



Avaya Solution & Interoperability Test Lab

Application Notes for BT Unified Trading IP Trade Platform 9.2 with Avaya IP Office 11.0 - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate BT Unified Trading IP Trade Platform 9.2 with Avaya IP Office 11.0. BT Unified Trading IP Trade Platform is a SIP endpoint management solution that interoperates with Avaya IP Office 11.0 as SIP endpoints.

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

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

1. Introduction

These Application Notes describe the configuration steps required to successfully integrate BT Unified Trading IP Trade Platform 9.2 with Avaya IP Office 11.0. The BT Unified Trading IP Trade Platform is a SIP endpoint management solution that interoperates with Avaya IP Office 11.0 as SIP endpoints.

BT Unified Trading IP Trade Platform manages BT Turrets by registering with Avaya IP Office 11.0 and allowing communication with Avaya endpoints. BT Turret is a specialized telephony key system that is generally used by financial traders.

2. General Test Approach and Test Results

The general test approach was to configure the BT Unified Trading IP Trade Platform Turrets to communicate with the Avaya IP Office 11.0 as third-party SIP endpoints.

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 Avaya systems and the BT Unified Trading IP Trade Platform did not include use of any specific encryption features as requested by British Telecom.

Readers should be aware that network behaviors (e.g. jitter, packet loss, delay, speed, etc.) can vary significantly from one location to another and may affect the reliability or performance of the overall solution. Different network elements (e.g. session border controllers, soft switches, firewalls, NAT appliances, etc.) can also affect how the solution performs.

If a customer is considering implementation of this solution in a cloud environment, the customer should evaluate and discuss the network characteristics with their cloud service

provider and network organizations, and evaluate if the solution is viable to be deployed in the cloud.

The network characteristics required to support this solution are outside the scope of these Application Notes. Readers should consult the appropriate Avaya and third party documentation for the product network requirements. Avaya makes no guarantee that this solution will work in all potential deployment configurations.

2.1. Interoperability Compliance Testing

The interoperability compliance test included both feature functionality and serviceability testing. The feature functionality testing focused on carrying out different call scenarios with good quality audio. The tests included:

- Successful registration of BT Turrets with Avaya IP Office Server Edition and IPO 500v2 using TCP connection.
- Calls between BT Turrets and Avaya SIP, H.323, and digital telephones, PSTN.
- G.711A and G711U codecs support and negotiation, with and without media shuffling.
- Video calls between BT Turrets and Avaya one-X® Communicator and Avaya Communicator.
- Basic features including audio call, answer, hang up, music on hold, DTMF transmission, and short code dialing.
- PBX features including Hold, Transfers and Conference.
- Proper system recovery after a BT Turret loss of service.

2.2. Test Results

The testing was successful. All the test cases passed. The following observation was noted:

- Avaya Endpoints (Avaya Communicator and Avaya one-X® Communicator) cannot receive video from the BT Turret when SRTP is enabled on Avaya IP Office. Disable SRTP on Avaya IP Office to have video between BT Turrets and Avaya Endpoints.
- Voicemail and MWI are not supported.

2.3. Support

For technical support on BT Unified Trading IP Trading Platform, contact BT Unified Trading Interoperability Team via email. Email: Unified.Trading.interop.team@bt.com

3. Reference Configuration

Figure 1 illustrates a configuration that consists of Avaya IP Office 11 and BT Unified Trading IP Trade Platform. BT Unified Trading IP Trade Platform interoperate with Avaya IP Office using TCP connection.

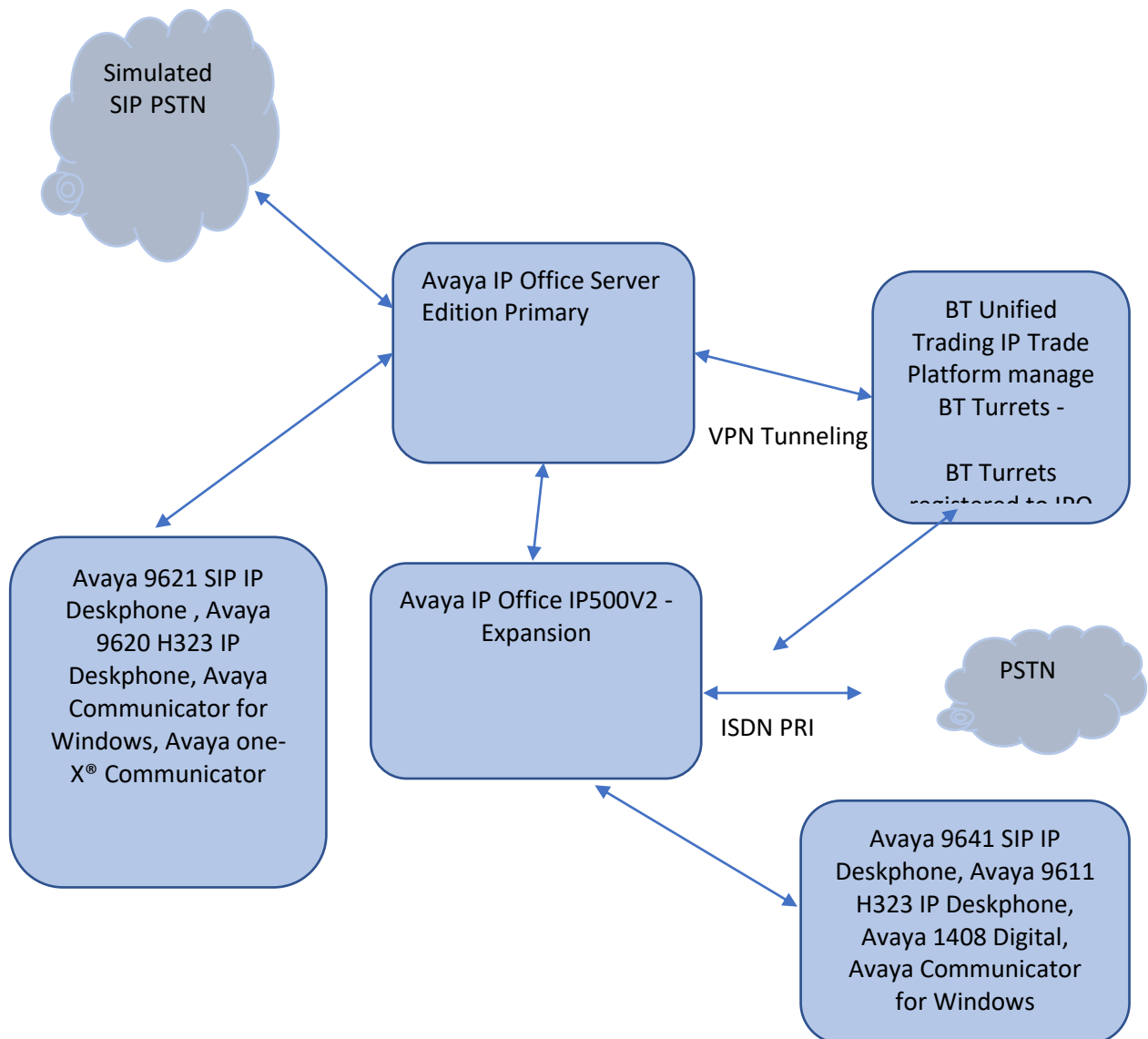


Figure 1: Connection of BT Unified Trading IP Trade Platform with Avaya IP Office

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office 500v2 Expansion System	11.0.4.0 Build 74
Avaya IP Office Manager running on a Windows 7 PC	11.0.4.0 Build 74
Avaya IP Office Server Edition on VMware	11.0.4.0 Build 74
Avaya 1408 Digital Deskphone	Application R48
Avaya 9641 IP Deskphone (SIP)	7.1.4
Avaya 9621 IP Deskphone (SIP)	7.1.4
Avaya 9611 IP Deskphone (H323)	6.8.0.02
Avaya 9620 IP Deskphone (H323)	3.2.2
Avaya one-X® Communicator	6.2.12.22 SP12
Avaya Communicator for Windows	2.1.4.0
BT Unified Trading IPT TSS	R9.2
BT Unified Trading TPO	R9.2
BT Unified Trading Turret (T4)	R9.2

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.

5. Configure Avaya IP Office

Configuration and verification operations on the Avaya IP Office illustrated in this section were all performed using Avaya IP Office Manager. The information provided in this section describes the configuration of the IP Office for this solution. It is implied a working system is already in place with the necessary licensing. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. The configuration operations described in this section can be summarized as follows:

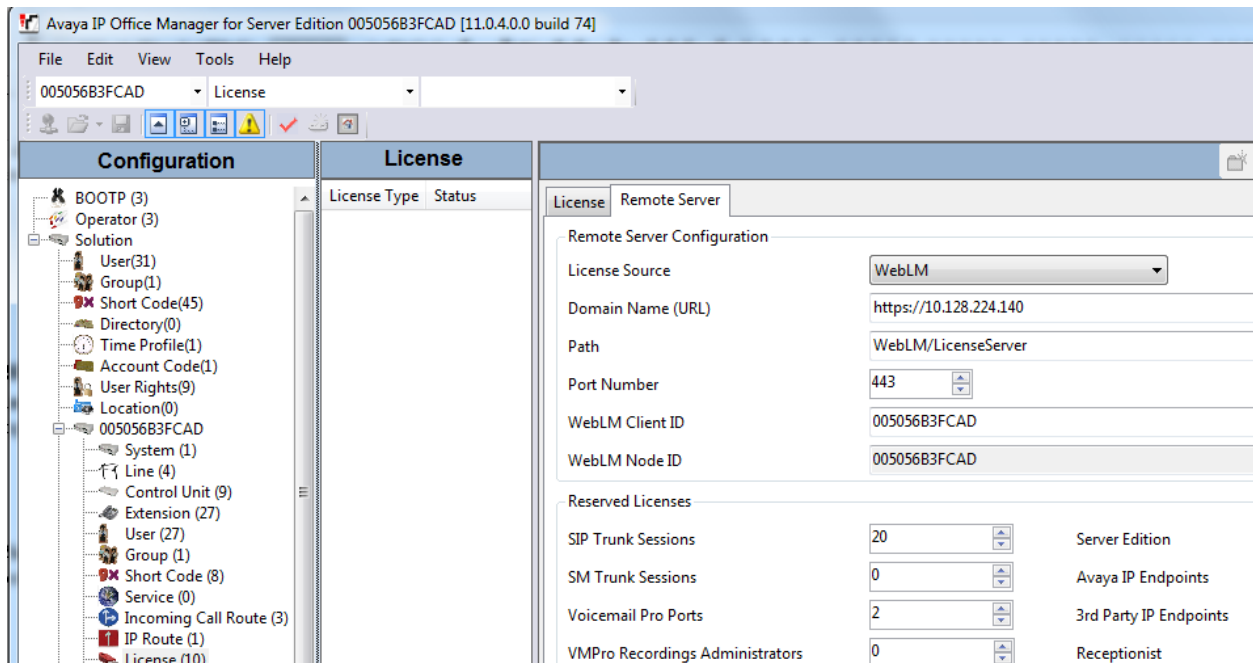
- Launch Avaya IP Office Manager (Administration)
- Check 3rd Party IP Endpoints License
- Add Users for BT Turrets

5.1. Launch Avaya IP Office Manager (Administration)

From the Avaya IP Office Manager PC, go to **Start → Program → IP Office → Manager** to launch the Manager application. Log into Avaya IP Office using the appropriate credentials to receive its configuration (not shown).

5.2. Check 3rd Party IP Endpoints License

Select **License → Remote Server** under the primary IP Office system to display the applicable WebLM server. Log into WebLM server using the appropriate credentials and navigate to display installed licenses (not shown).



Select **Licensed products** → **IPO** → **IP_Office** in the left pane, to display the **Licensed Features** screen in the right pane.

Verify that there are sufficient licenses for **3rd Party IP Endpoints**, as shown below.

[Home](#)
[Licenses](#)

WebLM Home
Install license
Licensed products
ASBCE
▶Session_Border_Controller_E_AE
AVP
▶AVP
Avaya_Aura_Web_Gateway
▶Avaya_Aura_Web_Gateway
CE
▶COLLABORATION_ENVIRONMENT
CONFERENCING
▶Conferencing
IPO
▼ IP_Office
View license capacity
View peak usage
MSR
▶Media_Server
MULTIMEDIA_MESSAGING
▶Multimedia_Messaging
SCOPIA

IP Office - Release: 11 - SID: 91615000
Standard Li

You are here: Licensed Products > IP_Office > View License Capacity

License installed on: June 6, 2018 5:06:44 AM +00:00

License File Host IDs: V4-9E-43-EE-A6-2C-01

Licensed Features

35 Items
Show 15 ▼

Feature (License Keyword)	Expiration date	Licensed capacity
Additional Voicemail Pro Ports VALUE_IPO_VM_PORTS	permanent	150
VMPro TTS - Scansoft VALUE_IPO_VM_TTS_SCANSOFT	permanent	40
UMS Web Services VALUE_IPO_UMS_WEB	permanent	100
Receptionists VALUE_IPO_CCC_WOC	permanent	4
Centralized Endpoints VALUE_IPO_CENT_ENDPOINTS	permanent	100
Server Edition VALUE_IPO_EDITION_SERVER	permanent	10
IPSec Tunneling VALUE_IPO_IPSEC	permanent	1
3rd Party IP Endpoints VALUE_IPO_IP_ENDPOINTS	permanent	384

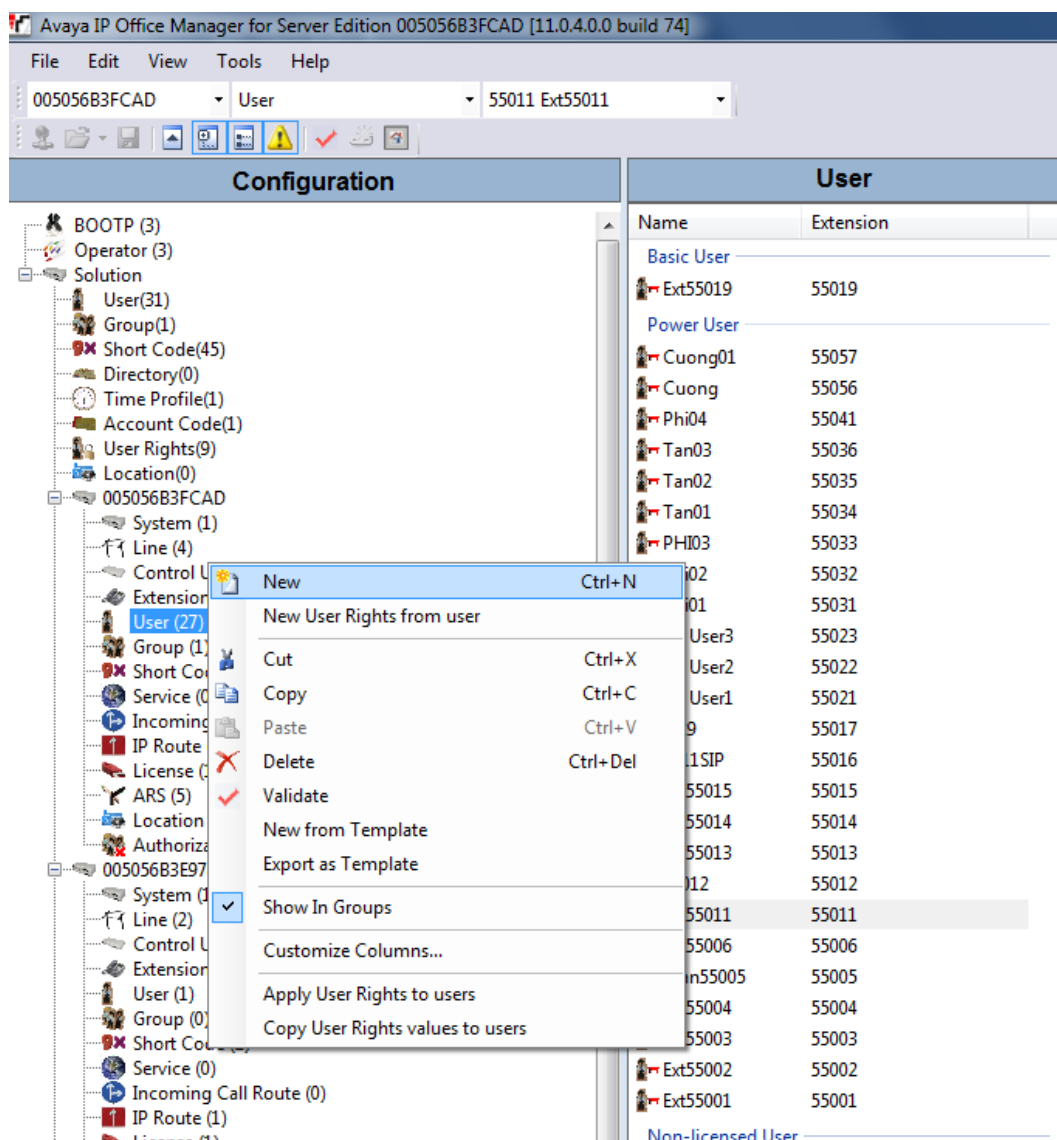
5.3. Add Users for BT Turrets

In this section the configuration steps required to connect BT Unified Trading IP Trade Platform to Avaya IP Office as a SIP Endpoint is described. It is assumed that Avaya IP Office has already been installed and operational. All configuration steps were carried out using Avaya IP Office Manager. Configuration steps include:

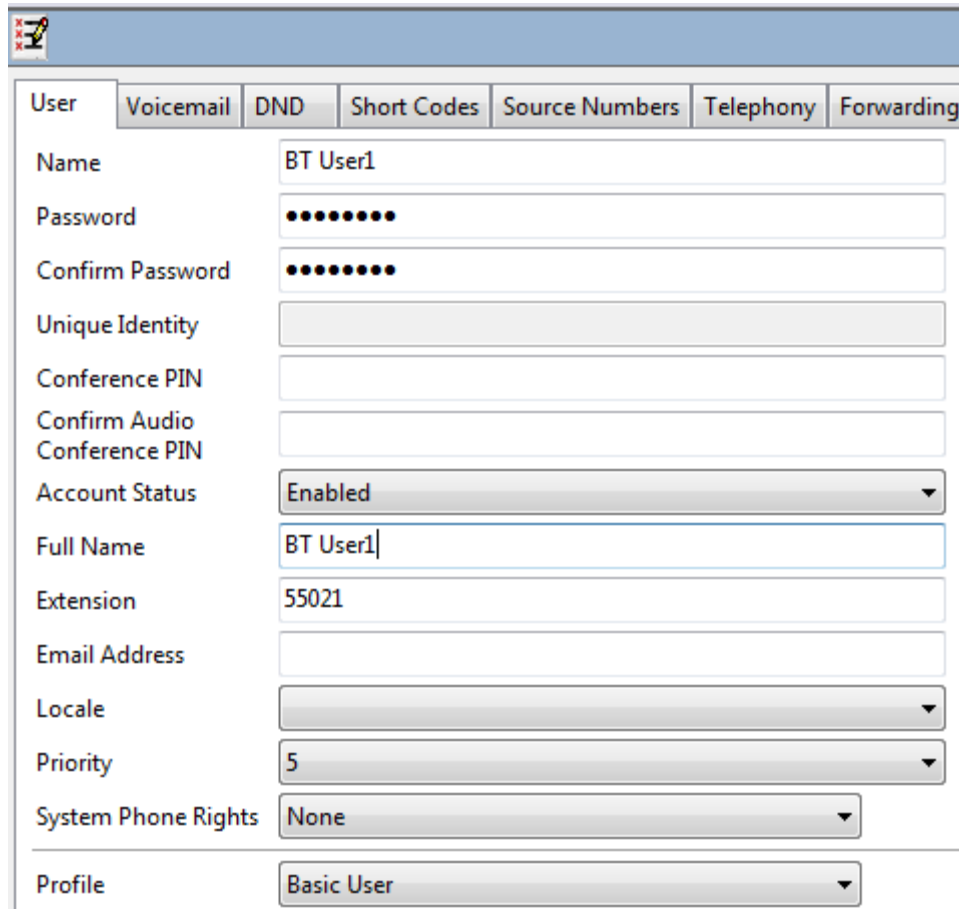
- Create new a SIP User for BT Turret on Avaya Server Edition
- Check Extension Properties

5.3.1. Create a New SIP User for BT Turret on Avaya Sever Edition (Primary)

A SIP user must be added for each BT Unified Trading IP Trade Turret required. From the Avaya IP Office Manager, Select **IPO Server Edition (Primary)**, right click on **User** and select **New**.



On the **User** tab enter an identifying **Name**, **Full Name**, **Extension** and administer a password in the **Password** and **Confirm Password** fields. Select **Basic User** from the **Profile** drop down box.



The screenshot shows a web application interface for configuring a user. At the top, there is a blue header bar with a small icon on the left. Below the header is a tabbed interface with seven tabs: 'User', 'Voicemail', 'DND', 'Short Codes', 'Source Numbers', 'Telephony', and 'Forwarding'. The 'User' tab is currently selected. The form contains the following fields and controls:

- Name:** Text input field containing 'BT User1'.
- Password:** Password input field with masked characters (dots).
- Confirm Password:** Password input field with masked characters (dots).
- Unique Identity:** Text input field.
- Conference PIN:** Text input field.
- Confirm Audio Conference PIN:** Text input field.
- Account Status:** Dropdown menu with 'Enabled' selected.
- Full Name:** Text input field containing 'BT User1'.
- Extension:** Text input field containing '55021'.
- Email Address:** Text input field.
- Locale:** Dropdown menu.
- Priority:** Dropdown menu with '5' selected.
- System Phone Rights:** Dropdown menu with 'None' selected.
- Profile:** Dropdown menu with 'Basic User' selected.

Under the **Telephony** tab and **Supervisor Settings** tab, enter the password again for the **Login Code**.

User	Voicemail	DND	Short Codes	Source Numbers	Telephony	Forwarding	Dial In	Voice Recording
Call Settings		Supervisor Settings		Multi-line Options		Call Log TUI		
Login Code	••••••	<input type="checkbox"/> Force Login						
Confirm Login Code	••••••							
Login Idle Period (sec)		<input type="checkbox"/> Force Account Code						
Monitor Group	<None>	<input type="checkbox"/> Force Authorization Code						
Coverage Group	<None>	<input type="checkbox"/> Incoming Call Bar						
Status on No-Answer	Logged On (No change)	<input type="checkbox"/> Outgoing Call Bar						
Privacy Override Group	<None>	<input type="checkbox"/> Inhibit Off-Switch Forward/Transfer						
Reset Longest Idle Time		<input type="checkbox"/> Can Intrude						
<input checked="" type="radio"/> All Calls		<input checked="" type="checkbox"/> Cannot Be Intruded						
<input type="radio"/> External Incoming		<input type="checkbox"/> Can Trace Calls						
		<input type="checkbox"/> Deny Auto Intercom Calls						

Once **OK** is clicked at the bottom of the screen a new window should appear asking to create a new extension. Select **SIP Extension** and enter **Phone Password** as is shown below.

Avaya IP Office Manager

Would you like a new VoIP extension created with this number?

☐ None
☐ H.323 Extension
☒ SIP Extension

Phone Password

••••••

Confirm Phone

••••••

OK

Note: If the system is not setup to auto-create extensions then a new extension can be added by right-clicking on **Extension** on the left window and selecting **New**, (not shown).

5.3.2. Check Extension Properties

Once the SIP extension has been successfully created in **Section 5.3.1**, open the extension configuration. Select **Extension** in the left window and select the required extension number. In the main window under **VoIP** tab, Allow **Direct Media Path** can be checked or unchecked as shown below. Other settings such as **DTMF Support** and **Codec Selection** are possible to change here as well again if required by BT.

Select **Reserve 3rd party IP endpoint license** from **Reserve License** drop box. And select **Disabled** from **Media Security** drop box.

The screenshot displays the 'VoIP' configuration tab for a SIP extension. The interface includes the following elements:

- IP Address:** A text field containing '0 . 0 . 0 . 0'.
- Codec Selection:** A dropdown menu set to 'System Default'. Below it are two lists: 'Unused' (containing G.722 64K and G.729(a) 8K CS-ACELP) and 'Selected' (containing G.711 ULAW 64K and G.711 ALAW 64K), with arrows for moving items between them.
- Reserve License:** A dropdown menu set to 'Reserve 3rd party IP endpoint license'.
- Fax Transport Support:** A dropdown menu set to 'None'.
- DTMF Support:** A dropdown menu set to 'RFC2833/RFC4733'.
- 3rd Party Auto Answer:** A dropdown menu set to 'None'.
- Media Security:** A dropdown menu set to 'Disabled'.
- Checkboxes on the right:**
 - ☐ Requires DTMF
 - ☐ Local Hold Music
 - ☒ Re-invite Supported
 - ☐ Codec Lockdown
 - ☒ Allow Direct Media Path

Repeat the above steps in **Section 5.3** to add a new **SIP User** for Avaya IP Office 500v2.

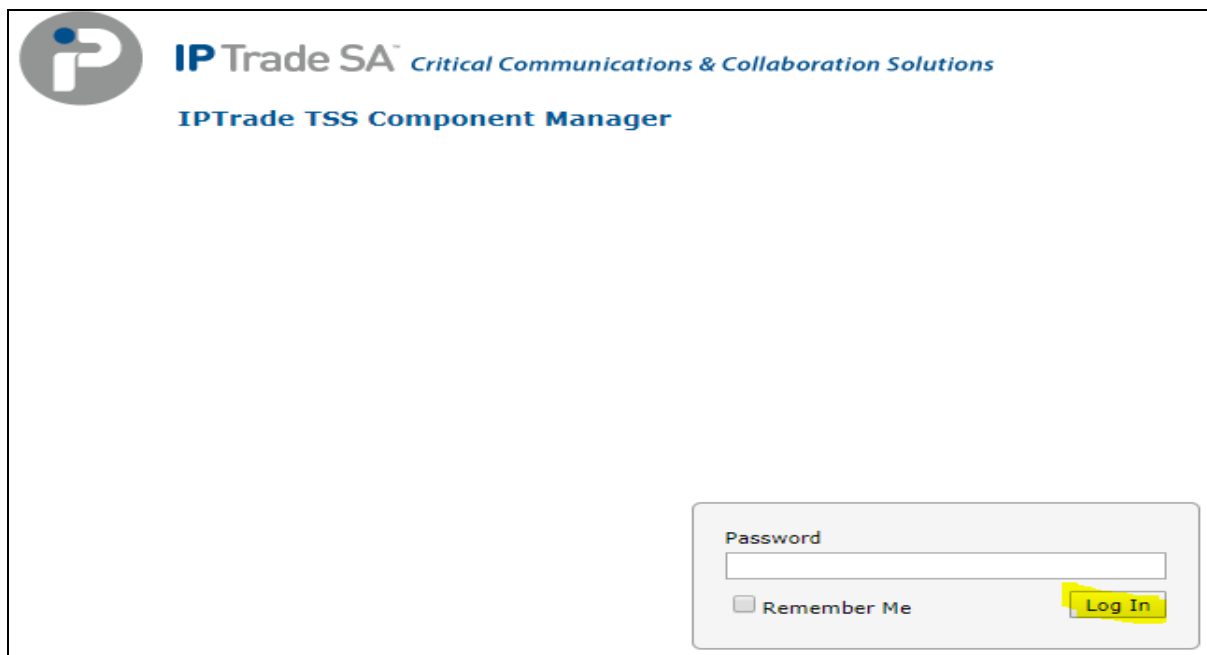
6. Configure the BT Unified Trading IP Trade Platform

This section addresses the administrative steps to be performed on the IP Trade solution. The installation of the IP Trade solution software, as well as the initial configuration of the turrets and servers, is beyond the scope of this document.

6.1. Configure the IP Trade Platform Turret Support Server


This section describes the procedure for configuring the IP Trade Platform Turret Support Server (TSS). This procedure assumes that the TSS has already been configured with an anonymous profile and that a TFTP server (typically co-resident with the TSS) is being used for downloading certain configuration parameters to the turrets.

From a Web browser, navigate to the IP address of the TSS. Enter the correct password and click on **Log In**.

The screenshot shows a web browser window displaying the login page for the IP Trade SA Critical Communications & Collaboration Solutions IPTrade TSS Component Manager. The page has a light gray background. At the top left is a circular logo with a stylized 'P' and a blue dot. To the right of the logo, the text 'IP Trade SA' is in bold, followed by 'Critical Communications & Collaboration Solutions' in a smaller, italicized font. Below this, 'IPTrade TSS Component Manager' is written in a bold, blue font. In the bottom right corner, there is a login form with a 'Password' label, a text input field, a 'Remember Me' checkbox, and a yellow 'Log In' button.

Upon selecting **Log In**, the following screen will be presented.

From the **TSS Versions** tab select the **Console** link as shown below.



IPTrade SA Critical Communications & Collaboration Solutions

Security Advanced Configuration Logout

IPTrade TSS Component Manager

TSS Versions TSS OS TSS Bootstrap

Replication Secondary server IP or FQDN:


Default Version 9.2.3.45577

	PRIMARY	SECONDARY
Console	http://172.27.130.1/iptradenet/console	
TSS	http://172.27.130.1/iptradenet/tss	

9.2.3.45577 (MYSQL5630)

	PRIMARY
Console	http://172.27.130.1/iptradenet.console.9.2.3.45577
TSS	http://172.27.130.1/iptradenet.tss.9.2.3.45577

Enter the **User Identifier** and **Password** for the IP Trade system and select **Log In**.



IPTrade SA Critical Communications & Collaboration Solutions

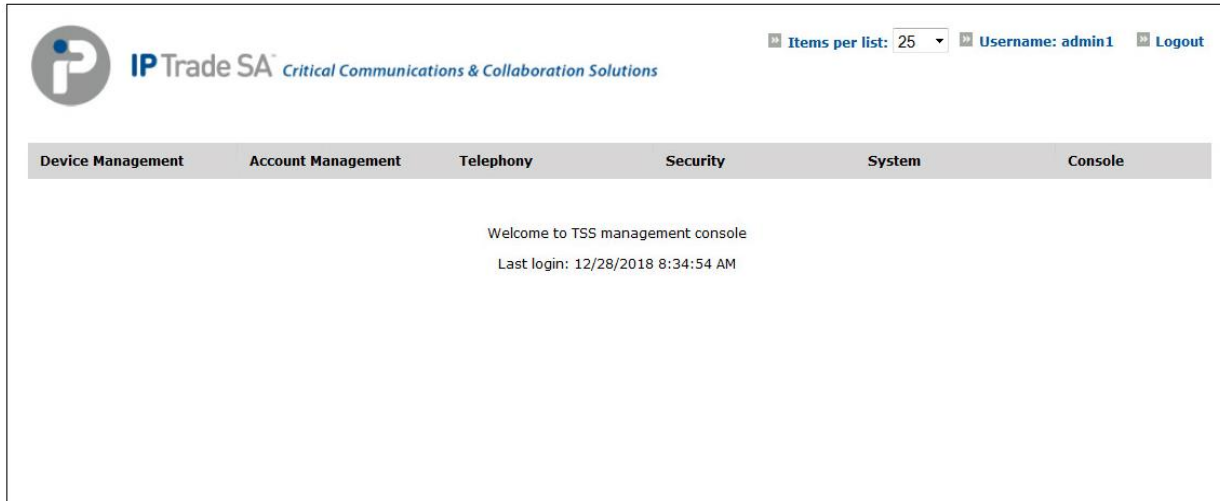
Log In

User Identifier

Password

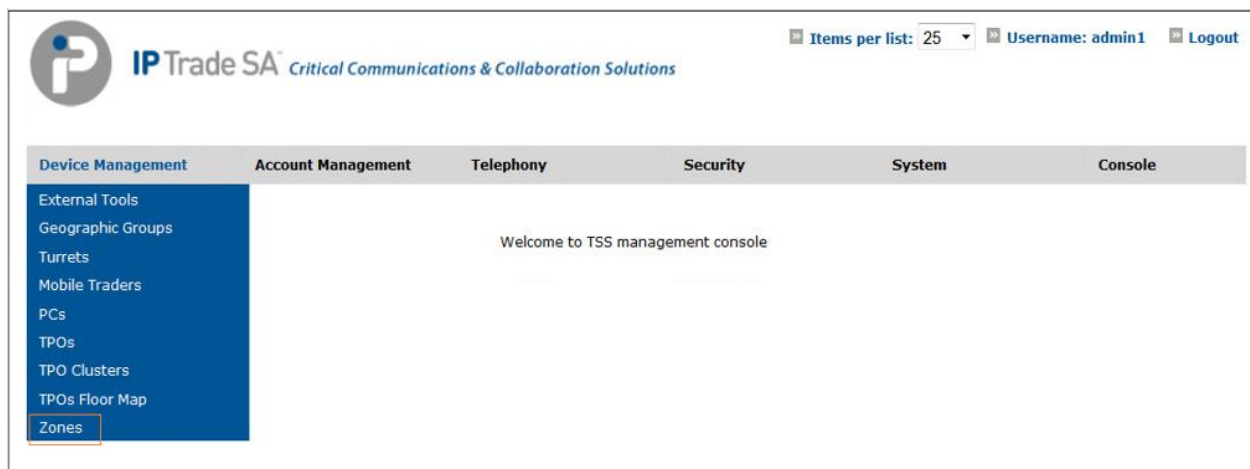
☐ Remember my login on this computer

Upon successful login, the following screen will be presented.



6.1.1. Configure Avaya Zone

Select **Device Management** from the top menu bar and then **Zones** from the resulting drop-down box.



Select **Add new** from the Zone menu bar.



Enter the name of new Avaya Zone i.e. **Avaya IPO Zone** and select **Save and Go Back**.

Device ManagementAccount ManagementTelephonySecuritySystemConsole

<< Back to Zones list

General

General

Name *Avaya IPO Zone

CommentAvaya IPO Zone

Location

CountryUnited Kingdom

StateSurrey

CitySunbury-on-Thames

Call Prefix

Recording ServerDisabled

Turret WES7 (x64) OS Upgrade LevelDefaultInherited from global config.(19)

Turret W10 (x64) OS Upgrade LevelDefaultInherited from global config.(1)

TPO WES7 OS Upgrade LevelDefaultInherited from global config.(18)

TPO W10 OS Upgrade LevelInherited from global config.(0)

TPO Bootstrap VersionDefaultInherited from global config.(R9.4_0.50255)

TPO Firmware VersionDefaultInherited from global config.(R9.4_0.50679)

Turret Bootstrap VersionDefaultInherited from global config.(R9.4_0.50666)

Turret Firmware Version

	Firmware Version
NA (1005)	Default
SI (1007)	Default
AR (1008)	Default
CA (1011)	Default
MG (1013)	Default
CL (1014)	Default
SE (1015)	Default
MN (1016)	Default
FE (1017)	Default
Netrix (1018)	Default

Save and Go BackSave and EditSave and Add AnotherResetCancel

Once **Avaya IPO Zone** is created the additional tabs will be displayed.

IPTrade SA™ Critical Communications & Collaboration Solutions

Items per list: 25 Username: admin1 Logout

Device Management: Zone Edition (Avaya IPO Zone)

Device Management Account Management Telephony Security System Console

Zone: Avaya IPO Zone << Back to Zones list

General TPO Boot Settings Turret Boot Settings Turrets Mobile Trader TPO TPO Cluster TPO DNS Users Shared Profiles Adv. Telephony

General

Name * Avaya IPO Zone

Comment Avaya IPO Zone

Location

Country None

State None

City None

Call Prefix

Turret WES7 (x64) OS Upgrade Level Default Inherited from global config (14)

TPO WES7 OS Upgrade Level Default Inherited from global config (15)

TPO W10 OS Upgrade Level Inherited from global config (0)

TPO Bootstrap Version Default Inherited from global config (R9.2_3.45581)

Usage

Turrets:

3PA-Turret-01

3PA-Turret-02

3PA-Turret-03

MobileTrader:

none

TPO:

Avaya_TPO01

Avaya_TPO02

Reboot all devices for this zone

Navigate to **Device Management→Zones→Avaya IPO Zone→ Turret Boot Settings→SIP →Basic Mode** and update Avaya IP Office system IP – 10.128.226.178 in below highlighted parameters. SIP Local IP Ports can be more than the numbers mentioned in below screenshot.

Basic Mode			Expert Mode	Advanced Mode
Name	Value	Description		
<input checked="" type="checkbox"/> Use bulk registration (Cisco only)	<input type="radio"/> true <input checked="" type="radio"/> false	?		
<input type="checkbox"/> MSG Proxy addresses		?		
<input type="checkbox"/> MSG Proxy Transport Type	TCP	?		
<input type="checkbox"/> MSG Encoding		?		
<input type="checkbox"/> SIP Compatibility mode	ccm50	?		
<input checked="" type="checkbox"/> SIP local domain	10.128.226.178	?		
<input checked="" type="checkbox"/> SIP Server Name	10.128.226.178	?		
<input checked="" type="checkbox"/> SIP Proxy addresses	10.128.226.178	?		
<input checked="" type="checkbox"/> SIP Connection mode	TCP	?		
<input checked="" type="checkbox"/> SIP Proxy Transport Type	TCP	?		
<input checked="" type="checkbox"/> Fast media connection on SIP Ringing state	<input checked="" type="radio"/> true <input type="radio"/> false	?		
<input checked="" type="checkbox"/> SIP Local IP Ports	5060,5062,5064,5066,5069	?		
<input checked="" type="checkbox"/> Parking mode	<input checked="" type="radio"/> tpo <input type="radio"/> adhoc	?		
<input type="checkbox"/> SIP Manage Unsolicited messages	<input type="radio"/> false <input checked="" type="radio"/> true	?		

Navigate to the **Turret Boot Settings** tab and then select the **Advanced Mode** tab.

General
TPO Boot Settings
Turret Boot Settings
Turrets
Mobile Trader
TPO
TPO Cluster
TPO DNS
Users
Shared Profiles
Adv. Telephony

+ Pre-defined settings

Basic Mode
Expert Mode
Advanced Mode

Refresh
Add new
Bulk admin selected
Provisioning
1 / 1

	Parameter *	Value	
	application.bscg.alternateServiceURI		
	application.bscg.baseServiceURI	http://172.27.130.1/IptradeNet.TSS.9.2.3.45577	
<input type="checkbox"/>	application.mm.DTMFPayloadType	127	
<input type="checkbox"/>	application.mm.supportedcodecs	0,PCMU,8000 ; 8,PCMA,8000 ; 127,telephone-event,8000	
<input type="checkbox"/>	application.mm.supportedcodecs.video.H264	109 ° H264 ° 90000 ° profile-level-id=42801E;packetization-mor	
<input type="checkbox"/>	application.sip.call.fastmediaconnect	true	
<input type="checkbox"/>	application.sip.connection.mode	TCP	
<input type="checkbox"/>	application.sip.connection.port	5060,5062,5064,5066,5069	
<input type="checkbox"/>	application.sip.enableTCP	true	
<input type="checkbox"/>	application.sip.kpml.enabled	false	
<input type="checkbox"/>	application.sip.localdomain	10.128.226.178	
<input type="checkbox"/>	application.sip.park.mode	tpo	
<input type="checkbox"/>	application.sip.proxy.address	10.128.226.178	
<input type="checkbox"/>	application.sip.proxy.transporttype	TCP	
<input type="checkbox"/>	application.sip.register.bulk	false	
<input type="checkbox"/>	application.sip.server.name	10.128.226.178	
<input type="checkbox"/>	profile.setting.video.ducking.value	0	

Refresh
Add new
Bulk admin selected
Provisioning
1 / 1

NOTE: If any of the above advanced parameters are already configured, just need to edit them rather than add. Either click the advanced parameter or select either of the two symbols as shown in the picture below.

☐
[application.sip.localdomain](#)
10.128.226.178

If the advanced parameter is not present, select **Add new**.

General
TPO Boot Settings
Turret Boot Settings
Turrets
Mobile Trader
TPO
TPO Cluster
TPO DNS
Users
Shared Profiles
Adv. Telephony

+ Pre-defined settings

Basic Mode
Expert Mode
Advanced Mode

Refresh
Add new
Bulk admin selected
Provisioning
1 / 1

Now enter the following parameter, the IP Address should mirror the Avaya IP Office server. In this example the IP Address is 10.128.226.178. When complete, select **Update and Go Back**.

[<< Back to Zones list](#) > [Avaya IPO Zone](#)

Name *

Value

Finally, please ensure that all other advanced parameters are configured as shown below. Add any that are missing by using the same process as above or by using the individual menus.

General TPO Boot Settings **Turret Boot Settings** Turrets Mobile Trader TPO TPO Cluster TPO DNS Users Shared Profiles Adv. Telephony

Turret Boot Settings + Pre-defined settings

Basic Mode Expert Mode **Advanced Mode**

Refresh Add new Bulk admin selected Provisioning 1 / 1

Parameter *	Value	
application.bscg.alternateServiceURI		
application.bscg.baseServiceURI	http://172.27.130.1/IptradeNet.TSS.9.2.3.45577	
<input type="checkbox"/> application.mm.DTMFPayloadType	127	
<input type="checkbox"/> application.mm.supportedcodecs	0,PCMU,8000 ; 8,PCMA,8000 ; 127,telephone-event,8000	
<input type="checkbox"/> application.mm.supportedcodecs.video.H264	109 ° H264 ° 90000 ° profile-level-id=42801E;packetization-mor	
<input type="checkbox"/> application.sip.call.fastmediaconnect	true	
<input type="checkbox"/> application.sip.connection.mode	TCP	
<input type="checkbox"/> application.sip.connection.port	5060,5062,5064,5066,5069	
<input type="checkbox"/> application.sip.enableTCP	true	
<input type="checkbox"/> application.sip.kpml.enabled	false	
<input type="checkbox"/> application.sip.localdomain	10.128.226.178	
<input type="checkbox"/> application.sip.park.mode	tpo	
<input type="checkbox"/> application.sip.proxy.address	10.128.226.178	
<input type="checkbox"/> application.sip.proxy.transporttype	TCP	
<input type="checkbox"/> application.sip.register.bulk	false	
<input type="checkbox"/> application.sip.server.name	10.128.226.178	
<input type="checkbox"/> profile.setting.video.ducking.value	0	

Refresh Add new Bulk admin selected Provisioning 1 / 1

6.1.2. Configure Avaya TPO Cluster

From the top menu, select **Device Management** and then **TPO Clusters**.

IPTrade SA Critical Communications & Collaboration Solutions

Items per list: 25 Username: admin1 Logout

Device Management: TPO Clusters

Device Management Account Management Telephony Security System Console

External Tools
Geographic Groups
Turrets
Mobile Traders
PCs
TPOs
TPO Clusters
TPOs Floor Map
Zones

+ Configuration fetch

	Zone	Comment	Last modification date *	
	Avaya Aura Zone		12/28/2018 2:52:13 PM	
<input type="checkbox"/>	Avaya-IPO-Cluster	Avaya IPO Zone	7/23/2019 3:54:38 PM	
<input type="checkbox"/>	Cisco-TPO-Cluster	CUCM Zone	12/3/2018 11:44:08 AM	

Server time: 09:14:09
Last refresh time: 09:13:49 Refresh Add new Bulk admin selected 1 / 1

Select **Add new** TPO Cluster and assign name.

IPTrade SA Critical Communications & Collaboration Solutions

Items per list: 25 Username: admin1 Logout

Device Management: TPO Cluster Edition (Avaya-IPO-Cluster)

Device Management Account Management Telephony Security System Console

<< Back to TPO Clusters list

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

General

Name * Avaya-IPO-Cluster

Zone Avaya IPO Zone

Comment

Last Update DateTime 7/23/2019 3:54:38 PM

Update Update and Go Back Reset Refresh Cancel Delete

Navigate to **Avaya-IPO-Cluster** → **Settings** and configure Avaya IP Office server IP address and other parameters shown in below picture.



Device Management: TPO Cluster Edition (Avaya-IPO-Cluster)

Device Management Account Management Telephony Security System Console

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

[<< Back to TPO Clusters list](#)

Settings

	Basic Mode	Expert Mode	Advanced Mode																																							
Cluster	<table><thead><tr><th>Name</th><th>Value</th><th>Description</th></tr></thead><tbody><tr><td><input checked="" type="checkbox"/> SIP local domain</td><td>10.128.226.178</td><td>?</td></tr><tr><td><input checked="" type="checkbox"/> SIP Proxy addresses</td><td>10.128.226.178</td><td>?</td></tr><tr><td><input checked="" type="checkbox"/> SIP Server Name</td><td>10.128.226.178</td><td>?</td></tr><tr><td><input checked="" type="checkbox"/> SIP Connection mode</td><td>TCP</td><td>?</td></tr><tr><td><input checked="" type="checkbox"/> SIP Proxy Transport Type</td><td>TCP</td><td>?</td></tr><tr><td><input type="checkbox"/> Early media mixing</td><td><input type="radio"/> true <input checked="" type="radio"/> false</td><td>?</td></tr><tr><td><input checked="" type="checkbox"/> SIP Local IP Ports</td><td>5060,5062,5064,5064,5066</td><td>?</td></tr><tr><td><input type="checkbox"/> Check replace header on incoming call</td><td><input type="radio"/> true <input checked="" type="radio"/> false</td><td>?</td></tr><tr><td><input type="checkbox"/> Use bulk registration (Cisco only)</td><td><input type="radio"/> true <input checked="" type="radio"/> false</td><td>?</td></tr><tr><td><input type="checkbox"/> MSG Proxy addresses</td><td></td><td>?</td></tr><tr><td><input type="checkbox"/> MSG Proxy Transport Type</td><td>TCP</td><td>?</td></tr><tr><td><input type="checkbox"/> MSG Encoding</td><td></td><td>?</td></tr></tbody></table>			Name	Value	Description	<input checked="" type="checkbox"/> SIP local domain	10.128.226.178	?	<input checked="" type="checkbox"/> SIP Proxy addresses	10.128.226.178	?	<input checked="" type="checkbox"/> SIP Server Name	10.128.226.178	?	<input checked="" type="checkbox"/> SIP Connection mode	TCP	?	<input checked="" type="checkbox"/> SIP Proxy Transport Type	TCP	?	<input type="checkbox"/> Early media mixing	<input type="radio"/> true <input checked="" type="radio"/> false	?	<input checked="" type="checkbox"/> SIP Local IP Ports	5060,5062,5064,5064,5066	?	<input type="checkbox"/> Check replace header on incoming call	<input type="radio"/> true <input checked="" type="radio"/> false	?	<input type="checkbox"/> Use bulk registration (Cisco only)	<input type="radio"/> true <input checked="" type="radio"/> false	?	<input type="checkbox"/> MSG Proxy addresses		?	<input type="checkbox"/> MSG Proxy Transport Type	TCP	?	<input type="checkbox"/> MSG Encoding		?
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<input type="checkbox"/> MSG Proxy Transport Type	TCP	?																																								
<input type="checkbox"/> MSG Encoding		?																																								
Global																																										
Media																																										
Recorder																																										
SIP																																										

Update Refresh

Select the **Settings** tab and then **Advanced Mode**, ensure that the configuration matches with the picture below but with the Avaya IP Office server details.



Device Management: TPO Cluster Edition (Avaya-IPO-Cluster)

Device Management Account Management Telephony Security System Console

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

[<< Back to TPO Clusters list](#)

Settings

	Basic Mode	Expert Mode	Advanced Mode																																				
<div>Refresh Add new Bulk admin selected Provisioning 1 / 1</div> <table><thead><tr><th>Parameter *</th><th>Value</th><th></th></tr></thead><tbody><tr><td><input type="checkbox"/> application.mm.nvsupportedcodecs.video.H264</td><td>109 ° H264 ° 90000 ° profile-level-id=42801E;packetization-mo</td><td>?</td></tr><tr><td><input type="checkbox"/> application.mm.video.enable</td><td>true</td><td>?</td></tr><tr><td><input type="checkbox"/> application.sip.connection.mode</td><td>TCP</td><td>?</td></tr><tr><td><input type="checkbox"/> application.sip.connection.port</td><td>5060,5062,5064,5064,5066</td><td>?</td></tr><tr><td><input type="checkbox"/> application.sip.enableTCP</td><td>true</td><td>?</td></tr><tr><td><input type="checkbox"/> application.sip.localdomain</td><td>10.128.226.178</td><td>?</td></tr><tr><td><input type="checkbox"/> application.sip.proxy.address</td><td>10.128.226.178</td><td>?</td></tr><tr><td><input type="checkbox"/> application.sip.proxy.transporttype</td><td>TCP</td><td>?</td></tr><tr><td><input type="checkbox"/> application.sip.server.name</td><td>10.128.226.178</td><td>?</td></tr><tr><td><input type="checkbox"/> application.sip.stack.supportedExtensionList</td><td>X-cisco-callinfo,replaces,X-cisco-service-control,X-cisco-serviceur</td><td>?</td></tr><tr><td><input type="checkbox"/> application.tpo.maxopencalls</td><td>100</td><td>?</td></tr></tbody></table> <div>Refresh Add new Bulk admin selected Provisioning 1 / 1</div>				Parameter *	Value		<input type="checkbox"/> application.mm.nvsupportedcodecs.video.H264	109 ° H264 ° 90000 ° profile-level-id=42801E;packetization-mo	?	<input type="checkbox"/> application.mm.video.enable	true	?	<input type="checkbox"/> application.sip.connection.mode	TCP	?	<input type="checkbox"/> application.sip.connection.port	5060,5062,5064,5064,5066	?	<input type="checkbox"/> application.sip.enableTCP	true	?	<input type="checkbox"/> application.sip.localdomain	10.128.226.178	?	<input type="checkbox"/> application.sip.proxy.address	10.128.226.178	?	<input type="checkbox"/> application.sip.proxy.transporttype	TCP	?	<input type="checkbox"/> application.sip.server.name	10.128.226.178	?	<input type="checkbox"/> application.sip.stack.supportedExtensionList	X-cisco-callinfo,replaces,X-cisco-service-control,X-cisco-serviceur	?	<input type="checkbox"/> application.tpo.maxopencalls	100	?
Parameter *	Value																																						
<input type="checkbox"/> application.mm.nvsupportedcodecs.video.H264	109 ° H264 ° 90000 ° profile-level-id=42801E;packetization-mo	?																																					
<input type="checkbox"/> application.mm.video.enable	true	?																																					
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<input type="checkbox"/> application.tpo.maxopencalls	100	?																																					

Select **Device Management** and then **TPOs**.



Select **Add new** from the menu bar.



Enter new TPO **Device Identifier** (**Avaya_TPO01**) and select the **Avaya IPO Zone** created in previous steps & then selected “**Save and Go Back**”.

Device Management: TPO Edition

Device Management	Account Management	Telephony	Security	System	Console
-------------------	--------------------	-----------	----------	--------	---------

[<< Back to TPOs list](#)

General

Device Identifier *

Zone

Recording Server

Comment

Bootstrap Version [Inherited from global config \(R9.4 0.50255\)](#)

Firmware Version [Inherited from global config \(R9.4 0.50679\)](#)

Log tracing configuration

Select the newly added TPO from TPO's list and navigate to TPO **Boot Settings** → **Advanced Mode** and add below marked configuration.

IP Trade SA™ Critical Communications & Collaboration Solutions

Items per list: 25 Username: admin1 Logout

Device Management: TPO Edition (Avaya_TPO01)

Device Management Account Management Telephony Security System Console

General Boot Settings Settings Certificates

Boot Settings

Note that a device always inherits settings from the System zone as well as its specific zone (if linked to any).

Basic Mode Expert Mode **Advanced Mode**

Refresh Add new Bulk admin selected Provisioning 1 / 1

Parameter *	Value	Level
application.bscg.alternateServiceURI		System
application.bscg.baseServiceURI	http://172.27.130.1/IptradeNet.TSS.9.2.3.45577	System
application.sip.connection.ipaddress	10.128.226.178	Zone
application.sip.connection.mode	TCP	Zone
application.sip.connection.port	5060,5061,5062,6063,5064,5065,5066	Zone
application.sip.localdomain	10.128.226.178	Zone
<input type="checkbox"/> application.sip.non-standard.ccm50.offhold.header	dummy	TPO
<input type="checkbox"/> application.sip.non-standard.ccm50.onhold.header	dummy	TPO
application.sip.proxy.address	10.128.226.178	Zone
application.sip.proxy.transporttype	TCP	Zone
application.sip.server.name	10.128.226.178	Zone
<input type="checkbox"/> application.sip.stack.allowheaderinregister	true	TPO

Refresh Add new Bulk admin selected Provisioning 1 / 1

Once new Avaya TPO is added navigate to **Device Management** → **TPO Cluster** → **Avaya-IPO-Cluster** → **TPO Cluster** → Select the Avaya TPO01 and click on **Link Selected** to link TPO to Cluster.

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Device Management: TPO Cluster Edition (Avaya-IPO-Cluster)

Device Management Account Management Telephony Security System Console

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

TPO Redundancy Mode

CUCM Session Persistency

TPO Cluster

- Available TPO Nodes

Name Search

Available Nodes (1)

Avaya_TPO02

Link Selected

Refresh Bulk admin selected

Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role
- This list is empty -							

Refresh Bulk admin selected

Set the **TPO Redundancy Mode** to **CUCM Session Persistency**.

IP Trade SA[®] Critical Communications & Collaboration Solutions

Device Management: TPO Cluster Edition (Avaya-IPO-Cluster)

Device Management Account Management Telephony Security System Console

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

TPO Redundancy Mode

CUCM Session Persistency

TPO Cluster

+ Available TPO Nodes

Refresh Bulk admin selected Reset 1 / 1

Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role
Avaya_TPO01	172.27.130.3	1	1	Active	R9.2_3.45565	1	Active
Avaya_TPO02	172.27.130.4	2		Passive	R9.2_3.45565		Passive
Avaya_TPO03	172.27.130.5	3		Passive	R9.2_3.45565		Passive

Refresh Bulk admin selected Reset 1 / 1

TPO Group ID

Refresh Bulk admin selected 1 / 1

Group ID *	TPO DNS Name *
1	AvayaIPO.com

Refresh Bulk admin selected 1 / 1

6.1.3. Assign Turrets to the Avaya Zone

Select **Device Management** → **Zones** → **Avaya IPO Zone**.

Device Management: Zones


Device Management	Account Management	Telephony	Security	System	Console
-------------------	--------------------	-----------	----------	--------	---------

Refresh Add new Bulk admin selected 1 / 1						
	Name *	Comment	NA	SI	AR	CA
<input type="checkbox"/>	AdHoc Conference					
<input type="checkbox"/>	Assure					
<input type="checkbox"/>	Avaya Aura Zone	Interop Zone using Avaya Aura as back end IPBX				
<input type="checkbox"/>	Avaya IPO Zone	Interop Zone using Avaya IPO Zone backed				
<input type="checkbox"/>	Avaya TPO DNS Failover	Avaya DNS Failover Test				
<input type="checkbox"/>	CUCM12 Nonsecure Zone	CUCM12 non secure zone				
<input type="checkbox"/>	CUCM12 Secure Zone	This zone is only for CUCM secure DDI lines IVT Testing.				
<input type="checkbox"/>	INT IPTNetrix Zone	Interop IPT Netrix Zone Zone.				
<input type="checkbox"/>	InteropCUCM 10.5 Zone	This is Interop Lab CUCM 10.5 cluster. CUCM IP - 10.221.5.56				
<input type="checkbox"/>	Liege-Zone	Liege-Zone, please do not use				
<input type="checkbox"/>	NOT in USE					
<input type="checkbox"/>	System	System wide				

Refresh Add new Bulk admin selected 1 / 1

Select the **Turrets** tab, click **Search** as shown in the picture below and look for the turrets needing to be added into the Avaya Zone.

Select the Turrets from the left-hand window and select **Add** to move the Turrets into the Zone. Select **Update** (not shown).



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Items per list: 25 Username: admin1 Logout

Device Management: Zone Edition (Avaya IPO Zone)

Device ManagementAccount ManagementTelephonySecuritySystemConsole

Zone: Avaya IPO Zone << Back to Zones list

GeneralTPO Boot SettingsTurret Boot SettingsTurretsMobile TraderTPO TPO ClusterTPO DNSUsersShared ProfilesAdv. Telephony

Turrets

Device Identifier

Available Turrets (3)

☒ 3PA-Turret-01 (Avaya IPO Zone)

☒ 3PA-Turret-02 (Avaya IPO Zone)


☒ 3PA-Turret-03 (Avaya IPO Zone)

Add >>

<< Remove

Selected Turrets (0)

Background Image



No Image

Turret Screen Saver Image

Select the **TPO Cluster** tab and select **Search**, select the TPO Cluster created from the left-hand window and select the **Add** button. Select **Update and Go Back**.

Select **Device Management** and the **TPO Cluster** → **Avaya IPO Cluster** and configure TPO lines by selecting the **TPO Lines** tab.

Select **Add new**.

Enter the data as below.

Local Extension: The IP Office user extension defined in **Section 5.3.1**.

Register: Select the **Yes** radio button.

SIP Display Name: The IP Office user extension defined in **Section 5.3.1**.

SIP Password: The Communication Profile Password that you set on the Avaya IP Office server.

SIP Digest: The IP Office user extension defined in **Section 5.3.1**.

SIP Domain: The IP Address of the Avaya IP Office server.

Access Point Extension: Select the **No** radio button.

[<< Back to TPO Cluster list](#) > [Avaya-IPO-Cluster](#)

Local Extension *	<input type="text" value="55021"/>
Fetch Type	Not Fetched
Place	
ITS Line	<input type="checkbox"/>
Register	<input type="radio"/> No <input checked="" type="radio"/> Yes
End User Credentials	<input type="checkbox"/>
SIP Display Name	<input type="text" value="55021"/>
SIP Password	<input type="text" value="112233"/>
SIP Digest	<input type="text" value="55021"/>
SIP Domain	<input type="text" value="10.128.226.178"/> x
SIP Contact ID	<input type="text"/>
SIP Device ID	<input type="text"/>
SIP Line Index	<input type="text"/>
IP Address	<input type="text"/>
SDP IP Address	<input type="text"/>
T3MH Listening port	<input type="text"/>
Access Point Extension	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input type="button" value="Save and Go Back"/> <input type="button" value="Save and Add Another"/> <input type="button" value="Reset"/> <input type="button" value="Cancel"/>	

Once complete, select **Save and Go Back** (not shown).


Select **TPO Places**.



Select **Add new**.



Create a **Name**. Assign the new **Group ID**. Group ID can be any number. In below screenshot, group ID is used as number '1' Ensure the **Place Type** is selected as **RingdownDynamic**. In the **Virtual Slot Extensions**, assign new virtual slots 5502101 to 5502103 as specified in below screenshot. This creates three appearances for the 55021 which are associated with Avaya IP Office user extension 55021(55021**01** is appearance 1, 55021**02** is appearance 2 and 55021**03** is appearance 3) and link the line to the IP Office user extension 55021 by selecting the grey **Defined Lines**.

 **IP Trade SA** Critical Communications & Collaboration Solutions

Items per list: 25 Username: admin1 Logout

TPO Cluster: TPO Place Edition (55021)

Device Management Account Management Telephony Security System Console

<< Back to TPO Cluster list > Avaya-IPO-Cluster

General

Name *: 55021 Group ID*: 1

Comment:

☐ Critical

State: Stopped

Default RTP Frame Size (ms): ☐ 10 ☒ 20 ☐ 30

MasterCall RTP Frame Size (ms): ☐ 10 ☒ 20 ☐ 30

Default Volume amp (dB): 0

MasterCall Volume amp (dB): 0

Place Type: RingdownDynamic

Virtual Slot Extensions *: 5502101 - 5502103 ☐ Add Slot Properties

Unlink selected

Slot *	Slot Type *	Label
- This list is empty -		

Unlink selected

Incoming Auto Forward Delay: Off

Conference Mode: All

Local Extensions: + Defined Lines

Unlink selected

Local Extension *	Register	End User Credentials	Display Name	Device ID	Line Index	IP Address	SDP IP Address	Access Point Extension
55021	Yes	No	55021					No

Unlink selected

Ensure that the extension has linked correctly by looking at the linked extensions below.

Unlink selected									
<input type="checkbox"/>	Local Extension *	Register	End User Credentials	Display Name	Device ID	Line Index	IP Address	SDP IP Address	Access Point Extension
<input type="checkbox"/>	55021	Yes	No	55021					No
Unlink selected									

Next, navigate to the **TPO Cluster** tab. Click the Cluster Mouse button to edit (not shown).

Add the **Order** of preference (if more than two TPO's are in a TPO Cluster). The **Group ID** that lines were added to. Select **Active** from the **TPO Role** drop down. Select the green arrow to the right to save the changes.

Refresh Bulk admin selected Reset									1 / 1
<input type="checkbox"/>	Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role	
<input type="checkbox"/>	Avaya TPO01	172.27.130.3	1	1	Active			Idle	▶ ⚙
<input type="checkbox"/>	Avaya TPO02	172.27.130.4	2		Idle	R9.2_3.45565		Idle	▶ ⚙
<input type="checkbox"/>	Avaya TPO03	172.27.130.5	3		Idle	R9.2_3.45565		Idle	▶ ⚙
Refresh Bulk admin selected Reset									1 / 1

Next edit the TPO **Group ID** by clicking the Mouse Button.

TPO Group ID

Refresh Bulk admin selected			1 / 1
<input type="checkbox"/>	Group ID *	TPO DNS Name *	
<input type="checkbox"/>	1	AvayaIPO.com	⚙
Refresh Bulk admin selected			1 / 1

Assign the new **TPO DNS Name** (can be any as it's local to the TPO server) in a format which has a dot in it, in this example AvayaIPO.com is used. Again, select the green arrow to commit the changes.

TPO Group ID

Refresh	Bulk admin selected	1 / 1
Group ID *	TPO DNS Name *	
1	AvayaIPO.com	 
Refresh	Bulk admin selected	1 / 1

After a couple of minutes, the TPO becomes active as shown below.

Refresh Bulk admin selected Reset									1 / 1
	Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role	
<input type="checkbox"/>	 Avaya_TPO01	172.27.130.3	1	1	Active	R9.2_3.45565	1	Active	<input type="checkbox"/>
<input type="checkbox"/>	 Avaya_TPO02	172.27.130.4	2		Passive	R9.2_3.45565		Idle	<input type="checkbox"/>
<input type="checkbox"/>	 Avaya_TPO03	172.27.130.5	3		Passive	R9.2_3.45565		Idle	<input type="checkbox"/>
Refresh Bulk admin selected Reset									1 / 1

Now select the **TPO Places** tab and select the Play button and wait for the line to register. Once the line registers, it will display a status **Alive started** (not shown here).

TPO Places

3 places: 3 Stopped

<div><div><div><div><div></div></div><div>Refresh</div></div><div><div><div></div></div><div>Add new</div></div><div><div><div></div></div><div>Bulk admin selected</div></div><div><div><div></div></div><div>Provisioning</div></div></div></div>							1 / 1	
<div><div></div></div>	Place Name *	Connected to	Place Type *	Group ID *	TPO	State	SIP Device ID	<div><div></div></div>
<div><div></div></div>	55021		RingdownDynamic	1	Avaya_TPO01 (Alive)	Stopped		<div><div></div><div></div><div></div></div>

6.1.4. Add Users

The next task is to add a user, use the top menu and select **Account Management**, and then **Users**.

Device Management: TPO Cluster Edition (Avaya-Aura-Cluster)					
Device Management	Account Management	Telephony	Security	System	Console
	Users				
	Shared Profiles				

Select **Add new**.

Refresh	Add new	Bulk admin selected	Provisioning	LDAP Sync	1 / 1
---------	---------	---------------------	--------------	-----------	-------

Enter the information regarding the user below. For this example, the user login of **ipo1** was created.



Account Management: User Edition (ipo1)

Device Management Account Management Telephony Security System Console

General Lines Adv. Telephony Settings Screen Layout Call Notification Shortcuts Call History << Back to Users list

General

Type Turret

First Name * IPO

Last Name * One

Status Active

User Login * ipo1

Security policy PwdPolicy_User

Password *

Confirm password *

Zone Avaya IPO Zone

Comment

Tools
Reset Password History

Now create a shared profile, select **Account Management** and then **Shared Profiles**.



Account Management: Shared Profiles

Device Management Account Management Telephony Security System Console

Users				
Shared Profiles				
Server time: 11:40:39 Last refresh time: 11:39:47 Refresh Add new Bulk admin selected 1 / 1				
<input type="checkbox"/>	Name *	Zone	Comment	Last modification date *
<input type="checkbox"/>	Avaya Aura Shared Profile	Avaya Aura Zone		11/22/2018 8:17:26 AM
<input type="checkbox"/>	CUCM Shared Profile	CUCM Zone		1/26/2018 7:21:35 AM
<input type="checkbox"/>	IPO Shared Profile	Avaya IPO Zone		6/26/2019 2:04:33 PM
Server time: 11:40:39 Last refresh time: 11:39:47 Refresh Add new Bulk admin selected 1 / 1				

Select **Add new**.

Refresh Add new Bulk admin selected Provisioning

Enter the data as below. Select **Update** (not shown).

General Lines Adv. Telephony Settings Screen Layout Call Notification Shortcuts Call History

General

Type Turret ☐ Desk

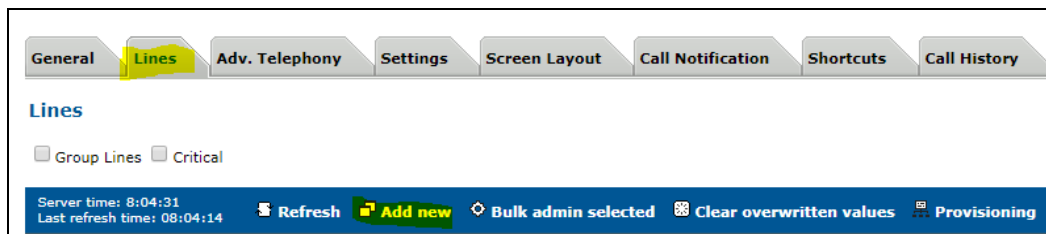
Profile Name * IPO Shared Profile

Zone Avaya IPO Zone

Comment

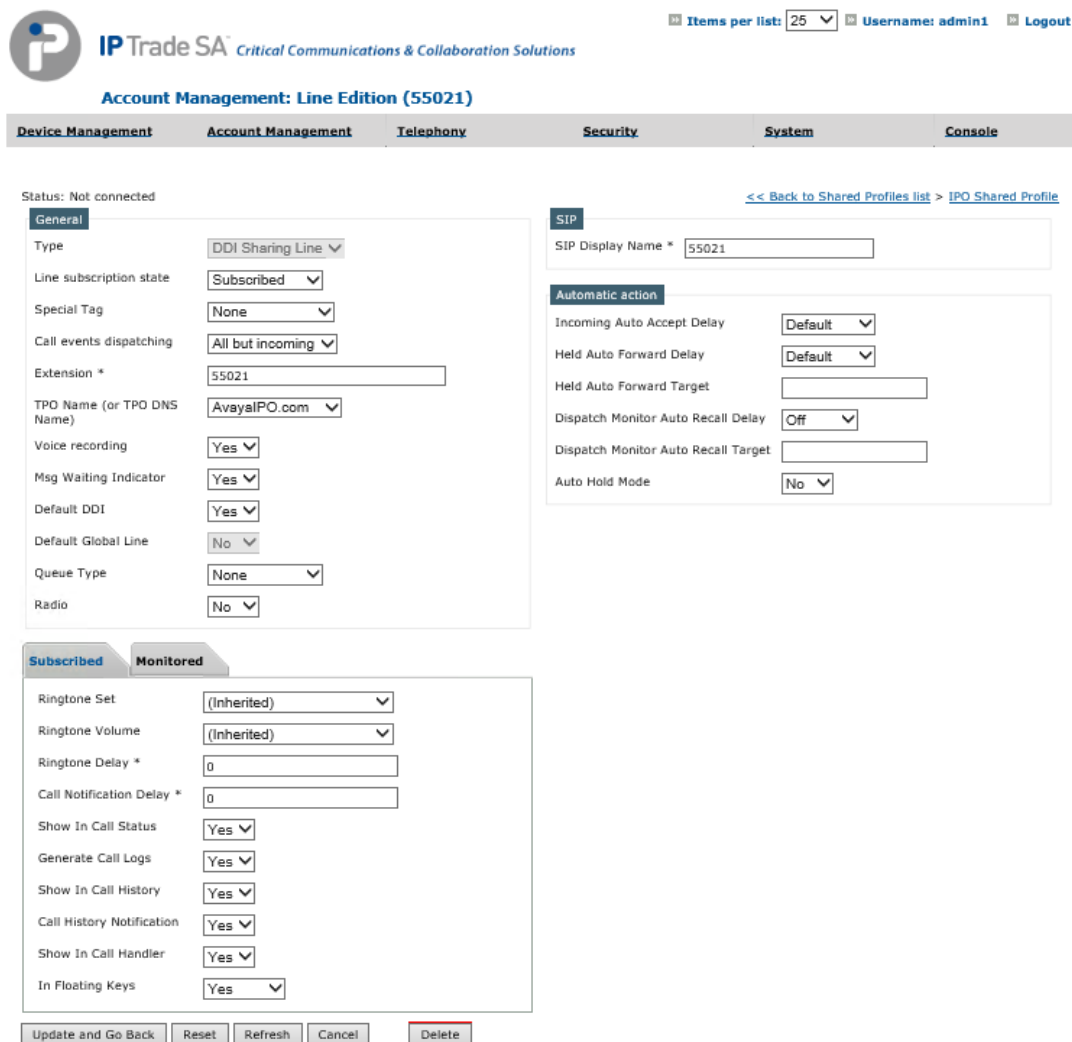
6.1.4.1 Assign New TPO Line (Avaya IP Office Extension)

Select the **Lines** tab, then select **Add new**.



The screenshot shows the Avaya IP Office web interface. The 'Lines' tab is selected and highlighted in yellow. Below the tabs, there are checkboxes for 'Group Lines' and 'Critical'. A status bar at the bottom displays the server time (8:04:31), last refresh time (08:04:14), and several action buttons: 'Refresh', 'Add new' (highlighted in green), 'Bulk admin selected', 'Clear overwritten values', and 'Provisioning'.

Enter all the lines associated with the Avaya profile by entering the following information. In this example the shared appearance 55021 is added.



The screenshot shows the 'Account Management: Line Edition (55021)' form. The 'General' tab is selected. The form contains the following fields and options:

- Status: Not connected
- Items per list: 25
- Username: admin1
- Logout
- Device Management
- Account Management
- Telephony
- Security
- System
- Console
- General tab:
 - Type: DDI Sharing Line
 - Line subscription state: Subscribed
 - Special Tag: None
 - Call events dispatching: All but incoming
 - Extension *: 55021
 - TPO Name (or TPO DNS Name): AvayaIPO.com
 - Voice recording: Yes
 - Msg Waiting Indicator: Yes
 - Default DDI: Yes
 - Default Global Line: No
 - Queue Type: None
 - Radio: No
- SIP tab:
 - SIP Display Name *: 55021
- Automatic action tab:
 - Incoming Auto Accept Delay: Default
 - Held Auto Forward Delay: Default
 - Held Auto Forward Target:
 - Dispatch Monitor Auto Recall Delay: Off
 - Dispatch Monitor Auto Recall Target:
 - Auto Hold Mode: No
- Subscribed tab:
 - Ringtone Set: (Inherited)
 - Ringtone Volume: (Inherited)
 - Ringtone Delay *: 0
 - Call Notification Delay *: 0
 - Show In Call Status: Yes
 - Generate Call Logs: Yes
 - Show In Call History: Yes
 - Call History Notification: Yes
 - Show In Call Handler: Yes
 - In Floating Keys: Yes
- Monitored tab: (empty)
- Buttons: Update and Go Back, Reset, Refresh, Cancel, Delete

Select **Update and Go Back** when completed.

Ensure all of the lines are present via the shared profile by selecting the **Lines** tab.

General **Lines** Adv. Telephony Settings Screen Layout Call Notification Shortcuts Call History

Lines

☐ Group Lines

Server time: 14:13:46 Last refresh time: 14:12:49 Refresh Add new Bulk admin selected Clear overwritten values Provisioning 1 / 1

Type	SIP Display Name	SIP Extension	SIP Digest	SIP Domain	TPO DNS Name
DDI Sharing Line	55021	55021		AvayaIPO.com	
DDI Sharing Line	55022	55022		AvayaIPO.com	
DDI Sharing Line	55023	55023		AvayaIPO.com	

Server time: 14:13:46 Last refresh time: 14:12:49 Refresh Add new Bulk admin selected Clear overwritten values Provisioning 1 / 1

Update Refresh

6.1.4.2 Create a New Shortcut Page

Navigate to **Account Management** and then **Shared Profiles** (not shown). Select the shared profile and select the **Shortcuts** tab from the Menu bar select **Add New Shortcut** page (e.g. **Avaya KP1**) and configure **shortcuts** for Avaya DDI lines.

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Items per list: 25 Username: admin1 Logout

Account Management: Shared Profile Edition (IPO Shared Profile)

Device Management Account Management Telephony Security System Console

General Lines Adv. Telephony Settings Screen Layout Call Notification **Shortcuts** Call History

Shortcut Pages

Refresh Add new Bulk admin selected 1 / 1

Name *	Display option	Comment	External Source
IP Office v11	Positional		

Refresh Add new Bulk admin selected 1 / 1

Shortcuts

Page selection: [All]

Refresh Add new Bulk admin selected 1 / 1

Label *	Extension *	Type	Slot
55021/01	5502101	DDI Slot	NOP
55021/02	5502102	DDI Slot	NOP
55021/03	5502103	DDI Slot	NOP
55022/01	5502201	DDI Slot	NOP
55022/02	5502202	DDI Slot	NOP
55022/03	5502203	DDI Slot	NOP
55023/01	5502301	DDI Slot	NOP
55023/02	5502302	DDI Slot	NOP
55023/03	5502303	DDI Slot	NOP

Refresh Add new Bulk admin selected 1 / 1

Add each field as the example shows above, in this example the first slot (55021/01..03,55022/01..03,55023/01..03) is configured for shared appearance 55021,55022 & 55023.

Label: The Shared Appearance followed by the slot number.

Extension: Avaya IP Office extension eg.5502101 for label 55021/01 as shown in above screenshot.

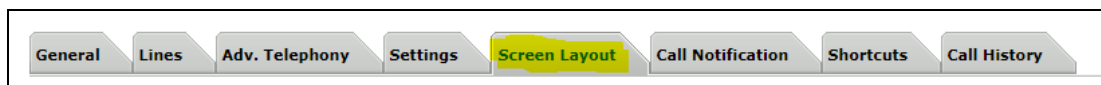
Type: Select **DDI Slot**.

Slot: The full shared appearance.

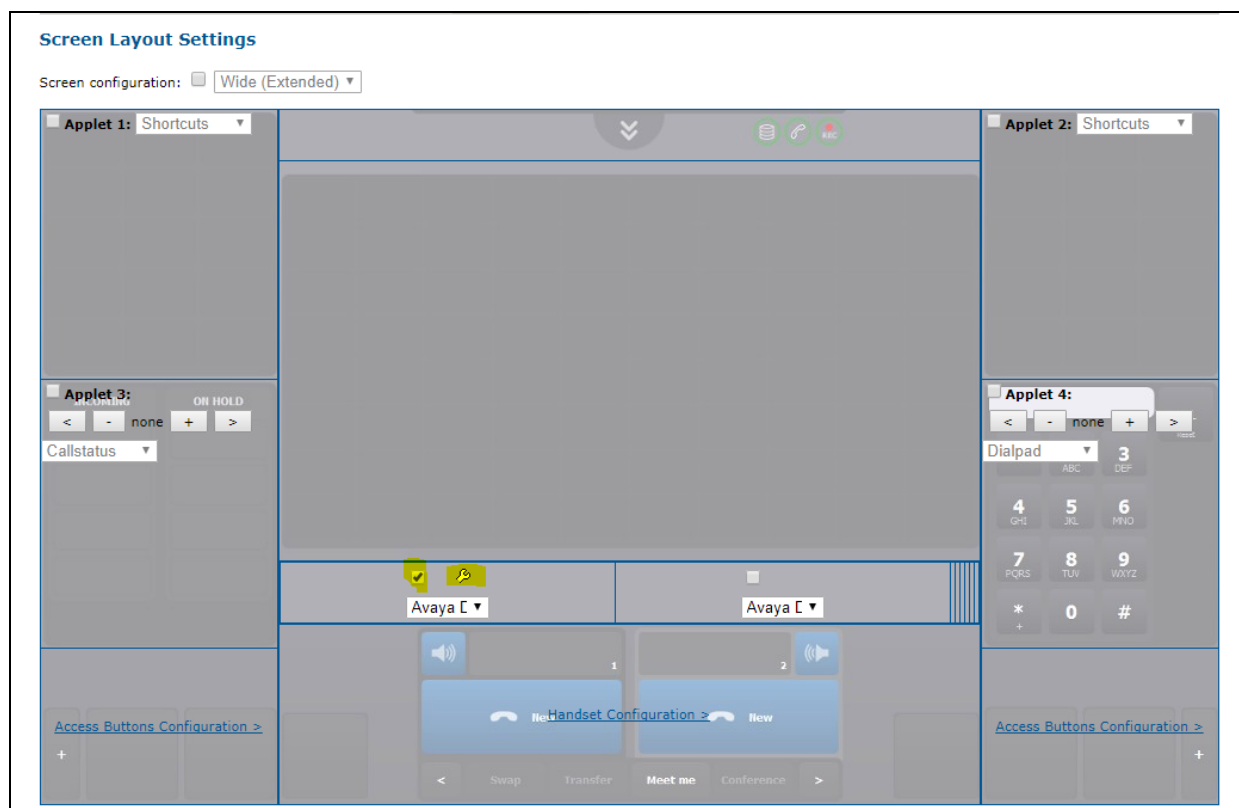
Once complete, select **Update and Go Back**.

6.1.4.3 Create a New Screen Layout

Select the **Screen Layout** tab from the top menu bar.



Select the Shortcut page created in **Section 6.1.4.2** from the dropdown list (Avaya KP1) to place the shared appearances by checking the tick box and then selecting the spanner symbol next to it as shown in the below screenshot.



Assign shortcuts created in **Section 6.1.4.3** to the shortcut layout from **Available shortcuts** on the left side of the screen. Click each shortcut which will automatically place the shortcut into the **Unlinked shortcuts** section. Click and drag the shortcut into the **Linked shortcuts** section.

IP Trade SA[™] Critical Communications & Collaboration Solutions

Items per list: 25 Username: admin1 Logout

Shortcut Layout Edition

Device Management Account Management Telephony Security System Console

Shortcut Layout (IP Office v11) [Back to IPO Shared Profile >](#)

Available shortcuts **Linked shortcuts** **Unlinked shortcuts**

Shortcut Page: (All) Search

55021/01 55021/02 55021/03

55022/01 55022/02 55022/03

55023/01 55023/02 55023/03

Unlink All

Update Update and Go Back Refresh Cancel

Select **Update and Go Back**.

Within the **Settings** tab in shared profile, ensure that all the advanced settings are present as per the picture below. Please refer to earlier in this document for adding new parameters.



Account Management: Shared Profile Edition (IPO Shared Profile)

Device Management	Account Management	Telephony	Security	System	Console
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General	Lines	Adv. Telephony	Settings	Screen Layout	Call Notification	Shortcuts	Call History
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[<< Back to Shared Profiles list](#)

Settings

Basic Mode	Expert Mode	Advanced Mode
------------	-------------	---------------

Refresh	Add new	Bulk admin selected	Provisioning	1 / 1
<input type="checkbox"/>	Parameter *	Value		
<input type="checkbox"/>	profile.setting.applet.1.loudspeaker	left		
<input type="checkbox"/>	profile.setting.applet.1.shortcut.group	IP Office v9.1		
<input type="checkbox"/>	profile.setting.applet.1.type	monitor		
<input type="checkbox"/>	profile.setting.defaulthandset	-1		
<input type="checkbox"/>	profile.setting.hs.invert	false		
<input type="checkbox"/>	profile.setting.hsbarbuttons	swap;transfer;meetme;conference;redial;park;pickup;group_picl		
<input type="checkbox"/>	profile.setting.hsbarbuttons.hideinactive	false		
<input type="checkbox"/>	profile.setting.screen.layout	extended		
<input type="checkbox"/>	profile.setting.screen.type	false		
<input type="checkbox"/>	profile.setting.shortcut.group0	IP Office v11		
<input type="checkbox"/>	profile.setting.singlehandset	false		
<input type="checkbox"/>	profile.setting.videocall.enable	true		
<input type="checkbox"/>	profile.setting.videocall.mirrorfeedbackvideo	true		
Refresh	Add new	Bulk admin selected	Provisioning	1 / 1

Now that the shared profile has been configured, the users need to be added into it.

Select the **General** tab (not shown) and halfway down the page there is a search box as shown in the picture below. Select **Search**.

Attached users

User Name

Search

All users configured on the system will appear, select the ones to add into this shared profile and select **Add**.

Attached users

User Name (All)

Available Users (0)		Selected Users (3)
	<input type="button" value="Add >>"/> <input type="button" value=" << Remove"/>	<input type="checkbox"/> IPO One (ipo1) <input type="checkbox"/> IPO Three (ipo3) <input type="checkbox"/> IPO Two (ipo2)

Directories

The users have been added into the right-hand section. Select **Update and Go Back** (not shown). To confirm, select the user and check that the user is showing as added into the shared profile.

Parent profiles

Desk profile

Profile Name (All)

Available Profiles (0)		Selected Profiles (1)
	<input type="button" value="Add >>"/> <input type="button" value=" << Remove"/>	<input type="checkbox"/> IPO Shared Profile (Shared)

7. Verification Steps

This section describes the checks that can be carried out to verify the connection between Avaya IP Office with BT Unified Trading IP Trade Platform.

7.1. Avaya IP Office Verification

Using IP Office System Status program, click on **Extensions** and verify that the BT Turrets are registered.






Extension Number	Current User Extension	Current User Name	Module/Slot/IP Address	Port Number/MAC Address	Telephone Type	Number of New Messages	Standard Location
55001	55001	Ext55001	172.27.130.51	84-B0-17-95-0A-D4	9650	0	None
55021	55021	BT User 1	172.27.130.3		Unknown SIP ...	0	None
55022	55022	BT User2	172.27.130.3		Unknown SIP ...	0	None
55023	55023	BT User3	172.27.130.3		Unknown SIP ...	0	None

7.2. BT Unified Trading IP Trade Platform Verification

In **Device Management** → **TPOs**, ensure that the TPO is reachable. This is indicated by a Green Status icon as shown below.

Device Identifier *	Zone	Firmware current version	Firmware target version	Assigned Cluster
svdwinttpo01	Avaya IPO Zone	R9.2_3.45565	R9.3_5.50207	Avaya IPO 10.1

In **Device Management** → **TPO Clusters** → **Avaya IPO 10.1**, navigate to the **TPO Lines** tab. The lines must be linked to a TPO Place. This is indicated by the **Linked** column. Green status indicates that the TPO is up and the TPO Place is started.

TPO Lines										
+ Configuration fetch										
Refresh Add new Bulk admin selected Provisioning 1 / 1										
	Local Extension *	Register	End User Credentials	Display Name	Device ID	Line Index	IP Address	SDP IP Address	Access Point Extension	Linked
<input type="checkbox"/>	5010	Yes	No	5010					No	
<input type="checkbox"/>	5011	Yes	No	5011					No	
<input type="checkbox"/>	5012	Yes	No	5012					No	
<input type="checkbox"/>	5013	Yes	No	5013					No	
<input type="checkbox"/>	5014	Yes	No	5014					No	
Refresh Add new Bulk admin selected Provisioning 1 / 1										

Navigate to the **Avaya IPO 10.1 TPO Cluster** tab (not shown), the TPO must show a green status and as Active.

Refresh Bulk admin selected 1 / 1								
	Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role
<input type="checkbox"/>	 svdwinttpo01	10.221.7.151	1	1	Active	R9.3_5.50207	1	Active
Refresh Bulk admin selected 1 / 1								

Lastly select the **TPO Places** tab (not shown). All lines show a status of Started, this indicates that the TPO has registered the line to the Avaya IP Office server.

Refresh Add new Bulk admin selected Provisioning 1 / 1							
	Place Name *	Connected to	Place Type *	Group ID *	TPO	State	SIP Device ID
<input type="checkbox"/>	5010		RingdownDynamic	1	svdwinttpo01 (Alive)	Started	
<input type="checkbox"/>	5011		RingdownDynamic	1	svdwinttpo01 (Alive)	Started	
<input type="checkbox"/>	5012		RingdownDynamic	1	svdwinttpo01 (Alive)	Started	
<input type="checkbox"/>	5013		RingdownDynamic	1	svdwinttpo01 (Alive)	Started	
<input type="checkbox"/>	5014		RingdownDynamic	1	svdwinttpo01 (Alive)	Started	
Refresh Add new Bulk admin selected Provisioning 1 / 1							

8. Conclusion

These Application Notes describe the configuration steps required for BT Unified Trading IP Trade Platform to interoperate with Avaya IP Office. All feature functionality and serviceability test cases were completed successfully as outlined in **Section 2.2**.

9. Additional References

This section references the Avaya and BT product documentation that are relevant to these Application Notes.

Product documentation for Avaya products may be found at <http://support.avaya.com>.

- i. *Deploying IP Office Essential Edition (IP500 V2) IP Office™ Platform 11.0, Issue 33g, May 22, 2018*
- ii. *Deploying Avaya IP Office™ Server Edition Solution (English), Release 11, May 2018.*
- iii. *Administering Avaya IP Office with Manager (English), Release 11, May 2018.*
- iv. *Administering Avaya IP Office with Web Manager (English), Release 11, May 2018.*

Information regarding Product documentation for BT Unified Trading IP Trade Platform can be obtained by contacting the Support email in **Section 2.3**.

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