

Avaya Solution & Interoperability Test Lab

Application Note for Configuring the Ascom wireless i75 VoWiFi Handset with Avaya IP Office in a Converged Voice over IP and Data Network - Issue 1.0

Abstract

These Application Notes describe a solution for supporting wireless interoperability between the Ascom wireless i75 VoWiFi Handsets with Avaya IP Office in a converged Voice over IP and Data Network. Emphasis of the testing was placed on verifying good voice quality of calls with Ascom wireless SIP handsets registered to the Avaya IP Office.

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

Implementing wireless telephony requires interoperability between the wireless telephony products and the telephony infrastructure. As IP telephony evolves, potential implementers of this technology look for flexibility and choice when deciding on which particular technology to implement. Regardless of the technology chosen the telephony infrastructure needs to be flexible enough to support solutions using all available technologies.

These Application Notes describe the configuration process necessary to provide interoperability between Avaya IP Office and Ascom wireless i75 VoWiFi SIP Handsets in a Converged Voice over IP and Data Network.

1.1. Interoperability Compliance Testing

Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab. Compliance testing focused on verifying interoperability of the Ascom wireless i75 VoWiFi Handset with Avaya IP Office. Additional testing verified proper operation between the Ascom wireless i75 VoWiFi Handset with Avaya 9600, 1600, 5600 Series H.323 IP Telephones and the Avaya 2410 Digital Telephone. Voicemail and MWI using Voicemail Pro were verified to operate correctly. Network level tests included verifying roaming from access point to access point and validating Quality of Service for voice calls in a converged voice and data network configuration.

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 headset/handset to determine interoperability with Avaya phones. 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 or any regulation requirements or scalability. 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.

1.2. Support

Technical support for the Ascom wireless i75 VoWiFi handset can be obtained through your local Ascom supplier.

Ascom global technical support: Phone: +46 31 559450 Email: support@ascom.se

2. Reference Configuration

The network diagram shown in **Figure 1** illustrates the testing environment used for compliance testing. The network consists of an Avaya IP Office, one Avaya 9620 IP Telephone (H.323), one Avaya 1616 IP Telephone (H.323), one Avaya 5610SW IP Telephone (H.323), one Ascom Device Manager (WinPDM) and two Ascom wireless i75 VoWiFi SIP Handsets, one server running Avaya IP Office Manager and Voicemail Pro and one server providing network services such as DHCP, TFTP and HTTP..

The wireless network consists of one Motorola RFS4000 controller and three Motorola AP300 access points.

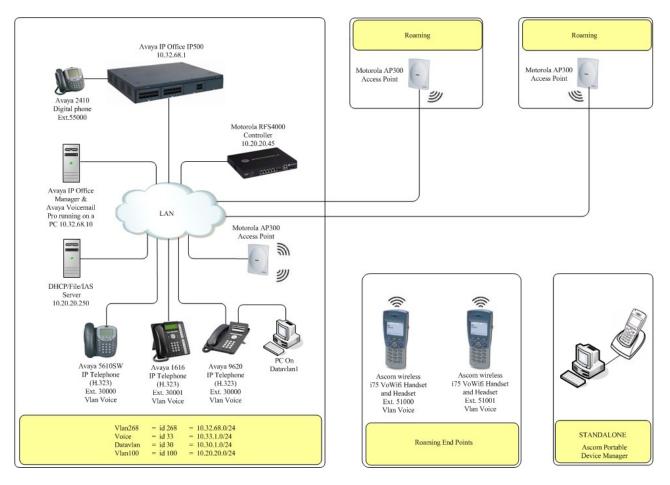


Figure 1: Network Diagram

3. Equipment and Software Validated

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

| Equipment | Software/Firmware | | | |
|-----------------------------------|--|--|--|--|
| Avaya PBX Products | | | | |
| Avaya IP Office (IP500) | 6.0 (8) | | | |
| Avaya IP Office Manager | 8.0 (8) | | | |
| Avaya Messaging (V | oice Mail) Products | | | |
| Avaya Voicemail Pro | 6.0 (22) | | | |
| Avaya Tele | phony Sets | | | |
| Avaya 1600 Series IP Telephones | Avaya one-X Deskphone Value Edition 1.020 | | | |
| Avaya 5600 Series IP Telephones | 8.016 | | | |
| Avaya 9600 Series IP Telephones | S3.110b | | | |
| Avaya 2420 Digital Telephone | 6.0 | | | |
| Ascom I | Products | | | |
| Ascom wireless i75 VoWiFi Handset | 1.7.7 (SIP) | | | |
| Ascom Device Manager (WinPDM) | 3.5.4 | | | |
| Motorola | Products | | | |
| Motorola RFS4000 controller | 4.1.0.0-042R | | | |
| Motorola AP300 Access Point | 4.1.0.0-042R | | | |
| MS Pr | oducts | | | |
| PC | Microsoft Windows 2003 Server (File/DHCP Service) | | | |

4. Avaya IP Office Configuration

This section was included to verify that Avaya IP Office was configured correctly. Except where stated, the parameters in all steps are the default settings and are supplied for reference. For all other provisioning information such as provisioning of the trunks, call coverage, extensions, and voice mail, please refer to the Avaya IP Office product documentation in **Section 9**.

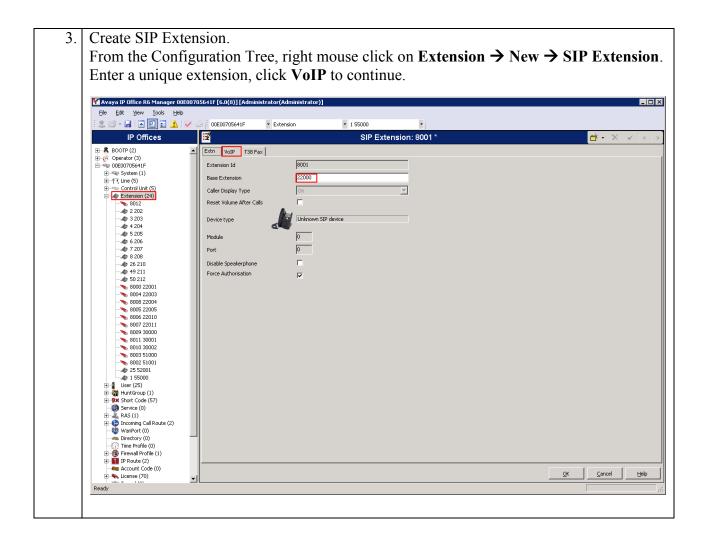
| Step | Description | | | |
|------|---|-----------------------------|---|--|
| 1. | Avaya IP Office | is configured | via the Avaya IP Office Manage | er program. Log into the |
| | Avaya IP Office | Manager PC | and select Start \rightarrow Programs – | \rightarrow IP Office \rightarrow Manager to |
| | launch the Avava | a IP Office M | anager application. Select File – | • Open to search for IP |
| | | | on appropriate Avaya IP Office. | |
| | | | lication using the appropriate cre | e |
| | Avaya II Office | Manager app | nearion using the appropriate ere | dentrais. |
| 2. | The main IP Offi | ce Manager v | window appears. The following s | teps refer to the |
| | Configuration Tr | ee which is ir | the left pane of the window and | under the heading IP |
| | Offices. | | I I I I I I I I I I I I I I I I I I I | |
| | omees. | | | |
| | 👫 Avaya IP Office R6 Manager 00E | 00705641F [6.0(8)] [Admini: | strator(Administrator)] | |
| | <u>File Edit View Tools H</u> elp | | | |
| | | ✓ 🥶 🕴 00E00705641F | User RemoteManager | |
| | IP Offices | | RemoteManager: | <u> </u> |
| | Operator (3) OE00705641F | | t Group Membership Announcements Personal Directory hortCodes Source Numbers Telephony Forwarding Dial In Voice Recordin | g Button Programming Menu Programming Mobility |
| | 🕂 🖘 System (1) | Name | RemoteManager | · · · · · |
| | E | Password | **** | |
| | | Confirm Password | ***** | |
| | HuntGroup (1) | Full Name | | |
| | | Extension | | |
| | ⊕ Incoming Call Route (2) ₩ WanPort (0) | Locale Priority | 5 | |
| | Directory (0) Time Profile (0) | System Phone Rights | None | |
| | GI Firewall Profile (1) GI IP Route (2) | Profile | Basic User | |
| | Account Code (0) | | Receptionist | |
| | Unnel (0) Cogical LAN (0) | | Enable SoftPhone Enable one-X Portal Services | |
| | User Rights (8) | | Enable one-X TeleCommuter | |
| | RAS Location Request (0) E911 System (1) | | Ex Directory | |
| | | Device Type | Device Type Unknown | |
| | | User Rights | | |
| | | User Rights view | User data | |
| | | Working hours time profile | <none></none> | |
| | | Working hours User Rights | | |
| | | Out of hours User Rights | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | 2 | | OK ⊆ancel Help |
| | Ready | | | |
| | | | | |

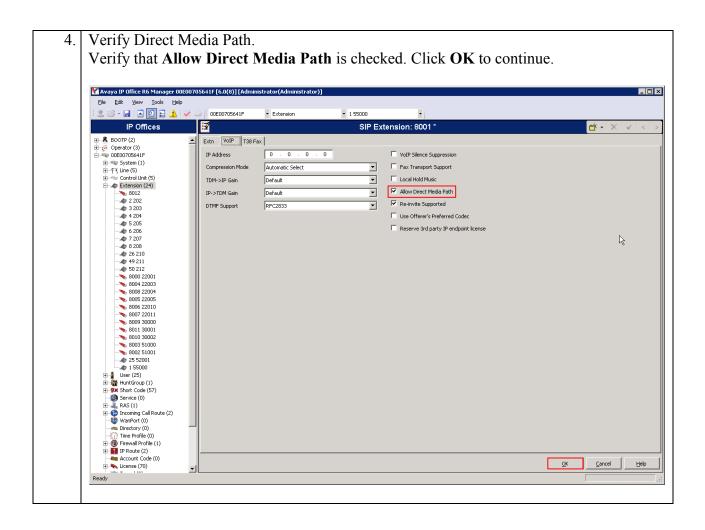
| Mode to Disable | ed. Click OK | |
|---|--------------|--------------------------------|
| IP Offices IP Offices IP Office | | rig VCM CCR |
| Ready | | QK <u>C</u> ancel <u>H</u> elp |

4.1. SIP Extension Configuration

This section was included to show basic SIP Extension configuration. Except where stated, the parameters in all steps are the default settings and are supplied for reference. For all other provisioning information such as provisioning of the trunks, call coverage and voice mail, please refer to the Avaya IP Office product documentation in **Section 9**.

| Step | Description | | | | | |
|------|--|----------------------------|--------------------------|--|---------------------------|---|
| 1. | Avaya IP Office i | s configured | via the Av | vaya IP Office 1 | Manager pro | ogram. Log into the |
| | Avaya IP Office I | Manager PC | and select | Start \rightarrow Prog | rams \rightarrow IP | Office \rightarrow Manager to |
| | | • | | 0 | | Den to search for IP |
| | 2 | | 0 11 | | | k OK and log into the |
| | | | | • | | 6 |
| | Avaya IP Office N | Manager app | lication us | ing the appropri | nate credent | hais. |
| 2. | The main IP Offic | ce Manager v | window ap | pears. The foll | owing steps | refer to the |
| | Configuration Tre | ee which is ir | the left n | ane of the wind | low and und | ler the heading IP |
| | Offices. | | P | | | |
| | Avaya IP Office R6 Manager 00E0 | 10705641E [6.0(8)] [Admini | strator(Administrator | າາ | | - O × |
| | <u>File Edit View Iools H</u> elp | | | <i>A</i> | | |
| | i & 🗁 - 📓 🔺 🔜 🖬 🔺 🗸 | noe00705641F 🖉 🖉 | User | RemoteManager | • | |
| | IP Offices | | | RemoteManager: | | ☆ - X √ < > |
| | | | | nouncements Personal Directory bers Telephony Forwarding Dial J | In Voice Recording Button | Programming Menu Programming Mobility |
| | ⊡ | Name | RemoteManager | 1 | | |
| | 由一行了 Line (5) 田一雪 Control Unit (5) | Password | * | | | |
| | | Confirm Password | **** | | | |
| | HuntGroup (1) | Full Name | | | | |
| | | Extension | | | | |
| | 🕀 🎲 Incoming Call Route (2) | Locale | | | _ | |
| | WanPort (0) | Priority | 5 | | | |
| | Time Profile (0) | System Phone Rights | None | | | |
| | IP Route (2) Account Code (0) | Profile | Basic User | | _ | |
| | E Sciense (71) | | Enable SoftPhone | | | |
| | - 🚄 Logical LAN (0) | | Enable one-X Port | al Services | | |
| | | | Enable one-X Tele | Commuter | | |
| | RAS Location Request (0) E911 System (1) | | Ex Directory | | | |
| | | Device Type | Device Type Unknow | n | | |
| | | User Rights | | | | |
| | | User Rights view | User data | | • | |
| | | Working hours time profile | <none></none> | | | |
| | | Working hours User Rights | | | <u> </u> | |
| | | Out of hours User Rights | | | Y | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | OK Gancel Help |
| | Ready | | | | | |
| 1 | 1 | | | | | |





| 5. | Create | User: |
|----|--------|-------|
|----|--------|-------|

From the Configuration Tree, right mouse click on User \rightarrow New. Enter the extension that was created in Step 3 and precede it with Extn, for example, Extn22000. Enter a **Password** and **Confirm Password** value, enter the extension that was created in Step 3. Click **Telephony** to continue.

| lP Offices | V 20 00E00705641F 🔹 U | | • ser:0>: * | 📥 • [×] |
|------------------------------------|----------------------------|--|---|--|
| | | | 301.0*. | |
| | | ouncements Personal Directory | I I I | 1 I. I. |
| 8000 22001 | User Voicemail DND Si | nortCodes Source Numbers Telephony Forwa | arding Dial In Voice Recording Button Programming | Menu Programming Mobility Phone Manage |
| | Name | Extn22000 | | |
| | | **** | | |
| | Password | | | |
| 8007 22011 | Confirm Password | *** | | |
| 8009 30000 | Full Name | | | |
| | I UII Valle | | | |
| | Extension | 22000 | | |
| | Locale | | • | |
| | | - | | |
| 4 1 55000 | Priority | 5 | • | |
| 🖃 👔 User (25) | System Phone Rights | None | • | |
| NoUser | Profile | Basic User | | |
| 202 Extn202 | Prome | , | <u> </u> | |
| 202 Exth202 | | Receptionist | | |
| 204 Extn204 | | Enable SoftPhone | | |
| | | Enable one-X Portal Services | | |
| | | Enable one-X TeleCommuter | | |
| 207 Extn207 208 Extn208 | | | | |
| 210 Extn210 | | Ex Directory | | |
| 211 Extn211 | Device | Unknown SIP device | | |
| | Type de | | | |
| | User Rights | | | |
| 22003 Extn22003 | User Rights view | User data | • | |
| 22004 EXtri22004 | | | | |
| | Working hours time profile | <none></none> | <u>v</u> | |
| | Working hours User Rights | | • | |
| 30000 Extn30000 | | | | |
| 30001 Extn30001 30002 Extn30002 | Out of hours User Rights | J | | |
| | | | | |
| | | | | |
| 52001 Extn52001 | | | | |
| 55000 Extn55000 | | | | |
| HuntGroup (1) Short Code (57) | | | | |
| Service (0) | - | | | <u>OK</u> <u>C</u> ancel |
| Ready | | | | |

| The changes mu configuration. | st be saved before t | they will take effect, click to th | e 😼 icon to save the |
|--|--|---|---|
| Maraya IP Office R6 Manager 00E00 Elle Edit View Iools Help See - II ■ Elle 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 | 705541F [6.0(8)] [Administrator(Administrato | *)] • 202 Extr.202 • (User:0>: * | |
| S0 212 S0 212 S001 22000 S004 22003 S004 22003 S005 22005 S005 22005 S005 22010 S007 22011 S007 22011 S007 22011 S007 2201 S007 22010 S000 22 S000 | There are approximating There are an other | te Numbers Telephony Forwarding Dial In Voice Recording Button Programmin options Call Log | Menu Programming Mobility Phone Manager Options |

5. Configure the Ascom wireless i75 VoWiFi Handset

The following steps detail the configuration process for the Ascom wireless i75 VoWiFi Handset using the Ascom Device Manger (WinPDM) Windows-based application. For complete details on all the supported features on the Ascom wireless i75 VoWiFi Handset refer to **Section 9**, [6].

| Step | Descript | ion | | | | | | | | |
|------|--|---|---|--|---|---|---|--|---------------------------|----|
| 1. | has the W the follow configura the follow | VinPDM ph wing screen ation inforn wing screen | hysically at a login is nation on the is display | tached via a required. So he WinPDN ed which sh | a USB cab ee Sectior I. After th lows the d | r that has th ble. Before t n 9, [6] for a he user has 1 levices foun are shown a | he user i idministro ogged or d in the | s present ration and n to the databas | nted with nd WinPDN | 1 |
| | Devices Numbers | mber Template Licence Templates Licences | | | | | | | | |
| | Device types: (All) | Search for: | Device type | Device ID Software version | Sho <u>w</u> all | Parameter version U | ograde status | Online | Latest number | |
| | | | | | | | | | | S |
| | | | | | | | | | | 11 |

| Step | Description | | | | | | |
|------|--|--|--|--|--|--|--|
| 2. | Create the extension profiles on the Ascom WinPDM. For this example extension 22000 will be used. From the Ascom WinPDM window, click Numbers → New . The New numbers dialogue window appears, Set the following options: | | | | | | |
| | • Call number = 22000 | | | | | | |
| | Click OK to continue. | | | | | | |
| | BewSite - Ascom WinPDM File Device Number Template Licence Options Help | | | | | | |
| | Devices Numbers Templates Licences | | | | | | |
| | Device types: Search for: in: Parameter version Show all (All) Number Device type Parameter version Device ID Online Status Saved Last run template | | | | | | |
| | New numbers | | | | | | |
| | Device type: 175 Parameter version: 5.7 | | | | | | |
| | Template: None V | | | | | | |
| | Prefix: Image: Single Call number: 22000 | | | | | | |
| | Range Start call number: Stop call number: | | | | | | |
| | OK Cancel | | | | | | |
| | | | | | | | |
| 3. | Repeat Step 2 for all Ascom i75 handsets as shown in Figure 1 . | | | | | | |

| Step | Description |
|------|--|
| 4. | Place an Ascom wireless i75 Handset into the WinPDM, Once an Ascom wireless i75 Handset is placed into the cradle, the WinPDM recognizes the telephone. Click the radio button labeled Associate with number and then click Next . |
| | 💈 New Device Wizard |
| | Welcome to the Found New Device Wizard |
| | Ascom WinPDM has detected a new i75 device with parameter version 5.5 |
| | What do you wish to do with this device? |
| | Associate with number Associate this device with an available number. |
| | 🔿 Run template |
| | Run a template on this device. |
| | O Do nothing |
| | Close this dialog without any further actions. |
| | Click Next to continue |
| | Next > Cancel |
| | |

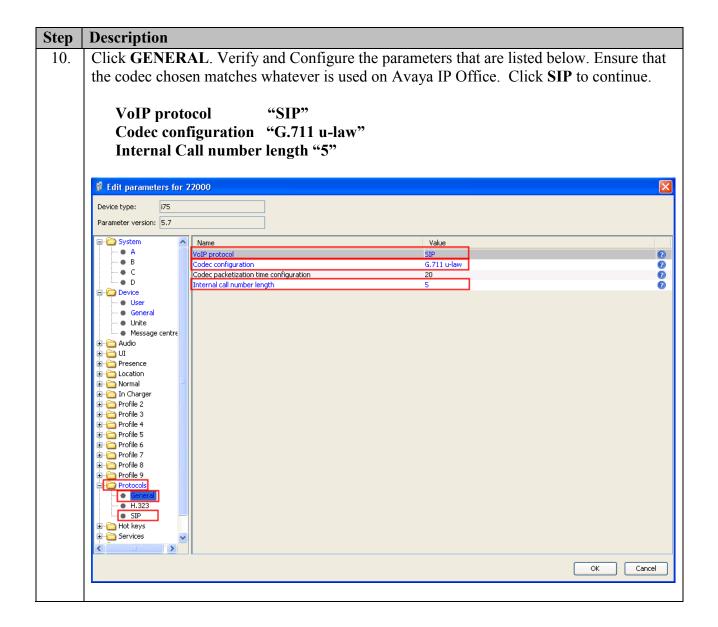
| 5. The Associate device dialogue window appears. Select the extension th wireless i75 Handset is associating to and select OK . | at the Ascom |
|---|--------------|
| wireless 175 Handset is associating to and select OK . | |
| | |
| Associate device | |
| Choose a number to associate with | |
| | |
| N Devic Param Devic Online Status Saved 22000 i75 5.7 Synchro ✓ | Last r |
| | ^ |
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| | |
| | <u>~</u> |
| Search for: in: Number Show | all |
| | |
| ОК | Cancel |
| | |

| Step | Descripti | ion | | | | | | | |
|------|------------------------------------|-------------|----------------------|--------------------------|-------------------|----------|--------------|-----------|-----------------------|
| 6. | After ente | ering OK, | the new | extension i | is created. | Highligh | t the exte | nsion and | select Edit |
| | tab. | | | | | | | | |
| | | | | | | | | | |
| | 🗿 NewSite - Asc | com WinPDM | | | | | | | |
| | | , | Licence Options Help | | | | | | |
| | Devices Numbers Templates Licences | | | | | | | | |
| | | | | | | | | | |
| | New Edit Delete | Search for: | | in Deventer version | Show all | | \searrow | | |
| | Device types: | Search ror: | Davies has a | in: Parameter version | Device ID | Online | Status | Saved | L Look was been alata |
| | (All) i75 | 22000 | Device type | Parameter version 5.7 | 00-01-3e-10-25-e1 | Vnine | Synchronized | Saveg | Last run template |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |

| 7. | - | | gue window appears. Navigate to the S | System A | | | |
|----|---|---|---|--------------------------------|--|--|--|
| | The Edit parameters for 22000 dialogue window appears. Navigate to the System A configuration page by clicking SYSTEM and then A. Verify and Configure the parameters that are listed below, click Device \rightarrow User to continue. | | | | | | |
| | be shown in t | | : None/Open, and WPA2-AES-CCMP. Only OPEN will omplete details on how to configure these parameters | | | | |
| | System N | ame | "Ascom22000" | | | | |
| | DHCP mode | | "Enable" | | | | |
| | - | oue | | | | | |
| | ESSID Security mode Encryption type | | "m-voice1" "OPEN" "NONE" | | | | |
| | | | | | | | |
| | | | | | | | |
| | • • | v 1 | "NONE" | | | | |
| | IP DSCP | for voice | "0x2E (46) – Expedited Forwar | E (46) – Expedited Forwarding" | | | |
| | IP DSCP | for signaling | "0x1A (26) – Assured Forward | ing 31" | | | |
| | Edit parameters for Device type: i75 | or 22000 | | × | | | |
| | Parameter version: 5.7 | | | | | | |
| | 🖃 🗁 System | | | | | | |
| | - + A | Name System name | Value Ascom22000 | 0 | | | |
| | • B | DHCP mode | Enable | 0 | | | |
| | - • C | Phone IP address | 127.0.0.1 | 0 | | | |
| | Device | Subnet mask Default gateway | 255.255.255.255 0.0.0.0 | 0 | | | |
| | 🗄 🛅 Audio | ESSID | m-voice1 | õ | | | |
| | 🕀 🧰 UI | Security mode | OPEN | 0 | | | |
| | 😟 📹 Presence | Encryption type WEP key 1 | NONE | 0 0 | | | |
| | 🗄 🛅 Normal | WEP key 2 | **** | 0 | | | |
| | 🗄 🛅 In Charger | WEP key 3 | **** | 0 | | | |
| | | WEP key 4 | жажжажажажажа ЦССС 1 | 0 | | | |
| | 🗄 🧰 Profile 4 | WEP transmit key WPA-P5K passphrase | WEP key 1 ******** | 0 | | | |
| | 🗄 🔂 Profile 5 | EAP authentication user name | | õ | | | |
| | | EAP authentication password | ******** | 0 | | | |
| | 😟 🧰 Profile 8 | Advanced: Network association Advanced: Network authentication | OPEN NONE | 0 0 | | | |
| | 🕀 🧰 Profile 9 | Advanced: EAP type | NONE | 0 | | | |
| | ⊕ 🛅 Protocols ⊕ 🛅 Hot keys | Advanced: Inner EAP type Voice power save mode | NONE ACTIVE | 0 0 | | | |
| | 🗄 🚞 Services | 802.11b/g channels | 1,6,11 | 0 | | | |
| | 😟 🗀 Alarm | Advanced: 802.11b/g channels | | 2 | | | |
| | 🗄 🗀 Push-To-Talk | World mode regulatory domain Transmission power | World mode (802.11d) Automatic | 0 0 | | | |
| | | IP DSCP for voice | 0x2E (46) - Expedited Forwarding | 0 | | | |
| | | IP DSCP for signalling | 0x1A (26) - Assured Forwarding 31 | 0 | | | |
| | | TSPEC Call Admission Control Transmit gratuitous ARP | Disable Disable | 0 | | | |
| | | Transmit gradulous Mitr | | U | | | |
| | | | | | | | |
| | | | | OK Cancel | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| ep | Description | | | | | |
|----|---|--|------------------|------------------|--|--|
| 8. | Verify and Configure the parameters that are listed below, click General to continue. | | | | | |
| | User displa Endpoint I | | | | | |
| | 🕴 Edit parameters for 2 | 22000 | | X | | |
| | Device type: i75 Parameter version: 5.7 | | | | | |
| | | Name | Value | | | |
| | - • A | Automatic key lock | Disable | 0 | | |
| | • B • C | Phone lock code | ***** | 0 | | |
| | | User display text Rotate new messages | 22000 Disable | 0 0 0 0 | | |
| | E Device | Active system | A | 0 | | |
| | 🗢 User | Direct off hook from charger | Disable | õ | | |
| | General | Endpoint number | 22000 | | | |
| | Message centre | Endpoint ID | 22000 | 0 | | |
| | Audio Audio Audio Audio Presence Presence Audio Presence Profile J Profile J Profile J Profile J Profile J Profile S Profile B Profile C Profile B Profile C Profil | | | | | |
| | | | | OK Cancel | | |

| 🖗 Edit parameters for 22000 | | | | | | |
|--|--------------------------------------|----------------------------------|---|--|--|--|
| | | | | | | |
| Device type: i75 Parameter version: 5.7 | | | | | | |
| System | Name | Value | | | | |
| A A | Max number of call completions | 10 | | | | |
| - • B | Vibrate during call | Vibrate only on urgency messages | | | | |
| e c | Emergency number | vibrate only on orgency messages | | | | |
| • D | Dial pause time | 1 | | | | |
| 🖃 🗁 Device | Time zone | Eastern Time (GMT-5) | | | | |
| User | LCD contrast | Level 8 (default) | | | | |
| 🖶 General | Voice mail number | Lotter o (deridate) | | | | |
| 🗝 🖨 Unite | Phone mode | Personal | | | | |
| Message centre | Backlight timeout | 20 | è | | | |
| 😟 🛅 Audio | Unread message reminder | Disable | | | | |
| 🛓 🛅 UI | Message reminder interval | 7 | è | | | |
| 🛓 💼 Presence | Administration user name | admin | è | | | |
| 🛓 🛅 Location | Administration password | ***** | è | | | |
| 😟 🛅 Normal | Replace Call Rejected with User Busy | Disable | è | | | |
| 😟 🛅 In Charger | NTP server | 192,50,10,250 | è | | | |
| 😟 🛅 Profile 2 | | | | | | |
| 😟 🛅 Profile 3 | | | | | | |
| 😟 🛅 Profile 4 | | | | | | |
| 😟 🛅 Profile 5 | | | | | | |
| 😟 🛅 Profile 6 | | | | | | |
| 🖪 🛅 Profile 7 | | | | | | |
| 😟 🚞 Profile 8 | | | | | | |
| 🗈 🧰 Profile 9 | | | | | | |
| 🗈 🚞 Protocols | | | | | | |
| 🗈 🧰 Hot keys | | | | | | |
| 🗈 🧰 Services | | | | | | |
| 😟 💼 Alarm 🖭 🧰 Push-To-Talk | | | | | | |
| | | | | | | |



| Step | Description | | | | | | | |
|--|---|--|--|---|--|--|--|--|
| 11. | Navigate to the SIP configuration page by clicking PROTOCOLS and then SIP. Verify | | | | | | | |
| | and configure the parameters that are listed below. | | | | | | | |
| | | | | | | | | |
| | The SIP proxy password field must match the user password configured on IP Office. | | | | | | | |
| Once the information has been configured, the WinPDM reports the information | | | | | | | | |
| | After clicking OK , pick up the i75 handset from the WinPDM in order to reboot the handset and activate the new configuration. | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | SIP provv | IP address "10.32.68.1" | | | | | | |
| | | password "123456" | | | | | | |
| | 1 V | "SendOnly with connection | information 0.0.0.0" | | | | | |
| | пош туре | Sendonity with connection | | | | | | |
| | di rati | 22000 | | | | | | |
| | Edit parameters for | 22000 | | | | | | |
| | Device type: i75 | | | | | | | |
| | Parameter version: 5.7 | | | | | | | |
| | System | SIP proxy IP address | Value 10.32.68.1 | 2 | | | | |
| | | Secondary SIP proxy IP address | 0.0.0.0 | 0 | | | | |
| | | SIP proxy listening port SIP proxy ID | 5060 | 0 | | | | |
| | | SIP proxy password Send DTMF using RFC 2833 or SIP INFO | ************* RFC2833 | 2 | | | | |
| | General | Hold type | SendOnly with connection information 0.0.0.0 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | | | |
| | Message centre | Registration identity Authentication identity | Endpoint number Endpoint number | 0 | | | | |
| | i ⊕ i i i i i i i i i i i i i i i i i | Call forward locally MOH locally | Disabled Enabled | 0 | | | | |
| | Presence Location | Hold on Transfer | Disabled | õ | | | | |
| | 🕀 🧰 Normal 👘 | SDP media mode attribute Direct signaling | Session attribute Disabled | 0 | | | | |
| | In Charger | SIP Register Expiration | 3600 | 0 | | | | |
| | 🗄 🦳 Profile 3 | | | | | | | |
| | | | | | | | | |
| | i | | | | | | | |
| | 🕀 🧰 Profile 8 | | | | | | | |
| | Profile 9 Protocols | | | | | | | |
| | General | | | | | | | |
| | | | | | | | | |
| | Hot keys | | | | | | | |
| | | | | | | | | |
| | | | ОК | Cancel | | | | |
| | | | | | | | | |
| 10 | Demost St. 1 | 11 Com o o o la A 1 | | - 1 1 . (| | | | |
| 12. | | | ss i75 VoWiFi Handset being provision | ea, out | | | | |
| | modify the app | propriate extension fields to a | voia auplication. | | | | | |
| | | | | | | | | |

6. General Test Approach and Test Results

6.1. General Test Approach

All feature functionality test cases were performed manually. The general test approach entailed verifying the following:

- Registration, re-registration of Ascom i75 VoWiFi Portable Handsets with Avaya IP Office.
- Verify Message Waiting Indicator and message retrieval with Avaya Voicemail Pro.
- VoIP calls between Ascom and Avaya Digital Telephones, Avaya H.323 IP Telephones.
- Inter-office calls using SIP, G.711U-law and G.729a codec, shuffling (between i75's), conferencing, voicemail, DTMF.
- Wireless Roaming, Wireless Security, Wireless Authentication and Wireless Quality of Service.
- Verifying that QoS directed the voice signaling and voice media to the higher priority queue based on WMM QoS.

6.2. Test Results

The Ascom wireless i75 VoWiFi Handset passed all test cases. Ascom wireless i75 VoWiFi Handsets were verified to successfully register with Avaya IP Office. The compliance testing also focused on verifying WMM Quality of Service for voice traffic while low priority wireless background traffic was competing for bandwidth. The Ascom wireless i75 VoWiFi Handset was verified to roam successfully between access points while maintaining voice calls. Multiple security schemas, OPEN and WPA2-AES-CCMP were used for testing. Telephone calls using codec's G.711U-law and G.729a were verified to operate correctly with the media path direct between the Ascom wireless i75 VoWiFi Handset (shuffling enabled) and with the media path centralized through Avaya IP Office (shuffling disabled). Calls were maintained for durations over one minute without degradation to voice quality. The telephony features verified to operate call add/drop, call waiting, caller ID operation, call forwarding unconditional, call forwarding clear, call park, call pickup, Twinning/bridged, voicemail using Avaya Voicemail Pro, Message Waiting Indicator (MWI) and message retrieval, hold and return from hold.

7. Verification Steps

The following steps can be used to verify proper operation of the Ascom wireless i75 VoWiFi Handset.

- Ensure that the **ESSID** value of the wireless network matches the **ESSID** field value configured in **Section 5 Step 7** on the Ascom wireless i75 VoWiFi Handset.
- Ensure that the VoIP Protocol and Codec configuration field values are set correctly, see Section 5, Step 10.
- Ensure that the SIP proxy IP address and SIP proxy password field values are set correctly, see Section 5, Step 11.
- Ensure that the Ascom wireless i75 VoWiFi Handset was removed from the Device Manager after completing the configuration to apply the changes and reboot the handset.
- Place calls from the Ascom wireless i75 VoWiFi Handset and verify two-way audio.
- Place a call to the Ascom wireless i75 VoWiFi Handset, allow the call to be directed to voicemail, leave a voicemail message and verify the MWI message is received.
- Using the Ascom wireless i75 VoWiFi Handset that received the voicemail, connect to the voicemail system to retrieve the voicemail and verify the MWI message clears.
- Place calls to the Ascom wireless i75 VoWiFi Handset and exercise calling features such as transfer, conference and hold.

8. Conclusion

These Application Notes illustrate the procedures necessary for configuring the Ascom wireless i75 VoWiFi Handset with Avaya IP Office. All feature functionality test cases described in **Section 6.1** passed.

9. Additional References

The documents referenced below were used for additional support and configuration information.

This section references documentation relevant to these Application Notes. In general, Avaya product documentation is available at <u>http://support.avaya.com</u>

- 1. IP Office 6.0 Installation Manual, Issue 21f, March 1 2010, Document Number 15-601042 http://support.avaya.com/css/P8/documents/100073460
- IP Office Release 6.0 Manager 8.0, Issue 24h, February 20, 2010 Document Number 15-601011 <u>http://support.avaya.com/elmodocs2/ip_office/R4.2/Newissuesept08/eng/manager_en.pdf</u>
- IP Office Release 6.0 System Status Application, Issue 05a, February 12, 2010 Document Number 15-601758 <u>http://support.avaya.com/css/P8/documents/100073300</u>
- 4. IP Office Release 6.0 Voicemail Pro, Issue 22b, January 16, 2010 http://support.avaya.com/css/P8/documents/100073435
- IP Office System Monitor, Issue 02b, November 28, 2008 Document Number 15-601019 <u>http://support.avaya.com/css/P8/documents/100073350</u>

Ascom product documentation.

6. Ascom product documentation can be found at http://www.Ascomwireless.com

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