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Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Ascom i62 VoWiFi Handset with Avaya IP Office 9.0 - Issue 1.0

Abstract

These Application Notes describe a solution for supporting wireless interoperability between Ascom i62 VoWiFi Handsets with Avaya IP Office release 9.0.

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.

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1. Introduction

These Application Notes describe the configuration steps for provisioning Ascom's i62 Wireless Handsets to interoperate with Avaya IP Office. Ascom's i62 VoWiFi Handsets are configured on the IP Avaya Office as SIP Users, therefore enabling them to make/receive internal and PSTN/external calls and have full voicemail and other telephony facilities available on Avaya IP Office. The Wireless communication is made using a Wireless Router connected to the same LAN as the Avaya IP Office.

2. General Test Approach and Test Results

The general test approach was to configure the Ascom i62 VoWiFi Handsets (i62 Handsets) to communicate with Avaya IP Office (IP Office) as implemented on a customer's premises. The interoperability compliance testing evaluates the ability of the Ascom i62 Wireless Handsets to make and receive calls to and from Avaya H.323, SIP, Digital desk phones and PSTN endpoints. The integrated IP Office Voicemail was used to allow users leave voicemail messages and to demonstrate Message Waiting Indication and DTMF on the i62 Handsets. See **Figure 1** for a network diagram. The interoperability compliance test included both feature functionality and serviceability tests.

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:
- Basic Calls, local and PSTN
- Hold and Retrieve
- Attended and Unattended Transfer
- Call Forwarding Unconditional, No Reply and Busy
- Call Waiting
- Call Park/Pickup
- Conference
- Do Not Disturb
- Calling Line Name/Identification
- Codec Support
- DTMF Support
- Message Waiting Indication

Avaya's formal testing and Declaration of Conformity is provided only on the headsets/handsets that carry the Avaya brand or logo. Avaya may conduct testing of non-Avaya headsets/handsets to determine interoperability with Avaya telephones. However, Avaya does not conduct the

testing of non-Avaya headsets/handsets for Acoustic Pressure, Safety, Hearing Aid Compliance, EMC regulations, or any other tests to ensure conformity with safety, audio quality, long-term reliability, scalability or any regulation requirements. As a result, Avaya makes no representation whether a particular non-Avaya headset will work with Avaya's telephones or with a different generation of the same Avaya telephone.

Since there is no industry standard for handset interfaces, different manufacturers utilize different handset/headset interfaces with their telephones. Therefore, any claim made by a headset vendor that its product is compatible with Avaya telephones does not equate to a guarantee that the headset will provide adequate safety protection or audio quality.

2.2. Test Results

Tests were performed to insure full interoperability between Ascom i62 Wireless Handsets and 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 Ascom can be obtained through the following:
Phone: +46 31 559450
E-mail: support@ascom.se

| Field Code Changed |

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3. Reference Configuration

Figure 1 illustrates the network topology used during compliance testing. The Avaya solution consists of an IP Office which the i62 Handsets were configured as SIP Users. The Ascom device Manager was used to configure the i62 Handsets. Digital, H323 and Soft phones were configured on the IP Office. QSIG and SIP trunks were configured to connect to the PSTN. The Wireless Router was connected to the IP Network which i62 Handsets connect. The IP Office Manager is used to manage the IP Office.

Note: A USB DP1 Desktop Programmer cradle connected to the Ascom Device Manager is used to configure the i62 Handsets.
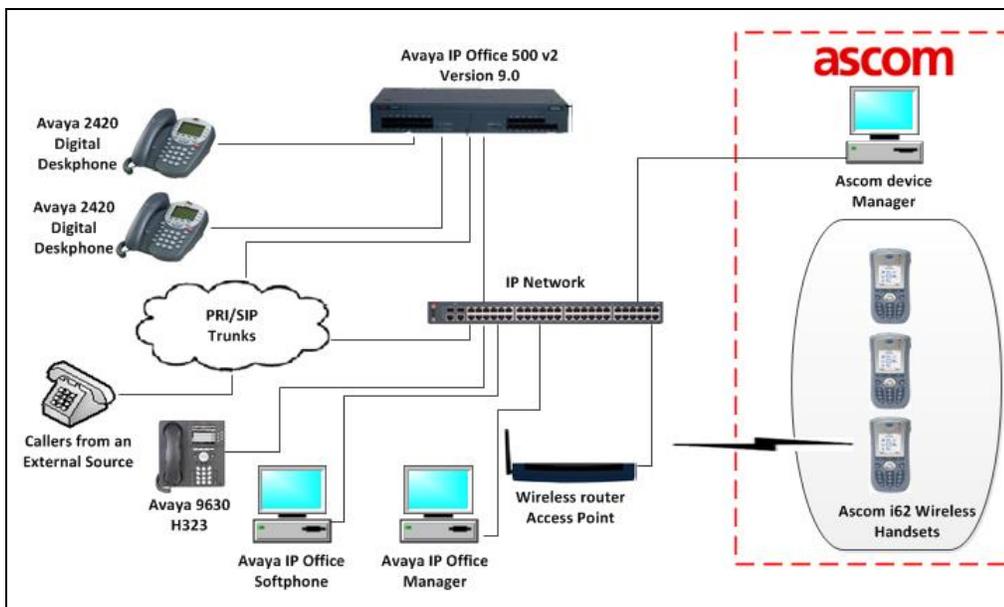
Figure 1: Avaya IP Office and Ascom Reference Configuration

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4. Equipment and Software Validated

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

Avaya Equipment	Software / Firmware Version
Avaya IPO 500v2	9.0 Build 829
Avaya 9630 IP Telephone	H323 3.2.0.S
Avaya 2420 Digital Telephones	--
Avaya IP Office softphone	3.2.3.49
Ascom Equipment	**Software / Firmware Version**
Device Manager running on Microsoft Windows 7	Version 3.10.6
Ascom i62 Handsets	Version 5.1.18

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. 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
- LAN1 Configuration
- VoIP Configuration
- Create a SIP Extension for the Ascom i62 Handset
- Create a User for the Ascom i62 Handset
- Verify the Voicemail Collect Short Code
- Save Configuration

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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.
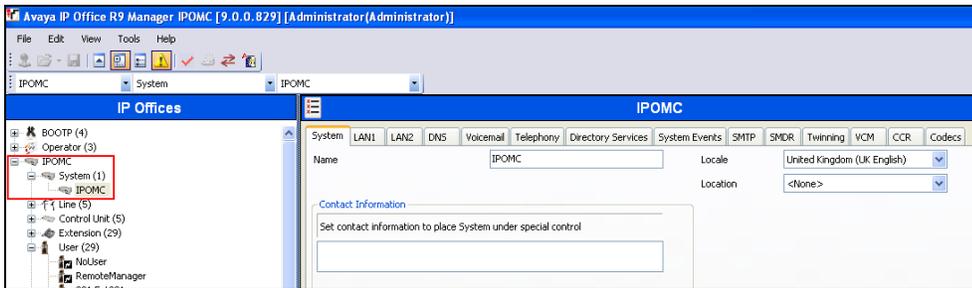
5.2. LAN1 configuration

The **DHCP MODE** must be disabled for the i62 Handset to communication with the IP Office. Select **LAN1** tab followed by the **LAN Settings** tab and click on the **Disabled** radio button in the **DHCP Mode** section. Click the **OK** button to save.

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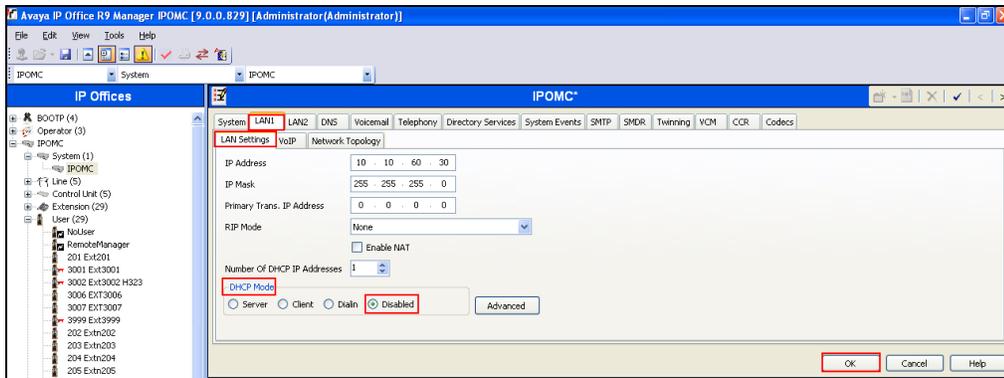
5.3. VoIP Configuration

Select the **VoIP** tab and in the **Layer 4 Protocol** section check the **UDP** and **TCP** Check boxes and select **5060** from both dropdown boxes. Using the scroll bar on the right hand side scroll down to the **DiffServ Settings** section.

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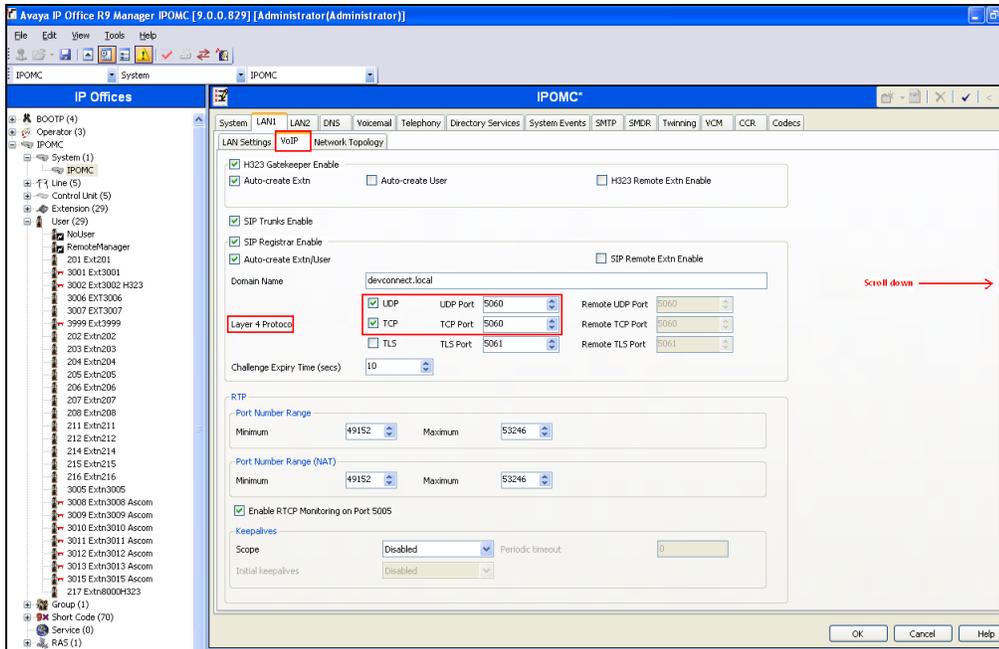
At the **DiffServ Settings** section select **46** from the **DSCP** drop down box and **26** from the **SIG DSCPb** dropdown box. Click the **OK** button to save.

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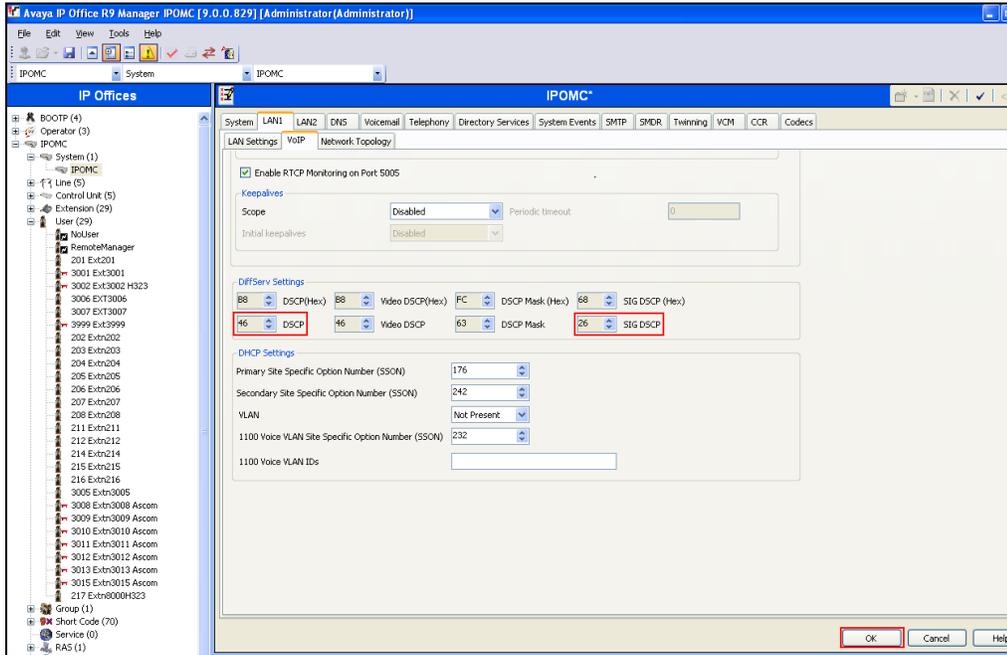
5.4. Create a SIP Extension for the Ascom i62 Handset

The i62 Handsets are configured as SIP Extensions on the IP Office. From the Configuration Tree click on **Extension** then right click and select **New** followed by **SIP Extension**. The example below shows the extension 3008, repeat these steps for each i62 Handset extension.
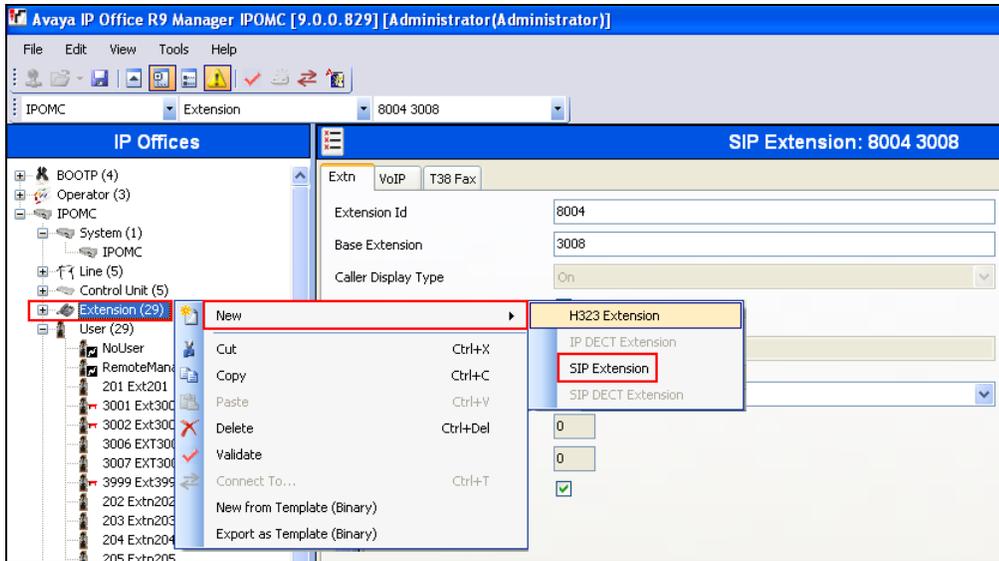
When the new window opens enter the **Base Extension**. The Extension ID will be automatically filled in. Click on the **VoIP** tab.

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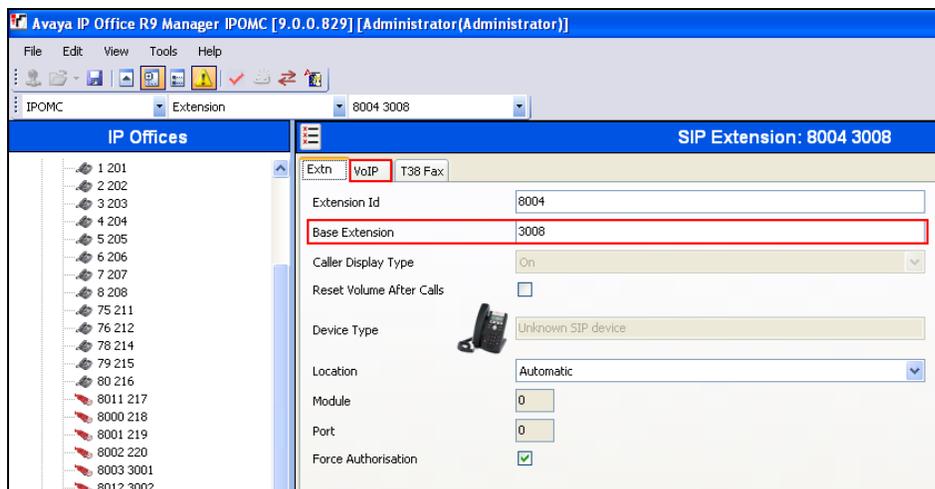
When the **VoIP** tab opens click on the **Allow Direct Media Path** check box. Click the **OK** button to save.
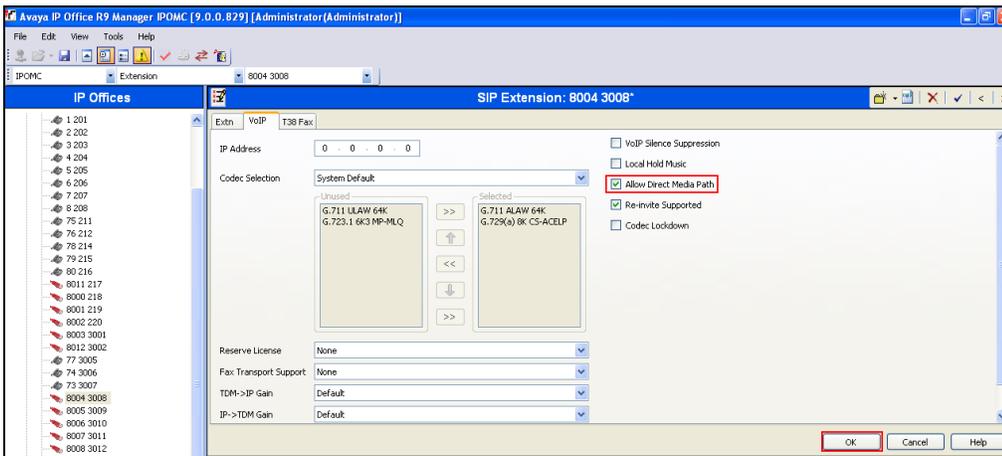
5.5. Create a User for the Ascom i62 Handset

A user must be configured for Ascom i62 Handset Extension. From the Configuration Tree click on **User** then right click and select **New** The example below shows the extension 3008, repeat these steps for each i62 Handset extension.

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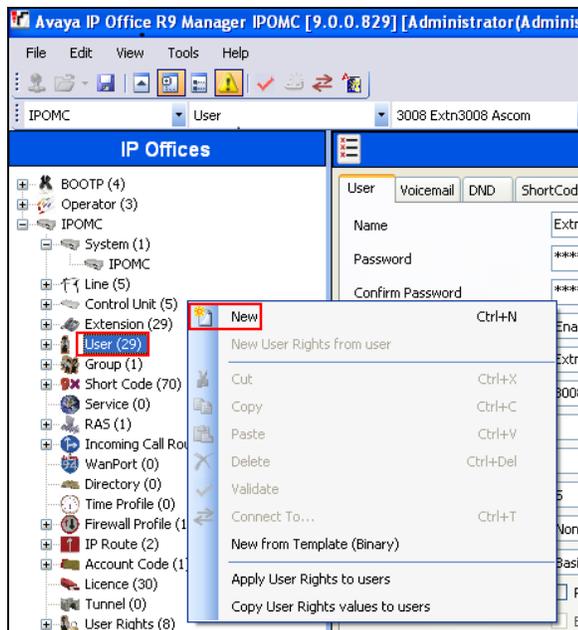
When the **User** window opens, select the User tab and enter the follow:
- **Name**   Enter an name for this user, i.e. **Extn3008 Ascom**
- **Password**   Enter the Password
- **Confirm**   Confirm the Password
- **Extension**   Enter the Extension which was created previously, i.e. **5.4**

Click on the **Voicemail** tab.

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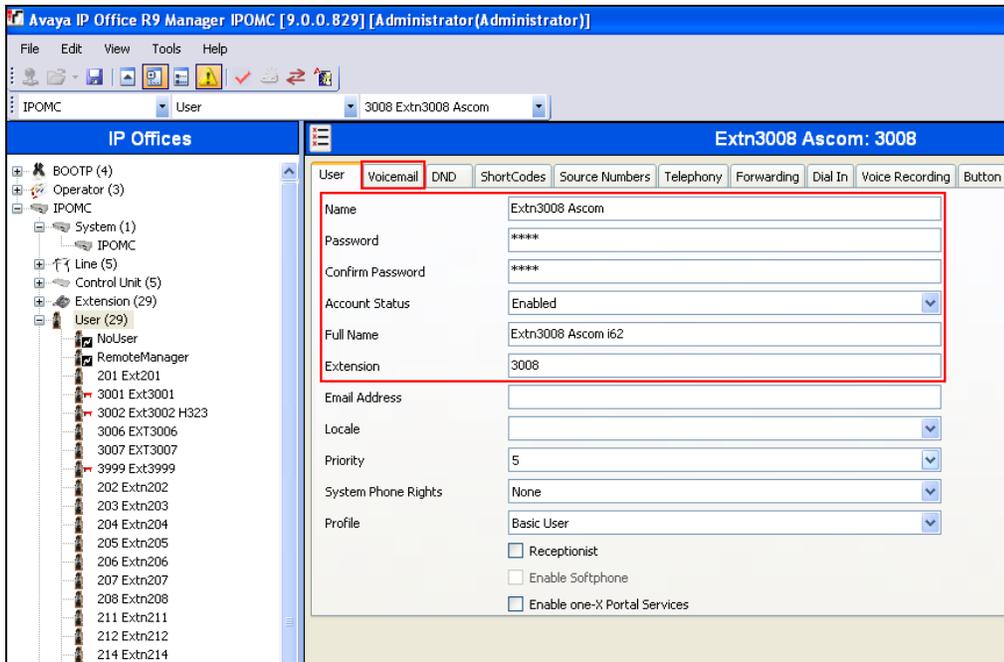
When the **Voicemail** tab opens check the **Voicemail On** check box and enter the **Voicemail Code** that will be used to access the users mail box, then **Confirm Voicemail Code**. Click on the **Telephony** tab.
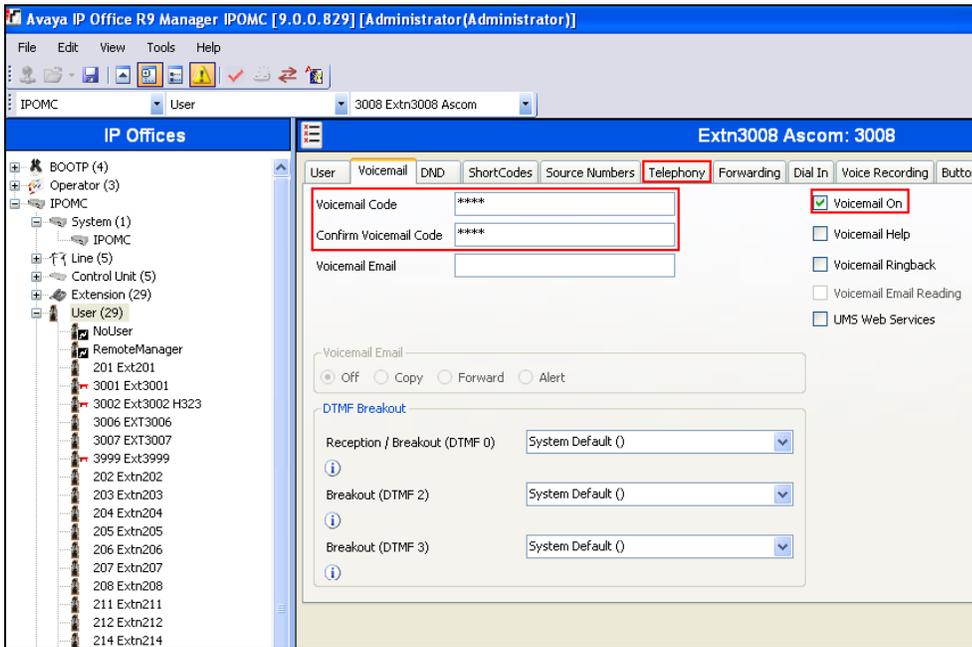
When **Telephony** tab opens click on the **Supervisor Settings** tab and enter a Login Code in the **Login Code** box. The Login Code is used by the i62 Handset to log in to the IP Office in **Section 6**. Click the **OK** button to save.
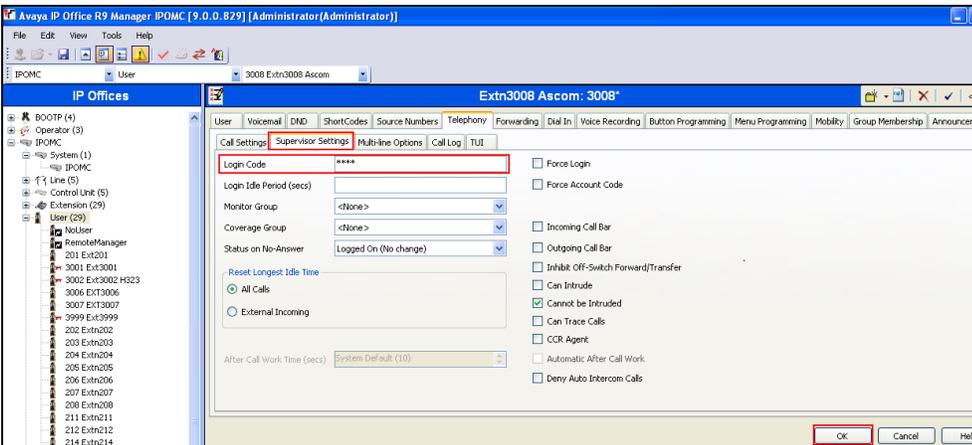
5.6. Verify the Voicemail Collect Short Code

As part of the i62 Handset configuration the Voicemail access number is required. During compliance testing this number was the Voicemail Collect Short Code. From the Configuration Tree expand **Short Code** and click on ***17**, ensure that **Feature** is set to **Voicemail Collect** (not shown) The screen shot shows that Short code ***17** was used for **Voicemail Collect**.
Note: the default Short code for Voicemail Collect is *17.
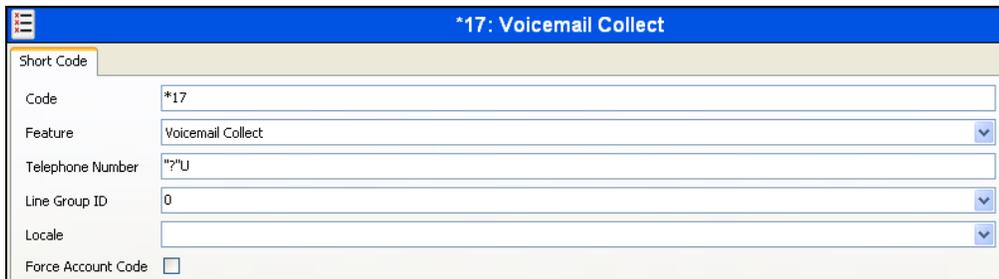
5.7. Save Configuration

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.
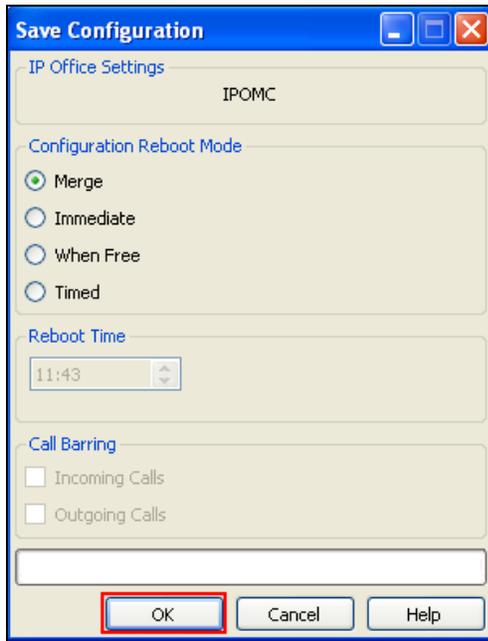
When the **Service User Login** Window opens enter the appropriate credentials and click the **OK** button.
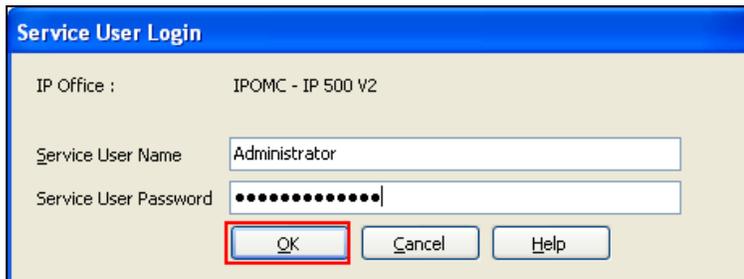
6. Configure Ascom i62 VoWiFi

This section describes how to access and configure the i62 VoWiFi handset via the Windows Device Manager called WinPDM version 3.10.6. It is implied that the Device Manager software is installed on a Windows PC. The Remote device management "over the air" provides a similar graphical user interface. Insert the handset to be configured in the DP1 Desktop Programmer cradle via USB which is connected to the PC running the Device Manager. Start the Ascom Device Manager, and select the **Numbers** tab. Select the number of the Handset to be modified and click on the **Edit** icon. The example below shows number 3008.

Note: Adding of the actual i62 VoWiFi Handset and the Wireless router configuration is outside the scope of this Application Note.

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In the **Edit parameters** window select **Device** followed by **Message centre** from the
Configuration Tree and enter the following:
- **Message Centre number**   Enter the number of the Handset (i.e. 3008)
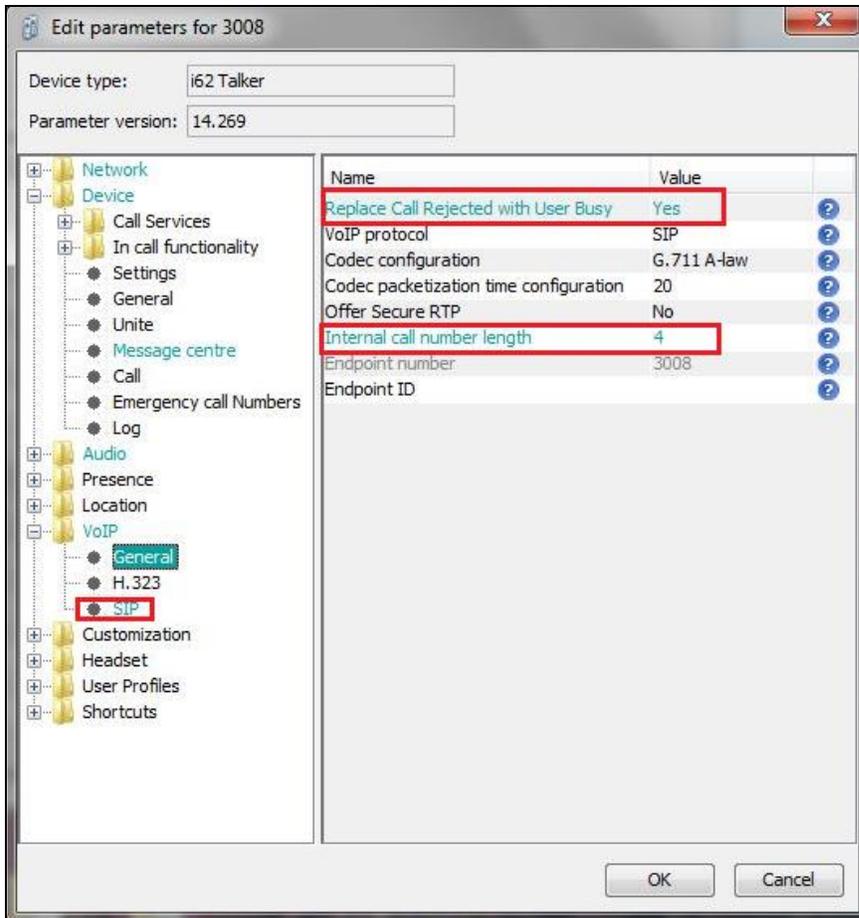- **Voice mail number**   Enter the Short code as shown in **Section 5.6**

Select **VoIP** followed by **General** from the Configuration Tree.

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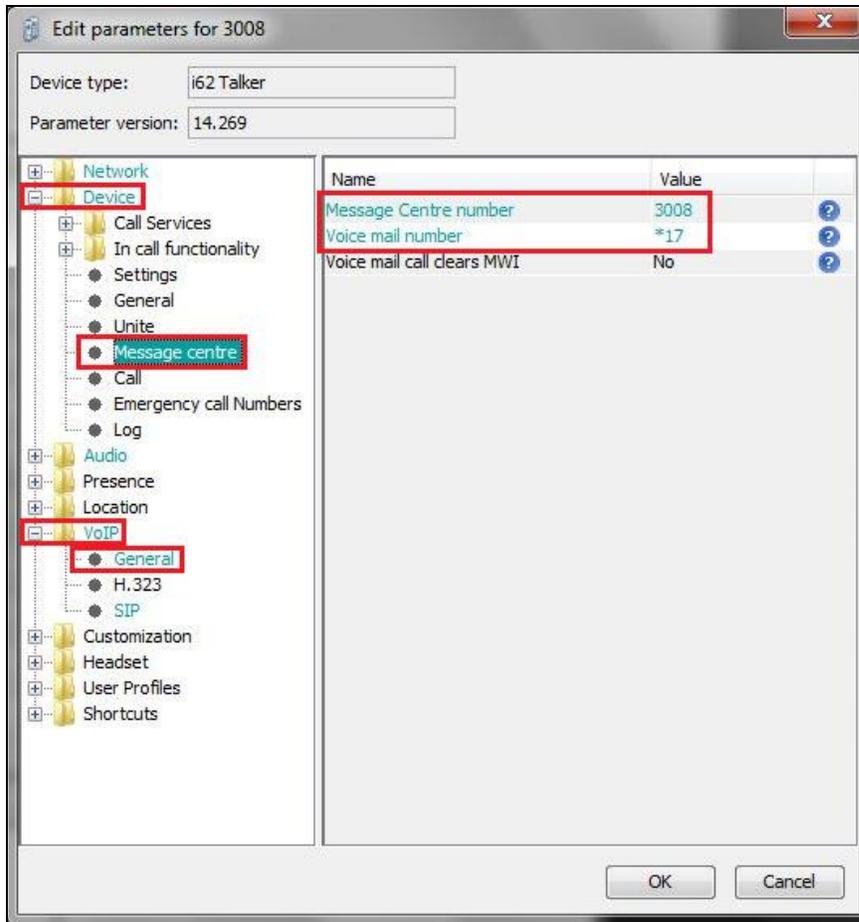
When the new window opens enter the following:
- **Replace Call Rejected with User Busy**   Enter **Yes**
- **Internal call number length**   Enter **4** (the length of the i62 Handset extension).

Select **VoIP** followed by **SIP** from the Configuration Tree.

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When the new window opens enter the following:
- **Primary SIP proxy**   Enter the IP address of the IP Office
- **SIP proxy password**   Enter the **Login Code** as configured for the i62 Handset in **Section 5.5**

Click on the **OK** Button to save.
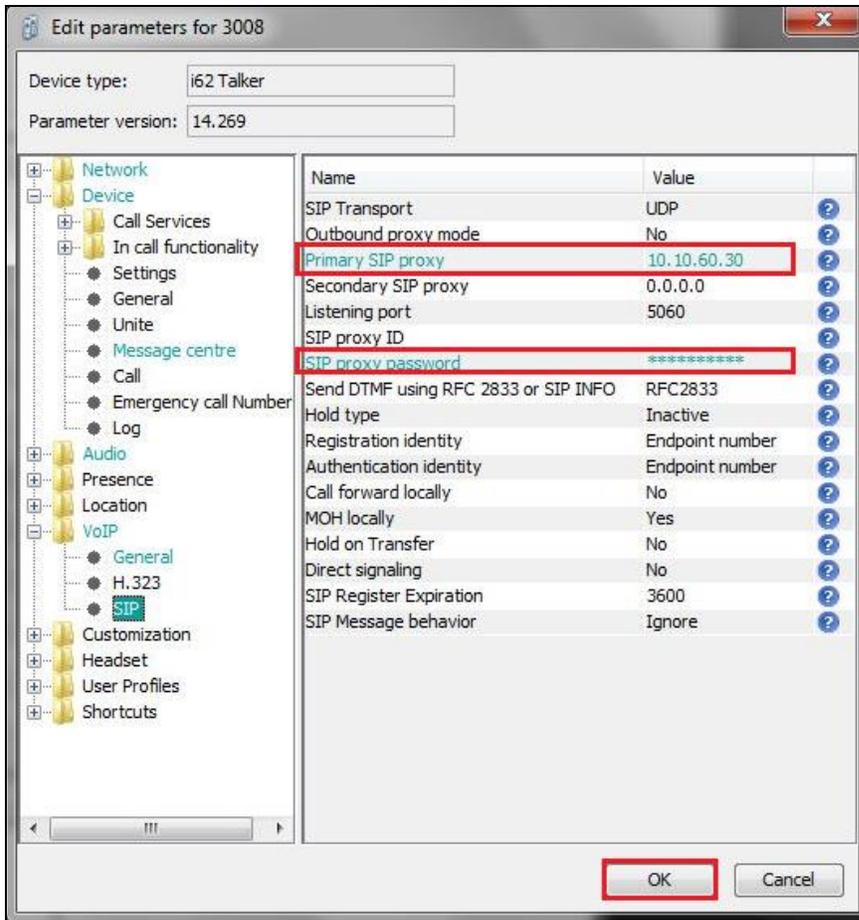
7. Verification Steps

This section provides the tests that can be performed to verify correct configuration of the IP Office and Ascom solution.

7.1. Verify the Ascom i62 VoWiFi handset status

Using the IP Office System Status program click on **Extensions** and verify that the Ascom i62 Handsets are registered. The screen shot below shows that the i62 Handsets 3008, 3009 and 3010 were registered.

7.2. Verify Calls to Voicemail

Made some inbound and out bound calls using i62 Handsets, including a call to voicemail, verify clear voice quality.

8. Conclusion

A full and comprehensive set of feature and functional test cases were preformed during Compliance testing. Ascom VoWiFi Handset is considered compliant with Avaya IP Office 9.0. All test cases have passed and met the objectives outlined in **Section 2.2**

9. 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 your Avaya representative.

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

Product Documentation for Ascom Products can be obtained from Ascom or may be requested at https://www.ascom-ws.com/AscomPartnerWeb/Templates/WebLogin.aspx (login required).

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