



Avaya Solution & Interoperability Test Lab

Application Notes for BT Unified Trading IP Trade Platform 9.2 with Avaya Aura® Session Manager 8.0 and Avaya Aura® Communication Manager 8.0 - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate British Telecom (Financial Technology Services) IP Trade Platform 9.2 with Avaya Aura® Session Manager 8.0 and Avaya Aura® Communication Manager 8.0. BT Unified Trading IP Trade Platform is a SIP endpoint management solution that interoperates with Avaya Aura® Session Manager as a SIP endpoint.

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) IP Trade Platform 9.2 with Avaya Aura® Session Manager 8.0 and Avaya Aura® Communication Manager 8.0. The BT Unified Trading IP Trade Platform is a SIP endpoint management solution that uses Avaya Aura® Session Manager to route calls between Avaya Aura® Communication Manager and BT Trade turrets.

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 Session Manager 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 IP 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:

- SIP endpoints are connected and in-service.
- BT Turret can make and receive audio calls.
- BT Turret can make and receive video calls
- BT Turret can transfer and conference.
- BT Turret can recover from loss of service.

2.2. Test Results

The testing was successful. All the test cases passed.

If TLS was not enabled on the Communication Manager and Session Manager SIP Trunk the following observation was noted:

1. The call between BT and Avaya Equinox Client is dropped when BT holds the call. Avaya one-X communicator did not experience this issue. TLS needs to be enabled if the Avaya Equinox client is used. This issue is being investigated by Avaya.

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

The configuration shown in **Figure 1** was used during the compliance test of BT Unified Trading IP Trade Platform with Avaya Session Manager and Communication Manager. BT Unified Trading IP Trade Platform manages BT Turrets by registering with Avaya Session Manager and allowing communication with Avaya endpoints.

TLS is enabled on the CM-SM SIP trunk, and all Avaya endpoints are doing TLS.

BT Unified Trading IP Trade Platform interoperate with Avaya Aura® Session Manager using TCP connection.

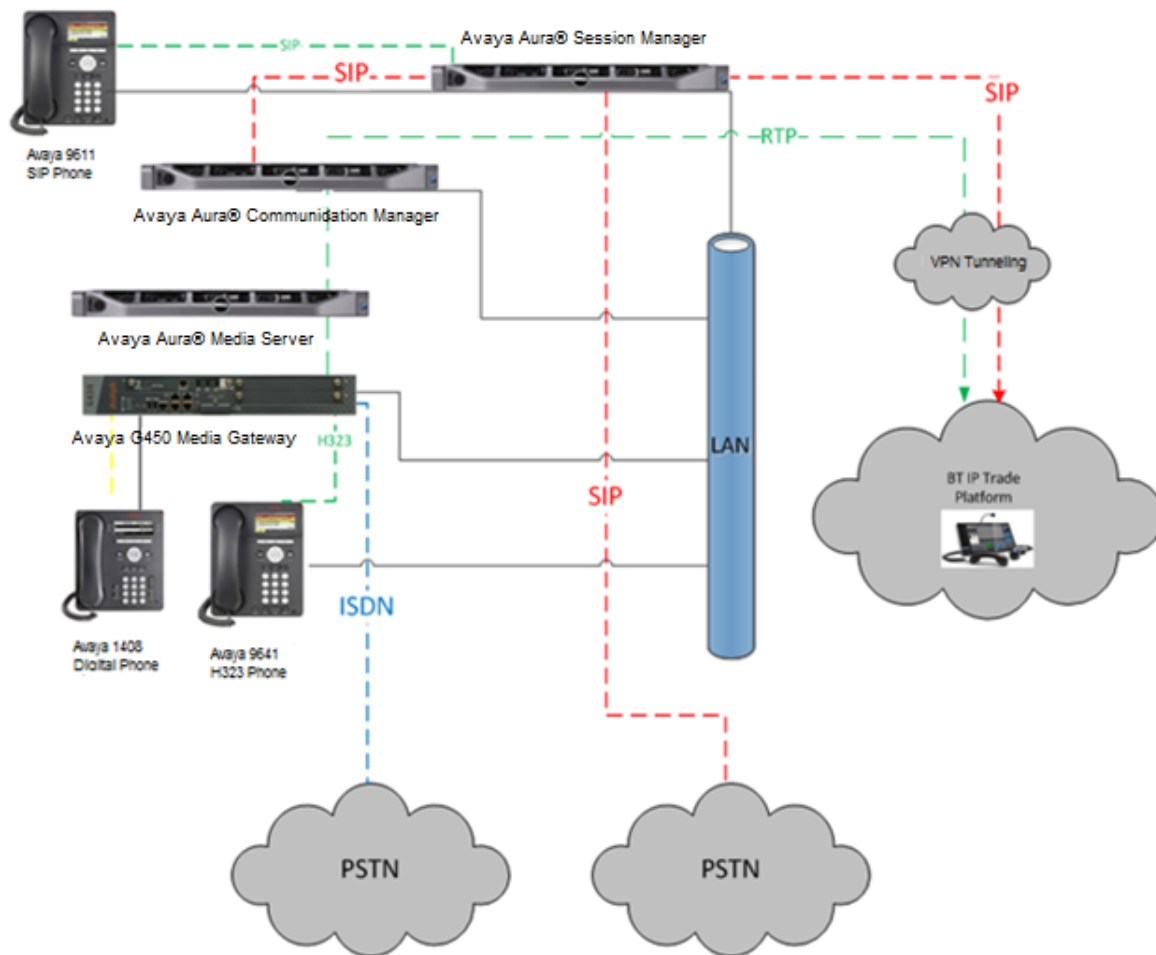


Figure 1: Connection of BT IP Trade Platform with Avaya Aura® Session Manager and Avaya Aura® Communication manager

4. Equipment and Software Validated

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

Equipment / Software	Release / Version
Avaya Aura® Communication Manager on VMware	8.0.0.1.2 (Service Pack 1, Patch 2)
Avaya Aura® Session Manager on VMware	8.0
Avaya Aura® System Manager	8.0
Avaya G450 Media Gateway	40.10.1
Avaya 9641 Deskphones (SIP)	7.1.2.0.14
Avaya 9621 Deskphones (SIP)	7.1.2.0.14
Avaya J129 SIP Deskphones	3.0.0.1.6
Avaya Equinox Client for Windows (SIP)	3.4.10.10.2
Avaya one-X® Communicator (SIP)	6.2.12.22
BT Unified Trading IPT TSS	R9.2
BT Unified Trading IPT TPO	R9.2
BT Unified Trading IPT Turret (T4)	R9.2

5. Configure Avaya Aura® Communication Manager

This section describes the steps required to allow Communication Manager to communicate with the IP Trade Platform. It is assumed that Communication Manager is installed and configured before implementing the configuration steps. For all other provisioning information, such as initial installation and configuration, please refer to the product documentation in **Section 10**. The configuration illustrated in this section was performed using the System Administration Terminal (SAT).

Configuration steps include:

- Verify PBX Station Licensing.
- Administer SIP Trunk to Session Manager.
- Add Route Pattern.

5.1. Verify Licensing

Using the *display system-parameters customer-options* command, go to **Page 1** and check that the system is sufficiently licensed for **Off-PBX Telephones -OPS**:

Page 1 of 12

OPTIONAL FEATURES

G3 Version: ?
Location: 2
Platform: 28

Software Package: Enterprise
System ID (SID): 1
Module ID (MID): 1

	USED
Platform Maximum Ports: 6400	546
Maximum Stations: 2400	13
Maximum XMOBILE Stations: 2400	0
Maximum Off-PBX Telephones - EC500: 9600	0
Maximum Off-PBX Telephones - OPS: 9600	10
Maximum Off-PBX Telephones - PBFMC: 9600	0
Maximum Off-PBX Telephones - PVFMC: 9600	0
Maximum Off-PBX Telephones - SCCAN: 2400	0
Maximum Survivable Processors: 313	1

(NOTE: You must logoff & login to effect the permission changes.)

5.2. Adding a SIP Trunk to Session Manager

Use the *change node-names ip* command to add the Session Manager IP address.

change node-names ip		Page 1 of 2
IP NODE NAMES		
Name	IP Address	
default	0.0.0.0	
procr	10.30.5.93	
procr6	:	
ams94	10.30.5.94	
smsip92	10.30.5.92	

Use *change dialplan analysis* command to add a 3-digit dial access code (**dac**) used to configure a trunk access code (TAC) in the SIP trunk, a uniform dial plan (**udp**) entry used for outgoing calls over the SIP trunk, and add an entry for feature access codes (**fac**).

change dialplan analysis		Page 1 of 12
change dialplan analysis		
DIAL PLAN ANALYSIS TABLE		
Location: all		Percent Full: 2
Dialed String	Total Call Length Type	
02	11 udp	
09	10 udp	
24	7 ext	
38	7 udp	
*	3 fac	
#	3 dac	

Use *add-signaling-group x*, where x is the number of the group required. Set **Transport Method** to **tls**, **Near-end Node Name** to **procr** and **Far-end Node Name** to the Session Manager entry added in **node-names**. Set the **Far-end Network Region** to **1**, **Direct IP-IP Audio Connections?** to **y** and the **Initial IP-IP Direct Media?** to **y**

add signaling-group 2		Page 1 of 3
change signaling-group 2		
SIGNALING GROUP		
Group Number: 2	Group Type: sip	
IMS Enabled? n	Transport Method: tls	
Q-SIP? n		
IP Video? y	Priority Video? y	Enforce SIPS URI for SRTP? y
Peer Detection Enabled? n	Peer Server: SM	Clustered? n
Prepend '+' to Outgoing Calling/Alerting/Diverting/Connected Public Numbers? y		
Remove '+' from Incoming Called/Calling/Alerting/Diverting/Connected Numbers? n		
Alert Incoming SIP Crisis Calls? n		
Near-end Node Name: procr	Far-end Node Name: smsip92	
Near-end Listen Port: 5061	Far-end Listen Port: 5061	
	Far-end Network Region: 1	


```

Far-end Domain: hcm.com
Incoming Dialog Loopbacks: eliminate
DTMF over IP: rtp-payload
Session Establishment Timer(min): 3
Enable Layer 3 Test? y
H.323 Station Outgoing Direct Media? y

Bypass If IP Threshold Exceeded? n
RFC 3389 Comfort Noise? n
Direct IP-IP Audio Connections? y
IP Audio Hairpinning? y
Initial IP-IP Direct Media? y
Alternate Route Timer(sec): 6

```

Use **add trunk-group x**, where x is the number administered for the signaling group. On **Page 1**, set the **Group Type** to **sip**. Set the **TAC** to suitable entry based on the dial plan **dac** administered above. Set the **Service Type** to **tie**, **Signaling Group** to the one administered above and **Number of Members** to a number satisfactory based on the number of simultaneous calls to be supported (**255** shown is the max for this type of trunk group).

```

add trunk-group 2                                     Page 1 of 5
                                     TRUNK GROUP

Group Number: 2                                     Group Type: sip                                     CDR Reports: y
  Group Name: Aura                                     COR: 1                                     TN: 1                                     TAC: #02
    Direction: two-way                               Outgoing Display? n
    Dial Access? n                                     Night Service:
    Queue Length: 0
Service Type: tie                                     Auth Code? n
                                                Member Assignment Method: auto
                                                Signaling Group: 2
                                                Number of Members: 255

```

On **Page 2**, set the **Preferred Minimum Session refresh Interval (sec): to 1800** as this is a time greater than the BT Unified Trading IP Trade Platform refresh interval.

```

add trunk-group 2                                     Page 2 of 5
  Group Type: sip

TRUNK PARAMETERS

  Unicode Name: auto

                                                Redirect On OPTIM Failure: 5000

    SCCAN? n                                     Digital Loss Group: 18
      Preferred Minimum Session Refresh Interval(sec): 1800

Disconnect Supervision - In? y Out? y

    XOIP Treatment: auto    Delay Call Setup When Accessed Via IGAR? n

Caller ID for Service Link Call to H.323 1xC: station-extension

```

On **Page 3**, set the **Numbering Format**. For this test, the **private** numbering table was used to set the calling party number format.

add trunk-group 2		Page 3 of 5
TRUNK FEATURES		
ACA Assignment? n	Measured: none	Maintenance Tests? y
Suppress # Outpulsing? n	Numbering Format: private	
	UUI Treatment: shared	
	Maximum Size of UUI Contents: 128	
	Replace Restricted Numbers? n	
	Replace Unavailable Numbers? n	
	Hold/Unhold Notifications? y	
	Modify Tandem Calling Number: no	
Send UCID? y		
Show ANSWERED BY on Display? y		
DSN Term? n		

5.3. Adding a Route Pattern

A route pattern needs to be added so that call can be routed out of Communication Manager to Session Manager. use ***change route-pattern x*** where x is the number of the SIP trunk created. Enter the Trunk group created above beside the first **Grp No**, an **FRL** of **0**.

change route-pattern 2		Page 1 of 4
SCCAN? n	Pattern Number: 2	Pattern Name: Aura
Secure SIP? n	Used for SIP stations? n	
Grp FRL NPA Pfx Hop Toll No. Inserted	DCS/ IXC	
No Mrk Lmt List Del Digits	QSIG	
	Intw	
1: 2 0	n user	
2:	n user	
3:	n user	
4:	n user	
5:	n user	
6:	n user	
BCC VALUE TSC CA-TSC ITC BCIE Service/Feature PARM Sub Numbering LAR		
0 1 2 M 4 W Request	Dgts Format	
1: y y y y y n n	rest	lev0-pvt none
2: y y y y y n n	rest	none
3: y y y y y n n	rest	none
4: y y y y y n n	rest	none
5: y y y y y n n	rest	none
6: y y y y y n n	rest	none

An Alternate Automated Routing (AAR) entry must be made for dialing the external numbers that are to be routed via the BT Unified Trading IP Trade Platform. Use **change aar analysis x**, where x is the first number in the dialed string. Set **Dialed String**, **Total Min/Max** to the length of the number to be dialed, **Route Pattern** to the one administered above and **Call Type** to **lev0**.

change aar analysis 2						Page 1 of 2	
AAR DIGIT ANALYSIS TABLE							
Location: all						Percent Full: 2	
	Dialed	Total		Route	Call	Node	ANI
	String	Min	Max	Pattern	Type	Num	Reqd
24		7	7	2	lev0		n

6. Configure Avaya Aura® Session Manager

In this section, the configuration steps required to connect BT IP Trade Platform to Session Manager as a SIP endpoints are described. It is assumed that Session Manager has already been installed and configured as this is outside the scope of this document. All configuration steps were carried out using Avaya Aura® System Manager. Configuration steps include:

- Adding a BT IP Trade Turrets as SIP Users.
- Adding BT IP Trade Platform to **Local Host Name Resolution**

6.1. Configure SIP User

A SIP user must be added for each BT IP Trade Turret required. Navigate to the System Manager web interface, in this case <https://<IP Address>/SMGR> and login with the relevant credentials.

Recommended access to System Manager is via FQDN.

[Go to central login for Single Sign-On](#)

If IP address access is your only option, then note that authentication will fail in the following cases:

- First time login with "admin" account
- Expired/Reset passwords

Use the "Change Password" hyperlink on this page to change the password manually, and then login.

Also note that single sign-on between servers in the same security domain is not supported when accessing via IP address.

This system is restricted solely to authorized users for legitimate business purposes only. The actual or attempted unauthorized access, use, or modification of this system is strictly prohibited.

Unauthorized users are subject to company disciplinary procedures and or criminal and civil penalties under state, federal, or other applicable domestic and foreign laws.

The use of this system may be monitored and recorded for administrative and security reasons. Anyone accessing this system expressly consents to such monitoring and recording, and is advised that if it reveals possible evidence of criminal activity, the evidence of such activity may be provided to law enforcement officials.

All users must comply with all corporate instructions regarding the protection of information assets.

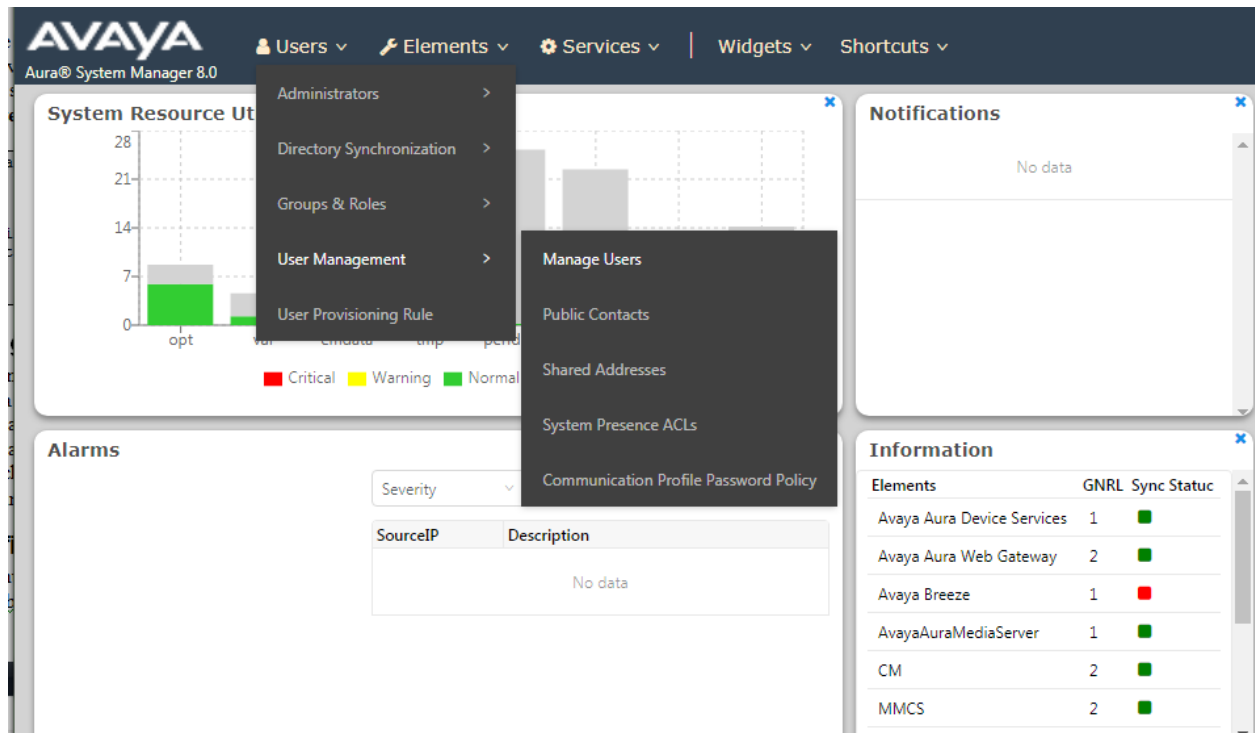
User ID:

Password:

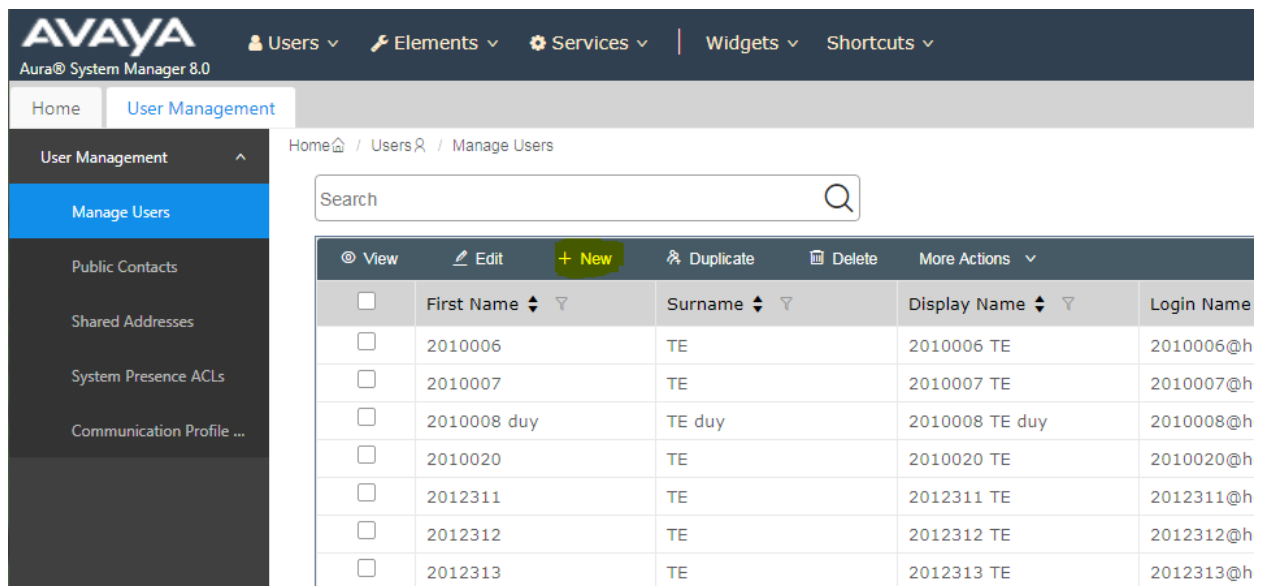
[Change Password](#)

Supported Browsers: Internet Explorer 11.x or Firefox 59.0, 60.0 and 61.0.

From the Dashboard select **Users → User Management → Manage Users**



Click **New**.



On the **Identity** tab enter an identifying **Last Name** and **First Name**, enter an appropriate **Login Name**, set **Authentication Type** to **Basic** and administer a password in the **Password** and **Confirm Password** fields.

The screenshot shows the 'User Profile | Add' form in the 'Identity' tab. The form includes fields for 'Last Name' (BT), 'First Name' (User1), 'Login Name' (2400005@hcm.com), 'Description' (Description Of User), 'Password', and 'Confirm Password'. There are also fields for 'Last Name (Latin Translation)', 'First Name (Latin Translation)', 'Middle Name', 'Email Address', 'User Type' (Basic), and 'Localized Display Name'. The 'User Provisioning Rule' is set to a default value. The 'Commit' button is highlighted in blue.

Click on the **Communication Profile** tab and enter and confirm a **Communication Profile Password**, this is used when logging in the SIP endpoint.

The screenshot shows the 'User Profile | Add' form in the 'Communication Profile' tab. A modal dialog titled 'Comm-Profile Password' is open, prompting the user to enter and re-enter a 'Comm-Profile Password'. The background form shows the 'Communication Profile Password' field and a 'Communication Address' field. The 'Commit' button is highlighted in blue.

Click on the **Communication Address**, select **New**.

The screenshot shows the 'User Profile | Add' page in the Avaya Aura System Manager 8.0. The 'Communication Address' tab is selected. The 'Type' dropdown is set to 'Avaya SIP'. The 'Fully Qualified Address' field is empty. The 'Session Manager Profile' toggle is disabled.

Select **Avaya SIP** from the **Type** drop down box and enter the **Fully Qualified Address** of the new SIP user. Click **Ok** when done.

The screenshot shows the 'Communication Address Add/Edit' dialog box. The 'Type' dropdown is set to 'Avaya SIP'. The 'Fully Qualified Address' field is set to '2400005 @ hcm.com'. The 'OK' button is highlighted.

Scroll down on the same page. Enable **Session Manager Profile** and enter the **Primary Session Manager**, **Origination Application Sequence**, **Termination Application Sequence** and **Home Location** relevant to the implementation.

Communication Address

PROFILES

Session Manager Profile

Avaya Breeze® Profile

Equinox Profile

CM Endpoint Profile

Presence Profile

Conferencing Profile

* Primary Session Manager:

SMDDev

Q

i

Secondary Session Manager:

Start typing...

Q

i

Survivability Server:

Start typing...

Q

i

Max. Simultaneous Devices:

1

▼

Block New Registration When Maximum Registrations Active?:

☐

Application Sequences

Origination Sequence:

CM93

▼

Termination Sequence:

CM93

▼

Emergency Calling Application Sequences

Emergency Calling Origination Sequence:

Select

▼

Emergency Calling Termination Sequence:

Select

▼

Call Routing Settings

* Home Location:

DevConnect

▼

Scroll down the page and enable **CM Endpoint Profile** section. Select the Communication Manager system from the **System** drop down box, select **Endpoint** as the **Profile Type**, enter the **Extension** number you wish to use, select **9641SIP_DEFAULT_CM_8_0** as the **Template** and ensure **IP** is configured as the **Port**, click **Commit & Continue** (not shown) when finished.

Identity	Communication Profile	Membership	Contacts
Communication Profile Password PROFILE SET: Primary ▾ Communication Address PROFILES Session Manager Profile <input checked="" type="checkbox"/> Avaya Breeze® Profile <input type="checkbox"/> Equinox Profile <input type="checkbox"/> CM Endpoint Profile <input checked="" type="checkbox"/> Presence Profile <input type="checkbox"/> Conferencing Profile <input type="checkbox"/>			
* System : CM93 Use Existing Endpoints : <input type="checkbox"/> Template : 9641SIP_DEFAULT_CM_8_0 Security Code : Voice Mail Number : <input type="text"/> Calculate Route Pattern : <input type="checkbox"/> SIP URI : 2400005@hcm.com Delete on Unassign from Us... or on Delete User ... <input checked="" type="checkbox"/>		* Profile Type : Endpoint * Extension : 2400005 * Set Type : 9641SIP Port : IP Preferred Handle : 2400005@hcm.com Sip Trunk : aar Enhanced Callr-Info display for 1-line phones : <input type="checkbox"/> Override Endpoint Name and Localized Name : <input checked="" type="checkbox"/>	

Click on **Endpoint Editor** in the **CM Endpoint Profile** and on the General options tab set **Type** of **3PCC Enabled** as **Avaya**.

System	CM93	Extension	2400005
Template	9641SIP_DEFAULT_CM_8_0 ▾	Set Type	9641SIP
Port	IP	Security Code
Name	BT User1, BT		

General Options (G) *	Feature Options (F)	Site Data (S)	Abbreviated Call Dialing (A)
Enhanced Call Fwd (E) Button Assignment (B) Profile Settings (P) Group Membership (M)			
* Class of Restriction (COR) : 1 * Emergency Location Ext : 2400005 * Tenant Number : 1 * SIP Trunk : aar Coverage Path 1 : <input type="text"/> Lock Message : <input type="checkbox"/>	* Class Of Service (COS) : 1 * Message Lamp Ext. : 2400005 Type of 3PCC Enabled : Avaya ▾ Coverage Path 2 : <input type="text"/> Localized Display Name : BT User1, BT		

Click on **Feature Options (F)** tab, scroll down and check **IP SoftPhone** and **IP Video Softphone**. Click on **Done** to save changes and go back to the **User Communication Profile** screen.

Features

☐ Always Use
☐ IP Audio Hairpinning
☐ Bridged Call Alerting
☐ Bridged Idle Line Preference
☒ Coverage Message Retrieval
☐ Data Restriction
☒ Survivable Trunk Dest
☐ Bridged Appearance Origination Restriction
☒ Restrict Last Appearance
☐ Turn on mute for remote off-hook attempt

Extension

☐ Idle Appearance Preference
☒ IP SoftPhone
☒ LWC Activation
☐ CDR Privacy
☒ Precedence Call Waiting
☒ Direct IP-IP Audio Connections
☐ H.320 Conversion
☒ IP Video Softphone
☐ Per Button Ring Control

*Required

Done

Click on **Commit** to save the user. The user is now listed

View	Edit	New	Duplicate	Delete	More Actions	Options
First Name	Surname	Display Name	Login Name	SIP Handle		
BT	BT User1	BT User1, BT	2400005@hcm.com	+2400005		
Total Users : 1 1 10 / page Goto						


7. 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.

7.1. 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**.




IPTrade SA™ Critical Communications & Collaboration Solutions
IPTrade TSS Component Manager

☐ Remember Me

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:

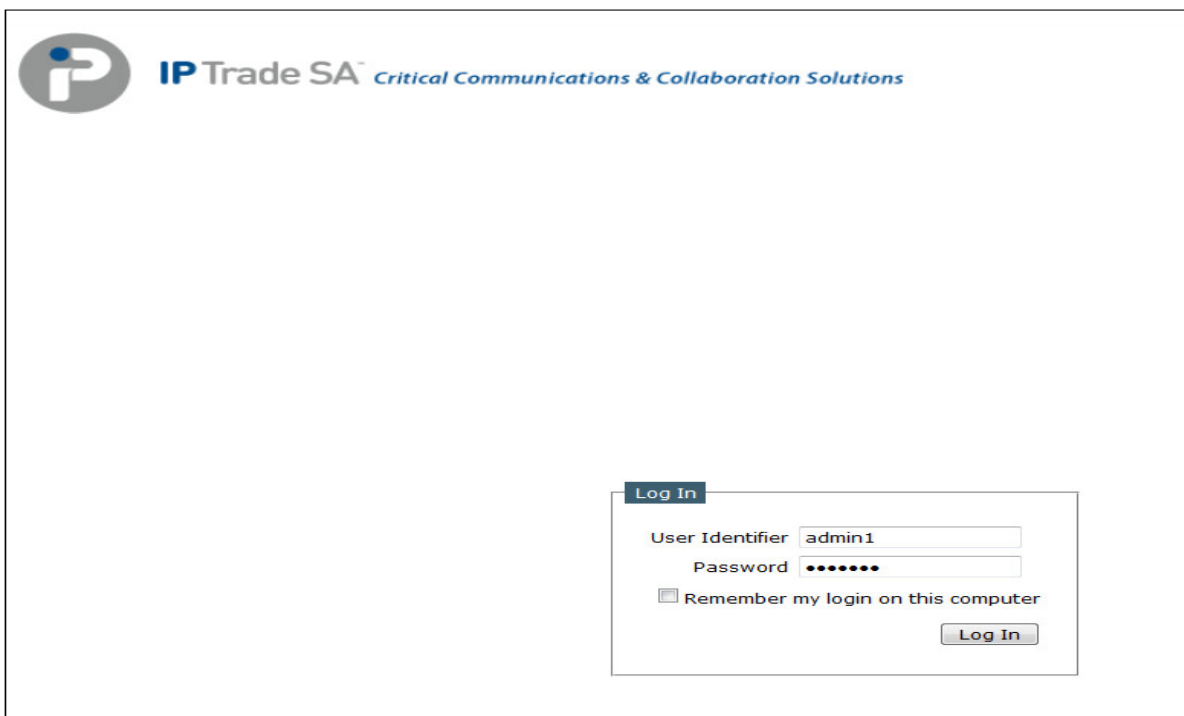
Default Version 9.2.3.45577

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

9.2.3.45577 (MYSQL5630)

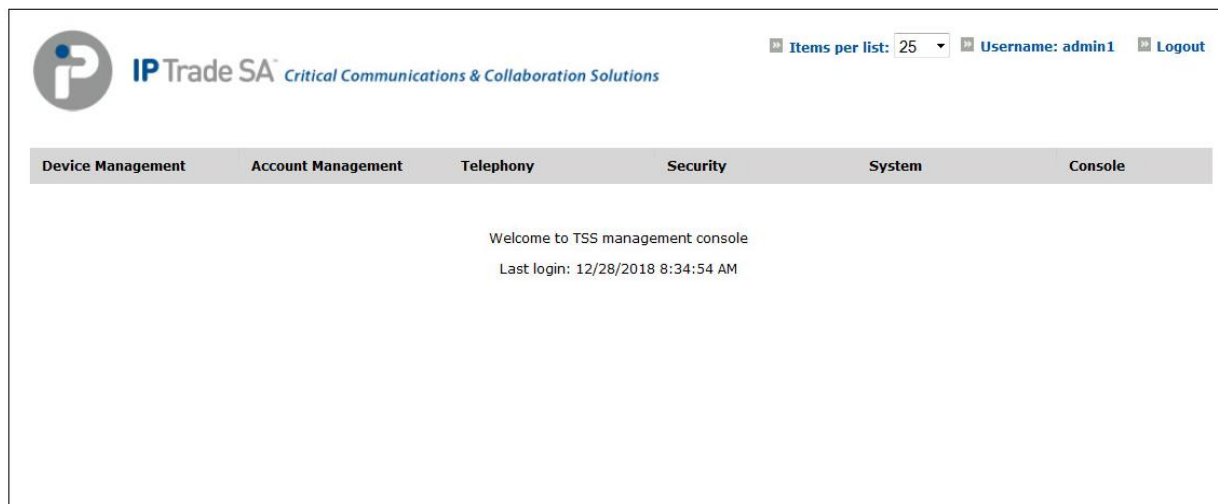
	PRIMARY
Console	http://172.27.130.1/iptradenet.console.9.2.3.45577
TSS	http://172.27.130.1/iptradenet.tss.9.2.3.45577

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



The image shows the login interface for IPTrade SA. At the top left is the IPTrade SA logo, consisting of a stylized 'P' inside a circle, followed by the text "IPTrade SA" and "Critical Communications & Collaboration Solutions". In the center-right, there is a "Log In" box. Inside this box, there are two input fields: "User Identifier" with the value "admin1" and "Password" with masked characters "••••••". Below these fields is a checkbox labeled "Remember my login on this computer". At the bottom right of the box is a "Log In" button.

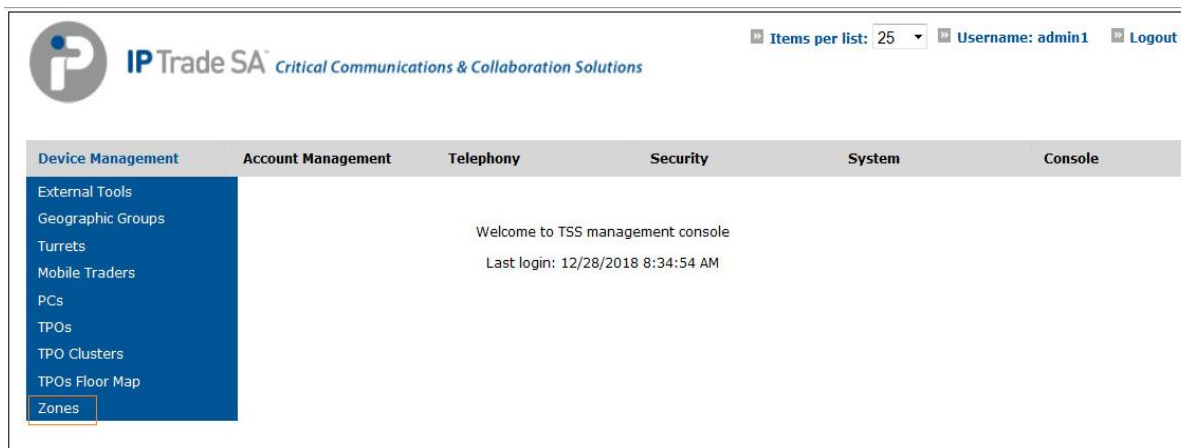
Upon successful login, the following screen will be presented.



The image shows the dashboard after a successful login. At the top left is the IPTrade SA logo. To the right of the logo, there is a navigation bar with the following items: "Items per list: 25", "Username: admin1", and "Logout". Below the navigation bar is a horizontal menu with six items: "Device Management", "Account Management", "Telephony", "Security", "System", and "Console". Below the menu, the text "Welcome to TSS management console" is displayed, followed by "Last login: 12/28/2018 8:34:54 AM".

7.1.1. 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 Aura Zone and **Update**.

Once Avaya Aura 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 Aura Zone)

Device Management Account Management Telephony Security System Console

Zone: Avaya Aura 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 Aura Zone

Comment Avaya Aura Zone

Location

Country United Kingdom

State Surrey

City Sunbury-on-Thames

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 \(0\)](#)

Usage

Turrets:none
MobileTrader:none
TPO:
[Avaya TPO02](#)
TPO Cluster:
[Avaya-Aura-Cluster](#)
Users:
[aura1](#)
[aura3](#)
[aura2](#)

[Reboot all devices for this zone](#)

Navigate to the **Turret Boot Settings** Tab in Avaya Aura Zone then select **SIP** option **Basic Mode** and update Avaya Session Manager IP – 10.30.5.92 others below highlighted parameters.

	Basic Mode	Expert Mode	Advanced Mode																																													
PBX Features	<table border="1"> <thead> <tr> <th>Name</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td><input checked="" 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 checked="" type="checkbox"/> MSG Proxy addresses</td> <td>10.30.5.92</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> <tr> <td><input checked="" type="checkbox"/> SIP Compatibility mode</td> <td>ccm50</td> <td>?</td> </tr> <tr> <td><input checked="" type="checkbox"/> SIP local domain</td> <td>10.30.5.92</td> <td>?</td> </tr> <tr> <td><input checked="" type="checkbox"/> SIP Server Name</td> <td>10.30.5.92</td> <td>?</td> </tr> <tr> <td><input checked="" type="checkbox"/> SIP Proxy addresses</td> <td>10.30.5.92</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"/> Fast media connection on SIP Ringing state</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</td> <td>?</td> </tr> <tr> <td><input type="checkbox"/> Parking mode</td> <td><input type="radio"/> tpo <input checked="" type="radio"/> adhoc</td> <td>?</td> </tr> <tr> <td><input type="checkbox"/> SIP Manage Unsolicited messages</td> <td><input type="radio"/> false <input checked="" type="radio"/> true</td> <td>?</td> </tr> </tbody> </table>			Name	Value	Description	<input checked="" type="checkbox"/> Use bulk registration (Cisco only)	<input type="radio"/> true <input checked="" type="radio"/> false	?	<input checked="" type="checkbox"/> MSG Proxy addresses	10.30.5.92	?	<input type="checkbox"/> MSG Proxy Transport Type	TCP	?	<input type="checkbox"/> MSG Encoding		?	<input checked="" type="checkbox"/> SIP Compatibility mode	ccm50	?	<input checked="" type="checkbox"/> SIP local domain	10.30.5.92	?	<input checked="" type="checkbox"/> SIP Server Name	10.30.5.92	?	<input checked="" type="checkbox"/> SIP Proxy addresses	10.30.5.92	?	<input checked="" type="checkbox"/> SIP Connection mode	TCP	?	<input checked="" type="checkbox"/> SIP Proxy Transport Type	TCP	?	<input type="checkbox"/> Fast media connection on SIP Ringing state	<input type="radio"/> true <input checked="" type="radio"/> false	?	<input checked="" type="checkbox"/> SIP Local IP Ports	5060	?	<input type="checkbox"/> Parking mode	<input type="radio"/> tpo <input checked="" type="radio"/> adhoc	?	<input type="checkbox"/> SIP Manage Unsolicited messages	<input type="radio"/> false <input checked="" type="radio"/> true	?
Name	Value	Description																																														
<input checked="" type="checkbox"/> Use bulk registration (Cisco only)	<input type="radio"/> true <input checked="" type="radio"/> false	?																																														
<input checked="" type="checkbox"/> MSG Proxy addresses	10.30.5.92	?																																														
<input type="checkbox"/> MSG Proxy Transport Type	TCP	?																																														
<input type="checkbox"/> MSG Encoding		?																																														
<input checked="" type="checkbox"/> SIP Compatibility mode	ccm50	?																																														
<input checked="" type="checkbox"/> SIP local domain	10.30.5.92	?																																														
<input checked="" type="checkbox"/> SIP Server Name	10.30.5.92	?																																														
<input checked="" type="checkbox"/> SIP Proxy addresses	10.30.5.92	?																																														
<input checked="" type="checkbox"/> SIP Connection mode	TCP	?																																														
<input checked="" type="checkbox"/> SIP Proxy Transport Type	TCP	?																																														
<input type="checkbox"/> Fast media connection on SIP Ringing state	<input type="radio"/> true <input checked="" type="radio"/> false	?																																														
<input checked="" type="checkbox"/> SIP Local IP Ports	5060	?																																														
<input type="checkbox"/> Parking mode	<input type="radio"/> tpo <input checked="" type="radio"/> adhoc	?																																														
<input type="checkbox"/> SIP Manage Unsolicited messages	<input type="radio"/> false <input checked="" type="radio"/> true	?																																														
Recorder																																																
RTP																																																
Search																																																
Session																																																
Shortcut Notification																																																
SIP																																																
SNMP																																																
Sync																																																
Text messaging																																																
Timezone																																																

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										
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	http://172.27.130.1/IptradeNet.TSS.9.2.3.45577									
<input type="checkbox"/> application.global.telephony.conference	standard	⌵ ⌴ ⌵ ⌴								
<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	98 ° H264 ° 90000 ° profile-level-id=42801E;packetization-mox	⌵ ⌴ ⌵ ⌴								
<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.kpml.enabled	false	⌵ ⌴ ⌵ ⌴								
<input type="checkbox"/> application.sip.localdomain	10.30.5.92	⌵ ⌴ ⌵ ⌴								
<input type="checkbox"/> application.sip.msq.proxy.address	10.30.5.92	⌵ ⌴ ⌵ ⌴								
<input type="checkbox"/> application.sip.non-standard.compatibility	ccm50	⌵ ⌴ ⌵ ⌴								
<input type="checkbox"/> application.sip.proxy.address	10.30.5.92	⌵ ⌴ ⌵ ⌴								
<input type="checkbox"/> application.sip.proxy.transporttype	TCP	⌵ ⌴ ⌵ ⌴								
<input type="checkbox"/> application.sip.register.bulk	false	⌵ ⌴ ⌵ ⌴								
<input type="checkbox"/> application.sip.server.name	10.30.5.92	⌵ ⌴ ⌵ ⌴								
<input type="checkbox"/> profile.setting.ddi.advanced.handling.on.all	true	⌵ ⌴ ⌵ ⌴								
<input type="checkbox"/> profile.setting.ddi.conference.mode	Default involved	⌵ ⌴ ⌵ ⌴								
Refresh Add new Bulk admin selected Provisioning 1 / 1										

NOTE: If any of the above advanced parameters are already configured, you just need to 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.

<input type="checkbox"/>	application.sip.localdomain	10.30.5.92	⌵ ⌴ ⌵ ⌴
--------------------------	-----------------------------	------------	---------

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										
Turret Boot 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 10.30.5.92 When complete, select **Update and Go Back**.

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

Name *
Value

Update and Go Back
Reset
Refresh
Cancel
Delete

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.qlobal.telephony.conference	standard	⚙️ 📄 🗑️
<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	98 ° H264 ° 90000 ° profile-level-id=42801E;packetization-moc	⚙️ 📄 🗑️
<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.kpml.enabled	false	⚙️ 📄 🗑️
<input type="checkbox"/>	application.sip.localdomain	10.30.5.92	⚙️ 📄 🗑️
<input type="checkbox"/>	application.sip.msg.proxy.address	10.30.5.92	⚙️ 📄 🗑️
<input type="checkbox"/>	application.sip.non-standard.compatibility	ccm50	⚙️ 📄 🗑️
<input type="checkbox"/>	application.sip.proxy.address	10.30.5.92	⚙️ 📄 🗑️
<input type="checkbox"/>	application.sip.proxy.transporttype	TCP	⚙️ 📄 🗑️
<input type="checkbox"/>	application.sip.register.bulk	false	⚙️ 📄 🗑️
<input type="checkbox"/>	application.sip.server.name	10.30.5.92	⚙️ 📄 🗑️
<input type="checkbox"/>	profile.setting.ddi.advanced.handling.on.all	true	⚙️ 📄 🗑️
<input type="checkbox"/>	profile.setting.ddi.conference.mode	Default involved	⚙️ 📄 🗑️

Refresh
Add new
Bulk admin selected
Provisioning
1 / 1

7.1.2. Configure Avaya TPO Cluster

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

The screenshot shows the IPTrade SA web interface. At the top, there is a header with the IPTrade SA logo and the text "Critical Communications & Collaboration Solutions". On the right, there are links for "Items per list: 25", "Username: admin1", and "Logout". Below the header, there is a navigation bar with tabs: "Device Management", "Account Management", "Telephony", "Security", "System", and "Console". The "Device Management" tab is selected. On the left, there is a sidebar menu with options: "External Tools", "Geographic Groups", "Turrets", "Mobile Traders", "PCs", "TPOs", "TPO Clusters" (highlighted), "TPOs Floor Map", and "Zones". The main content area shows a table titled "Device Management: TPO Clusters". The table has columns: "Zone", "Comment", and "Last modification date". There is a "+ Configuration fetch" button. Below the table, there are links for "Refresh", "Add new", and "Bulk admin selected". The table contains one entry: "Avaya-Aura-Cluster" in the "Zone" column, "Avaya Aura Zone" in the "Comment" column, and "11/28/2018 12:50:59 PM" in the "Last modification date" column. There are also icons for editing, deleting, and refreshing the entry.

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

The screenshot shows the IPTrade SA web interface for editing a TPO Cluster. At the top, there is a header with the IPTrade SA logo and the text "Critical Communications & Collaboration Solutions". On the right, there are links for "Items per list: 25", "Username: admin1", and "Logout". Below the header, there is a navigation bar with tabs: "Device Management", "Account Management", "Telephony", "Security", "System", and "Console". The "Device Management" tab is selected. On the left, there is a sidebar menu with options: "External Tools", "Geographic Groups", "Turrets", "Mobile Traders", "PCs", "TPOs", "TPO Clusters" (highlighted), "TPOs Floor Map", and "Zones". The main content area shows a form titled "Device Management: TPO Cluster Edition". The form has a "General" section with fields for "Name *", "Zone", and "Comment". The "Name *" field contains "Avaya-Aura-Cluster". The "Zone" field is a dropdown menu with "Avaya Aura Zone" selected. The "Comment" field contains "Avaya-Aura-Cluster". There is a "<< Back to TPO Clusters list" link. At the bottom, there are buttons: "Save and Go Back" (highlighted), "Save and Edit", "Save and Add Another", "Reset", and "Cancel".

Navigate to Avaya-Aura-Cluster -> **Settings** and configure Avaya Session Manager IP and other parameters shown in below picture.

IPTrade SA[®] Critical Communications & Collaboration Solutions

Items per list: 25 Username: admin1 Logout

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

Device Management Account Management Telephony Security System Console

<< Back to TPO Clusters list

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

Settings

Basic Mode Expert Mode Advanced Mode

Cluster	Name	Value	Description
Global	<input checked="" type="checkbox"/> SIP local domain	10.30.5.92	?
	<input checked="" type="checkbox"/> SIP Proxy addresses	10.30.5.92	?
Media	<input checked="" type="checkbox"/> SIP Server Name	10.30.5.92	?
	<input checked="" type="checkbox"/> SIP Connection mode	TCP	?
Recorder	<input checked="" type="checkbox"/> SIP Proxy Transport Type	TCP	?
	<input type="checkbox"/> Early media mixing	<input type="radio"/> true <input checked="" type="radio"/> false	?
SIP	<input checked="" type="checkbox"/> SIP Local IP Ports	5060,5061,5062	?
	<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		?

Update Refresh

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

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

Device Management Account Management Telephony Security System Console

<< Back to TPO Clusters list

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

Settings

Basic Mode Expert Mode Advanced Mode

Parameter *	Value	
<input type="checkbox"/> application.mm.DTMFPayloadType	127	?
<input type="checkbox"/> application.mm.nvDTMFPayloadType	127	?
<input type="checkbox"/> application.mm.nvsupportedcodecs	0,PCMU,8000 ; 8,PCMA,8000 ; 127,telephone-event,8000	?
<input type="checkbox"/> application.mm.nvsupportedcodecs.video.H264	98 ° H264 ° 90000 ° profile-level-id=42801E;packetization-mo	?
<input type="checkbox"/> application.mm.supportedcodecs	8,PCMA,8000 ; 0,PCMU,8000 ; 127,telephone-event,8000	?
<input type="checkbox"/> application.mm.video.enable	true	?
<input type="checkbox"/> application.sip.connection.mode	TCP	?
<input type="checkbox"/> application.sip.connection.port	5060,5061,5062	?
<input type="checkbox"/> application.sip.enableTCP	true	?
<input type="checkbox"/> application.sip.localdomain	10.30.5.92	?
<input type="checkbox"/> application.sip.proxy.address	10.30.5.92	?
<input type="checkbox"/> application.sip.proxy.transporttype	TCP	?
<input type="checkbox"/> application.sip.server.name	10.30.5.92	?
<input type="checkbox"/> application.tpo.maxopencalls	100	?
<input type="checkbox"/> profile.setting.tpo.forward.ddi.sharedlines	true	?

Refresh Add new Bulk admin selected Provisioning 1 / 1

Select Device Management and then TPOs.




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



Enter new TPO **Device Identifier** and select the **Avaya Aura Zone** created in previous steps.

A screenshot of the IPTrade SA web interface showing the 'Device Management: TPO Edition' form. The form has several fields: 'Device Identifier *' with the value 'Avaya_TPO02', 'Zone' with a dropdown menu showing 'Avaya Aura Zone', 'Comment' with the text 'Avaya_TPO02', 'Bootstrap Version' with a dropdown menu showing 'Default', and 'Firmware Version' with a dropdown menu showing 'Default'. There is a '+ Log tracing configuration' button. At the bottom, there are buttons for 'Save and Go Back', 'Save and Edit', 'Save and Add Another', 'Reset', and 'Cancel'. The 'Log tracing configuration' button is highlighted with a green box.

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_TPO02)

Device Management
Account Management
Telephony
Security
System
Console

[<< Back to TPOs list](#)
[Debug Information Dumps](#)
[Go to syslog data](#)

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

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.mode	TCP	Cluster
application.sip.connection.mode	TCP	Zone
application.sip.non-standard.ccm50.offhold.header	dummy	Zone
application.sip.non-standard.ccm50.onhold.header	dummy	Zone
application.sip.non-standard.compatibility	acm30	Zone
application.sip.proxy.transporttype	TCP	Cluster
application.sip.proxy.transporttype	TCP	Zone

Once new Avaya TPO added navigate to **Device Management → TPO Clusters → Avaya-Aura-Cluster → Settings → TPO Cluster** → Select the Avaya_TPO02 and click on **Link Selected** to link TPO to Cluster.

IPTrade SA™ Critical Communications & Collaboration Solutions

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

Device Management Account Management Telephony Security System Console

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

TPO Redundancy Mode

Failover

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

Select the TPO Redundancy mode to **Failover** or **Virtual IP** here 'Failover'.

IPTrade SA™ Critical Communications & Collaboration Solutions

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

Device Management Account Management Telephony Security System Console

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

TPO Redundancy Mode

Failover

TPO Cluster

+ Available TPO Nodes

Refresh Bulk admin selected 1 / 1

Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role
Avaya_TPO02	172.27.130.4	1		Idle	R9.2_3.45565		Idle

Refresh Bulk admin selected 1 / 1

TPO Group ID

Refresh Bulk admin selected 1 / 1

Group ID *	TPO Name *
1	avayaaura.com

Refresh Bulk admin selected 1 / 1

7.1.3. Assign Turrets to the Avaya Zone

Select **Device Management – Zones -> Avaya Aura 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 displays the IPTrade SA web interface for 'Device Management: Zone Edition (Avaya Aura Zone)'. The top navigation bar includes 'Device Management', 'Account Management', 'Telephony', 'Security', 'System', and 'Console'. The 'Turrets' tab is selected. Below the tabs, there is a search bar for 'Device Identifier' and a 'Search' button. The main content area shows two lists: 'Available Turrets (3)' and 'Selected Turrets (0)'. The 'Available Turrets' list contains three items: '3PA-Turret-01 (Avaya IPO Zone)', '3PA-Turret-02 (Avaya IPO Zone)', and '3PA-Turret-03 (Avaya IPO Zone)'. The 'Selected Turrets' list is empty. Between the lists are 'Add >>' and '<< Remove' buttons. Below the lists, there is a 'Background Image' section with a 'Browse...' button and an 'Upload' button. At the bottom, there is a 'Turret Screen Saver Image' section.

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**.

IP Trade SA[™] Critical Communications & Collaboration Solutions

Items per list: 25 Username: admin1 Logout

Device Management: Zone Edition (Avaya Aura Zone)

Device Management Account Management Telephony Security System Console

Zone: Avaya Aura 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

Available TPO Clusters (0)

Selected TPO Clusters (1)

☐ Avaya-Aura-Cluster (Avaya Aura Zone)

Select **Device Management** and the **TPO Clusters** -> **Avaya Aura Cluster** and configure TPO lines by selecting the **TPO Lines** tab.

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

Select Add new.

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 the Avaya Session Manager.

SIP Digest: Define the Avaya Number again.

SIP Domain: Define the IP Address of the Avaya Session Manager.

Access Point Extension: Set the radio button to No.

Local Extension * 2400005

Fetch Type Not Fetched

Place

ITS Line ☐

Register ☐ No ☒ Yes

End User Credentials ☐

SIP Display Name 2400005

SIP Password *****

SIP Digest 2400005

SIP Domain 10.30.5.92

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**.

General Boot Settings Settings TPO Cluster TPO Places TPO Lines

Select **Add new**.



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

In the Virtual Slot Extensions, 240000501 to 240000503 are specified. This is creating three appearances for the 2400005 which are associated with Avaya, 2400005**01** is Slot 1, 2400005**02** is Slot 2 and 2400005**03** and Link the Line to the TPO Place by selecting the grey **Defined Lines** box. Select **Add Selected**.

TPO Cluster: TPO Place Edition (2400005)

Device Management Account Management Telephony Security System Console

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

General

Name *: 2400005 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 *: 240000501 - 240000503 ☐ 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

2400005

Add Selected

Unlink selected

Local Extension *	Register	End User Credentials	Display Name	Device ID	Line Index	IP Address	SDP IP Address	Access Point Extension
-------------------	----------	----------------------	--------------	-----------	------------	------------	----------------	------------------------

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"/>	2400005	Yes	No	2400005					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 1 / 1							
<input type="checkbox"/>	Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID
<input type="checkbox"/>	Avaya TPO02	172.27.130.4	1	1	Active		Idle
Refresh Bulk admin selected 1 / 1							

Next, edit the **TPO Group ID** by clicking the mouse button.

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

Add the **TPO Name** in a format which has a dot in it, in this example Avayatpo.group2 is used. This name is registered on the DNS. Again, select the green arrow to commit the changes.

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

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

Refresh Bulk admin selected 1 / 1								
	Node *	IP *	Order *	Group ID	TPO Role	Firmware version	Current Group ID	Current TPO Role
<input type="checkbox"/>	Avaya TPO02	172.27.130.4	1	1	Active	R9.2_3.45565	1	Active
Refresh Bulk admin selected 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							
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"/>	2400005		RingdownDynamic	1	Avaya TPO02 (Alive)	Stopped	

Add Users: -

The next task is to add a user, use the top menu and select **User 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 username of Avaya2 was created.

IP Trade SA Critical Communications & Collaboration Solutions

Account Management: User Edition (aura1)

Device Management Account Management Telephony Security System Console

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

General

Type Turret

First Name * Aura

Last Name * One

Status Active

User Login * aura1

Security policy PwdPolicy_User

Password *

Confirm password *

Zone Avaya Aura Zone

Comment

Last Update DateTime 11/30/2018 11:03:36 AM

Tools

Reset Password History

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



Select **Add new**.



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

<< Back to Shared Profiles list

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

General

Type Turret Desk

Profile Name * Avaya Aura Shared Profile

Zone Avaya Aura Zone

Comment

Editable All

Last Update DateTime 11/22/2018 8:17:26 AM

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

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

Lines

Group Lines Critical

Server time: 8:04:31
Last refresh time: 08:04:14 Refresh Add new Bulk admin selected Clear overwritten values Provisioning

Enter all the Lines associated with the Avaya profile by entering the following information. In this example the shared appearance 2400005 is added.

Account Management: Line Edition (2400005)

[Device Management](#)
 [Account Management](#)
 [Telephony](#)
 [Security](#)
 [System](#)
 [Console](#)

Status: Not connected [<< Back to Shared Profiles list](#) > [Avaya Aura Shared Profile](#)

General

Type: DDI Sharing Line ▼

Line subscription state: Subscribed ▼

Special Tag: None ▼

Call events dispatching: All but incoming ▼

Extension *: 2400005

TPO Name (or TPO DNS Name): avayaaura.com ▼

Voice recording: Yes ▼

Msg Waiting Indicator: Yes ▼

Default DDI: Yes ▼

Default Global Line: No ▼

Queue Type: None ▼

Radio: No ▼

SIP

SIP Display Name *: 2400005

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 ▼

Subscribed **Monitored**

Ringtone Set: (Inherited) ▼

Ringtone Volume: (Inherited) ▼

Ringtone Delay *:

Call Notification Delay *:

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 ▼

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.

The screenshot shows the 'Lines' tab selected in the 'Avaya Aura Shared Profile' configuration. The interface includes a top navigation bar with tabs: General, Lines, Adv. Telephony, Settings, Screen Layout, Call Notification, Shortcuts, and Call History. Below the tabs, there's a 'Lines' section with a 'Group Lines' checkbox. A table displays the following data:

Type	SIP Display Name	SIP Extension	SIP Digest	SIP Domain	TPO DNS Name
DDI Sharing Line	2400005	2400005		avayaaura.com	
DDI Sharing Line	2400006	2400006		avayaaura.com	
DDI Sharing Line	2400007	2400007		avayaaura.com	

At the bottom, there are 'Update' and 'Refresh' buttons.

Now that the lines are added, they need to be inserted onto a Keypage. 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.

The screenshot shows the 'Shortcuts' tab selected in the 'Avaya Aura Shared Profile' configuration. The interface includes a top navigation bar with tabs: Device Management, Account Management, Telephony, Security, System, and Console. Below the tabs, there's a 'Shortcuts' section with a 'Page selection' dropdown set to 'Avaya KP1'. A table displays the following data:

Label *	Extension *	Type	Slot
2400005/01	240000501	DDI Slot	NOP
2400005/02	240000502	DDI Slot	NOP
2400005/03	240000503	DDI Slot	NOP
2400006/01	240000601	DDI Slot	NOP
2400006/02	240000602	DDI Slot	NOP
2400006/03	240000603	DDI Slot	NOP
2400007/01	240000701	DDI Slot	NOP
2400007/02	240000702	DDI Slot	NOP
2400007/03	240000703	DDI Slot	NOP
2400008/01	240000801	DDI Slot	NOP
2400008/02	240000802	DDI Slot	NOP
2400008/03	240000803	DDI Slot	NOP

Add each field as the example shows below, in this example the first slot (2400005/1) is configured for Shared Appearance 2400005.

Label: The Shared Appearance followed by the slot number.

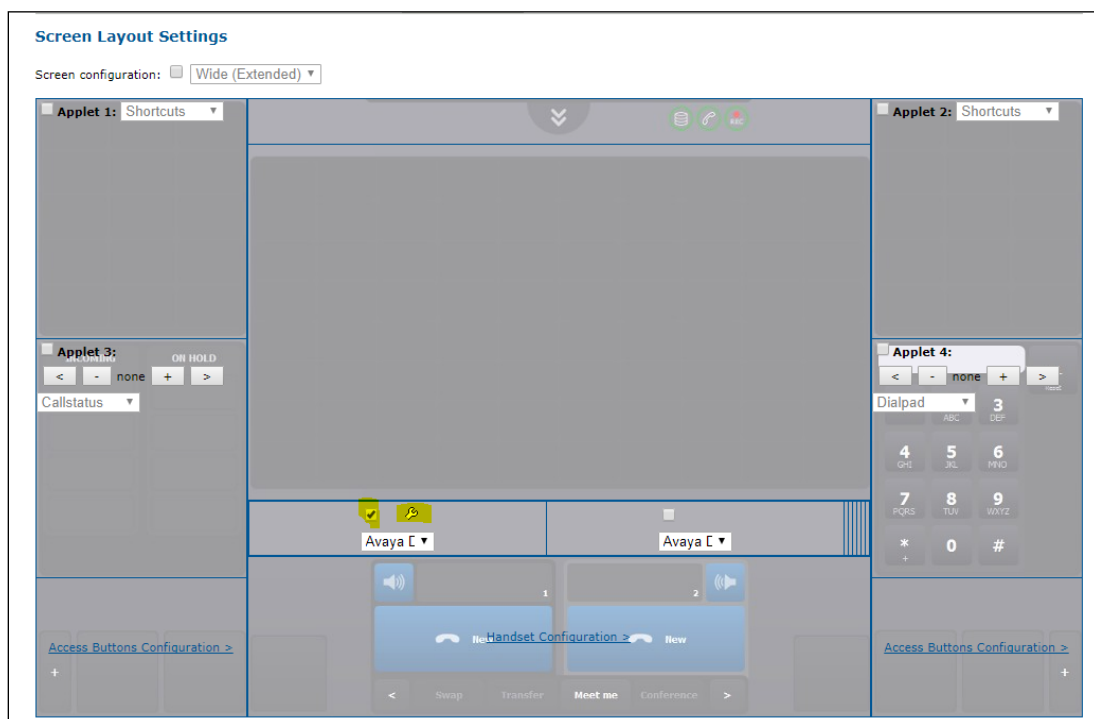
Type: Select **DDI Slot**.

Slot: The full Shared Appearance.

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.



You will see 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.

Shortcut Layout (Avaya KP1)

[Back to Avaya Aura Shared Profile >](#)

Available shortcuts

Shortcut Page:

(All) ▼

2400008/03

Click the shortcut key and drag into Linked shortcuts

Update

Update and Go Back

Refresh

Cancel

Linked shortcuts

2400005/01

2400005/02

2400005/03

2400006/01

2400006/02

2400006/03

2400007/01

2400007/02

2400007/03

2400008/01
































































Unlinked shortcuts

Unlink All

2400008/02

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.

Basic Mode Expert Mode Advanced Mode		
Refresh Add new Bulk admin selected Provisioning 1 / 1		
Parameter *	Value	
<input type="checkbox"/> profile.setting.ddi.advanced.handling.on.all	true	  
<input type="checkbox"/> profile.setting.ddi.conference.mode	All lines	  
<input type="checkbox"/> profile.setting.defaulthandset	0	  
<input type="checkbox"/> profile.setting.dispatch.is.blind	true	  
<input type="checkbox"/> profile.setting.dispatch.is.monitored	false	  
<input type="checkbox"/> profile.setting.dispatch.is.on.callkey	false	  
<input type="checkbox"/> profile.setting.dnd.forward.sharedlines	true	  
<input type="checkbox"/> profile.setting.forward.ddi.sharedlines	true	  
<input type="checkbox"/> profile.setting.forward.sharedlines	true	  
<input type="checkbox"/> profile.setting.forwardall.extensions	2400006	  
<input type="checkbox"/> profile.setting.forwardpbx	true	  
<input type="checkbox"/> profile.setting.hs.invert	false	  
<input type="checkbox"/> profile.setting.hsbarbuttons	swap;transfer;conference;meetme;redial;merge;pickup;group_p	  
<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	Avaya KP1	  
<input type="checkbox"/> profile.setting.singlehandset	false	  
<input type="checkbox"/> profile.setting.transfer.uselastheldcall	true	  
<input type="checkbox"/> profile.setting.videocall.enable	true	  
<input type="checkbox"/> profile.setting.videocall.mirrorfeedbackvideo	true	  

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

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)**

☒ [Aura One \(aura1\)](#)
☒ [Aura Three \(aura3\)](#)
☒ [Aura Two \(aura2\)](#)

☐ **Selected Users (0)**

Directories

☐ **Available Directories (0)**

☐ **Selected Directories (0)**

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

☐ [Avaya Aura Shared Profile \(Shared\)](#)

☐ **Selected Profiles (1)**

8. Verification Steps

This section describes the steps that can be carried out to verify the connection between BT Unified Trading IP Trade Platform with Avaya Aura® Communication Manager and Avaya Aura® Session Manager

8.1. Avaya Aura® Session Manager Verification

From the main System Manager dashboard, select Session Manager from the Elements section (not shown). Select **System Status** → **User Registrations** from the left-hand menu (not shown). The [BT Unified](#) Trading IP Trade Platform Turret user is listed and will show a tick in the **Prim** box under **Registered**.

User Registrations

Select rows to send notifications to devices. Click on Details column for complete registration status.

View

Default

Force Unregister

AST Device Notifications:

Reboot

Reload

Failback

As of 9:52 AM

Customize

Advanced Search

21 Items

Show15

Filter: Enable

<input type="checkbox"/>	Details	Address	First Name	Last Name	Actual Location	IP Address	Remote Office	Shared Control	Simult. Devices	AST Device	Registered		
											Prim	Sec	Surv
<input type="checkbox"/>	<div>Show</div>	8279999 @devconnect.local	BTIPTrade	Turret	---	10.10.16.102	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Select : All, None

Page1of2

8.2. BT Unified Trading IP Trade Platform Verification

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

IP Trade SA Critical Communications & Collaboration Solutions

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
Avaya_TPO02	Avaya Aura Zone			
Any				
Avaya_TPO02	Avaya Aura Zone	R9.2_3.45565	R9.2_3.45565	Avaya-Aura-Cluster

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

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
2400005	Yes	No	2400005					No	Yes
2400006	Yes	No	2400006					No	Yes
2400007	Yes	No	2400007					No	Yes

Refresh Add new Bulk admin selected Provisioning 1 / 1

In the same area on the TPO Cluster Tab, 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
Avaya_TPO01	172.27.130.3	1	1	Active	R9.2_3.45565	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 Session Manager.

TPO Places							
3 places: 3 Started							
<div> Refresh Add new Bulk admin selected Provisioning </div>							
1 / 1							
	Place Name *	Connected to	Place Type *	Group ID *	TPO	State	SIP Device ID
<input type="checkbox"/>	2400005		RingdownDynamic	1	Avaya TPO02 (Alive)	Started	<input type="checkbox"/>
<input type="checkbox"/>	2400006		RingdownDynamic	1	Avaya TPO02 (Alive)	Started	<input type="checkbox"/>
<input type="checkbox"/>	2400007		RingdownDynamic	1	Avaya TPO02 (Alive)	Started	<input type="checkbox"/>
<div> Refresh Add new Bulk admin selected Provisioning </div>							
1 / 1							

9. Conclusion

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

10. 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. *Administering Avaya Aura® Communication Manager, Release 8, Issue 2.0, Nov 2018*
- ii. *Administering Avaya Aura® Session Manager, Release 8, Issue 2, August 2018*
- iii. *Administering Avaya Aura® System Manager, Release 8, Issue 4, September 2018*

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

©2019 Avaya Inc. All Rights Reserved.

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

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