

Avaya Solution & Interoperability Test Lab

Application Notes for Configuring WinExpress 3.0 with Avaya IP Office Server Edition R9.1 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for WinExpress 3.0 to interoperate with Avaya IP Office Server Edition Release 9.1. WinExpress is a universal system which offers a real-time, multi-tasking, seamless interface between the hotel exchange and the hotel front office system. It comprises of two main components, i.e., Phoenix voicemail, and Unicorn which includes call billing and interface solution. In the compliance testing, WinExpress used SIP Users, Short Codes, SMDR, and Configuration Web Service interfaces from Avaya IP Office Server to provide voicemail, wake-up call, room status, minibar posting, call billing, as well as name and user profile template change features.

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 WinExpress 3.0 to interoperate with Avaya IP Office Server Edition R9.1. WinExpress is a Windows-based hospitality system that provides a seamless interface with a hotel's Front Office System and Avaya IP Office Server. In the compliance testing, WinExpress used SIP Users, Short Codes, SMDR, and Configuration Web Service interfaces from Avaya IP Office Server to provide voicemail, message waiting lamp control, wake-up call, room status and mini-bar posting, call billing, name and user profile template change, and do not disturb features.

In the compliance testing, Phoenix voicemail lines registers as SIP users on Avaya IP Office Server for voice mail and wakeup services and posting of mini-bar and room status through the phones. The voicemail lines were configured as members of a hospitality hunt group. Guest room phones were forwarded to these voicemail lines when busy or did not answer within the specified time. Each voicemail line will forward to another in a round robin fashion till one is available.

For the voicemail coverage scenarios, voicemail messages were recorded and saved on WinExpress. Short Codes were used to activate/deactivate the Message Waiting Indicator (MWI).

The Unicorn component was used in the compliance testing to initiate the room Check-In, Check-Out, and move requests on WinExpress. In the compliance testing, multiple rights templates were set up on Avaya IP Office Server for use with Check-In and Check-Out guests. Unicorn used the Configuration Web Service to send updates to Avaya IP Office Server on the guest name and user rights template as part of the Check-In, Check-Out, and move process.

The Station Message Detail Reporting (SMDR) interface was used by WinExpress to capture calls made from room phones for the purpose of call billing.

2. General Test Approach and Test Results

The feature test cases were performed manually. Calls were made from the PSTN, and from local users, to the hospitality hunt group by dialing the different extensions for voice message recording/retrieval, mini-bar and room status posting and setting of wake-up call. Unicorn was used to manually initiate Check-In/Check-Out/Move requests, update guest info, and to set Do Not Disturb. For SMDR testing, outgoing calls were made to the PSTN (simulated) and the WinExpress call billing reports were verified. The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet cable to WinExpress, and rebooting the Avaya IP Office server and WinExpress server.

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

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing focused on verifying the following on WinExpress:

- Registration of SIP users
- Handling of voicemail and text messages including message waiting lamp control
- Voicemail recording and retrieval, with proper message waiting lamp activation/deactivation for users with analog, digital and IP telephones
- Scheduling and delivering of wake-up call requests, including retried attempts and escalation to Operator
- Setting of MWI for both voice and text messages using short codes
- Posting of room status and mini-bar consumption from the room phones
- Use of Configuration Web Services to update guest name and user rights template associated with Check-In, Check-Out, Do Not Disturb and move requests from Unicorn
- Capture calls made from room phones for the purpose of call billing

The serviceability testing focused on verifying the ability of WinExpress to recover from adverse conditions, such as disconnecting and reconnecting the Ethernet cables to WinExpress server and rebooting of IP Office server and WinExpress server.

2.2. Test Results

All test cases were executed and passed. The following were observed:

- SIP registration with TCP was not successful due to the URL format request in the SIP Invite. Registration using UDP was required
- For message forwarding by admin user to properly control the MWI, a patch was required for WinExpress by running a script file **aretrieve_forward.script**.
- Simultaneous Wake Up calls required Phoenix to make calls using multiple channels (different SIP user) instead of the same channel. Otherwise, multiple wake up calls cannot be launched simultaneously from Phoenix.
- Avaya IP Office does not provide history info for Call Forwarding Do Not answer /Busy to allow caller to hear different voice mail prompts

2.3. Support

Technical support on WinExpress can be obtained through the following:

• Website: <u>http://www.fcscs.com/</u>

3. Reference Configuration

The configuration used for the compliance testing is shown below. In the compliance testing, WinExpress was installed on a single server. Unicorn initiate room Check-In/Check-Out and room move via an Opera Simulator, capture SMDR, and to set Do Not Disturb. Phoenix handles the voicemail reception, recording and playback, message waiting lamps, wake-up calls as well as room and mini-bar status posting and reporting. Avaya IP Office Server Edition comprises of a Primary Server and an Expansion Module (500 V2). Avaya IP Deskphones (H.323) 96x1, 96x0, 16xx, Avaya Digital Deskphones 14xx and Analog Deskphones were deployed as guest room, front desk, operator and admin phones.



Figure 1: Test Configuration of WinExpress 3.0 and Avaya IP Office Server R9.1

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office Server Edition (Primary)	9.1.400.137
Avaya IP Office 500 V2 (Expansion)	9.1.400.137
Avaya IP Office Manager	9.1.400.137
Avaya 96x1 H323 IP Deskphone	6.6029
Avaya 96x0 H323 IP Deskphone	3.250A
Avaya 950x H323 IP Deskphone	R55
Avaya 16xx H323 IP Deskphone	1.380B
Avaya 14xx Digital Deskphone	R40
Avaya 6221 Analog Deskphone	-
FCS Phoenix and Unicorn running on Microsoft	*2.1 (Phoenix)
Windows 2012 R2 SP1 hosted on VMware 5.x platform	1.2 (Unicorn)

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 in all configurations.

*Script file name "atrieve_forward.script" is required for fixed on issue with message forwarding.

5. Configure Avaya IP Office

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

- Verify Avaya IP Office Server license
- Obtain LAN IP address
- Administer SIP Registrar
- Administer SIP Extensions
- Administer SIP Users
- Administer Hospitality Hunt Group
- Administer Incoming Call Route
- Administer Voicemail Users
- Administer Short Codes for message waiting lamp on/off
- Administer Analog User MWI
- Administer User Rights
- Administer Security Service
- Administer System Password
- Administer SMDR

5.1. Verify Avaya IP Office Server License

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

From the home screen configuration tree in the left pane, select the server where the SIP user will be administered. In this Compliance Testing, the primary server is **IPO Primary**. Click on **License** and on the right pane, select **License** sub-tab and scroll down to display the **3rd Party IP Endpoints**. Verify that the **License Status** is "Valid". This license is required for Phoenix to register to IP Office as a SIP User.

Aveys 3P Office Humper for Se	rver feition 132, 19560V2 [9.1.400.13	7)						
File Edit View Tools Heb EXP_3P500V2 Elicense	8							
Configuration						ST - 1	d ×	1.455.0
	License Mode License Normal License Mode License Normal License Mander 9,1 Sensi Number (ADI) 1134152587 PLDS Heat ID 111246152587 PLOS File Status Veld	(
E Control Unit (2)	Pestan	Literar Rey	3tstances	Status	Expiry Data	Source		Aller
E 40 Contractor (13) E 0085 (14)	Preferred Edition (Vocenal Pro) DECT Integration (ports)	nAVlaymeAGkOG/RukIuwe8_invesuOur1 OyyNMMeRUVSTE72meSitterHGxXOu8H	255 255	Obsolete Obsolete	Never	ADE Nodal ADE Nodal	-	Rantove
(F) BK Short Code (S)	Phone Manager Pro	ITTv Skr5vv63qVAHS4cLg3qLdv0PtCia	255	Obsolete	Never	ACE Nodal		
Service (0)	Phone Manager Pro IP Audio Enabled	KyCuRv9-RUTUE7f3%UcscädevmeNpce	255	Obsolete	Never	ADE Norfal		
Cal Rout	Preferred Edition Additional Voicemail	standsE65vvs1b9H51ninoxxVP9pD0X85	255	Obsolete	hever	ADE nodal		
(E III (P Route (1)	Ord Farity IP Endpoints	4Ax0vF07Axp1@x31frednet/rih0v/PFm	255	Veld	Never	ACCINERAL		
In Louise 1991	Distant Manazzir Dio (per small)	Av/T0c5elW5FLAL7CBeccviP29D3815.Pt	255	Circolate	Never	ADE Nordal		

Solution & Interoperability Test Lab Application Notes ©2016 Avaya Inc. All Rights Reserved.

5.2. Obtain LAN IP Address

From the configuration tree in the left pane, select **System** \rightarrow **IPO Primary** screen in the right pane. Select the **LAN1** tab followed by the **LAN Settings** sub-tab in the right pane. Make a note of the **IP Address**, which will be used later to configure WinExpress. Note that IP Office Server can support SIP on the LAN1 and/or LAN2 interfaces; in this compliance testing LAN1 interface is used. Note the same for the Expansion Module **EXP_IP500V2**.

Avaya IP Office Han	ager for S	over Edition IPO Primary [9:1.400.137]	
He Edit Vere T IPO Prenary	nala Hel System		
H User(18) H Group(1)		System UMG [LAK2 DHS Voicenal Telephony Directory Services System Events SHDR Twowing Codecil VolP Security Contact LAK2 Entropy Low Lot Security Low	Center]
H SM Short Code(40) Directory(0) B (Tane Profile(1) Account Code() N Liser Rights(18)	a	UM Seturgs [year [No 1 30 121 JP Addema [255 253 0	
E deuton(0) E de PORmary Setten (0) Setten (0) Set	Barcyi e (3)	Namber Of DHCP 1P Addresses 123 22 DHCP Node If Serve If Clent IF Daddlet Advanced	

Avaya IP Office Hanager for	Server Edition EXP_IPS00V2 (9.1	400.137}	
Pile Edit View Tools / EXP_JP500V2 System	ND F EP_PSO		
Configuration		EXP_IP500V2	正正とくこと
B: €: Operator (3) B: 0: Operator (3) B: User(38) B: User(38) B: Operator (3) B: Operator (3)	Epoten LAN1 LAN2 DHE LAN1Settinge Vogt Nethon 1P Address 2P Mask Privary Trans. IP Address RUP Mode Number Of DHCP IP Addresse DHCP Mode	I telephorty Directory Services System Events SMPP SMOR Twinning VDH Codecs V Tracellingy 10 1 30 11 I	aP Security Contact Center

5.3. Administer SIP Registrar

From the screen in Section 5.2 for the Primary Server, select the VoIP sub-tab. Ensure that SIP Registrar Enable is checked. Enter a valid Domain Name for SIP endpoints to use for registration with IP Office. In this compliance testing, the Domain Name is left blank so that the LAN IP address is used for registration. Ensure the UDP and TCP is selected for Layer 4 Protocol with UDP/TCP Port set to 5060. In this compliance testing, the UDP port is used for SIP registration by Phoenix. TCP port was not successful in registration due to the SIP Invite URL request format that can be accepted in this IP Office version.

IP Offices			SGIP500V	2			d-JXX · ·
 第 長 800冊 (2) 第 (※ Operator (3) 三 4年 552550072 	System LANI LAN2 ONS LAW Settings Voto Network T	Voicemail Telephony Direct opology	tory Services System Ex	ents SMTP SMDR	Twinning VCH	Codecs VolP Secu	rity Contact Center
 ⇒ System (1) ⇒ SGPS0W2 ⇒ (7) Line (0) ⇒ Control Unit (6) ⇒ Scheman (57) 	 H023 Gateleeper Brable Auto-create Extra 	T Addressed to Law	F HIJSR	nole Extri Enable Sprailing Park 122			-
H (User (5)) H (2) Group (1) H (2) Short Code (70) (2) Service (2) H (2) R45 (1)	SP Trunks Enable SP Registrier Enable Auto-creater Exity/Later			T SIP Renot	: Extri Enable		
(i) Disconing Call Route (3)	Domain Name	10					
H - Cleactary (4) Time Profile (0) H - Cleactary (4) H - Cleactary (4)	Layer 4 Protocol	Public upine Public upine Public upine	t 5060 को t 5060 को	Namedia (22) Part Remole 122 Part	1000 E		
H IP Route (2) H I IP Route (2) H I IP Route (3) Ucense (31) IP Transf (7)	Ofullenge Expery Time (seca)	Γπιs πιs≉an μα ±	5061 🟦	Manufa 115 Pert	1000		

5.4. Administer SIP Extensions

From the configuration tree in the left pane for **IPO Primary**, right-click on **Extension** and select **New** \rightarrow **SIP Extension** (not shown) from the pop-up list to add a new SIP extension. Enter the desired digits for **Base Extension** and check **Force Authorization**, as shown below.

Avays IP Office Hanager fo	r Server Edition IPO Primary (9.	.400.137]		
File Edit View Tools I	nelo			
IPO Primary + Exten	stan + 11203 3	2 2 2 2 4 2 2 2 1		
Configuration		SIP Extension: 11	203 315	
± ₩ BOOTP (3)	Exten year			
R (n Operator (3)	Extension 3D	11253		
E Group(1)	See Extension	315		
E BK Short Code(46)	Caller Display Type	On	2	
H Time Profile(1)	Reset volume After Calls	E.		
Account Code(3)	Denice Type	Perman 12P Anna		
dia Location(0)	d			
E nu System (1)	Societion	Autometic	2	
Ho IPO Primary	Module	0		
(i) Control Unit (ii)	Fort	a		
Extension (13) 11212 201	Force Authorgation	R		
• 11207 301				
11210 302				
11209 305				
11201 342				
11202 313				
- 11204 338				
- 11205 317				

Click on the **VoIP** tab and select **RFC2833/RFC4733** from the drop down menu for the DTMF Support.

Avayo JP Office Hanager for S	erver Edition JPO Primar	·[9.1.408.137]	
Pie Edit Wan Toola Ha PO Frimary Extensio	► 	1315 · · · · · · · · · · · · · · · · · · ·	
Configuration	E	SIP Extension: 11203 315	₫・⊒ × < > >
K 6001P (3) Generator (3)	Erm VolP IP Address Code: Selection	0 0 0 0 System Default Image: Constraint of the system of t	
11207 301 11210 302 11208 304	Reserve Liceme Pax Transport Suggest	Fione 🗾 None 💌	
11209 305	DTMF Support	RFC88358FC4733	
11201 312 11202 313 11200 335 11204 336 11205 317	3rd Party Auto Answer Media Security	None	

Repeat this section to add other SIP extensions.

In the compliance testing, the following SIP extensions with base extensions of **311-313** and **315-317** were created. Phoenix used the called-party number **311-313** for various hospitality features. Phoenix registered as extensions **315-317** to function as Voice Mail ports.

Note: Customer needs to purchase enough SIP ports to provide for the voicemail lines and services.

Phoenix can detect whether the call is routed from another phone or is an incoming direct call based upon the called-party number in the SIP INVITE to extensions 315-317. If it is direct hospitality hunt group, the caller is retrieving a voice message. But if it is indirect, where the called-party is user, the caller is leaving a voice message.

SIP Extension	Usage
315, 316 and 317	Phoenix registers to these extension for receiving voicemail calls
311	Post mini-bar/room status
312	Express leave voice message
313	Set wakeup call

Note: *The above services tied to the numbers (311-313) are merely a sample configuration*

5.5. Administer SIP Users

SIP users are administered for the SIP extensions created in **Section 4.4.** The primary SIP users **315**, **316** and **317** are for receiving calls and the secondary SIP users **311**, **312** and **313** are to forward calls to primary SIP users.

5.5.1. Administer Primary SIP Users

From the configuration pane on the left for **IPO Primary**, right click on **User** and select **New** from the pop-up list (not shown). Enter the desired values for **Name** and **Full Name**. For **Extension**, enter the Base Extension from **Section 4.4**. Phoenix registers using this primary SIP User to receive calls.



Select the **Voicemail** tab and uncheck **Voicemail On** as shown below because the default Voicemail of IPO Server Edition will not be used.

Averya II Office Hanager for File Edit Ven Tools I IPO Primary 😤 User	Server fålten TPO Primary (5.1.400.1.17). He	9 • • • • • • • • •	
Configuration		VM1: 315	₫•₫ X V < >
	Ose: Vecenal Stor Secret Codes Secret Neelers Teleph Vocenal Code •••••• •••••• •••••• •••••• Confirm Nacenal Code •••••• •••••• •••••• •••••• Wacenal Enal •••••• •••••• •••••• •••••• Wacenal Enal •••••• •••••• •••••• •••••• Wacenal Enal ••••••• •••••• •••••• •••••• Wacenal Enal ••••••• ••••••• ••••••• •••••••	enny Pervending Dati In Voce Recenting Butten fregramming Vocenal On Vocenal Field Vocenal Reglack F Vocenal Reglack	Mensi Programming Mobility Ginup Membership Announce 👥 🕨

Select the **Telephony** tab followed by the **Call Settings** sub-tab. Check **Call Waiting On**, as shown below.

Configuration	S SECTION COPERS AND	VAN-346	where we are
	User Vacenal 010 Short Calls Source No Call Setting Supervisor Setting Multi-live Option Outside Call Sequence Default Ring Bindle Call Sequence Default Ring No Answer Time (seca) 6 Wina-uai Time (seca) 6 Wina-uai Time (seca) 2 Trianafor Return Time (seca) 01 Call Cost Mark-Uai 300	witters: Telephony (Farwarding Dad Ja Vice Recording Button Program a) Gallues Tut P Call Walling On P Answer Call Walling On Hold C Bass On Held C Officerk Staten C	ning Henru Programming HooSity Group Henberdhip Announce

Select the **Supervisor Settings** sub-tab. Check the **Cannot be Intruded** field, as shown below. Specify the **Login Code** and **Confirm Login Code** field, which will be used by Phoenix to log in as the SIP User.

Avayo IP Office Hanager for 1	erver Edition IPO Primary [9.1.408.137]		
File Edit View Tools He IPO Primary User	e 🗄 115:Welligness Wil 💡 🕱		
Configuration	=	VM1: 315	d+d × ≠ < >
()	Unier Yessensel OHD Short Codes Source Numbers Call Sectings Supervisor Settings multi-line Options Ca	Telephony Forwarding Dut In Voice Recording Button Programmers	g Menu Pisgramming Mubility Group Membershipt Announce K P
(*) User(12) (*) User(12) (*) OK Short Code(45) (*) Discrimination	Legin Gode	C Parcellage	
Time Profile(1) Account Code(0) Luser Rights(23)	Lugh Tide Period (secs) Manifar Graup	Parce Account Code Parce Account Code Parce Account Code	
B 440 P/O Prmwry B 440 System (1)	Coverage Group (Hone> Status on No Answer (Logged On (Ho change)	F Income Call Bar T Outgoing Call Sar	
	-Raset Longest Ide Time 17 Al Cole 17 External Incoming	Subbit Off-Switch Forward/Transfer Constrained Constrained	

Select the **Forwarding** sub-tab. Check **Forward on Busy**, **Forward On No Answer** and **Forward Internal Calls** with the forwarding number as the next Voicemail Hunt group member, i.e. **316**. The last primary SIP User will forward back to the first Voicemail Hunt Group member i.e. **315**.



Repeat this section to add another two primary SIP Users associated with the last two primary SIP Extensions from **Section 4.4**.

5.5.2. Administer Secondary SIP Users

From the configuration pane on the left for **IPO Primary**, right click on **User** and select **New** (not shown) from the pop-up list. Enter the desired values for **Name** and **Full Name**. For **Extension**, enter the secondary SIP users Base Extension configured in **Section 5.4**, in this case starting from "311".

Average IP Office Planager for Sec File Edit View Tools Help	rver Edition IPO Primary (9	.400.137]	
IPO Primary + Law	* 311-14	ter and Room Start. 👘 🙏 🗊 🚽 🕼 🔛 🔝 🚺 🖉 🖉	
Configuration		VMF1:311	₫•₫ × < < :
H R 80079 (3) H (F Querstar (3)	tiller visioenal DND	ort Codes Source Humbers Telephony Fernierding Dief In Visce Recording	Sutten Programming Minu Programming MidNity Group Membership Announce •
B - Rp Solution B 4 User(18)	Rane	WE:	
(e) 💥 Group(1)	Fataword		
 M Short Code(46) -m Desctory(3) 	Confirm Password		
III-([] Time Profile(1)	Conference PDN		
I User Rights(18)	Confirm Conference PDV		
Liscation(0)	Account Status	Erabled	3
ift mit Syntem (1)	Pulliane	Peritar and Room Status	
田小村 Line (2) 田小田 Control Unit (8)	Extension	712	
(E) .45 Extension (13)	Ernal Aubhunn		-))
- 398:(Extr/398	Locale		3
201:come X Priority		1	3
299::Sample	System Phone Rights	None +	
NoLiser	Pole	fasc User *	
- 3021(Extri302		F Receptionist	
- 312::Dyrestian		T trave latterary	

Select the **Forwarding** tab. Check **Forward Unconditional** and set the **Forward Number** to the primary SIP Users hunt group, in this case "310" (created in the next section), as shown below. Check **Forward Internal Calls**.

WAveyn IP Office Hanager for File Edit Vew Tools +	Server Edition IPO Frimary (9.1.4 eb	0.137]	
Configuration	= 311-Heite	And Record Stat.	d-1 × < →
A BOGTP [3] A BOGTP [3] A BOGTP [3] A Bost Society A Bost Society A Bost Code(*6) B Group(1) Decctor(0) Decctor(0) A Group(1) A Society(1) A Soc	Lase Vocanal DND Shor Biock Forwarding Police He Number Forward Unconditional To Vocanal	Codes Source Nanders Telephony Parcenting Dal br Yook Recording Better Programmer	g Meru Pagranning Militity Goup Mantianthip Annaurus <u>+ +</u>
Second Street (1)	Forward Number Forward Hunt Group Calls Forward Internal Calls	510 T	

Repeat this section to add another two secondary SIP Users associated with the last two SIP Extensions from **Section 4.4**. In this compliance testing, SIP Users 311-313 were created.

5.6. Administer Hospitality Hunt Group

From the **Configuration** pane on the left for **IPO Primary**, right click on **Group** and select **New** (not shown) from the pop-up list to add a new hunt group. This hunt group will be used to deliver calls to Phoenix for the hospitality features and voicemail. Enter desired values for the **Name** and **Extension** fields and select **Ring Mode** as **Rotary** and retain the default values for the remaining fields. Rotary will allow the last selected member to be remembered and not necessary from the first member unlike sequential. Click on **Edit** in the **User List** section below the page to add members.



The **Select Members** screen is displayed. Select the SIP primary users from **Section 0** and click the **Append** button to move the selected entries to the right.

Rotary Hi	unt Gro	up 310 WinVo	ice - Select Mei	nbe	ers						
Filters Extn Narr	ne	Extn Number	PBX Name		PBX Addr	ess 0 · 0	· 0				
Available Users (18/18) Members (3/3)											
Name	Extn	PBX Name	PBX Address		<u>^</u>	Order	Enabled	Name	Extn	PBX Name	PBX Address
Extn201	201	IPO Primary	10.1.10.121			1		VM1	315	IPO Primary	10.1.10.121
Extn304	304	IPO Primary	10.1.10.121]		2	•	VM2	316	IPO Primary	10.1.10.121
Extn305	305	IPO Primary	10.1.10.121	1		3	~	VM3	317	IPO Primary	10.1.10.121
Extn398	398	IPO Primary	10.1.10.121]							
Extn698	698	EXP_IP500V2	10.1.30.11								
Room1_1	301	IPO Primary	10.1.10.121								
Room1_2	302	IPO Primary	10.1.10.121		Add Before						
Room2_1	601	EXP_IP500V2	10.1.30.11								
Room2_2	631	EXP_IP500V2	10.1.30.11		Add Atter						
Room3_1	602	EXP_IP500V2	10.1.30.11		Append						
Room3_2	632	EXP_IP500V2	10.1.30.11		Remove						
Template	399	IPO Primary	10.1.10.121								
VM1	315	IPO Primary	10.1.10.121								
VM2	316	IPO Primary	10.1.10.121								
VM3	317	IPO Primary	10.1.10.121]							

The Rotary Group screen is displayed again and updated with the selected member.

Configuration		Real Property lies	Crosse Minutator			AND AND AND A LONG
Consiguration		Ro	tary Group winvoice	2.910		
R 800TP (1)	Group Quoung Overflow	Falback Voicenal Voice Recording	Announcements 50 ^y			
HIP Solution	Nane	Winitace	Profile	Standard Hunt Group		
18 User(18)	Extension	330	Exclanatory			
H (X Short Code(46)	Ring Mode	Retary	No Annuer Time (secs)	System Default (15)	3	
Bi () Time Profile(1)	Hold Music Source	No Change	3			
Account Cade(0)	Ring Tone Override	Tione	3			
Location(0)	Agent's Status on No-Answer Acciles To	Note	0			
H-rep System (1)	Central System	PO Presary	🖉 Advertise Server			
B-13 Line (2)	Law List				1	
(i) - Control Unit (b)	Extension Name Syn	ten				
(i)	Stateston Nate Sve S15 VM1 IPO	tem Primary				
310 Winkloice	2 317 WH 190	Primary				

Select the Voicemail tab and make sure Voicemail On is unchecked, as shown below.

File Edit View Tools 8	нþ			
Configuration	1 10 Mine		Rotary Group WinVoice: 310	
	Since Queung Querral (Vacanal Cade Confere Vacanal Code Vacanal Enal Vacanal Enal Prof. C. Coop. P. Same	Which Yournal Voice Records	g Announcements SIP Vocatual Alexen Vint Sand F Vocatual Help F Vocatal Help F Unt Net Services	

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



5.7. Administer Incoming Call Route

If necessary, create an incoming call route to route incoming calls to the desired phones. During compliance testing, an incoming call route was created to route incoming calls for the ISDN PRI Trunk in Expansion Module to the front office phone.

As shown in the screen below with the Expansion Module (**EXP_IP500V2**), the **Incoming Number** for the ISDN PRI line **10** is **33100310**.

DP_PSD0.1 * Incommp Call Base * IN 33100310 Configuration Image: Call Base Image: Call Base # & B00TP (1) Stembertly local Base Image: Call Base # & B00TP (1) Stembertly local Base Image: Call Base # & B00TP (1) Stembertly local Base Image: Call Base # & B00TP (1) Stembertly local Base Image: Call Base # & B00TP (1) Bester Capability Arry Voice # @ Group (1) Bester Capability Arry Voice # @ Group (1) Boomerg Call Base Image: Call Base # @ Control(0) Boomerg Cli Image: Call Base # @ Demanded(1) Boomerg Cli Image: Call Base # @ Demanded(1) Boomerg Cli Image: Call Base # @ Demanded(1) Boomerg Cli Image: Call Base # @ Station(10) Boomerg Cli Image: Call Base # @ Station(10) The # @	
Configuration Image: Configuration # 4 BOOTP (1) Samiert Voice Repetiting Destinations # 0 Operator (1) # 0 Samiert Voice # 0 Samiert Voice </th <th></th>	
# MoorP (1) Stendard Voice Researching Destinations *** 0 Operator (3) *** 0 User (18) *** 0 Stendard Voice Researching Destinations *** 0 User (18) *** 0 Stendard Voice Researching Destinations *** 0 User (18) *** 0 Stendard Voice Researching Destinations **** 0 Stendard Voice Researching Destinations ************************************	< >
Image: Solution theme: Capability Arry Voice Solution Solution Image: Capability Solution Image: Capability Image	
B Street Show (n) B Mile Show (n) B The Show (n) B	
Declar(0) Incoming Number 33100310 Image: Accurant Code(0) Showing Sub Address Image: Accurant Code(0) Image: Accurant Code(0) Showing Sub Address Image: Accurant Code(0) Image: Accurant Code(0) Showing Sub Address Image: Accurant Code(0) Image: Accurant Code(0) Showing Cut Image: Accurant Code(0) Image: Accurant Cut Showing Cut Image: A	
Mail Account Oxfe(t) Theorem (5 ub Address) Status Technic (10) Technic (10)	
Bit User Registration Bitoming CLI Bit User Registration Bitoming CLI Bit User Registration Locale Bit Web Prison Locale <	
B = Sp Privacy Locale III = W E (P) \$50072 Locale III = W E (P) \$50072 Pracety III = W E (0) Pracety III = U = (0) Pracety III = U = (0) Pracety	
(b) Tele (3) Presenty [- Law W (c) T(Line (3)) Tap IIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
E 1 (une (a) E	
# 40 Extension (28) # 41 Music Searce System Source	
Group (0) Ring Tane Ovenide Plons	
• Ja RAS (1) • Overage California (1)	
C INFINIT	
E W Invest Party Cap E W Freedo Freedo Freedo ()	

In the **Destinations** tab, select the front office phone extension from the **Destination** drop-down menu to route all incoming trunk calls to it. During the compliance testing, extension **304** was used, as shown below.

Avaya IP Office Manager for	Server Edition EXP_3P500V2 [9.	1.400.137]			
Pile Edit Vere Taols 1 Fait 1010012 - Barress	Nip na Cali Route 🖉 ati 112000				
Configuration	E		10 33100310		d . X
± K 8007₽ (3)	Standard Voice Recording De	stutes			
S R Solution	TimeProfile	D	estination	Falback Extension	
18 User(18)	 Default Velue 	30	H:Front Office	-	
H G Coup(1)	*	1		2	-
Account Code(3) H → Location (2) H → Location (2) H → Location (2) H → Location (2) H → D D Paramy H → D System (2) H → Control Unit (4) H → Control Unit (4)	n	.			

5.8. Administer Voicemail Users

From the configuration tree in the left pane, select the first user that will be using WinExpress for voicemail – these can be Guests and/or Admin staff. In this case, the user is **301**. Enter a descriptive **Name**. The **Full Name** can be completed as a template for identification or leave it as blank as Unicorn will update the guest name through IP Office Configuration Web Services regardless.

Avaya DF Office Hanager for 5	erver Edition EXP_IP500V2 [9.1.4	00.137]		
File Edit View Tonto Help Solution + User	e 🚊 301::Exten301	8/8.07.9		
Configuration	User	E	IPO Primary : Room1_1: 301	🖃 🗹 🗶 🖌 e 3
 A soore (s) (E second (d) 	1 Name Extension	User Vocenal DHD	Short Codes Source Humbers Telephony Forwarding Dial In Vace Recor	drg Button Programming Menu Programming • [•]
B Hig Solution	L Roomt 1 301	Tiere .	Room1_1	-
State(10):	L Extra04 304	Password		
(IN Short Code(46))	-1. Extra05 305	Confine Password		-
Time Profile(1)	-L W#2 312	Conference PIN		
Liner Righter(18)	L VH1 315	Confirm Conference P3N		
E-10 (FO Frankry	-1. VMQ 316	Account Status	Enabled	
IE -We EXP_IP500V2	L Extr/398 398	Pul tane	Extra01	
-1% Ltw (3)	Extension	30t	-	
	-1 Rson3_1 602	2mail Address	Г	
User (6)	E Room2_2 631	Locate	(Singapore (J.K.English)	
914 Short Code (5)	int txinisis 698	Priority	5	2
- 2 RA5 (1)		System Phone Rights	None	0
1 Incoming Call Route (1		Profie	Desic User	E. I

Select the **Voicemail** tab. Uncheck **Voicemail On**, as shown below because the default system Voicemail will not be used.

🐔 Awaya 1P Office Hanager fo	Server Littion D29_19500V2 (9.1.40	0.137]			.ID 8
File Edit Wew Tools H Solution Tools H	90 - Ech 301	120-			
Configuration	User	E	IPO Primary : Room1_	1:301	d - d × × × >
BOOTF (3) Generator (3) See Solution Generator (3) Generator (3) Generation Genera	L. Nume Extension P=1. Extension 201 P=1. Extension 200 P=1. VMP1 310 P=1. VMP2 310 P=1. VMP2 306 P=1. VMP2 717	User toomat Drab Vocensi Code Confini Vocensi Code Vocensi Drab F of P Cost	Shart Codes Source Humbers Telephone Henro	androg Ded Im Youn Recording Du	attan Programming Hanu Programming 4 +

Select the **Forwarding** tab. Check **Forward On Busy**, **Forward On No Answer** and **Forward Internal Calls** with the forwarding number as the first Voicemail Hunt group member in **Section 5.6**, as shown below.

Aveya IP Office Hanager for S	erver Edition EUP_UPS	0892 [9.1.400.137]		
Solution User		101:15:00.301 E. S. O - 1		
Configuration	User	Ξ.	IPO Primary : Room1_1: 301	
R 8001P (3) - Q ² Operator (3)	L Name Exte	User Voicenat DND	Short Codes Source Numbers Telephone Porverding Dal 1	In Voice Recording Button Programming Menu Programming • •
E-Section	*L RoomL 2 302 *L RoomL 2 302 *L Exm304 304	Block Porwarding	r.	
Directory(0) Directory(0) Directory(0) Directory(0) Directory(0) Account Code(0)	L VHF1 311 L VHF1 312 L VHF1 312	Follow Me Number		2
User Rights(38) All Location(0) His rise dho Primary	-L VH1 315 -L VH2 316 -L VH3 317	Forward Unconditional To microsoft	r r	
E ≪ E0 ² , 250012 ≪ System (0) f i Une (3)	-L Exercitia 398 -L Template 399 -E Reem2 1 601	Porward PAurber		2
Dented Unit (4)	E Room3_1 602	Prevaled Internet Calls	P	
Group (0) SM Short Code (1)	LE Exareag 669	Forward On busy	9	
RAS (1) Drowing Call Route (1)		Forward On No Answer Porward Number	17 315	3
WAAN Part (1) Preval Profile (1) PRovide (2)		Horward Internal calls	P	

Repeat this section for all users using Phoenix for voicemail, including all guest rooms, front desk, and staff. In the compliance testing, the voicemail users consisted of one front desk with extension **304**, admin phone with extension **698** and guest rooms with extensions **301**, **302**, **601**, **631**, **602** and **632**, as shown in **Figure 1**.

5.9. Administer Short Codes for message waiting lamp on/off

From the configuration screen in the left panel, select **Short Code** and right click **New** from the pop-up list (not shown). Enter the parameters as below for turning message waiting lamp **ON** and leave the rest as default.

- Code *78*N# where 78 is a free number randomly assigned and N represents user station
- Feature Select Display Msg from drop down menu
- Telephone Number Enter the format N";Mailbox Msgs=1"

Aveya IP Office Hanager fo	r Server Edition JPD Primary [5.1.40	0.137)	55.00000000000000000000000000000000000		
Solution · Short	Code *78*N#	12.12.			
Configuration	Short Code	E	"78"N#: Display Msg		₫ • :: X < + >
Rectry (1) Generator (1) Wesselston Generator (1) Generator (1) Generator Generator	T Cache (N < 7/374# (N < 7/374# (N < 7/374# (N < 7/374# (N < 7/574# (N < 7/574# (N < 7/574# (N < 7/574# (N < 7/52) (N < 7/52)	Shert Code Code Festure Telephone Number Um Group ID Locale Force Account Code Force Automation Cod	1789%# * The Shart Cole is summer to all applane Display Mig f* (Halbas Maga # 1* 0 	1	

Similarly, create a new **Short Code** and enter the parameters as below for turning message waiting lamp **OFF** and leave the rest as default.

- Code ***79*N#** where **79** is a free number randomly assigned and N represents user station
- Feature Select Display Msg from drop down menu
- Telephone Number Enter the format N";Mailbox Msgs=0"

Avaya IP Office Manager for	Server Edition IPO Primary [9.1.40	0.137]		
Pile Edit View Toolo P Solution Short	tulp Code ≝ *79*N≠	11.0 M		
Configuration	Short Code		*79*N#: Display Msg	₫+::: X < < >
K BOOTP (3) Q Operator (3) Weekton Weekton User(U) Group(1) Weekton(0) Group(1) Weekton(0) Group(1) Weekton(0) Group(1) Weekton(0) Group(1) Weekton(0) Group(1) Weekton(0) Weekton(0)	J Code BH <	Shert Code Cade Cade Pastura Telephone Number Une Group ID Lacale Parce Account Cade fonce Authorization Cade	Traffice "The Shart Code is common to all nonlines.	

5.10. Administer Analog User MWI

For voicemail users with analog telephones, the MWI setting on the analog extension may need modification depending on the type of analog telephone. Please refer to **Section 9** of these Application Notes for information on the specific analog telephone types requiring the MWI setting.

From the configuration tree in the left pane for Expansion Module (**EXP_IP500V2**), select **Extension** followed by the extension corresponding to the analog user. In this case, the extension is **631**. In the **Message Waiting Lamp Indication Type** section, **51V Stepped** is selected from the drop-down list, as shown below.

File Edit View Tools I	њb	s (************		
DIP_JP300V2 Today	slon 🔹 49 (au 🕴 🕹 😂 🖬		
Configuration	Extension		Analogue Extension: 49 631	ti - ti X 🗸 🗸
NOOTP (3) gir Operator (3) gir Solution gir Solution<	D Dominant Hidd # 50 873 871 # 51 1973 451 1973 # 51 1973 #553 1973 # 515 1973 #553 1973 # 515 1973 #554 1973 # 515 1973 #554 1973 # 515 1972 6 4002 6 # 0002 6 6 4005 6 # 0005 6 6 40056 6 # 0005 6 6 40056 6	Ant State 1 Exament Classification 2 Exament Classification 3 C Quet Header 4 Paging Epeaker 6 F Standard Telephone 7 C Tool Prove 1 8 C Tool Prove 1 2 C Dia Prove 1 3 C Tool Prove 1 4 C Tool Prove 1 5 C MCH Source	Plash Hock Pube Width	2

5.11. Administer User Rights

From the configuration tree in the left pane, right-click on **User Rights** and select **New** (not shown) to create a new user rights template. Enter a desired **Name** to designate user rights for guests in the Check-In state. In the compliance testing, the name was set to **CHECKIN** as shown below.

Avaya IP Office Hamager for	Server Edition IPO Primary (9.1.40	0.137]			
Solution User R	esp laghts - Overcrask	1 2 10 - 11 3 12 E	A + - 12		
Configuration	User Rights	E	CHECKIN		d • 1 × × < →
BOOTP (3) Greater (3) Her Solution Solution	Here I + T3 default I + T3 default I + Paging I + Robox I + Robox I + P Hambhore I + SP Autopate I + SP Autopate I + Order	Uner Short-Codes Button Programming Nere CHEOCO "The Lare Right to common to all-set Lucals Singapore (LK English)	Telephony Liver Rights Mende	ntho Vokanai Parwarding Test part of User Rights	E antono terrer de se
Time Profile(1)	 CHECKU,F CHECKU,L0,DHD CHECKU,L0,DHD CHECKU,L0,DHD CHECKU,D0,DHD CHECKU,D0,DHD 	Priority [3 De not deturb-	2	Plot pert of User Rights	E
We EXP_JESON2 We System (1) Y Une (2) Control Unit (4) We Extension (28) User (6) Garce(0) Withort Code (5)	• CHECKEL_DND • CHECKEL_DND	T Brukke de not detturts		Pilot per Lof Uner Rights	2

Select the **Telephony** tab and then the **Supervisor Settings** sub-tab. Uncheck **Enable outgoing call bar** field towards the bottom and select **Apply User Rights value** from the corresponding drop-down box, as shown below.

Solution 🔄 Uner Rig	tas • crecan		- D	
Configuration	User Rights		CHECKIN	
BOOTP (1) Coperator	1 Annex 1 < 10 default 1 < 10 default	Lise: Short Codes Suttern Programming Telliphenv Call Settings: Supervisor Settings (Multi Ine Options) Simulari Can structe Can structe C	Lose: Rights Herdenship: Vocerall Horwesting: Call Log:	
VIAN Port (0)		Coverage Croce	Proper user rights value	
Preval Profile (1)		(dane >	V Dipt part of Liner Burlin	

In the compliance testing, user rights templates were created with names as highlighted in the red box below.

🕐 Avaya IP Office Manager for	Server Edition IPO Primary [9.1.40	0.137]		
File Edit View Tools # Solution • Liner R	eb Ighis 😤 Orecozi		20	
Configuration	User Rights		CHECKIN	₫ •₫ X < < >
K BOCTP (3) T. Name © Density (b) 4: 4 Agent Image: Solution 4: 4 Agent Image: Solution 4: 4 Agent Image: Solution 4: 5 Agent Image: Solution 4: 5 Agent Image: Solution 4: 5 Agent Image: Solution 5: 6 CPCON Image: Solution 6: 6 CPCON Image: Solution	Use Shart Codes Burtan Programming Telephon Call Settings Rubervisor Settings Multi-line Options - Initiation Can Initiatis Can Initiatis Cannot be initiated Deny Auto Intercole Calls Farch login Canada force login	Processes of Lose Rights Membership Vaccessel Forwarding Cell Log Processes of Lose Rights Processes of Lose Rights Processes of Lose Rights		
Tri Une (3) Control Unit (4) Estatusion (26) Law (6)	 Verbuit P Auto-meste P Hemphone Matteox 	Parce eccevint code Enable force eccevint code Intel CHF Switch Forward/Transfer	First part of User Rights	1
Group (D) FM Shart Code (%) Genice (0)	ali < Paging ali < T3 default	Evalue Inhibit Off Switch Farward/Transfer Dutging call Ser	Flot part of User Rights	

During this compliance testing, the **Enable outgoing call bar** field was checked for the user rights **CHECKOUT** to prevent the guest room users from making calls out to the PSTN when either of these user rights is applied.

Averya 3P Office Hassager for Se File Edit View Tools Help	erver Edition IPO Primary (9.3.40	6117]5		
Solution 🔅 Uner Rigt	tuckoseko 🗧 🔹 🔹			
Configuration	User Rights		CHECKOUT	⊡ - : × < < >
BOOTP (3) Genetor (3) H-W Solution Law(18)	t Nater 5.1 < Agent 5.1 < Application 5.1 < Dose	User Short Codes Butter Programming Telepher Call Settings Sudervisie SetTings Multi-line Option - Telephere	YY User Rights Membership Vocensel Yorwarding s Calif.og	1
Group(1) 9x Short Cade(40)	SIL 4 CHECKIN_BAR	Con etrude	Not part of User Rights	-
Directory(0) One Profile(1)	ALCONDULAR DID	F Carnot be intruded	Not part of User Rights	
Account Code(0)	A CHEORIN_DO	To Deny Auto Entercore Calls	Not pert of User Rights	<u>.</u>
tocation(0)	A < CHECKIN_DO_DND	First logn		
B 40 EP JP50V2	HI+ CHECKIN LO DND	Enable Ferce legn	First part of User Rights	-
fill: System (3) FR Line (3)	11 < Default	Force account code		
- Hor Control Unit (4)	 IP Auto-critate IP Havdphone 	T brable force account code	frist part of User Rights	2
User (6)	ki < Metxxx	Inhibit Off Switch Farward/Transfer		
Group:(0) Bit Short Code (5)	ali = Figng	C Environ Lender Off-Sector Forward/Transfer	Not part of User Rights	2
Service (0)		Outgoing call bar		
Discoving Call Route (1		Chable subgoing call ber	Apply User Rights value	-
WW9 Port (0) Presul Profile (1)		Caretrage Orsup		
Li IP Route (2)		<pre>diane></pre>	Not part of User Rights	1

User rights **CHECKIN_DND** was set with **Enable do not disturb** checked and User Rights applied. Guest user will not be disturbed upon Check-In to hotel room.

File Edit Ven Tada	Nelsen (Store (14) Primary (9,14) Hels Rights — El Crécody (54		
Configuration	User Rights	CHECKIN_DND	d· X V <
BOOTP (3) Operator (3) Solution User(18) Operato(1)	And present	Ulter Shart Catles Butten Hogramming Telephony User Nights Mendershe Vacanski Perwarding Taime O-EOCH_DNO * The Liker Right is comman to all systems.	To Application Consider the same
GM Shart Code(46) Directory(0) () Time Profile(1)	 CHECKIN, SAR. CHECKIN, SAR, DID CHECKIN, SAR, DID CHECKIN, SAR 	This part of User Rights Prainty	2
Liter Rights (18)	 CHECK/LOT/ND CHECK/LOT/ND CHECK/LOT/ND CHECK/LOT/ND 	S The Part of User Rights	z
S 49 EXP_3P\$00/2 46r System [1]	< CHECKOLT	P Enable do ret datarts Apply User Rights value	

User rights **CHECKIN_LO** mean that guest will only be able to make local calls. User rights **CHECKIN_DO** mean that guest user will be able to call up to domestic (long distance) but not international. Short Codes sub-tab will be used in this case to restrict domestic or international calls by the digit dialed.

Avaya IP Office Manager for File Edit Ves Tools (r Server Edition IPO Primery (9.1.46 No	00.137]			. 67					80
Configuration	User Rights		A Property		CHECKIN_LO			₫ +世	×v	(a
BOOTP (1) BOOTP (1) Gerator (1) Solution User(18)	Gi < Agent Gi < Appleton Gi < Ross	Lise Jac	e Shert Codel oply User Rights v	Button Programming Telephony alut	Case Righta Memberahip	Yacamal Parwarding				
Group(1) (M Short Code(44) (M Offectory(0)	 CHEDON CHEDON_BAR CHEDON_BAR_DND 		Code 802 8001	Telephone Number 80274 900114	Feature Sarred Sarred	Dire Group (D) 0	Add			
Time Profect() Account Code(0) Gene mores (38) Gene more (38) Ge	 CHECONL, DX0 CHECONL, DX0 CHECONL, DX0, DHD CHECONL, DX0 CHECONL, D, DX0 CHECONL, D, DX0 CHECONL, D, DX0 						6m			



The rest of the user rights will be a combination of the above.

5.12. Administer Security Settings

From the Avaya IP Office Manager screen, click on Solution \rightarrow IPO Primary and select File \rightarrow Advanced \rightarrow Security Settings (not shown) from the top menu. Select the correct IP Office system and log in with the appropriate security user credentials.



The Avaya IP Office Manager - Security Administration screen is displayed. From the configuration tree in the left pane, select Security \rightarrow Services \rightarrow Configuration to display the Service: Configuration screen in the right pane. For Service Security Level, select Unsecure + Secure as shown below. In this compliance testing, Unicorn used the Unsecure level for the Configuration Web Service interface. Repeat the whole process for the security settings of the expansion module EXP_IP500V2 shown in the screen above.

Averya IP Office Hanager for Server LAD File Edit View Help 2. Set of - 1 - 1 - 1 - 2 - 2 - 1 - 1	nn - Security Administrati	an DO Primary [9.1.4.0 bu	ill 137] [Administrator]			
Security Settings		Services (7)	Service: Con	figuration		高利米トシート・
Security General Security Security Refere Compa (12) Service Users (5)	Name Camporaton Security Administration System Status Intell Enhanced TSPI HTTP Web Services External	Security Level Unaccure - Sec. Secure, Medium Secure, Medium Unaccure Only Unaccure - Sec. Secure, Medium Disabled	Service Datality Name Hod System Service Port Service Security Level Service Access Source	Configuration EPO Persey Joseou, 50005 Unanour + Secure Unweatured	2	

Aveya 3P Office Hanager for Server Lob Pie Solt Vew Help	ion Security Administrati	un EXP_IP500V2[9.1.4.0 b	uld 137] (Administrator)	
Security Settings		Services (7)	Service: Configuration	# +1×1×1≤1≥
E General General Spaten (1) C Entrans (1) G Entrans (1) G Entrans (1) Sentce Usen (1)	Name Configuration Security Administration System Status Intel Enhanced TSP1 HTTP Web Senices External	Security Level Unaccure + Sec. Unaccure + Sec. Unaccure Only Unaccure + Sec. Secure + Sec. Secure, Medium Disubled	Service Details Service Details Name Host System Service Port Service Secure Service Access Source Service Access Source	-

5.13. Administer System Password

From the Avaya IP Office Manager – Security Administration screen, select Security \rightarrow System from the configuration tree in the left pane to display the System: IPO Primary screen in the extreme right pane. In the Unsecured Interfaces tab, click the Change button next to the System Password to configure the IP Office System Password. The System Password is used in Section 6.2 for Configuration Web Services. Repeat these steps for the IP Office Expansion Module.

Security Settings	System (1)	System: IPO Primary
Security	Soddh Name IF Address	System Details Unsecured Interfacer Canticates
@ General	PO Passay 10.1 10.123	Sater Parent
Staten (1)		
Rights Groups (12)		Vocenal Password
Service Usen (5)		Mantar Faseword Duringe Charges
		Application Controls
		TFTP Server P A Progree Code T TAPI P A
		TETP Deectory Read C DesLink R L HTTP Deectory Read P 1
		TETTE Vocenal P 1 HTTP Descary With P 1
		Australian Support
		Application Active Linitations
		Legacy Vocential
		Notestar Lite
		TAPI
		one-X Postal Client 🖌
		P Office Directory Services 🗸
		Devink 🗸
		IP DECT X
va IP Office Nanager för Server Edi Tobl View Help	lion - Security Administration - EXP_JP50072 [9.1.4.0 b	Network Versee
A 10 Olice Hamper In Sever Id. Edit Ven Heb	tion - Security Administration - EXP_1P500V2 [9.1.4.0 b	Network Verse /
a IP Office Hanager for Server Edi fall Van Hab Security Settings	tion - Security Administration = EXP_JP500V2 (9.1.4.0 b System (1)	Network Verse System: EXP_IP500V2
a D'Office Hanager for Server fol fait Van Hole Security Settings Security	tion - Security Administration - EXP_IP500V2 (9.1.4.0 b System (1) Subth None - IP Address	Network Verse / / ///////////////////////////////
A IP Office Hanager for Server (d) table was help Security Settings Security General General Manual (d)	tion - Security Administration - EXP_JP500V2 (9.1.4.0 b System (1) Extch Namy - IP Adams EXP_IP50V2 - 10.1.3.11	System: EXP_IP500V2 System: Data Unercard Intefaces System Data System Data Data Data Data Data Data Data Data
a 1P Office Hawager for Server Edit fail View Help Security Settings Security Security Security Security Security Security	tion - Security Administration - EXP_JPS00V2 (9.1.4.0 b System (1) Sutch None - IP Address EXP_PS00V2 - 10.1.30.11	System: EXP_IP500V2 System: EXP_IP500V2 System: Deale Unstructed Interfaces System Password Vocemal Password Charge 1
a IP Office Hawager for Server Edit fail View Heip Security Settings General Security Serves (7) Phylos General (7) Service Users (8)	lion - Security Administration - EXP_JPS00V2 (9.1.4.0 b System (1) Soutch Name - IP Address EXP_P500V2 - 10.1.30.11	
As 1P Office Hamager for Server Edit Edit View Help Security Settings Security Sec	tion - Security Administration - EXP_JPS00V2 (9.1.4.0 b System (1) Sutch None: UP Address EXP_IPSC0V2 10.1.30.11	Network Verse V System: EXP_IP500V2. System: EXP_IP500V2. System: Deale System: EXP_IP500V2. System: Deale Ownge Deale Vocenal Passoort Ownge Use Service User Codertool Application: Deale
A IP Officit Hamager für Server Edi fabl Van Heis Security Settings Security Securit	tion - Security Administration + EXP_1P500V2 (9.1.4.0 b System (1) Extch Namy IP Address EXP_IP500V2 10.1.36.11	Network Verse V System: EXP_IP500V2 System: EXP_IP500V2 System: Damage System: EXP_IP500V2 System: Damage System: Damage System: Damage System: Damage Velocental Password Damage
A IP Officit Hanager für Server fol- talt Van Heb Security Settings Security Server Setter (1) Serves (7) Rights Groups (15) Serve Uses (6)	Ion - Security Administration - EXP_JP500V2 (9.1.4.0 b System (1) Extch Name IP Admen EXP_JP50V2 = 10.1.30.11	Network Verse Verse System: EXP_IP500V2 System: Data Otherge Data Nonter Password Data Data Data Nonter Password Data T1TD Severe P Decitive P T1TP Decitory Pass Data
A IP Officit Humager für Server führ fall Vann Halp Security Settings Security Sec	Ion - Security Administration - DXP_IP500V2 (9.1.4.0 b System (1) DXP_IP50V2 - 10.1.30.11	Network Verse V System: EXP_IP500V2 System: Data Noter Passort Data Data Data Noter Passort Data Data Data Noter Passort Data TTTP Server P Device P Device P HTTP Devices D HTTP Devices D HTTP Devices D HTTP Devices D
A IP Office Hamager for Server Edit Edit Verim Help Security Settings Security General Serves (?) Fights Emergin (15) Serves Users (b)	Ion - Security Administration - EXP_IPSOV/2 (9.1.4.0 b System (1) Soutch Name - IP Address EXP_IPSOV/2 10:130.11	Network Verse X NetWork Verse X System: EXP. [P500V2. System: Deale Unercured Intelactors Cardicateo Veccensel Password Deale P 1 Veccensel Password Deale D 2 Veccensel Password Deale D 2 Veccensel Password Deale D 2 Third Password Deale D 2 Application Second Deale D 2
As the Office Hamager har Server Edit Edit View Help Security Settings Security General Setter (1) Serves (2) Finite Encars (15) Service Users (5)	tion - Security Administration - EXP_IP300V2 (9.1.4.0 b System (1) Soutch Name - IP Address EXP_IP30V/2 10.1.30.11	Network Verse X System: EXP_IP500V2 System: Data Nonter Passoort Data Design: Use Service User Caderbal Application: P 1 Application: Active: Application: Active:
As 10 Office Hamager for Server Edi tall Van Hale Security Settings Security Security Security Security Security Security Serves (7) Serves (7) Serves (8) Serves (8)	tion - Security Administration - EXP_JP300V2 (5.1.4.0 b System (1) Soutch Name: IP Address EXP_P500V2 10.1.30.11	Network Verse Verse System: EXP_IP500V2 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
As 1P Office Hamager for Server Edit Edit Van Heis Security Settings Security Settings Security Secur	lion - Security Administration - EXP_JPS00V2 (9.1.4.0 b System (1) Sutch Namy - IP Address EXP_PS0V2 - 10.1.30.11	Network Versee Versee System: EX.P_IP500V2 System: Dange System: Dange System: Dange System: Dange System: Dange System: Dange Yoocenal Passoort Dange Nonter Passoort Dange Nonter Passoort Dange Yoocenal Passoort Dange Yoocenal Passoort Dange THTP Serve Dange THTP Serve Dange Device Dange HTTP Devictory Read Dange THTP Serve Dange Application Active Limitations Application Active Limitations Vocenal La Versee
A IP Office Hamager for Server Edi thit Van Hair Security Settings Security General Serves (n) Phyte General (n) Serves (n)	Ion - Security Administration - DP_IPS00V2 (9.1.4.0 b System (1) Dotth Name - IP Address DP _IPS0V2 - 10.1.30.11	Network Verver V Add 132((dimensitivitor)) System: EXP_(PS00V2 System: Datale Unrecured Interfaces Calification Conge System: Datale Unrecured Interfaces Calification Clarge System: Password Clarge Volcenal Password Clarge Nonter Password Charge Noter Password Charge Noter Password Password Noter Password Password Noter Password Password Application Sappoit Active Unritioner Application Sappoit Volcenal Volcenal List Volcenal Vappade wared<
A IP Office Hamager for Server Edi Edit Van Hals Security Settings Security Serves (?) Right Emers (b)	Ion - Secarity Administration - EXP_IPSOW2 (9.1.4.0 b System (1) Soutch Name - IP Address EXP_IPSOV2 10:130.11	Network Verwer X NetWork Verwer X NetWork Verwer X System: EXP_IP500V2 X System: Detail: Unexcurpt Intelaces Candicateo System: Detail: Unexcurpt Intelaces Candicateo System: Passwort Dange Vocemal Passwort Dange Nonter Passwort Dange Vocemal Passwort Dange THTD Sever P P Program Code THTD Sever P THTD Passwort Device THTD Passwort P Application Apple: Apple: Active Listifiers Vocemal List V Upgrade wardt V Vocemal List V
As UP Office Hamager har Server Edit Edit Vana Halo Security Settings Security General Saton (1) Saton (1) Saton (1) Saton (1) Saton (1) Saton (1) Saton (1)	tion - Secarity Administration - EXP_IP300V2 (9.1.4.0 b System (1) Soutch Name IP Address EXP_IP320V2 10 1 30 11	Network Verwer X Add 1321 [Administration] System: EXP_IP500V2. System: Data: Overcuef Intelfaces Cardicates System Data: Overcuef Intelfaces System: Data: Overcuef Intelfaces Cardicates System: Passwort Dampe Vocenal Passwort Dampe Nonter Passwort Dampe Monter Passwort Dampe TITP Second P TITP Vacanal P Monter Passwort Monter Passwort TITP Second PA MITP Dectory Read TITP Vacanal P Monter Passwort MITP Dectory Read TITP Second PA MITP Dectory Read Application Active Untillators Vacenal Lis V Vecenal Lis V
Va IP Office Hamager Re Server Edi Edit Van Hele Security Settings General Security General Security General Security Se	tion - Security Administration - EXP_JP300V2 (9.1.4.0 b System (1) Soutch None - IP Address EXP_P502V2 10.1.30.11	Network Verwer V And 1321 [Administration] Image (Control of the factor) System: Deals Owncover (Control of the factor) System: Deals Owncover (Control of the factor) System: Password Owncover (Control of the factor) Veccensel Password Owncover (Control of the factor) Yester: Deals Owncover (Control of the factor) Yester: Dealson: Dealson Yester: Dealson Application: Sepont Yester: Dealson PORce: Tex Yester: Dealson

5.14. Administer SMDR

From the configuration tree in the left pane for **IPO Primary**, select **System** to display the screen in the right pane, next select the **SMDR** sub-tab. For the Output field, select **SMDR Only** from the drop-down box. Set **IP Address** to the WinExpress server IP address, and set the **TCP Port** to **5050**. Optionally, you can increase the **Records to Buffer** field from default **500** to **3000** to provide more buffer for call records in case the SMDR link is broken.

Avaya IP Office Hanager for	server Ldition BPD Primary [9.1.400.137]	
PO Frimary System		
Configuration	IPO Primary	は・は、メート・マ
# K 8000P (3) # 0 0pertuber (3) # 0 0pertuber (3) # 0 0per(18) # 0 0per(18) # 0pertuber(0) # 0pertuber(Einstein LAH1 LAH2 DH6 Visional Telebrony Oriectory Services Einstein Einstein SHTF SHCR Twinning Codecs Vision Output SHCR Only SHCR Only SHCR Vision Business SHCR SHCR Vision Codecs Vision SHCR Only SHCR Only SHCR Only SHCR Vision Codecs Vision SHCR Only SHCR Only SHCR Only SHCR Vision Codecs Vision SHCR Only SHCR Only SHCR Only SHCR Vision Codecs Vision SHCR Only SHCR Only SHCR Only SHCR Vision Codecs Vision SHCR Only SHCR Only SHCR Only SHCR Vision Codecs Vision SHCR Only SHCR Only SHCR Only SHCR ONLY SHCR ON SHCR ONLY SHCR ON	Security Contact Center

6. Configure WinExpress

This section provides the procedures for configuring WinExpress. WinExpress comprises of two main components, i.e., Phoenix guest voicemail, and Unicorn call billing package and interface solution. The procedures include the following:

- Obtaining IP Office Configuration Web Service SDK
- Configuring Unicorn
- Configuring Phoenix

6.1. Obtaining Avaya IP Office Configuration Web Service SDK

Avaya provides the IP Office Configuration Web Service SDK for DevConnect members to incorporate IP Office configuration changes in their solutions. The Configuration Web Service SDK must match the release of the IP Office that is deployed, in this case **Release 9.1**. To obtain the IP Office Configuration Web Service SDK, browse to <u>http://www.devconnectprogram.com/</u> using a web browser and login using a valid DevConnect member account. Then click **Downloads** \rightarrow **IP Office**TM \rightarrow **Configuration Web Services.** Locate and download the latest Configuration Web Service SDK which in this case is 9.1 Service Pack 1. Member 's implementation engineer will then deploy the files from the Configuration Web Service SDK onto the WinExpress server.

6.2. Configuring Unicorn

Unicorn is a Windows-based integrated billing and interface solution. This section details the essential portion of the Unicorn configuration to interoperate with IP Office. These Application Notes assume that the Unicorn application has already been properly installed by FCS service Engineer.

 To enable Unicorn Interface configuration forPhoenix, Avaya IPO PMS WS, Avaya IPO TAPI and Avaya IPO CDR use Unicorn.xml located is in the C:\Program Files(x86)\FCS\Unicorn\Control\ directory.

In the <Child> section of the xml file, the configuration highlighted in bold below indicates what needs to be added.

<child i<="" td=""><td>Id="VMS1"></td></child>	Id="VMS1">
	<propertyid>MY99</propertyid>
	<exename>Phoenix.VMS.exe</exename>
	can be a remote child ; need to insert full path <math \192.168.2.1\Unicorn\Fidelio.exe>
	<logfilepattern>VMS\VMS1-</logfilepattern>
	<description>Phoenix.VMS</description>
	<xmlfile>Phoenix-VMS.xml</xmlfile>
	<intfinqueuename>.\Private\$\VMS1In</intfinqueuename>
	can be a remote MSMQ queue
	<intfoutqueuename>.\Private\$\VMS1Out</intfoutqueuename>
	<intfoutqueuefilterthresholdinhour>999999</intfoutqueuefilterthresholdinhour>
	interface will filter the packet if it's more than this value (in hour) as compared to</td
system clock>	
the info. to the message qu string>	during startup, the child has to initial a dialog with mother via tcp/ip before can send<br ueue The message queue name to be assigned by unicorn , and be part of the XML dialog
	<unicornmotheripport>4017</unicornmotheripport>
	<memorypage>7</memorypage>
<td>></td>	>
<child i<="" td=""><td>Id="PBX1"></td></child>	Id="PBX1">
	<propertyid>MY99</propertyid>
	<exename>AvayaIPOPMS.PBX.exe</exename>
	<logfilepattern>PBX\PBX1-</logfilepattern>
	<description>AvayaIPOPMS</description>
	<xmlfile>AvayaIPOPMS-PBX.xml</xmlfile>

Solution & Interoperability Test Lab Application Notes ©2016 Avaya Inc. All Rights Reserved. <IntfInQueueName>.\Private\$\PBX1In</IntfInQueueName>

<IntfOutQueueName>.\Private\$\PBX1Out</IntfOutQueueName>

<IntfOutQueueFilterThresholdInHour>999999</IntfOutQueueFilterThresholdInHour>

<UnicornMotherIPPort>4018</UnicornMotherIPPort>

<MemoryPage>10</MemoryPage>

</Child>

<Child Id="PBX2">

<PropertyId>MY99</PropertyId>

<EXEName>AvayaIPOPMS2.PBX.exe</EXEName>

<LogFilePattern>PBX\PBX2-</LogFilePattern>

<Description>AvayaIPOPMS2.PBX</Description>

<XMLFile>AvayaIPOPMS-PBX2.xml</XMLFile>

<IntfInQueueName>.\Private\$\PBX2In</IntfInQueueName>

<IntfOutQueueName>.\Private\$\PBX2Out</IntfOutQueueName>

 $<\!IntfOutQueueFilterThresholdInHour\!>\!99999<\!/IntfOutQueueFilterThresholdInHour\!>$

<UnicornMotherIPPort>4016</UnicornMotherIPPort>

<MemoryPage>11</MemoryPage>

</Child>

<!--

<Child Id="PBX2">

<PropertyId>MY99</PropertyId>

<LogFilePattern>PBX\PBX2-</LogFilePattern>

<EXEName>AvayaIPOTAPI.PBX.exe</EXEName>

<Description>AvayaIPOTAPI PBX Interface</Description>

<XMLFile>AvayaIPOTAPI-PBX.xml</XMLFile>

<IntfInQueueName>.\Private\$\PBX2In</IntfInQueueName>

<IntfOutQueueName>.\Private\$\PBX2Out</IntfOutQueueName>

 $<\!IntfOutQueueFilterThresholdInHour\!>\!99999<\!<\!IntfOutQueueFilterThresholdInHour\!>$

<UnicornMotherIPPort>9302</UnicornMotherIPPort>

<MemoryPage>11</MemoryPage>

</Child>

-->

<Child Id="CDR1">

<propertyid>MY99</propertyid>
<logfilepattern>CDR\CDR1-</logfilepattern>
<exename>AvayaIPO.CDR.exe</exename>
<description>AvayaIPO CDR Interface </description>
<xmlfile>AvayaIPO-CDR.xml</xmlfile>
<intfinqueuename>.\Private\$\SMDRIn</intfinqueuename>
<intfoutqueuename>.\Private\$\SMDROut</intfoutqueuename>
<intfoutqueuefilterthresholdinhour>999999</intfoutqueuefilterthresholdinhour>
<unicornmotheripport>4001</unicornmotheripport>
<memorypage>9</memorypage>

2. Unicorn provides a web interface for configuration of guest rooms, posting like DND and MWI on/off updates and operations reporting. An administrator can log in with the appropriate credentials from <a href="http://<server name or ip address/Unicorn.Web/Login.aspx">http://<server name or ip address/Unicorn.Web/Login.aspx as shown below by substituting the appropriate server IP address. Select the **Property** and click **Login** with the appropriate credentials.

					_ 🗆 🗙
Co 🕘 🧔 http://10.1.10.125/Unicom.Web/Logi	P - 0	Cunicorn.Web		×	n * Ø
					^
Unicorn					
Childrin					
	_		_	-	_
Ргор	erty:	MY99-Castel Primus			
Lang	juage:	English			
User	ID;	admin			
P355	word:	••••			
	Login	Change P	assword		
	194.100	Scientings, 1	10000120.0		
© 2012 FC	CS Comp	uter Systems I www.fcsc	s.com		
			and the second se		
					~
<					>
	and the second			Vi aptopopul	and the second second

Solution & Interoperability Test Lab Application Notes ©2016 Avaya Inc. All Rights Reserved.

- 3. Click **Home** → **System** → **Interface Listing** to show the integrated interfaces and their status which should show up [↑]. The list below shows the **Device ID** list and their purpose.
 - a. FOS1 Front Office System
 - b. VMS1- Phoenix Voicemail
 - c. **PBX1** IP Office Primary Server PMS
 - d. **PBX2** IP Office Expansion Module PMS
 - e. **CDR1** IP Office SMDR

101	corn					-
	corn	Hi, Administrator Language	: English 🔹 sign a	ut change pass	word	
his is a temr	oprary license. It	will expire in 24 days on 28 Februa	ry 2016. Your system will be inoperable	from the expiry dat	e. Please ohta	in a valid li
Home	TOR Douting	Reporting Configuration	Business Doke: 11.Sab.2012	04 Eab 2016 02:20	Manual Duffe	- Delease/CE
Tronite	Fig. southing Fig	responding X considuration	Business Date: 11-Feb-2013	04-Feb-2016 03:29	: Manuai Butte	r Melease(UL
In	terface Listing					
-	-					
Refre						
Refre	DEVICE ID	DEVICE DESC	EXE NAME	VERSION	STATUS	POSTING
Refr	DEVICE ID FOS1	DEVICE DESC Fidelio FIAS	EXE NAME FIAS.FOS.exe	VERSION 1.2.3.74	STATUS	POSTING
2 2	DEVICE ID FOS1 VMS1	DEVICE DESC Fidelio FIAS Phoenix VMS	EXE NAME FIAS.FOS.exe Phoenix VMS.exe	VERSION 1.2.3.74 1.2.2.30	STATUS	POSTING ON ON
177	FOS1 VMS1 P6X1	DEVICE DESC Fidelio FIAS Phoenix VMS AvayaIPOPMS	EXE NAME FIAS.FOS.exe Phoenix.VMS.exe AvayaIPOPMS.PBX.exe	VERSION 1.2.3.74 1.2.2.30 1.0.0.19	STATUS	POSTING (N) (N) (N)
1111	DEVICE ID FOS1 VMS1 PBX1 PBX2	DEVICE DESC Fidelio FIAS Phoenix VMS AvayalPOPMS AvayalPOPMS2.PBX	EXE NAME FIAS FOS exe Phoenix VMS exe AvayaIPOPMS PBX.exe AvayaIPOPMS2 PBX.exe	VERSION 1.2.3.74 1.2.2.30 1.0.0.19 1.2.1.26	STATUS	POSTING (N) (N) (N) (N)

 The Unicorn Avaya PMS interface module port and data configuration is defined in the AvayaIPOPMS-PBX.xml and AvayaIPOPMS-PBX2.xml located in the C:\Program Files(x86)\FCS\Unicorn\Control\ directory. Webservice is configured for interfacing with Configuration Web Services of IP Office.



In the both configuration xml file, the host is set as the **IPAddress** of IP Office server (or Expansion Module) listening to port **50805** which corresponds with the IP Office port at **Section 5.12** and the **AccountName** and **password** administered in **Section 5.13**. The password is not revealed for security reasons.





5. The Unicorn Avaya CDR interface module port & data configuration is defined in the AvayaIPO-CDR.xml located in the C:\Program Files (x86)\FCS\Unicorn\Control\ directory. The host is set as tcp.ip type listening to port 5050. This corresponds with the setup of IP Office SMDR port at Section 5.14.

6. The **Posting** tab below shows the various features such as Check In/Out, Edit Guest Profile that can performed from the web interface. The screenshot below shows the **Check In/Out** page for checking a guest with name, date, room number and check in/out date etc.

C 🖸 🖉 http://10.1.10.12	5/Unicon Web/Main.aspr	P - 0	0	Unicorn.Web	2	- 10	X
Unicorn	ulministratura Language. <mark>En</mark>	jin.		• Syn eet	change ja	esswerd	
france Posting tepor	Charle Invited	Bashess De	6e: 11-	0:6-2012 25	Aeg-2015 03	129 - Rokone bufferte PMS-Match	ad RahamaKASufforByTen
Extr. No. Raom No.	1 [Phonistray] Selection of 2 4 [Phonistray] June Tex	200 - MUL200	1.5000	Share Roo	m		
Guest Name First Name	(Providing) Goel Name [(Providing) First Name	Last Name	4 ()H	ing the Matrice Fact N			
Check In Check Out	26 Aug 2015, Wednesday 27 Aug 2015, Thursday		00 14	* 1 00	*		
Folio No.	1 Faire Pro-	Group No. Password	Pine	p Mos and			
Linguage CDS	UA-Unitar all 000/hm and	510/Domestic ar	ul local	cal)	•		

7. Click **Configuration** → **Extensions** and select **Primary Extension Numbering** and **Slave Extension** to view the extensions configured with each room.

Unice	orn,	II. Admini	istrator Langu	ege: English		sign out change (aussword	
Prin Extents 301 302 303 601	Posting Reasons it will Posting Reasons o Extension o Extension o Extension o Extension o Extension o Extension o Extension o Extension o Extension o Extension	expire in 2 sporting Numberi Props Mr99 Mr99 Mr99 Mr99	4 days on 28 Fet Configuration Campany Hi Exterplona Computation Code Mappin Tuilaphone T Printing Others Read Only	n t erarchy n ng ariff GG	tusiness Date: 11-Feb Extension Ty Extension Ty Extension Ty Primary Extension Slave Extensi Transfer Cha Temptorary S	erable from the expir 2013 (44-Feb-2016 t pe pe Posting nation Numbering code ion rga lave Extension hone Numbers	y date. Please obtain 1 03:00 : Manual Buffer St urChargeCode	Tax 0 0 0
Prim	ary Extension f nsion Number I	Numberin Irom :	g Information	To : [Service C	harge Code ; 0	
Exte	nsion Number I Extension N Section (D	rom ; ame ; ept) ;]•	To:	v	Service C Vo	harge Code (0 oucher Code (0 Log Code (0	

Solution & Interoperability Test Lab Application Notes ©2016 Avaya Inc. All Rights Reserved. 37 of 52 WinExpIPOServ91 The screenshot below shows the **Slave Extension** page which also lists the primary extension number on the left column.



6.3. Configure Phoenix

This section details the essential portion of the Phoenix configuration to interoperate with IP Office. These Application Notes assume that the Phoenix application has already been properly installed by FCS professional services personnel.

The following settings will be verified:

- License Verification
- PBX setting
- Server setting
- Service Numbers (Entry Points)

6.3.1. License Verification

To log into the Phoenix System, launch any browser and type in the Phoenix Configuration URL; in this case <u>http://<server name or ip address>/PhoenixWebUI/Login.aspx</u> as shown below by substituting the appropriate server IP Address. At the login screen, enter an account with administrative privileges.

			- 🗆 X
C C Mtp://localhost/PhoenixWebUl/Login.aspx	🔎 - 🖒 🥼 Phoenix	× 🤃 Unicom Web	n * 0
Phoe use Pas	Dix Type: Admin User V Iser ID: Login		

Select **License** → **Active Licenses**. Ensure that the License has not expired.

						X
🗧 🕘 🖉 http://localhost/Pho	enixWebUUticensePage.a ${\cal P}$	- C 🖉 Phoenix	¢	×		n * 4
Phoenix	This is a to ruary 2016. Your system will be i	mporary license. It noperable from the	will expire in 25 da expiry date. Pleas a valid	ys on 29 e obtain Prop license, Casi	erty IelPrimus	Lang
System Configuration Hotel C	peration Administration	Utilities Repo	rts Fax Lice	nse		
License 📥 Upload License	File					
Upload License File	Ne Licenses					
Reason Select Organization						
Please aelect Organization	CastelPhmus	•				_
	Property			and the second second		-
	Organization Code	Ргоренту мате	Property Code	Expiry Date	License Type	Action
	T0004	CastalDrinuis	001	2010 02 20	The second second second second	

Click on the pen under **Action** and view the details. Ensure that the appropriate license parameters are enabled.

License Details		
License Type:	Temporary	Modules:
Explry Date : MAC Address* :	2016-02-29 00:0C:29:93:97:E5	Room Status Auto WakeUp
Organization: Organization Code : Property : External Code : Address :	CastelPrimus T0001 CastelPrimus 1	Auto Attendant VPIM ConsoleXML MiniBar Voicemail
Number Of Rooms : Number Of Mailboxes : Number Of Super Users :	Unlimited 10000 1	IVR Agent-Assisted VIP Wakeup Call Voicemail to Email
Number Of SIP Ports	DU MAX	Languages:
Number Of Analog Ports : Number Of E1 Ports :	0	English arabic
Number Of Fax Ports :	MAX	CANTONESE

6.3.2. PBX Setting

From the home screen, select System Wide Setting from the drop down menu.



Select the **PBX** tab below. Click on the pen and view the PBX settings. Ensure that the following settings are configured:

- **PBX Name**: Enter the appropriate name
- **PBX Type**: Select **Avaya_IPOffice_v6.1** from the drop down menu
- **PBX Version**: Enter **9.1** for the version number
- **DTMF Type**: Select **RFC2833** from the drop down menu as configured in **Section 5.4** for Primary SIP Extensions
- FAX Protocol: Select None as fax feature is not offered
- **Trunk Type**: Enter **SIP** for SIP type of signaling with IP Office
- Click Save

Phoenix			Property Language System Wide Setting V English	×1 3
System Wide Setting				
PBX Action Avaya IPO	Avava IPO			
A CONTRACT OF CONTRACT.	PBX Name PBX Type PBX Version DTMF Type Fax Protocol Trunk Type	Araya IPO Araya_IPOffice_r6.1 9.1 RFC2833 None SIP Save: Reset		

Solution & Interoperability Test Lab Application Notes ©2016 Avaya Inc. All Rights Reserved.

6.3.3. Server Setting

Select the **Server** tab below and select the icon next to the **App Server** name **Phoenix**. Check the box next to Avaya IPO under **PBX Assigned** and select the appropriate property from the drop down **Property** list. Then click on the **Pencil** icon to edit the settings.

Phoenix			
Please restart Phoenix fo App Server Name	or the changes to take eff	lect	
Channel Manifer IP 1	IP 127.0.0.1	Port	
	127.0.0.1	10000	
Channel Monitor IP 2			
Channel Monitor IP 3			
System Trace	⊡Debug ⊡Info Log	Warning	
Info Log Level	NURMAL V		
E-connect IVR Host Port	11003 SMTP	MAD	
Enable		INDAP.	
Server			
Port No.			
SMTP SSL Port No.		CIMAP He SSU	
Email Address		I	
SMTP Username		ī -	
SMTP Password		T	

A pop-up form appears, and the SIP User settings are configured as follows:

- Connection Type: Select SIP Register
- SIP Registration Name: Provide an appropriate name
- **PBX IP**: Enter Avaya IP Office Server IP address
- Local IP: Enter WinExpress Server IP address
 - Select UDP Transport protocol:
- **Client Extension:** Enter the SIP User in a URL form: "316@10.1.10.121" •

SIP registration)

Select Yes

Enter the SIP contact as: "316@10.1.10.125"

Enter the SIP Identity as in **Client Extension** above

• Contact:

•

•

- Time Alive: Enter a time less than 180 seconds (default expiry time for •
- Authentication: •
- Identity:
- **Realm:** •
 - Leave it as default, i.e., ipoffice User name in Section 5.5.1 User Name:
- **Password:** Login Code in Section 5.5.1

Connection Type	SIP Register	O SIP Trunk
SIP Registration Name	AvayalPO	
	Nonconce en el	PortNo
PBXIP	10.1.10.121	
		PortNo
Local IP	10.1.10.125	
Transport protocol	OTCP	. UDP
Client Extension	316@10.1.10.121	
Contact	316@10.1.10.125	
Time Alive	120	
Authentication	Yes	ONo
Identity	316@10.1.10.121	
Realm	ipoffice	
User Name	316	
Password		

6.3.4. Service Numbers

Select System Configuration \rightarrow Hardware Settings \rightarrow Channels \rightarrow Entry Point from the home screen. Check that the Service Numbers tally with the Secondary SIP users created in Section 5.5.2. Create an entry with "W_W" mapped to BUSY/NOANSWER Call Flow and one more with the Pilot Number (in this case 310) to "DIRECT". The Entry Points configured are shown at the bottom of the home screen.

000		_ D X
CC 🕑 🙋 http://loc	alhost/Phoen	iixWebl 🔎 👻 🖉 Phoenix 🛛 🛪 🎯 Unicorn.Web
Phoenix	5	Property Language CastelPrimus English
System Configuration	Hotel Operation	Administration Utilities Reports Fax License
Entry Point		
Entry Point Format	:	_ W Advanced Setting
Call Flow	:BUSY/NOANS	SWER 🗸
Normal Operation	W = This wild (card represents any number of whatever
Special Circumstances (Advanced Setting)	: C = This chara used for call fic instance, can I for Guests' use X = This chara Party informati Minibar/Room (when setup fo oth C or X must	acter represents the Calling Party and is ows that require such information. For be used with Direct & SetAWU (when setup age) flows acter is used to specifically ignore the Calling tion. Typically used for TUI, AA, n Status, Xpress Messaging, and SetAWU or Operators' usage) call flows
Add	1030113	
Entry Point	CPI Format	Description
7 1	W_W	BUSY/NOANSWER
7 2	310_W	DIRECT
7 3	311_W	MINIBAR/ROOMSTATUS
7 4	312_W	XPRESS MESSAGE LEAVE
7 5	313_W	SETAWU
	1	\checkmark
L. I. I. T.A.13	AL	

7. Verification Steps

This section provides the tests that can be performed to verify the correct configuration of Avaya IP Office and WinExpress.

7.1. Verify SIP User Integration

From a PC running the Avaya IP Office Monitor application, select Start \rightarrow All Programs \rightarrow IP Office \rightarrow Monitor to launch the application. Select Status \rightarrow SIP Phone Status from the top menu and the SIPPhoneStatus screen is displayed. Verify that there are entries for the three Primary SIP Extensions 315, 316 and 317 configured in Section 5.4 and the Status shown is SIP: Registered for each, as shown below.

Tatal Config Tatal Regist	unt 7 not 3		Reg	alwed Status 📲	Walng (Laess for update								
Ede Num 311 312 313 315 315 316 317 398	Line Han 311 312 313 315 316 316 317 338	Security divable divable divable divable divable	Betind HAT	PAddeny 0.0.0 0.0.0 0.0.1.0.12 10.1.10.125 10.1.10.125 10.0.0	UDP UDP UDP	Unit Agent UA7 UA7 SkaCosan_Wrightin_v6.4.0002 SkaCosan_Wrightin_v6.4.0002 SkaCosan_Wrightin_v6.4.0002 UA9	Licensed No Licence No Licence 34 Party IP 34 Party IP 34 Party IP No Licence	R R R R	SIPEven	Status SIP: Uregistered SIP: Uregistered SIP: Registered SIP: Registered SIP: Registered SIP: Registered SIP: Uregistered	Laot4m.	2/2/20. 2/2/20. 2/2/20.	8emev. 0 0 0 0 0 0	Beserv. 0 0 0 0 0 0 0 9
Display Dr @ Shaw	éone Al C Pa	igidawd	(* UnRegistered	Page 1 🚊	Past Pa	ge Reset Phones Cancel								

7.2. Verify Message Waiting Lamp

Check-In a guest and leave a message for the room. Verify physically or from IP Office System Status application that the message waiting lamp is on. Retrieve the message and verify that the message waiting lamp is turned off on the phone.

🗾 Avaya IP Office System	Status - EXP_IP500V2 (10.1.30.11) - 1	(P500 V2 9.1.4.0 build 137	
AVAYA		IP Office System Status	
Help Snapshot LogOff Exi	t About		
 System Alarms (19) 		Extension Status	
Extensions (26)	Extension Number:	601	
602	IP address:	10.1.10.159	
631	MAC address:	00-1B-4F-13-46-6F	
632	Active Location:	None	
ld: 50	Gatekeeper:	Primary	
ld: 51	Telephone Type:	1608L	
ld: 52	Firmware Version:	1.380B	
ld: 53	Current User Extension Number:	601	
IU: 54	Current User Name:	Room2 1	
Id: 56	Forwarding:	Forward On No Answer 315	
ld: 602		Forward On Busy 315	
ld: 603	Twinning:	Off	
ld: 604	Do Not Disturb:	Off	
ld: 605	Message Waiting:	On	
ld: 606	Number of New Messages:		
ld: 607	Dhane Manager Trans	Mana	

7.3. Verify Configuration Web Service Integration

Use a simulator to perform a guest Check-In request. Verify from IP Office Manager that the guest name on the phone display or User Full Name and user rights template shown on IP Office Manager User is updated correctly on IP Office as part of the Check-In process.





7.4. Verify SMDR

On the Unicorn web interface, click **Home** \rightarrow **System** \rightarrow **Billing**. Place a few outbound calls to an internal, local, mobile, toll free and international location. Verify that the calls are all processed correctly as shown below:

Billing															×
Data last	refreshed afresh	1: 2:34:17 PM		koltenti	lê.	Data	will be refre	ished e	very 30	sec					^
SENDER	EXTNNO	DATE	ROOM	тванк	TELEPHONE	DESTINATION	DURATION	C087	EASIC	SURCHARGE	DROFIT	TAX	SERVICE	-	
CDR1	301	2016/01/29 14:33:15	301		898728599	Singapore	175	0.20	0.20	0.00	0.00	0.00	0.00	0	
CDR1	301	2016/01/29 14:32:54	301		601	Internal Call	125	0,00	0.00	0.00	0.00	0.00	0.00	0	
CDR1	301	2016/01/29 14:32:28	301		818008728599	Singapore	135	0.20	0.20	0.00	0.00	0.00	0.00	۵	
CDR1	301	2016/01/29 14:31:55	301		80016068728599	Singapore	125	0.20	0.20	0.00	0.00	0.00	0.00	a	
CDR1	301	2016/01/29 14:31:27	301		8028728699	Singapore	17s	0.20	0.20	0.00	0.00	0.00	0.00	a	
CDR1	301	2016/01/29 14:30:51	301		868728599	Singapore	14s.	0.20	0.20	0.00	0.00	0.00	0.00	a	

7.5. Verify Phoenix Voicemail Integration

From the server, launch **Phoenix** from the desktop shortcut to run the main program. Verify on the left pane that the Voice Engine status shows **VoiceEngine Started** and the voice channels under **Status Since** column are **Idle**. Once the Unicorn communication has been successfully established, the Unicorn status will show up as **Unicorn Connected**.

			FCS	PHOENIX (v.2.1.0)			-	
File Settings	Help Esit				-			
Mysc	DL Connected	Session S 1 lic 2 lic 3 lic 4 lic 4 lic	katus Since die die die	CalledNo CallingNo	1	Trunk	Media	Voice
Voice	Engine Stated	5 k	Se Jo Je Se					
		ε						3
	-							
		Fisc Na	ne Handle	Status Session				F
General Info	L	Risc Na	me Handle CPU/MEM/HDD	Status Session	_	Voice System & Ca	l Info	8
General Info Name Session System User Interactive Mode IPAddress IP_2 IP_3 IP_1 IP_1 IP_4	Info Administrator True fe80:3c27,2c5d 9937 3999 10:1:10:125 fe80:404f 58xe b-#2:5e2%1 2001:0:9d38:6abd 3c27 2c5	Rec Na E 113 2 2.937 ~	me Handle CPU/MEM/HDD Name CPU Total Processor CPU Stats Processor Memory Free Vibual Mem Total Mem Total Mem	Status Session Mfo 1 2% 1 intel(FI) Xeon(FI) CPU 5 5148.54 (MB) 8191.55 (MB) 9471.55 (MB) 5		Voice System & Ca Name Voice System System Sastup System Last Housekeep System Uptime Message Storag Remaining Mess Remaining Voice	I Info 2/2/2016 3:06:20 PM 2016:02:02 15:05:53 None 02:02:22:14 re Details 67408 messages 1123 hours	

Dial one of the guest room or front office phone and let it cover to voicemail. Observe that one channel of the SIP Channel is busy as shown below. Verify that leaving a voice mail message to either a guest or front office mailbox works. Also, to verify the Operator transfer function, call any checked-in guest room and let it go to coverage on the voicemail. Press the DTMF digit **0** to select for call to be routed to Operator. Verify call is connected to Operator.

			EC	S PHOENIX (v.	2.1.0)		5	- 0 ×
File Settings	Help Exit							
D uver	Ol Connected	Session	Status Since	CalledNo Call	ngNo	Trunk	Media	Voice
E m134	ar revenerade	1	Busy 2016-02-03-09	310@1 304	@10.1.10.121	5. H S (Bury)	9. H-10 [Busy]	17, Hitel
Voice	Server Started	2	lde ide					
Unice	m Connected	4	lde ide					
1000		6	lde					
Voice	Engine Started	7	lde					
		0	100					
		<						>
		< Rsc	Name Handle	III Status	Session			2
General Info		K Rac	Name Handle CPU/MEM/HDD	ili Status	Session	Voice System & Ca	1 Ho	2
General Info Name	bifo	Rac	Name Handle CPU/MEM/HDD	IN Status Info	Session	Voice System & Ca	li Irfo Irfo	
General Mo Name Session	Ho	Rec	Name Handle CPU/MEM/HDD	as Status Info	Session	Voice System & Ca Name Voice System	i irfo irfo	0
General Mo Name Session System User	bifo Administrator	K Rac	Name Handle CPU/MEM/HDD CPU CPU Total Processor	Status Info 1	Session	Voice System & Ca Name Voice System System Startup	8 trfo 140 2/2/2016 3 06:20 PM	
General Info Name Session System User Interactive Mode	kfo Administrator True	Rac	Name Handle CPU/MEM/HDD Name CPU Total Processor CPU Stats Document	Status Info 1 1%	Session	Voice System & Ca Name Voice System System Startup System Last Shut	4 Ho Ho 2/2/2015 3.06 20 PM 2016 02-02 15 05 53	
General Info Name Session System User Interactive Mode IPAddress	kfo Administrator True	K Rac	Name Handle CPU/MEM/HDD CPU Total Processor CPU State Processor	III Status Info 1 1% Intel(R) Xeon(R)	Session E	Voice System & Ca Name Voice System System Startup System Last Housekeep System Listine	4 Ho Ho 2/2/2016 3.05 20 PM 2016/02/02 15:05 53 None 02 02:27 28	>
General Info Name Session System User Interactive Mode IPAddress IP.2 m.2	Mo Administrator True NeDI 3c27.2b56 8937.3	<	Name Handle CPU/MEM/HDD CPU Total Processor CPU State Processor Memory Eao Memory	III Status Info 1 1% Intel(R) Xeon(R)	CPU	Voice System & Ca Name Voice System System Startup System Last Flut. Last Housekeep System Uptime Mercans St	1 Ho Ho 2/2/2016 3:06:20 PM 2016:02:02 15:05:53 None 02:02:27:28 02:02:27:28	>
General Info Name Session System User Interactive Mode IPAddress IP_2 IP_3 IP_1	Mo Administrator True Ne00: 3c27 2b5d 8937 3 10:1:10:125	4 Rac 999%13 2012	Name Handle CPU/MEM/HDD CPU Total Processor CPU Stats Processor Memory Free Vitual Mem Total Mee	Imilian Status Info 1 1% Intel(R) Xeon(R) 5095 10 (MB) 5191 55 (MB)	CPU	Voice System & Ca Name Voice System System Startup System Last Housekeep System Uptime Message Storag Bensage Mon	I Ho Ho 2/2/2016 3:06:20 PM 2016:02:02 15:05:53 None 02:02:728 e Details 5:2016 memory	
General Info Name Session System User Interactive Mode IPAddress IP_2 IP_3 IP_1 IP_4	Ho Administrator True Ne00: 3x27,2b56 8937 3 10:1:10:125 Ne00: 404 55ea 542 5e 2001:0:9528 5ab42 5e	999%13 2%12 2%54.6937	Name Handle CPU/MEM/HDD CPU Total Processor CPU Stats Processor Memory Free Vitual Mem Total Vitual Mem	85 Status Info 1 1% Intel(R) Xeon(R) 5095 10 (MB) 8191 55 (MB) 9471 55 (MB)	CPU =	Voice System & Ca Name Voice System System Startup System Last Shut. Last Housekeep System Uptime Message Storag Remaining Mess Bemaining Mess	6 H/o H/o 2/2/2016 3.05.20 PM 2016-02-02 15:05.53 None 02 02:27:28 e Details 67408 messages 1123 hours	

8. Conclusion

These Application Notes describe the configuration steps required for WinExpress 3.0 to successfully interoperate with Avaya IP Office Server Edition R9.1. All features and serviceability test cases were completed with observation noted in **Section 2.2**.

9. Additional References

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

[1] *IP Office KnowledgeBase 9.1 Documentation Library*, Apr 2015, available at <u>http://support.avaya.com</u>

Product information and documents for WinExpress Phoenix and Unicorn can be obtained from FCS Computer Systems Sdn Bhd.

©2016 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by \mathbb{R} and TM are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

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