration	Listener Port: 5060
Applications	SIP Domain: avaya.com
MPP Servers	P-Asserted-Identity:
SNMP Speech Servers	Maximum Redirection Attempts: 0
VoIP Connections Zones	Consultative Transfer: INVITE with REPLACES REFER
 Security Certificates 	SIP Reject Response Code:
Licensing	SIP Timers
 Reports Standard 	T1: 250 milliseconds
Custom	T2: 2000 milliseconds
Scheduled Multi-Media Configuration	B and F: 4000 milliseconds
Email SMS	Call Capacity
	Maximum Simultaneous Calls: 8
	 All Calls can be either inbound or outbound Configure number of inbound and outbound calls allowed

The following screen shows the H.323 connection configured between Experience Portal and Communication Manager. The **Gatekeeper Address** field is set to IP address of Communication Manager and the **password** field matches the **Security Code** field in **Section 4**. Additionally, make sure that **Configured Stations** section matches the stations configured in **Section 4**.

Avaya Aura® Experience P	ortal 7.0.2 (ExperiencePo	ortal)
Expand All Collapse All	You are here: Home >	System Configuration > VoIP Connections > Change H.323 Connection
• User Management		
Roles	Change H.323	3 Connection
Users		
Login Options	Use this page to chang	ge the configuration of an H.323 connection.
 Real-time Monitoring 	A 500.	
System Monitor	N1- CONTRACTOR	T-CNCD
Active Calls	Name:	I OCM63
Port Distribution	Enable:	Yes No
Audit Los Viewer		
Trace Viewer	Gatekeeper Address:	10.80.130.110
Log Viewer	Alternative Gatekeepe	r Address:
Alarm Manager	. atomative outercope	
System Management	Gatekeeper Port:	1719
Application Server	Madia Essentiant	A
EPM Manager	Media Encryption:	Yes V No
MPP Manager	New Stations	
Software Upgrade	New Stations	
System Backup	From	To
System Configuration	Station	
Applications	Station:	
EPM Servers	Password:	
MPP Servers	and the second se	
SNMP	Same Password	
Speech Servers		
VoIP Connections	O use sequential p	asswords
Zones	Тарона	d and Outhound
Cadificates	Station Type: Inhouse	d Only
Liconsing	Station type. InDound	Add
Reports	Mainter	nance
Standard	h.	
Custom	Configured Stations	s (M for Maintenance, I for Inbound Only)
Scheduled	ĺr.	
Multi-Media Configuration	50200 - 50201	*
Email		

Note: Only one of the SIP or H.323 connections can be enabled on Experience Portal.

5.2. Configure INI AudioMenus Applications

On the **Applications** page, add an AudioMenus application to handle incoming calls. Navigate to **System Configuration** \rightarrow **Applications** \rightarrow **Add**. The screen capture below shows the configuration used during compliance testing. The **VoiceXML URL:** field points to the AudioMenus application server. Note that two entries 55100 and 50200-50201 are entered in the **Application Launch** section. Entry **55100** was used for SIP connection between Experience Portal and Communication Manager and **50200 -50201** for H.323 connection. Click **Save**.

Note: Only one of the SIP or H.323 connections can be enabled on Experience Portal.

Avaya Aura® Experience Po	rtal 7.0.2 (ExperiencePortal)
Expand All Collapse All	You are here: Home > System Configuration > Applications > Add Application
• User Management Roles	Add Application
Login Options • Real-time Monitoring	Use this page to deploy and configure a new application on the Experience Portal system.
System Monitor Active Calls	Start With: <none> •</none>
Port Distribution	Name: AudoMenue
Audit Log Viewer Trace Viewer	Enable: • Yes O No
Log Viewer	Type: VoiceXML •
Alarm Manager System Management Application Server	Reserved SIP Calls: 🔹 None 🔿 Minimum 🔿 Maximum
EPM Manager MPP Manager	Requested:
System Backup	UIG .
 System Configuration Applications 	Single Fail Over Load Balance
EPM Servers MPP Servers SNMP	VoiceXML https://10.64.101.50:8844/AudioMenus/Start Ver URL:
Speech Servers VoIP Connections	Mutual Certificate Authentication: 🔘 Yes 🖲 No
Security Certificates	Basic Authentication: O Yes 🖲 No
Licensing	Speech Servers
Standard Custom	ASR: Nuance • TTS: Nuance •
Scheduled Multi-Media Configuration Email SMS	Languages:
	Application Launch
	Inbound O Inbound Default O Outbound
	🔘 Number 🤨 Number Range 💭 URI
	Called Number: To: Add
	55100
	50200 - 50201 Remove
	Speech Parameters +
	Researching Researchings a

Solution & Interoperability Test Lab Application Notes ©2015 Avaya Inc. All Rights Reserved. Once the application is added, return to the list of applications and select the pencil icon at the far right to edit the **Configurable Application Variables**.

AVAYA										3449 10
Avera Arrest Experiment I	Fortal 2.0.2	Depertusioner	eff							
Rame III Column III * Share Hanagement Rates Same Same Same Same Same	App	plications		a that are correct	v-dadood 35 Te Exected Fight 6.4401.					
 Koal Kima Konitaring Russen Monitari RD-re Calli Rot tombulsur 		Arre I	Treater	Territori	147	Lunt	418	***	Descentral VIP Calls	Lands
Build Long Viewer Trave Viewer	.0	ATTEMAN	194	Viviación.	Ngumbos.col.col.Rep/H75PM/Jaan	80802+12+931258, 80805+15+911293	Englimit(CSA) are US	English(AliA) an US Januthir	F legis	1
Agent Hamager Marris Hamager • System Hamagermant	10	ATTALESIMENTA	101	cores.	http://10.08.030.100.7080/#7760Pinfs/becident.per	00008+15+00089	No AGR	R6 775	New	
Application Server Shin Manager Anthe Manager	13	ATTERSTOR	14	Vergelie.	http://10.06.230.255.7080.WTTSDModer/Deet	000004154901058	Exploit(154) an-15	Esplaint/SH) en US Jerriter	r liera	1
Software largenin System Salast	10	Adates	180	NOTENT,	Harris 100-04-000-05-06-04-04-04-04-04-04-04-04-04-04-04-04-04-	8550E	Digital and	Englimitation en US Jerrefer	P Nove	1

In the **Application ID** field, type in the INI AudioMenus ID that will be launched. Note that there can be several applications which can be launched from AudioMenus and **Application ID** field can be used to determine which particular application is launched.



6. Configure INI AudioMenus

To access the web interface for INI AudioMenus, enter http://<FQDN>/ as the URL in an internet browser, where <FQDN> is the fully qualified domain name of the INI AudioMenus application server. Log in using appropriate credentials. From the home page, click AudioMenus.

🔹 🔒 https://nieudiomenos.avaya.com/sus/	
Interactive Northwest Inc.	Products * System Resources * Users and Groups * Reports * Change Password
•	
Here you can select products to administer	
Product =	
AudioManus	
Help	

The following screen is displayed. Select **Product Registration** from the **Application Administration** drop-down menu.

Interactive Northwest Inc.	Application Administration *	Reports *
A + AudioMenus Home	Applications	
Welcome to AudioMenus administration This is the web-based application for administering AudioMenus. The navigation item	Alert Users Product Registration	fine applications and run reports.

Verify that the licenses are installed as shown below:

Interactive Northwest Inc.	
TVR Self-Service Solutions	Application Administration * Reports *
* • AudioMenus Home • Product Registration	
This page displays the current license status including licensed new license.	f customer, systems and features. To upload a new šcense file, select the product name from t
License File Browsen No file selected.	
Upload	
Customer Information	
dateonssue:	08/01/2015
expirationdate:	Development
- F1-07196	Development
System Information	
mac	
AudioMenus Licensed Components	
asrenabled:	true
maxapps:	10
uulenabled:	true

Solution & Interoperability Test Lab Application Notes ©2015 Avaya Inc. All Rights Reserved. Select **Applications** from the **Application Administration** drop-down menu and the following screen is shown. Note that **ID 2** was used in **Section 6** while configuring the AudioMenus application to be launched from Experience Portal.

	nteractive Northw	vest Inc.	Application Administration * Reports *	
A + Audios	terms Horne * Appl	ications		
This page dis	plays the list of appl	cebors. You can add, modify or de	siete an application.	
	10	Description	Organizati	on
	1	Sample App	DEFAUL	ī_
0	2	Dev Connect App	DEFAUL	T

7. Verification Steps

This section provides the verification steps that may be performed to verify that Experience Portal is configured properly to instantiate AudioMenus application/s.

1. From the EPM web interface, verify that the MPP server is online and running in the **System Monitor** page shown below.

Ανάγα												
Avaya Aura® Experience	Portal 7.0.2 (Exper	iencePort	al)									
Expand All Collapse All	You are here:	Home > Re	al-Time N	Monitori	ng > Sys	stem Moni	tor					
User Management Roles Users Login Options Real-time Monitoring System Monitor	System This page disp	Monito	r (Oct :	1, 20	15 4:1 e local E	5:35 PI	M MDT) system plus	any re	mote E	xperien	ce Portal
Port Distribution	Summary	Experience	ePortal De	etails								
Audit Log Viewer								Last Po	II: Oct 1	l, 2015	4:15:22	2 PM MDT
Log Viewer Alarm Manager	Server Nan	пе Туре	Mode S	itate	Config	Ca Current L	II Capa licensed	c ity Maximum	Active In	Calls Out	Calls Today	Alarms
 System Management Application Server 	EPM / MPP1	EPM/MPP	Online R	unning	ок	0	0	100	0	0	0	
EPM Manager	Summary					0	0	100			0	

2. From the EPM web interface, verify that the ports on the MPP server are **In Service/Active** in the **Port Distribution** page shown below.

AVAYA	
Avaya Aura® Experience	Portal 7.0.2 (ExperiencePortal)
Expand All Collapse All	Pau are here: Home > Seal Time Remining > Port Displayion + Port Dismission Report
* User Hanagement Raiss Users Login Options	Port Distribution Report (Oct 1, 2015 4:18:05 PM MDT)
Real-time Monitoring System Nonitor Active Cells	This page displays information about how the telephony resources have been distributed to the MPRs. You configure the telephony resources on the YoIP Connections page.
Port Distribution - System Haintesance Audit Log Viewer Trace Viewer	Total Ports: 8 Lest Poll: Oct 1, 2015 4:18:05 FM MOT Port 3 Mode 3 State Port Group 3 Protocol 3 Current Allocation g Onine Inservice ToCM53 SSP_Truck MOPs



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AVAYA		
Avaya Aura® Experience	Portal 7.0.2 (ExperiencePortal)	
Expand All Collapse All	You are here: Home > Real-Time Monitor	ring > <u>Port Distribution</u> > Port Distribution Report
▼ User Management Roles Users	Port Distribution Report	: (Oct 1, 2015 4:21:39 PM MDT)
▼ Real-time Monitoring System Monitor Active Calls	This page displays information about hov	w the telephony resources have been distributed to the Mi
Port Distribution	Total Ports: 2	Last Poll: Oct 1, 2015 4:21:35 PM MDT
▼ System Maintenance	Port \$ Mode \$ State Port Group \$ P	Protocol Current Allocation Base Allocation
Trace Viewer	50200 Online Active ToCM63 H	H323 MPP1
Log Viewer Alarm Manager	50201 Online Active ToCM63 H	H323 MPP1

Port Distribution for H.323 Connection

3. The following screens show active calls on Experience Portal from the EPM web interface.

AVAYA	
Avaya AuroS Experience	Portal 7.6.3 (ExperiescePortal)
Expect All Collapse All * User Recagoment Roles Users	The set level Halls > Avail Time Receiving > Infree Calls Report Active Calls Report (Oct 1, 2015 4:30:20 PM MDT)
Luger Options • Real time Monitoring Statem Menter Active Calls	This page displays the attatus of the active calls being handled by the servers.
Port Distribution * Nystees Materiansee Audit Log Vener	Total Cells 1 Lest Pell: Oct 1, 2015 4:20:18 TM NO Port Strong 2 Protocol 2 Cell Type 2 MED Servor 2 Start Time 2 Colling Number/UNE 2 Celled Humber/UNE 2 Application 2 ASS Server 2 To Server 2 To CMU3 StP_True Industry MPPL Oct 1, 2215 4:20:19 PM NDT sp:SD2026xwww.com spi515000mwww.com AsServer1a
	Active Call for SIP Connection

AVAYA			
Averya Aarte Experience i	Portal 7.0.2 (ExperiencePortal)		
Expand All Collapse All	The are have Home i Nati Time Markering & Active Cafe Report		
User Hangement	a second with the second second second second second		
Anles Chars Losin Options	Active Calls Report (Oct 1, 2015 4:27:47 PM MDT)		
* Real-time Menitoring System Monitor	This page displays the status of the active calls being handled by the servers.		
Active Cells Pert Datification	Tutal Calls: 1		Last Poll: Oct 1, 2015 4:37:42 PM MD
* System Maintenance	Part \$ Part Group \$ Pratocal \$ Call Type \$ PPP Server \$ Start Time \$	Calling Number/URZ \$ Called Numb	er/UII 2 Application 2 ASI Server 2 115 Server
Audit Log Viewe	50200 TeCH65 H323 3Hbound MEV1 Del 1, 2015 4-27:42 PM MD1	ł tel:50200	Audiomenus LonvenV/ox

Active Call for H.323 Connection

8. Conclusion

These Application Notes describe the configuration steps required to integrate the INI AudioMenus with Avaya Aura® Experience Portal. All feature and serviceability test cases were completed successfully.

9. Additional References

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

- [1] Administering Avaya Aura® Experience Portal, December 2013
- [2] Administering Avaya Aura® Communication Manager, June 2015
- [3] INI AudioMenus Administration User Guide, August 2015

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