



Avaya Solution & Interoperability Test Lab

Application Notes for Scantalk TeamView® Unified Operator 2.5 with Avaya IP Office 11.0 using TAPI for Presence Services - Issue 1.0

Abstract

These Application Notes describe the configuration steps for configuring Scantalk TeamView® Unified Operator 2.5 with Avaya IP Office 11.0 using the Telephony Application Programming Interface (TAPI) to give Presence information to Unified Operator. Scantalk TeamView® Unified Operator integrates with Avaya IP Office using the TAPI interface.

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 for configuring Scantalk TeamView® Unified Operator 2.5 with Avaya IP Office 11.0 using the Telephony Application Programming Interface (TAPI) to provide presence information to Unified Operator. Avaya IP Office consists of a primary server, which is the Avaya IP Office Server Edition, and a secondary server being the Avaya IP Office IP500 V2 Expansion. Scantalk TeamView® Unified Operator integrates with Avaya IP Office using TAPI.

TeamView® Unified Operator as part of the TeamView® application suite is a dedicated application for employees in the company's reception/switchboard function, where it is used to manage all communications. The application provides the user with a complete organizational overview, advanced search functions, together with the current status of colleagues' availability. Finally, it takes care of relevant telephone functions and integrated information services so that customers see the organization as service-oriented, efficient and professional.

The many features can be categorized within the following three sub-processes:

- Identify an employee by means of comprehensive advanced search function with phonetic search, free text search and partial search in many flavours.
- Observe the employee's availability with information such as status for fixed and mobile phone, PC status (login/out and screensaver), physical presence (from in/out system), calendar appointments and cause of absence.
- Serve the caller in this context, including directly or announced transfer to landline or mobile phone, call waiting on busy station, call on hold, or transfer call to vacant department colleague (all dept. colleagues can readily be observed when an employee is identified, including their current phone status). Alternatively, send message to staff via e-mail or SMS, or paste text message on employees for the information of colleagues (not tested).

TeamView® Unified Operator is usually installed on a client PC, which is part of the same domain as the TeamView® server. The client PC has installed an Avaya IP Office Telephony Application Programming Interface (TAPI) configured in 'Third Party' mode.

2. General Test Approach and Test Results

This section describes the compliance testing used to verify interoperability of Scantalk TeamView® Unified Operator (Unified Operator) with IP Office and covers the general test approach and the test results. The general test approach was to configure the Unified Operator to communicate with IP Office as implemented on a typical customer's premises.

IP Office TAPI is used to control an Avaya deskphone (used as the switchboard). A Hunt Group is configured on IP Office, which contains the extension of the deskphone to be used as the switchboard, and a short code for Call Queue configured to allow Unified Operator to display the queue information.

Unified Operator uses Microsoft SQL Express via a direct connection or ODBC. TeamView® AD LookUp acquires user information from Microsoft Active Directory; TeamView® Calendar LookUp acquires calendar information from Microsoft Exchange/Notes and puts both into the SQL Server. Unified Operator is usually installed on a client PC which is part of a domain. The Unified Operator is configured to connect to the TeamView® Status Server to get phone status information of all contacts in the database. Because the Avaya IP Office was a Server Edition with an IP Office 500 V2 expansion, there were two TeamView® servers installed, one connecting to the Server Edition and the other connecting to IP Office 500 V2 expansion, with both connections using 3rd party TAPI connections.

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 TeamView® Unified Operator did not include use of any specific encryption features as requested by Scantalk.

2.1 Interoperability Compliance Testing

The interoperability compliance testing evaluates the ability of Unified Operator to control Avaya endpoints on IP Office using the TAPI interface. The testing included typical functions including:

- Answer internal/external calls
- Make calls using TeamView® AD LookUp
- Transfers, Blind/Supervised
- Transfers to External/Mobile numbers
- Calls to busy numbers
- Hold/Unhold
- Set/Cancel Call Forwards
- Serviceability/simulated LAN failures

2.2 Test Results

Tests were performed to verify interoperability between Unified Operator and IP Office. The tests were all functional in nature and performance testing was not included. All the test cases passed.

2.3 Support

Technical support from Scantalk can be obtained through the following:

Web: www.scantalk.com

Phone: Sales: +45 48 10 49 10 or Support: +45 48 10 49 11

E-mail: Sales@scantalk.com or Support@scantalk.com

3. Reference Configuration

Figure 1 illustrates the network topology used during compliance testing. Unified Operator was configured to connect to either IP Office Server Edition or the IP Office IP500 V2 expansion using Avaya IP Office TAPI configured in third party mode. Two hunt groups were configured on IP Office to route calls to the switchboard but more importantly to give information on the calls being presented using the “Call Queue” short code. Both SIP and H.323 phones registered to both the Server Edition and the IP Office 500 V2 were used as the switchboard phone. Two TeamView® servers were added to the network in order to get status information on the users on both the IP Office Server Edition and the IP Office 500 V2 using third party TAPI connections.

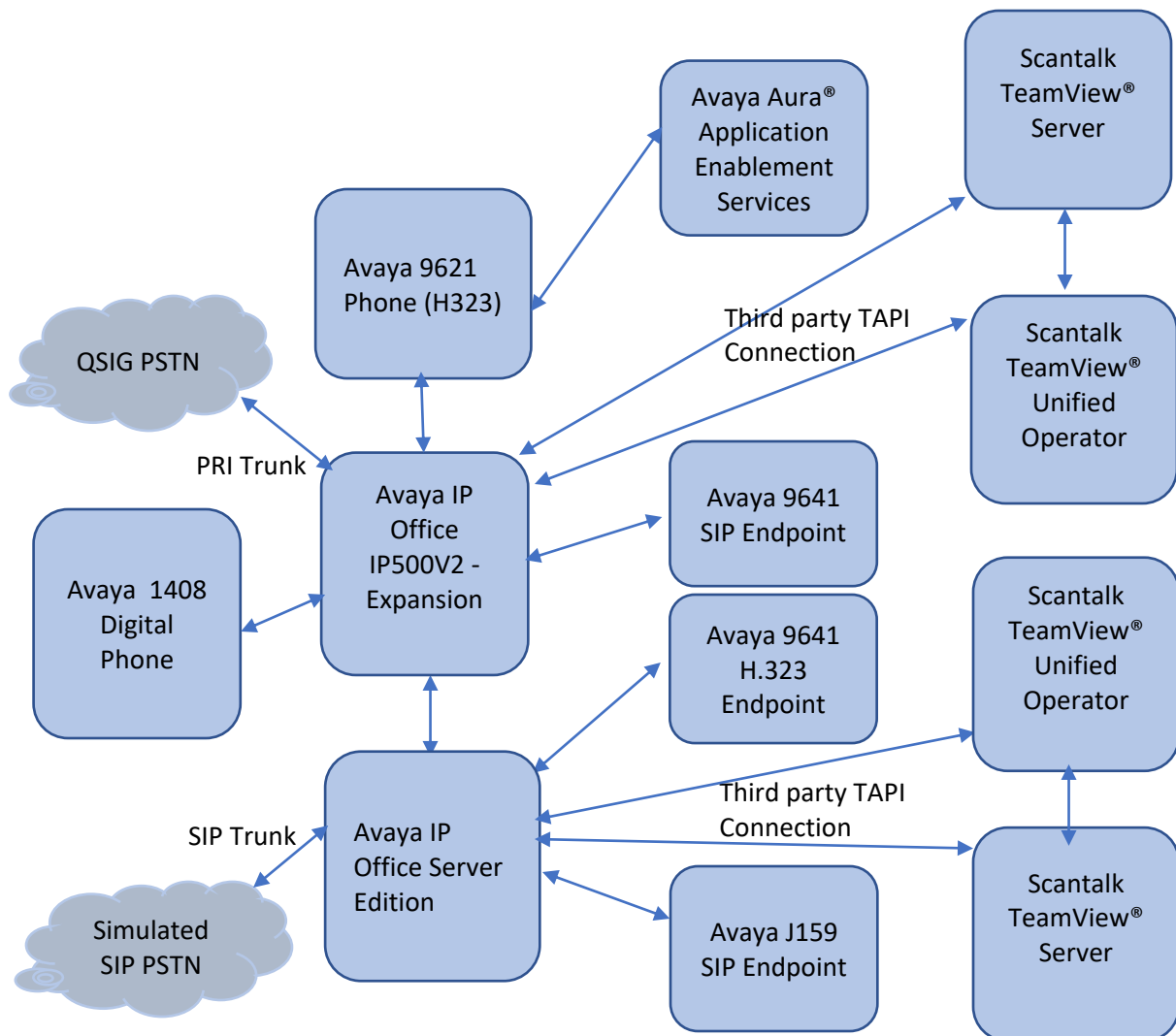


Figure 1: Scantalk TeamView® Unified Operator with Avaya IP Office Server Edition and IP Office IP500 V2

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office Server Edition running on a Virtual Platform	11.0.4.2.0
Avaya IP Office 500 V2	11.0.4.2.0
Avaya IP Office Manager running on a Windows 7 PC	11.0.4.2.0
Avaya 9621 H.323 Deskphone	6.8.3
Avaya 9641 H.323 Deskphone	6.8.3
Avaya J159 SIP Deskphone	4.0.4
Avaya 9641 SIP Deskphone	7.1.8
Avaya 1408 Digital Deskphone	4.0.10
Scantalk TeamView® Unified Operator running on a Windows 10 PC: TeamView® Unified Operator	2.5.14.576
Scantalk TeamView® Server running on Windows Server 2019 TeamView Unified Solutions TeamView® Status Server	1.1.0.29 3.1.0.75

Note: Compliance Testing is applicable when the tested solution is deployed with a standalone IP Office 500 V2 and when deployed with IP Office Server Edition in all configurations.

5. Configure Avaya IP Office

Configuration and verification operations on 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 that a working system is already in place. 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
- Enable TAPI/DevLink3
- Check for CTI Pro Licenses
- Create Hunt Groups
- Add Short Code
- Save Configuration

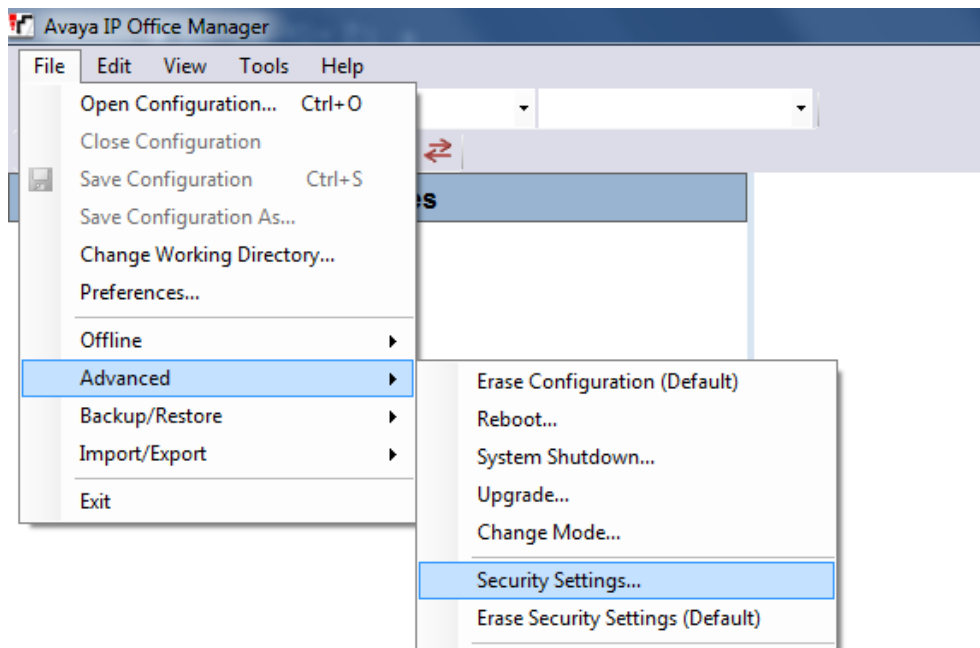
Note: TAPI may need to be enabled under Security. This procedure should be carried out by the IP Office Administrator. It is outlined here in **Section 5.2**.

5.1 Launch Avaya IP Office Manager

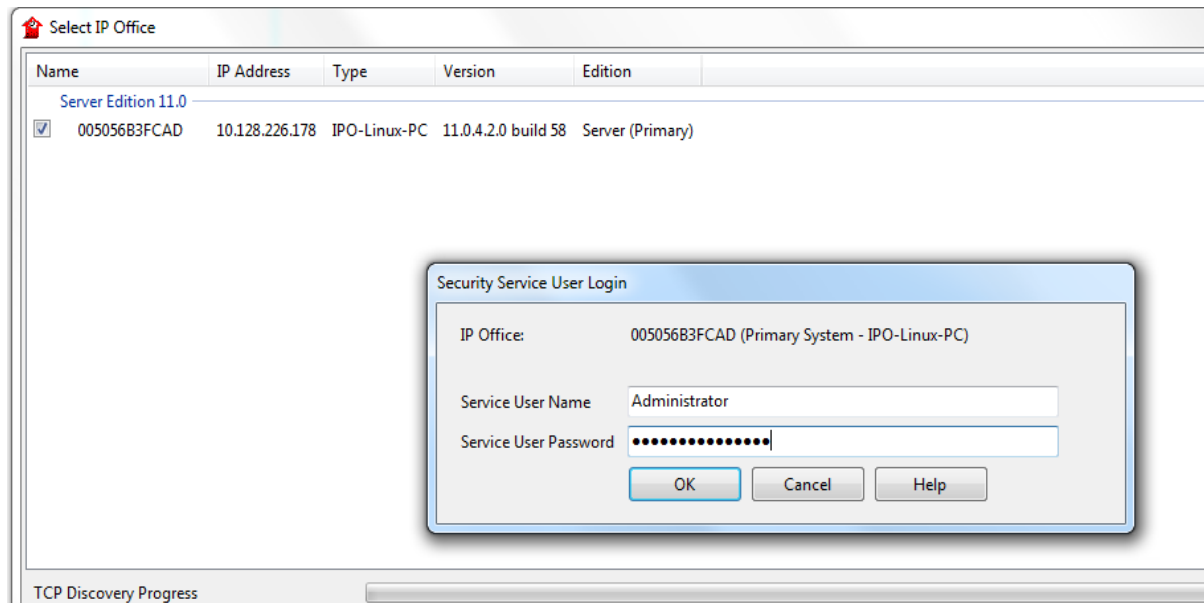
From the Avaya IP Office Manager PC, go to **Start → Program → IP Office → Manager** to launch the Manager application (not shown).

5.2 Enable TAPI/DevLink3

Once **Manager** is launched, click on **File → Advanced → Security Settings**.

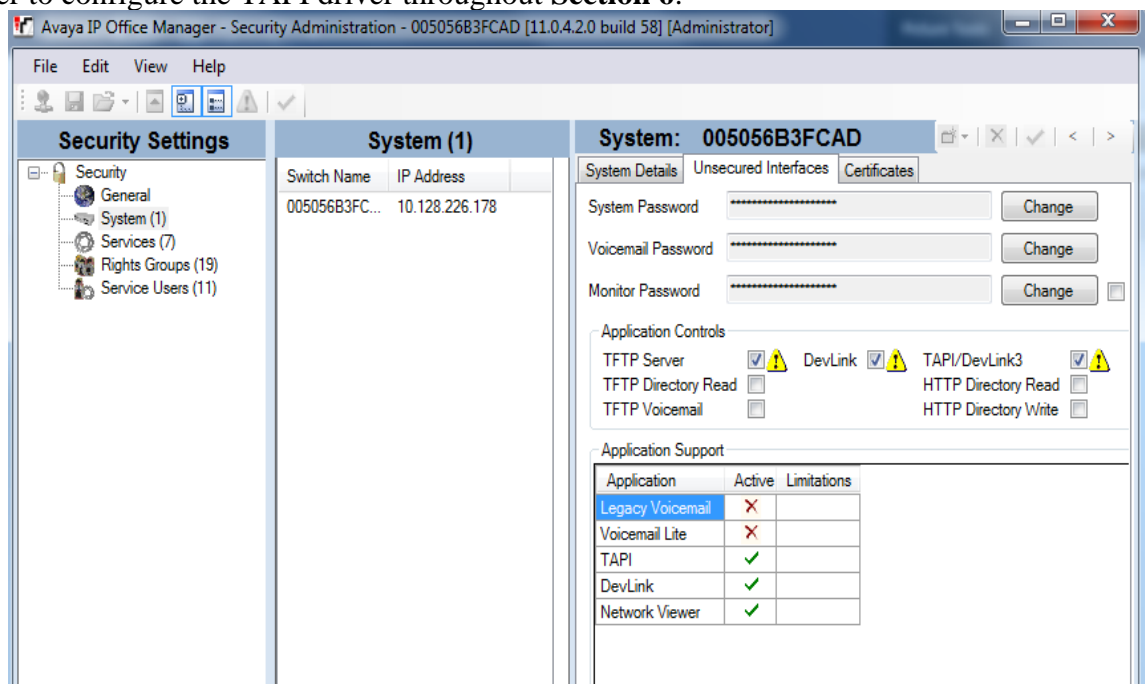


Log into Avaya IP Office Server Edition using the appropriate credentials to receive its configuration.



Click on **System** in the left window and in the main window ensure that **TAPI/DevLink3** is ticked as shown below. Click on **Save** (not shown) at the top of the screen once this is done.

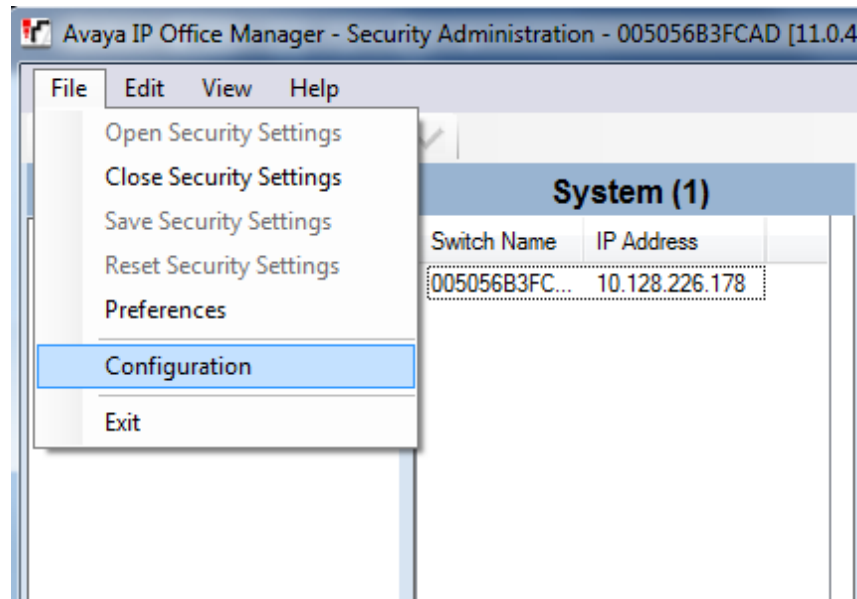
Note: The **System Password** can be set here if required, as this password will be required in order to configure the TAPI driver throughout **Section 6**.



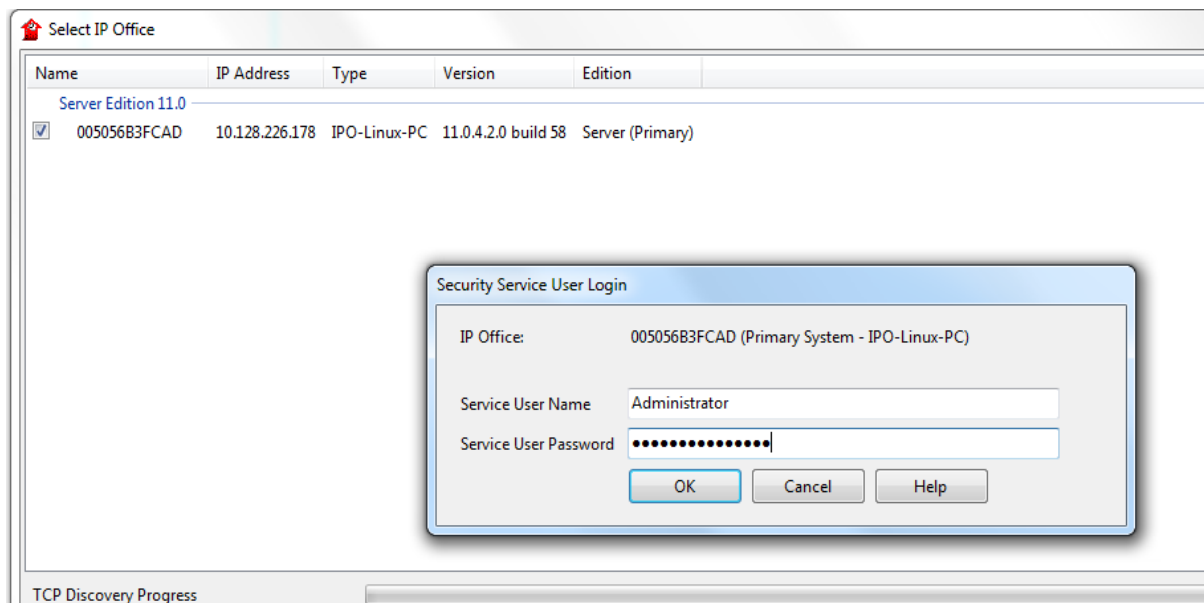
Repeat this section to **enable TAPI/DevLink3 for IP Office 500 V2**.

5.3 Check for CTI Pro Licenses

Click on **File** → **Configuration**.



Log into Avaya IP Office Server Edition using the appropriate credentials to receive its configuration.



Click on **005056B3FCAD** → **License** in the left window and ensure that the **License** tab is selected in the main window. All the licenses should be displayed as shown below. **CTI Link Pro** license shows that there are 100 CTI Link Pro Licenses available and so in theory **100** simultaneous calls monitoring could be achieved.

The screenshot shows the Avaya IP Office Manager interface. The left pane displays a tree view of the system configuration, with '005056B3FCAD' selected. The right pane shows the 'License' tab, which contains a table of licenses. The 'CTI Link Pro' license is highlighted, showing 100 instances.

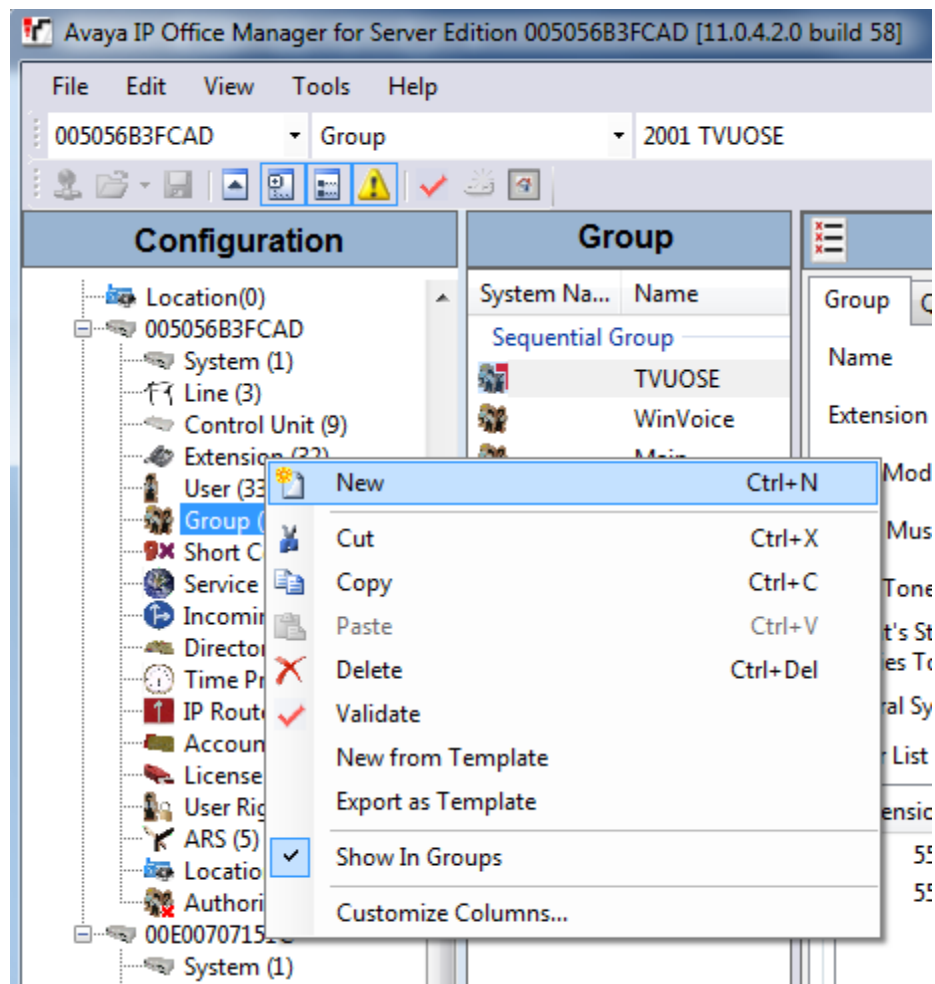
Feature	Instances	Status	Expiration Date	Source
Additional Voicemail Pro Ports	100	Valid	Never	WebLM
VMPro Recordings Administrators	1	Valid	Never	WebLM
VMPro TTS Professional	100	Valid	Never	WebLM
Power User	19	Valid	Never	WebLM
Avaya IP endpoints	28	Valid	Never	WebLM
SIP Trunk Channels	100	Valid	Never	WebLM
CTI Link Pro	100	Valid	Never	WebLM
3rd Party IP Endpoints	4	Valid	Never	WebLM
Server Edition	1	Valid	Never	WebLM
SM Trunk Channels	30	Valid	Never	WebLM
Avaya Mac Softphone	30	Valid	Never	WebLM
Avaya Contact Center Select	1	Valid	Never	WebLM
UMS Web Services	30	Valid	Never	WebLM
VM Media Manager	1	Valid	Never	WebLM

5.4 Create Hunt Groups on Avaya IP Office

A hunt group is created with a single user added so that calls can be queued to the single user. Because compliance testing included both the Server Edition and the IP Office 500 V2, two hunt groups were created each containing a single user that was to be associated with the Unified Operator as the “Switchboard phone set”.

5.4.1 Create a Hunt Group on the IP Office Server Edition

Expand IP Office Server Edition **005056B3FCAD** in the left window, right click on **Group** and select **New** as shown below.



Within the Group tab enter the following information:

- **Name** Enter an informative name (i.e., **TVUOSE**).
- **Extension** Enter the extension which will be dialled to reach the switchboard Operator. (i.e., **2001**).
- **Ring Mode** Select **Sequential** from the dropdown box.

Scroll down the page. Click on the **Edit** button

Group		
System Na...	Name	Extension
Sequential Group		
	TVUOSE	2001
	WinVoice	1000
	Main	200

Sequential Group TVUOSE: 2001^	
Group	Queuing Overflow Fallback Voicemail Voice Recording Announcements SIP
Name	TVUOSE
Extension	2001
Ring Mode	Sequential
Hold Music Source	No Change
Ring Tone Override	None
Agent's Status on No-Answer Applies To	None
Central System	005056B3FCAD
Profile	Standard Hunt Group
<input type="checkbox"/> Exclude From Directory	
No Answer Time (sec)	System Default (12)
<input checked="" type="checkbox"/> Advertise Group	
User List	
Extension	Name System

Edit...

The following window appears allowing the addition of any IP Office extension into the group, for compliance testing extensions **5515**, **5516** were added. Click on **OK** to continue.

Sequential | Hunt Group | 2001 TVUOSE - Select Members

Filters

Extension Name Extension Number PBX Name PBX Address

0 . 0 . 0 . 0

Available Users (36/36)

Name	Extension	PBX Name	PBX Address
5500	5500	005056B3FCAD	10.128.226.178
5511	5511	005056B3FCAD	10.128.226.178
5512	5512	005056B3FCAD	10.128.226.178
5515	5515	005056B3FCAD	10.128.226.178
5516	5516	005056B3FCAD	10.128.226.178
5621	5621	00E00707151C	10.128.226.180
5622	5622	00E00707151C	10.128.226.180
ACCSUSer	5555	005056B3FCAD	10.128.226.178
Agent 6001	6001	005056B3FCAD	10.128.226.178
Agent 6002	6002	005056B3FCAD	10.128.226.178
Agent 6003	6003	005056B3FCAD	10.128.226.178
Agent 6004	6004	005056B3FCAD	10.128.226.178
Agent 6005	6005	005056B3FCAD	10.128.226.178
Agent 6006	6006	005056B3FCAD	10.128.226.178
Agent 6007	6007	005056B3FCAD	10.128.226.178
Agent 6008	6008	005056B3FCAD	10.128.226.178
Agent 6009	6009	005056B3FCAD	10.128.226.178
Agent 6010	6010	005056B3FCAD	10.128.226.178
Ext5501	5501	005056B3FCAD	10.128.226.178
Ext5502	5502	005056B3FCAD	10.128.226.178
Ext5510	5510	005056B3FCAD	10.128.226.178
Room 1-1	1011	005056B3FCAD	10.128.226.178
Room 1-2	1012	005056B3FCAD	10.128.226.178
Room 3-1	1031	005056B3FCAD	10.128.226.178
Room 3-2	1032	005056B3FCAD	10.128.226.178
Room 4 - 2	1042	005056B3FCAD	10.128.226.178
Room 4 - 1	1041	005056B3FCAD	10.128.226.178
Room 6 - 1	1061	00E00707151C	10.128.226.180
Room 6 - 2	1062	00E00707151C	10.128.226.180
VM1	1001	005056B3FCAD	10.128.226.178
VM2	1002	005056B3FCAD	10.128.226.178

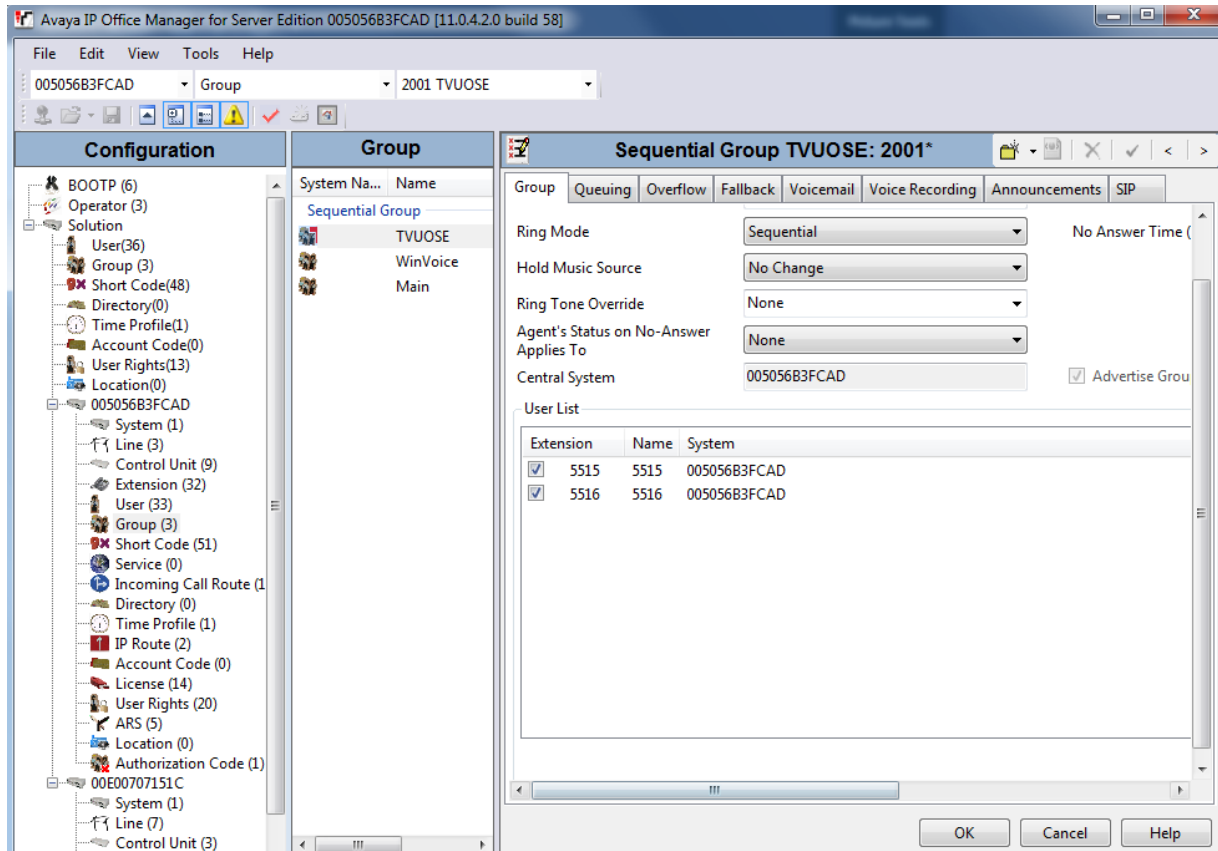
Members (2/2)

Order	Enabled	Name	Extension	PBX Name	PBX Address
1	<input checked="" type="checkbox"/>	5515	5515	005056B3FCAD	10.128.226.178
2	<input checked="" type="checkbox"/>	5516	5516	005056B3FCAD	10.128.226.178

Add Before
Add After
Append
Remove

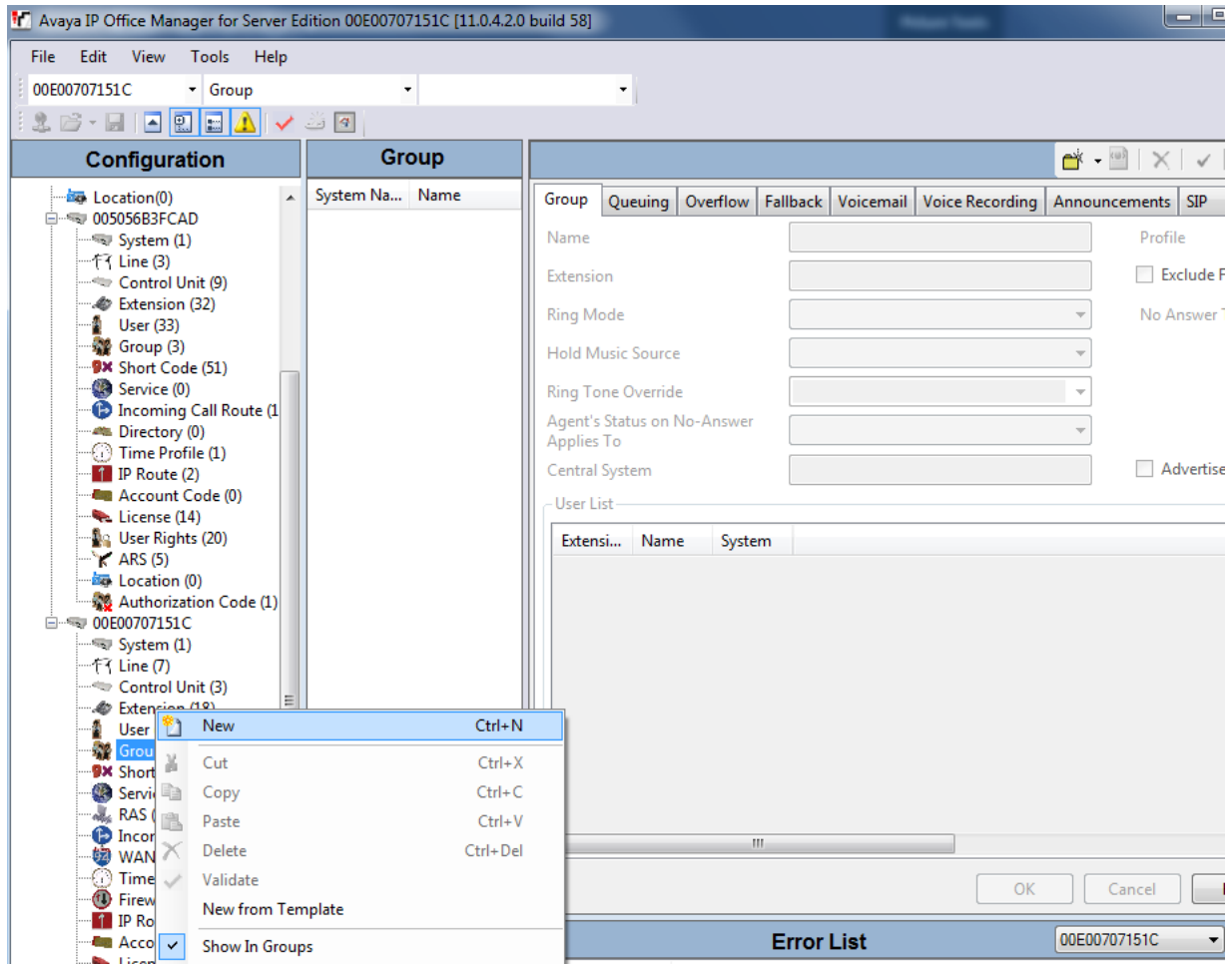
OK Cancel Help

Click on **OK** again to save the new hunt group.



5.4.2 Create a Hunt Group on the Avaya IP Office IP500 V2 Expansion

The same procedure is used to create a hunt group on the IP Office 500 V2. Expand the IP Office 500 V2 **00E00707151C** system and right click on **Group** as shown below. Select **New**.



Within the Group tab, enter the following information:

- **Name** Enter an informative name (i.e., **TVUO500V2**).
- **Extension** Enter the extension which will be dialed to reach the switchboard Operator. (i.e., **2002**).
- **Ring Mode** Select **Sequential** from the dropdown box.

Scroll down the page. Click on the **Edit** button.

The screenshot shows a web interface for configuring a 'Sequential Group'. The title bar reads 'Sequential Group <Hunt Group:0>: *'. Below the title bar is a tabbed interface with the following tabs: Group, Queuing, Overflow, Fallback, Voicemail, Voice Recording, Announcements, and SIP. The 'Group' tab is currently selected. The configuration fields are as follows:

Name	TVUO500V2	Profile	Standard Hunt Group
Extension	2002	<input type="checkbox"/> Exclude From Directory	
Ring Mode	Sequential	No Answer Time (sec)	System Default (15)
Hold Music Source	No Change		
Ring Tone Override	None		
Agent's Status on No-Answer Applies To	None		
Central System	00E00707151C	<input checked="" type="checkbox"/> Advertise Group	

Below the configuration fields is a 'User List' section. It contains a table with the following headers: Extension, Name, and System. The table is currently empty. At the bottom right of the User List section are two buttons: 'Edit...' and 'Remove'.

On this occasion, extensions **5621**, **5622** are associated with hunt group 2002.

Sequential | Hunt Group | 2002 TVU0500V2 - Select Members

Filters

Extension Name Extension Number PBX Name PBX Address

0 . 0 . 0 . 0

Available Users (36/36)

Name	Extension	PBX Name	PBX Address
5500	5500	005056B3FCAD	10.128.226.178
5511	5511	005056B3FCAD	10.128.226.178
5512	5512	005056B3FCAD	10.128.226.178
5515	5515	005056B3FCAD	10.128.226.178
5516	5516	005056B3FCAD	10.128.226.178
5621	5621	00E00707151C	10.128.226.180
5622	5622	00E00707151C	10.128.226.180
ACCSUSer	5555	005056B3FCAD	10.128.226.178
Agent 6001	6001	005056B3FCAD	10.128.226.178
Agent 6002	6002	005056B3FCAD	10.128.226.178
Agent 6003	6003	005056B3FCAD	10.128.226.178
Agent 6004	6004	005056B3FCAD	10.128.226.178
Agent 6005	6005	005056B3FCAD	10.128.226.178
Agent 6006	6006	005056B3FCAD	10.128.226.178
Agent 6007	6007	005056B3FCAD	10.128.226.178
Agent 6008	6008	005056B3FCAD	10.128.226.178
Agent 6009	6009	005056B3FCAD	10.128.226.178
Agent 6010	6010	005056B3FCAD	10.128.226.178
Ext5501	5501	005056B3FCAD	10.128.226.178
Ext5502	5502	005056B3FCAD	10.128.226.178
Ext5510	5510	005056B3FCAD	10.128.226.178
Room 1-1	1011	005056B3FCAD	10.128.226.178
Room 1-2	1012	005056B3FCAD	10.128.226.178
Room 3-1	1031	005056B3FCAD	10.128.226.178
Room 3-2	1032	005056B3FCAD	10.128.226.178
Room 4 - 2	1042	005056B3FCAD	10.128.226.178
Room 4 - 1	1041	005056B3FCAD	10.128.226.178
Room 6 - 1	1061	00E00707151C	10.128.226.180
Room 6 - 2	1062	00E00707151C	10.128.226.180
VM1	1001	005056B3FCAD	10.128.226.178
VM2	1002	005056B3FCAD	10.128.226.178

Members (2/2)

Order	Enabled	Name	Extension	PBX Name	PBX Address
1	<input checked="" type="checkbox"/>	5621	5621	00E00707151C	10.128.226.180
2	<input checked="" type="checkbox"/>	5622	5622	00E00707151C	10.128.226.180

Add Before
Add After
Append
Remove

OK Cancel Help

With this hunt group created, click on **OK** to submit these changes.

Sequential Group TVUO500V2: 2002*

Group | Queuing | Overflow | Fallback | Voicemail | Voice Recording | Announcements | SIP

Ring Mode: Sequential

Hold Music Source: No Change

Ring Tone Override: None

Agent's Status on No-Answer Applies To: None

Central System: 00E00707151C

☒ No Answer T

☒ Advertise

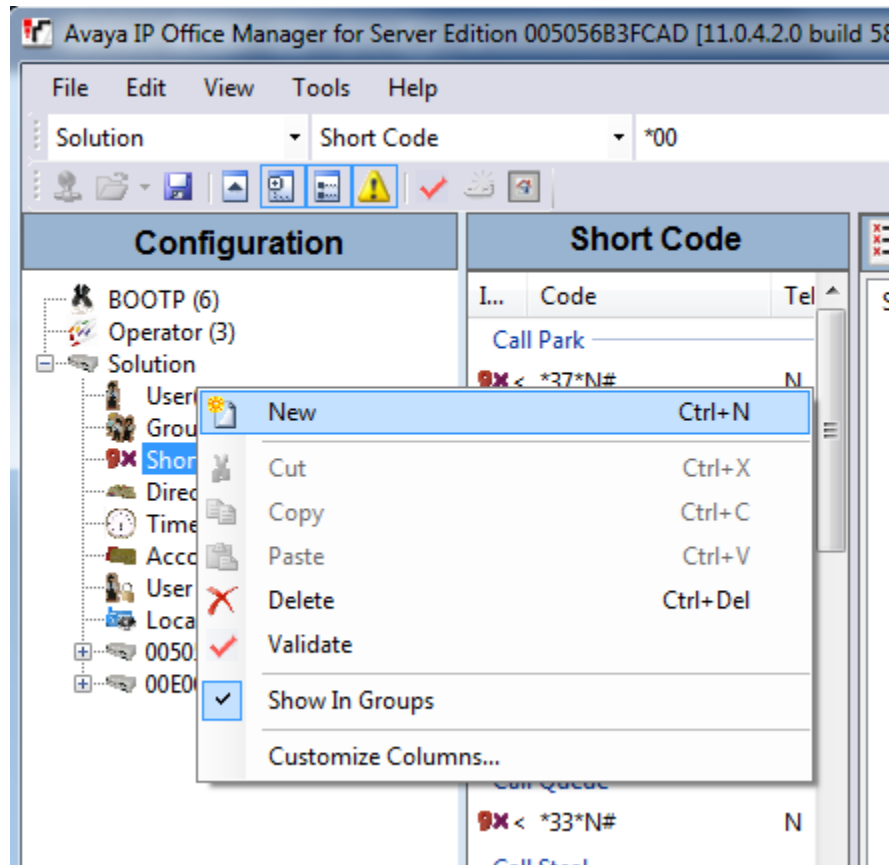
User List

Extension	Name	System
<input checked="" type="checkbox"/> 5621	5621	00E00707151C
<input checked="" type="checkbox"/> 5622	5622	00E00707151C

OK Cancel Help

5.5 Add Short Code for Call Queue

A short code needs to be created in order for Unified Operator to use the “Call Queue” function in order to show the waiting time while queuing on the switchboard. In the Manager window, go to the Configuration Tree, right-click **Short Code** and select **New**.



Enter the following:

- **Code** Enter ***33*N#**
- **Feature** Select **Call Queue** from the dropdown box
- **Telephone Number** Enter **N**
- **Line Group ID** Enter **0**

Click **OK** button.

Note: The Code ***33*N#** is used as the **Camp on** short code in **Section 6.2.2** (System tab).

Short Code	Code	Tel
Call Park		
*37*N#		N
Call Pickup Any		
*30		
Call Pickup Extension		
*32*N#		N
Call Pickup Group		
*31		
Call Pickup Members		
*53*N#		N
Call Queue		
*33*N#		N
Call Steal		
*46		
*45*N#		N
Call Waiting Off		
*16		
Call Waiting On		
*15		
Cancel All Forwarding		
*00		
Clear Call		
*52		

<Short Code:0>: Barred*

Short Code

Code: *33*N#

* This Short Code is common to all systems.

Feature: Call Queue

Telephone Number: N

Line Group ID: 0

Locale:

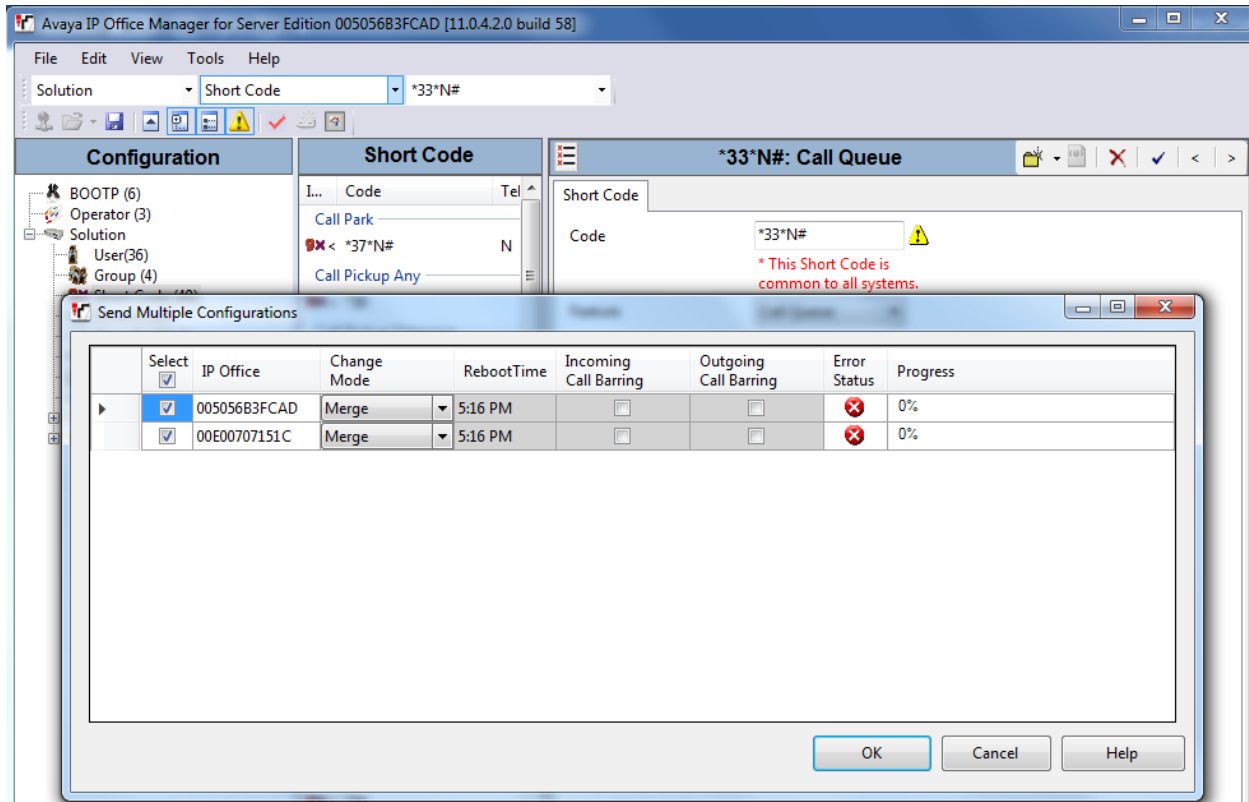
Force Account Code: ☐

Force Authorization Code: ☐

OK Cancel Help

5.6 Save Configuration

Click on the **Save** icon at the top left of the screen and this will save the configurations to both the IP Office Server Edition **005056B3FCAD** and the IP Office 500 V2 **00E00707151C**. Click on **OK** at the bottom of the screen to complete this.



6. Configure Scantalk TeamView® Unified Operator

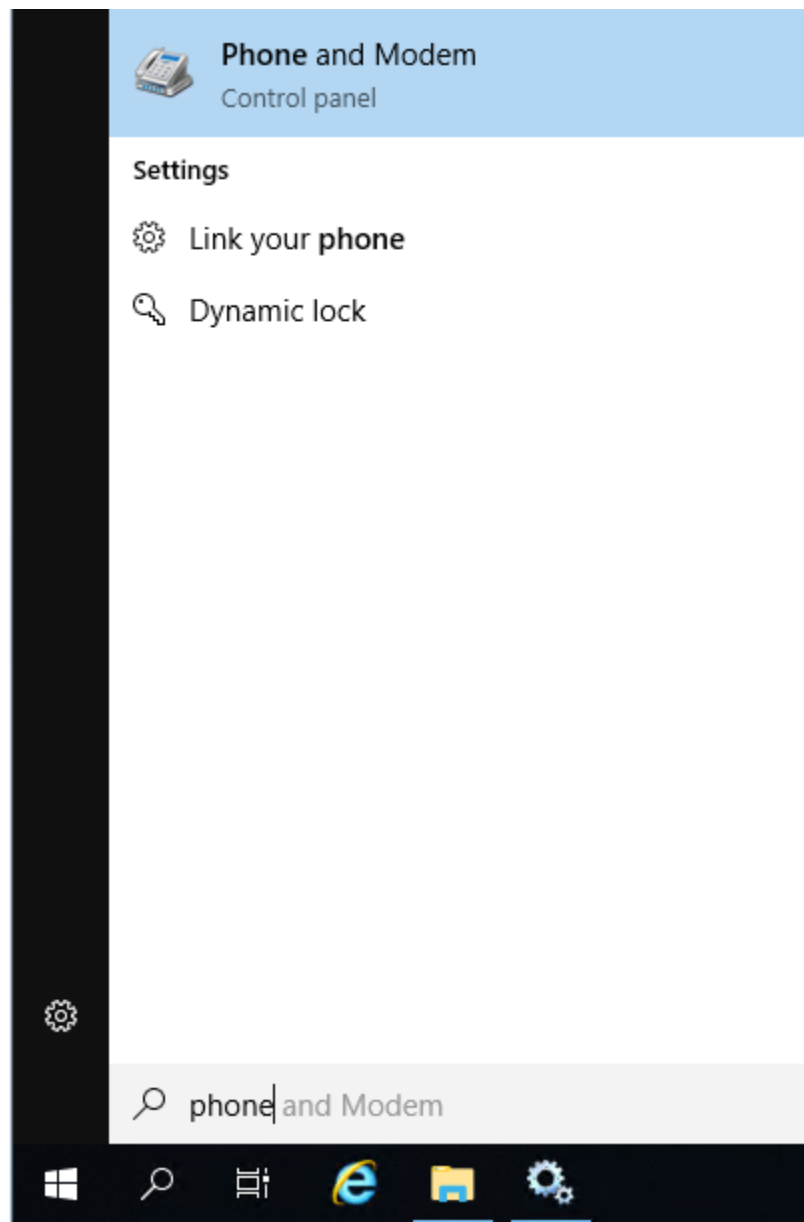
This section describes the steps performed to configure the Unified Operator. It is implied that the Unified Operator software is already installed. It is also implied that the TeamView® AD LookUp application and prerequisite software is installed and configured. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. These configurations can be summarised as follows:

Note: In order to provide Presence Services to the Unified Operator, two TeamView® servers were installed, one connecting to the IP Office Server Edition and the other to the IP Office 500 V2 using third party TAPI. Unified Operator was installed on a Windows 10 client PC connected separately to both the IP Office Server Edition and the IP Office IP500 V2 also using third party TAPI.

6.1 Configure TeamView® Server

The configuration of TeamView® server involves the configuration of the Avaya TAPI driver installed on that server in order to connect to the Avaya IP Office in question.

Click on the Windows icon at the bottom left of the screen and type **phone** and the following should appear showing the various phone settings. Click on **Phone and Modem**, highlighted below.



Once the **Avaya TAPI2 configuration** window opens, enter the following:

- **Switch IP address** Enter the IP address of IP Office.
- **Third Party** Click on the **Third Party** radio button.
- **Switch Password** Enter the **System Password** of IP Office in **Section 5.2**.
- **ACD Queues** Check the **ACD Queues** check box.

Click the **OK** button.

Avaya TAPI2 configuration

Switch IP Address: 10.128.226.178

OK Cancel

☐ Single User

User Name:

User Password:

☒ **Third Party**

Switch Password:

☐ Ex Directory Users

☐ WAV Users

☒ ACD Queues

Advanced settings

Ping Timeout (5 to 420 seconds): 5

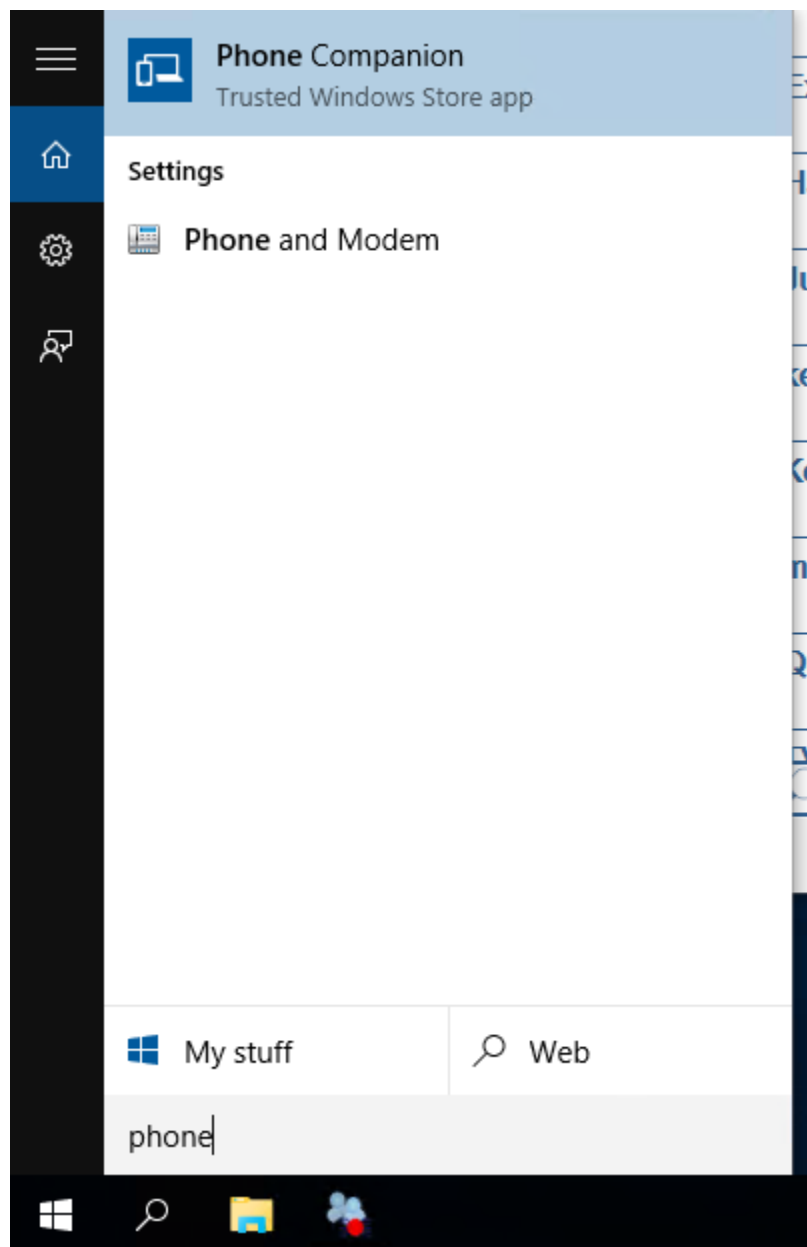
Note: The second TeamView® server was set up in the same way to connect to the other IP Office.

6.2 Configure TeamView® Unified Operator

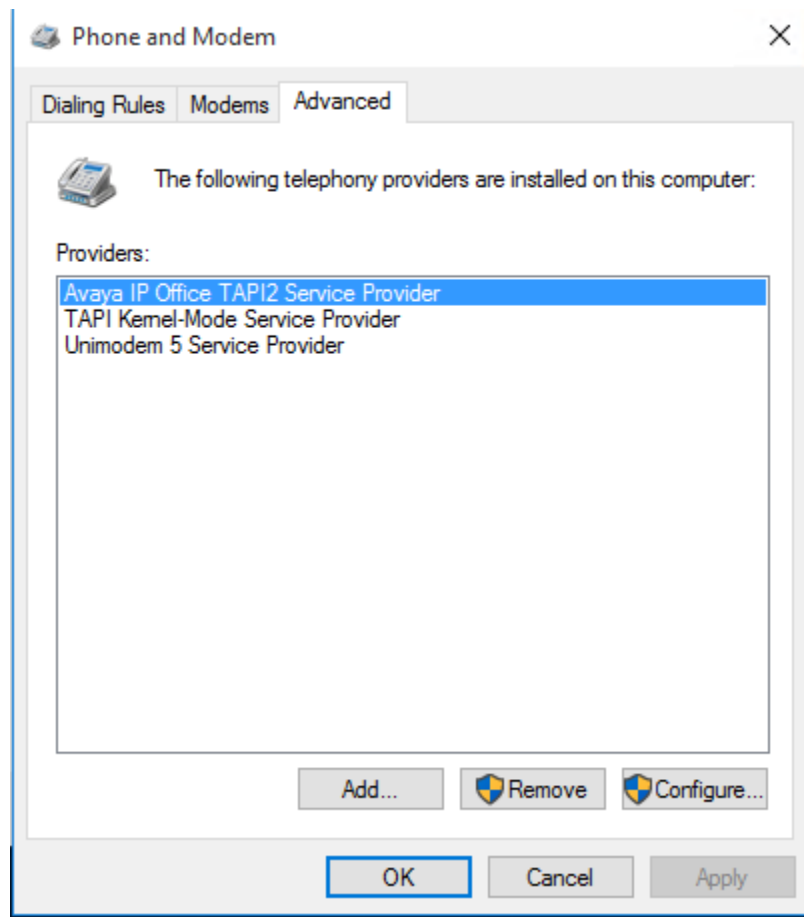
The configuration of the Unified Operator involves the configuration of the TAPI driver as well as some configuration of the Unified Operator application.

6.2.1 Configure the TAPI Driver

Click on the Windows icon at the bottom left of the screen and type **phone** and the following should appear showing the various phone settings. Click on **Phone and Modem**, highlighted below.

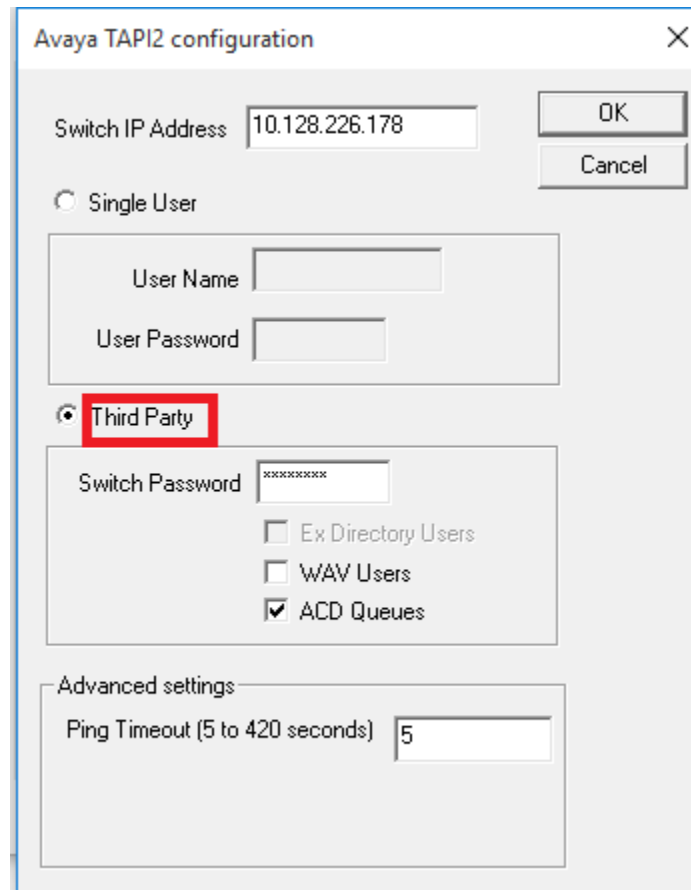


The TAPI driver must also be installed on the client PC. TAPI can be configured in Single User mode or Third Party mode and for compliance testing, Third Party mode was selected. Select the **Advanced** tab and click on **Configure**.



Once the **Avaya TAPI2 configuration** window opens, enter the following:

- **Switch IP address** Enter the IP address of IP Office.
- **Third Party** Click on the **Third Party** radio button.
- **Switch Password** Enter the IP Office System Password (this can be found in **Section 5.2**).
- **ACD Queues** Ensure that **ACD Queues** is ticked.



The image shows the 'Avaya TAPI2 configuration' dialog box. It has a title bar with a close button (X). The main area contains several fields and options. At the top right are 'OK' and 'Cancel' buttons. Below them is a 'Switch IP Address' field with the value '10.128.226.178'. There are two radio buttons: 'Single User' (unselected) and 'Third Party' (selected and highlighted with a red box). Below the 'Single User' section are 'User Name' and 'User Password' fields. Below the 'Third Party' section is a 'Switch Password' field with masked characters 'xxxxxxxx'. Below that are three checkboxes: 'Ex Directory Users' (unchecked), 'WAV Users' (unchecked), and 'ACD Queues' (checked). At the bottom is an 'Advanced settings' section with a 'Ping Timeout (5 to 420 seconds)' field containing the value '5'.

Avaya TAPI2 configuration

Switch IP Address 10.128.226.178

OK

Cancel

☐ Single User

User Name

User Password

☒ **Third Party**

Switch Password xxxxxxxx

☐ Ex Directory Users

☐ WAV Users

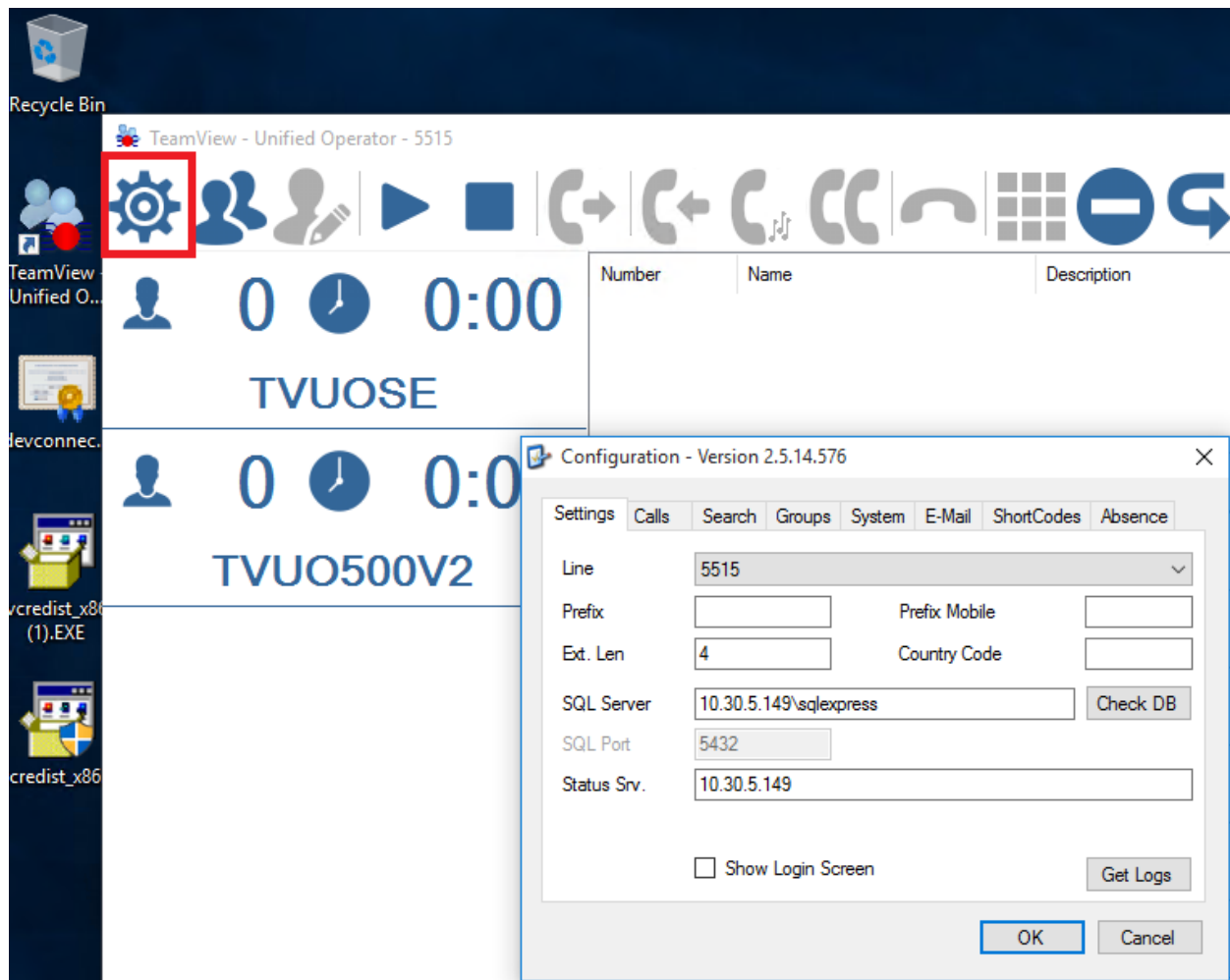
☒ ACD Queues

Advanced settings

Ping Timeout (5 to 420 seconds) 5

6.2.2 Configure the Unified Operator application

Open the Unified Operator application using the icon from the desktop which appears after installation. Once the Unified Operator window opens click on the **Configuration** icon at the top left of the screen which will open the Configuration window as shown below.



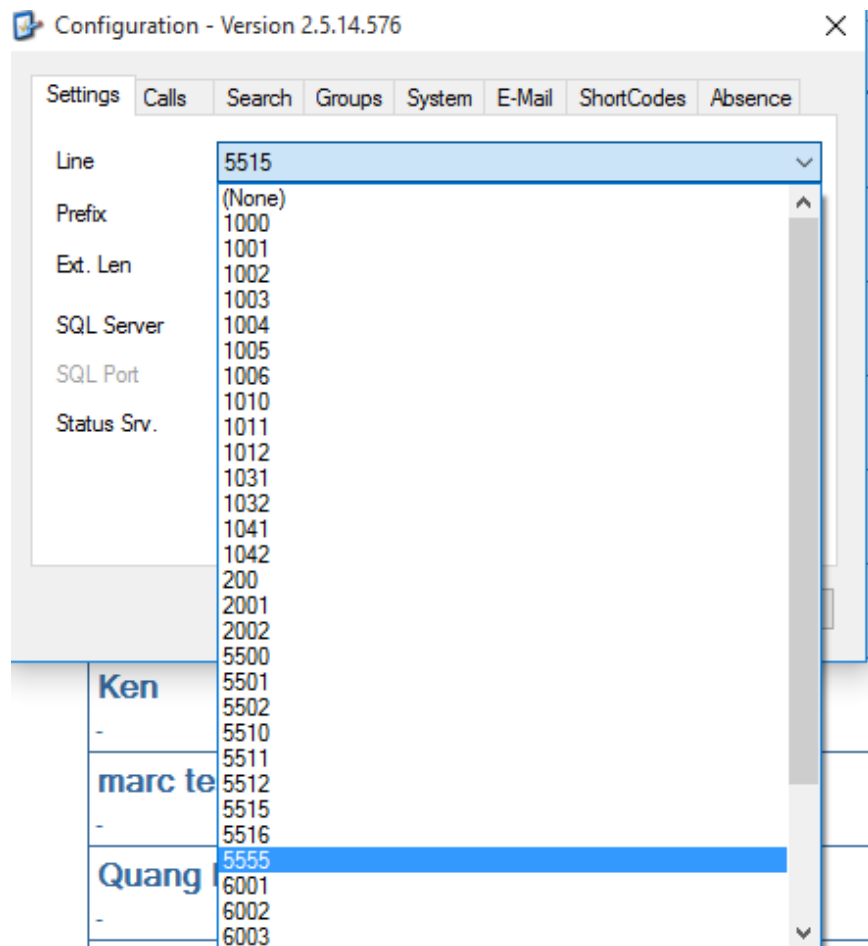
Once the **Configuration** window opens enter the following in the **Settings** tab:

- **Line** Select the IP Office phone which is going to act as the switchboard from the dropdown box.
- **Prefix** Enter the Prefix to dial to get an outside line (this was left blank for compliance testing).
- **SQL Server** Enter the Server name hosting the SQL Express .
- **Status Srv.** Enter the IP address of the TeamView® Status Server.

The screenshot shows the 'Configuration - Version 2.5.14.576' window with the 'Settings' tab selected. The window contains the following fields and controls:

- Line:** A dropdown menu showing '5515'.
- Prefix:** An empty text input field.
- Prefix Mobile:** An empty text input field.
- Ext. Len:** A text input field containing '4'.
- Country Code:** An empty text input field.
- SQL Server:** A text input field containing '10.30.5.149\sqlexpress'.
- Check DB:** A button next to the SQL Server field.
- SQL Port:** A text input field containing '5432'.
- Status Srv.:** A text input field containing '10.30.5.149'.
- Show Login Screen:** An unchecked checkbox.
- Get Logs:** A button.
- OK:** A button at the bottom right.
- Cancel:** A button at the bottom right.

When third party mode is selected a number of lines may be visible to the user as is shown below, chose the line to be used by the Unified Operator.



Line 5515 was chosen for compliance testing.

Click on the **Calls** tab and enter the following.

In the **on new call** frame,

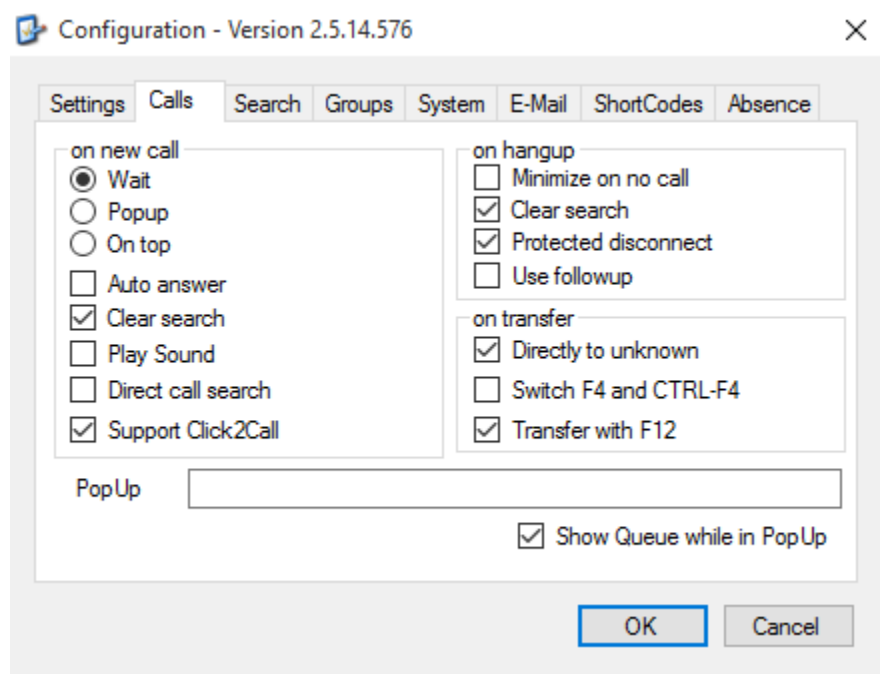
- Select the **Wait** radio button
- Check the **Clear search** check box
- Check the **Support Click2Call** check box

In the **on hangup** frame,

- Check the **Clear search** check box
- Check the **Protected disconnect** check box

In the **on-transfer** frame,

- Check the **Transfer with F12** check box
- **Directly to unknown** was checked to allow Blind transfers to the PSTN



Click on the **Search** tab and enter the following as shown below. These are the settings that were put in place by the Scantalk engineer.

The screenshot shows the 'Configuration - Version 2.5.14.576' dialog box with the 'Search' tab selected. The 'Search' section contains a checkbox for 'Search Numbers Left -> Right' (unchecked), a 'Min. length' field with the value '3', and a checkbox for 'Show picture' (unchecked). To the right, there are radio button selections for 'Name', 'Extension', 'Initials', 'Title', 'Department', 'Skills', and 'Location'. The 'Name' radio button is selected. At the bottom are 'OK' and 'Cancel' buttons.

Click on the **Groups** tab and enter the following:

- Select the appropriate hunt groups from the dropdown box. (These are the groups configured by Scantalk to monitor the hunt groups configured in **Section 5.4**)
- Enter the **HuntGroup** numbers that were setup in **Section 5.4**

The screenshot shows the 'Configuration - Version 2.5.14.576' dialog box with the 'Groups' tab selected. The 'Show Groups' checkbox is checked. Below it are four rows of dropdown menus. The first two rows show 'TVUOSE' and 'TVUO500V2' in the first dropdown, and '(Not Used)' in the second. The next two rows show '(Not Used)' in both dropdowns. At the bottom, the 'HuntGroup' field contains the text '2001,2002'. 'OK' and 'Cancel' buttons are at the bottom right.

Click on the **System** tab and enter the following.

- **Camp on** Enter ***33*N#** (this is the Short code for Call Queue as configured in **Section 5.5**)
- Check the **search at bottom** check box



Click the **OK** button to save the configuration.

The screenshot shows a configuration window titled "Configuration - Version 2.5.14.576". The "System" tab is selected. The "Shortcodes" section has "Camp on" set to "*33*N#". The "Display" section has "Search at bottom" checked. The "Calendar" section has "Fix start to" set to 10 and "Calendar time" set to 0. The "User Variable" section has "UVID1" set to an empty field. The "SMTP" section has "Use SMTP to send Mail" unchecked. The "Language" dropdown is set to "(Default)". The "WEB Mail Url" field is empty. The "OK" button is highlighted.

Settings	Calls	Search	Groups	System	E-Mail	ShortCodes	Absence
Shortcodes							
Camp on		*33*N#					
Display							
<input type="checkbox"/> Show greeting Message							
<input type="checkbox"/> Enlarge font							
<input checked="" type="checkbox"/> Search at bottom							
<input type="checkbox"/> Show presence in list							
Calendar							
<input type="checkbox"/> Fix start to		10		<input type="checkbox"/> Show timeline			
Calendar time		0		<input type="checkbox"/> Hide old appointments			
WEB Mail Url							
User Variable							
UVID1							
SMTP							
<input type="checkbox"/> Use SMTP to send Mail							
Language							
(Default)							

OK Cancel

6.3 Restart Unified Operator

In order to complete the configuration, the Unified Operator needs to be restarted, click on the Unified Operator icon from the Desktop (see **Section 7.1**). Once the Unified Operator window opens, the following two icons   should appear on the bottom left corner to signify that the Unified Operator is connected to SQL server (first icon) and that the TAPI is functioning correctly.

TeamView - Unified Operator - 5515



Number	Name	Description
6003	TVUOSE	TVUOSE<-Agent 6003

Number	Name	Description
0	TVUO500V2	

		11:00	13:00
Agent 6003	6003		
-			
Extn5515	5515		
-			
Extn5516	5516		
-			
Harry	5512		
-			
Jun Digi	5621		
-			
keld test	4902		

7. Verification Steps

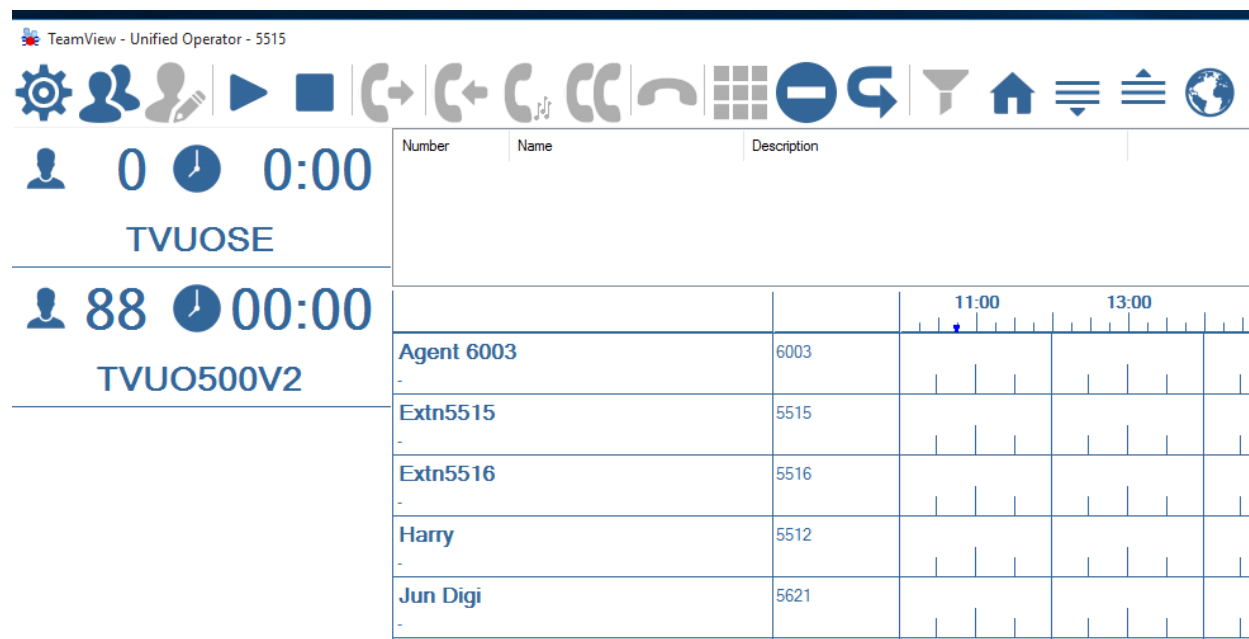
This section illustrates the steps necessary to verify that the TeamView® Unified Operator is configured correctly to connect to IP Office.

7.1 Verify Scantalk TeamView® Unified Operator

From the PC that has Unified Operator installed, open the application as shown below.



Once the application is opened, a screen similar to the following appears.



Place a call to the hunt group number associated with the switchboard for Unified Operator. The following should appear showing a call being presented to the switchboard and the call is answered using the icon highlighted. Note the waiting time of 31 seconds on the group at the top left of the window.

TeamView - Unified Operator - 5515

4 0:31 TVUOSE

Number	Name	Description
6003	TVUOSE	TVUOSE--Agent 6003

		11:00	13:00	15:00
Agent 6003	6003			
Extn5515	5515			
Extn5516	5516			
Harry	5512			
Jun Digi	5621			
keld test	4902			
Ken	5511			
marc test	4905			
Quang Nguyen	5500			
TVUO500V2	2002			

Once the call is answered, the group time reverts to zero and the call can then be disconnected again using the icon shown.

TeamView - Unified Operator - 5515

0 0:00 TVUOSE

88 00:00 TVUO500V2

Number	Name	Description
6003	TVUOSE	TVUOSE--Agent 6003

		11:00	13:00	15:00
Agent 6003	6003			
Extn5515	5515			
Extn5516	5516			
Harry	5512			
Jun Digi	5621			
keld test	4902			
Ken	5511			
marc test	4905			
Quang Nguyen	5500			
TVUO500V2	5002			

8. Conclusion

These Application Notes describe the configuration steps for TeamView® Unified Operator 2.5 from Scantalk to interoperate with Avaya IP Office 11.0 using the Telephony Application Programming Interface (TAPI) to provide presence information to Unified Operator. Unified Operator integrates with Avaya IP Office using the IP Office TAPI interface. All feature functionality test cases were completed successfully with any issues and observations noted in **Section 2.2**.

9. Additional References

This section references the Avaya and Scantalk 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 IP Office with Manager (English), Release 11, February 2019.

ii.Administering Avaya IP Office with Web Manager (English), Release 11, February 2019.

Product Documentation for Scantalk can be obtained at <http://www.scantalk.com>

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