



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Avaya IP Office R9.0 with Scantalk TeamView Office Manager - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Avaya IP Office R9.0 with Scantalk TeamView Office Manager.

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

TeamView Office Manager is part of TeamView application Suite. TeamView Office Manager is a dedicated application for employees in the company's Backoffice or telephony call center function, where it is used to manage all communications. The Office Manager application provides the user with a complete organizational overview and 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 3 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 a message to staff via e-mail or SMS, or paste text message on employees for the information of colleagues (Not tested).

TeamView Office Manager is usually installed on a client PC which is part of the same Domain as the TeamView Status Server. The client PC will also have installed an Avaya IP Office Telephony Application Programming Interface (TAPI). The Avaya IP Office Telephony Application Programming Interface is configured in Single User Mode. An Avaya IP Office TAPI is also installed on the Teamview Status Server and configured in Third Party mode.

2. General Test Approach and Test Results

The general test approach was to configure the TeamView Office Manager (Office Manager) to communicate with the Avaya IP Office (IP Office) as implemented on a customer's premises. Avaya IP Office Telephony Application Programming Interface (TAPI) is used to control the Avaya Deskphone (used by the Office Manager user) There is no specific configuration on the IP Office besides a Hunt Group which contains the Extension of the Deskphone to be used by the Office Manager user. The Office Manager user uses Microsoft SQL Server or Microsoft SQL Server Express via a direct connection or ODBC. TeamView AD LookUp (AD LookUp) acquires user information from MS Active Directory, Optional TeamView Calendar LookUp acquires calendar information from MS Exchange/Notes/Google and puts both into the Microsoft SQL Server. The Office Manager user is 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.

Note: During compliance testing the Office Manager status server was installed on a Virtual Machine configured with Microsoft Windows 2008 R2 operating system. Office Manager was installed on the same server as the TeamView Status Server. An Avaya Digital 2420 acted as the physical Deskphone for the Office Manager. The Avaya IP Office TAPI was also installed on the

Status Server and was configured in Third Party mode. Office Manager Users can log in using H.323 IP or Digital phones or Avaya Video Softphone (not tested).

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.

2.1. Interoperability Compliance Testing

The testing included typical functions including

- Answer internal/external calls
- Calls using Active Directory
- Transfers, Blind/Supervised
- Transfers to External/Mobile numbers
- Calls to busy numbers
- Hold/Retrieve

2.2. Test Results

Tests were performed to insure full interoperability between Scantalk TeamView Office Manager and Avaya IP Office. The tests were all functional in nature and performance testing was not included. All the test cases passed successfully.

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. Office Manager was configured to connect to the IP Office using an Avaya IP Office TAPI. A Hunt Group was configured on the IP Office to route calls to the Office Manager user. An Avaya 2420 Digital Deskphone was used as the Office Manager's phone. During compliance testing Office Manager was installed on the same server as TeamView Status Server, TeamView AD LookUp and MS SQL Express. The Avaya IP Office TAPI was also installed on the Scantalk Server and was configured in Third Party Mode. Digital, Analogue, 96XX H323 and Soft phones were configured on the IP Office to generate intra-switch calls (calls between phones on the same system). Outbound/inbound calls to/from the PSTN were made using a QSIG trunk.

Note: Avaya IP Office TAPI, configured in Single User Mode must be installed on the same PC:

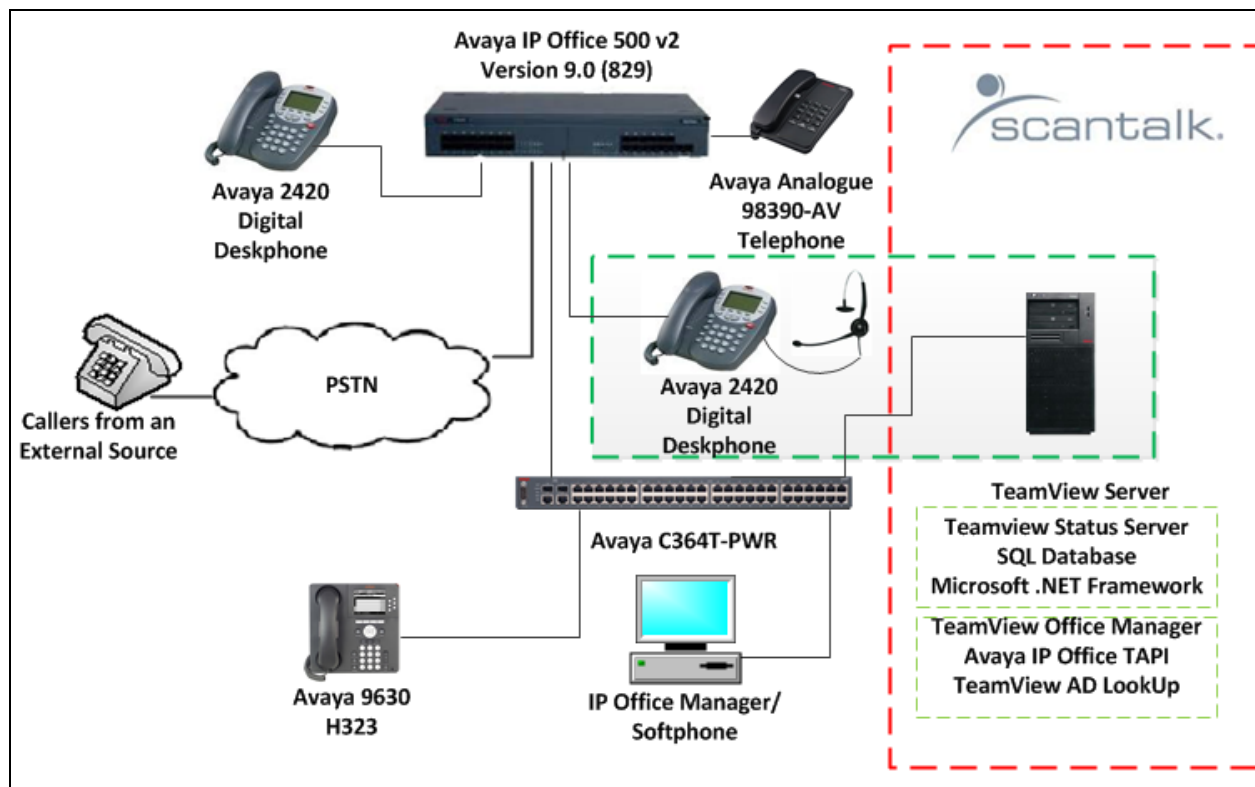


Figure 1: Avaya and Scantalk Reference Configuration

4. Equipment and Software Validated

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

Avaya Equipment	Software / Firmware Version
Avaya IP Office 500v2	9.0 Build 829
Avaya IP Office Manager	9.0 Build 829
Avaya IP Office TAPI2	Version 3.2.27
Avaya 9630 IP Telephone	Release 3.2
Avaya 2420 Digital Telephones	--
Avaya IP Office softphone	3.2.3.49 68975
Avaya Analogue Telephone	--
Avaya 9630 IP Telephone	Release 3.2
Scantalk Equipment	Software / Firmware Version
Window 2008 Server R2 Standard SP1 (64 bit)	TeamView Office Manager 2.1.9.260 TeamView AD LookUp 2.5 TeamView Calendar LookUp 3.2 (optional) TeamView Status Server 1.07.35 Microsoft SQL Express 2008 Microsoft .Net Framework 4.5.1 Microsoft Windows Installer 5.0 Microsoft PowerShell 6.1

Note: Testing was performed with IP Office 500 v2 R9.0, but it also applies to IP Office Server Edition R9.0. Note that IP Office Server Edition requires an Expansion IP Office 500 v2 R9.0 to support analogue or digital endpoints or trunks. IP Office Server Edition does not support TAPI Wave or Group Voicemail.

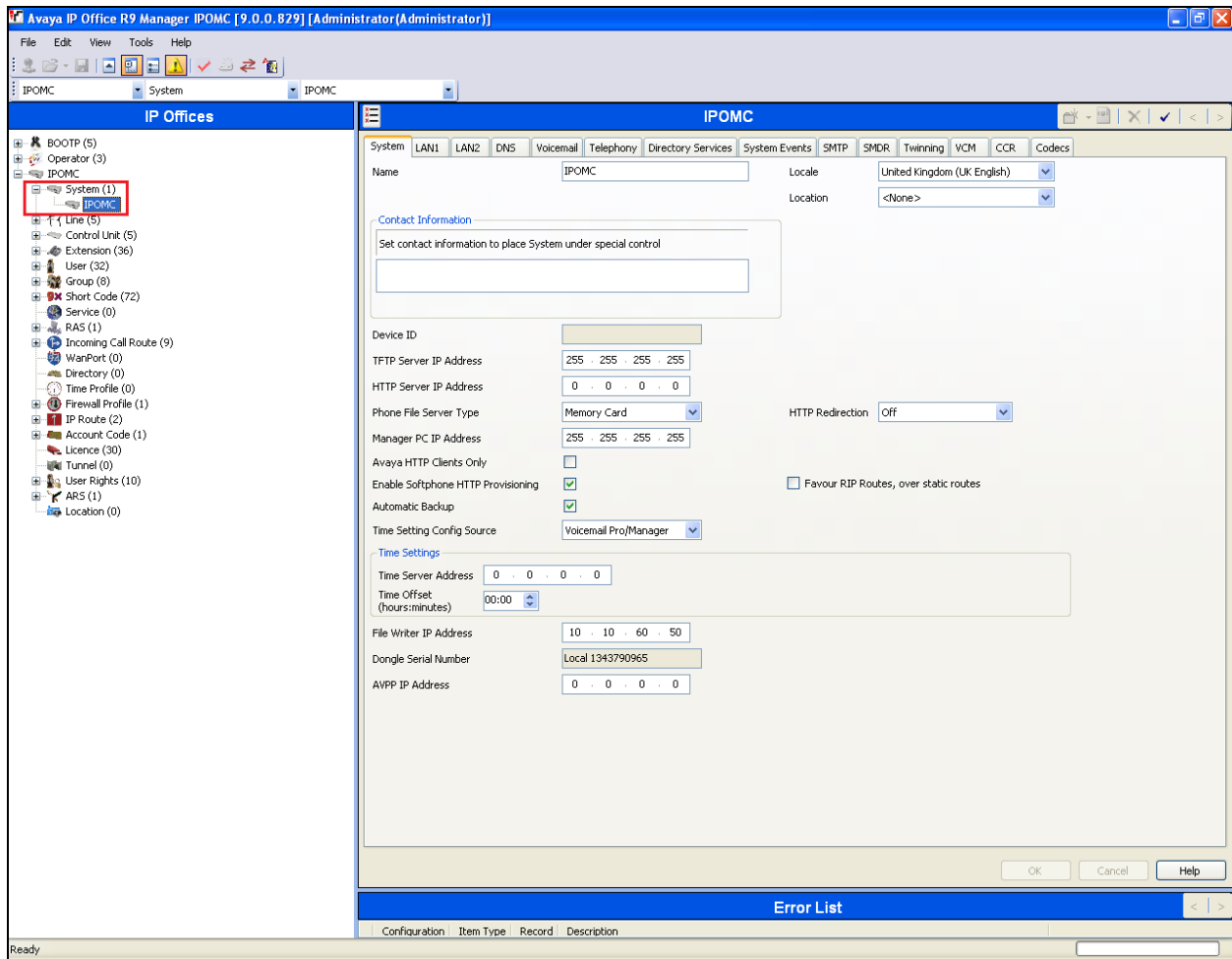
5. Avaya IP Office Configuration

Configuration and verification operations on the Avaya IP Office illustrated in this section were all performed using Avaya IP Office Manager. The information provided in this section describes the configuration of the Avaya IP Office for this solution. It is implied a working system is already in place. The only unique configuration required to interact with Office Manager is to configure a Hunt Group. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 10**. The configuration operations described in this section can be summarized as follows:

- Launch Avaya IP Office Manager
- Configure Hunt group
- Save Configuration

5.1. Launch Avaya IP Office Manager

From the Avaya IP Office Manager PC, go to **Start→Programs→IP Office→Manager** to launch the Manager application. Log in to Avaya IP Office using the appropriate credentials to receive its configuration (Not shown). In the IP Offices window expand the Configuration Tree and double-click **System**. During compliance testing the System was called IPOMC.



5.2. Configure Hunt Group

In the Manager window, go to the Configuration Tree, right click **Group** and select **New** (Not shown) in the window that appears and enter the Following:

- **Name** Enter an informative name (i.e. Scantalk)
- **Extension** Enter the extension which will be dialled to reach the Office Manager user. (i.e. 6000)
- **Ring Mode** Select **Sequential** from the dropdown box
- **Profile** Select **Standard Hunt Group** from the dropdown box

Click on the **Edit** button.

Sequential Group ScanTalk: 6000

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

Name: ScanTalk

Extension: 6000

Ring Mode: Sequential

Hold Music Source: No Change

Ring Tone Override: None

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

Profile: Standard Hunt Group

☐ Ex Directory

No Answer Time (secs): System Default (15)

User List

Extension	Name
-----------	------

Edit... Remove

Once the **Sequential Group Select Members** window opens, select the user which will act as the Office Manager user from the **Available Users** frame and click on the **Append** button. Click the **OK** button. During compliance testing **User 3005** was used.

Sequential | HuntGroup | 6000 ScanTalk - Select Members

Filters

Extn Name Extn Number

Available Users (30/30)

Name	Extn
3998	3998
Ext3001	3001
Ext3002 H323	3002
EXT3006	3006
EXT3007	3007
Ext3999	3999
Extn208	208
Extn212	212
Extn214	214
Extn215	215
Extn216	216
Extn3005	3005
Extn3008 Ascom	3008
Extn3009	3009
Extn3010 Ascom	3010
Extn3011 Ascom	3011
Extn3012 Ascom	3012
Extn3013 Ascom	3013
Extn3015 Ascom	3015
Extn8000H323	217
Occpd Inspected	207
Occupied Clean	206
Occupied Dirty	205
Vacant Clean	203
Vacant Dirty	202
Vacant Inspect	204
VoiceMail SIP 1	7001
VoiceMail SIP 2	7002
VoiceMail SIP 3	7003

Members (1/1)

Order	Enabled	Name	Extn
1	<input checked="" type="checkbox"/>	Extn3005	3005

↑

Add Before

Add After

Append

Remove

↓

OK Cancel Help

Once the member is added click the **OK** button.

Sequential Group ScanTalk: 6000

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

Name: ScanTalk | Profile: Standard Hunt Group

Extension: 6000 | ☐ Ex Directory

Ring Mode: Sequential | No Answer Time (secs): System Default (15)

Hold Music Source: No Change

Ring Tone Override: None

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

[User List](#)

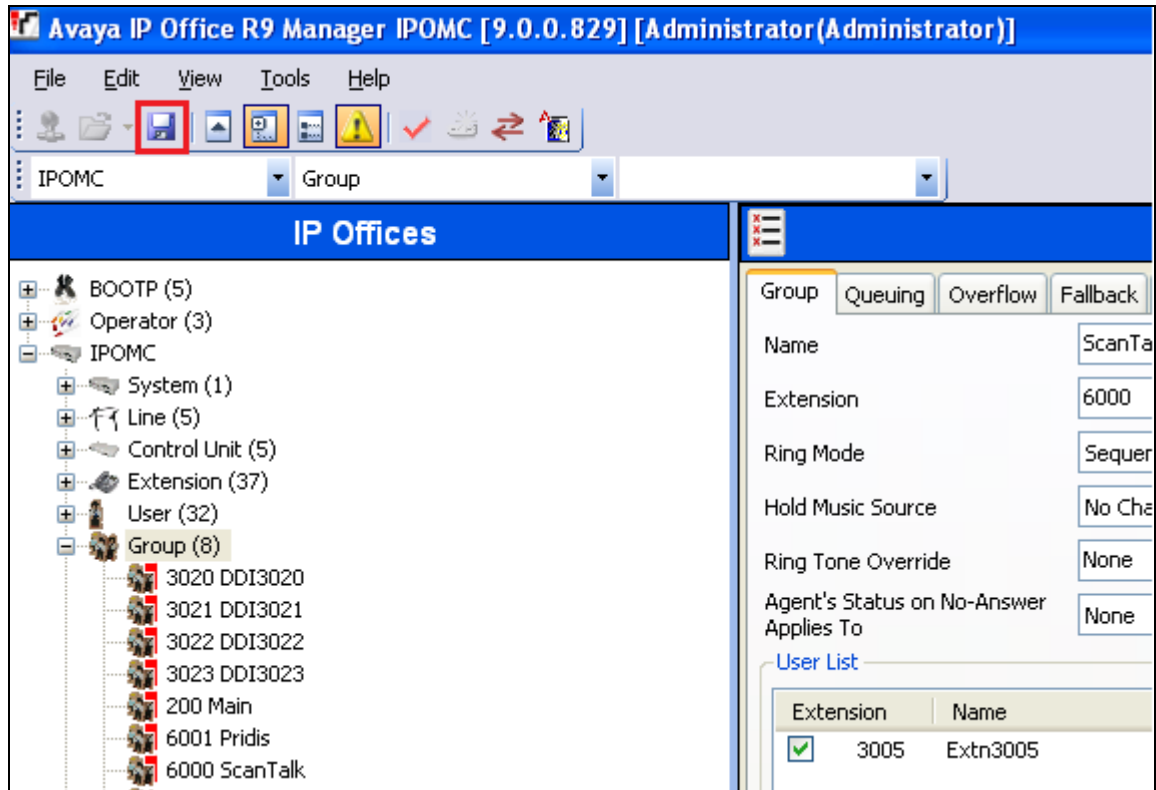
Extension	Name
<input checked="" type="checkbox"/> 3005	Extn3005

Edit... Remove

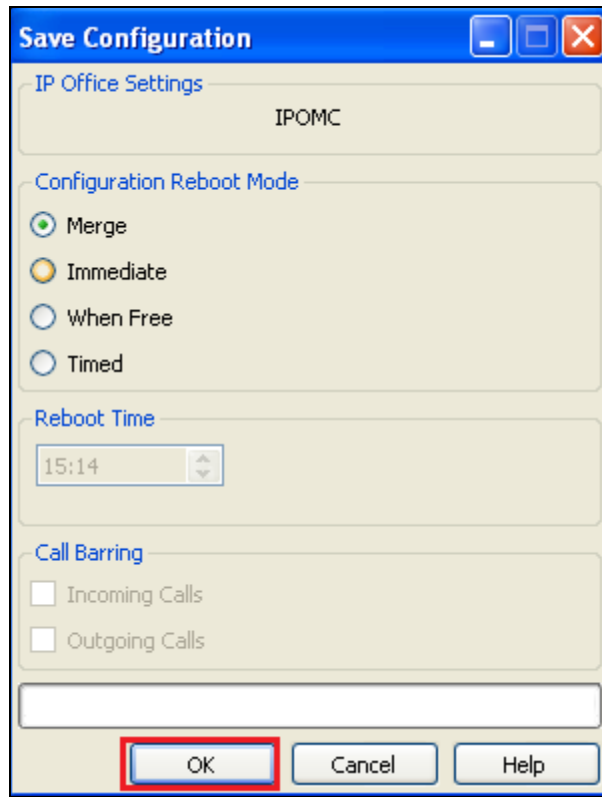
OK Cancel Help

5.3. Save Configuration

Once all the configurations have been made it must be sent to the IP Office. Click on the Save Icon as shown below.

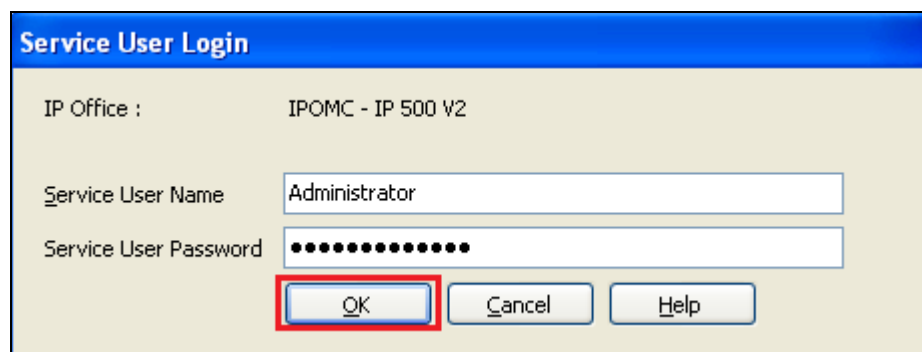


Once the **Save Configuration** Window opens, click the **OK** button.



The **Save Configuration** dialog box has a blue title bar with standard window controls. It contains several sections: **IP Office Settings** with a label **IPOMC**; **Configuration Reboot Mode** with four radio buttons (**Merge** is selected, followed by **Immediate**, **When Free**, and **Timed**); **Reboot Time** with a time picker set to **15:14**; and **Call Barring** with two unchecked checkboxes (**Incoming Calls** and **Outgoing Calls**). At the bottom is an empty text field and three buttons: **OK** (highlighted with a red rectangle), **Cancel**, and **Help**.

When the **Service User Login** Window opens enter the appropriate credentials and click the **OK** button.



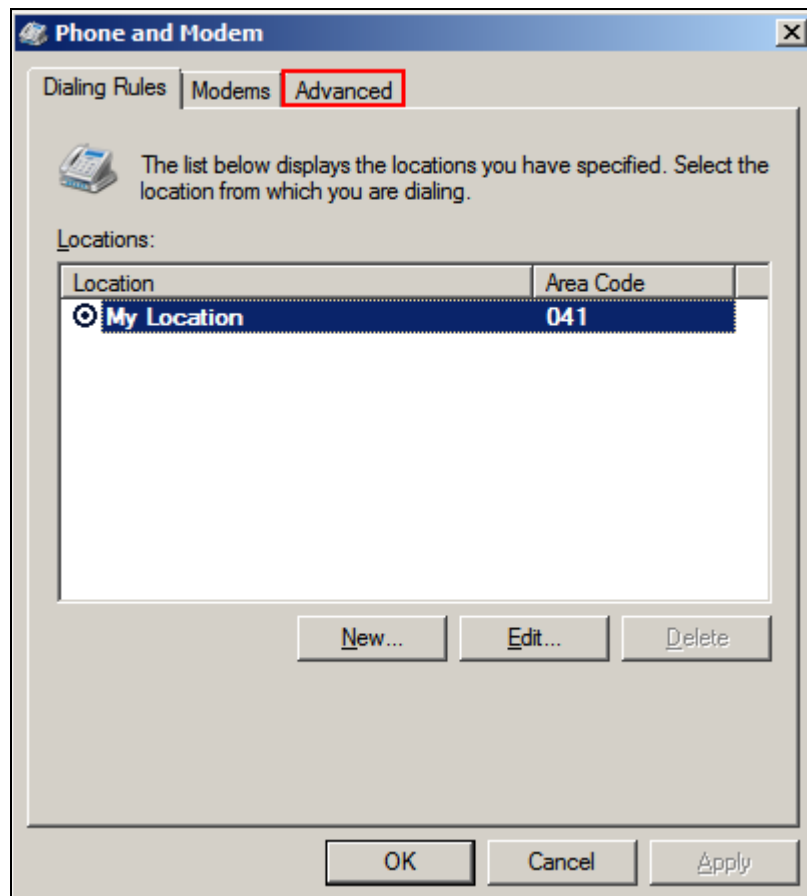
The **Service User Login** dialog box has a blue title bar. It displays **IP Office :** **IPOMC - IP 500 V2**. Below are two input fields: **Service User Name** containing **Administrator** and **Service User Password** containing masked characters (dots). At the bottom are three buttons: **OK** (highlighted with a red rectangle), **Cancel**, and **Help**.

6. Configure Avaya IP Office TAPI

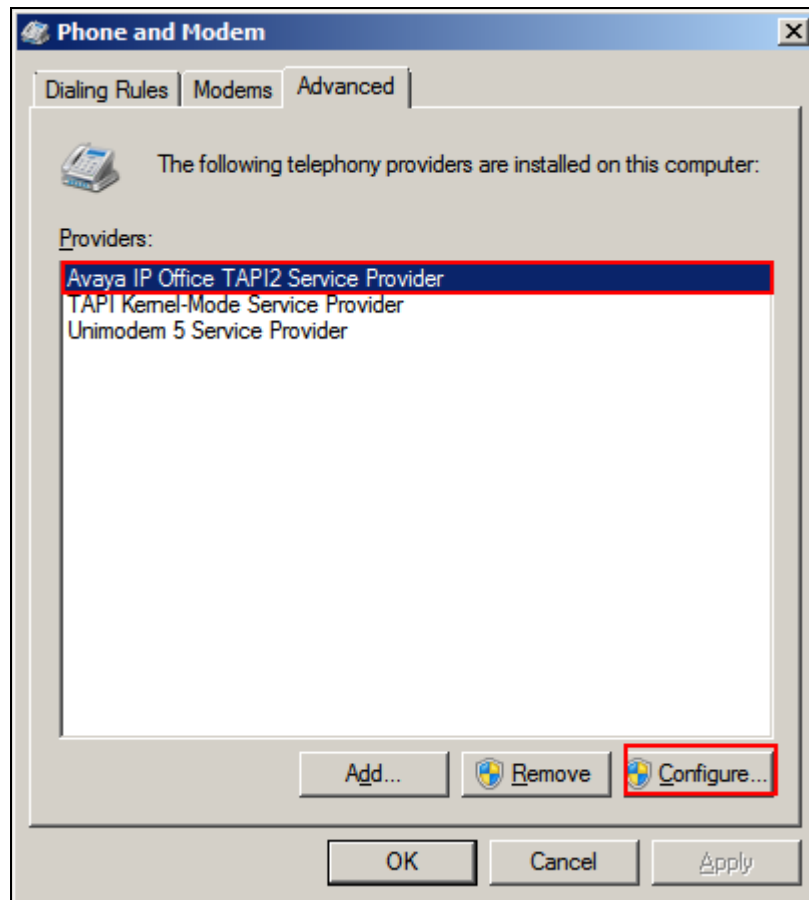
The Avaya IP Office TAPI is required to allow the Office Manager to control the Deskphone. It is implied that the TAPI software is already installed, including a CTI Pro License for the Status Server to function with Third Party TAPI. (It is important that the TAPI software installation was run as administrator to ensure that the application receives the correct rights to run)

Note: As the Office Manager was installed on the TeamView Status Server TAPI was configured in Third Party mode.

Click on **Start → Control Panel → Phone and Modem** (Not shown). Select the **Advanced** tab.



Once the **Phone and modem** window opens, select **Avaya IP Office TAPI Service Provider** and click on the **configure** button.



Once the **Avaya TAPI Configuration** window opens, enter the following:

- **Switch IP address** Enter the IP address of the IP Office
- Click on the **third Party** Radio button
- **Switch Password** Enter the password of the IP Office

Click the **OK** button.

The screenshot shows the 'Avaya TAPI2 configuration' dialog box. The 'Switch IP Address' field is set to '10.10.60.30'. The 'Third Party' radio button is selected. The 'Switch Password' field is masked with 'XXXXXXXXXX'. The 'OK' button is highlighted. Below the 'Third Party' section, there are three unchecked checkboxes: 'Ex Directory Users', 'WAV Users', and 'ACD Queues'.

7. Configure TeamView Office Manager

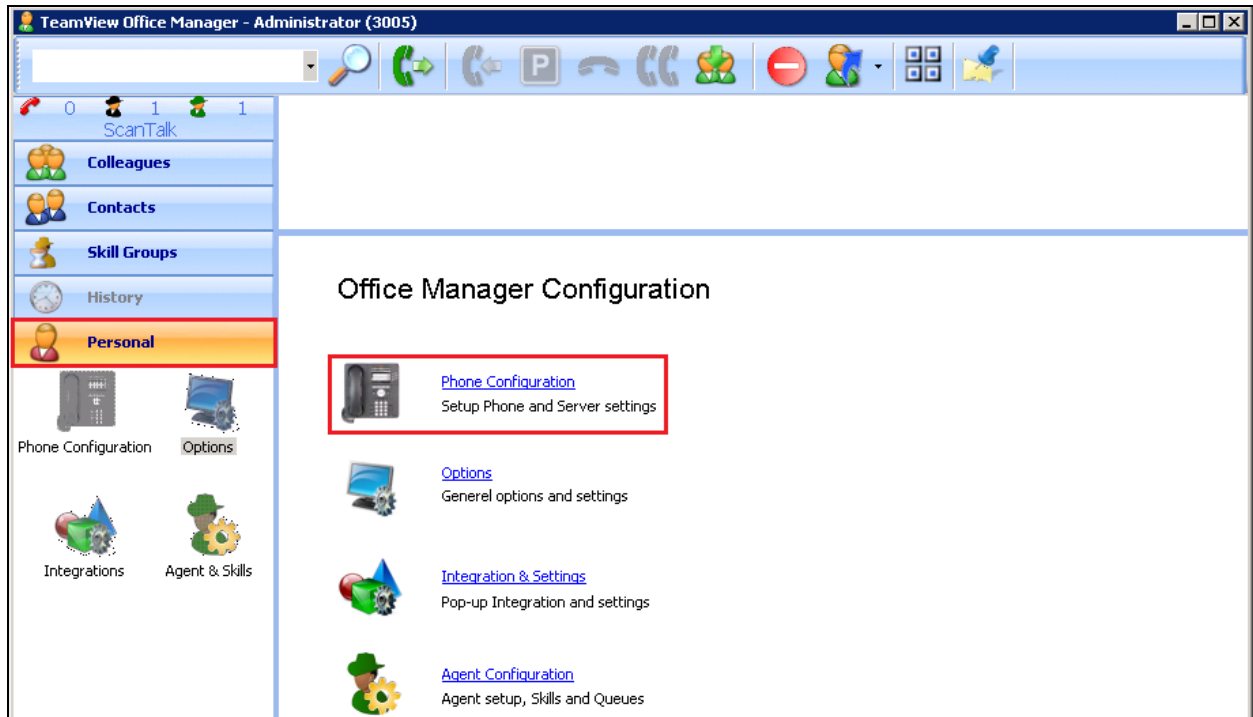
This section describes the steps performed to configure Office Manager. It is implied that the Office Manager software is already installed. It is also implied that the AD LookUp application and prerequisite software is installed and configured including the TeamView status Server. During compliance testing the Office Manager was installed on the TeamView server, but can also be installed on a client PC. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 10**. These configurations can be summarised as follows:

- Configure TeamView Office Manager
- Restart Office Manager
- Update Presence information

Note: If TeamView Office Manager is installed on a client PC it must be added to the same DNS as the TeamView server. The configuration of the DNS server is beyond the scope of this Application Note. TAPI must also be installed on the client PC. TAPI must be configured in Single User mode.

7.1. Configure TeamView Office Manager

Open the Unified Operator application using the icon from the Desktop which appears after installation (not shown). Once the Office Manager window opens click on **Personal** in the side bar followed by **Phone Configuration**.



Once the **Phone Configuration** window opens enter the following in the **System** tab:

- **SQL Server:** Enter the Server name hosting the SQL Express followed \SQLEXPRESS
- **SQL Security** Click on the Radio button
- **User:** Enter **EMDB**
- **Password:** Enter the **EMDB** password
- **Server:** Enter the IP address of the TeamView Status Server

The screenshot shows the 'Phone Configuration (Version 2.1.9.260)' window with the 'System' tab selected. The 'Database' section contains the following fields and options:

- SQL Server:** WIN-JNE5AKJUER6\SQLEXPRESS
- Security Options:** ☐ Use Integrated Security, ☒ SQL Security
- User:** EMDB
- Password:** (masked with asterisks)

The 'Status Server' section contains the following field:

- Server:** 10.10.60.81

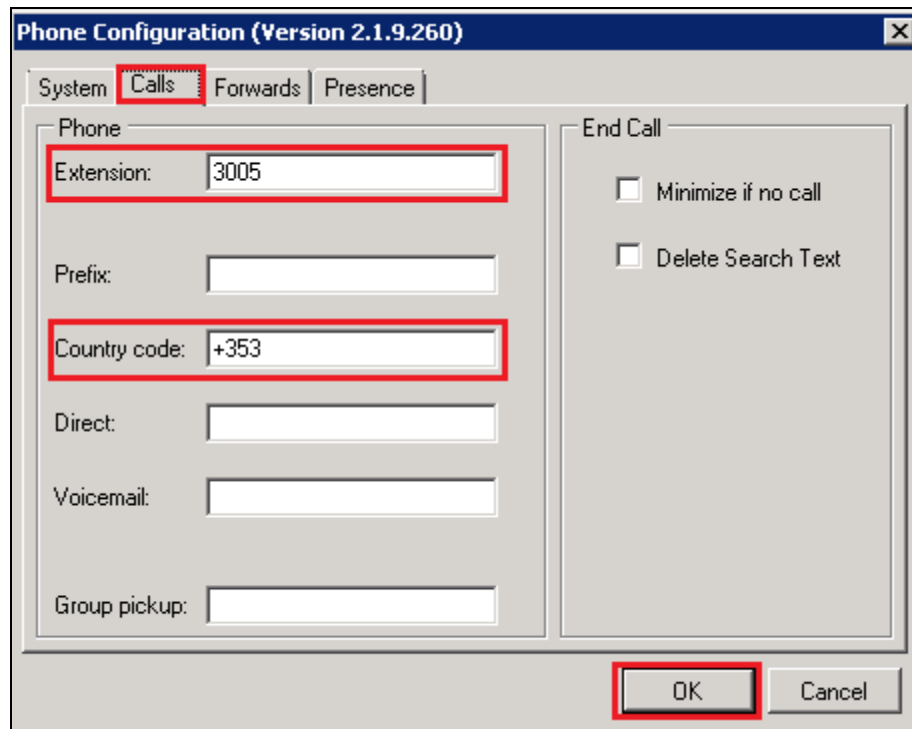
At the bottom right, there are 'OK' and 'Cancel' buttons.

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

- **Extension:** Enter the extension of the Office Manager user.
- **Country code:** Enter the appropriate country code

Note: The remaining fields are optional.

Click the **OK** button.



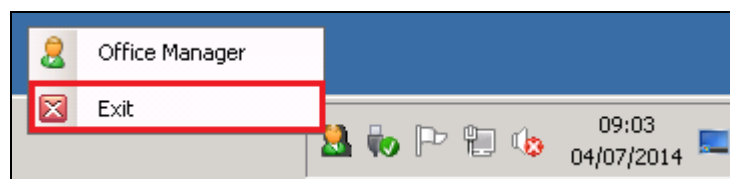
The image shows a 'Phone Configuration (Version 2.1.9.260)' dialog box. It has four tabs: 'System', 'Calls', 'Forwards', and 'Presence'. The 'Calls' tab is selected and highlighted with a red box. Under the 'Phone' section, the 'Extension' field contains '3005' and the 'Country code' field contains '+353', both of which are highlighted with red boxes. Other fields include 'Prefix', 'Direct', 'Voicemail', and 'Group pickup'. On the right, under 'End Call', there are two checkboxes: 'Minimize if no call' and 'Delete Search Text'. At the bottom right, the 'OK' button is highlighted with a red box, next to a 'Cancel' button.

7.2. Restart Office Manager

Once the Office Manager configuration is complete it must be restarted.

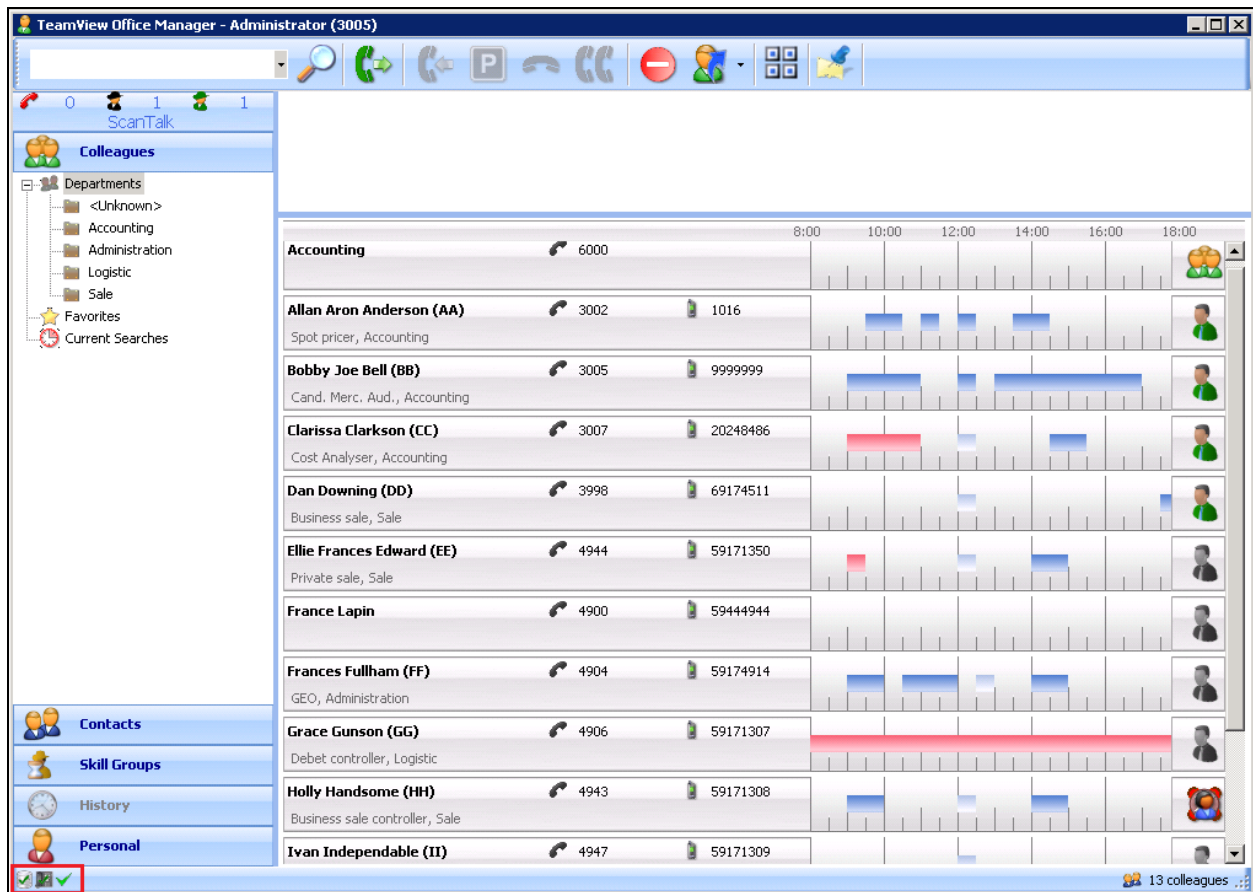
7.2.1. Close Office Manager

To close the Office Manager click on the **X** button on the top right hand corner (not shown). To close the Office Manager completely right click on the Office Manager icon in the system tray and click on **Exit**.



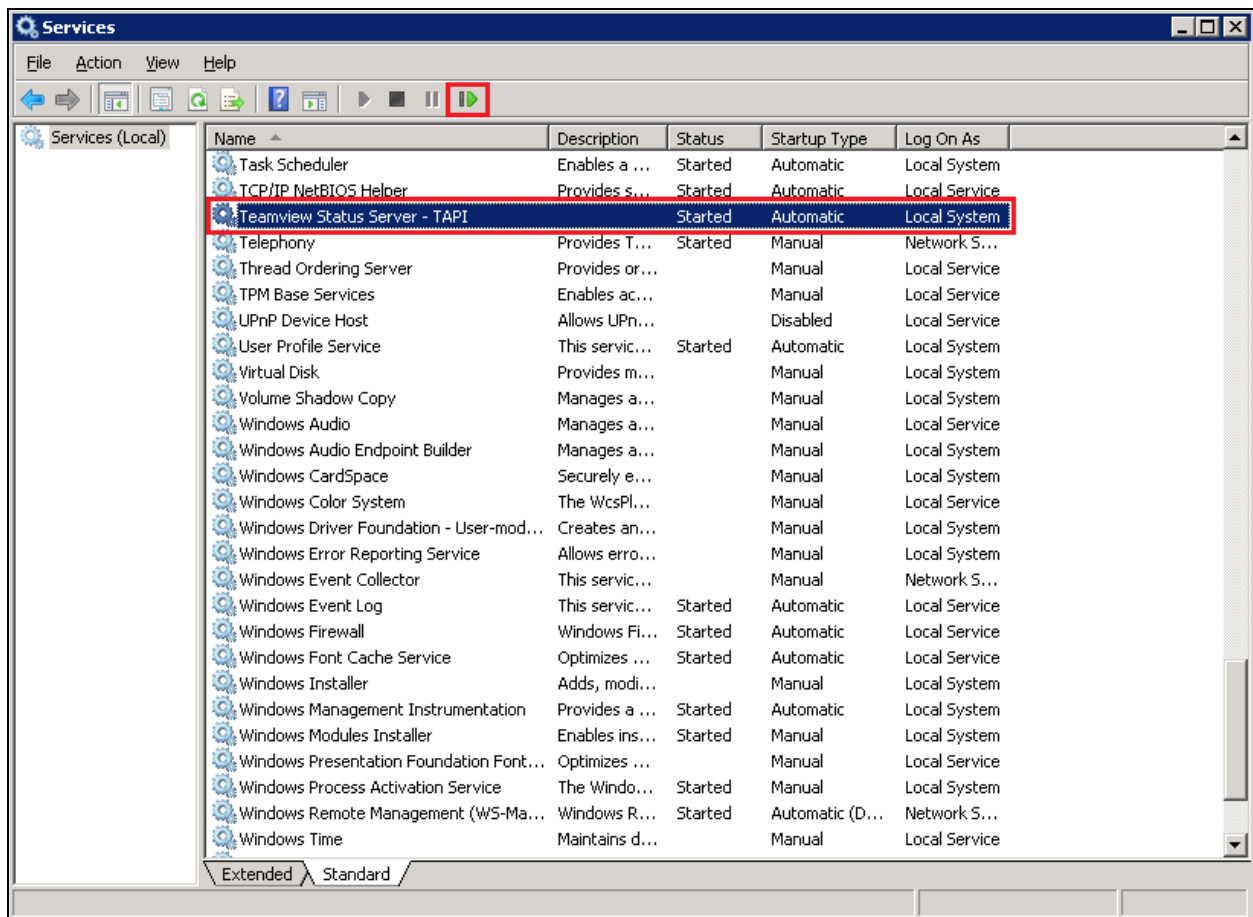
7.2.2. Start Office Manager

Click on the Office Manager icon on the Desktop (not shown). Once the Office Manager window opens three icons should appear on the bottom left corner. The **Green check mark** on the first icon signifies that the Office Manager is connected to SQL Server, on the second icon it signifies that the Computer Telephony Integration (CTI) is connected correctly, and on the third icon it indicates the Office Manager is connected to the Status Server.



7.3. Update Presence information

To get the correct presence information of the IP Office phone users the **TeamView Status Server –TAPI** must be restarted. To restart this service open the **Services** window, click on **Start→ Run**, and enter **services.msc** (not shown). When the **Services** window opens scroll down and highlight **TeamView Status Server –TAPI**. Click on the restart icon to restart the service.



8. Verification Steps

This section provides the tests that can be performed to verify correct configuration of the IP Office and Scantalk TeamView Office Manager Solution. Check the Office Manager icon on the desktop and observe that the three icons appear as described in **Section 7.2.2**.

9. Conclusion

A full and comprehensive set of feature and functional test cases were performed during Compliance testing. Scantalk TeamView Office Manager is considered compliant with Avaya IP Office. All test cases have passed and met the objectives stated in **Section 2.2**.

10. Additional References

These documents form part of the Avaya official technical reference documentation suite. Further information may be had from <http://support.avaya.com> or from the local Avaya representative.

[1] Avaya IP Office Manager 9.0, Document 15-601011, Issue 9.01, September 2013

Product Documentation for Scantalk can be obtained at: www.scantalk.com

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