

CCS-UC-1 SIP Endpoint with Avaya Aura[®] 7.0 System

Configuration Guide Crestron Electronics, Inc.

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CCS-UC-1: SIP Endpoint with Avaya Aura 7.0

Introduction

This configuration guide describes the necessary procedure to configure a Crestron[®] Mercury[™] device to register to the Avaya[®] Aura Communication Manager as a basic SIP endpoint.

Audience

This document is intended for users attempting to configure and use Crestron Mercury devices as SIP endpoints registering to the Avaya Aura[®] Communication Manager.

Topology

The network topology for the Crestron Mercury endpoint to interop with the Avaya Aura is shown below.



SIP Endpoint Integration with Avaya - Reference Network

The lab network consists of the following components:

- Avaya Aura Communication Manager
- Avaya Aura Session Manager
- Avaya Aura System Manager
- Avaya H323 and SIP phones
- Avaya G430 Media Gateway
- Avaya Aura Communication Manager Messaging as the voicemail system
- Mercury as the SIP endpoints

Software Requirements

- Avaya Aura Communication manager v 7.0.1.1.0.441.23169
- Avaya Aura Communication manager messaging v 7.0-28.0
- Avaya Aura System Manager v 7.0
- Avaya Aura Session Manager v 7.0.1.1.701114
- Avaya G430 Media Gateway v 37 .39 .0 /2
- Mercury devices v 1.3211.00020

Hardware Requirements

- Avaya Components either in a virtual environment or separate hardware servers
 - o Avaya Aura Communication Manager
 - o Avaya Aura Session Manager
 - o Avaya G430 Media Gateway
 - o Avaya Aura Communication Manager Messaging
 - o Avaya Aura Session Manager
- PSTN Gateway
- Avaya Phones (3) in SIP and H323 mode
- Crestron Mercury devices (2)

Product Description

The Mercury device is a complete solution for conference rooms. It acts as an all-in-one touch screen, speakerphone, and AirMedia product for conference rooms that integrates microphones and speakers into the user interface at the table.

Crestron Toolbox[™] is used to discover and control all Crestron devices on the network.

The Crestron Mercury web interface is used to control the Crestron Mercury devices on the network.

Summary

The Mercury devices were configured on the Avaya Aura as basic SIP endpoints since they support only a single line/extension. The devices were successfully registered to the Avaya Aura Session Manager with digest authentication.

Features Supported

- Registration with digest authentication
- Basic calls with G722, G711u, and G711a codecs
- Caller ID (limited to only calling number)
- DTMF support
- Early media support
- Retrieval of a parked call
- Transferee in a call transfer
- Conference participant
- Member of hunt group
- Voicemail access and interaction

Features Not Supported

- Caller ID presentation with name and number display
- Call hold and resume
- Call forwarding on the device (Forwarding can be configured on the PBX for the DN assigned to the endpoint.)
- Call waiting
- Conference
- Attended call transfer
- Early attended call transfer
- Blind call transfer
- Shared line (configuration of shared line on device)
- Call park (initiating call park)
- Message Waiting Indicator

Known Issues/Limitations

- Caller ID is not supported on Mercury. This issue is tracked via Crestron's Bugzilla™ Defect: 119006.
- The Mercury device does not support music on hold when integrated with Cisco[®] Call Manager. This issue is tracked via Crestron's Bugzilla Defect: 118993.
- Message Waiting Indicator (MWI) is not supported on Mercury. This issue is tracked via Crestron's Bugzilla Defect: 116290.

Mercury Configuration

Setup

The Mercury device requires only one connection from its LAN port. The LAN port needs to be connected to one POE+ port to power it up and to be connected to the network for reachability to the Avaya Aura.

Configuring the Device

1. Access the web GUI for the device by using an http session with the device's IP address. 10.80.25.30 was used during test as the device IP address.

The initial page that displays is as shown below.

Crestron Mercury Login to Web GUI



2. Click **Sign In** and log in to the device. For information on device administration, refer to Doc. 7844 at <u>www.crestron.com/manuals</u>.

The **Status** screen that appears displays basic information on the device as shown below.

Crestron Mercury Configuration: Status Screen

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Het Name MEECURVAS Aduete 1		Encrypt Connection false	
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ID-4 Address: iPAdres 252:952:950 Address: Sdanet Maik 252:952:950 Default Gatewi 252:952:950 Default Gatewi 272:30:16.1 Default Gatewi 272:30:16.1 DMS servei 12:16:20:0134 DMS servei 12:16:20:0134 DMC Perabatie 100 Static Address: Sdanet Maik 000 Static Address: Sdanet Maik 000 Static DMS Servei 000 Static DMS Servei 000 Static DMS Servei 000 Gaters: IPAdress 640:210.7ff:rdm:54df Address: IPAdress fe00:210.7ff:rdm:54df Lick Statis true Lick Statis true			
Address: HP Addres 12:30.16.1 Address: Schutz 25:35:350 Default Gateway 12:30.16.1 Default Gateway 12:30.16.1 Default Gateway 12:30.13 DMS Server 12:10.820.0133 DMS Server 12:10.820.0134 DMS Server 12:10.820.0134 DMS Server 10:00 Static Address: Schutz 000 Static Address: Schutz 000 Static DMS Server 000 DMS Periode 000 Static DMS Server 000 Static DMS Server 000 DMS Periode 000 Static DMS Server 000.0 IPv6 000 IPv6 000.10:711/s68:54#		IP ₂ 4	
Adress ::PAdress :PAdress :PAdres :		Address : IP Address 172:30.16.6.1	
Default Galeway 1/2 148.200.134 DIMS Server 1/2 148.200.133 DIMS Server 1/2 148.200.134 DIMS Server 1/2 148.200.134 DIMS Server 1/2 148.200.134 DIMS Server 0/0.0 Static Address: Solations 0/0.0 Static Default Galeway 0/0.0 Static Default Galeway 0/0.0 Static DMS Server 0/0.0 IPv.6 0/0.2/17#riellos.54er Address: Solates in Policies in tw 0/0.2/17#riellos.54er		Address : Subnet Mask 255 255 255 0	
		Default Gateway 172.30.16.1	
DNDS server 39:03:03:4 DNDC Perturbation 000 Static Address: Sdarbet 000 Static CMS server 000 Static DMS Server 000 Lick Static Server 000 Lick Static Server 000		DNS Servers 192.168.200.133	
IPró NHCP Enabled true Static Address: Address 000 Static Address: Address 000 Static Address: Static Address 000 Static Def Satic 000 Address : Subort Satic 000 Lick Satis true Lick Satis true		DNS Servers 192168.200.134	
Static Address: Address: Oxio 0 Static Address: Shate: Maske : 00.00 Static Defail Editeway : 00.00 Static Defail Editeway : 00.00 Static Defail Editeway : 00.00 IP>6 Address: IP Address : 60: 210.7ff /68:: 54:6f Address: Subnet Prefix Lemp : 64 Statis : Ture : ::::::::::::::::::::::::::::::::::		DHCPEnabled true	
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Static DNS Server 0.00.0 Static DNS Server 0.00.0 IPv6 Address :IP Address : 60:0.210.7ff/id8b.54df Address :IP Address : 60:0.210.7ff/id8b.54df Address :Substature		Static Default Gateway 0.0.0	
Static DNS Server 0.0.0.0 IPv6 Address : IP Address : IP Address : 680.210.211/11/1680.54df Address : Subnet Perfix Length 64 Link Status : true		Static DNS Server 0.0.0.0	
IPv6 Address :IP A		Static DNS Server 0.0.0.0	
Address : IP Address : IP Address : 10:02:10:7#frielbs:54:ef Address : Subbres : Subbr		IPv6	
Address : Subnet Prefix Length 64 Link Status true		Address : IP Address : 1e80:::210.7fff.fe8b.54df	
Link Status true		Address:Subnet Prefix Length 64	
		Link Status true	

The device can be configured from the Network page.

3. On the web GUI, navigate to **Network**.

Crestron Mercury Configuration: Network Screen

CRESTRON		•
STATUS	▼ Network Setting	🖱 Revert 📑 Save Changes
	Host Name	mercury-alpha1
	Domain Name	lab.tekvizion.com
AIRMEDIA	Adapter 1	
	DHCP Enabled	Off
	IP Address	10.80.25.30
	Default Gateway	10.80.25.1
	DNS Server 1	10.64.1.3
	DNS Server 2	0.0.0.0
	Adapter 2	
	DHCP Enabled	Ooff
	IP Address	
	Subnet Mask	0.0.0
	Default Gateway	0000
	DNS Server 1 DNS Server 2	0000

- 4. Enter the following parameters in the **Adapter 1** section to configure the Mercury device.
 - **Domain Name**: lab.tekvizion.com, used in this example (mostly auto-detected by device when in DHCP mode).
 - DHCP: Either of the two can be chosen:
 - o Obtain an IP address automatically
 - Use the following IP address

For the test, a static IP was configured with the following parameters.

- IP address: 10.80.25.30, used in this example.
- Subnet Mask: 255.255.255.0, used in this example.
- **Default Gateway**: 10.80.25.1, used in this example.
- **DNS Servers**: 10.64.1.3, used in this example.
- 5. Click Save Changes.

Configure the SIP Parameters

1. On the web GUI, navigate to **Device > SIP Calling**.

@CRESTRON Maintenance . STATUS HDMI INPUT C Restore C Reboot . HDMI OUTPUT NETWORK Device Logs AVF . AIRMEDIA D Revert 📳 Save G Enable SIP On Transport Type UDP Server IP Address 10.89.26.7 Port 5060 Server Username 2102 Server Password ***** Server Realm Local Extension 2102 Proxy Server NONE SIP Server Status Online Assigned Ethernet Port O Adapter 1 Adapter 2 Enable Server Validation Disabled Select Trusted Certificate Authorities

Crestron: Mercury: Device Configuration: SIP Parameters

- 2. Enable the check box for **Enable SIP**.
- 3. Configure the **SIP Server IP Address:** Enter the IP address of the Avaya Aura Session Manager node. *10.80.26.7* was used in this example.
- 4. Configure the SIP port: 5060, used in this example.
- 5. Configure the **SIP Server Username**: Enter the end user configured on Avaya Aura Communication Manager for this device. *2102* was used in this example.
- 6. Configure the **SIP Server Password**: Enter the password as configured on Avaya Aura Communication Manager for this end user.
- 7. Configure the **SIP Local Extension**: Enter the directory number that was configured for this device on Avaya Aura Communication Manager. *2102* was used in this example.
- 8. Leave all other fields at their default values.
- 9. Click Save Changes.

Once the device successfully registers with the Avaya Aura Session Manager, the SIP Server Status updates its status to show *Online*.

Avaya Aura Communication Manager Configuration

This section describes the configuration necessary on the Avaya Aura Communication Manager (Avaya CM) to support registration of the devices and connectivity to PSTN.

It is assumed that the general installation and basic Avaya configuration has already been administered.

Node Names

Configure the node IP for Avaya Aura Session Manager and Avaya CM.

Use the **change name-names ip** command to add the node name. In this example, *ASM1* and *procr* have been added with their respective IPs.

- *ASM1* is an Avaya Aura Session Manager used in this example and is used to register the SIP phones and third-party SIP devices.
- procr is used to register H323 phones and SIP trunk.

Avaya Aura CM: Configure Node

display node-names :	ip	
		IP NODE NAMES
Name	IP Address	
ASM1	10.89.26.7	
derault	0.0.0.0	
procr	10.89.26.4	
procr6	::	
(4 of 4 adminis	stered node-na	ames were displayed)
Use 'list node-names	s' command to	see all the administered node-names
Use 'change node-nar	mes ip xxx' to	o change a node-name 'xxx' or add a node-name
Command:		
F1=Cancel F2=Refresh	h F3=Submit F4	4=Clr Fld F5=Help F6=Update F7=Nxt Pg F8=Prv Pg
Command: F1=Cancel F2=Refres	h F3=Submit F4	4=Clr Fld F5=Help F6=Update F7=Nxt Pg F8=Prv Pg

Media Gateway

The G430 media gateway was added for DSP resources utilization in Avaya.

The G430 provides VoIP services over the LAN and WAN. The G430 has an on-board VoIP DSP providing 20 VoIP channels, and supports an optional additional DSP board providing 10, 20, or 80 VoIP channels.

Avaya Aura CM: Media Gateway Configuration (1/3)

list	t media-gateway									
MEDIA-GATEWAY REPORT										
Num	Name	Serial No/ FW Ver/HW Vint/ RecRule	IPV4 Address/ IPV6 Address/ Cntrl IP Addr	Туре	NetRgn	Reg?				
1	G430	160L17035780 37 .39 .0 /2	10.89.26.14	g430	1	У				
		none	10.89.26.4							

Avaya Aura CM: Media Gateway Configuration (2/3)

display media-gateway 1			Page	1 of	2
	MEDIA GATEWAY <mark>1</mark>				
Type: Name:	g430 G430				
Serial No:	1601.17035780				
Link Encryption Type: Network Region:	any-ptls/tls 1	Enable CF? n Location: 1			
Recovery Rule:	none	Site Data:			
Registered? FW Version/HW Vintage: MGP IPV4 Address: MGP IPV6 Address: Controller IP Address: MAC Address:	y 37.39.0 /2 10.89.26.14 10.89.26.4 a4:25:1b:a7:b5:91				
Mutual Authentication?	optional				
F1=Cancel F2=Refresh F3=Su	ubmit F4=Clr Fld F5	=Help F6=Update	F7=Nxt Pg	F8=Prv	Pg

Configure the media gateway as shown above using the **add media-gateway** command.

- **Type**: *g430*, used in this example.
- Name: G430, used in this example.
- Serial No: 16OL17035780, used in this example.
- **Registered?**: *Y*, used in this example.

- MGP IPV4 Address: 10.89.26.14, used in this example.
- Controller IP Address: 10.89.26.4, procr IP used in this example.

Avaya Aura CM: Media Gateway Configuration (3/3)

display	y media-gateway	1						Page	2	of	2
		ME	DIA GAT	TEWAY	1						
			T	12	0						
			туре:	: g43	0						
Slot	Module Type	N	lame			DSP T	ype	FW/HV	l vei	rsior	1
V1:											
V2:	MM710	D	S1 MM			MP120		153	0		
V3:	MM711	A	NA MM								
V5:						Expan	sion	Type	HW 1	versi	lon
V6:											
V7:											
V8:						Max Sur	vivak	ole II	Ext	t: 8	
V9:	gateway-annound	cements A	INN VMM								
F1=Cano	el F2=Refresh H	73=Submit	F4=Clr	Fld	F5=Help	F6=Update	F7=N	Ixt Po	f F8=	=Prv	Pg

Dial Plan Analysis

Several dial strings were configured for this test to ensure complete test coverage that included calling between stations, calling to PSTN and accessing PBX features.

Configure the following dial patterns using the **change dialplan analysis** command.

Avaya Aura CM: Dial Plan Analysis

display dialpl	an anal	lysis						Pag	je 🛛	1 of	12
		D	IAL PLAN	ANAI	LYSIS TA	ABLE					
			Loc	atior	n: all			Percent	: Fu	111: 2	
Dialed T	otal (Call Di	ialed	Total	l Call	Di	aled	Tota	11	Call	
String L	ength 1	lype St	tring	Lengt	th Type	St	ring	Leng	jth	Туре	
2	4 ex	(t									
8	1 fa	ac									
9	1 fa	ac									
*	3 fa	ac									
#	3 da	ac									
F1=Cancel F2=R	efresh	F3=Submit	F4=Clr	Fld H	F5=Help	F6=Upd	ate	F7=Nxt	Pg	F8=Prv	Pg

- **Dialed string:** 2, used in this example for station number.
- Dialed string: 8, used in this example as feature access code.
- **Dialed string:** 9, used in this example as feature access code.
- Dialed string:*, used in this example as feature access code.
- Dialed string: #, used in this example as a dial access code.

The **display dialplan analysis** command can be used to view the configured dialed strings/codes.

Uniform Dial Plan

Configure a dial plan using the **change uniform-dialplan n** command, where n is the first digit of the extension numbers used for SIP stations in the system.

In the sample configuration, 4-digit extension numbers starting with "21xx" were used for extensions associated with the Avaya SIP phones and Crestron SIP devices.

To add the dialplan, issue the above command and configure:

- Matching Pattern: 21, starting digit of the extension number used for SIP in this example.
- Len: 4, used in this example.
- **Del**: 0, used in this example.

• Net: *aar*, used in this example.

Inbound Routing

DID numbers received from PSTN were mapped to extensions using the incoming call handling treatment of the receiving trunk group. Use the **change inc-call-handling-trmt** command to create an entry for each DID number.

Avaya Aura CM: Inbound Routing

change inc-ca	ll-handlir	ng-trmt tr	unk-grou	ւթ 1	Page	e 1 of	3 ^
		INCOMING	CALL HAN	NDLING TREATMENT			
Service/	Number	Number	Del	Insert			
Feature	Len	Digits					
tie	<mark>1</mark> 0 <u>972</u>	22657277	10	2102	_		
tie	10 972	22657278	10	2103			
tie							
tie							
tie							

Outbound Routing

Automatic Route Selection (ARS)

The **Automatic Route Selection (ARS)** feature is used to route outbound calls via the SIP trunk to the PSTN. In the sample configuration, the single digit **9** is used as the ARS access code. PBX users dial 9 to initiate a call to PSTN. This common configuration is illustrated below with little elaboration. Use the **change dialplan analysis** command to define a dialed string beginning with **9** of length **1** as a feature access code (**fac**).

Avaya Aura CM: Outbound Routing: Configure Dial Plan Analysis Table

change dialp	olan analysis				Page	1 of	12
		DIAL PLA Lo	AN ANALYSIS TABI	LE Pe	rcent F	ull: 3	
Dialed String <mark>O</mark>	Total Call Length Type <u>1</u> attd	Dialed String	Total Call Length Type	Dialed String	Total Length	Call Type	
	E	9	1 fac				

The following feature access codes were configured for this test:

- Auto Alternate Routing (AAR): 8, used in this example.
- Automatic Route Selection (ARS): 9, used in this example.

Avaya Aura CM: Outbound Routing: Configure Feature Access Codes

display feature-access-codes		Page	1	of	10
FEATURE ACCESS C	ODE	(FAC)			
Abbreviated Dialing List1 Access Code:					
Abbreviated Dialing List2 Access Code:					
Abbreviated Dialing List3 Access Code:					
Abbreviated Dial - Prgm Group List Access Code:					
Announcement Access Code:					
Answer Back Access Code:	*11				
Attendant Access Code:					
Auto Alternate Routing (AAR) Access Code:	8				
Auto Route Selection (ARS) - Access Code 1:	9	Access Code 2:			
Automatic Callback Activation:		Deactivation:			
Call Forwarding Activation Busy/DA: *14 All:	*10	Deactivation:	*15		
Call Forwarding Enhanced Status: Act:	*16	Deactivation:	*17		
Call Park Access Code:	*01				
Call Pickup Access Code:	*02				
CAS Remote Hold/Answer Hold-Unhold Access Code:					
CDR Account Code Access Code:					
Change COR Access Code:					
Change Coverage Access Code:					
Conditional Call Extend Activation:		Deactivation:			
Contact Closure Open Code:		Close Code:			
F1=Cancel F2=Refresh F3=Submit F4=Clr Fld F5=He	lp F	6=Update F7=Nxt Pq	y F8=	Prv	Pg

Use the **change ars analysis** command to configure the routing of dialed digits following the first digit 9.

For the test, an entry for the number beginning with 214242 was added using the above command and configuring:

- Dialed string: 214242, used in this example to call PSTN numbers.
- Min: 10, used in this example.
- Max: 10, used in this example.
- Route Pattern: 1, used in this example.
- Call Type: *natl*, used in this example.

Avaya Aura CM: Outbound Routing: Auto Route Selection

dis	play	ars analysis 2						Page	1 of	2 ^
				ARS DI	GIT ANALY	SIS TAB	LE			
Location: all								Percent H	full: 2	
		Dialed	Te	tal	Route	Call	Node	ANI		
		String	Mir	Max	Pattern	Type	Num	Reqd		
	2		7	7	2	hnpa		n		
	2142	242	10	10	1	natl		n		
	3		7	7	2	hnpa		n		
	4		7	7	2	hnna		20		

Route Pattern

The route pattern defines which trunk group will be used for the call and performs any necessary digit manipulation. Use the **change route pattern n** command, where n is the route pattern number to configure the parameters for the PSTN trunk route pattern.

Route pattern: *1*, used for Public numbering plan for calling PSTN via Avaya Aura Session manager.

Grp No: 1, used in this example.

Avaya Aura CM: PSTN Route Pattern Configuration

dis	play ro	oute-p	atter	n 1									Page	1	of	3
				Pattern 1	Number	r: 1		Patt	tern 1	Name	: T	runk	Group	1		
	SCCAN	? n	Secu	re SIP? 1	n	Used	for	SIP	stati	ions	? n					
	Grp FI	RL NPA	Pfx	Hop Toll	No.	Inse	rted							D	CS/	IXC
	No		Mrk	Lmt List	Del	Digit	ts							QS	SIG	
					Dgts									Ir	ntw	
1:	1 ()												I	1	user
2:														I	ı	user
3:														I	ı	user
4:														I	ı	user
5:														I	ı	user
6:														1	ı	user
	BCC V	/ALUE	TSC	CA-TSC	ITC	BCIE	Serv	/ice/	/Featu	ure I	PARM	Sub	Numbe	erin	ng I	LAR
	0 1 2	M 4 W		Request								Dgts	Forma	at		
1:	УΥУ	ууn	n		rest	t							lev0-	-pvt	t r	ione
2:	УΥΥ	ууn	n		rest	t									r	ione
3:	У У У	ууn	n		rest	t									r	ione
4:	УΥΥ	ууn	n		rest	t									r	none
5:	У У У	ууn	n		rest	t									r	ione
6:	УΥУ	ууn	n		rest	t									r	ione
F1=0	Cancel	F2=Re:	fresh	F3=Subm:	it F4=	-Clr 1	Fld H	75=He	elp F(6=Upo	iate	F7=N	xt Pg	F8=	=Prv	7 Pg

Route pattern: *2*, used as a Private numbering plan for accessing the Voicemail feature offered by Avaya Communication Manager Messaging via Avaya Aura Session manager.

Avaya Aura CM: Voicemail Route Pattern Configuration

dis	pla	ιy	rc	out	:e-	pa	atter	rn 2										Page	2	1	of	3
								Pat	tern 1	Number	c: 2		Pat	tern	Name	: Tr	unk	Grou	2			
	SC	:CI	M.	? r	1		Secu	ire	SIP? 1	n	Used	for	SIP	sta	tions	3? n						
	Gr	:p	FF	ΥL	NI	<u>2</u> A	Pfx	Hop	Toll	No.	Inse	rted								DC	CS/	IXC
	No						Mrk	Lmt	List	Del	Digi	ts								QS	SIG	
										Dgts										Ir	ıtw	
1:	2		0)																I	1	user
2:																				I	1	user
3:																				I	1	user
4:																				I	1	user
5:																				I	1	user
6:																				I	1	user
	_							~			DOTE			1			G 1					
	<u>ь</u>	300	2	AI N	JUE		15C	CA-	ISC	IIC	BCIE	Ser	vice,	/rea	ture	PARM	Sur	о мui	we	r11	ıg .	LAR
	0	1	2	M	4	W	_	кеq	uest		_						Dgt	101 83	rma	С 		
1:	Y	Υ	Υ	Y	Y	n 	n			res	-							Te	70-	pvi		none
2:	Y	Y	Y	Y	Y	n	n			res	-										1	none
3:	Y	Y	Y	Y	Y	n 	n			res	-										1	none
	Y	¥	Y	Υ	Υ	п —				res	-											none
5:	Y	Y	Y	Y	Y	11	-11			res	-											none
0:	Y	Υ	Υ	Υ	Υ		11			res												lone
								_			_	_	_	_	_	_						_
F1=(~an	CE	1	F2			Freel	n F3:	=Subm:	it F4:	-Clr (FIA	F5=H	eln	F6=Ur	date	F7=	=Nyt i	Dar 1	F8=	=Dro	n Pa
11-(Jan		-	2.2		(61	LTC91	1 1 3	-Dubin.	10 11	UII .	LTU.	10-10	стр	10-01	hadte	1 /-	MAG 1	- y	10-	11	v ry

Auto Alternative Routing

Use the **change aar analysis n** command, where **n** is the first digit of the extension numbers used for SIP stations in the system.

The following entries were configured for this test:

- Dialed number: 21, used for Avaya SIP phones and Crestron Mercury SIP devices.
- Dialed number: 2222, used for voicemail access.

Avaya Aura CM: Modify AAR Digit Analysis Table

display aar analysi:	з 2						Page	1 of	2		
	1	AAR D	IGIT ANALY								
			Location:	all		Per	Percent Full: 2				
Dialed	Tot	tal	Route	Call	Node	ANI					
String	Min	Max	Pattern	Tvpe	Num	Req	d				
21	4	4	2	aar		n					
2222	4	4	2	aar		n					
28	4	4	2	aar		n					
3	7	7	254	aar		n					
4	7	7	254	aar		n					
5	7	7	254	aar		n					
6	7	7	254	aar		n					
7	7	7	254	aar		n					
8	7	7	254	aar		n					
9	7	7	254	aar		n					

Trunk Groups

Two trunk groups were configured for this test:

- **Trunk Group 1** utilized a public numbering plan to access the stations registered to the Avaya Session Manager.
- **Trunk Group 2** utilized a private numbering plan to send 4-digit calling number to Avaya Communication Manager Messaging or voicemail access.

Use the **add trunk-group n** command to add a new trunk group, where **n** is the trunk group number.

Configure Trunk Group 1:

- Group Number: 1, used in this example.
- Group Name: trunk to asm, used in this example.
- Group Type: *sip*, used in this example.
- Service Type: *tie*, used in this example.
- TAC: #10, used in this example.
- Signaling Group: 1, used in this example.
- Number of Members: 10, used in this example.
- Preferred Minimum Session Refresh Interval (Sec): 1800.
- Numbering Format: public.

Avaya Aura CM: Trunk Configuration to Session Manager (1/4)

display trunk-group 1		Page	1 of 21
	TRUNK GROUP		
Group Numbers 1	Group Tuper gip	CDP Pap	oxta u
Group Name: trunk to asm	Group Type: Sip	ты. 1	TAC: #10
Direction: two-way	Outgoing Display? y	11. 1	INC: #10
Dial Access? n	Niç	ght Service:	
Queue Length: 0			
Service Type: tie	Auth Code? n		
	Member	Assignment Meth	od: auto
		Signaling Gro	up: 1
		Number of Membe	rs: 10

Avaya Aura CM: Trunk Configuration to Session Manager (2/4)

display trunk-group 1	Page	2 of	21
Group Type: <mark>s</mark> ip			
TRUNK PARAMETERS			
Unicode Name: auto			
Redirect On OPTIM 1	Failure:	5000	
SCCAN? n Digital Loss	s Group:	18	
Preferred Minimum Session Refresh Interva	al(sec):	1800	
Disconnect Supervision - In? y Out? y			
XOIP Treatment: auto Delay Call Setup When Acce	essed Via	a IGAR	? n
Caller ID for Service Link Call to H.323 1xC: station-extension	on		
F1=Cancel F2=Refresh F3=Submit F4=Clr Fld F5=Help F6=Update F7=	=Nxt Pg)	F8=Prv	Pg

Avaya Aura CM: Trunk Configuration to Session Manager (3/4)



Avaya Aura CM: Trunk Configuration to Session Manager (4/4)

display t	runk-group 1	Page	4 of	21
	PROTOCOL VARIATIONS			
	Mark Users as Phone?	n		
Prepend '	+' to Calling/Alerting/Diverting/Connected Number?	n		
	Send Transferring Party Information?	n		
	Network Call Redirection?	n		
	Send Diversion Header?	n		
	Support Request History?	Y		
	Telephone Event Payload Type:			
	Convert 180 to 183 for Farly Media2	2		
	Alwaya Uga ra_INVITE for Dignlay Undated?			
	Aiways use re-invite for Display Opuales:	II Enom		
	Reach Conding Colling Porty Legation in INVITED	From		
	Block Sending Calling Party Location in Invite?	n 		
	Accept Redirect to Blank User Destination?	n		
	Enable Q-SIP?	n		
	Interworking of ISDN Clearing with In-Band Tones:	keep-chan	nel-act	ive
	Request URI Contents: may-ha	ave-extra-	digits	
F1=Cancel	. F2=Refresh F3=Submit F4=Clr Fld F5=Help F6=Update	F7=Nxt Pg	F8=Prv	Pg

Configure Trunk Group 2:

- Group Number: 2, used in this example.
- Group Name: CM Messaging, used in this example.
- Group Type: *sip*, used in this example.
- Service Type: *tie*, used in this example.
- TAC: #002, used in this example.
- Signaling Group: 1, used in this example.
- Number of Members: *5*, used in this example.
- Preferred Minimum Session Refresh Interval (Sec): 1800.
- Numbering Format: private.

Avaya Aura CM: Trunk Configuration to Session Manager (1/4)

change trunk-group 2	Page 1 of 22 ^
	TRUNK GROUP
Group Number: 2 Group Name: <u>CM Messaging</u>	Group Type: <u>sip</u> CDR Reports: y COR: <u>1</u> TN: <u>1</u> TAC: <u>#002</u>
Direction: <u>two-way</u> Dial Access? n	Outgoing Display? <u>n</u> Night Service:
Oueue Length: 0 Service Type: tie	Auth Code? n
	Member Assignment Method: auto Signaling Group: <u>1</u> Number of Members: 5
	≡
	· · · · · · · · · · · · · · · · · · ·

Avaya Aura CM: Trunk Group 2 Configuration for Private Numbering (2/4)



Avaya Aura CM: Trunk Group 2 Configuration for Private Numbering (3/4)

display trunk-group 2	Page 3 of 21	L
TRUNK FEATURES <mark>.</mark> ACA Assignment? n	Measured: none Maintenance Tests? y	
Suppress # Outpulsing? n N	umbering Format: private 001 Treatment: service-provider	
	Replace Restricted Numbers? n Replace Unavailable Numbers? n	
	Hold/Unhold Notifications? y Modify Tandem Calling Number: no	
Show ANSWERED BY on Display?	Y	

Avaya Aura CM: Trunk Group 2 Configuration for Private Numbering (4/4)



Signaling Group

Use the *add signaling-group* command to create a signaling group between Communication Manager and Session Manager for use by the PSTN SIP trunk. This signaling group is used for inbound and outbound calls between the PBX and PSTN.

The *add signaling-group n* command was used to add the Signaling Group in the system, where n is the signaling group number used in this example.

For this test, signaling group 1 was configured.

- Group Number: 1, used in this example.
- Group Type: *sip*, used in this example.
- Transport Method: tcp, used in this example.
- Peer Server: SM, used in this example.
- Near-end Node Name: procr, used in this example.
- Near-end Listen Port: 5060, used in this example.
- Far-end Node Name: ASM1, used in this example.
- Far-end Listen Port: 5060, used in this example.
- Far-end Network Region: 1, used in this example.
- Far-end Domain: *lab.tekvizion.com*, used in this example.

• Direct IP-IP Audio Connections? *n*, used in this example.

Avaya Aura CM: Signaling Group Configuration

display signaling-group 1	Page 1 of 2
SIGNALIN	G GROUP
Group Number: 1 Group Type	: sip
IMS Enabled? n Transport Method	: tcp
Q-SIP? n	
IP Video? n	Enforce SIPS URI for SRTP? y
Peer Detection Enabled? y Peer Server	: SM
Prepend '+' to Outgoing Calling/Alertin	g/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: ASM1
Near-end Listen Port: 5060	Far-end Listen Port: 5060
	Far-end Network Region: 1
Far-end Domain: lab.tekvizion.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
H.323 Station Outgoing Direct Media? n	Alternate Route Timer(sec): 6
F1=Cancel F2=Refresh F3=Submit F4=Clr F1	d F5=Help F6=Update F7=Nxt Pg F8=Prv Pg

Codecs

Use the **change ip-codec-set** command to define a list of codecs to use for calls between the PBX and PSTN.

For the test, **ip-codec-set 1** was used for this purpose. The Crestron Mercury device supports **G.711A**, **G.722**, and **G.711MU**. These codecs were configured in this set. To test the codecs with Mercury, enter *G.711A*, *G722*, and *G.711MU* in the **Audio Codec** column of the table. Default values can be used for all other fields.

Avaya Aura CM: Codec Configuration

display ip-code	c-set 1			Page	1 of	2
	IP	CODEC SET				
Codec Set: 3	1					
Audio	Silence	Frames	Packet			
1: G.711A	n	2	20			
2: G.711MU	n	2	20			
3: G.722-64K		2	20			
4:						

Hunt Group

Two hunt groups were configured for this test:

- Hunt Group Extension: 2200, used in this example for Group Hunt feature.
- Hunt Group Extension: 2222, used in this example for Voicemail feature.

Use the *add hunt-group n* to add a new hunt group, where n is the available hunt group number.

Avaya Aura CM: Hunt Group Configuration (1/3)

list	hunt-group											
			HU	JNT (GROUPS	5						
Grp No.	Grp Name/ Ext	Grp Type	ACD/ MEAS	Vec	МСН	Que	No. Mem	Cov Path	Notif/ Ctg Adj	Dom Ctrl	Mess Cent	age er
1 2	Crestron HG 2200 cmm_hunt	circ	n/-	n	none	n	0	1	n		n	
	2222	ucd-mia	n/-	n	none	n	0		n		S	

Configure the Hunt Group:

- Group Number: 1, used in this example.
- Group Name: Crestron HG, used in this example.
- Group Extension: 2200, used in this example.
- **Group Type:** *circ*, used in this example to enable sequential ringing on the hunt group members.
- Coverage Path: 1, used in this example that includes hunt group members that will be alerted sequentially.

Avaya Aura CM: Hunt Group Configuration (2/3)



Use the *add coverage path n* command, where n is the available coverage path number, to add the coverage path which includes members of the hunt group.

Coverage path 1 was configured in the test. This is invoked by Hunt Group 1. Coverage Points configured:

- Point1: 2000, station used in this example.
- Point2: 2103, station used in this example.
- Point3: 2102, station used in this example.
- Point4: 2101, station used in this example.

Avaya Aura CM: Hunt Group Coverage Path Configuration

display coverage path 1					
	COVERAGE	E PATH			
Coverage	e Path Number:	1			
Cvg Enabled for VDN Ro	oute-To Party?	n Hunt	after Cover	age? n	
Next	: Path Number:	Linka	ige		
COVEDACE CRITERIA					
Station/Group Status	Ingide Call	Outside Cal	1		
Active?	Inside Call	outside cai	L		
Buerro	11	11			
Donit Anguar2	¥	Y T	Number	f Dingas 2	
Don't Answer?	Y T	Y	Number c	DI RINGS: 2	
AIL?	11	11			
DND/SAC/Goto Cover?	Y	Y			
Holiday Coverage?	n	n			
COVERAGE POINTS					
Terminate to Coverage 1	ts. with Bride	ged Appearances	3? n		
Point1: 2000 Rr	ng: 1 Point2:	2103	Rng: 1		
Point3: 2102 Rr	ng: 3 Point4:	2101	Rng:		
Point5:	Point6:				
Command:					
F1=Cancel F2=Refresh F3=Sub	omit F4=Clr Flo	d F5=Help F6=Up	date F7=Nxt	: Pg F8=Prv	Pg

Configure the voicemail hunt pilot:

- **Group Number:** *2*, used in this example.
- Group Name: *cmm_hunt*, used in this example.
- Group Extension: 2222, used in this example.
- Group Type: *ucd_mia*, used in this example.

Avaya Aura CM: Hunt Group Configuration for Voicemail

display	hunt-group 2			Page	1 of	60	
	HUNT GROUP						
	Group Number:	2	ACD?	n			
	Group Name:	cmm_hunt	Queue?	n			
	Group Extension:	2222	Vector?	n			
	Group Type:	ucd-mia	Coverage Path:				
	IN:	1	Night Service Destination:				
	COR:	1	MM Early Answer?	n			
	Security Code:	1234	Local Agent Preference?	n			
ISDN/SI	P Caller Display:	mbr-name					

Music on Hold

Configure the Music on Hold source using the following:

- enable announcement-board 1v9 command to enable music source 1v9.
- *add audio group n* command to add the source of audio.
 - Audio Source Location: 001v9, used in this example.

Avaya Aura CM: MoH Configuration

display au	udio-group 1	L						
			AUDIO GRO	UP 1				
		Group	Name: MOH					
AUDIO SOU	RCE LOCATION	1						
1: 001V	9 16:	31:	4	6:				
2:	17:	32:	4	7:				
3:	18:	33:	4	8:				
4:	19:	34:	4	9:				
5:	20:	35:	5	0:				
6:	21:	36:						
7:	22:	37:						
8:	23:	38:						
9:	24:	39:						
10:	25:	40:						
11:	26:	41:						
12:	27:	42:						
13:	28:	43:						
14:	29:	44:						
15:	30:	45:						
Command:								
F1=Cancel	F2=Refresh	F3=Submit 1	F4=Clr Fld	F5=Help	F6=Update	F7=Nxt	Pg F8=Prv	Pg

• *add announcement n* command is used to add the new announcement associated with station number.

- **Extension**: *2050*, used in this example.
- o Annc Name: *music*, used in this example.
- Annc Type: *integ-mus*, used in this example.
- **Source**: *001v9*, used in this example.

Avaya Aura CM: Announcement Configuration

display announcement 20	050	
	ANNOUNCEMENTS/AUDIO SOURCE	5
Extension: 2050 Annc Name: music Annc Type: integ-mus Source: 001V9	COR: TN: Queue?	1 1 b
Protected? n	Rate:	64

- *display music-sources* command used to see the list of music sources configured on the system.
 - Source No: 1, used in this example.
 - **Type**: *music*, used in this example.
 - o **Source**: Type: *ext 2050*, used in this example.

Avaya Aura CM: Music Source Configuration

display music-	sources				Page	1 of	17
		MU	SIC SOURCES				
Source N	lo. Type	Source		1	Descripti	on	
1:	music	Type: ext	2050				
2:	none						
3:	none						
4:	none						
5:	none						
6:	none						
7:	none						
8:	none						
9:	none						
10:	none						
11:	none						
12:	none						
13:	none						
14:	none						
15:	none						
F1=Cancel F2=F	Refresh F3=Su	ubmit F4=Clr	Fld F5=Help	F6=Update	F7=Nxt P	g F8=Prv	Pg

Verify the configuration using the list integrated-announcement board.

Avaya Aura CM: Integrated Announcement Configuration

list int	egrated	-annc-board	3		
	Source:	001V9	INTEGRATED ANNOUNCEMENTS Time Rema	ining at 64Kbps:	: 2796
Internal Number NA	. Group Number	Announcemen Extension 2050	nt Name music	Length (Sec) 51 4	Size (Kb) 11

Configuring a User for Each Device/Phone

A user was configured for each phone or Crestron device used in the test.

Navigate to Home > User Management > Manage Users.

1. Click Add New. The User Profile configuration window appears.

Avaya Aura CM: Phone Configuration (1/4)

AVAYA		Last Logged on a						
Aura [®] System Manager 7.0		Go						
Home User Management * Ro	Home User Management * Routing *							
Vser Management Home / Users / User Management / Manage Users								
Manage Users		Help						
Public Contacts	Public Contacts User Profile View: 2102@lab.tekvizion.com							
Shared Addresses								
System Presence	dentity Communication Profile Membership Contacts							
Communication	User Provisioning Rule 💿							
Profile Password	User Provisioning Rule:							
Policy	×1							
	Identity 💿							
	Last Name: Test2							
	Last Name (Latin Translation): Test2							
	First Name: user2							
	First Name (Latin Translation): user2							
	Middle Name:							
	Description:							
	Update Time : September 15, 2016 9:17							
	Login Name: 2102@lab.tekvizion.com							
	User Type: Basic 🔻							
	Source: local							
	Localized Display Name: Test2, user2							
	Endpoint Display Name: Test2, user2							
	Title:							
	Language Preference: English (United States)							
	Time Zone:							
	Employee ID:							
	Department:							
	Company: admin							
•		• • •						

- 2. Configure Last Name and First Name: *Test2*, used in this example.
- 3. Configure Login Name: 2102@lab.tekvizion.com, used in this example.
- 4. Select Communication Profile tab.

Avaya Aura CM: Phone Configuration (2/4)

AVAVA								
Aura [®] System Manager 7.0								
Home User Management ×								
User Management Home / Users / User Mana	User Management Home / Users / User Management / Manage Users							
Manage Users	Manage Users							
Public Contacts User Profile Ed	lit: 2102@lab.tekvizion.com							
Shared Addresses								
System Presence Identity * Comm	unication Profile Membership Contacts							
ACLs								
Communication	Communication Profile 🔹							
Profile Password	Communication Profile Password: ••••••••••••••••••••••••••••••••••••							
Policy ORew ODelete	Done Cancel							

- 5. Configure **Communication Profile Password:** enter the desired password for the SIP user to use for registration.
- 6. Confirm Password.
- 7. Scroll down to Communication Address sub-section, and click **New** to add a new address.

Avaya Aura CM: Phone Configuration (3/4)

AVAYA				Last Logged on at October 13, 2016 1:59 PM			
Aura [®] System Manager 7.0				Go P Log off admin			
Home User Management * Routing *							
Vuser Management Home / Users / User Management / Manage Users							
Manage Users				Help ?			
Public Contacts User Profile	Public Contacts User Profile View: 2102@lab.tekvizion.com Edit Don						
Shared Addresses							
System Presence Identity Com	munication Profile Membership	Contacts					
Communication Communication	tion Profile 🔹						
Profile Password Name							
Policy Primary							
Select : None							
	* Name: Prim	ary					
	Default : 🗹						
	Communication Address 💌						
	Туре	Handle	Domain				
	Avaya SIP	2102	lab.tekvizion.com				
	Session Manager Profile 💌			1			
	Primary Session Mana	ger Lab126-SM7					
	Secondary Session Mana	ger					
	Survivability Ser	ver					
	Max. Simultaneous Devi	ces 1 V					
	Block New Registration When						
	Maximum Registrations Activ	/e?					
	Application Sequences						
	Origination Sequer	Lab126-CM7	•				
	Termination Sequer	Lab126-CM7	•				
	Call Routing Settings						

8. Communication Manager Type Avaya SIP.

- 9. SIP Registration: Primary Session Manager.
- 10. Check the CM Endpoint Profile check box.

Avaya Aura CM: Phone Configuration (4/4)

Call Routing Settings Home Location Lab126-Plano • Conference Factory Set (None) • Call History Settings	
Enable Centralized Call History?	
CM Endpoint Profile 🖲	
System Lab126-CM7 V	
Profile Type Endpoint	
Extension 2102 View Endpoint	
Set Type 9600SIP	
Security Code	
Port 500003	
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	
Presence Profile P	
	Edit Done

- 11. Configure System: Lab126-CM7, used in this example.
- 12. Configure **Profile Type**: *Endpoint*, used in this example.
- 13. Configure Extension: 2102, used in this example.
- 14. Click Done.

Avaya Aura Session Manger

Domain

Create an SIP domain for each domain the Session Manager needs to be aware of in order to route calls.

To configure a domain, perform the following procedure.

- 1. Navigate to **Home > Routing > Domains**.
- 2. Click New.
- 3. Enter the following information.
 - **Name:** Enter the domain name. *lab.tekvizion.com* was used in this example.
 - Type: Select *sip* from the drop-down menu.
 - Notes: Add a brief description (optional).
 - o Click **Commit** to save (not shown).

Avaya Aura SM: Domain Configuration

AVAYA				Last Logged on at October 13, 2016 1:59 PM
Aura [®] System Manager 7.0				
Home User Manageme	nt × Routing ×			
▼ Routing	Home / Elements / Routing / Domains			0
Domains				Help ?
Locations	Domain Management			
Adaptations	New Edit Delete Duplicate M	lore Actions 👻		
SIP Entities				
Entity Links	1 Item 🍣			Filter: Enable
Time Ranges	Name	Туре	Notes	
Routing Policies	lab.tekvizion.com	sip	Lab126-Avaya Aura 7.0	
Dial Patterns	Select : All, None			
Regular Expression	15			
Defaults				

Location

Locations can be used to identify logical and/or physical locations where SIP Entities reside for the purposes of bandwidth management and call admission control.

To add a location, perform the following procedure.

- 1. Navigate to **Routing > Locations**.
- 2. Click the **New** button.
- 3. In the General section, enter the following values:
 - **Name:** Enter a descriptive name for the location: *Lab126-Plano* was used in this example.
 - **Notes:** Add a brief description (optional).
 - o Use default values for all remaining fields.
 - o Click **Commit** to save.

Avaya Aura SM: Location Configuration

AVAYA Aura [®] System Manager 7.0			Last L Go	ogged on at October 13, 2016 1:59 PM
Home User Management	× Routing ×			
* Routing	Home / Elements / Routing / Location	5		0
Domains	Location			Help ?
Locations	Eocation			
Adaptations	New Edit Delete Duplicate	More Actions 👻		
SIP Entities				
Entity Links	1 Item 🍣			Filter: Enable
Time Ranges	Name	Correlation	Notes	
Routing Policies	Lab126-Plano		Lab126 Avaya Aura 7.0	
Dial Patterns	Select : All, None			
Regular Expressions				
Defaults				

Adaptation

Adaptations are used to modify SIP messages that are administered. An SIP entity can have its own unique adaptation, or one adaptation can be shared among multiple entities. Session Manager includes a module called DigitConversionAdapter, which can convert digit strings in various message headers as well as hostnames in the Request-URI and other headers.

To configure an adaptation, perform the following procedure.

- 1. Navigate to: Home > Routing > Adaptations.
- 2. Click New.

Avaya Aura SM: Adaptation Configuration

AVAVA							Last Logged on at Octo	per 13, 2016 1:59 PM
Aura [®] System Manager 7.0						Go.		Log off admin
Home User Managemen	nt × Routing ×							
▼ Routing	Home / Elements / Routing /	Adaptations						0
Domains	Adaptation Datai				Con	amit Cancel		Help ?
Locations		15			Con	unit Cancer		
Adaptations	General							
SIP Entities		* Adaptation Nam	e: DomainAdapte	er				
Entity Links		* Module Name:	DigitConversionAda	apter 🔻				
Time Ranges	Module	e Parameter Type:	Name-Value Param	eter 🔻				
Routing Policies								
Dial Patterns			Add Remove					
Regular Expression:	5		Name	*	Value			
Defaults			fromto		true			
			odstd		lab.tekviz	zion.com		
			osrcd		lab.tekviz	tion.com		
			Select : All, None					
	L.							
	Eg	ress URI Parameter	rs:					
		Note	es:					
	Digit Conversion for I	icoming calls to	0.514					[
	Add Remove							
	2 Items 🍣							ilter: Enable
	Matching Pattern	Min Max	Phone Context	Delete Digits Ins	sert Digits	Address to modify	Adaptation Data	Notes
	19725980143	* 11 * 11		* 1		both 🔻		
	19725980145	* 11 * 11		* 1		both 🔻		
	Select · All None							4
	Solder Fray None							

- 3. Configure the adaptation as follows:
 - o Adaptation Name: DomainAdapter, used in this example.
 - Module Name: DigitConversionAdapter from the drop-down menu.
 - Module Parameter Type: Name-Value Parameter from the drop-down menu.
 - o Fromto: true.
 - o Odstd: lab.tekvizion.com.
 - o Osrcd: lab.tekvizion.com.
 - **Notes:** Add a brief description (optional).
 - o Click Commit to save.

SIP Entity

An SIP Entity must be added for Session Manager and for each SIP telephony system connected to it, which includes Communication Manager and Avaya Communication Manager Messaging component.

Avaya Aura SM: SIP Entity

AVAVA				_	Last Logged on at October 13, 2016 1:59 PM		
Aura [®] System Manager 7.0				G	0 F Log off admin		
Home User Management	× Rout	ting ×					
Kouting Home / Elements / Routing / SIP Entities							
Domains					Help ?		
Locations	SIP	Entities					
Adaptations	New	Edit Delete Duplica	te More Actions 🔹				
SIP Entities							
Entity Links	7 Iter	ms ಿ			Filter: Enable		
Time Ranges		Name	FQDN or IP Address	Туре	Notes		
Routing Policies		Lab126-CM7	10.89.26.4	СМ	Lab126 CM		
Dial Dattorns		Lab126-CMM7	10.89.26.25	Messaging			
		Lab126-EDP	10.89.26.15	Avaya Breeze			
Regular Expressions		Lab126-PS7	lab.tekvizion.com	Presence Services			
Defaults		Lab126-SBCE	10.89.26.13	SIP Trunk			
		Lab126-SM7	10.89.26.7	Session Manager	Lab126 Avaya Session Manager 7.0		
		PSTN-CorpGW	10.64.1.72	Other			
	Select	t : All, None					

To add an SIP entity, perform the following procedure.

- 1. Navigate to **Routing > SIP Entities.**
- 2. Click on the **New** button.

Avaya Aura CM: SIP Entity- CM Configuration (1/2)

AVAYA			Last Logged on at October 13, 2016 1:59 P	Â
Aura [®] System Manager 7.0				
Home User Management * Rou	uting ×			
Routing	/ Elements / Routing / SIP Entities		c	ł
Domains			Help ?	
Locations	P Entity Details	C	ommit Cancel	
Adaptations	ieral		1	
SIP Entities	* Name:	Lab126-CM7		
Entity Links	* FQDN or IP Address:	10.89.26.4		
Time Ranges	Туре:	CM •		
Routing Policies	Notes:	Lab126 CM		
Dial Patterns				
Regular Expressions	Adaptation:	DomainAdapter V		
Defaults	Location:	Lab126-Plano V		
	Time Zone:	America/Chicago •]	
	* SIP Timer B/F (in seconds):	4		
	Credential name:			
	Securable:			
	Call Detail Recording:	none 🔻		
Loor	on Detection			11
	Loop Detection Mode:	On T		
	Loop Count Threshold:	5		U.
	Loop Detection Interval (in msec):	200		
SIP	Link Monitoring			
	SIP LINK MONITOPING:	Use Session Manager Configuration •		
				U.
	Supports Call Admission Control:			
	Shared Bandwidth Manager:			
	Primary Session Manager Bandwidth Association:			
Back	kup Session Manager Bandwidth Association:			
				-

3. In the General section, enter the following values.

- a. **Name:** Enter a descriptive name. *Lab126-CM7* was used for the Avaya CM in this example.
- b. **FQDN or IP Address:** Enter the FQDN or IP address of the SIP Entity interface that is used for SIP signaling. *10.89.26.4* was used in this example.
- c. **Type:** Enter *Session Manager* for Session Manager, *CM* for Communication Manager, and *Other* for the Avaya SBCe.
- d. Adaptation: DomainAdapter, used in this example.
- e. Location: Select one of the locations defined previously-Lab126-Plano.
- f. Time Zone: Select the time zone for the location above.
- g. To define the ports used by Communication Manager, scroll down to the **Port** section of the **SIP Entity Details** screen.
- h. In the Port section, click Add and enter the following values.
 - **Port:** Port number on which the CM will listen for SIP requests. *5060* was used in this example.
 - **Protocol:** Transport protocol to be used to send SIP requests. *TCP* was used in this example.
 - Use default values for all remaining fields.

Avaya Aura CM: SIP Entity-CM Configuration (2/2)

Entity Links Override Port & T	ransport wit	h DNS SRV: 🔲						
Add Remove							Filt	er: Enable
Name	<u>^</u>	SIP Entity 1	Protocol	Port	SIP Entity 2	Port	Connection Policy	Deny New Service
* Lab126SM- Select : All, None	Lab126CM	Lab126-SM7 🔻	ТСР 🔻	* 5060	Lab126-CM7 🔹	* 5060	trusted 🔻	

Similarly, add an SIP entity for the Avaya SM.

Avaya Aura SM: SIP Entity- SM Configuration (1/2)

AVAVA				Last Logged on at Novembe	r 9, 2016 3:40 PM 🔶
Aura [®] System Manager 7.0				Go	Log off admin
Home User Management	× Routing ×				
Routing	Home / Elements /	Routing / SIP Entities			0
Domains Locations	SIP Entity I	Details		Commit Cancel	Help ?
Adaptations	General				
SIP Entities		* Name:	Lab126-SM7		
Entity Links		* FQDN or IP Address:	10.89.26.7		
Time Ranges		Type:	Session Manager 🔻		
Routing Policies		Notes:	Lab126 Avava Session Manager 7.0		
Dial Patterns					
Regular Expressions		Location:	Lab126-Plano 🔻		
Defaults		Outbound Proxy:	•		
		Time Zone:	America/Chicago 🔻		
		Credential name:			
	SIP Link Moni	toring			
		SIP Link Monitoring:	Use Session Manager Configuration 🔻		

- Name: Lab126-SM7, used in this example for an SIP entity of Avaya SM.
- IP address: 10.89.26.7, used in this example.
- Type: Session Manager, used in this example.
- Notes: Lab126 Avaya Aura Session Manager 7.0, used in this example.
- Adaptation: *DomainAdapter*, used in this example.
- Location: Lab126-Plano, used in this example.
- Time Zone: America/Chicago, used in this example.

Avaya Aura SM: SIP Entity-SM Configuration (2/2)

Entit	y Links								
Add	Remove								
5 Iten	ns 🥲								Filter: Enable
	Name 🔺	SIP Entity 1	Protocol	Port	SIP Enti	ty 2	Port	Connection Policy	on Deny New Service
	* Lab126-CMM7	Lab126-SM7 🔻	TCP V	* 5060	Lab126	-CMM7 ¥	* 5060	trusted	•
	* Lab126-SM7_Lab126-SB(Lab126-SM7 🔻	TCP V	* 5060	Lab126	-SBCE 🔻	* 5060	trusted	•
	* Lab126-SM7_PSTN-Corp(Lab126-SM7 🔻	UDP 🔻	* 5060	PSTN-C	orpGW 🔻	* 5060	trusted	•
	* Lab126SM-Lab126CM	Lab126-SM7 🔻	TCP V	* 5060	Lab126	-CM7 🔻	* 5060	trusted	•
	* Lab126SM-Lab126EDP	Lab126-SM7 🔻	TLS 🔻	* 5061	Lab126	-EDP 🔻	* 5061	trusted	•
Select	: All, None								
Liste TCP F TLS F	ailover port: 5060 ailover port: 5061								
Add	Remove								
3 Iten	ns ಿ								Filter: Enable
	Listen Ports Prote	ocol Default Don	nain	Endp	oint N	lotes			
	5060 TCF	▼ lab.tekvizio	n.com 🔻						
	5060 UDI	P▼ lab.tekvizio	n.com 🔻						
	5061 TLS	3 ▼ lab.tekvizio	n.com 🔻						
Select	: All, None								

Similarly, add an SIP entity for the PSTN Gateway.

				Last Logged o	on at November 9, 2016 3:40 PM
Aura [®] System Manager 7.0				Go	✓ Log off admin
Home User Management	× Routing ×				
[▼] Routing	Home / Elements / Ro	outing / SIP Entities			0
Domains					Help ?
Locations	SIP Entity De	etails		Commit Cancel	
Adaptations	General				
SIP Entities		* Name:	PSTN-CorpGW		
Entity Links		* FQDN or IP Address:	10.64.1.72		
Time Ranges		Type:	Other 🔻		
Routing Policies		Notes:			
Dial Patterns					
Regular Expressions		Adaptation:	•		
Defaults		Location:	•		
		Time Zone:	America/Chicago 🔻		
	* SIP T	imer B/F (in seconds):	4		
		Credential name:			
		Securable:			
		Call Detail Recording:	none •		
	CommP	Profile Type Preference:	•		
	Loop Detection				
	Loop Detection	Loop Detection Mode:	On •		
		Loop Count Threshold:	5		
	1		200		
	Loop Detec	tion Interval (in msec):	200		

- Name: *PSTN-CorpGW*, used in this example for an SIP entity of PSTN Gateway.
- IP address: 10.64.1.72, used in this example.
- **Type:** *Other*, used in this example.
- Time Zone: America/Chicago, used in this example.

Avaya Aura SM: SIP Entity Configuration (2/2)

STP Link Monitoring	
STP Link Honitoring	
SIP Link Monitoring: Use Session Manager Configuration	
Supports Call Admission Control:	
Shared Bandwidth Manager: 📃	
Primary Session Manager Bandwidth Association:	
Backup Session Manager Bandwidth Association:	
Entity Links	
Override Port & Transport with DNS SRV:	
Add Remove	
1 Item 🖓	Filter: Enable
□ Name ▲ SIP Entity 1 Protocol Port SIP Entity 2 Port	Connection Deny New Policy Service
Lab126-SM7_PSTN-Cor Lab126-SM7 V UDP V * 5060 PSTN-CorpGW V * 5060	trusted 🔻 🗌
Select : All, None	
SIP Responses to an OPTIONS Request	
Add Remove	
0 Items	Filter: Enable
Response Code & Reason Phrase	Mark Entity Notes Up/Down
Commit	Cancel

Similarly, add an SIP entity for the Avaya Communication Manager Messaging.

Avaya Aura SM: SIP Entity- Avaya Communication Manager Messaging Configuration (1/2)

AVAVA			Last Logged on at	November 9, 2016 3:40 PM
Aura [®] System Manager 7.0			Go	✓ Log off admin
Home User Management * Routing *				
Routing Home / Elements / F	Routing / SIP Entities			0
Domains Locations SIP Entity D	etails		Commit Cancel	Help ?
Adaptations General				
SIP Entities	* Name:	Lab126-CMM7		
Entity Links	* FQDN or IP Address:	10.89.26.25		
Time Ranges	Type:	Messaging •		
Routing Policies	Notes:			
Dial Patterns		·,		
Regular Expressions	Adaptation:	DomainAdapter •		
Defaults	Location:	Lab126-Plano 🔻		
	Time Zone:	America/Chicago 🔻		
* SIP	Timer B/F (in seconds):	4		
	Credential name:			
	Securable:			
	Call Detail Recording:	none •		
Loop Detection	Loop Detection Mode:	On T		
	Loop Count Threshold:	5		
Loop Date	estion Interval (in meas)	200		
Loop Dete	ection interval (in msec):	200		

- Name: Lab126-CMM7, an entity of Avaya Communication Manager Messaging.
- IP address: 10.89.26.25, used in this example.
- Type: *Messaging*, used in this example.
- Adaptation: *DomainAdapter*, used in this example.
- Location: Lab126-Plano, used in this example.
- Time Zone: America/Chicago, used in this example.

SIP Link Monitoring					
SIP Link Monitoring:	Use Session Manager	Configuration *			
Supports Call Admission Control:					
Shared Bandwidth Manager:					
Primary Session Manager Bandwidtl Association:	h				
Backup Session Manager Bandwidtl Association:	۱				
Entity Links					
Override Port & Transport with DNS SRV:					
Add Remove					
1 Item 🛛 🔊					Filter: Enable
Name SIP Entity 1	Protocol Port	SIP Entity 2	Port	Connection	n Deny New Service
* Lab126-CMM7 Lab126-SM7 •	TCP • * 5060	Lab126-CMM7 •	* 5060	trusted	•
Select : All, None					
SIP Responses to an OPTIONS Reg	uest				
Add Remove					
0 Items 🛛 🥲					Filter: Enable
Response Code & Reason Phrase				Mark Entity Up/Down	Notes
			Commit	Cancel	

Avaya Aura SM: SIP Entity - Avaya Communication Manager Messaging Configuration (2/2)

Entity Links

An SIP trunk between Avaya Session Manager and a telephony system is described by an Entity Link. Three entity links were created: one to Communication Manager, one to the Avaya Communication Manager Messaging, and one to the PSTN gateway.

Avaya Aura SM: Entity Links

Aura [®] System Manager 7.0	O Help ?										
Home Routing X Routing Home / Elements / Routing / Entity Links	O Help ?										
Routing Home / Elements / Routing / Entity Links	O Help ?										
Domning	Help ?										
Domains Help ?											
Locations Elitity Links											
Adaptations New Edit Delete Duplicate More Actions											
SIP Entities	Iter: Enable										
Entity Links DNS Connection Down	Now										
Time Ranges Name SIP Entity 1 Protocol Port SIP Entity 2 Derive Connection Deny	vice Notes										
Routing Policies	ו										
Dial Patterns Lab126-SM7 Lab126- SBCE 5060 TCP Lab126-SM7 TCP 5060 Lab126-SBCE 5060 trusted	J										
Regular Expressions Lab126-SM7 PSTN- CorpGW 5060 UDP Lab126-SM7 UDP 5060 PSTN-CorpGW 5060 trusted E	J										
Defaults Eleb126SM-Lab126CM Lab126-SM7 TCP 5060 Lab126-CM7 5060 trusted	ו										
Lab1265M-Lab126EDP Lab126-5M7 TLS 5061 Lab126-EDP 5061 trusted	3										
Select : All, None											

To add Avaya CM as an entity link, perform the following procedure.

- 1. Navigate to **Routing > Entity Links**.
- 2. Click on the New button. Fill in the following fields in the new row that is displayed:
 - o Name: Enter a descriptive name.
 - SIP Entity 1: Select the Session Manager.
 - Protocol: TCP, used in this example.
 - o Port: 5060, used in this example.
 - o SIP Entity 2: Select the Communication Manager.
 - o **Port:** *5060*, used in this example.
 - o Connection Policy: Select Trusted.
- 3. Click Commit to save.

Avaya Aura SM: Avaya CM Entity Link Configuration

AVAVA Aura [®] System Manager 7.0						Last Lo Go	ogged on at November 10, 2016 Log off a	12:18 PM
Home Routing X								
Routing	Home / Elements / Routing / E	ntity Links						0
Domains							Help	?
Locations	Entity Links			C	Commit Cancel			
Adaptations								
SIP Entities	1 Itom						Filter: Enabl	a IT
Entity Links	I Rem 🥲				1		Filter: Enable	-
Time Ranges	Name	SIP Entity 1	Protocol	Port	SIP Entity 2	DNS Override	Port Connection Policy	
Routing Policies	*Lab126SM-Lab126CM	* Q Lab126-SM7	TCP •	* 5060	* Q Lab126-CM7		* 5060 trusted •	
Dial Patterns	4							f
Regular Expressions	Select : All, None							

To add Avaya Communication Manager Messaging as an entity link, perform the following procedure.

1. Navigate to **Routing > Entity Links**.

- 2. Click on the New button. Fill in the following fields in the new row that is displayed:
 - **Name:** Enter a descriptive name.
 - o SIP Entity 1: Select the Avaya Communication Manager Messaging.
 - **Protocol:** *TCP*, used in this example.
 - **Port:** *5060*, used in this example.
 - SIP Entity 2: Select the Session Manager.
 - o **Port:** *5060*, used in this example.
 - Connection Policy: Select Trusted.
- 3. Click Commit to save.

Avaya Aura SM: Avaya CMM Entity Link Configuration

AVAVA Aura [®] System Manager 7.0					Last Logged on at Nor Go	vember 10, 2016 12:18 PM	Î		
Home Routing X							1		
▼ Routing	Home / Elements / Routing / E	Entity Links				0			
Domains						Help ?			
Locations	Entity Links Commit Cancel								
Adaptations	aptations								
SIP Entities	1 Itom					Filter: Epoble			
Entity Links	i item 🥲					Filter: Chable			
Time Ranges	Name	SIP Entity 1	Protocol Port	SIP Entity 2	DNS Override	Connection Policy			
Routing Policies	* Lab126-CMM7	* Q Lab126-SM7	TCP * * 5060	* Q Lab126-CMM7	* 5060	trusted •			
Dial Patterns	4					•			
Regular Expressions	Select : All, None						-		

To add PSTN GW as an entity link, perform the following procedure.

- 1. Navigate to **Routing > Entity Links**.
- 2. Click on the **New** button. Fill in the following fields in the new row that is displayed:
 - o Name: Enter a descriptive name.
 - **SIP Entity 1:** Select the PSTN GW.
 - **Protocol:** *TCP*, used in this example.
 - **Port:** *5060*, used in this example.
 - SIP Entity 2: Select the Session Manager.
 - o Port: 5060, used in this example.
 - Connection Policy: Select Trusted.
- 3. Click **Commit** to save.

Avaya Aura SM: PSTN GW Entity Link Configuration

AVAVA Aura [®] System Manager 7.0						Last L Go	ogged on at Nov	ember 10, 2016 12:1	8 PM ^	
Home Routing ×										
▼ Routing	Home / Elements / Routing / En	tity Links							0	
Domains				_				Help ?		
Locations	Entity Links Commit Cancel									
Adaptations	Adaptations									
SIP Entities	1 Them 1							Eilten Enable		
Entity Links	i item 🧓	1						Filter: chable		
Time Ranges	Name	SIP Entity 1	Protocol Po	ort S	SIP Entity 2	DNS Override	Port	Connection Policy		
Routing Policies	* Lab126-SM7_PSTN-Corp(* QLab126-SM7	UDP * *	5060	* Q PSTN-CorpGW		* 5060	trusted 🔻		
Dial Patterns	•							÷.		
Regular Expressions	Select : All, None			_					-	

Routing Policy

Routing Policies describe the conditions under which calls are routed to the SIP entities. Three routing policies were added for this test: one for Communication Manager, one for the Voicemail, and one to the PSTN GW.

To add a routing policy for Avaya CM, perform the following procedure.

- 1. Navigate to **Routing > Routing Policies**.
- 2. Click on the **New** button.

Avaya Aura SM: Routing Policy Configuration (1/3)

											Last Logg	ed on at October 13, :
ura [©] System Manager 7.0											Go	Log
Home User Management *	Routing ×											
🔹 Routing 💦 📢	Home / Elements /	Routing	/ Rou	ting P	olicies							
Domains												Help ?
Locations	Routing Po	licy I	Deta	alls							Comn	nit Cancel
Adaptations	General											
SIP Entities			*	Name:	Rout	ing to	CM7					
Entity Links			Dis	abled:								
Time Ranges			* R	etries	0							
Routing Policies				Notes:						_		
Dial Patterns												
Regular Expressions	SIP Entity as	Destin	atio	n								
Defaults	Select											
	Name		FQ	DN or I	(P Add	ress			Туре	r	Notes	
	Lab126-CM7		10	.89.26.	4				СМ		Lab126 CM	
	Time of Day											
	Add Remove	View G	Gaps/O	verlaps)							
	1 Item 🛛 🍣											Filter: Enable
	🗌 Ranking 🔺	Name	Mon	Tue	Wed	Thu	Fri Sa	t Sun	Start Tin	ne End Ti	me Notes	
	0	24/7	1		1	1	1		00:00	23:5	9 Time	Range 24/7
	Select : All, None											
	Dial Patterns											
	Add Remove											
	2 Items 🖓											Filter: Enable
	Pattern 🔺	Min	Мах	Emer	gency	Call	SIP D	omain		Driginating	Location	Notes
	2	2	4				-ALL-			Lab126-Plan	0	
	9722657	10	36				lab.te	kvizion.co	m	Lab126-Plan	0	
	Select : All, None											

- 3. In the General section, enter the following values.
 - Name: *Routing to CM7* used in this example.
 - SIP Entity as Destination: Select the Avaya CM: *Lab126-CM7* used in this example.
 - Use default values for all remaining fields.
- 4. Add the following Dial patterns that can be routed using this policy:
 - **Pattern:** *2,* Avaya and Crestron endpoints had their 4 digit extensions starting with 2.
 - Pattern: 9722657, 10 digit Avaya and Crestron endpoints DID starting with 9722657.

Similarly, add a routing policy for the PSTN GW.

Avaya Aura SM: Routing Policy Configui	iration	(2/3)
--	---------	-------

AVAVA		Last Logged on at October 13, 20:
Aura [®] System Manager 7.0		Go Log off
Home User Management	Routing	aunn
• Routing	Home / Elements / Routing / Routing Policies	
Domains		Helj
Locations	Routing Policy Details	Commit Cancel
Adaptations	General	
SIP Entities	* Name: to PSTNCorpGw	
Entity Links	Disabled:	
Time Ranges	* Retries: 0	
Routing Policies	Notes	_
Dial Patterns	notes.	
Regular Expressions	SIP Entity as Destination	
Defaults	Select	
	Name FQDN or IP Address	Type Notes
	PSTN-CorpGW 10.64.1.72	Other
	Time of Day	
	Add Remove View Gaps/Overlaps	
	1 Item 🧶	Filter: Enabl
	🗌 Ranking 🔺 Name Mon Tue Wed Thu Fri Sat Sun Sta	rt Time End Time Notes
		00:00 23:59 Time Range 24/7
	Select : All, None	
	Dial Patterns	
	Add Remove	
	4 Items 🥲	Filter: Enabl
	Pattern 🔺 Min Max Emergency Call SIP Domain	Originating Location Notes
	011 3 15 -ALL-	Lab126-Plano
	1 11 11 -ALL-	Lab126-Plano
	214242 10 10 -ALL-	Lab126-Plano
	-ALL-	L00120-FI0IIU

- 1. In the **General** section, enter the following values.
 - Name: to PSTNCorpGw, used to reach PSTN in this example.
 - SIP Entity as Destination: *PSTNCorpGw*, used in this example.
 - Use default values for all remaining fields.
- 2. Add the following Dial patterns that can be routed using this policy:
 - **Pattern:** *011*, an 11 digit international dialing pattern starting with 1 was used in this example.
 - Pattern: *214242*, a 10 digit PSTN dialing pattern starting with 214242 was used in this example.
 - **Pattern:** *1*, an 11 digit national dialing pattern starting with 1 was used in this example.

Similarly, add a routing policy for the Avaya Communication Manager Messaging - Voicemail System.

AVAVA		Last Logge	d on at October 13, 20:	
Aura [®] System Manager 7.0		Go	Log off	
Home User Management	Routing ×			
▼ Routing 4	Home / Elements / Routing / Routing Policies			
Domains			Helj	
Locations	Routing Policy Details	Comm	it Cancel	
Adaptations	General			
SIP Entities	* Name: Routing to CMM7			
Entity Links	Disabled:			
Time Ranges	* Patrics: 0			
Routing Policies	Natas			
Dial Patterns	Notes:			
Regular Expressions	SIP Entity as Destination			
Defaults	Select			
	Name FQDN or IP Address	Туре	Notes	
	Lab126-CMM7 10.89.26.25	Messaging		
	Time of Day			
	Add Remove View Gaps/Overlaps			
	1 Itam		Filter: Enabl	
	Panking A Name Mon Tue Wed Thu Fri Sat Sun Start Time	End Time	Notes	
		23:59	Time Range 24/7	
	Select : All, None			
	D' L D. Hanne			
	Dial Patterns			
	Add Remove			
	1 Item 👌		Filter: Enabl	
	Pattern 🔺 Min Max Emergency Call SIP Domain Origin	ating Location	Notes	
	2222 4 4 -ALL- Lab12	6-Plano		
	Select : All, None			

Avaya Aura SM: Routing Policy Configuration (3/3)

- 1. In the General section, enter the following values.
 - Name: *Routing to CMM7* was used to reach PSTN in this example.
 - SIP Entity as Destination: *Lab126-CMM7*, used in this example.
 - Use default values for all remaining fields.
- 2. Add the following Dial patterns that can be routed using this policy:
 - Pattern: 2222, used as the Voicemail pilot in this example.

Avaya Communication Manager Messaging

This section describes the steps for configuring the Avaya Communication Manager Messaging to interoperate with Avaya Aura Session Manager via SIP trunking.

Switch Link Administration

To administer the switch link, perform the following procedure.

1. Navigate to Administration > Messaging > Switch Link Administration > Switch Link Admin.

Avaya Communication Manager Messaging Switch Link Administration	

AVAYA	Avaya Aura [®] Communication Manager Messaging System Management Interface (SMI)
Help Log Off	Administration
Administration / Messaging	This Server: Lab126-CMM7
Server Reports System Evaluation IMAP Traffic SMTP Log Summary	Switch Link Administration The Switch Link Administration page is used for administration of the switch link parameters of the messaging system.
ICP/IP Snapshot Measurements	BASIC CONFIGURATION
Remote Text Addresses Dormant Mailboxes	Extension Length 4 V
Full Mailboxes Diagnostics	Switch Integration Type SIP
Alarm Origination Network Connection	IP Address Version IPv4
POP3 Connection IMAP4 Connection	SIP SPECIFIC CONFIGURATION
Mail Delivery Name Server Lookup Test Outgoing Call Sequence	SIP Domain Messaging lab.tekvizion.com Far-end lab.tekvizion.com
Software Management List Messaging Software Software Verification	Far-end Connections
Call Transfer Administration Allowed Number Addition Allowed Number Deletion Allowed Number Display	Connection 1 IP 10.89.26.7 TCP V Port 5060 Monitor interval
Denied Number Addition Denied Number Deletion Denied Number Display	Messaging Address IP 10.89.26.25 TCP Port 5060 TLS Port 5061
Call Transfer Type Voice Equipment Diagnostics Busy	Messaging Ports Call Answer Ports 24 Maximum 24 Transfer Ports 12
Diagnose Display	Switch Trunks Total 36 Maximum 36
Release Switch Link Administration Switch Link Admin	Save Help Show Capacity Calculator Show Advanced Options
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- 2. Configure the following:
 - Extension Length: 4, used in this example.
 - Switch Integration Type: *SIP*, used in this example.
 - IP Address Version: IPV4, used in this example.
 - SIP Domain: *lab.tekvizion.com*, used in this example.
- Connection 1: 10.89.26.7, Avaya Session manager IP used in this example.

• Messaging Address: 10.89.26.25, used in this example.

Messaging Server

To configure the parameters for the Communication Manager Messaging Server, perform the following procedure.

1. Navigate to Administration > Messaging >Server Administration > Messaging Server Admin.

Avaya Communication Manager Messaging: Messaging Server Configuration

AVAYA			Avaya Aura® Co	mmunio _{Sys}	cation Manag	anager Messaging gement Interface (SM	g I)
Help Log Off	Administration						
Administration / Messaging						This Server: Lab126-CMM	17
Sending Restrictions System Administration Announcement Sets Announcement Admin	Edit Messaging Serve	Server	anging of the local messagi	ng server.			A
Announcement Copy Fax Options Fax Dial Strings Dial Sequences MCAPI Options	Server Name	Lab126-CMM	7	<u>P</u>	<u>assword</u> <u>Confirm</u> assword		
Thresholds Outcalling Options	IP Address	10.89.26.25		<u>Se</u>	rver Type	tcpip 🔻	
Activity Log Configuration Non-Admin Remote Subs Server Administration	<u>Mailbox</u> <u>Number Length</u>	4 🔻	<u>Default</u> <u>Community</u>		1 🔻		
External Hosts Trusted Servers Messaging Server Admin	Voiced Name	NO			<u>Voice ID</u>		
Networked Servers Request Remote Update IMAP/SMTP Administration	Updates In	no 🔻		Up	dates Out	no V	
General Options Mail Options IMAP/SMTP Status	Remote LDAP Port	56389		Log U	<u>pdates In</u>	no V	
Messaging Networked Machines Excluded Mailbox Admin Server Information	MAILBOX NUMBER RA	NGES					
System Status Alarm Summary	<u>Prefix</u>		Starting Mailbox Nur	<u>nber</u>	Ending M	lailbox Number	
Voice Channel Monitor Server Notes			2000		2999		
Utilities Messaging DB Audits Change Extensions							
Start Messaging Stop Messaging							Ŧ
	C	2001-2015 Av	aya Inc. All Rights Reserved.				

2. Configure the following parameters:

- Server Name: Lab126-CMM7, used in this example.
- IP Address: 10.89.26.25, used in this example.
- Starting Mailbox Number: 2000, used in this example.
- Ending Mailbox Number: 2999, used in this example.

Subscriber

To create a subscriber of the messaging server, perform the following procedure.

1. Navigate to: Administration > Messaging > Messaging Administration > Subscriber Management.

Avaya Communication Manager Messaging Subscriber Configuration (1/3)

AVAYA		Av	aya Aura	[®] Communicatio _{System}	on Manager Messaging Management Interface (SMI)
Help Log Off	Administration				
Administration / Messaging					This Server: Lab126-CMM7
Messaging Administration Subscriber Management Attendant Management Enhanced List Setup Enhanced List Management Classen efficancia	dit Local Subsc he Edit Local Subscriber	riber allows the changing	or deletion of a	a local subscriber.	
Limits Features	Last Name	tekvdut		First Name	
Sending Restrictions System Administration	<u>Mailbox Number</u>	2102		Password	
Announcement Sets Announcement Admin Announcement Copy	Class Of Service	0 - class00 V		<u>Covering</u> <u>Extension</u>	
Fax Dial Strings Dial Seguences	MWI Enabled?	yes 🔻		Account Code	
MCAPI Options MCAPI Password Thresholds	Community ID	1 •		Broadcast Mailbox?	no 🔻
Outcalling Options Activity Log Configuration	Secondary Ext			Time Zone	
Non-Admin Remote Subs Server Administration External Hosts	Locked?	no 🔻		<u>Messaging</u> <u>Locale</u>	Default (English)
Messaging Server Admin Networked Servers	SUBSCRIBER DIRECTO	DRY			
Request Remote Update IMAP/SMTP Administration		<u>Email</u>	2102		@Lab126-CMM7
General Options Mail Options IMAP/SMTP Status		<u>Ascii Name</u>	tekvdut		
Messaging Networked Machines Excluded Mailbox Admin	MISCELLANEOUS][
System Status	Miscellaneous1			Miscellaneou	s2

- 2. Click **Add** and configure the following:
 - Last Name: *tekvdut*, used in this example.
 - Mailbox Number: 2102, used in this example.
 - MWI Enabled: yes.
- 3. Leave all other fields with their default values.

AVAYA	Avaya Aura [®] Communication Manager Messaging System Management Interface (SMI)					
Help Log Off	Administration					
Administration / Messaging					This Server: Lab126-CMM7	
Messaging Administration	Edit Local Subsc	Edit Local Subscriber				
Subscriber Management Attendant Management Enhanced List Setup	The Edit Local Subscriber	The Edit Local Subscriber allows the changing or deletion of a local subscriber.				
Enhanced List Management	BASIC INFORMATION	BASIC INFORMATION				
Limits Features	Last Name	tekvdut		First Name		
Sending Restrictions System Administration	Mailbox Number	2102		Password		
Announcement Sets Announcement Admin Announcement Copy	Class Of Service	0 - class00 ▼		<u>Covering</u> <u>Extension</u>		
Fax Options Fax Dial Strings	MWI Enabled?	yes 🔻		Account Code		
MCAPI Options MCAPI Password	Community ID	1 🔻		Broadcast Mailbox?	no V	
Outcalling Options Activity Log Configuration	Secondary Ext			Time Zone		
Non-Admin Remote Subs Server Administration External Hosts	Locked?	no 🔻		<u>Messaging</u> <u>Locale</u>	Default (English)	
Trusted Servers						
Messaging Server Admin	SUBSCRIBER DIRECTO	DRY				
Request Remote Update		<u>Email</u>	2102		@Lab126-CMM7	
General Options		Ascii Name	tekvdut			
MAR Opuons IMAP/SMTP Status						
Messaging Networked Machines						
Excluded Mailbox Admin	MISCELLANEOUS					
Server Information System Status	Miscellaneous1	Miscellaneous1 Miscellaneous2				
	-					

Avaya Communication Manager Messaging Subscriber Configuration (2/3)

Avaya Aura[®] Communication Manager Messaging Ά System Management Interface (SMI) Administration Administration / Messaging This Server: Lab126-CMM7 lessaging Administration INCOMING MAILBOX riber Manag Attendant Management <u>Order</u> FIFO **v** Category Order nuo Enhanced List Setup Enhanced List Management 10 days days Classes-of-Service 10 Retention Time, Old Retention Time, New Limits Features Forever Forever Sending Restrictions Retention Time, <u>Unopened</u> 10 days System Administration Forever Announcement Sets Announcement Admin Announcement Copy OUTGOING MAILBOX Fax Options Fax Dial Strings Order FIFO ▼ Category Order unfda Dial Sequences MCAPI Options MCAPI Password 10 days Retention Time, File Delivered/Nondeliverable 5 Thresholds Forever Outcalling Options Activity Log Configuration Non-Admin Remote Subs MISCELLANEOUS Server Administration External Hosts Voice Mail Message (seconds), Maximum Length 300 Minimum Needed 8 Trusted Servers Messaging Server Admin Networked Servers Call Answer Message (seconds), Maximum 300 Minimum Needed 2 Length Request Remote Update IMAP/SMTP Administration End of Message Warning Time (seconds) General Options Mail Options Total Entries in all IMAP/SMTP Status Maximum Mailing Lists 25 600 Lists Messaging Networked Machines Server Administration **Total Entries in all** Maximum Mailing Lists 25 600 External Hosts **Lists** Trusted Servers Messaging Server Admin Mailbox Size (seconds), Maximum Minimum Guarantee 2100 0 Networked Servers Request Remote Update IMAP/SMTP Administration Back Save Delete Help General Options

Avaya Communication Manager Messaging Subscriber Configuration (3/3)

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Configuration Guide – DOC. 7980A (2048654) 04.17 Specifications subject to change without notice.