

## Avaya Quick Edition

### Integrating a Hitachi IP5000 Wireless IP Phone

This application note explains how to configure the Hitachi IP5000 wireless IP telephone to connect with Avaya Quick Edition Release 3.2 to provide a robust VoIP communication solution with an integrated mobility option.

#### Required Components

An Avaya Quick Edition system R3.2 consisting of at least 1 QE46xx series telephone

A Hitachi IP5000 Wireless IP Phone

Power over Ethernet (PoE) switch to provide power and network connectivity to the Quick Edition system

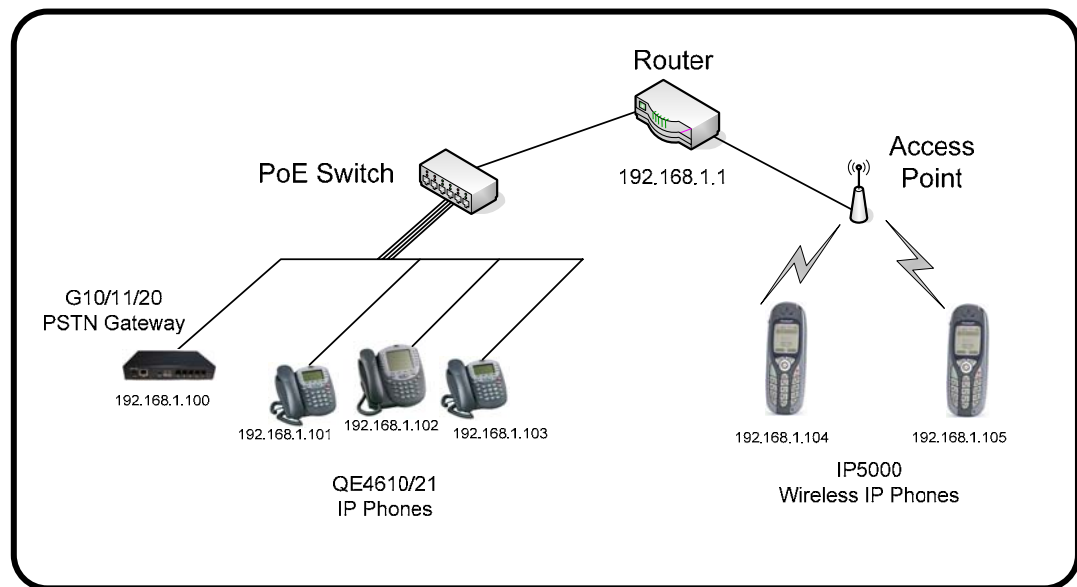
A wireless B/G network access point and router (or router/access point combo) to provide wireless connectivity to the data network

A PC to provision the Quick Edition system and IP5000

#### Network Configuration

The following diagram provides an architectural overview for the connectivity of the above components in order to provide SIP connectivity from the Hitachi IP5000 wireless handset to the Avaya Quick Edition system.

#### Network Diagram



#### Order of Installation

1. Configure your wireless access point (or wireless router) with the desired security functionality or disable security if it is not desired or required. Depending on corporate policy application of MAC filtering can add to the overall security of the wireless network.
2. Connect the wireless access point to a router providing DHCP addresses or enable the wireless router (or enable DHCP functionality on your wireless router).
3. Connect the PoE switch to the router.
4. Connect the Quick Edition devices to the PoE switch.
5. Configure Avaya Quick Edition as outlined in the following sections.

6. Configure the Hitachi IP5000 as outlined in the following sections.

## Quick Edition Configuration

The following section provides the steps to follow for configuring Quick Edition to register the IP5000 as an extension within the system

### Configuration Steps


1. Establish and configure your Quick Edition site and ensure all devices are active and connected to the same PoE switch. For more detailed information on setup and configuration of your Quick Edition system please see <http://support.avaya.com/QuickEdition>.
2. From the PC, use system web admin create a **Subscriber** SIP proxy identity to support the connectivity of the IP5000 to the Quick Edition system. To get to this menu item select **SIP Proxy** and from that menu choose **Identities** as shown below.

The screenshot shows the Avaya One-X Quick Edition web interface. At the top right, there are links for [Logout](#), [Change Admin Password](#), and [Help](#). The main header displays the Avaya One-X logo and the text "Quick Edition". Below the header, there are two main sections: "System Options" and "SIP Proxy Identities". The "System Options" section is a vertical list of menu items: Device Management, Corporate Directory, Applications, Dialing Configuration, Service Provider, SIP Proxy (highlighted in blue), Security, Localization, and Networking. The "SIP Proxy Identities" section is a sub-menu with tabs for "Configurations", "Identities" (selected), and "Authorized Users". Below the tabs, there is a large grey box with the text "No identities are available." and an "Add" button in the top right corner.

3. Select **Add** to create the new identity to be associated with the IP5000. Provide a name and extension for this device which will be automatically populated in the local directory of the Quick Edition system. Press **Submit** to apply the changes.

The screenshot shows the Avaya One-X Quick Edition web interface, specifically the "Add SIP Proxy Identity" form. At the top right, there are links for [Logout](#), [Change Admin Password](#), and [Help](#). The main header displays the Avaya One-X logo and the text "Quick Edition". Below the header, there are two main sections: "System Options" and "Add SIP Proxy Identity". The "System Options" section is a vertical list of menu items: Device Management, Corporate Directory, Applications, Dialing Configuration, Service Provider, SIP Proxy (highlighted in blue), Security, Localization, and Networking. The "Add SIP Proxy Identity" section is a sub-menu with tabs for "Configurations", "Identities" (selected), and "Authorized Users". Below the tabs, there is a form titled "Add SIP Proxy Identity" with the following fields: Type (Subscriber), Name (IP5000), Identity (210), Domain (qe.avaya), and Authorized User (admin). At the bottom of the form, there are "Cancel" and "Submit" buttons.

- After the Identity has been created it will be listed as follows, as well as in the local directory of the Quick Edition system. At this point the Quick Edition is provisioned to accept the registration of the IP5000 when network connectivity has been established.



[Logout](#) | [Change Admin Password](#) | [Help](#)

**System Options**

- » Device Management
- » Corporate Directory
- » Applications
- » Dialing Configuration
- » Service Provider
- » SIP Proxy
- » Security
- » Localization
- » Networking

### SIP Proxy Identities

SIP Proxy Identities

[Configurations](#)   **[Identities](#)**   [Authorized Users](#)

Add | Delete

Name	Identity	Domain	Type
IP5000	210	qe.avaya	Subscriber

## IP5000 Configuration

The following section provides the steps for configuring the IP5000 to register to Quick Edition system as an extension. Ensure that your wireless router or access point has been configured and is active prior to beginning these steps. The following menu items are accessed from the user interface of the IP5000 device. It is assumed that the documentation for the IP5000 has been read and understood. The password of **000000** should be considered as the phone's default administrative password, please note it can be changed.

### Network Configuration Steps

- Select the Left soft-key to select the **Menu** option.
- Select the option item labeled **Setup**.
- From the setup menu, select the **Phone lock** item.
- From the phone lock menu, select the **User Pwd** item.
- Input a password of **000000** to access the phone as a default administrator.
- Select the option item labeled **Network config**.
- By default an item **Config1** will be listed, select this item.
- To change the basic information for this configuration select **Basic Config**, this menu item should not require any changes for a basic installation.
- Select the option item labeled **WLAN**. From the menu input the SSID being used by the wireless router or access point which the IP5000 will use to connect to the network. For example, "wireless".
- Select the option item labeled **Security**. From this menu input the mode of authentication and encryption being used by your wireless router or access point. For example, Mode: **WEP**, Auto Algorithm; **Auto**, WEP bits: **128 bit**, DefaultKeyId: **1**, WEPKey 1 (Hex): **00:00:00:00:00:00:00:00:00:00:00:00**.
- Once these settings have been saved the IP5000 should be connected to the IP network and be assigned an IP address. To determine the IP address of the device continue to the next step.
- From the **Config1** menu select the **TCP/IP** menu. Ensure that **Use DHCP** is **enabled** and take note of the **IP address** of the device.

## SIP Registration Configuration Steps

1. From a PC connected to the same network (or routable to the rest of the devices in the network), use a standard web browser to access the IP address of the IP5000 and specify port 8080. For example, **http:192.168.1.104:8080**.
2. To access this interface use the required default **username login of admin** and password of **000000**. Once logged in the following screen will be displayed:

[Main Page](#) [Configuration](#) [System Setup](#) [Network Setup](#)

## WirelessIP5000A Web Configuration Tool

- [Configuration](#)
- [System Setup](#)
- [Network Setup](#)
- [Download Configuration File](#)

Software Specification	
MODEL	WirelessIP5000A
SOFTWARE VERSION	v2.4.8
IP ADDRESS	192.168.0.7
NETMASK	255.255.255.0
GATEWAY	192.168.0.1
MAC ADDRESS	00:03:2A:02:4C:2B

3. Select the **Network Setup** link to begin provisioning the device to identify the SIP configuration with the Quick Edition system. The network setup menu is shown below:

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## Network Setup

REBOOT

### SIP Registration

- [USER ACCOUNT](#)
- [SERVER SETTINGS](#)

### Network Config

- [\[ Config2 \]](#)
- [ADD \[ New Network Profile \]](#)

### Etc.

- [WIFI](#)
- [WIFI SCAN](#)
- [ROAMING](#)
- [DYNAMIC NETWORK](#)

- Select the **Server Settings** link to provision the server relationship to the Quick Edition system. In the **1<sup>st</sup> Proxy** and **1<sup>st</sup> Registrar** fields input the IP address of one of the **Quick Edition telephones** which are currently active in the network. Input a **Domain Realm** of **qe.avaya** and a **Register Expire** time of **3600**. The IP5000 will then direct its SIP registration requests to this device. Note a second Quick Edition telephone can be identified as a proxy and registrar for the IP5000 to provide redundancy in the system.

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## SERVER SETTINGS

- 1st Proxy
- 1st Registrar
- 2nd Proxy
- 2nd Registrar
- Domain Realm
- Register Expire (60~86400)  s
- Register Retry Backoff Interval  s (CSV Format)

CHANGE VALUE

RESET

- Save the user settings by selecting **Change Value**.
- From the **Network Setup** menu select **User Account**. From this menu input the following field information:
  - **Display Name:** to match the identity name in the Quick Edition system
  - **Phone Number:** to match identity number in the Quick Edition system
  - **User ID:** use the default provided by Quick Edition of **admin**
  - **User Password:** use the default provided by Quick Edition of **admin**
  - **URL Scheme:** use **SIP**

[Main Page](#) [Configuration](#) [System Setup](#) [Network Setup](#)

## USER ACCOUNT

- Displayname
- Phone Number
- User ID
- User Password
- URL Scheme

CHANGE VALUE

RESET

- Save the user settings by selecting **Change Value**.
- On the IP5000 telephone press the **Register** soft-key to register this device with the Quick Edition system. The device will register and basic calls can now be placed from the Quick Edition phones to the IP5000, and vice versa, however there are a few additional protocol adjustments are required.

## Protocol Configuration Steps

1. Select the **Configuration** link to begin provisioning the device protocols to their required settings in order to properly operate with the Quick Edition system.

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## System Configuration

YOU MUST REBOOT

### Section List

- [SYSTEM](#)
- [RTP RTCP](#)
- [WEB SERVER](#)
- [SYSLOG](#)
- [TIME](#)
- [SIP](#)
- [SDP](#)
- [REDUNDANCY](#)
- [DIALPLAN](#)
- [BASIC CALL](#)
- [HOLD](#)
- [DND](#)
- [MWI](#)
- [TRANSFER](#)
- [CONFERENCE](#)
- [FORWARD](#)
- [DIAL MODE](#)
- [RING](#)
- [RING2](#)
- [KEY TONE](#)
- [TOS WMM](#)
- [DTMF](#)
- [CALLER ID](#)
- [UI](#)
- [SMS](#)
- [PHONEBOOK](#)
- [PRESENCE](#)
- [SERVICE LAMP](#)
- [TONE TYPE](#)
- [DHCP OPTION](#)
- [UPGRADE](#)
- [AUTO UPGRADE](#)
- [PROVISION](#)
- [UNICODE](#)
- [LOCAL CODE](#)

2. Select the **DTMF** item to select the appropriate protocol to operate with the Quick Edition system. The codec selection should be **RFC2833**. Save these changes by selecting **Change Value**.

[Main Page](#) [Configuration](#) [System Setup](#) [Network Setup](#)

## DTMF

- Mode
- Duration (0~1000)  ms
- RFC2833 Volume
- RFC2833 Payload Type (96~127)
- Enable Auto DTMF Mode  On  Off

CHANGE VALUE

RESET

- From the **System Configuration** menu select **Basic Call**. From the **Basic Call** menu ensure that **Echo Cancellor** is **On**.

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## BASIC CALL

- Busy Tone Count (1~60)
- Transfer Busy Tone Count (1~60)
- Call Waiting Tone Count
- Reject Hold Request On Hold  On  Off
- Reject Hold Request On 2Calls  On  Off
- Block Request Hold On Holded  On  Off
- Session Expire (0:Disable, 90~3600)  s
- Ringing Timeout (0:Disable, 6~3600)  s
- Update RBT
- Dial Sending Timeout (0:Disable, 500~32000)  ms
- Check Alias In Call List  On  Off
- Remove DASH On Alias  On  Off
- Use Silent Packet On Mute  On  Off
- Echo Canceller  On  Off
- Reject Invite During BT  On  Off
- Response For Decline Incoming Call

CHANGE VALUE

RESET

- Integration of the IP5000 to the Quick Edition system is now complete and the device is now a functional part of the system.

## Functionality Provided

The following section provides an outline for the functionality which is supported.

**Basic Call**

**Multiple Call Appearance**

**Hold**

**Mute**

**Transfer**

**Conference**

**Member of Ring Group**

**Directory Entry**

**Auto Attendant Entry**



## Application Note

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