



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for British Telecom Trading Platform 9.6 with Avaya IP Office 11.1 - Issue 1.0**

## **Abstract**

These Application Notes describe the configuration steps required to integrate British Telecom (Financial Technology Services) Trading Platform 9.6 with Avaya IP Office 11.1. British Telecom Trading Platform is a SIP endpoint management solution that interoperates with Avaya IP Office 11.1 to register British Telecom Trading Turrets as a 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 British Telecom (BT) Trading Platform 9.6 with Avaya IP Office 11.1. The BT Trading Platform is a SIP endpoint management solution that interoperates with Avaya IP Office 11.0 to register British Telecom Trading Turrets as a SIP endpoints.

British Telecom (BT) Trading Platform consists of a set of BT Trading Turrets, a Turret Support Server (TSS), and a Turret Proxy to Open Line Dealing Server (TPO). The BT Trading Turrets register as SIP endpoints with Avaya IP Office.

- **TSS Server:** It provides security extensions, end user profiles management, hunt group, and bridge to middle-office applications.
- **BT Trading Turret:** The BT Trading Turret is SIP-based VoIP trading phone.
- **Turret Proxy to Open Line Dealing Server (TPO):** The TPO server serves as a proxy phone between a remote extension and local BT Trading Turrets end-users. When the local BT Trading Turrets end-users dial the remote TPO proxy number, the users can speak publicly or privately to that remote proxy phone. In these Application Notes, the TPO server registers one SIP endpoint as the proxy phone with Avaya IP Office.

## 2. General Test Approach and Test Results

The general test approach was to configure the BT Trading Turrets to communicate with the Avaya IP Office 11.1 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 Trade Platform did not include use of any specific encryption features as requested by British Telecom.

This test was conducted in a lab environment simulating a basic customer enterprise network environment. The testing focused on the standards-based interface between the Avaya solution and the third-party solution. The results of testing are therefore considered to be applicable to either a premise-based deployment or to a hosted or cloud deployment where some elements of the third party solution may reside beyond the boundaries of the enterprise network, or at a different physical location from the Avaya components.

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 Trading Turret DDI lines with IP Office Server Edition and Expansion using TCP connection.
- Calls between BT Trading Turret and Avaya SIP, H.323, and digital telephones.
- G.711A, G.711U codecs support and negotiation, with and without media shuffling.
- Basic features including audio call, answer, hang up, music on hold, DTMF transmission, and feature access code dialing.
- Call features including Hold, Transfers and Conference.
- Basic video between Avaya Workplace Client and BT Trading Turrets.
- Proper system recovery after removal and reconnection of LAN cable.

## 2.2. Test Results

All the test cases passed.

The following observations were noted:

- Although Transfer is successfully, BT Trading Turret shows “Cannot complete transfer” when BT Turret Blind Transfer to another extension.
- After Standby BT TPO goes to **Active**, all active calls are dropped. However, new calls can be established successfully.
- BT Trading Turret still show **Busy** after network connection issue. Users need logoff/log on to recover the lines.

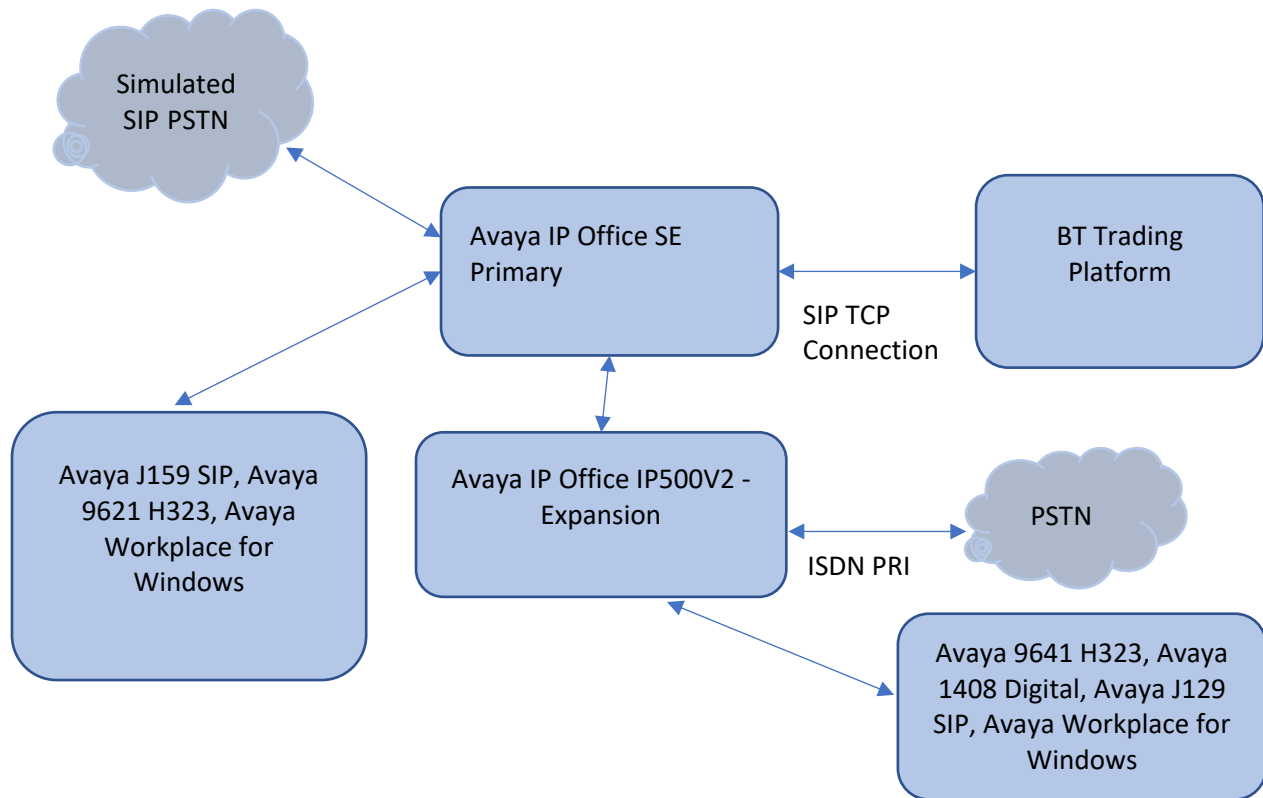
## 2.3. Support

For technical support on BT Trading Platform, send email to [Unified.Trading.interop.team@bt.com](mailto:Unified.Trading.interop.team@bt.com)

### 3. Reference Configuration

The configuration shown in **Figure 1** was used during the compliance test of BT Trading Platform with Avaya IP Office. BT Trading Platform manages BT Trading Turrets and uses the DDI lines by registering with Avaya IP Office and allowing communication with Avaya desk phones.

BT Trading Platform interoperates with Avaya IP Office using TCP connection.



**Figure 1: Connection of BT Trading 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	11.1.0.2.0 Build 14
Avaya IP Office Manager running on a Windows 10 PC	11.1.0.2.0 Build 14
Avaya IP Office Server Edition on VMware	11.1.0.2.0 Build 14
Avaya Digital 1408	Application R48
Avaya 9641 H323	6.8.0.02v
Avaya 9641 SIP	7.1.4
Avaya 9621 SIP	7.1.4
Avaya 9611 H323	6.8.0.02
Avaya J129 SIP	4.0.7
Avaya J159 SIP	4.0.7
BT Trading Platform Turret Support Server Firmware	R9.6.1.54893
BT Trading Platform Turret Support Server Bootstrap	R9.6_1.54875
BT TPO Firmware	R9.6_1.54856
BT TPO Bootstrap	R9.6_1.54843
BT TouchPro Firmware	R9.6_1.54890
BT TouchPro Bootstrap	R9.6_1.54845
BT Flex Pro Version	R9.6_1.54890
BT TPO Redundancy Mode	Session Persistency

**Note:** 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 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:

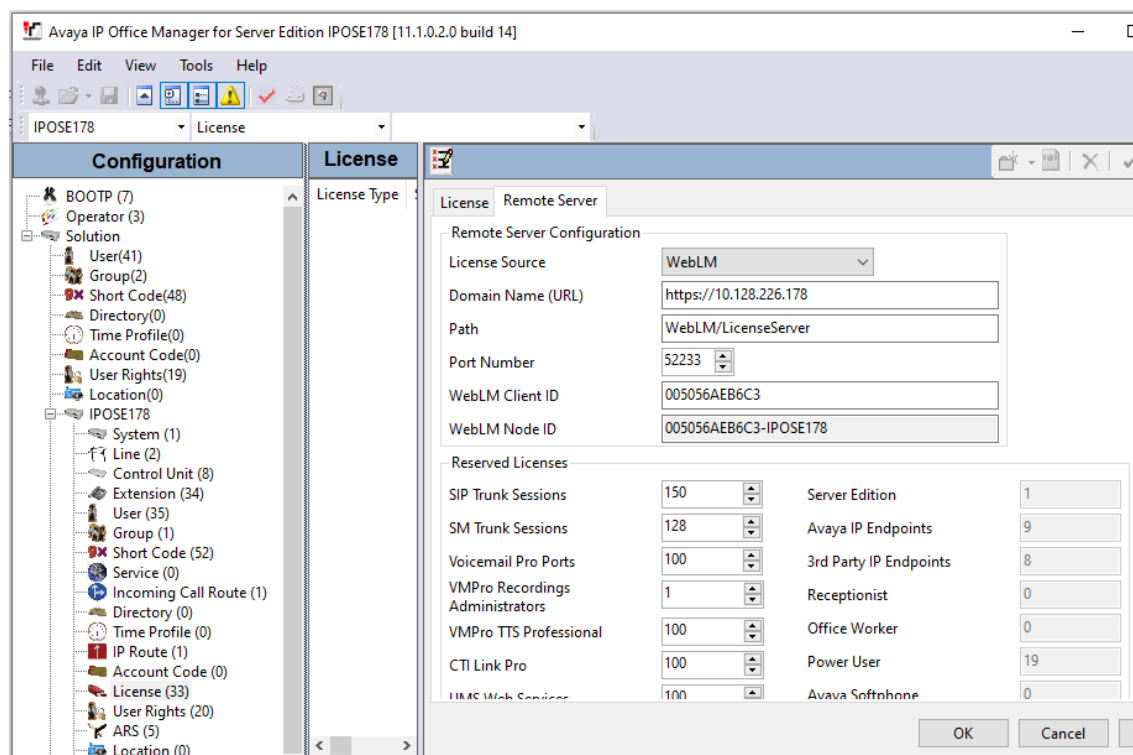
- Launch Avaya IP Office Manager (Administration)
- Check 3<sup>rd</sup> Party IP Endpoints License
- Add Users for BT Trading Turrets
- Save Configuration

### 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 3<sup>rd</sup> Party IP Endpoints License

Select **IPO Server Edition (Primary) → License → Remote Server** 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 License file

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	License
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
<b>3rd Party IP Endpoints VALUE_IPO_IP_ENDPOINTS</b>	permanent	<b>384</b>

NAQ; Reviewed:  
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BTTrade95IPO11

## 5.3. Add Users for BT Trading Turrets

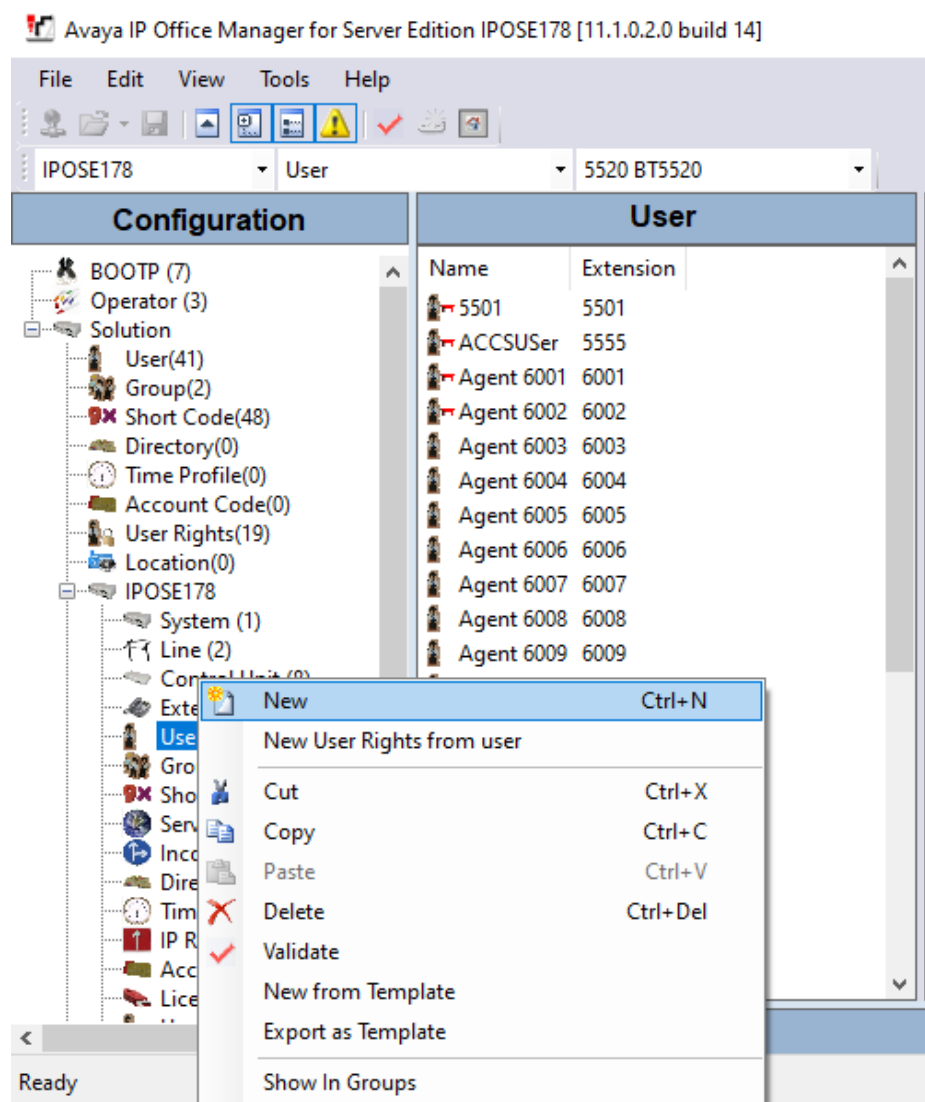
In this section the configuration steps required to connect BT Trade Platform to Avaya IP Office as a SIP Endpoints are described. It is assumed that Avaya IP Office has already been installed and configured as this is out with the scope of this document. All Configuration steps were carried out using **Avaya IP Office Manager**. Configuration steps will include:

- Adding a BT Trading Turrets as SIP Users.
- Check Extension Properties


### 5.3.1. Create a New User

A SIP user must be added for each BT Trading Turret required. In this compliance test, 6 Users are created: **5520-5525** for BT Trade Turrets.

From the Avaya IP Office Manager, Select **IPO Server Edition (Primary) IPOSE178**, right click on **User** and select **New**.



On the Identity 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

User	Voicemail	DND	Short Codes	Source Numbers	Telephony	Forwarding	Dial In	Voice Rec
Name	BT5520							
Password	••••••••							
Confirm Password	••••••••							
Unique Identity								
Conference PIN								
Confirm Audio Conference PIN								
Account Status	Enabled ▾							
Full Name	BT5520							
Extension	5520							
Email Address								
Locale	▾							
Priority	5 ▾							
System Phone Rights	None ▾							
ACCS Agent Type	None							
Profile	Power User ▾							
	<input type="checkbox"/> Receptionist <input checked="" type="checkbox"/> Enable Softphone <input checked="" type="checkbox"/> Enable one-X Portal Services <input checked="" type="checkbox"/> Enable one-X TeleCommuter <input checked="" type="checkbox"/> Enable Remote Worker <input checked="" type="checkbox"/> Enable Desktop/Tablet VoIP client <input checked="" type="checkbox"/> Enable Mobile VoIP Client <input type="checkbox"/> Send Mobility Email <input type="checkbox"/> Web Collaboration							
	<input type="checkbox"/> Exclude From Directory							
Device Type	 Unknown SIP device							
User Rights								
User Rights view	User data ▾							

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

The screenshot shows the 'Supervisor Settings' tab within the 'Telephony' section of the Avaya IP Office Manager. The 'Call Settings' sub-tab is active. The 'Login Code' and 'Confirm Login Code' fields are both filled with six dots. The 'Login Idle Period (sec)' field is empty. The 'Monitor Group' and 'Coverage Group' dropdown menus are set to '<None>'. The 'Status on No-Answer' dropdown is set to 'Logged On (No change)'. The 'Privacy Override Group' dropdown is also set to '<None>'. Under the 'Reset Longest Idle Time' section, the 'All Calls' radio button is selected. On the right side, several checkboxes are visible: 'Force Login' (unchecked), 'Force Account Code' (unchecked), 'Force Authorization Code' (unchecked), 'Incoming Call Bar' (unchecked), 'Outgoing Call Bar' (unchecked), 'Inhibit Off-Switch Forward/Transfer' (unchecked), 'Can Intrude' (unchecked), 'Cannot Be Intruded' (checked), 'Can Trace Calls' (unchecked), and 'Deny Auto Intercom Calls' (unchecked).

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

**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).

The screenshot shows a dialog box titled 'Avaya IP Office Manager'. The text inside asks, 'Would you like a new VoIP extension created with this number?'. Below this text are three radio button options: 'None', 'H323 Extension', and 'SIP Extension'. The 'SIP Extension' option is selected. At the bottom of the dialog box is an 'OK' button.

### 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 3<sup>rd</sup> party IP endpoint license** from **Reserve License** drop box. And select **Disabled** from **Media Security** drop box.

**SIP Extension: 11218 5520\***

Extension VoIP

IP Address: 0 . 0 . 0 . 0

Codec Selection: Custom

Unused:

- G.711 ALAW 64K
- G.729(a) 8K CS-ACELP

Selected:

- G.711 ULAW 64K
- G.722 64K

Reserve License: Reserve 3rd party IP endpoint license

Fax Transport Support: None

DTMF Support: RFC2833/RFC4733

3rd Party Auto Answer: None

Media Security: Same as System (Preferred)

Advanced Media Security Options ☒ Same As System

Encryptions ☒ RTP ☐ RTCP

Authentication ☒ RTP ☒ RTCP

Replay Protection

SRTP Window Size: 64

Crypto Suites

- ☒ SRTP\_AES\_CM\_128\_SHA1\_80
- ☐ SRTP\_AES\_CM\_128\_SHA1\_32

Requires DTMF ☐

Local Hold Music ☐

Re-invite Supported ☒

Codec Lockdown ☐

Allow Direct Media Path ☐

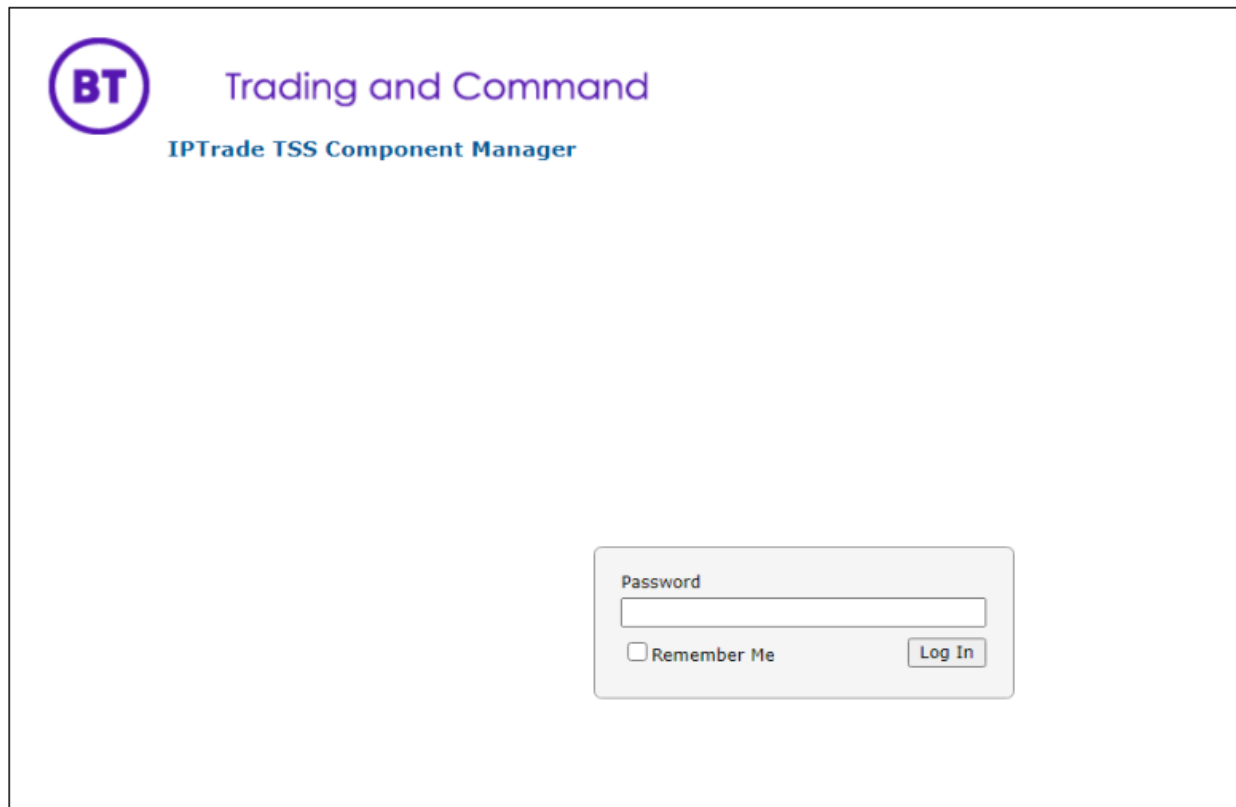
## 6. Configure the BT Trading Platform

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

### 6.1. Configure the BT Trading Turret Support Server

This section describes the procedure for configuring the BT Trading 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 interface for the BT Trading and Command IPTrade TSS Component Manager. In the top left corner, there is a purple circular logo with the letters 'BT' inside. To the right of the logo, the text 'Trading and Command' is displayed in purple, and below it, 'IPTrade TSS Component Manager' is displayed in blue. In the center of the page, there is a light gray rectangular box containing a login form. The form has a label 'Password' above a text input field. Below the input field, there is a checkbox labeled 'Remember Me' and a 'Log In' button.

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

BT Trading and Command

IPTrade TSS Component Manager

TSS Versions TSS OS TSS Bootstrap

Replication Secondary server IP or FQDN:  Set

Default Version 9.6.1.54893

PRIMARY SECONDARY

Console [https://Avaya\\_TSS01.thrdpa.itsnet.bt.com/iptradenet/console](https://Avaya_TSS01.thrdpa.itsnet.bt.com/iptradenet/console)

TSS [https://Avaya\\_TSS01.thrdpa.itsnet.bt.com/iptradenet/tss](https://Avaya_TSS01.thrdpa.itsnet.bt.com/iptradenet/tss)

Enter the **User Identifier** and **Password** for the BT Trading Platform and select **Log In**.

BT Trading and Command

Log In

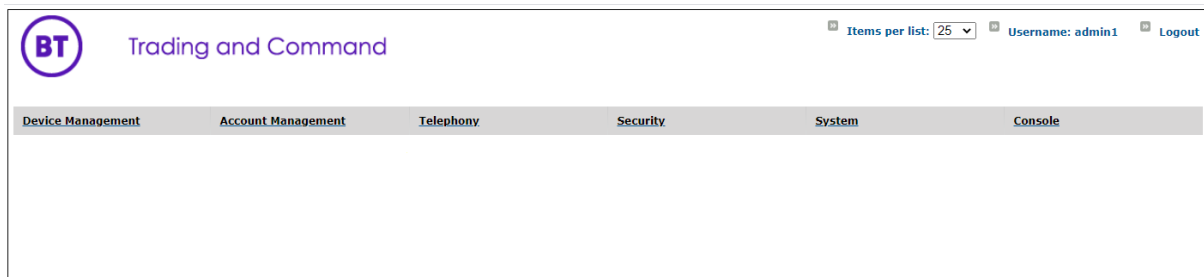
User Identifier

Password

☐ Remember my login on this computer

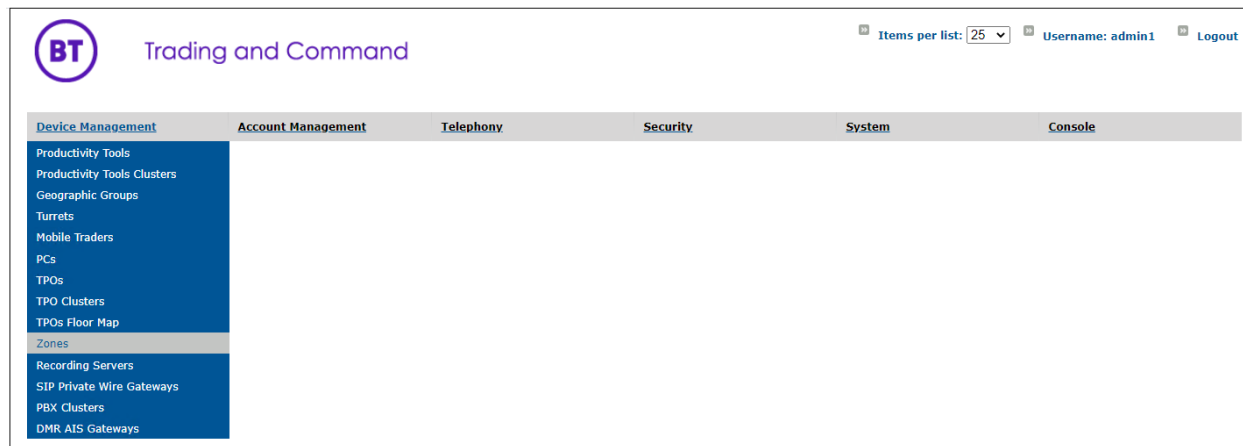
Log In

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 here its Avaya IPO Zone and **Update**.

BT Trading and Command

Items per list: 25 Username: admin1 Logout

Device Management: Zone Edition

Device Management Account Management Telephony Security System Console

<< Back to Zones list

General

General

Name \* Avaya IPO Zone

Comment Avaya IPO Zone

Location

Country None

State None

City None

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

BT Trading and Command

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

Recording Server Disabled

Turret WES7 (x64) OS Upgrade Level Default Inherited from global config (0)

TPO WES7 OS Upgrade Level Default Inherited from global config (19)

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

Usage

Turrets:

- 3PA-Turret-01
- 3PA-Turret-02
- 3PA-Turret-03
- DESKDEV42

MobileTrader: none

TPO:

Reboot all devices for this zone

Navigate to the **Turret Boot Settings** tab in Avaya IPO Zone, then select **SIP** option **Basic Mode** and update Avaya IP Office server address to 10.128.226.178 and other highlighted parameters below.

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

**Turret Boot Settings** + Pre-defined settings

T4 **Basic Mode** Expert Mode Advanced Mode

	Name	Value	Description
Audio	<input checked="" type="checkbox"/> Use bulk registration (Cisco only)	<input type="radio"/> true <input checked="" type="radio"/> false	?
Automatic actions	<input type="checkbox"/> MSG Proxy Transport Type	TCP	?
Bluetooth	<input type="checkbox"/> MSG Encoding		?
Call History	<input checked="" type="checkbox"/> SIP Compatibility mode	ccm50	?
Contact Center	<input checked="" type="checkbox"/> SIP local domain	10.128.226.178	?
Contextual Email	<input checked="" type="checkbox"/> SIP Connection mode	TCP	?
CRM	<input checked="" type="checkbox"/> SIP Proxy Transport Type	TCP	?
DDI - Sharing	<input checked="" type="checkbox"/> Fast media connection on SIP Ringing state	<input checked="" type="radio"/> true <input type="radio"/> false	?
Devices	<input checked="" type="checkbox"/> SIP Local IP Ports	5060	?
Dial Plan	<input checked="" type="checkbox"/> Parking mode	<input checked="" type="radio"/> tpo <input type="radio"/> adhoc	?
DTMF	<input type="checkbox"/> SIP Manage Unsolicited messages	<input checked="" type="radio"/> true <input type="radio"/> false	?
Exchange Synchronization			
FTP			

Update Refresh

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

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

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	https://Avaya_TSS01.thrdpa.itsnet.bt.com/IptradeNet.TSS.9.6.1	
<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	97 ° H264 ° 90000 ° profile-level-id=42801E;packetization-mode	
<input type="checkbox"/> application.sip.call.fastmediaconnect	true	
<input type="checkbox"/> application.sip.connection.mode	TCP	
<input type="checkbox"/> application.sip.connection.port	5060	
<input type="checkbox"/> application.sip.enableTCP	true	
<input type="checkbox"/> application.sip.koml.enabled	false	
<input type="checkbox"/> application.sip.localdomain	10.128.226.178	
<input type="checkbox"/> application.sip.non-standard.compatibility	ccm50	
<input type="checkbox"/> application.sip.park.mode	tpo	
<input type="checkbox"/> application.sip.prox.transporthtype	TCP	
<input type="checkbox"/> application.sip.register.bulk	false	
<input type="checkbox"/> profile.setting.videocall.defaultstate.heldresume	send_receive	

Refresh Add new Bulk admin selected Provisioning 1 / 1

**Note:** If any of the above advanced parameters are already configured, edit them rather than add. This can be done by either clicking the advanced parameter or by selecting 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**.

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

Turret Boot Settings [+ Pre-defined settings](#)

Basic Mode Expert Mode **Advanced Mode**

Refresh **Add new** Bulk admin selected Provisioning 1 / 1

Now, enter the following statement, the IP Address should mirror the Avaya Session Manager. 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

[Update and Go Back](#) [Reset](#) [Refresh](#) [Cancel](#) [Delete](#)

Finally, 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.

**Turret Boot Settings**

Basic Mode Expert Mode Advanced Mode

Refresh Add new Bulk admin selected Provisioning 1 / 1

Parameter *	Value
application.bscg.alternateServiceURI	
application.bscg.baseServiceURI	https://Avaya_TSS01.thrdpa.tsnet.bt.com/IptradeNet.TSS.9.6.1
application.mm.DTMFPayloadType	127
application.mm.supportedcodecs	0,PCMU,8000 ; 8,PCMA,8000 ; 127,telephone-event,8000
application.mm.supportedcodecs.video.H264	97 ° H264 ° 90000 ° profile-level-id=42801E;packetization-mode
application.sip.call.fastmediacnect	true
application.sip.connection.mode	TCP
application.sip.connection.port	5060
application.sip.enableTCP	true
application.sip.kpml.enabled	false
application.sip.localdomain	10.128.226.178
application.sip.non-standard.compatibility	ccm50
application.sip.park.mode	tpo
application.sip.proxy.transporttype	TCP
application.sip.register.bulk	false
profile.setting.videocall.defaultstate.heldresume	send_receive

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**.

**BT Trading and Command**

Items per list: 25 Username: admin1 Logout

**Device Management: TPO Clusters**

Device Management Account Management Telephony Security System Console


Productivity Tools  
Productivity Tools Clusters  
Geographic Groups  
Turrets  
Mobile Traders  
PCs  
TPOs  
**TPO Clusters**  
TPOs Floor Map  
Zones  
Recording Servers  
SIP Private Wire Gateways  
PBX Clusters  
DMR AIS Gateways

refresh Add new Bulk admin selected 1 / 1

Zone	Comment	Last modification date *
Avaya Aura Zone		12/17/2020 10:56:22 AM
Avaya TPO Zone		2/9/2021 3:47:23 PM
CUCM Zone		12/3/2018 11:44:08 AM

refresh Add new Bulk admin selected 1 / 1

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

 Trading and Command

Items per list: 25 Username: admin1 Logout

Device Management: TPO Cluster Edition

Device ManagementAccount ManagementTelephonySecuritySystemConsole

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

General

Name \*

Avaya-IPO-Cluster

Zone

Avaya IPO Zone

Recording Server

Inherited

Comment

Avaya-IPO-Cluster

Save and Go Back

Save and Edit

Save and Add Another

Reset

Cancel

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

Trading and Command

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

Device Management Account Management Telephony Security System Console

Users Shared Profiles

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

Boot Settings

Basic Mode Expert Mode Advanced Mode

Category	Name	Value	Description
CAPF	<input checked="" type="checkbox"/> SIP local domain	10.128.226.178	
Cluster	<input checked="" type="checkbox"/> SIP Connection mode	TCP	
FTP	<input checked="" type="checkbox"/> SIP Proxy Transport Type	TCP	
Global	<input type="checkbox"/> Early media mixing	<input type="radio"/> true <input checked="" type="radio"/> false	
Media	<input checked="" type="checkbox"/> SIP Local IP Ports	5060,5062,5064,5066,5068,5070,5072,5074,5076,5078,5080,5082,5084	
	<input checked="" type="checkbox"/> SIP Local IP addresses	10.128.226.178	
OLDCB	<input type="checkbox"/> Check replace header on incoming call	<input type="radio"/> true <input checked="" type="radio"/> false	
Recorder	<input type="checkbox"/> Use bulk registration (Cisco only)	<input type="radio"/> true <input checked="" type="radio"/> false	
SIP	<input type="checkbox"/> MSG Proxy Transport Type	TCP	
SNMP	<input type="checkbox"/> MSG Encoding		
T3MH			
TSS			

Update Refresh

Select the **Boot Settings** tab and then **Advanced Mode**, ensure that the configuration matches with the below snapshot.

Trading and Command

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

Device Management Account Management Telephony Security System Console

Users Shared Profiles

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

Boot Settings

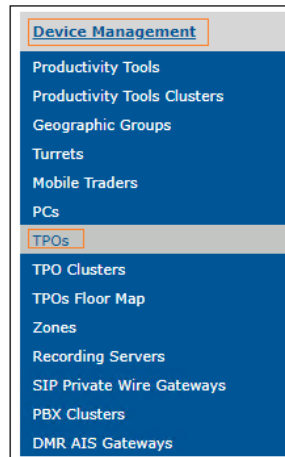
Basic Mode Expert Mode Advanced Mode

Parameter	Value	Level
application.bscg.alternateServiceURI	Zone	Zone
application.bscg.baseServiceURI	https://Avaya_TSS01.thrdpa.itsnet.bt.com/IpradeNet.TSS.9.6.1	Zone
application.mm.nvsupportedcodecs.video.H264	97 * H264 * 90000 * profile-level-id=42801E;packetization-mod	Zone
application.mm.video.enable	true	Zone
application.sip.connection.ipaddress	10.128.226.178	TPO Cluster
application.sip.connection.mode	TCP	TPO Cluster
application.sip.connection.port	5060,5062,5064,5066,5068,5070,5072,5074,5076,5078,5080,5082,5084	TPO Cluster
application.sip.enableTCP	true	TPO Cluster
application.sip.localdomain	10.128.226.178	TPO Cluster
application.sip.non-standard_ccm50.offhold.header	dummy	TPO Cluster
application.sip.non-standard_ccm50.onhold.header	dummy	TPO Cluster
application.sip.proxy.transporttype	TCP	TPO Cluster
application.tps.rcap.active.maxtime	3600	TPO Cluster

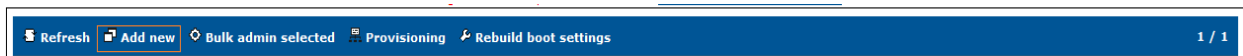
Refresh Add new Bulk admin selected Provisioning

1 / 1

Select Device Management and navigate to TPOs.



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



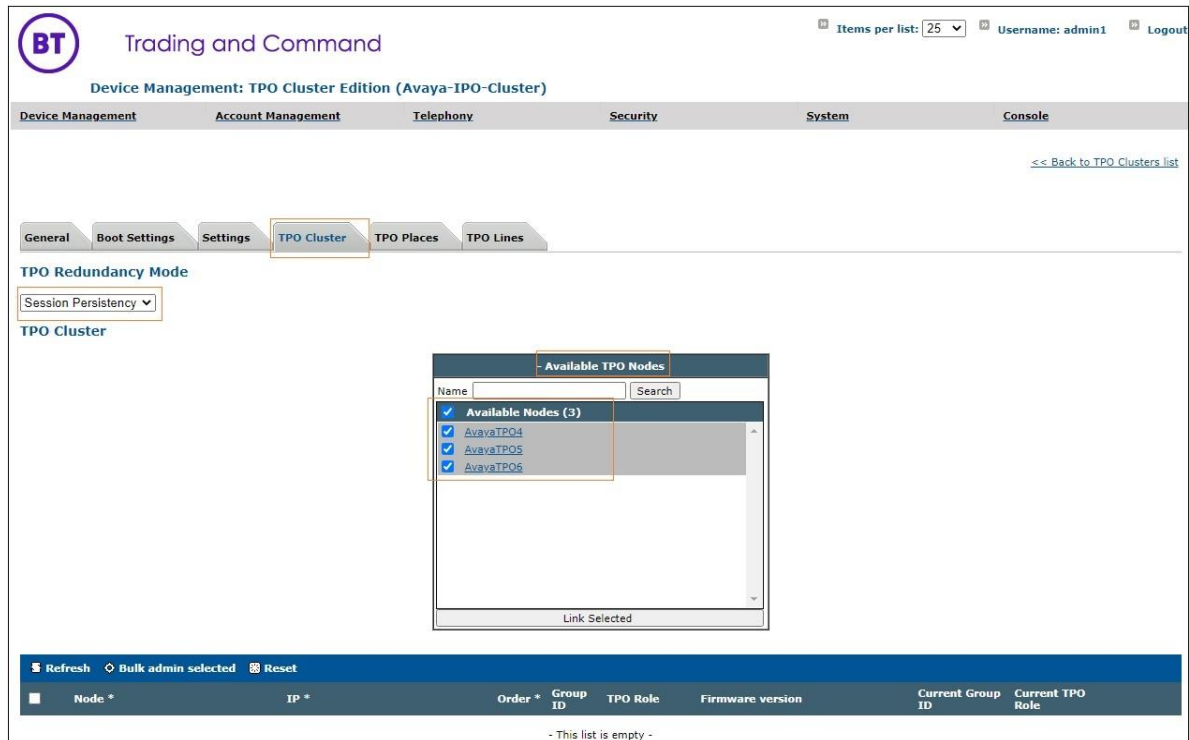
Enter new TPO **Device Identifier** and select the **Avaya IPO Zone** created in previous steps. Repeat the same step again to add more TPO's.

A screenshot of the 'Add new' form for TPOs. The form is titled 'Device Management: TPO Edition' and has a tabbed interface with 'Device Management' selected. The 'General' section contains the following fields: 'Device Identifier \*' (text input with 'AvayaTPO4'), 'Zone' (dropdown menu with 'Avaya IPO Zone'), 'Recording Server' (dropdown menu with 'Inherited'), and 'Comment' (text area with 'AvayaTPO4'). Below these are 'Bootstrap Version' and 'Firmware Version' (both dropdown menus with 'Default'). At the bottom, there is a '+ Log tracing configuration' button and a row of buttons: 'Save and Go Back', 'Save and Edit', 'Save and Add Another', 'Reset', and 'Cancel'.



Link newly added TPO's to Avaya-Aura-Cluster TPO cluster. Navigate to **Device Management** → **TPO Clusters** → **Avaya-IPO-Cluster** → **Settings** → **TPO Cluster** → Select AvayaTPO1, AvayaTPO2 and AvayaTPO3, which are added in the previous step, and click on **Link Selected** to link TPO's to Cluster.

Select the TPO Redundancy mode to 'Session Persistency'.



The screenshot displays the BT Trading and Command interface. The top navigation bar includes 'Device Management', 'Account Management', 'Telephony', 'Security', 'System', and 'Console'. The 'TPO Cluster' tab is selected. Under 'TPO Redundancy Mode', 'Session Persistency' is chosen. A modal window titled 'Available TPO Nodes' is open, showing a list of available nodes: AvayaTPO4, AvayaTPO5, and AvayaTPO6, all of which are selected. The 'Link Selected' button is visible at the bottom of the modal. The main page shows a table with columns for Node, IP, Order, Group ID, TPO Role, Firmware version, Current Group ID, and Current TPO Role. The table is currently empty.



### 6.1.3. Assign Turrets to the Avaya Zone

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

The screenshot shows the BT Trading and Command web interface. At the top, there's a header with the BT logo, 'Trading and Command', and user information: 'Items per list: 25', 'Username: admin1', and 'Logout'. Below the header is a navigation bar with tabs: 'Device Management', 'Account Management', 'Telephony', 'Security', 'System', and 'Console'. The 'Device Management' tab is active, and the sub-tab is 'Zone: Avaya IPO Zone'. Below this, there's a secondary navigation bar with tabs: 'General', 'TPO Boot Settings', 'Turret Boot Settings', 'Turrets', 'Mobile Trader', 'TPO', 'TPO Cluster', 'TPO DNS', 'Users', 'Shared Profiles', and 'Adv. Telephone'. The 'Turrets' tab is selected. The main content area is titled 'Turrets' and contains a search bar with 'Device Identifier' and a 'Search' button. Below the search bar, there are two columns: 'Available Turrets (4)' and 'Selected Turrets (0)'. The 'Available Turrets' column lists four items: '3PA-Turret-01 (Avaya IPO Zone)', '3PA-Turret-02 (Avaya IPO Zone)', '3PA-Turret-03 (Avaya IPO Zone)', and 'DESKDEV42 (Avaya IPO Zone)'. The 'Selected Turrets' column is empty. Between the columns are 'Add >>' and '<< Remove' buttons.

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

The screenshot shows the BT Trading and Command web interface, similar to the previous one, but with the 'TPO Cluster' tab selected. The main content area is titled 'TPO Cluster' and contains a search bar with 'Name' and a 'Search' button. Below the search bar, there are two columns: 'Available TPO Clusters (1)' and 'Selected TPO Clusters (0)'. The 'Available TPO Clusters' column lists one item: 'Avaya-IPO-Cluster (Avaya IPO Zone)'. The 'Selected TPO Clusters' column is empty. Between the columns are 'Add >>' and '<< Remove' buttons. At the bottom of the interface, there is a row of buttons: 'Update', 'Update and Go Back', 'Reset', 'Refresh', 'Cancel', and 'Delete'.

BT Trading and Command

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

TPO Cluster

Name  Search

Available TPO Clusters (0)

Selected TPO Clusters (1)

Avaya-Aura-Cluster (Avaya IPO Zone)

Add >> << Remove

Update Update and Go Back Reset Refresh Cancel Delete

Select **Device Management** and the **TPO Clusters** → **Avaya IPO Cluster** and configure TPO lines by selecting the **TPO Lines** tab and select **Add new**

BT Trading and Command

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

TPO Lines + Configuration fetch

Refresh Add new Bulk admin selected Provisioning 1 / 1

Enter the data as below.

**Extension:** The Avaya Number defined in Section 6.1

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

**SIP Display Name:** Define the Avaya Number again.

**SIP Password:** The Communication Profile Password that you set on IP Office.

**SIP Digest:** Define the Avaya Number again.

**SIP Domain:** Define the IP Address of IP Office.

**Access Point Extension:** Set the radio button to No.

BT Trading and Command

Items per list: 25 Username: admin1 Logout

TPO Cluster: TPO Line Edition

Device Management Account Management Telephony Security System Console

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

Local Extension \* 5520

Fetch Type Not Fetched

Place

ITS Line ☐

Register ☐ No ☒ Yes

End User Credentials ☐

PBX Cluster \* 10.128.226.178

SIP Display Name 5520

SIP Password \*\*\*\*\*

SIP Digest 5520

SIP Domain 10.128.226.178

SIP Contact ID

SIP Device ID

SIP Line Index

IP Address

SDP IP Address

T3MH Listening port

Access Point Extension ☐ Yes ☒ No

Save and Go Back Save and Add Another Reset Cancel

Once complete, select **Save and Go Back**(not shown).  
Select **TPO Places** and **Add new**

The screenshot shows the BT Trading and Command web interface. At the top, there's a header with the BT logo and the text "Trading and Command". Below this is a sub-header "Device Management: TPO Cluster Edition (Avaya-IPO-Cluster)". A navigation bar contains four tabs: "Device Management", "Account Management", "Telephony", and "Security". Below the navigation bar, there's a row of tabs: "General", "Boot Settings", "Settings", "TPO Cluster", "TPO Places", and "TPO Lines". The "TPO Places" tab is selected and highlighted with a blue border. Below the tabs, the page title "TPO Places" is displayed. At the bottom, there's a blue bar with four buttons: "Refresh", "Add new", "Bulk admin selected", and "Provisioning".

In the first instance, create a **Name**. Select the **Group ID** used. Ensure **RingdownDynamic** is selected as the **Place Type**.

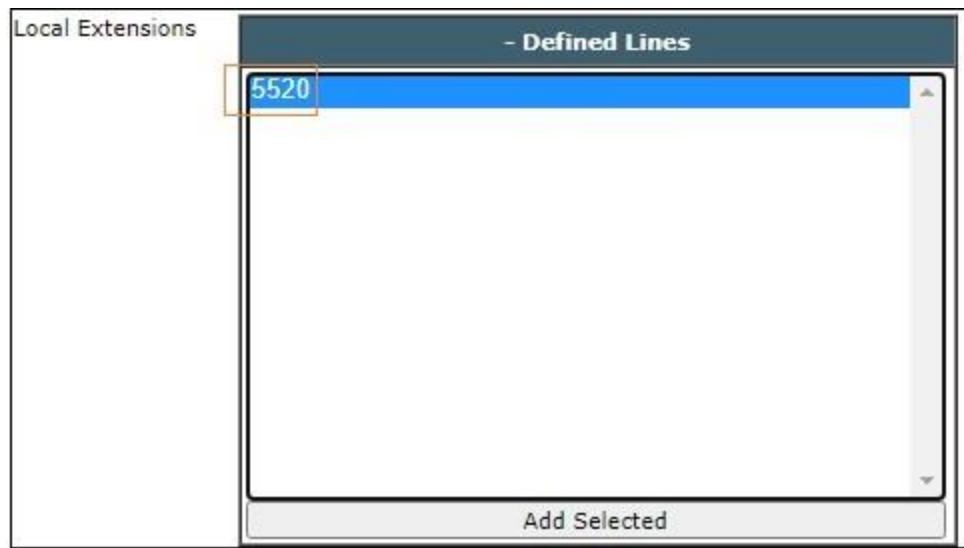
In the VirtualSlot Extensions, 552001 to 552003 are specified. This will create three appearances for the 5520 DDI line which are associated with Avaya IP Office, 5520**01** is Slot 1, 5520**02** is Slot 2 and 5520**03** and Link the Line to the TPO Place by selecting the grey **Defined Lines** box.

The screenshot shows the BT Trading and Command web interface for the "TPO Cluster: TPO Place Edition (5520)". At the top, there's a header with the BT logo and the text "Trading and Command". Below this is a sub-header "TPO Cluster: TPO Place Edition (5520)". A navigation bar contains six tabs: "Device Management", "Account Management", "Telephony", "Security", "System", and "Console". Below the navigation bar, there's a row of tabs: "General", "Boot Settings", "Settings", "TPO Cluster", "TPO Places", and "TPO Lines". The "General" tab is selected and highlighted with a blue border. Below the tabs, the page title "TPO Place Edition (5520)" is displayed. At the bottom, there's a blue bar with four buttons: "Refresh", "Add new", "Bulk admin selected", and "Provisioning".

The form contains the following fields:

- Name \*: 5520
- Group ID\*: 1
- Default RTP Frame Size (ms): 10, 20 (selected), 30
- MasterCall RTP Frame Size (ms): 10, 20 (selected), 30
- Default Volume amp (dB): 0
- MasterCall Volume amp (dB): 0
- Place Type: RingdownDynamic
- Virtual Slot Extensions \*: 552001 - 552003
- Add Slot Properties

Select **Add Selected** to add the local Extensions.



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"/>	5520	Yes	No	5520					No
Unlink selected									

Next, navigate to the **TPO Cluster** Tab.

Add the **TPO Group ID** in a format which has a dot in it, in this example 'btcluster.hcm.com' is used as TPO DNS Name. This name is registered on the DNS. Again, select the green arrow to commit the changes.

TPO Group ID

Refresh Bulk admin selected1 / 1

<input type="checkbox"/>	Group ID *	TPO DNS Name *	CIA
<input type="checkbox"/>	1 ⚠	btcluster.hcm.com	<input type="checkbox"/>

Refresh Bulk admin selected1 / 1

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. Follow the same step and select the TPO Role to passive to configure passive TPO's in the cluster.

TPO Cluster

+ Available TPO Nodes

Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role
AvayaTPO4	172.27.130.6	1	1	Active			
AvayaTPO5	172.27.130.7	2		Idle	R9.6_1.54856		
AvayaTPO6	172.27.130.8	3		Idle	R9.6_1.54856		

After a couple of seconds, the TPO current role will become active, passive and passive.

BT Trading and Command

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

Session Persistence

TPO Cluster

+ Available TPO Nodes

Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role
AvayaTPO4	172.27.130.6	1	1	Active	R9.6_1.54856	1	Active
AvayaTPO5	172.27.130.7	2		Passive	R9.6_1.54856		Passive
AvayaTPO6	172.27.130.8	3		Passive	R9.6_1.54856		Passive

Now select the **TPO Places** tab and select the Play button and wait for the TPO places to start.

TPO Places

6 places: 6 Stopped

Place Name *	Connected to	Place Type *	Group ID *	TPO	State	SIP Device ID
5520		RingdownDynamic	1	AvayaTPO4 (Alive)	Stopped	

Once the place registers, it will display a status Alive **started**.

TPO Places						
6 places: 1 Started 5 Stopped						
Refresh Add new Bulk admin selected Provisioning 1 / 1						
Place Name *	Connected to	Place Type *	Group ID *	TPO	State	STP Device ID
<input type="checkbox"/> S520		RingdownDynamic	1	AvayaTPO4 (Alive)	Started	

## 6.1.4.Add Users

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



Select **Add new**.



Enter the information regarding the user below. For this example, the user ipo1 is created.

BT

Trading and Command

Items per list: 25 Username: admin1 Logout

Account Management: User Edition (ipo1)

Device Management Account Management Telephony Security System Console

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

General

TypeTurret

First Name \*IPO

Last Name \*One

StatusActive

User Login \*ipo1

Security policyPwdPolicy\_User

Password \*\*\*\*\*\*

Confirm password \*\*\*\*\*\*

Fallback pin code (Netrix only)

ZoneAvaya IPO Zone

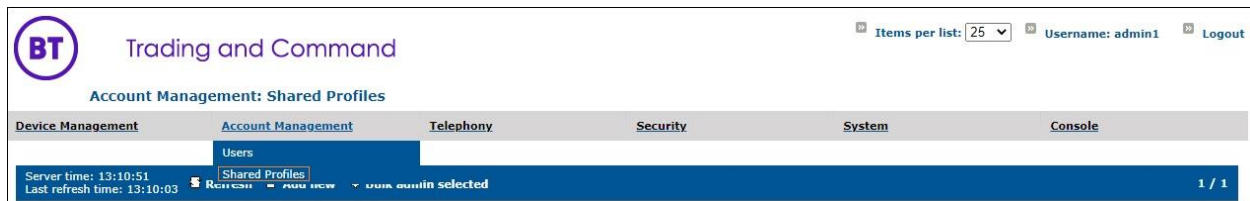
Recording ServerInherited

Comment

Tools

Reset Password History

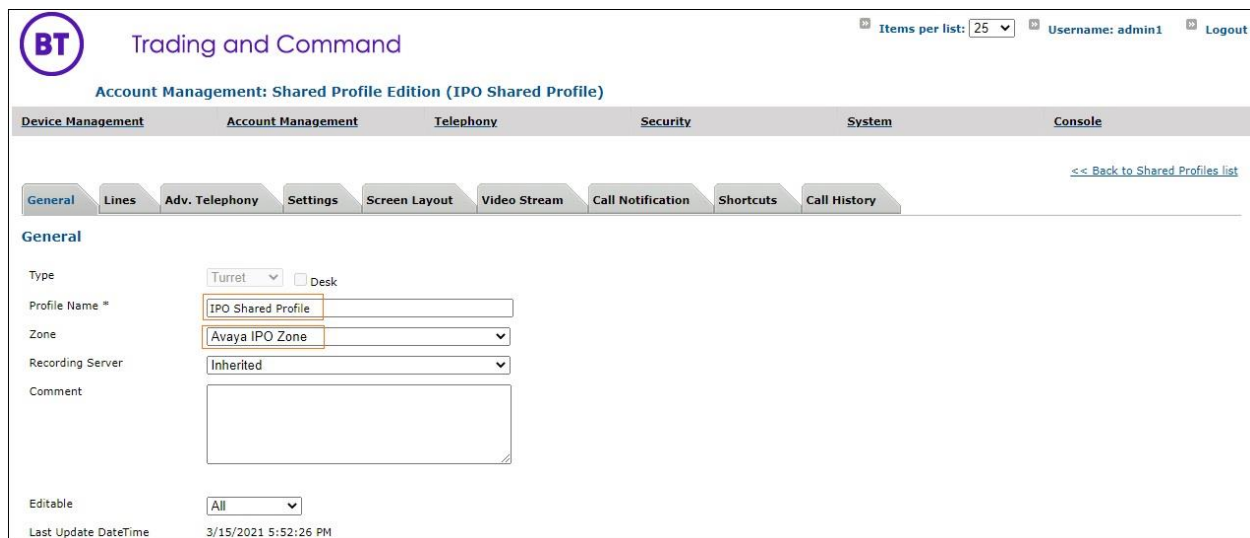
Now create a shared profile, select **Account Management** and then **Shared Profiles**.



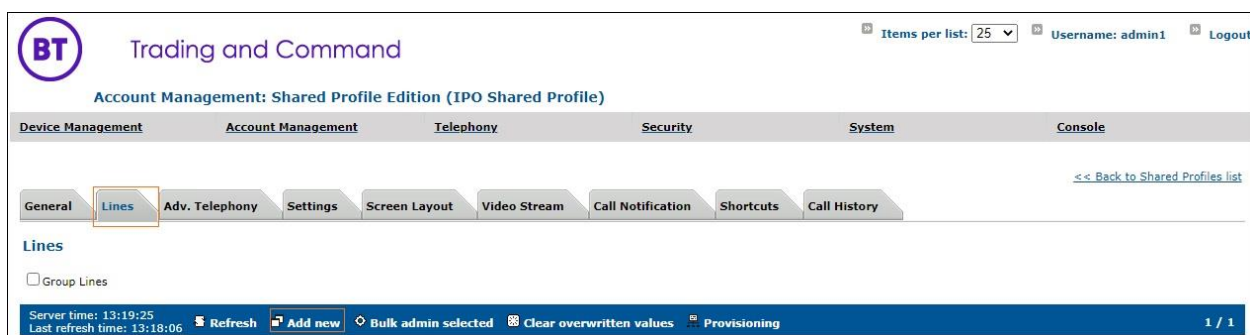
Select **Add new**.



Configure the shared Profile. Select **Update** (not shown).



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





Enter all the Lines associated with the Avaya profile by entering the following information. In this example, the shared line 5520 is added.

BT Trading and Command

Account Management: Line Edition (5520)

Device Management Account Management Telephony Security System Console

Status: Not connected

General

Type: DDI Sharing Line

Line subscription state: Subscribed

Priority: None

Call events dispatching: All but incoming

Extension \*: 5520

TPO Name (or TPO DNS Name): btcluster.hcm.com

Voice recording: Yes

Msg Waiting Indicator: Yes

Default DDI: Yes

Default Global Line: No

Queue Type: None

Radio: No

SIP

SIP Display Name \*: 5520

Automatic action

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

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

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

BT Trading and Command

Account Management: Shared Profile Edition (IPO Shared Profile)

Device Management Account Management Telephony Security System Console

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

Lines


☐ Group Lines

Type	SIP Display Name	SIP Extension	SIP Digest	SIP Domain	TPO DNS Name
DDI Sharing Line	5520	5520		btcluster.hcm.com	
DDI Sharing Line	5521	5521		btcluster.hcm.com	
DDI Sharing Line	5522	5522		btcluster.hcm.com	
DDI Sharing Line	5523	5523		btcluster.hcm.com	
DDI Sharing Line	5524	5524		btcluster.hcm.com	
DDI Sharing Line	5525	5525		btcluster.hcm.com	

Update Refresh

Now that the lines are added, they need to be inserted onto a Key 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. **IP Office v11**) and configure **shortcuts** for Avaya DDI Lines.


Trading and Command
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
Video Stream
Call Notification
Shortcuts
Call History

Shortcut Pages
Import from CSV - Export to CSV

Refresh
Add new
Bulk admin selected
1 / 1

<input type="checkbox"/>	Name *	Display option	Comment	External Source
<input type="checkbox"/>	IP Office v11	Positional		

Refresh
Add new
Bulk admin selected
1 / 1

Shortcuts

Page selection IP Office v11

Refresh
Add new
Bulk admin selected
1 / 1

<input type="checkbox"/>	Label *	Extension *	Type	Slot
<input type="checkbox"/>	5520/01	552001	DDI Slot	NOP
<input type="checkbox"/>	5520/02	552002	DDI Slot	NOP
<input type="checkbox"/>	5520/03	552003	DDI Slot	NOP
<input type="checkbox"/>	5521/01	552101	DDI Slot	NOP
<input type="checkbox"/>	5521/02	552102	DDI Slot	NOP
<input type="checkbox"/>	5521/03	552103	DDI Slot	NOP

Configure the example shown below. In this example, the first slot (5520/1) is configured for Shared Appearance 5520.

**Label:** The Shared Appearance followed by the slot number.

**Type:** Select **DDI Slot**.

**Slot:** The full Shared Appearance. 552001.

BT Trading and Command

Account Management: Shortcut Edition (5520/01)

Device Management Account Management Telephony Security System Console

Label \* 5520/01

Comment 5520/01

Type DDI Slot

Slot \* 552001

Highlight Colors

Text ☐ ☐

Background ☐ ☐

External Reference IPT\_0005r0001

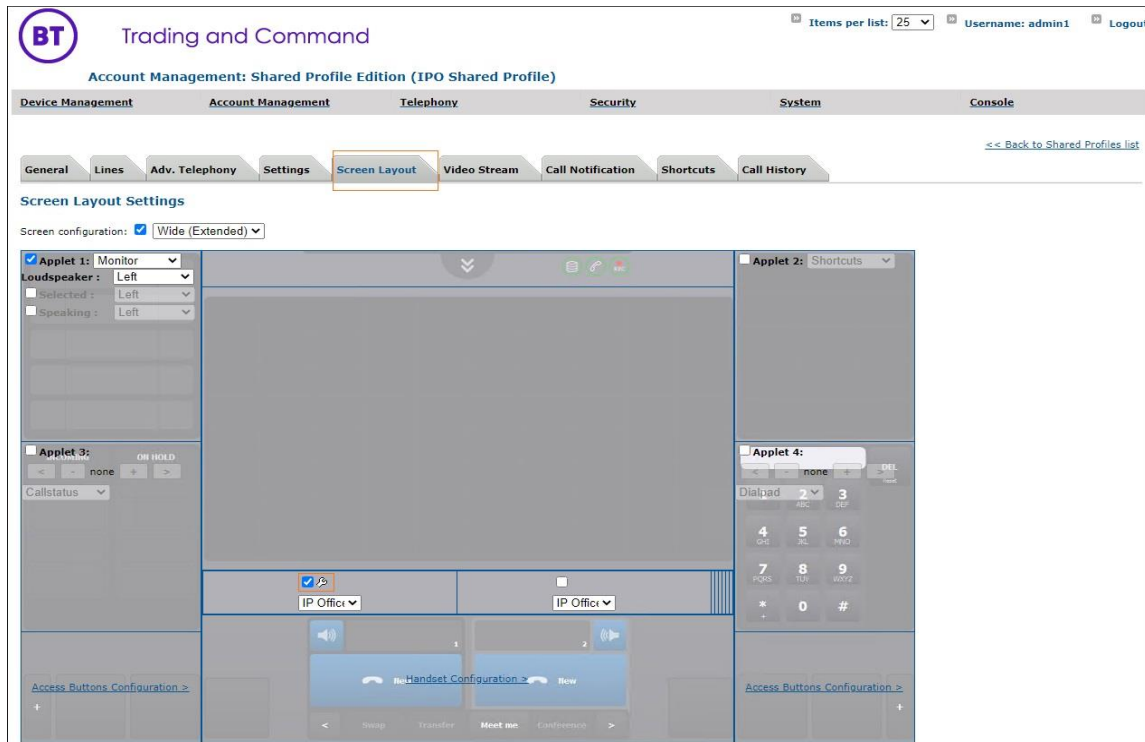
< Back to Shared Profiles list > IPO Shared Profile

Group	Device	Handset	Monitoring slot	Ringtone Set	Volume	State Notification
All	<input checked="" type="radio"/> HS first	Handset Default	<input type="radio"/> LS first	(None)	(None)	None
			Monitoring slot Left Applet Slot 01			
IP Office v11 *	<input checked="" type="radio"/> HS first	Handset Default	<input type="radio"/> LS first	(None)	(None)	None
			Monitoring slot Left Applet Slot 01			

Update Update and Go Back Reset Refresh Cancel Delete

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

Next, select the Screen Layout tab from the top menu bar. Select the Key page to place the shared appearances by checking the tick box and then selecting the spanner symbol next to it as shown in the picture below.



The shortcuts you have just created as Available Shortcuts on the left hand side of the screen. Click each shortcut which will automatically place the shortcut into the Unlinked shortcuts window. Click and drag the shortcut into the Linked shortcuts window.

The image displays two screenshots of the BT Trading and Command interface, specifically the 'Shortcut Layout Edition' for 'IP Office v11'. The interface includes a top navigation bar with tabs for Device Management, Account Management, Telephony, Security, System, and Console. The main content area is divided into three sections: Available shortcuts, Linked shortcuts, and Unlinked shortcuts. In the top screenshot, the 'Available shortcuts' section shows a search box and a list of shortcuts. In the bottom screenshot, the 'Linked shortcuts' section is highlighted by a red box, indicating that the shortcuts have been moved from the 'Available' section to the 'Linked' section.

Select **Update and Go Back** after linking the shortcuts.

Navigate to Shared Profile Setting tab, ensure that all the advanced settings are present as per the picture below. Please refer to earlier in this document for adding new parameters.

Parameter *	Value
<input type="checkbox"/> <a href="#">profile.setting.applet.1.loudspeaker</a>	left
<input type="checkbox"/> <a href="#">profile.setting.applet.1.shortcut.group</a>	IP Office v9.1
<input type="checkbox"/> <a href="#">profile.setting.applet.1.type</a>	monitor
<input type="checkbox"/> <a href="#">profile.setting.ddi.advanced.handling.on.all</a>	true
<input type="checkbox"/> <a href="#">profile.setting.defaulthandset</a>	-1
<input type="checkbox"/> <a href="#">profile.setting.forward.sharedlines</a>	true
<input type="checkbox"/> <a href="#">profile.setting.hs.invert</a>	false
<input type="checkbox"/> <a href="#">profile.setting.hsbarbuttons</a>	swap;transfer;meetme;conference;redial;park;pickup;group_pid
<input type="checkbox"/> <a href="#">profile.setting.hsbarbuttons.hideinactive</a>	false
<input type="checkbox"/> <a href="#">profile.setting.screen.layout</a>	extended
<input type="checkbox"/> <a href="#">profile.setting.screen.type</a>	false
<input type="checkbox"/> <a href="#">profile.setting.shortcut.group0</a>	IP Office v11
<input type="checkbox"/> <a href="#">profile.setting.singlehandset</a>	false
<input type="checkbox"/> <a href="#">profile.setting.top.forward.ddi.sharedlines</a>	true
<input type="checkbox"/> <a href="#">profile.setting.transfer.uselastheldcall</a>	true
<input type="checkbox"/> <a href="#">profile.setting.videocall.defaultstate.heldresume</a>	send_receive
<input type="checkbox"/> <a href="#">profile.setting.videocall.enable</a>	true
<input type="checkbox"/> <a href="#">profile.setting.videocall.mirrorfeedbackvideo</a>	true

Assign Avaya IP Office shared profile to the Users.

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

All Users configured on the system will appear, select the ones you want to add into this Shared Profile and select **Add**.

**Attached users**

User Name  (All)

**Available Users (3)**

- ☒ IPO One (ipo1)
- ☒ IPO Three (ipo3)
- ☒ IPO Two (ipo2)

**Selected Users (0)**

**Directories**

**Available Directories (0)**

**Selected Directories (0)**

**Attached users**

User Name  (All)

**Available Users (0)**

**Selected Users (3)**

- ☐ IPO One (ipo1)
- ☐ IPO Three (ipo3)
- ☐ IPO Two (ipo2)

Add >> << Remove

The users have been added into the right-hand window. Select **Update and Go Back**.

To confirm, select the User and check if the user is showing as added into the Shared Profile.

**Parent profiles**

Desk profile

Profile Name  (All)

**Available Profiles (0)**

**Selected Profiles (1)**

- ☐ IPO Shared Profile (Shared)

Add >> << Remove

## 7. Verification Steps

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

### 7.1. Avaya IP Office Verification

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

Avaya IP Office System Status - IPOSE178 (10.128.226.178) - IP Office Linux PC 11.1.0.2.0 build 14

**AVAYA** IP Office System Status

Help Snapshot LogOff Exit About

**System**

**Alarms (5)**

**Extensions (9)**

5501

5512

5520

5521

5522

5523

5524

5525

5565

**Trunks (2)**

Active Calls

Resources

VoiceMail

IP Networking

Locations

**Extension Summary**

You can get more information about an extension by double-clicking the Extension Number.

Extension Number	Current User Extension	Current User Name	Module/ Slot/ IP Address	Port Number/ MAC Address	Telephone Type	Number of New Messages	Standard Location
5501	5501	5501	10.133.100.7	C8-1F-EA-D2-36-45	Avaya J179 (Stan...	0	None
5512	5512	Ext5512	10.133.100.15	84-B0-17-93-46-9F	9620	0	None
5520	5520	BT5520	172.27.130.6		Unknown SIP Device	0	None
5521	5521	BT5521	172.27.130.6		Unknown SIP Device	0	None
5522	5522	BT5522	172.27.130.6		Unknown SIP Device	0	None
5523	5523	BT5523	172.27.130.6		Unknown SIP Device	0	None
5524	5524	BT5524	172.27.130.6		Unknown SIP Device	0	None
5525	5525	BT5525	172.27.130.6		Unknown SIP Device	0	None
5555	5555	ACCUSER	10.30.5.136		Avaya Contact Ce...	0	None



## 7.2. BT Trading Platform Verification

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

BT

Trading and Command

Items per list: 25

Username: admin1

Logout

Device Management: TPOs

Device Management

Account Management

Telephony

Security

System

Console

Refresh

Add new

Bulk admin selected

Provisioning

Rebuild boot settings

1 / 1

	Device Identifier *	Zone	Firmware current version	Firmware target version	Assigned Cluster	
<input type="checkbox"/>	<div><div></div><div>Any</div></div>	<div><div></div><div>Avaya IPO Zone</div></div>				
<input type="checkbox"/>	<div><div></div><div>AvayaTPO4</div></div>	<div><div></div><div>Avaya IPO Zone</div></div>	<div>R9.6_1.54856</div>	<div>R9.6_1.54856</div>	<div>Avaya-IPO-Cluster</div>	<div>Refresh</div> <div>Download</div>
<input type="checkbox"/>	<div><div></div><div>AvayaTPO5</div></div>	<div><div></div><div>Avaya IPO Zone</div></div>	<div>R9.6_1.54856</div>	<div>R9.6_1.54856</div>	<div>Avaya-IPO-Cluster</div>	<div>Refresh</div> <div>Download</div>
<input type="checkbox"/>	<div><div></div><div>AvayaTPO6</div></div>	<div><div></div><div>Avaya IPO Zone</div></div>	<div>R9.6_1.54856</div>	<div>R9.6_1.54856</div>	<div>Avaya-IPO-Cluster</div>	<div>Refresh</div> <div>Download</div>

Refresh

Add new







Bulk admin selected

Provisioning

Rebuild boot settings

1 / 1

In Device Management/TPO Clusters/Your TPO Cluster, 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
<div> Refresh Add new Bulk admin selected Provisioning </div>										
<input type="checkbox"/>	Local Extension *	Register	End User Credentials	Display Name	Device ID	Line Index	IP Address	SDP IP Address	Access Point Extension	Linked
<input type="checkbox"/>	5520	Yes	No	5520					No	
<input type="checkbox"/>	5521	Yes	No	5521					No	
<input type="checkbox"/>	5522	Yes	No	5522					No	
<input type="checkbox"/>	5523	Yes	No	5523					No	
<input type="checkbox"/>	5524	Yes	No	5524					No	
<input type="checkbox"/>	5525	Yes	No	5525					No	
<div> Refresh Add new Bulk admin selected Provisioning </div>										

In the same area, on the TPO Cluster Tab, the TPO must show a green status and as Active.

<div> Refresh Bulk admin selected Reset </div>									1 / 1
<input type="checkbox"/>	Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role	
<input type="checkbox"/>	AvayaTPO4	172.27.130.6	1	1	Active	R9.6_1.54856	1	Active	<input type="checkbox"/>
<input type="checkbox"/>	AvayaTPO5	172.27.130.7	2		Passive	R9.6_1.54856		Passive	<input type="checkbox"/>
<input type="checkbox"/>	AvayaTPO6	172.27.130.8	3		Passive	R9.6_1.54856		Passive	<input type="checkbox"/>
<div> Refresh Bulk admin selected Reset </div>									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.

TPO Places							6 places: 6 Started
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"/> 5520		RingdownDynamic	1	<a href="#">AvayaTPO4 (Alive)</a>	Started		<input type="checkbox"/>  
<input type="checkbox"/> 5521		RingdownDynamic	1	<a href="#">AvayaTPO4 (Alive)</a>	Started		<input type="checkbox"/>  
<input type="checkbox"/> 5522		RingdownDynamic	1	<a href="#">AvayaTPO4 (Alive)</a>	Started		<input type="checkbox"/>  
<input type="checkbox"/> 5523		RingdownDynamic	1	<a href="#">AvayaTPO4 (Alive)</a>	Started		<input type="checkbox"/>  
<input type="checkbox"/> 5524		RingdownDynamic	1	<a href="#">AvayaTPO4 (Alive)</a>	Started		<input type="checkbox"/>  
<input type="checkbox"/> 5525		RingdownDynamic	1	<a href="#">AvayaTPO4 (Alive)</a>	Started		<input type="checkbox"/>  
Refresh Add new Bulk admin selected Provisioning							1 / 1

## 8. Conclusion

These Application Notes describe the configuration steps required for BT Trading 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, 2 Issue 35h (Tuesday, May 18, 2021)*
- ii. *Deploying Avaya IP Office™ Server Edition Solution (English), Release 11.1 FP1, Issue 16, February 2021*
- iii. *Administering Avaya IP Office with Manager (English), Release 11.1.1, Issue 25, February 2021*
- iv. *Administering Avaya IP Office with Web Manager (English), Release 11.1.1, Issue 25, February 2021*

Information regarding product documentation for BT Trade can be obtained by contacting the BT Support email in **Section 2.3**

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