

Avaya Solution & Interoperability Test Lab

Application Notes for Enghouse Interactive Communications Center 10.1 with Avaya IP Office Server Edition 11 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Enghouse Interactive Communications Center 10.1 to interoperate with Avaya IP Office Server Edition 11. Enghouse Interactive Communications Center is a multi-channel and multi-contact solution that can handle voice, fax, web, and email contacts. The compliance testing focused on the voice integration with Avaya IP Office Server Edition using the TAPI and SIP user interfaces.

The Avaya IP Office Server Edition configuration consisted of two Avaya IP Office systems, a primary Linux server at the Main site and an expansion IP500V2 at the Remote site that were connected via Small Community Network trunks. In the compliance testing, two Enghouse Interactive Communications Center servers were deployed, a primary server at the Main site to interface with the primary IP Office system via TAPI and SIP user interfaces, and an expander server at the Remote site to interface with the expansion IP Office system via TAPI only.

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

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

1. Introduction

These Application Notes describe the configuration steps required for Enghouse Interactive Communications Center (EICC) 10.1 to interoperate with Avaya IP Office Server Edition 11. EICC is a multi-channel and multi-contact solution that can handle voice, fax, web, and email contacts. The compliance testing focused on the voice integration with IP Office Server Edition using the TAPI and SIP user interfaces.

The IP Office Server Edition configuration consisted of two IP Office systems, a primary Linux server at the Main site and an expansion IP500V2 at the Remote site that were connected via Small Community Network trunks. In the compliance testing, two EICC servers were deployed, a primary server at the Main site to interface with the primary IP Office system via TAPI and SIP user interfaces, and an expander server at the Remote site to interface with the expansion IP Office system via TAPI only.

The agents were configured as users on the two IP Office systems, with ACD functionality provided by EICC. Each EICC server used TAPI 2 in third party mode to monitor agent users on the local IP Office system and provided call control via the Enghouse Interactive TouchPoint client application. The status of agent users on the expansion IP Office system were relayed by the expander EICC server to the primary EICC server, for centralized tracking of agent availability.

All groups were required by EICC to be configured on the primary IP Office system, and were monitored by the primary EICC server. Upon being notified of an incoming group call via TAPI events, the primary EICC server used TAPI line redirect capability to redirect call to an available agent that can reside on either the Main or Remote site, and the answering agent's desktop was populated with call related information received via the TAPI interface. Call related actions such as answer and drop can be initiated via the TouchPoint client application, and were supported by EICC using TAPI line control capabilities. In addition, EICC used TAPI to support forwarding, message waiting indicator (MWI), and supervisor monitor and intrude features.

The SIP user interface was used by the primary EICC server to support voicemail, announcement, and basic call recording features. Voicemail and announcement calls were redirected to an available virtual SIP user to terminate to EICC, and recording was accomplished by intruding a virtual SIP user onto an active call to pick up the media for recording.

2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the EICC application, the application automatically registered virtual SIP users with the primary IP Office system, and established TAPI connection from each EICC server with the local IP Office system.

For the manual part of testing, incoming calls were made to the general routing groups configured on the primary IP Office system. EICC used the TAPI event messages to track agent states, and redirected calls to available agents. Manual call controls from the agent desktops were exercised to verify remaining features such as answering and transferring of calls.

Voicemail was tested by not answering personal calls at the agent, and having the call cover to EICC for proper leaving of voice message and activation of MWI. Manual call was made subsequently from agent to the voicemail group for retrieval of voice message and proper deactivation of MWI.

The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet connection to the EICC servers and clients.

The verification of tests included human checking of proper states at the agent desktops and agent telephone displays, and of reviewing the System Monitor logs from the two IP Office systems.

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

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between IP Office and EICC did not include use of any specific encryption features as requested by Enghouse Interactive.

2.1. Interoperability Compliance Testing

The compliance testing included feature and serviceability areas.

The feature testing focused on verifying the following on EICC:

- Virtual SIP user registrations, G.711and G.729 codec, and inbound DTMF.
- Use of TAPI functions to monitor users and groups, redirect incoming calls, support call control and supervisor monitor and intrude via client desktops, and set call forwarding and MWI.
- Proper handling of call scenarios including incoming calls to different groups, screen pop, hold, reconnect, blind/attended transfer, attended conference, voicemail, announcement, call forwarding, MWI, supervisor monitor, supervisor intrude, non-ACD call, queuing, hot desking, outgoing call, outpulse of DTMF digits, multiple calls, multiple agents, long duration, park/unpark at destination agent, follow me, and recording of basic calls.

The feature testing call flows included calls within the primary IP Office at the Main site, calls within the expansion IP Office at the Remote site, as well as calls between the two IP Office systems.

The serviceability testing focused on verifying the ability of EICC to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet connection to EICC servers and clients.

2.2. Test Results

All test cases were executed and verified. The following were observations on EICC from the compliance testing.

- By design, for a hold and reconnect call scenario, the basic call recording feature captured the audio up to the hold action.
- Only one EICC expander server is supported in the current version.
- For the attended conference scenarios, after one of the agent drops, the remaining agent's Active tab reflected the name of the dropped agent instead of the remaining PSTN party.
- Special character as part of a dial string is not supported by TouchPoint, and the workaround is to use the agent telephone for such dialing.

2.3. Support

Technical support on EICC can be obtained through the following:

- **Phone:** (800) 513-2810
- Web: <u>www.enghouseinteractive.com</u>
- Email: <u>usa.support@enghouse.com</u>

3. Reference Configuration

The configuration used for the compliance testing is shown in Figure 1.

Device Type	Device Number/Extension		
Main S	ite		
Agent Extensions	21031, 21034		
Agent Users	21031, 21032		
Supervisor Extension	21030		
Supervisor User	21030		
Remote	Site		
Agent Extensions	22031, 22034		
Agent Users	22031, 22032		
Supervisor Extension	22030		
Supervisor User	22030		

The devices used in the compliance testing are shown in the table below.



Figure 1: Compliance Testing Configuration

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Main Site	
Avaya IP Office Server Edition (Primary)	11.0.0.1.0
Avaya 9608, 9611G & 9641G IP Deskphone (H.323)	6.6604
 Enghouse Interactive Communications Center on Windows Server 2012 R2 CTI Application Server SIP Server Avaya IP Office TAPI2 Driver (tspi2w) 	10.1.0.8600 Standard 10.1.0.8600 10.1.0.8600 1.0.0.44
Enghouse Interactive TouchPoint on Windows 10 Pro	10.1.0.8600
Remote Site	
Avaya IP Office on IP500V2 (Expansion)	11.0.0.1.0
Avaya 1608-I & 1616-I IP Deskphone (H.323)	1.3110
Avaya 9611G IP Deskphone (H.323)	6.6604
 Enghouse Interactive Communications Center on Windows Server 2012 R2 CTI Auxiliary Services Avaya IP Office TAPI2 Driver (tspi2w) 	10.1.0.8600 Standard 10.1.0.8600 1.0.0.44
Enghouse Interactive TouchPoint on Windows 10 Pro	10.1.0.8600

Compliance Testing is applicable when the tested solution is deployed with a standalone IP Office 500 V2 and also when deployed with IP Office Server Edition configurations consisting of no more than two IP Office systems.

5. Configure Avaya IP Office

This section provides the procedures for configuring IP Office. The procedures include the following areas:

- Verify licenses
- Administer groups
- Administer agent extensions
- Administer agent users
- Assign agents users to monitor group
- Administer supervisors
- Administer SIP registrar
- Administer SIP extensions
- Administer SIP users
- Administer short code
- Administer system settings
- Administer NoUser source number
- Administer security settings

Note that all procedures above apply to the primary IP Office system, and only a subset of the procedures apply to the expansion IP Office system as listed below.

- Verify licenses
- Administer agent extensions
- Administer agent users
- Administer supervisors
- Administer system settings
- Administer NoUser source number
- Administer security settings

5.1. Verify Licenses

From a PC running the IP Office Manager application, select Start \rightarrow All Programs \rightarrow IP Office \rightarrow Manager to launch the application. Select the primary IP Office system, and log in using the appropriate credentials.

The Avaya IP Office Manager for Server Edition IPO2-IPOSE screen is displayed, where IPO2-IPOSE is the name of the primary IP Office system.

From the configuration tree in the left pane, select the primary IP Office system, in this case **IPO2-IPOSE**, followed by **License** to display licenses in the right pane. Verify that there are licenses for **3rd Party IP Endpoints** and **CTI Link Pro**, with both license **Status** being "Valid", as shown below.

Avaya IP Office Select Manager for ile <u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp	Server Edition IPO2-IPOSE [11.0.0.1.0 buil	d 8]			
PO2-IPOSE 🔹 License	•	- 12	· 🗃 - 🖬 💽	🖭 🔝 🖌 🥪 🚐	9
Configuration				r - 🖻	≫ ✓ <
IPO2-IPOSE	License Remote Server				
	Feature	Instances	Status	Expiration Date	Source
	3rd Party IP Endpoints	1000	Valid	Never	PLDS Nodal
· · · · · · · · · · · · · · · · · · ·	Additional Voicemail Pro Ports	252	Valid	Never	PLDS Nodal
🖶 🎆 Group (17)	Avaya Contact Center Select	1	Valid	Never	PLDS Nodal
🗄 📴 Short Code (59) 👘	Avaya IP endpoints	1000	Valid	Never	PLDS Nodal
Service (0)	Avaya Mac Softphone	1000	Valid	Never	PLDS Nodal
Directory (0)	Avaya Softphone Licence	1000	Valid	Never	PLDS Nodal
- Time Profile (0)	Basic User	1000	Obsolete	Never	PLDS Nodal
IP Route (1)	CTI Link Pro	1	Valid	Never	PLDS Nodal
	Devlink3 External Recorder	1	Valid	Never	PLDS Nodal
License (22)	IP500 Universal PRI (Additional cha	100	Obsolete	Never	PLDS Nodal

From the configuration tree in the left pane, select the expansion IP Office system, in this case **IPO2-IP500V2**, followed by **License** (not shown) to display licenses in the right pane. Verify that there is a **CTI Link Pro** license, and with the license **Status** being "Valid", as shown below.

Avaya IP Office Se	lect Manager for Tools Heln	Server Edition IPO2-IP500V2 [11.	0.0.1.0 build 8]				
IPO2-IP500V2	License	-	- 12	. 🗃 - 🖬 🖻	. 🗸 🖬 🔝	9	
Configur	ation				* • 🖻	$ X \checkmark <$	1
	E 🔺	License Remote Server					
🗄 🐨 IPO2-IP300	(1)	Feature	Instances	Status	Expiration Date	Source	
申 行了 Line (4)		Avaya IP endpoints	8	Valid	Never	Virtual	
🕂 🤝 Contro	l Unit (4)	CTI Link Pro	1	Valid	Never	PLDS Nodal	

5.2. Administer Groups

From the configuration tree in the left pane, right-click on **Group** under the primary IP Office system and select **New** from the pop-up list to add a new group. For **Name** and **Extension**, enter desired values. Retain the default values for the remaining fields.

O2-IPOSE 🔹 Group		Monitor 🔹 🕴 🚨 🖌 💽 🚦	🖬 🚺 🖌 🗔
Configuration	🛃 Seque	ential Group <hunt group:0="">: *</hunt>	📸 - 🖻 🗙 🗸 <
IPO2-IPOSE	Group Queuing Overflow F	allback Voicemail Voice Recording Annou	incements SIP
⊞¶ Line (3)	Name	EICC Hold	Profile Standar
 Control Unit (9) A Extension (12) 	Extension	21771	Exclude From Directory
🗄 📲 User (12) 🕀 📲 Group (17)	Ring Mode	Sequential 🔹	No Answer Time (sec) System I
Short Code (59) Service (0)	Hold Music Source	No Change 🔹	
🕀 🚯 Incoming Call Re	Ring Tone Override	None 👻	
Time Profile (0) □	Agent's Status on No-Answer Applies To	None	
Account Code ((Central System	IPO2-IPOSE	📝 Advertise Group
License (22)	- User List		

Select the Voicemail tab, and uncheck Voicemail On as shown below.

Avaya IP Office Select Manager <u>File</u> <u>Edit</u> <u>View</u> <u>Tools</u>	for Server Edition IPO2-IPOSE [11.0.0.1.0 build 8] [elp	
IPO2-IPOSE • Group	🝷 21774 EICC Monitor 💿 🔹 😒 🗁 - 🛃 🖪 🔜 🔔	🗸 🖂 🖉
Configuration	Sequential Group <hunt group:0="">: *</hunt>	☆ - ● × < >
	Group Queuing Overflow Fallback Voicemail Voice Recording Announcemen	ts SIP
⊞*¶ Line (3)	Voicemail Code	🔲 Voicemail On
	Confirm Voicemail Code	Voicemail Answer Time (sec)
⊕-1 User (12)	Voicemail Email	📃 Voicemail Help
Short Code (59)	Voicemail Email	🔲 Broadcast
Service (0) H-(1) Incoming Call R(🔘 Off 🔵 Copy 🔵 Forward 🔵 Alert	UMS Web Services
Directory (0)		 version and the second subsequence (\$16.0.5)

Repeat this section to create the groups shown below. These groups are used by EICC for routing and handling of incoming calls. Note that all groups are required by EICC to be configured on the primary IP Office system.

Extension	Name
21771	EICC Hold
21772	EICC Voicemail
21773	EICC Operator
21774	EICC Monitor
21775	EICC Fallback
21776	EICC Sales
21777	EICC Support

The created groups are shown in the left pane of the screen below.

O2-IPOSE 🔻 Group	▼ 21775 EICC Fallback	- 🗟 🗁 - 🖬 🖪 🔛 🖌 🗸	- 9
Configuration	E Sequential	Group EICC Fallback: 21775	
IPO2-IPOSE	Group Queuing Overflow F	allback Voicemail Voice Recording Annour	ncements SIP
电 行 Line (3)	Name	EICC Fallback	Profile
⊕-≪ Control Unit (9) ⊕-Æ Extension (12)	Extension	21775	📃 Exclude From Directory
⊕ 1 User (12)	Ring Mode	Sequential 👻	No Answer Time (sec)
21995 Adhoc Hot	Hold Music Source	No Change 🔹	
21883 Combo Hot	Ring Tone Override	None	
- 1881 Combo Sales - 🙀 21882 Combo Support	Agent's Status on No-Answer Annlies To	None	
	Central System	IPO2-IPOSE	📝 Advertise Group
21992 DR Secondary	User List		
21775 ELCC Fallback 21771 ELCC Hold 21774 ELCC Monitor	Extension Name System		
21775 EICC Operator			

5.3. Administer Agent Extensions

From the configuration tree in the left pane, select the primary IP Office system, followed by the first H.323 extension on the system that will be used by agents and supervisors, in this case "21031". Select the **VoIP** tab, and check **Requires DTMF** as shown below. Note that this parameter appears when the system parameter Ignore DTMF Mismatch for Phones is enabled.

Repeat this section for all H.323 extensions on the Main site that will be used by agents and supervisors. In the compliance testing, three extensions on the Main site with extensions "21031", "21034", and "21030" were configured on the primary IP Office system.

Repeat this section for all H.323 extensions on the Remote site that will be used by agents and supervisors. In the compliance testing, three extensions on the Remote site with extensions "22031", "22034", and "22030" were configured on the expansion IP Office system (not shown).

Maya IP Office Select Mi	anager for Server Edition IPC)2-IPOSE [11.0.0.1.0 build	8]		
IPO2-IPOSE + I	Extension •	• 11205 21031	• 2 - 2		4
Configuration		H.323 Exte	ension: 11205 21	1031	🚽 - 🔛 🗙 🗸 < > 🛔
IPO2-IPOSE System (1) General Control Unit (9) Control Unit (9) Control Unit (9) Control Unit (9) Settension (12) 11209 21030 11209 21031 11209 21033 11202 21040 11202 21040 11202 21040 11202 21040 11202 21040 11203 21441 11210 21091 11211 21092 11203 21441 User (12) Group (17) Service (0) Coming Call Rc Directory (0) Time Profile (0)	Extension VoIP IP Address MAC Address Codec Selection	0 · 0 · 0 O System Default Unused None		Selected G.711 ULAW 64K G.711 ALAW 64K G.729(a) 8K CS-ACELP	Enable Faststart for non-Avaya IP phon Out Of Band DTMF Requires DTMF Local Tones Allow Direct Media
IP Route (1)	Supplementary Services	None			•

5.4. Administer Agent Users

From the configuration tree in the left pane, select the primary IP Office system, followed by the first user on the system that will be used by agents, in this case "21031". Select the **Voicemail** tab, and uncheck **Voicemail On** as shown below.

📶 Avaya IP Office Select Manag	er f	or Server I	Edition IPO2-	IPOSE [11.0.0.1.0 build (3]					
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>T</u> ools	H	elp									
IPO2-IPOSE 🔹 User				21031 ⊢	1323 Primary	- 🖹 🚨 -] 🖬 🔔 🗸	1 - 1	1	
Configuration		×××			H323	Primary: 210	31		ď	• 🖻 🗙 🖌	< > 🛷
IPO2-IPOSE	*	User	Voicemail	DND	Short Codes	Source Numbers	Telephony	Forwarding	Dial In	Voice Recording	Butto + +
System (1) B→C (1) Control Unit (9) Control		Voicer Confir Voicer	- mail Code m Voicemail mail Email	Code					ם ם ם ב ב	Voicemail On Voicemail Help Voicemail Ringb Voicemail Email UMS Web Servic Enable GMAIL A	ack Reading es PI E
		Voice	email Email —								

Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab. Uncheck **Cannot be Intruded**, and set **Can Intrude** to the desired setting.

<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u>	elp			
IPO2-IPOSE • User	 ✓ 21031 1 	H323 Primary 🔹 🕴 🖉 🗸 📝 🗸		🗉 🚺 🖌 🖂 🕢
Configuration	×==	H323 Primary: 2103	1	🗃 • 🖻 🗙 🗸 < > 🍕
IPO2-IPOSE	User Voicemail DND	Short Codes Source Numbers T	Telephony F	onwarding Dial In Voice Recording Butto + +
transition (1) ⊕ 17 Line (3)	Call Settings Supervisor	Settings Multi-line Options Call Lo	og TUI	
Extension (12)	Login Code		1	🔲 Force Login
∃1 User (12) 1 NoUser	Confirm Login Code			
	Login Idle Period (sec)			🔲 Force Account Code
21030 Extn21030 ≡	Monitor Group	<none></none>	•	🔲 Force Authorization Code
	Coverage Group	<none></none>	•	Incoming Call Bar
	Status on No-Answer	Logged On (No change)	•	🔲 Outgoing Call Bar
				🔲 Inhibit Off-Switch Forward/Transfer
- 21041 SIP Primary	Privacy Override Group	<none></none>	•	🔲 Can Intrude
Group (17)	Reset Longest Idle Time			🔲 Cannot Be Intruded
Service (0)	All Calls			🔲 Can Trace Calls
Incoming Call Route (2)	External Incoming			Deny Auto Intercom Calls

Select the **Forwarding** tab. Check **Forward On Busy**, **Forward On No Answer**, and **Forward Internal calls**. For **Forward Number**, enter the EICC Voicemail group extension from **Section 5.2**.

Repeat this section for all users on the Main site that will be used by agents. In the compliance testing, two users on the Main site "21031" and "21032" were configured on the primary IP Office system.

Repeat this section for all users on the Remote site that will be used by agents. In the compliance testing, two users on the Remote site "22031" and "22032" were configured on the expansion IP Office system (not shown).

Avaya IP Office Select Manager f <u>File</u> Edit <u>View</u> Tools <u>H</u>	or Server Edition IPO2-IPOSE [11.0.0.1.0 bu elp	ild 8]	
IPO2-IPOSE • User	🝷 21031 H323 Priman	🗸 🔹 🗟 😪 🖌 🗶 💽 🔛 🙏 🖌 🗸	9
Configuration	E H	323 Primary: 21031	< • 🖻 🗙 🗸 < > 🛷
■ IPO2-IPOSE 由一句 System (1) 由一行 Line (3)	User Voicemail DND Short Co	des Source Numbers Telephony Forwarding Dial In	n Voice Recording Butto 🔹 🕨
 ← Control Unit (9) ← Ø Extension (12) ← 1 User (12) 	Block Forwarding		
	Follow Me Number		-
	Forward Unconditional		
	To Voicemail		
21031 H323 Primary 	Forward Number		
- 21041 SIP Primary	Forward Hunt Group Calls		
	Forward Internal Calls	<u>v</u>	
Short Code (59)	Fonward On Busy		
Incoming Call Route (2)	Forward On No Answer		
Directory (0) Time Profile (0)		21772	1
IP Route (1)	Forward Number	21/72	
Account Code (0) License (22)	Forward Internal calls		
ARS (2)	22-		

5.5. Assign Agent Users to Monitor Group

From the configuration tree in the left pane, select the EICC Monitor group under the primary IP Office system, in this case "21774". Click on **Edit** (not shown) in the **User List** sub-section to add members.

In the next screen (not shown), select all agent users on both IP Office systems from Section 5.4.

Maraya IP Office Select Manager for Server Edition IPO2-IPOSE [11.0.0.1.0 build 8]								
<u> </u>	<u>File E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp							
IPO2-IPOSE - Group		itor 🔹 🕴 🤹 📨 🖬 🖪 🔝 🔝	v 🗸 🖂 🖪					
Configuration	E Sequer	ntial Group EICC Monitor: 21774	📸 - 🖻 🗙 🗸 < >					
IPO2-IPOSE	Group Queuing Overflow F	allback Voicemail Voice Recording Announ	icements SIP					
म्नि Line (3)	Name	EICC Monitor	Profile Standard					
⊕ ≪ Control Unit (9) ⊕ ≪ Extension (12)	Extension	21774	Exclude From Directory					
⊞1 User (12) ⊟ Group (17)	Ring Mode	Sequential 👻	No Answer Time (sec) System D					
21995 Adhoc Hot	Hold Music Source	No Change 🔹						
21884 Combo Hot 2	Ring Tone Override	None 👻						
21881 Combo Sales	Agent's Status on No-Answer Applies To	None						
- 21992 DR Secondary	Central System User List	IPO2-IPOSE	Advertise Group					
21771 EICC Hold	Extension Name	System						
21773 EICC Operator 21776 EICC Sales								

The resultant screen after the selection is shown below.

🐮 Avaya IP Office Select Manager for S	erver Edition IPO2-IPOSE [11.0.0.1.0 b	uild 8]	
<u>E</u> ile <u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp			
IPO2-IPOSE - Group	 21774 EICC Monito 	or 🔹 🕴 😂 🛸 🛃 🖪 🔛	1 🖌 🚽 🖉
Configuration	E Sequent	ial Group EICC Monitor: 21774	i - 🖻 × < >
IPO2-IPOSE	Group Queuing Overflow Fal	Iback Voicemail Voice Recording Ann	ouncements SIP
⊕ 行 Line (3)	Name	EICC Monitor	Profile Standard
⊞≪ Control Unit (9) ⊕ & Extension (12)	Extension	21774	Exclude From Directory
⊕-∰ User (12) ⊖-∰ Group (17)	Ring Mode	Sequential	No Answer Time (sec) System D
21995 Adhoc Hot	Hold Music Source	No Change 🗸	
21884 Combo Hot 2	Ring Tone Override	None 👻	
21881 Combo Sales	Agent's Status on No-Answer Applies To	None	
	Central System	IPO2-IPOSE	Advertise Group
21992 DR Secondary 21775 EICC Fallback	User List	13	
- 🚮 21771 EICC Hold	Extension Name	System	
	21031 H323 Primary	IPO2-IPOSE	
21776 EICC Sales	22032 H323 Primary2 22031 H323 Expansion	IPO2-IPOSE I IPO2-IP500V2	
	22032 H323 Expansion	n2 IPO2-IP500V2	

TLT; Reviewed: SPOC 11/5/2018

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5.6. Administer Supervisors

From the configuration tree in the left pane, select the primary IP Office system, followed by the first user on the Main site that will be used as the supervisor, in this case "21030".

🔟 Avaya IP Of	fice Selec	t Manag	er for S	erver Editi	on IPO2-IPO	SE (11.0.).1.0 build 8]						• •
<u>File</u> <u>E</u> dit	⊻iew	Tools	<u>H</u> elp		• 2103	III Extra21	030 -			1	্ৰ বি		
Con	figura	tion		E		o Excites	Extn2	21030: 21030	ها (النقل البلك ا		<u> </u>] <mark>X</mark> ✔ <	> 40
IPO2-IPOSE	(1)		*	User	Voicemail	DND	Short Codes	Source Numbers	Telephony	Forwarding	Dial In	Voice Recording	B + >
田一行 Line (3) 田一〇 Control	Unit (9)			Voice	mail Code						E	🗌 Voicemail On	
Extensio	n (12)			Confi	rm Voicemail	Code					E	📕 Voicemail Help	
NoU	ser	1999		Voice	mail Email						[📕 Voicemail Ringb	oack
	1 EICC21 2 EICC21	.441 .442									E	🗌 Voicemail Email	Reading
	0 Extn210	030									E	UMS Web Servio	es
-1	4 Extn210 1 H323 E	изэ)34 хр	E								E	🗌 Enable GMAIL A	PI

Select the Voicemail tab, and uncheck Voicemail On as shown below.

Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab. Check **Can Intrude**, and set **Cannot be Intruded** to the desired setting. For **Monitor Group**, select the EICC Monitor group from **Section 5.2**.

Eile Edit View Tools I IPO2-IPOSE ▼ User	lelp	▼ 21030 Extn21030 - 9		
Configuration		Extn21030:	: 21030 💣 📲 🗙 🗸 🗸 I	> d
IPO2-IPOSE System (1) Tri Line (3) Control Unit (9) Extension (12) User (12) User (12) User 21441 EICC21441 Tri 21442 EICC21442 21030 Extn21030 21033 Extn21033 Tri 21034 Extn21034 Tri 21091 H323 Exp Tri 21092 H323 Exp2 21091 H323 Primary 21092 H324	M N	User Voicemail DND Short Codes Source N Call Settings Supervisor Settings Multi-line Optio Login Code Confirm Login Code Login Idle Period (sec) Monitor Group EICC Monitor Coverage Group <none> Status on No-Answer Logged On (No change)</none>	Numbers Telephony Forwarding Dial In Voice Recording E ons Call Log TUI Force Login Force Account Code Force Authorization Code Incoming Call Bar Outgoing Call Bar	
Close Finally Constraints of the second		Privacy Override Group <a>None> Reset Longest Idle Time All Calls External Incoming	Can Intrude Cannot Be Intruded Can Trace Calls Deny Auto Intercom Calls	

Select the Forwarding tab. Check Forward On Busy, Forward On No Answer, and Forward Internal calls. For Forward Number, enter the EICC Voicemail group extension from Section 5.2.

Repeat this section for all supervisors on the Main site. In the compliance testing, one supervisor on the Main site "21030" was configured on the primary IP Office system.

Repeat this section for all supervisors on the Remote site. In the compliance testing, one supervisor on the Remote site "22030" was configured on the expansion IP Office system (not shown).

📶 Avaya IP Office Select Manager for S	erver Edition IPO2-IPOSE [11.0.0.1.0 bui	d 8]	
<u>E</u> ile <u>E</u> dit ⊻iew <u>T</u> ools <u>H</u> elp			
IPO2-IPOSE 🔹 User	- 21030 Extn21030	- 2 🖙 - 🖬 🖪 🖭 🖬 🔺 🛹 🛶	9
Configuration	Ξ	Extn21030: 21030	• 🖻 🗙 🗸 < > 🦽
	User Voicemail DND Short	Codes Source Numbers Telephony Forwarding Dia	al In Voice Recording B + +
e ← Control Unit (9)	Block Forwarding		
- 17 NoUser - 17 21441 EICC21441 - 17 21442 EICC21442 - 1030 Extn21030	Follow Me Number		•
1 21033 Extn21033 1 21034 Extn21034 ≡ 1 21091 H323 Exp	Forward Unconditional		
	Forward Number		
- 21032 H323 Primary2	Forward Hunt Group Calls		
21040 SIP Primary0	Forward Internal Calls	V	
Ender (59)			
Service (0) The service (0) The service (2)	Forward On Busy		
Directory (0)	Forward On No Answer		
·····································	Forward Number	21772	T
Account Code (0) License (22) B- No User Rights (11)	Forward Internal calls	V	
🗄 🕂 🏹 ARS (2)			

5.7. Administer SIP Registrar

From the configuration tree in the left pane, select **System** under the primary IP Office system to display the system screen in the right pane. Select the **LAN1** tab, followed by the **LAN Settings** sub-tab.

Make a note of the **IP** Address field value, which will be used later to configure EICC. Note that IP Office can support SIP on the LAN1 and/or LAN2 interfaces, and the compliance testing used the LAN1 interface.

🖞 Avaya IP Office Select Manager fo	rr Server Edition IPO2-IPOSE [11.0.0.1.0 build 8]
<u>File Edit View T</u> ools <u>H</u> e	lp
IPO2-IPOSE • System	🝷 IPO2-IPOSE 🔹 🔹 🚔 🖌 🛃 💽 🖬 🔝 🚺
Configuration	IP02-IP0SE Image: How and How
in TPO2-IPOSE	System LAN1 LAN2 DNS Voicemail Telephony Directory Services System Events SMTP SMDR Vo + +
IPO2-IPOSE IPO2-IPOSE	LAN Settings VoIP Network Topology
Control Unit (9) Statestics (12)	IP Address 10 . 64 . 101 . 234
	IP Mask 255 . 255 . 0
Service (0) ⊡ ⊡ ⊡ Directory (0)	Number Of DHCP IP Addresses 20
·····································	E Server O Client O Disabled Advanced

Select the VoIP sub-tab. Make certain that SIP Registrar Enable is checked, as shown below.

le <u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp	
02-IPOSE 🔹 System	🗸 🔽 🔹 IPO2-IPOSE 🔹 🔹 📚 🛸 🖬 💽 🔛 🚣 🖌 🖌 🖾
Configuration	🗄 IP02-IPOSE 📑 - 🖭 🗙 🗸 🗸 🕹
	System LAN1 LAN2 DNS Voicemail Telephony Directory Services System Events SMTP SMDR V
System (1)	LAN Settings VoIP Network Topology
由一行 Line (3) 田一雪 Control Unit (9)	H.323 Gatekeeper Enable
Extension (12)	🔲 Auto-create Extension 🔄 Auto-create User 🔄 H.323 Remote Extension Enable
E-9X Short Code (59)	H.323 Signaling over TLS Preferred → Remote Call Signaling Port 1720
Short Code (59)	H.323 Signaling over TLS Preferred Remote Call Signaling Port
Group (1/) Group (1/) Group (1/) Group (1/) Group (0) Group	H.323 Signaling over TLS Preferred Remote Call Signaling Port 1720 SIP Trunks Enable SIP Registrar Enable
Group (17) Group	H.323 Signaling over TLS Preferred Remote Call Signaling Port 1720 SIP Trunks Enable SIP Registrar Enable Auto-create Extension/User
Group (17) Group (17) Short Code (59) Service (0) Directory (0) Time Profile (0) Directory (0) Group (1) Account Code (0) Service (22) Service (1)	H.323 Signaling over TLS Preferred Remote Call Signaling Port 1720 SIP Trunks Enable SIP Registrar Enable Auto-create Extension/User SIP Domain Name dr220.com
Service (II) Service (II) Directory (II) Di	H.323 Signaling over TLS Preferred Remote Call Signaling Port 1720 SIP Trunks Enable SIP Registrar Enable Auto-create Extension/User SIP Domain Name SIP Domain Name SIP Registrar FQDN
Short Code (59) Service (0) Comming Call Route Comming Call Rou	H.323 Signaling over TLS Preferred Remote Call Signaling Port 1720
Service (0) Service (0) Directory (0) Time Profile (0) Time Profile (0) Time Profile (1) Account Code (0) License (22) Service (1) Service (1) Service (2) Service (1)	H.323 Signaling over TLS Preferred Remote Call Signaling Port 1720 SIP Trunks Enable SIP Registrar Enable Auto-create Extension/User SIP Domain Name SIP Domain Name SIP Registrar FQDN UDP UDP Port 5060 Remote UDP Port Layer 4 Protocol CTCP TCP TCP Port 5060 Remote TCP Port

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5.8. Administer SIP Extensions

From the configuration tree in the left pane, right-click on **Extension** under the primary IP Office system, and select **New** \rightarrow **SIP Extension** from the pop-up list to add a new SIP extension. For **Base Extension**, enter an available extension number, in this case "21441".

📶 Avaya IP Office Select Manager for S	Server Edition IPO2-IPOSE [11.0.0.1.0) build 8]
<u>File Edit View Tools H</u> elp IPO2-IPOSE • Extension	✓ 11205 21031	• 🕄 🗁 • 🔜 🖪 🔛 🖬 🖌 🛹 🔤 🗹
Configuration	II	SIP Extension: 8000 * ★ ★ ↓ <
🖶 🔫 IPO2-IPOSE 🔹	Extension VoIP	
E-System (1)	Extension ID	8000
●一行(Line (3) ● 一本 Control Unit (9)	Base Extension	21441
	Phone Password	
🕀 🎆 Group (17) 🕀 🗫 Short Code (59)	Confirm Phone Password	
Service (0)	Caller Display Type	On
- Directory (0)	Reset Volume After Calls	
Time Profile (0) IP Route (1) Account Code (0) Icrense (2)	Device Type	Unknown SIP device
⊕ 💁 User Rights (11)	Location	Automatic
⊞…‴r ARS (2) ⊞… Location (2)	Fallback As Remote Worker	Auto
Authorization Code (Module	0
亩一ጫ System (1) 亩一行 Line (4)	Port	0
⊕ Control Unit (4) ⊕ Extension (32) ⊕ User (13)	Disable Speakerphone	

Select the **VoIP** tab, and uncheck **Allow Direct Media Path**. For **Reserve License**, select "Reserve 3rd party IP endpoint license". For **Media Security**, select "Disabled", as shown below.

Repeat this section to add the desired number of SIP extensions with consecutive extension numbers. In the compliance testing, two SIP extensions "21441" and "21442" were created.

📶 Avaya IP Office Select M	lanager for Server Edition IP	O2-IPOSE [11.0.0.1.0 build 8]		
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>T</u> o	ols <u>H</u> elp			
IPO2-IPOSE 🔹	Extension	· 11205 21031	- 2 🗁 - 🖃 🔺 🖳 🖬 🔔 🛹 🛶	a 🖪
Configuration	12	SIP Exte	nsion: 8000 *	📸 - 🖻 X 🗸 < > 🛔
IPO2-IPOSE System (1) IPO2-IPOSE IPO2-IPOSE IPO2-IPOSE IPO2-IPOSE IPO2-IPOSE Image: Ipo2-IPOSE	Extension VoIP IP Address Codec Selection Reserve License Fax Transport Support DTMF Support 3rd Party Auto Answer Media Security	0 0 0 0 System Default Unused Image: Comparison of the second sec	Selected 6.711 ULAW 64K 6.7129(a) 8K CS-ACELP <<	 Requires DTMF Local Hold Music Re-invite Supported Codec Lockdown Allow Direct Media Path

5.9. Administer SIP Users

From the configuration tree in the left pane, right-click on **User** under the primary IP Office system, and select **New** from the pop-up list. For **Name** and **Full Name**, enter desired values. For **Extension**, enter the first SIP base extension from **Section 5.8**.

🐮 Avaya IP Office Select Ma	inager for Server Edition IPO2-IPOSE [11.0.0.1.0 build 8]	
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>T</u> oo	ils <u>H</u> elp		
IPO2-IPOSE 🔹 U	Jser - 21030 E	xtn21030 🔹 🕴 🤱 📝 - 🛃 💽	🖳 🔜 🔨 🥪 🙆
Configuration	12	<user:0>: *</user:0>	🔐 - 🗎 X 🗸 > 🛷
IPO2-IPOSE System (1) IPO2-IPOS TO2-IPOS Control Unit (! System (1) IPO2-IPOS Control Unit (! Service (0) Incoming Call Directory (0) Time Profile ((IP Route (1) Account Code License (22) User Rights (1: Account Code License (22) System (1) Control Unit (. System (1) System (1) Control Unit (. System (1) Sys	User Voicemail DND Sho Name Password Confirm Password Unique Identity Conference PIN Confirm Audio Conference PIN Account Status Full Name Extension Email Address Locale Priority System Phone Rights Profile	rt Codes Source Numbers Telephony F EICC21441 EICC21441 EICC21441 EICC SIP Port 1 21441 5 None Basic User Receptionist Enable one-X Portal Services Enable one-X TeleCommuter Enable one-X TeleCommuter Enable one-X TeleCommuter	onwarding Dial In Voice Recording But

Select the **Voicemail** tab, and uncheck **Voicemail On** as shown below.

🚹 Avaya IP Office Select M	lanager for	Server Edition IPO	2-IPOSE [11.0.0.1.0	build 8]					
Eile Edit View To	ools <u>H</u> elp		21020 5 4: 21020	_ 2.6					
Configuration	User		21030 Exth21030	User:0>: *			<u>∩</u> ∦ -		< > 🛷
	User Voicer Confir Voicer	Voicemail DNI nail Code m Voicemail Code nail Email	D Short Codes	Source Numbers	Telephony	Forwarding	Dial In [Voice Recording Voicemail On Voicemail Help Voicemail Ringl	But • •

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Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab. Enter desired password for **Login Code** and **Confirm Login Code**. Check **Can Intrude** and **Cannot be Intruded**. For **Monitor Group**, select the EICC Monitor group from **Section 5.2**.

Repeat this section to add a new user for each SIP extension from **Section 5.8**, using the same password for all SIP users as required by EICC. In the compliance testing, two SIP users "21441" and "21442" were created.

🞷 Avaya IP Office Select Ma	nager for Server Edition IPO2-	IPOSE [11.0.0.1.0 build 8]		
<u>File Edit View T</u> oo IPO2-IPOSE • U	ls <u>H</u> elp ser ▼	21030 Extn21030 🔹	28-81	▲ 🔛 🖬 🖌 🗸 🖃
Configuration	2	<user:0>:</user:0>	•	📸 - 🔤 🗙 🗸 < > 📣
PO2-IPOSE	User Voicemail DND Call Settings Supervisor	Short Codes Source Num Settings Multi-line Options	bers Telephony Call Log TUI	Forwarding Dial In Voice Recording But
	Login Code Confirm Login Code	•••••		Force Login
Group (17)	Login Idle Period (sec) Monitor Group	EICC Monitor	•	Force Account Code Force Authorization Code
→ Tirectory (0) → ① Time Profile ((④ ■ 1 P Route (1)	Coverage Group Status on No-Answer	<none> Logged On (No change)</none>	•	 Incoming Call Bar Outgoing Call Bar
Account Code License (22) Der Rights (1: Der K ARS (2)	Privacy Override Group	<none></none>		Inhibit Off-Switch Forward/Transfer
in the second s	Reset Longest Idle Time	•		📝 Cannot Be Intruded

5.10. Administer Short Code

From the configuration tree in the left pane, right-click on **Solution** \rightarrow **Short Code** and select **New** from the pop-up list to add a new common short code for Call Listen. Configure the fields exactly as shown below. This fixed short code value will be used by EICC to intrude virtual SIP users onto active calls for basic call recording.

📶 Avaya IP Office Select Mana	ger for Server Edition IPO2-IPO	DSE [11.0.0.1.0 build 8]	
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>T</u> ools	<u>H</u> elp		
Solution • Sho	rt Code 🔹 330	101 🔹 🛃 🖂 🖌 🔜] 🖬 🔼 🖌 🐸 🕢
Configuration	12	<short code:0="">: Barred*</short>	🖆 - 🔤 🗙 🗸 >
BOOTP (15)	Short Code		
Solution	Code	*6*N#	
⊞ ∰ User (23) ⊞ ∰ Group (19)		* This Short Code is common to all systems.	
Short Code(52)	Feature	Call Listen 👻	
Directory(0) Time Profile(0)	Telephone Number	Ν	
Account Code(0) 	Line Group ID	0	
E - A Location(2)	Locale		
	Force Account Code		
	Force Authorization Code		

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5.11. Administer System Settings

From the configuration tree in the left pane, select **System** under the primary IP Office system to display the system screen in the right pane. Select the **Telephony** tab, followed by the **Telephony** sub-tab in the right pane.

Uncheck **Inhibit Off-Switch Forward/Transfer** to allow call forwarding and transfer with EICC over SIP trunks.

Repeat this section to uncheck **Inhibit Off-Switch Forward/Transfer** on the expansion IP Office system (not shown).

🗶 Avaya IP Office Select Mar	ager for Server Edition IPO2-IPOSE [11.0.0.1.0 buil	ld 8]		- • •
<u>Eile Edit View T</u> ool:	Help			
IPO2-IPOSE • Sy	tem • IPO2-IPOSE	- 2 🗠 - 🖬 🔺	1 🖬 🚺 🗸 🗉 🕢	
Configuration		IP02-IP0SE		(- 🗐 🗙 🖌 < >
🔤 Location(2)	System LAN1 LAN2 DNS Voicemail	Telephony Directory Services	System Events SMTP SM	MDR VoIP VoIP Se ·
B	Telephony Park & Page Tones & Music Ri	ing Tones SM Call Log TU	π	
田一行 Line (3) 田一寺 Control Unit (9)	Dial Delay Time (sec) 🛛 4 📑		- Companding Switch	J Law
	Dial Delay Count 0 📑		Switch	
Group (17)	Default No Answer Time (sec) 15 📑		U-Law	O-La'
Service (0)	Hold Timeout (sec)		A-Law	ο A-1 a
The sectory (0)	Park Timeout (sec) 300 🔮			
	Ring Delay (sec) 5 🚔		📃 DSS Status	
- Account Code (0 - Sticense (22)	Call Priority Promotion Time (sec)		📃 Auto Hold	
⊕-	Default Currency		📝 Dial By Nan	ne
Location (2)	Default Name Priority	ink 💌	👿 Show Acco	unt Code
IPO2-IP500V2	Media Connection Preservation		🔲 Inhibit Off-	Switch Forward/Transfer
⊕-≪ System (1) ⊕-∕f 7 Line (4)	Phone Failback Automati	ic 🔹	📃 Restrict Net	twork Interconnect
🗄 🖘 Control Unit (4)	Login Code Complexity		Includ	le location specific inform
Extension (32)	📄 🔄 Enforcement			

5.12. Administer NoUser Source Number

From the configuration tree in the left pane, select the primary IP Office system, followed by User \rightarrow NoUser. Select the Source Numbers tab, and add the source number "TAPI_CONFERENCE_NOT_PERSISTENT" as shown below.

This source number setting enables a conference to be ended when the last remaining internal user exits the conference, and the setting applies to all users on the local IP Office system.



Repeat this section to add the same source number setting to **NoUser** on the expansion IP Office system.

Manager for File Edit View Tools He	r Server Edition IPO2-IP500V2 [11.0.0.1.0 build 8] p	
IPO2-IP500V2 Voer Configuration	- NoUser - 2 2 2	_ @ ✔ < > <i>▲</i>
IPO2-IPOSE IPO2-IP500V2 System (1) F₁ Line (4) Control Unit (4) Extension (32) User (13) Voluser 22001 Analg Expansi 22021 Dgtl Expansi 22020 Extn22020 22022 Extn22022 22024 Extn22024 22030 Extn22030	User Voicemail DND Short Codes Source Numbers Telephony Forwarding I Source Number	Dial In Voic () Add Remove Edit

5.13. Administer Security Settings

From the configuration tree in the left pane, select the primary IP Office system, in this case **IPO2-IPOSE** (not shown), followed by **File** \rightarrow **Advanced** \rightarrow **Security Settings** from the top menu.

The Avaya IP Office Manager for Server Edition – Security Administration - IPO2-IPOSE screen is displayed, where IPO2-IPOSE is the name of the selected IP Office system. Select Security \rightarrow System to display the System screen in the right pane. Select the Unsecured Interfaces tab, and check TAPI/DevLink3 as shown below.



Repeat this section to enable TAPI/DevLink3 on the expansion IP Office system.

📶 Avaya IP Office Manager for S	Server Edition - Security	/ Adminis	tration - IP	O2-IP500V2 [11.0.0.1.0 build 8]	3 <u>400</u>		×
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>H</u> elp	· · ·						
Security Settings	System: IP	02-IP5	00V2		₫ • ×	1.	< >
Security General System (1) System (1) Services (7) General System (1) General Service (1) Service (1) Service Users (12)	System Details Unse Application Controls TFTP Server TFTP Directory Re TFTP Voicemail Application Support	s	Program (DevLink	trificates Code 1 TAPI/DevLink3 1 HTTP Directory Read 1 HTTP Directory Write 1			^
	Application	Active	Limitations				
	Legacy Voicemail	X					
	Voicemail Lite	×					
	TAPI	~					
	DevLink	×					
	Network Viewer	×					
	Upgrade wizard	-					

6. Configure Enghouse Interactive Communications Center

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

- Administer TAPI driver
- Administer phone system type
- Administer phone system data
- Verify license
- Administer lines
- Administer queues
- Administer agent login class
- Administer agents and supervisors
- Administer mailboxes
- Administer SIP

Note that all procedures above applies to the primary EICC server, and only the administer TAPI driver procedure applies to the expander EICC server.

The configuration of EICC is typically performed by Enghouse Interactive installation technicians or third party resellers. The procedural steps are presented in these Application Notes for informational purposes.

6.1. Administer TAPI Driver

From the primary EICC server, select Start \rightarrow Control Panel \rightarrow Phone and Modem, to display the Phone and Modem screen. Select the Advanced tab, followed by Avaya IP Office TAPI2 Service Provider, as shown below. Click Configure.



The Avaya TAPI2 configuration screen is displayed. For Switch IP Address, enter the IP address of the primary IP Office system, in this case "10.64.101.234". Select the radio button for Third Party, and enter the applicable IP Office system password into the Switch Password field. Check ACD Queues as shown below. Reboot the primary EICC server.

Repeat this section to administer TAPI driver on the expander EICC server, and use the IP address and credentials for the expansion IP Office system (not shown).

witch IP Address 10.64 101 234	OK
	Cancel
ີ Single User	
User Name EICC21441	
User Password	
Third Party	
Switch Password	
Ex Directory Users	
🖂 WAV Users	
🔽 ACD Queues	
Advanced settings	
Ping Timeout (5 to 420 seconds)	
, ja	

6.2. Administer Phone System Type

At the conclusion of EICC installation, the **Installation Process** screen will be displayed on the primary EICC server by the Installation Wizard. Follow [2] to import licenses and configure the default company.

The **Installation Process** screen shown below is displayed next. Click the **Run** button associated with **Define Phone System Type**.

	Installation Proc	cess
Run Installation Wizards To continue the installation process, configure the parar function correctly. Complete the setup steps in the orde	neters required for your syster r specified below.	m to
✓ Import Licenses	@	Define Phone System Type Run to select the PBX type to be installed. You can set
 Configure Default Company 	<u></u>	up connection details and number plan information required to configure the CTI server.
Define Phone System Type		If this information is not known at this point, you can continue to the next step or Close now and complete
→ Set Phone System Data		this wizard at a later time. This step must be completed before beginning the Set Phone System Data step.
Configure Email Notification	🌏 Run	

The Phone System Type screen is displayed next. For PBX Type, select "Avaya IP Office".

ø		Phone System Type	x
	Define Ph	none System Type	
	Select the type database and configuration s	e of Phone PBX to be installed. The PBX will be added to the Application Manager will launch afterwards for further steps.	
	This step must Data step.	be completed before beginning the Configure Phone System	
	PBX Type:	Avaya IP Office 🗸	

6.3. Administer Phone System Data

The Installation Process screen below is displayed. Click the **Run** button associated with Set **Phone System Data** \rightarrow **Configure PBX Connection** shown below.

	Installation Process	s
Run Installation Wizards To continue the installation process, configure the parar function correctly. Complete the setup steps in the order	neters required for your system to r specified below.	
 Import Licenses Configure Default Company Define Phone System Type 	Completed Completed	Configure PBX Connection Use the Connection Wizard to specify the SIP Registrar IP address and port number.
 ▲ Set Phone System Data → Configure PBX Connection 	Run	
 Configure PBX Essentials Configure Operator Console Configure Email Notification 	3 Run 3 Run	

The Avaya IP Office PBX Setup Wizard \rightarrow Configure PBX Connection screen is displayed next. For SIP Registrar IP Address, enter the pertinent LAN IP address of the primary IP Office system from Section 5.7.

0	Avaya IP Office PBX Setup Wizard						
	Configure PBX Connection						
	The System needs configuration data for the Avaya IP Office PBX. Please enter it below.						
	SIP Registrar IP Address:	10.64.101.234 Test					

Continue with the Installation Wizard until the Avaya IP Office PBX Setup Wizard \rightarrow Create **Park Queue** screen is displayed. For **Park Queue Number**, enter the extension of the EICC Hold group from Section 5.2.

0	Avaya IP Office PBX Setup Wizard	×		
С	reate Park Queue			
Th	e Park queue is a Hunt Group for the management of parked calls.			
Th vo Ge	This number is not normally dialed by users. It must be dialable by any dialogic voiceport installed in the system. This will appear as an entry in the General->System Queues section of this application.			
<u>P</u> a	ark Queue Number: 21771			

The Avaya IP Office PBX Setup Wizard \rightarrow Create Voice Messaging Queue screen is displayed next. For Voice Messaging Queue Number, enter the extension of the EICC Voicemail group from Section 5.2.

	Avaya IP Office PBX Setup Wizard	×		
	Create Voice Messaging Queue			
The Voice Messaging Queue is a Hunt Group used as the Pilot Number to dial Voicemail. When a user activates a Presence Profile the system will forward the phone to this number. The forward busy destination for users phones will need the set manually or via the PBX Maintenance interface.				
	This number is dialed by all users, and is normally an easily remembered number. This will appear as a entry in the General->System Queues section of this application.			
	Voice Messaging Queue Number: 21772			

Continue with the Installation Wizard until the IP Voice Ports Setup \rightarrow Configure IP Voice Ports screen is displayed. For Start Extension, enter the first SIP base extension from Section 5.8. For Number of Ports, select the total number of SIP extensions from Section 5.8.

0		IP Voice Ports Setup	? X		
Config	jure IP Vo	ice Ports			
These an appear a applicatio	These are voice ports that are of type SIP extensions on the PBX. They will appear as entries with type SIP Voice Port in the General->Lines section of this application.				
<u>S</u> tart Exte	insion:	21441			
<u>N</u> umber o	of Ports:	2			

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6.4. Verify License

The Communications Center Administrator screen is displayed upon completion of the Installation Wizard. Select General \rightarrow Licenses from the left pane, to display All Licenses in the right pane. Verify that the following licenses are in place: Avaya IP Office, CC SIP Ports, CT Control, TouchPoint, and UCUL (UC User License).

٥	Communications Ce	nter Admini	strator - [Licen	ises]	_ 0	x
<u>Fi</u> le <u>E</u> dit <u>W</u> indow <u>H</u> elp						
🔀 🖿 🖬 🗙 🛛 Langua	ge: English 🗸					1
Woice Messaging	All Licenses T Import/Regi	ster Licenses	Product Key: 92	TV-DYUC-TZK	Z-620S-PQA6	
	Description	Licenses	Units	Start Date	End Date	D
Console	AdvancedChat	23	User			
🚳 Queuing	🔣 🕂 Agent Desktop	23	User			
	_ 🕂 Announce	23	Port			
log Announce	R Autodial IVR	23	Port			
CALL & REAL PROPERTY OF	Avaya IP Office	1	units			
	Callback	1	units			
All Comming	CC SIP Ports	23	Port			
Companies	Community WFM Agent Adh	23	units			
	Community WFM Plugin	1	units			
Molidays	R CT Control	23	User			
EX	🔣 🕂 Enhanced Routing Plugin	1	units			
Tucenses	MIntegration SDK Plug-in	23	User			
	M IVB	23	Port			
Security	MediaExtraction	1	Site			
	MM1 Chat Queuing	23	User			
Øy Lines	MM1 Web Callback Queuing	23	User			
	🖷 👫 Multimedia ALL	23	User			
1 Phonebook	🕺 👎 QMS Gateway	1	units			
	Redundancy	1	units			
System Queues	📲 👫 SalesforcePlugin	23	units			
	🖷 🕅 SMS Gateway	1	units			
System Prompts	🐂 Snapshot	23	units			
	📲 🦷 Survey	1	units			
Dialing Rules	📲 👎 Teleopti WFM Agent Adhere	1	units			
	🖷 👎 Teleopti WFM Plugin	1	units			
	🖷 👎 Third Party Email Plug-in	1	units			
	🖷 👫 TouchPoint	23	User			
	🖷 👎 TouchPoint Console	23	User			
	🖷 🕅 TouchPoint UC User	23	User			
	📲 🦷 UCUL (UC User License)	23	User			
	📲 👫 Unified Messaging for Excha	23	User			
	📲 👎 Web Browser Plug-in	23	units			
	Work Force Scheduler	23	units			
					14	
	<		ш			>
Licenses: 33/1						

6.5. Administer Lines

Select **General** \rightarrow **Lines** from the left pane, to display all extensions obtained automatically from both IP Office systems. Locate the entries associated with a subset of the EICC groups from **Section 5.2**, in this case extensions "21773-21777", right-click on the entries one at a time and select **Convert Into Queue**.

Note that the EICC groups with extensions "21771-21772" were already configured as part of the Installation Wizard in **Section 6.3**.

: 👕 💋 🗈 🗙 👘 L	anguage	: English	~				
Voice Meccaging		All PBXes All Lines	•				
· voice messaging		Name	Extension	Туре	Tenant	Monitor Status	
Console		Added by System	22993	Dterm		Yes	
	_	Added by System	21993	Dterm		Yes	
Queuing		Added by System	21995	Dterm		Yes	
		Added by System	21773	Dterm		Yes	
Announce		Added by System	21774	Dterm		Yes	
General		Added by System	21775	Dterm		Yes	
General		Added by System	21776	Dterm		Yes	
M Companies		Added by System	21777	Dterm		Yes	
		Added by System	22021	Dterm		Yes	
🗙 Holidays	-	Added by System	22022	Dterm		Yes	
**	=	Added by System	22031	Dterm		Yes	
Licenses		Added by System	22032	Dterm		Yes	
1		Added by System	22033	Dterm		Yes	
a Security		Added by System	22034	Dterm		Yes	
		Added by System	22030	Dterm		Yes	
Dines		Added by System	22041	Dterm		Yes	
 	~	2					1

6.6. Administer Queues

Select **Queuing** \rightarrow **Queues** from the left pane, to display a list of queues converted from Section 6.5. Right click on the entry associated with the EICC Operator group from Section 5.2, in this case extension "21773", and select **Convert to Operator Queue**.

0	Communications Center Administrator - [Queues] – 🗖 🗙			
<u> E</u> dit <u>W</u> indow <u>H</u> elp				
🔑 🐂 💋 🐚 🗙 🛛 Lan	guage: English	×		3
Voice Messaging	All PBXes All	Queues excluding Operator/Sys	tem Queues 🔻	
wolce messaging	Queue	Name	Wrapups	Modes
🕵 Console	21773	Added by System		Yes
		Added by System		Yes
🎇 Queuing	21775	Added by System		Yes
E	21776	Added by System		Yes
W Queues	21777	Added by System		Yes
belivery Patterns	1. Construction of the Construction			U PACTAN

Right click on each remaining entry, and select **Edit** to modify the **Name** as desired. The queue name will be used in agent desktop screen pops.

In the compliance testing, the queues were modified to match corresponding group names from **Section 5.2**, as shown below.

0	Communicat	Communications Center Administrator - [Queues]			
<u> E</u> ile <u>E</u> dit <u>W</u> indow <u>H</u> elp					
🚧 怕 🔏 🖿 🗙 Lang	uage: English	~		11	
Voice Messaging	All PBXes 🔻 A	ll Queues excluding Operator/Sy	stem Queues 🔻		
Voice Pressaging	Queue	Name	Wrapups	Modes	
🕵 Console	21774	EICC Monitor		Yes	
-	21775	EICC Fallback		Yes	
🎇 Queuing	21776	EICC Sales		Yes	
Queues	▶ 21777	EICC Support		Yes	
Delivery Patterns					

6.7. Administer Agent Login Class

Select Queuing \rightarrow Agent login Classes from the left pane, followed by the Add Wizard icon located at the upper left corner of the screen.

۵	Communic	Communications Center Administrator - [Classes]			
<u>Fi</u> le <u>E</u> dit <u>W</u> indow <u>H</u> elp					
🔀 🛯 🖉 🐂 🗙 🕹 Languag	ge: English	×		11	
Voice Messaging	Name	Number	Time Zone		
Console					
🎇 Queuing					
M Queues					
a Delivery Patterns					
Agent Login Classes					

Follow the **Adding New Agent Login Class Wizard** in the subsequent screens to configure a new agent login class. In the **Select the Queues** screen, select the EICC Sales and EICC Support queues created from **Section 6.6**, as shown below.

IEUES hat should be delivered to this Class.		
hat should be delivered to this Class.		
Name		
Added by System		
EICC Monitor		
21775 EICC Fallback		
EICC Sales		
EICC Support		
	Added by System EICC Monitor EICC Fallback EICC Sales EICC Support	

In the compliance testing, one agent login class was created, as shown below.

0	Communicatio	ns Center Adr	ninistrator - [Classes]	_ 🗆 X
<u>F</u> ile <u>E</u> dit <u>W</u> indow <u>H</u> elp				
🔀 憎 🛒 🐚 🗙 🛛 Langu	iage: English	v		11
Voice Messaging	Name	Number	Time Zone	
	🎆 Agent Class	1		
Console				
🇌 Queuing				

6.8. Administer Agents and Supervisors

Select Queuing \rightarrow Agents (not shown) from the left pane, followed by the Add Wizard icon located at the upper left corner of the screen.

0	Comr	nunications Center A	dministrator - [Agents]	_ 🗆 X
<u>File E</u> dit <u>W</u> indow <u>H</u> elp				
🔀 🖬 🖉 🐚 🗙 🕹 Language	: English	~		e 2
Voice Messaging	V Queuir	ng Agents		
- Voice riessuging	User ID	Name	Default Class	
🛃 Console				
🙀 Queuing				
M Queues				
Sa Delivery Patterns				

Follow the **Add Agent Wizard** in the subsequent screens to configure a corresponding entry for each agent and supervisor from **Section 5.4** and **Section 5.6** respectively. In the **Select Agent Login Class** screen, select the agent login class created from **Section 6.7**, as shown below.

0	Add Agent Wizard	X
Select A	gent Login Class	
Select the d	efault Agent Login Class for the new Agents.	
🔶 Agent (lass	

In the compliance testing, four agents and two supervisors were created as shown below.

٥	Comn	Communications Center Administrator - [Agents]				
<u>File E</u> dit <u>W</u> indow <u>H</u> elp						
🔀 🖿 🖬 🗙 🛛 Lang	uage: English	~		e?		
Voice Messaging	🗌 🔻 Queuin	g Agents				
whice messaging	User ID	Name	Default Class			
Console	\$ 21030	Supervisor Primary	Agent Class			
-	- 🎒 🕰 21031	Agent 1 Primary	Agent Class			
🎇 Queuing	21032	Agent 2 Primary	Agent Class			
	🔨 🏼 🎑 22030	Supervisor Expansion	Agent Class			
🧱 Queues	22031	Agent 1 Expansion	Agent Class			
belivery Patterns	22032	Agent 2 Expansion	Agent Class			

6.9. Administer Mailboxes

Select Voice Messaging \rightarrow Mailboxes from the left pane, followed by the Add Wizard icon located at the upper left corner of the screen.

٥	Communications Center Administrator - [Mailboxes]			
<u>Fi</u> le <u>E</u> dit <u>W</u> indow <u>H</u> elp				
🔀 🖬 🖌 🖌 Language:	English	~		1
	User ID	First Name	Last Name	Current Profile
voice messaging	9000	Avaya	System	Afternoon
Mailbox Classes				
Mailboxes				
Default Profiles				
🚑 Distribution Lists				

Follow the **Add Mailboxes Wizard** in the subsequent screens (not shown) to configure a corresponding mailbox for each agent and supervisor from **Section 6.8**. In the compliance testing, six mailboxes were created as shown below.

0	Com	Communications Center Administrator - [Mailboxes]				
<u>File E</u> dit <u>W</u> indow <u>H</u> elp						
2 1 2 h X	Language: English	~		3		
	User ID	First Name	Last Name	Current Profile		
Voice Messaging	9000	Avaya	System	Afternoon		
Malhau Classes	1030) Supervisor	Primary	In the Office		
MailDOX Classes	1031	i Agent 1	Primary	In the Office		
Mailhawaa	🦷 🐶 21032	2 Agent 2	Primary	In the Office		
Mailboxes	922030) Supervisor	Expansion	In the Office		
Ø Default Profiles	22031	Agent 1	Expansion	In the Office		
	9 22032	2 Agent 2	Expansion	In the Office		
🚑 Distribution Lists		188 -	19			

6.10. Administer SIP

Select File \rightarrow System Setup from the top menu, as shown below.

٥	Commu	nications Center Ac	Iministrator - [Mailbox	es]	- 🗆 X
<u> E</u> ile <u>E</u> dit <u>W</u> indow <u>H</u> elp	0.5				
Line for Recording	nglish	~			21
Copy Manager	er ID	First Name	Last Name	Current Profile	Inactive
System Setup	9000	Avaya	System	Afternoon	System
Verify System Configuration Wizards	21030 21031 21032	Supervisor Agent 1 Agent 2	Primary Primary Primaru	In the Office In the Office In the Office	
Exit	22030	Supervisor	Expansion	In the Office	

The **System Setup** screen is displayed. Select the **PBX** tab, and double click on the IP Office entry shown below.

	Sj	ystem Setup	×
General PBX	Queuing Voice Messaging Dia	al By <u>N</u> ame Timers	Paging/Fax Retention Policy Notifications
PBXs:	Тире		
📑 Chat	Web Chat Server		IPOffice
IPOffice	Avaya IP Office		Type: Avaya IP Office Media: Phone Steps to Configure: * Configure IP Voice Ports

The **IP Office PBX Setup** screen is displayed. Select the **SIP** tab. For **Realm**, enter "ipoffice". For **Password**, enter the common SIP user login code password from **Section 5.9**. Retain the default value in the remaining fields.

	IP Office PBX Setup	x
General SIP		
SIP Registre	ar	
IP address	10.64.101.234	
Port:	5060	
Realm:	ipoffice	
Password:		
1, i		
	OK Can	cel

7. Verification Steps

This section provides tests that can be performed to verify proper configuration of IP Office Server Edition and EICC.

7.1. Verify Main Site

From a PC running the IP Office Monitor application, select **Start** \rightarrow **All Programs** \rightarrow **IP Office** \rightarrow **Monitor** to launch the application, and connect to the primary IP Office system. The **Avaya IP Office SysMonitor** screen is displayed. Select **Status** \rightarrow **SIP Phone Status** from the top menu.



The **SIPPhoneStatus** screen is displayed. Verify that there is an entry for each SIP extension from **Section 5.8** and that the **Status** is "SIP: Registered", as shown below.

🗊 SIPPhor	neStatus											- • ×
Total Config	gured: 5					Wa	ting 0 secs fo	or update				
Total Regis	tered: 2			Regis	tered Status 📕							
Extn Num	User Num	Phone Type	Security	B	IP Address	Pri	Transport	User Agent	Licensed	SIP Options	S., 9	i. Status
21041	21041	NoPhone NoPhone	disable disable		0.0.0.0 0.0.0.0			UA? UA?	No Licence No Licence		() SIP: Unregistered) SIP: Unregistered
21040	21040	NoPhone	disable		0.0.0.0			UA?	No Licence		() SIP: Unregistered
21441	21441	SIP	disable		10.64.101.204		UDP	ZeacomSIP	3rd Party IP Res	RU) SIP: Registered
21442	21442	SIP	disable		10.64.101.204		UDP	ZeacomSIP	3rd Party IP Res	RU	() SIP: Registered
•					1							F
Display Op Show	ptions All O F	legistered (ั UnRegist	ered	Page 1 📩	Sa	ve Page	Reset Phones	Reregister Pł	nones (Cancel	

From the agent desktop, double-click on the **TouchPoint** shortcut icon shown below, which was created as part of TouchPoint installation.



The **Enghouse Interactive TouchPoint** login screen below is displayed. Enter the login name associated with an agent on the Main site from **Section 6.8**, and use the generic default PIN value from EICC. Retain the default value in the remaining fields.

]
1

The **TouchPoint** screen is displayed, along with a Call Bar above the system tray, as shown below. Click on **Log in to get queue calls** toward the top of the screen.

Queues	History	/ Di	ashboard
My Delivery	Filter view	P	O Table Prefere
Availa Age	ble nts	Calls in Queue	Longest Wait
Primary 2			
🗢 EIC	C Sales - Nor	mal	
	0	0	
n EIC	C Support - N	lormal	
	0	0	

In the drop-down window, Select Log in to Queues, as shown below.



Make an incoming call from PSTN to the EICC Sales group, with available agent "21031" at the Main site. Verify that the agent desktop is populated with a **TouchPoint Interactions** screen with an **Offering** tab, along with a Pop-up Notification box, and that the Call Bar is updated to reflect the active call.

Click **Answer** from the Pop-up Notification box, and verify that the agent is connected to the PSTN caller with two-way talk paths.



TLT; Reviewed: SPOC 11/5/2018

7.2. Verify Remote Site

Repeat the procedures in **Section 7.1** to log in an agent on the Remote site into the queues. Make an incoming call from PSTN to the EICC Support group, with available agent "22031" at the Remote site. Verify that the agent desktop is populated with an **Interaction Info** screen with an **Offering** tab, along with a Pop-up Notification box, and that the Call Bar is updated to reflect the active call.

Click **Answer** in the Pop-up Notification box, and verify that the agent is connected to the PSTN caller with two-way talk paths.



8. Conclusion

These Application Notes describe the configuration steps required for Enghouse Interactive Communications Center 10.1 to successfully interoperate with Avaya IP Office Server Edition 11 using the TAPI and SIP user interfaces. All feature and serviceability test cases were completed with observations noted in **Section 2.2**.

9. Additional References

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

- **1.** *Administering Avaya IP Office*[™] *Platform with Manager*, Release 11.0, Issue 17a, August 2018, available at <u>http://support.avaya.com</u>.
- 2. *First-time Installation and Server Setup IP Office*, July 2018, available at <u>https://partnerportal.enghouseinteractive.com/user/login</u>.
- **3.** *IP Office PBX Programming Manual*, July 2018, available at <u>https://partnerportal.enghouseinteractive.com/user/login</u>.

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