



Avaya Solution & Interoperability Test Lab

Application Notes for Scantalk TeamView® Unified Operator 3.0 with Avaya IP Office 11.1 using TAPI for Presence Services - Issue 1.0

Abstract

These Application Notes describe the configuration steps for configuring Scantalk TeamView® Unified Operator 3.0 with Avaya IP Office 11.1 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 3.0 with Avaya IP Office 11.1 using the Telephony Application Programming Interface (TAPI) to provide presence information to Unified Operator. Avaya IP Office consists of a primary server, which is Avaya IP Office Server Edition, and a secondary server being 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 department 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 is also 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 Avaya 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 TeamView® Unified Operator to display the queue information.

TeamView® 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 put both information 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 Avaya IP Office was a Server Edition with a 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 TeamView® 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® Unified Operator.
- Transfers, Blind/Supervised.
- Transfers to External/Mobile numbers.
- Calls to busy numbers.
- Hold/Unhold.
- Set/Cancel Call Forwards.
- Serviceability/simulated LAN failures.

The tests were all functional in nature and performance testing was not included.

2.2. Test Results

Tests were performed to verify interoperability between TeamView® Unified Operator and IP Office. All the test cases passed.

2.3. Support

Technical support from Scantalk can be obtained through:

Web: www.scantalk.com

Phone: +45 48 10 49 11

E-mail: Support@scantalk.com

3. Reference Configuration

Figure 1 illustrates the network topology used during compliance testing. Unified Operator was configured to connect to either Avaya IP Office Server Edition or the Avaya 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 deskphones registered to both the Avaya IP Office Server Edition and the Avaya 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 Avaya IP Office Server Edition and the Avaya IP Office 500 V2 using third party TAPI connections.

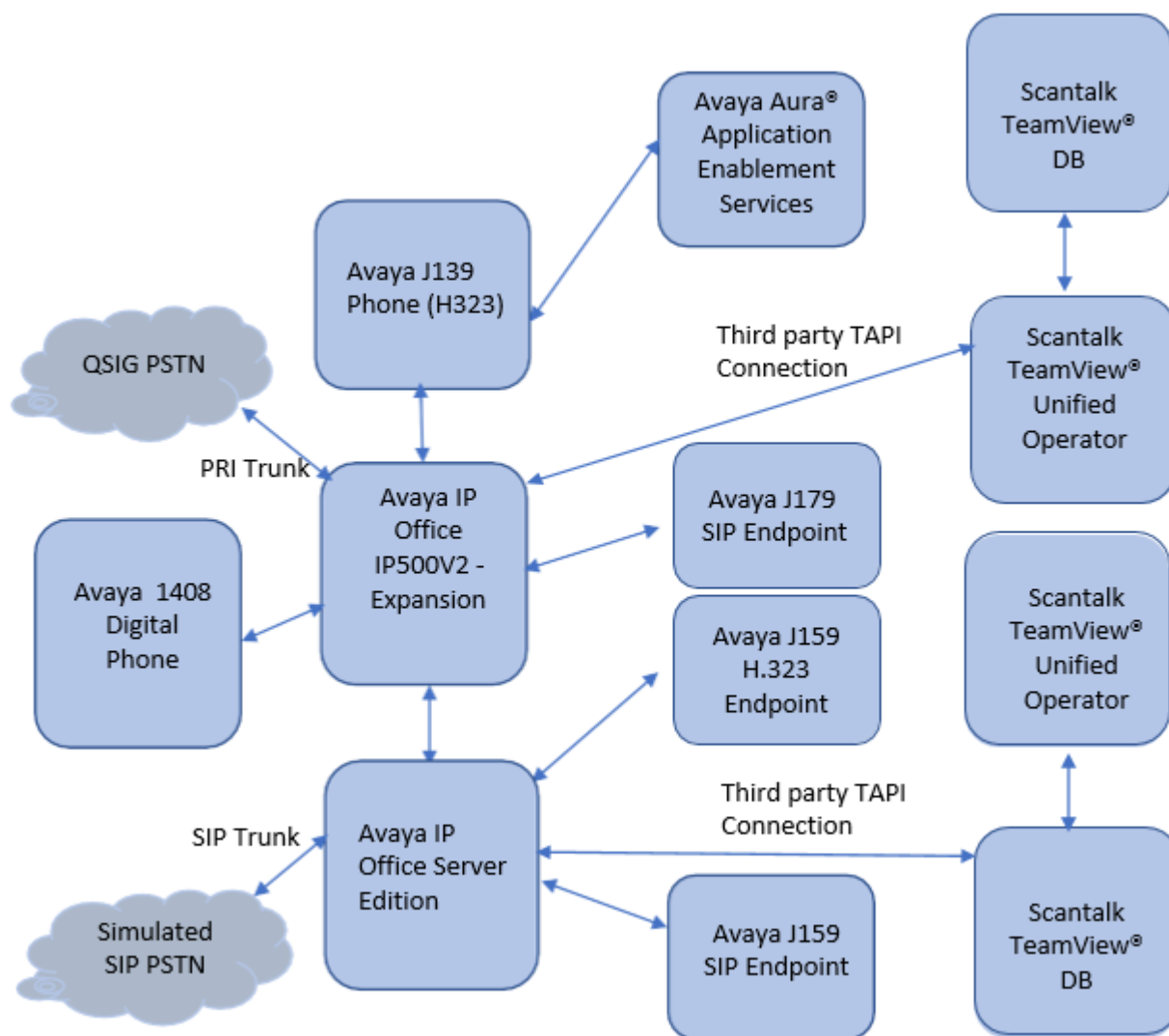


Figure 1: Scantalk TeamView® Unified Operator with Avaya IP Office Server Edition and IP Office IP500 V2

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	11.1.2.2.0 build 20
Avaya IP Office 500 V2	11.1.2.2.0 build 20
Avaya IP Office Manager running on a Windows 10 PC	11.1.2.2.0 build 20
Avaya J139 and J159 H.323 Deskphone	6.8.5
Avaya J159 and J179 SIP Deskphone	4.0.12.1
Avaya 1408 Digital Deskphone	4.0.10
Scantalk TeamView® Unified Operator running on a Windows 10 PC: TeamView® Unified Operator	3.0.609
Scantalk TeamView® Server running on Windows Server 2019 TeamView Unified Solutions 2021 With PostgreSQL	3.0

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 of IP Office illustrated in this section were all performed using Avaya IP Office Manager. The information provided in this section describes the configuration of 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 follow:

- Launch Avaya IP Office Manager.
- Enable TAPI/DevLink3.
- Check for CTI Pro Licenses.
- Create Hunt Groups.
- Add Short Code.
- Save Configuration.

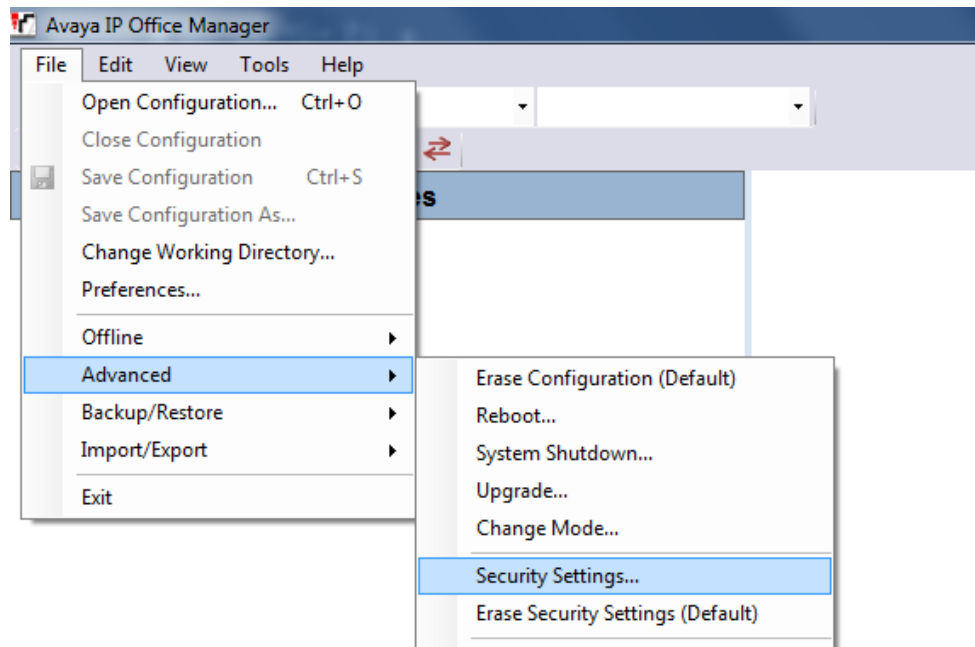
Note: TAPI may need to be enabled under Security. This procedure should be carried out by the IP Office Administrator. It is outlined here in **Section 5.2**.

5.1. Launch Avaya IP Office Manager

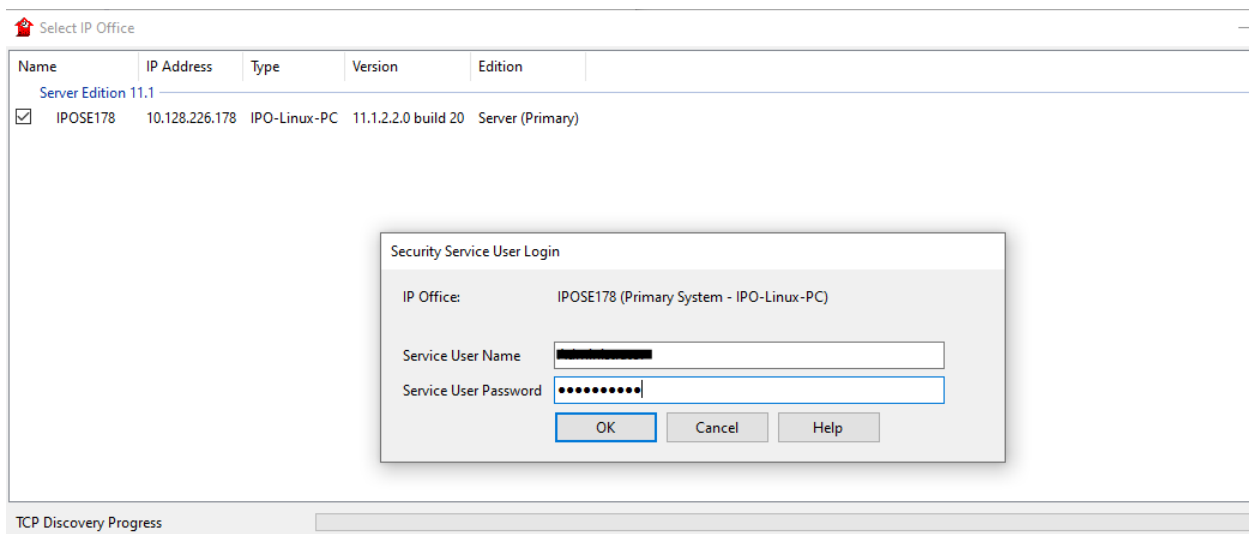
From Avaya IP Office Manager PC, go to **Start → Program → IP Office → Manager** to launch the Manager application (not shown).

5.2. Enable TAPI/DevLink3

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

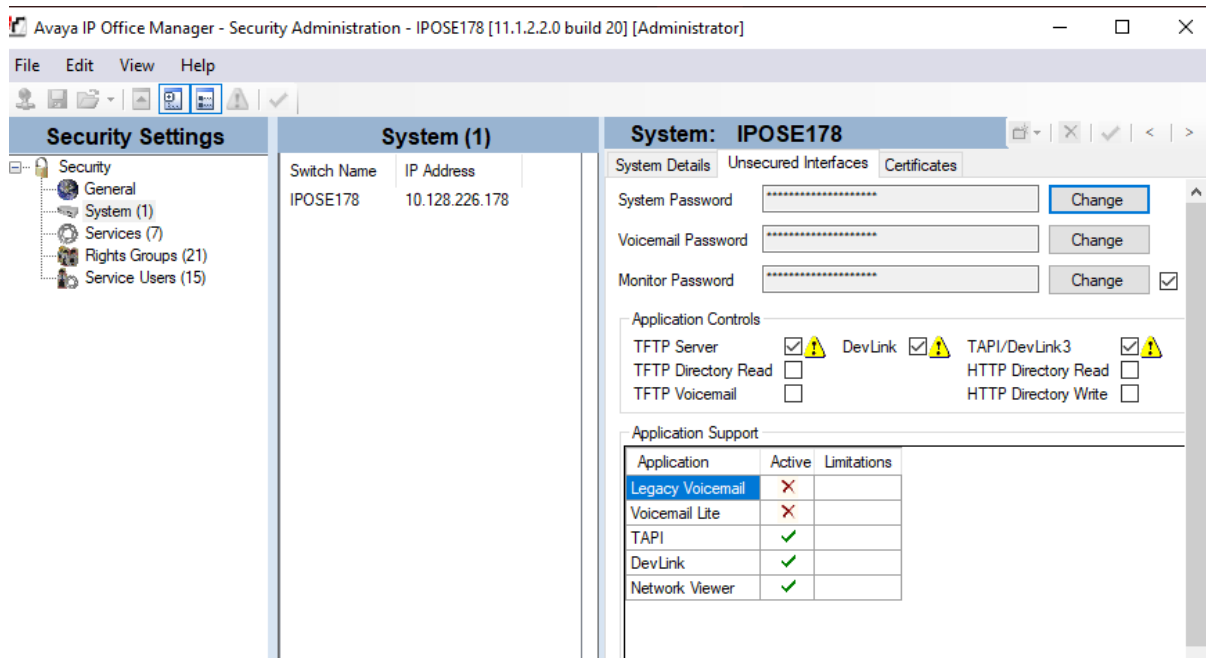


Log into Avaya IP Office Server Edition using the appropriate credentials to receive its configuration.



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.

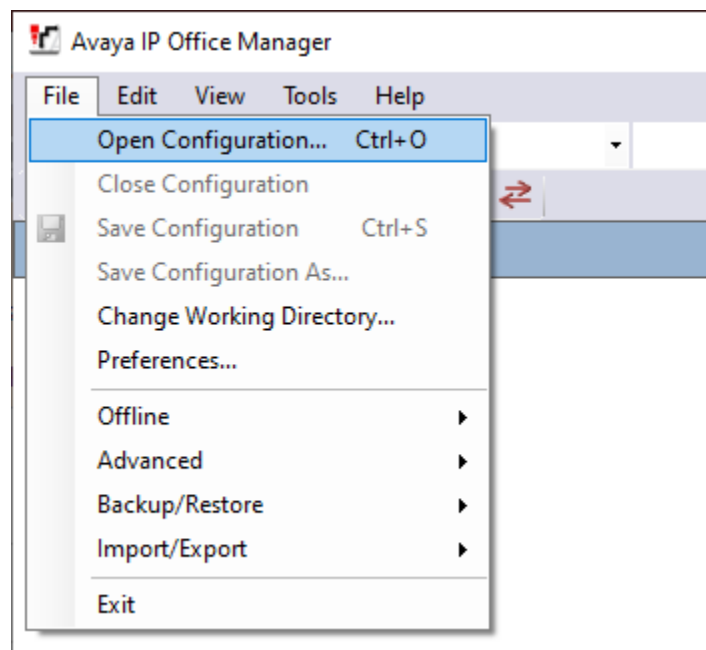
Note: The **System Password** can be set here if required as this password will be required in order to configure the TAPI driver throughout **Section 6**.



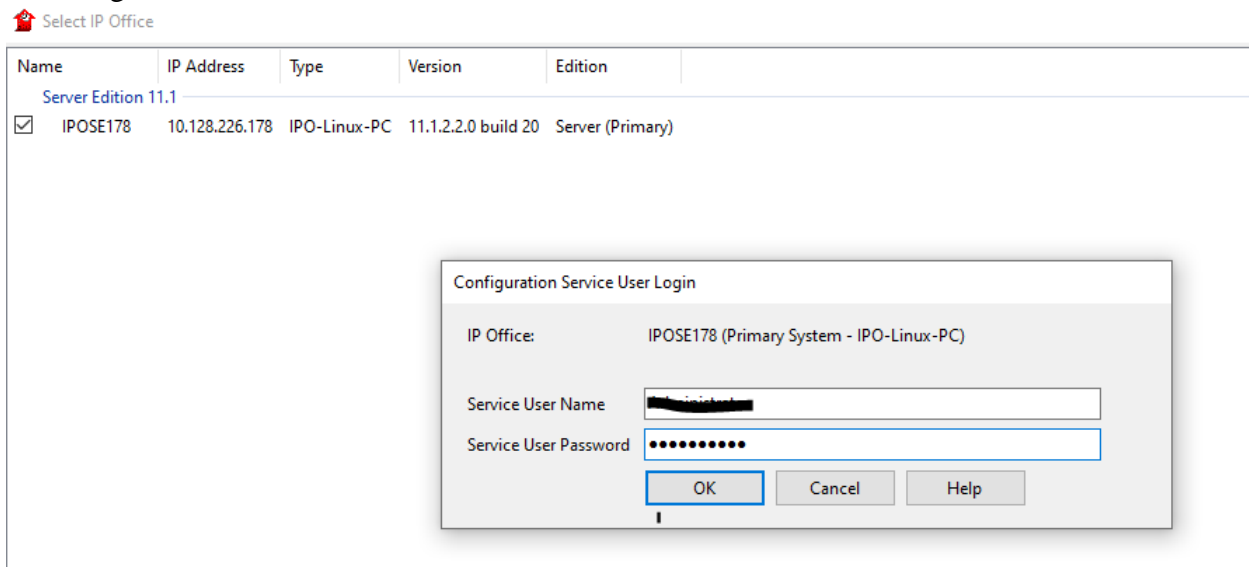
Repeat this section to enable TAPI/DevLink3 for IP Office 500 V2.

5.3. Check for CTI Pro Licenses

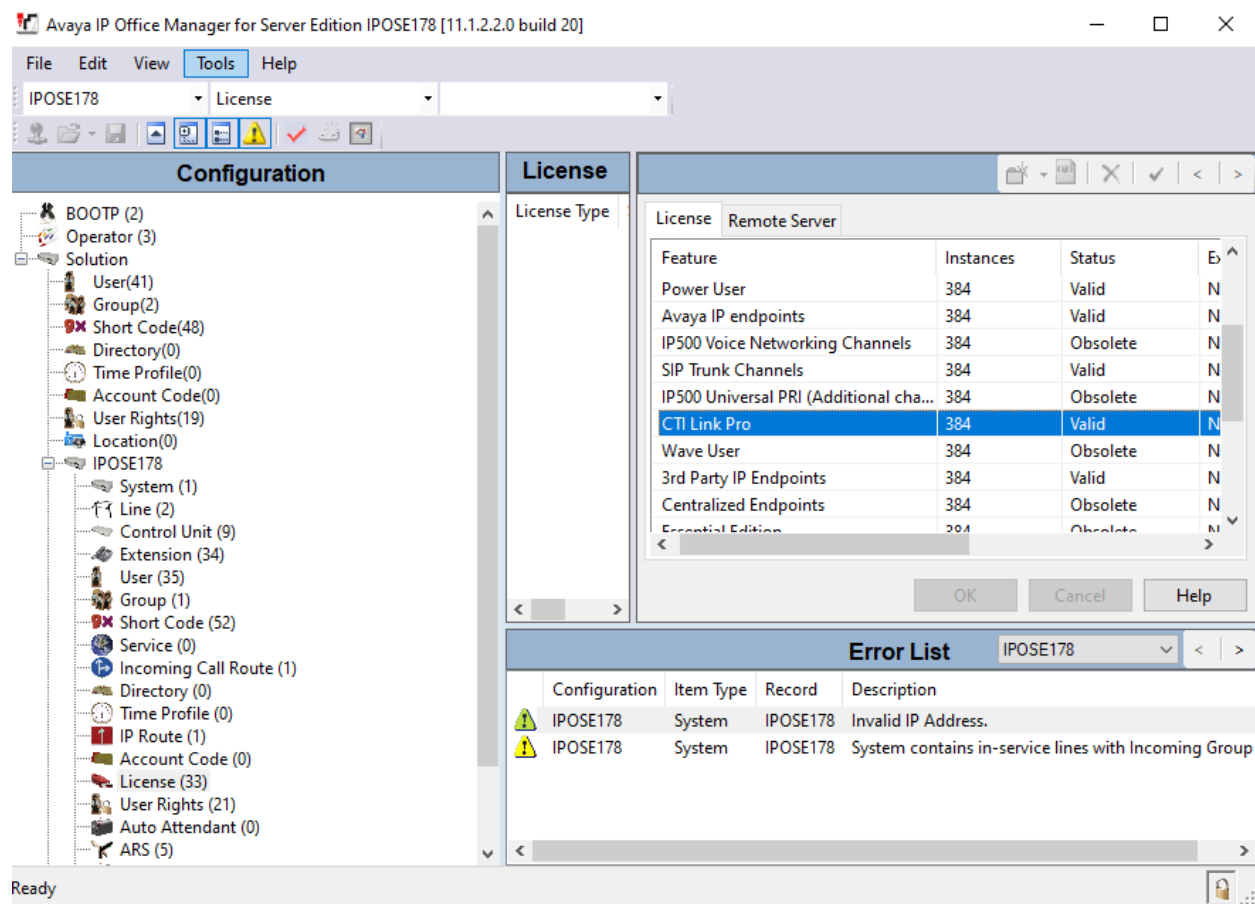
Click on **File** → **Configuration**.



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



Click on **IPOSE178** → **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 **384 CTI Link Pro Licenses** available and so in theory 384 simultaneous calls monitoring could be achieved.

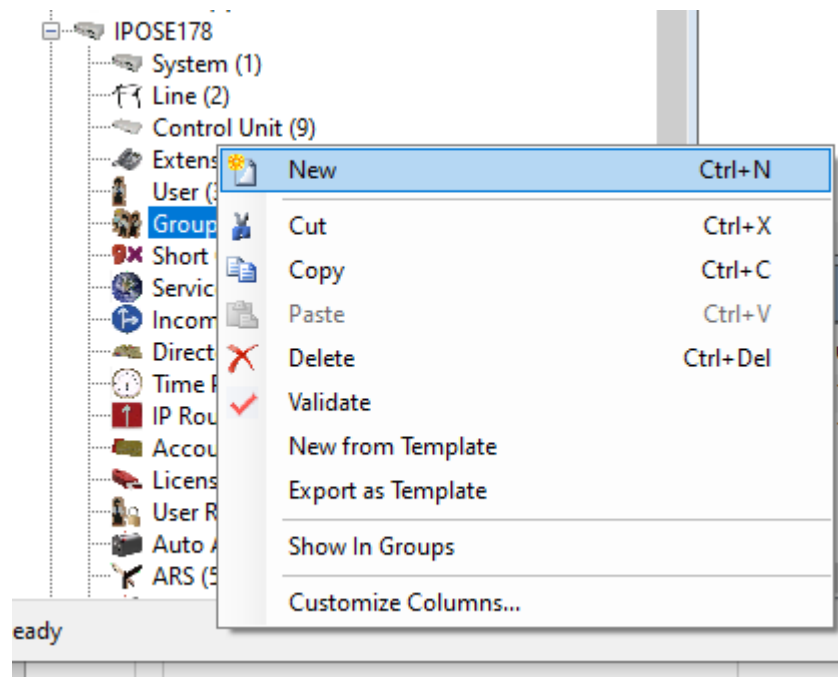


5.4. Create Hunt Groups

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 **IPOSE178** 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., **2003**).
- **Ring Mode** Select **Sequential** from the dropdown box.

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

Sequential Group <Hunt Group:0>: *

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

Name: TVUOSE | Profile: Standard Hunt Group

Extension: 2003 | ☐ 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: IPOSE178 | ☒ Advertise Group

User List

Extension	Name	System
-----------	------	--------

[Edit...](#) [Remove](#)

The following window appears allowing the addition of any IP Office extension into the group, for compliance testing extensions **5511, 5512 , 5515, 5601** were added. Click on **OK** to continue.

Sequential | Hunt Group | 2003 TVOUSE - Select Members

Filters

Extension Name Extension Number PBX Name PBX Address

Available Users (42/42)

Name	Extension	PBX Name	PBX Address
5501	5501	IPOSE178	10.128.226.178
ACCSUSer	5555	IPOSE178	10.128.226.178
Agent 6001	6001	IPOSE178	10.128.226.178
Agent 6002	6002	IPOSE178	10.128.226.178
Agent 6003	6003	IPOSE178	10.128.226.178
Agent 6004	6004	IPOSE178	10.128.226.178
Agent 6005	6005	IPOSE178	10.128.226.178
Agent 6006	6006	IPOSE178	10.128.226.178
Agent 6007	6007	IPOSE178	10.128.226.178
Agent 6008	6008	IPOSE178	10.128.226.178
Agent 6009	6009	IPOSE178	10.128.226.178
Agent 6010	6010	IPOSE178	10.128.226.178
BT5520	5520	IPOSE178	10.128.226.178
BT5521	5521	IPOSE178	10.128.226.178
BT5522	5522	IPOSE178	10.128.226.178
BT5523	5523	IPOSE178	10.128.226.178
BT5524	5524	IPOSE178	10.128.226.178
BT5525	5525	IPOSE178	10.128.226.178
BT5526	5526	IPOSE178	10.128.226.178
Ext5515	5515	IPOSE178	10.128.226.178
Ext5502	5502	IPOSE178	10.128.226.178
Ext5503	5503	IPOSE178	10.128.226.178
Ext5504	5504	IPOSE178	10.128.226.178
Ext5505	5505	IPOSE178	10.128.226.178
Ext5506	5506	IPOSE178	10.128.226.178
Ext5511	5511	IPOSE178	10.128.226.178
Ext5512	5512	IPOSE178	10.128.226.178
Ext5513	5513	IPOSE178	10.128.226.178
Ext5601	5601	IPOEXP180	10.128.226.180
Ext5602	5602	IPOEXP180	10.128.226.180
Ext5604	5604	IPOEXP180	10.128.226.180

Members (6/6)

Order	Enabled	Name	Extension	PBX Name	PBX Address
1	<input checked="" type="checkbox"/>	Ext5511	5511	IPOSE178	10.128.226.178
2	<input checked="" type="checkbox"/>	Ext5512	5512	IPOSE178	10.128.226.178
3	<input checked="" type="checkbox"/>	Ext5601	5601	IPOEXP180	10.128.226.180
4	<input checked="" type="checkbox"/>	Ext5602	5602	IPOEXP180	10.128.226.180
5	<input checked="" type="checkbox"/>	5501	5501	IPOSE178	10.128.226.178
6	<input checked="" type="checkbox"/>	Ext5515	5515	IPOSE178	10.128.226.178

Add Before
Add After
Append
Remove

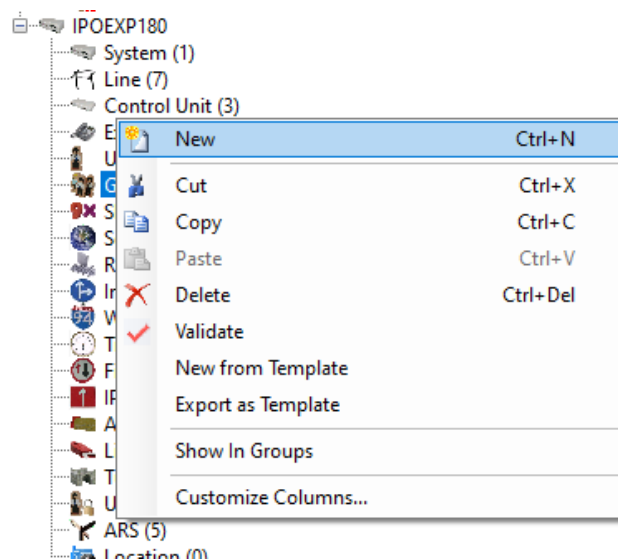
OK Cancel Help

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

Extension	Name	System
<input checked="" type="checkbox"/> 5511	Extn5511	IPOSE178
<input checked="" type="checkbox"/> 5512	Extn5512	IPOSE178
<input checked="" type="checkbox"/> 5601	Extn5601	IPOEXP180
<input checked="" type="checkbox"/> 5602	Extn5602	IPOEXP180
<input checked="" type="checkbox"/> 5501	5501	IPOSE178
<input checked="" type="checkbox"/> 5515	Ext5515	IPOSE178

5.4.2. Create a Hunt Group on 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 **IPOEXP180** 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 dialled to reach the switchboard Operator. (i.e., **2004**).
- **Ring Mode** Select **Sequential** from the dropdown box.

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

The screenshot shows the 'Sequential Group <Hunt Group:0>: *' configuration window. The 'Group' tab is selected, showing fields for Name (TVUO500V2), Extension (2004), Ring Mode (Sequential), Hold Music Source (No Change), Ring Tone Override (None), Agent's Status on No-Answer Applies To (None), and Central System (IPOEXP180). The Profile is set to 'Standard Hunt Group'. There is an unchecked checkbox for 'Exclude From Directory' and a 'No Answer Time (sec)' dropdown set to 'System Default (15)'. The 'Advertise Group' checkbox is checked. Below these fields is a 'User List' table with columns 'Extension', 'Name', and 'System'. The table is currently empty. At the bottom right are 'Edit...' and 'Remove' buttons.

Extension	Name	System
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On this occasion, extensions **5601, 5602, 5604, 5503, 5504, 5515** are associated with hunt group 2004.

Sequential | Hunt Group | 2004 TVOU500V2 - Select Members

Filters

Extension Name Extension Number PBX Name PBX Address

Available Users (42/42)

Name	Extension	PBX Name	PBX Address
5501	5501	IPOSE178	10.128.226.178
ACCSUSer	5555	IPOSE178	10.128.226.178
Agent 6001	6001	IPOSE178	10.128.226.178
Agent 6002	6002	IPOSE178	10.128.226.178
Agent 6003	6003	IPOSE178	10.128.226.178
Agent 6004	6004	IPOSE178	10.128.226.178
Agent 6005	6005	IPOSE178	10.128.226.178
Agent 6006	6006	IPOSE178	10.128.226.178
Agent 6007	6007	IPOSE178	10.128.226.178
Agent 6008	6008	IPOSE178	10.128.226.178
Agent 6009	6009	IPOSE178	10.128.226.178
Agent 6010	6010	IPOSE178	10.128.226.178
BT5520	5520	IPOSE178	10.128.226.178
BT5521	5521	IPOSE178	10.128.226.178
BT5522	5522	IPOSE178	10.128.226.178
BT5523	5523	IPOSE178	10.128.226.178
BT5524	5524	IPOSE178	10.128.226.178
BT5525	5525	IPOSE178	10.128.226.178
BT5526	5526	IPOSE178	10.128.226.178
Ext5515	5515	IPOSE178	10.128.226.178
Extn5502	5502	IPOSE178	10.128.226.178
Extn5503	5503	IPOSE178	10.128.226.178
Extn5504	5504	IPOSE178	10.128.226.178
Extn5505	5505	IPOSE178	10.128.226.178
Extn5506	5506	IPOSE178	10.128.226.178
Extn5511	5511	IPOSE178	10.128.226.178
Extn5512	5512	IPOSE178	10.128.226.178
Extn5513	5513	IPOSE178	10.128.226.178
Extn5601	5601	IPOEXP180	10.128.226.180
Extn5602	5602	IPOEXP180	10.128.226.180
Extn5604	5604	IPOEXP180	10.128.226.180

Members (6/6)

Order	Enabled	Name	Extension	PBX Name	PBX Address
1	<input checked="" type="checkbox"/>	Extn5601	5601	IPOEXP180	10.128.226.180
2	<input checked="" type="checkbox"/>	Extn5602	5602	IPOEXP180	10.128.226.180
3	<input checked="" type="checkbox"/>	Extn5604	5604	IPOEXP180	10.128.226.180
4	<input checked="" type="checkbox"/>	Extn5503	5503	IPOSE178	10.128.226.178
5	<input checked="" type="checkbox"/>	Extn5504	5504	IPOSE178	10.128.226.178
6	<input checked="" type="checkbox"/>	Ext5515	5515	IPOSE178	10.128.226.178

Add Before
Add After
Append
Remove

OK Cancel Help

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

Sequential Group TVOU500V2: 2004*

Group: **Queueing** | Overflow | Fallback | Voicemail | Voice Recording | Announcements | SIP

Name: TVOU500V2 | Profile: Standard Hunt Group

Extension: 2004 | ☐ 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: IPOEXP180 | ☒ Advertise Group

User List

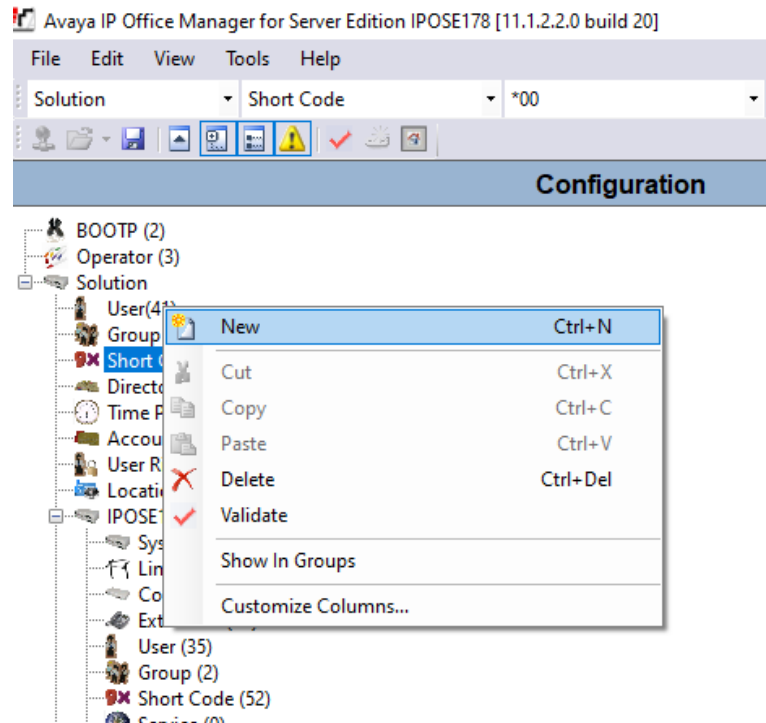
Extension	Name	System
<input checked="" type="checkbox"/> 5601	Extn5601	IPOEXP180
<input checked="" type="checkbox"/> 5602	Extn5602	IPOEXP180
<input checked="" type="checkbox"/> 5604	Extn5604	IPOEXP180
<input checked="" type="checkbox"/> 5503	Extn5503	IPOSE178
<input checked="" type="checkbox"/> 5504	Extn5504	IPOSE178
<input checked="" type="checkbox"/> 5515	Ext5515	IPOSE178

[Edit...](#) [Remove](#)

OK

5.5. Add Short Code

A short code needs to be created in order for TeamView® 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 6.3** (System tab).

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: ☐

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 **IPOSE178** and the IP Office 500 V2 **IPOEXP180**. Click on **OK** at the bottom of the screen to complete this.

Send Multiple Configurations

Select	IP Office	Change Mode	RebootTime	Incoming Call Barring	Outgoing Call Barring	Error Status	Progress
<input checked="" type="checkbox"/>	IPOSE178	Merge	4:10 PM	<input type="checkbox"/>	<input type="checkbox"/>		0%
<input checked="" type="checkbox"/>	IPOEXP180	Merge	4:10 PM	<input type="checkbox"/>	<input type="checkbox"/>		0%

OK Cancel Help

6. Configure Scantalk TeamView® Unified Operator

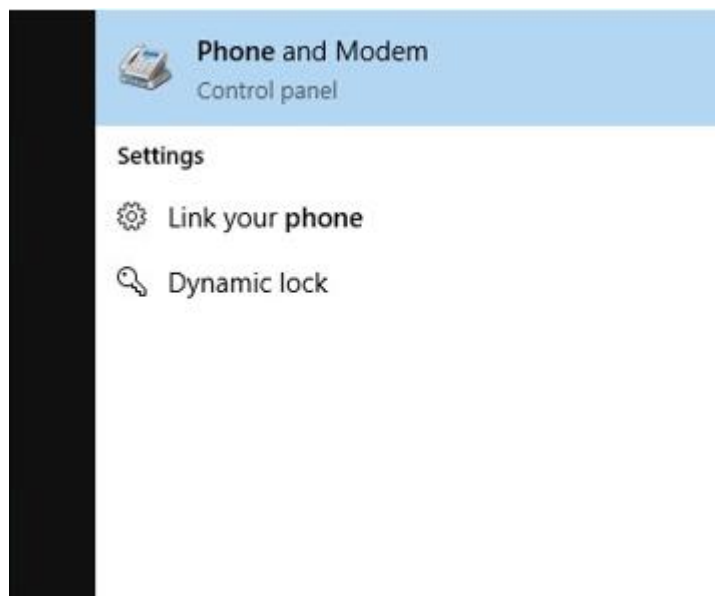
This section describes the steps preformed to configure the Unified Operator. It is implied that the Unified Operator software is already installed. It is also implied that the TeamView® AD LookUp application and prerequisite software is installed and configured. For all other provisioning information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

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.

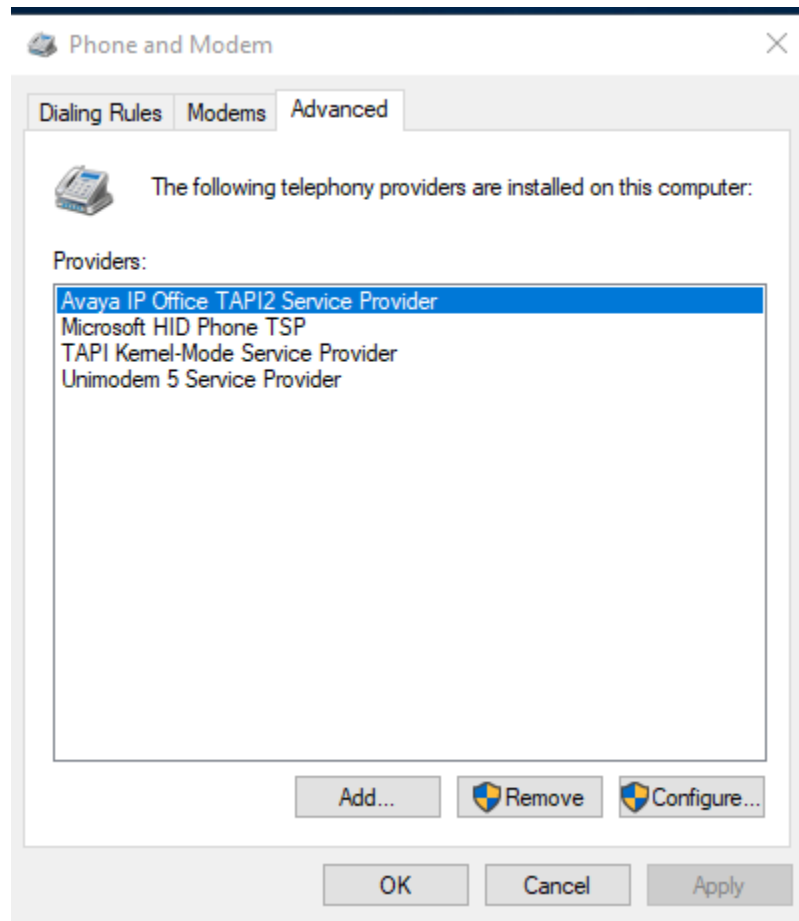
6.1. Configure TeamView® Server

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

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



On **Phone and Modem** window go to **Advanced** tab, select **Avaya IP Office TAPI2 Service Provider** and press **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 **System Password** of IP Office in **Section 5.2**.
- **ACD Queues** Check the **ACD Queues** check box.

Click the **OK** button.

The screenshot shows the 'Avaya TAPI2 configuration' dialog box. At the top, it says 'Phone and Modem'. The dialog has a title bar with 'Avaya TAPI2 configuration' and a close button. Inside, there's a 'Switch IP Address' field with the value '10.128.226.178'. Below that are two radio buttons: 'Single User' (unselected) and 'Third Party' (selected). Under 'Single User' are 'User Name' and 'User Password' fields. Under 'Third Party' is a 'Switch Password' field with 'XXXXXXXXXX' and 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 set to '5'. 'OK' and 'Cancel' buttons are in the top right.

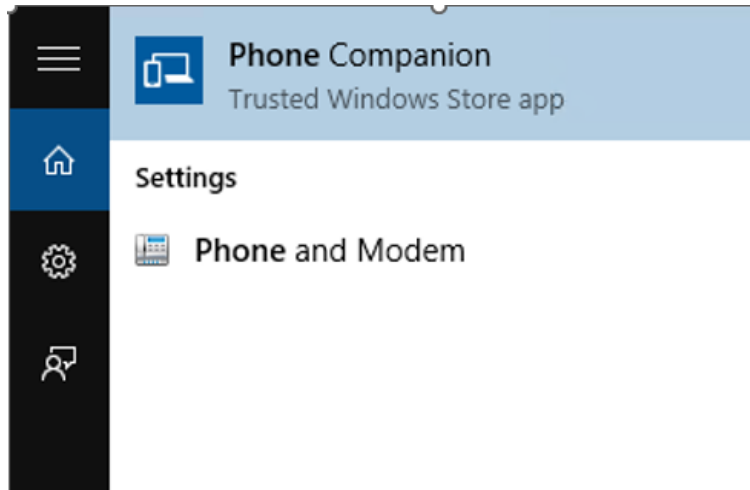
Note: The second TeamView® server was set up in the same way to connect to the other IP Office.

6.2. Configure TeamView® Unified Operator

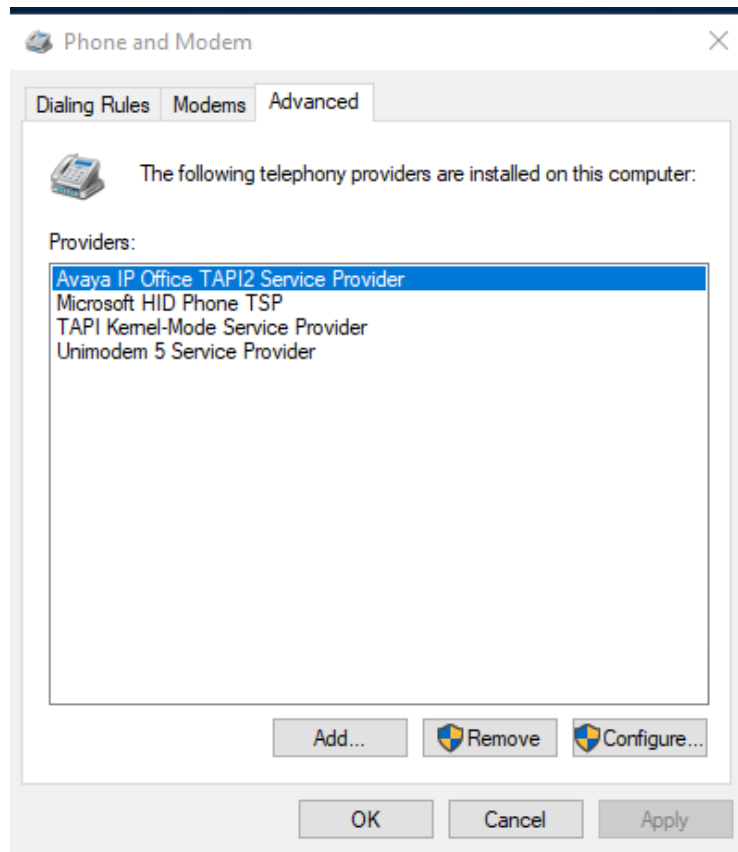
The configuration of the Unified Operator involves the configuration of the TAPI driver as well as some configuration of the Unified Operator application.

6.2.1. Configure the TAPI Driver

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



On **Phone and Modem** window go to **Advanced** tab, select **Avaya IP Office TAPI2 Service Provider** and press **Configure**.



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

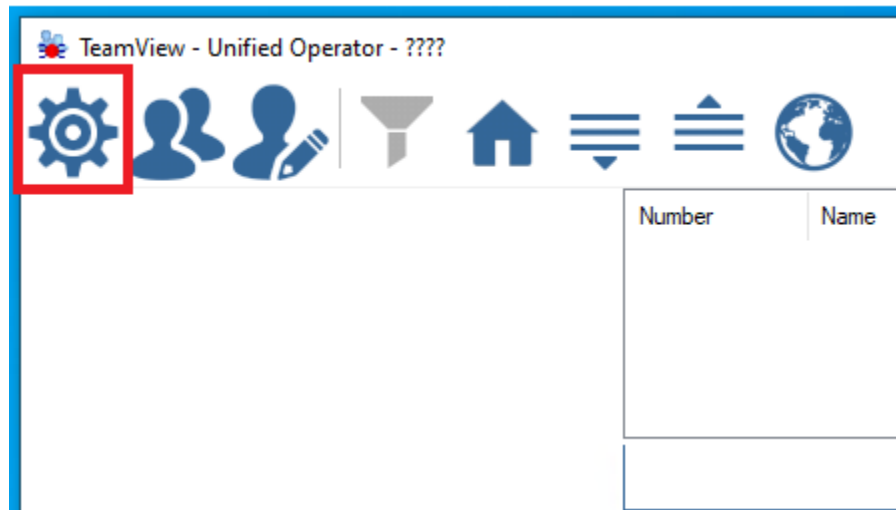
- **Switch IP address** Enter the IP address of IP Office.
- **Third Party** Click on the **Third Party** radio button.
- **Switch Password** Enter the IP Office System Password (this can be found in **Section 5.2**).
- **ACD Queues** Ensure that **ACD Queues** is ticked.

The screenshot shows the 'Avaya TAPI2 configuration' dialog box. At the top, the title bar reads 'Avaya TAPI2 configuration' with a close button (X) on the right. Below the title bar, there are two buttons: 'OK' and 'Cancel'. The main area contains several fields and options:

- 'Switch IP Address' field with the value '10.128.226.178'.
- 'Single User' radio button (unselected).
- 'User Name' and 'User Password' fields (empty).
- 'Third Party' radio button (selected).
- 'Switch Password' field (empty).
- 'Ex Directory Users' checkbox (unchecked).
- 'WAV Users' checkbox (unchecked).
- 'ACD Queues' checkbox (checked).
- 'Advanced settings' section with a 'Ping Timeout (5 to 420 seconds)' field containing the value '5'.

6.3. 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.



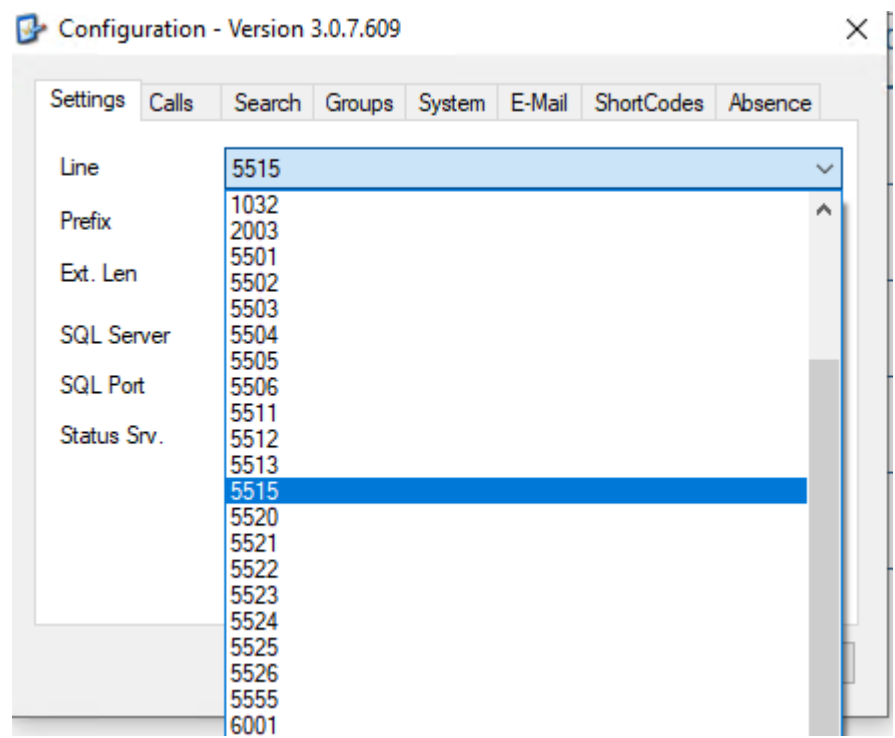
Once the **Configuration** window opens enter the following in the **Settings** tab:

- **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 IP Address, in this case **10.103.1.51**.
- **Status Srv.:** Enter the IP address or Server Name of the TeamViewer® Status Server, in this case **WIN-K0ABPFN1816**.

The screenshot shows the 'Configuration - Version 3.0.7.609' window with the 'Settings' tab selected. The window has a title bar with a close button (X) and a toolbar with tabs: Settings, Calls, Search, Groups, System, E-Mail, ShortCodes, and Absence. The 'Settings' tab is active, displaying the following fields and controls:

- Line:** A dropdown menu currently showing '(None)'.
- Prefix:** An empty text input field.
- Prefix Mobile:** An empty text input field.
- Ext. Len:** A text input field containing the value '6'.
- Country Code:** An empty text input field.
- SQL Server:** A text input field containing '10.103.1.51', with a 'Check DB' button to its right.
- SQL Port:** A text input field containing '5432'.
- Status Srv.:** A text input field containing 'WIN-K0ABPFN1816'.
- Show Login Screen:** A checkbox that is checked.
- Get Logs:** A button located below the 'Show Login Screen' checkbox.
- OK and Cancel:** Buttons at the bottom right of the window.

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. On the **new call**,

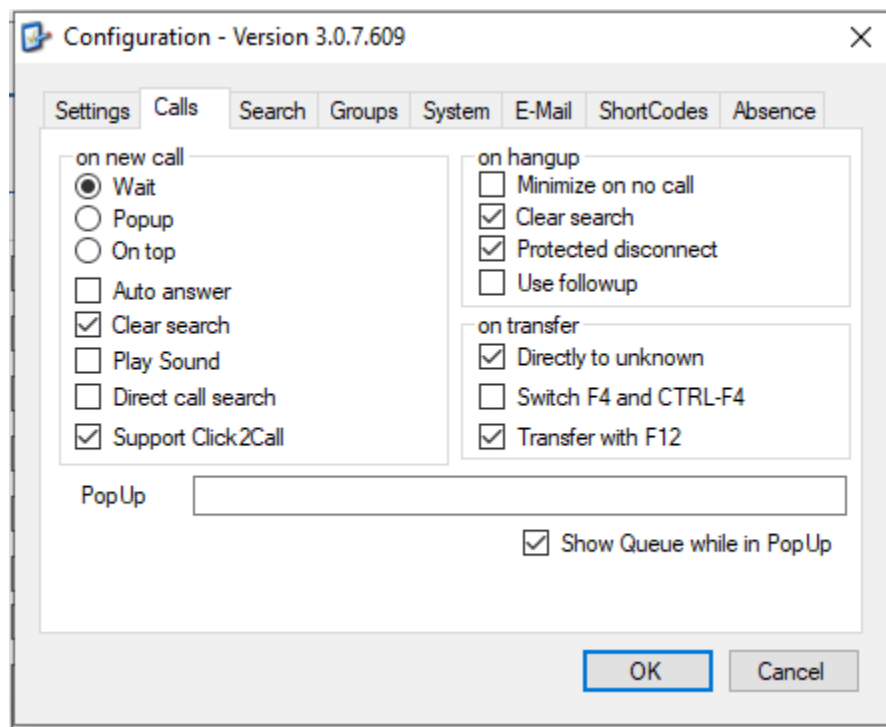
- Select the **Wait** radio button
- Check the **Clear search** check box
- Check the **Support Click2Call** check box

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 3.0.7.609' window 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 options for 'Name', 'Extension', 'Initials', 'Title', 'Department', 'Skills', and 'Location'. The 'Name' radio button is selected. At the bottom right are 'OK' and 'Cancel' buttons.

Click on the **Groups** tab, 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 3.0.7.609' window with the 'Groups' tab selected. The 'Show Groups' checkbox is checked. Below it are four pairs of dropdown menus. The first two are labeled 'TVOUSE' and 'TVOUEXP', and the next two are unlabeled. All dropdowns currently show '(Not Used)'. Below these is a 'HuntGroup' text field containing the value '2003, 2004'. At the bottom right are 'OK' and 'Cancel' buttons.

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**

Click **OK** to save the configuration

The screenshot shows a configuration window titled "Configuration - Version 3.0.7.609". The "System" tab is selected, showing various settings. The "Shortcodes" section has "Camp on" set to "*33*N#" and "Priority Call" is empty. The "Display" section has "Show greeting Message", "Enlarge font", and "Show presence in list" unchecked, while "Search at bottom" is checked. The "Calendar" section has "Fix start to" set to 18, "Calendar time" set to 0, and "Show timeline" and "Hide old appointments" unchecked. The "User Variable" section has "UVID1" empty. The "Logging" section has "Level" set to 4. The "SMTP" section has "Use SMTP to send Mail" unchecked. The "Language" dropdown is set to "(Default)". The "WEB Mail Url" is empty. The "OK" button is highlighted with a blue border.

Section	Setting	Value
Shortcodes	Camp on	*33*N#
	Priority Call	
Display	Show greeting Message	<input type="checkbox"/>
	Enlarge font	<input type="checkbox"/>
	Search at bottom	<input checked="" type="checkbox"/>
	Show presence in list	<input type="checkbox"/>
Calendar	Fix start to	18
	Calendar time	0
	Show timeline	<input type="checkbox"/>
	Hide old appointments	<input type="checkbox"/>
User Variable	UVID1	
Logging	Level	4
SMTP	Use SMTP to send Mail	<input type="checkbox"/>
Language	Language	(Default)
WEB Mail Url		

6.2 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.



The screenshot displays the Unified Operator interface. At the top, there is a toolbar with various icons for settings, user management, and call control. Below the toolbar, the interface is divided into several sections. On the left, there are two status boxes: one for 'TVOUSE' showing 0 users and 0:00 duration, and another for 'TVOUEXP' showing 88 users and 00:00 duration. The main area contains a table with columns for Number, Name, and Description. Below the table, there is a search bar and a status bar at the bottom with two green checkmark icons.

Number	Name	Description
6003	TVUOSE	TVUOSE--Agent 6003

Agent	Number	Status
Agent 6003	6003	11:00
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.

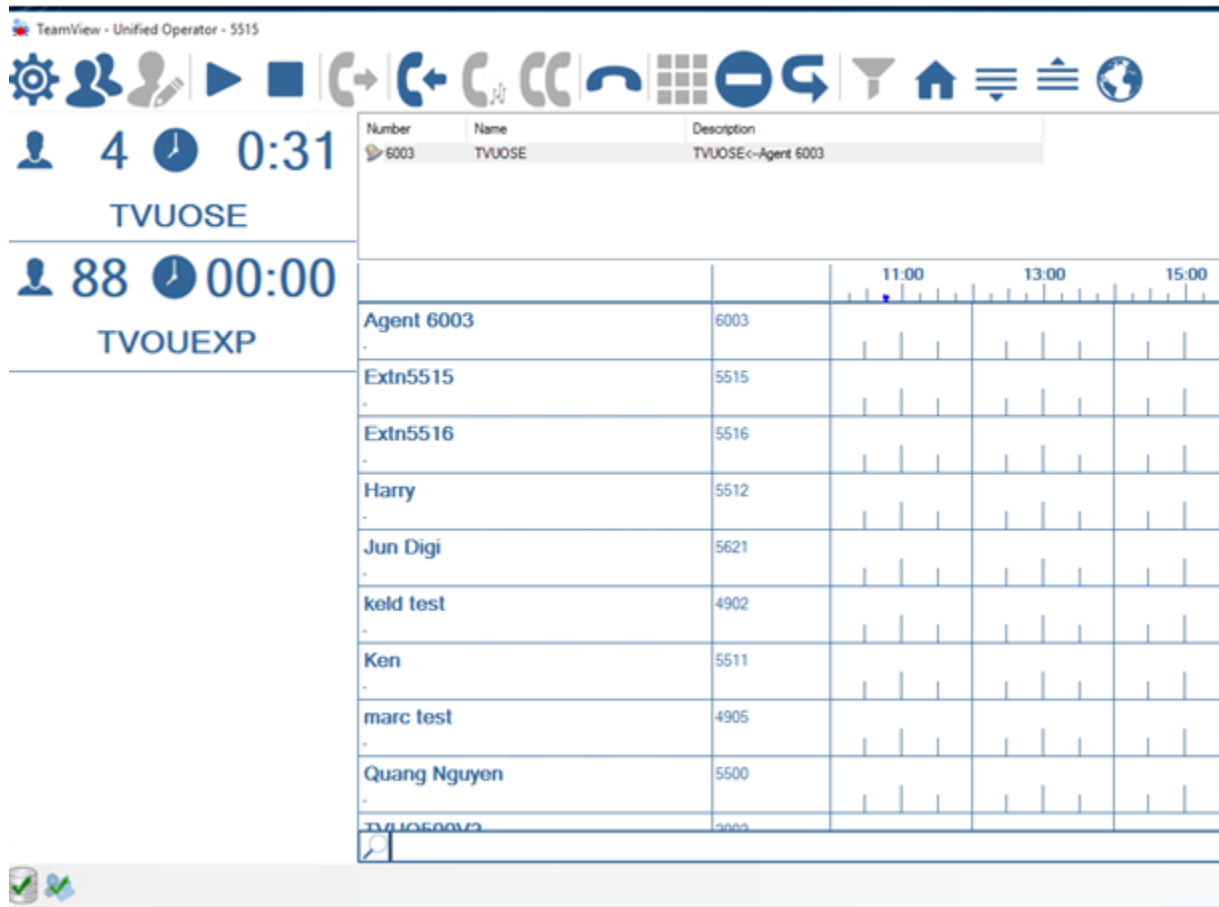
TeamView - Unified Operator - 5515

0 0:00 TVOUSE

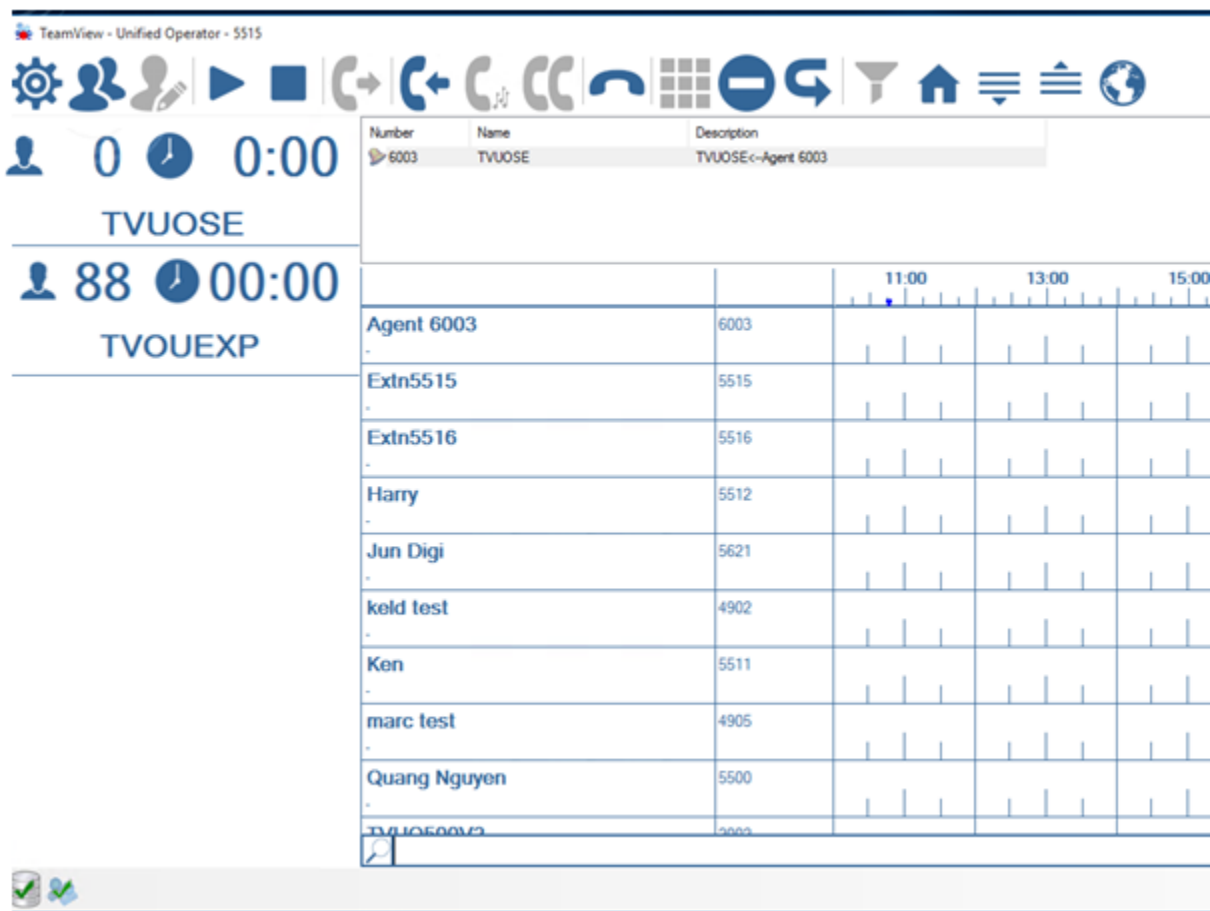
88 00:00 TVOUEXP

Number	Name	Description
Agent 6003	6003	
Extn5515	5515	
Extn5516	5516	
Harry	5512	
Jun Digi	5621	

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.



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



8. Conclusion

These Application Notes describe the configuration steps required for Scantalk TeamView® Unified Operator 3.0 with Avaya IP Office 11.1 using the Telephony Application Programming Interface (TAPI). All feature and serviceability test cases were completed with 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>.

1. *Administering Avaya IP Office using Manager*, Release 11.1.x, Feb 2022
2. *Administering Avaya IP Office with Web Manager (English)*, Release 11.1.x, February 2022

Product documentation for Scantalk products may be found at <https://www.scantalk.com/>

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