Avaya Solution & Interoperability Test Lab

Application Notes for Configuring PAETEC-Iperia Mobile Gateway and Android Visual Messaging Application with Avaya Aura® Messaging – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for the PAETEC-Iperia Mobile Gateway and Android Visual Messaging application to interoperate of Avaya Aura® Messaging.

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 required for the PAETEC-Iperia Mobile Gateway and Android Visual Messaging application to interoperate of Avaya Aura® Messaging. The PAETEC-Iperia Visual Messaging application is designed for deployment on Android, Blackberry, and Android devices; however, this document only covers deployment on an Android device.

When a subscriber connects to the PAETEC-Iperia Visual Messaging application, a list of messages is retrieved from Avaya Aura® Messaging, via the PAETEC-Iperia Mobile Gateway, and is shown in the mobile application. The Mobile Gateway interfaces with Avaya Aura® messaging using Internet Message Access Protocol (IMAP). Once the list of messages has been shown, the subscriber can play, pause, fast forward, and rewind messages through either the handset or a hands-free device. The subscriber can also see message details, including: caller/phone number, date/time of the message, message duration, and a transcription of the message. Subscribers can perform various functions via the Visual Messaging application, including: adding a new contact to their address book, marking messages as read/unread, and deleting messages.

2. General Test Approach and Test Results

This compliance testing tested the ability of the PAETEC-Iperia Mobile Gateway and the Visual Messaging application running on an Android device to interoperate with an Avaya telephony environment comprised of Avaya Aura® Messaging, Avaya Aura® Session Manager, Avaya Aura® Communication Manager, and Avaya telephones.

2.1. Interoperability Compliance Testing

The interoperability compliance testing included feature and serviceability test cases.

The feature test cases focused on verifying the following:

- Authorization (credential checking)
- Message retrieval
- Message playback (play, pause, fast forward, rewind, etc.)
- Message deletion
- Message status (read/unread)
- MWI updates

The serviceability testing focused on verifying the ability of the PAETEC-Iperia Visual Messaging solution to recover from adverse conditions, such as network and server outages.

2.2. Test Results

All test cases were executed and passed.

2.3. Support

For technical support on the PAETEC-Iperia Mobile Gateway and Visual Messaging application, contact PAETEC-Iperia at:

PAETEC:

- Web: http://www.paetec.com/customer-care/contact-customer-care
- Phone: 877-340-2600
- Email: customercare@paetec.com

Iperia:

- Web: http://www.iperia.com/contact.php
- Phone: 781-839-3885
- Email: support@iperia.com

3. Reference Configuration

Figure 1 illustrates a configuration used during compliance testing. The Enterprise, represented in the middle of the figure, is comprised of the following Avaya Aura® products: Communication Manager, System Manager, Session Manager, and Messaging. Also at the enterprise are various Avaya telephones (analog, digital, H.323, and SIP), and equipment for Wi-Fi connectivity. There are two data paths for the PAETEC-Iperia solution:

1. The PAETEC-Iperia Mobile Gateway connects to the Avaya Aura® Messaging server via IMAP.
2. The mobile devices running the PAETEC-Iperia Visual Messaging application connect to the PAETEC-Iperia Mobile Gateway (via the cellular network path).

For the first data path referenced above, since the Avaya Aura® Messaging server has a private IP address within the Enterprise network, a NAT was set up to map the Messaging server's private IP address to a public IP address (to allow connectivity from the PAETEC-Iperia Mobile Gateway). For the second data path referenced above, it is important to note that during compliance testing, the mobile devices did not have access to the cellular network. Therefore, the mobile devices connected to the Mobile Gateway via a path using the Wi-Fi network within the Enterprise. However, a connection between the mobile phone and the Enterprise private network is not requirement for the PAETEC-Iperia solution. That is, in general deployments, there is no requirement for the mobile phone to connect to the Wi-Fi network or in any way operate/access anything behind the firewall.

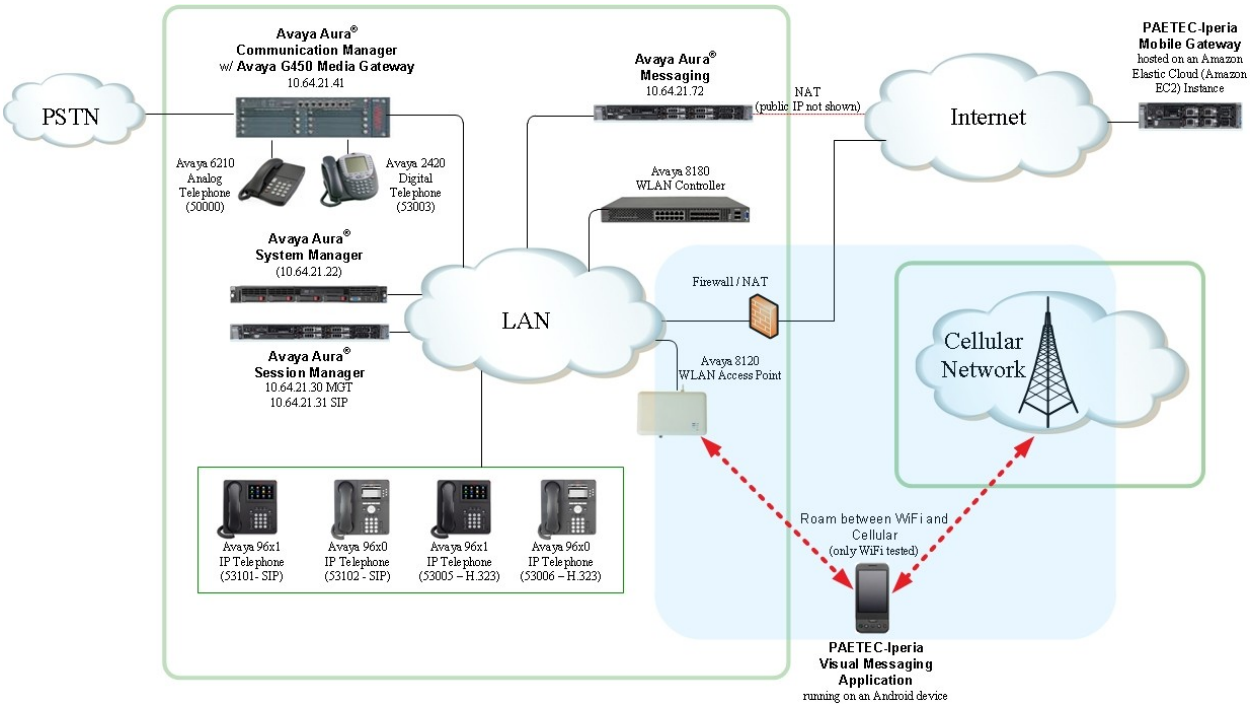


Figure 1: PAETEC-Iperia Mobile Gateway & Visual Messaging Application

4. Equipment and Software Validated

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

Equipment	Software
Dell™ PowerEdge™ R610 Server	Avaya Aura® Messaging 6.1 SP1 (Avaya Aura® System Platform: 6.0.3.4.3)
Avaya S8300D Server with a Avaya G450 Media Gateway	Avaya Aura® Communication Manager 6.0.1, R016x.00.1.510.1, Patch 19303 (Avaya Aura® System Platform: 6.0.3.4.3)
Dell™ PowerEdge™ R610 Server	Avaya Aura® System Manager: 6.1.0 (Build No. – 6.1.0.0.7345-6.1.5.502), Software Update Revision No : 6.1.9.1.1634 (Avaya Aura® System Platform: 6.0.3.4.3)
HP ProLiant DL360 G7 Server	Avaya Aura® Session Manager 6.1.5.0.615006
Avaya 9600 Series IP Deskphones (H.323)	Release 3.1 Service Pack 3 (96x0) Release 6 Service Pack 5 (96x1G)
Avaya 9600 Series IP Deskphones (SIP)	Release 2.6 Service Pack 5 (96x0) Release 6 Service Pack 2 (96x1G)
PAETEC-Iperia Mobile Gateway	2.3.0
PAETEC-Iperia Visual Messaging application running on an Android device	3.2.0.16628

5. Configure Avaya Aura® Messaging

This section provides the procedures for configuring Avaya Aura® Messaging to interoperate with the PAETEC-Iperia Mobile Gateway and Visual Messaging application. Basic configuration of Avaya Aura® Messaging is outside the scope of this document. These instructions assume basic administration activities have already been completed, such as: configuring the Message Storage Server and Messaging Application Server, defining the system mailbox, configuring system level parameters, and connecting Avaya Aura® Messaging to Avaya Aura® Session Manager over a SIP trunk. For more information on administering Avaya Aura® Messaging, see **References [8]** through **[10]** in **Section 9.**

The following administration activities will be described:

- Administer System Ports and Access
- Administer Class of Service to enable Message Waiting
- Administer Subscribers

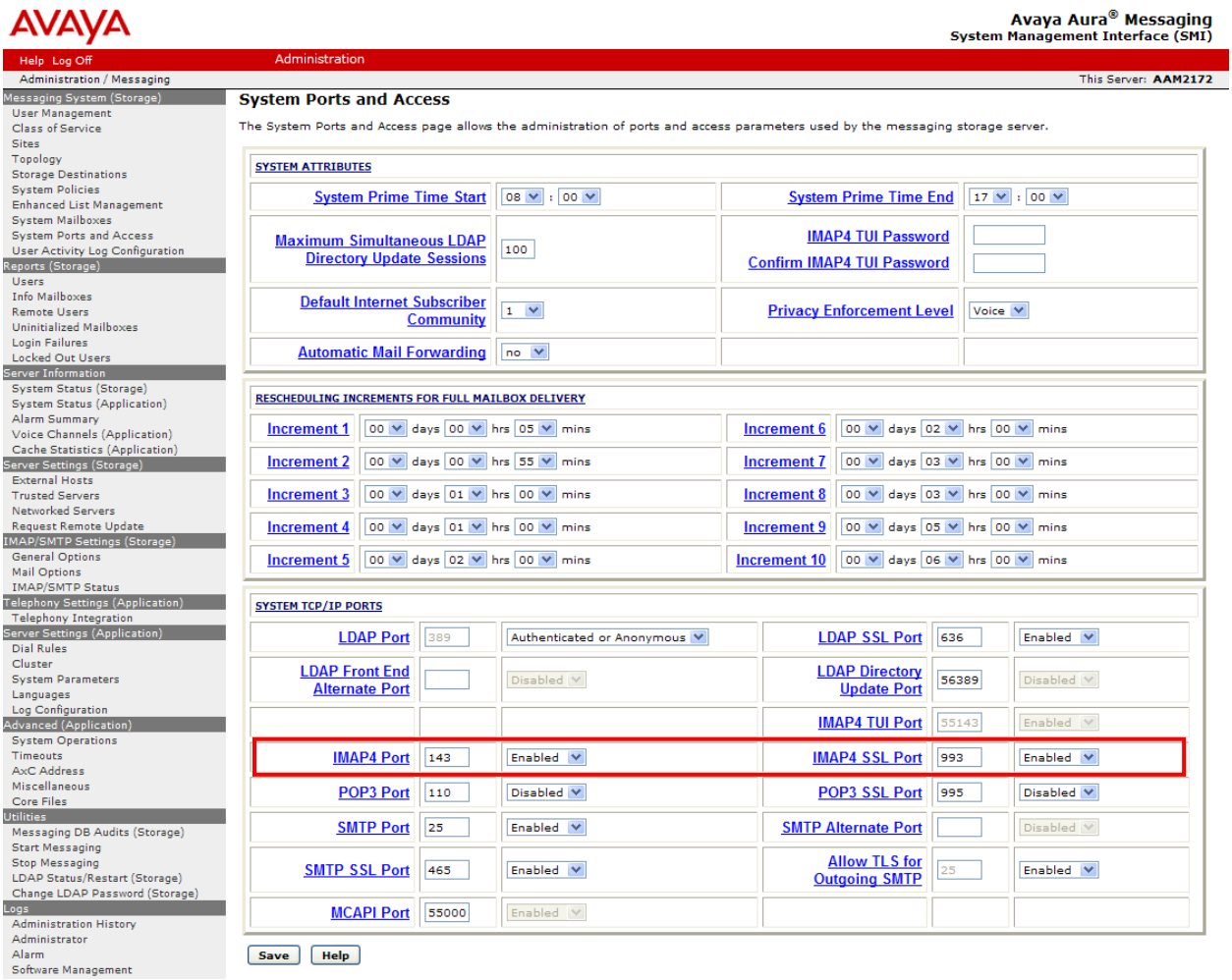
Configuration is accomplished by accessing the browser-based System Management Interface of Avaya Aura® Messaging, using the URL "**http://<ip-address>/**", where **<ip-address>** is the IP address of Avaya Aura® Messaging. Log in using appropriate credentials.

5.1. Administer System Ports and Access

Verify IMAP ports.

Navigate to the **Administration → Messaging** menu and select **System Ports and Access** under **Messaging System (Storage).**

Verify the correct IMAP port(s) to be used are configured and enabled. Click the **Save** button to save changes.



5.2. Configure Class of Service

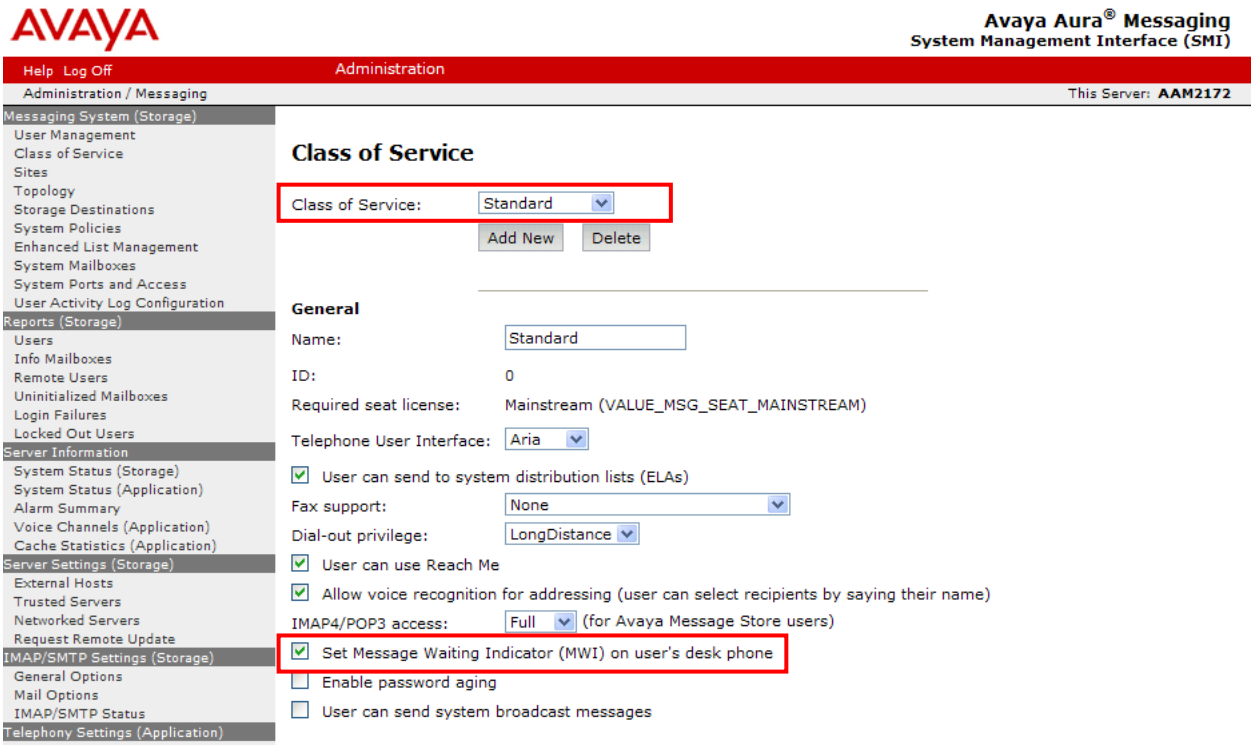
Verify Messaging Waiting Indicator (MWI) is enabled for all subscribers.

Navigate to the **Administration → Messaging** menu and select **Class of Service** under **Messaging System (Storage).**

Select **"Standard"** from the **Class of Service** drop-down menu. Under the **General** section, enable **Set Message Waiting Indicator (MWI) on user's desk phone**, and use default values for remaining fields.

Click the **Save** button (not shown) to save changes.

The following screen shows the settings defined for the "**Standard**" Class of Service in the sample configuration.



5.3. Administer Subscribers

Define a subscriber mailbox for each Communication Manager station.

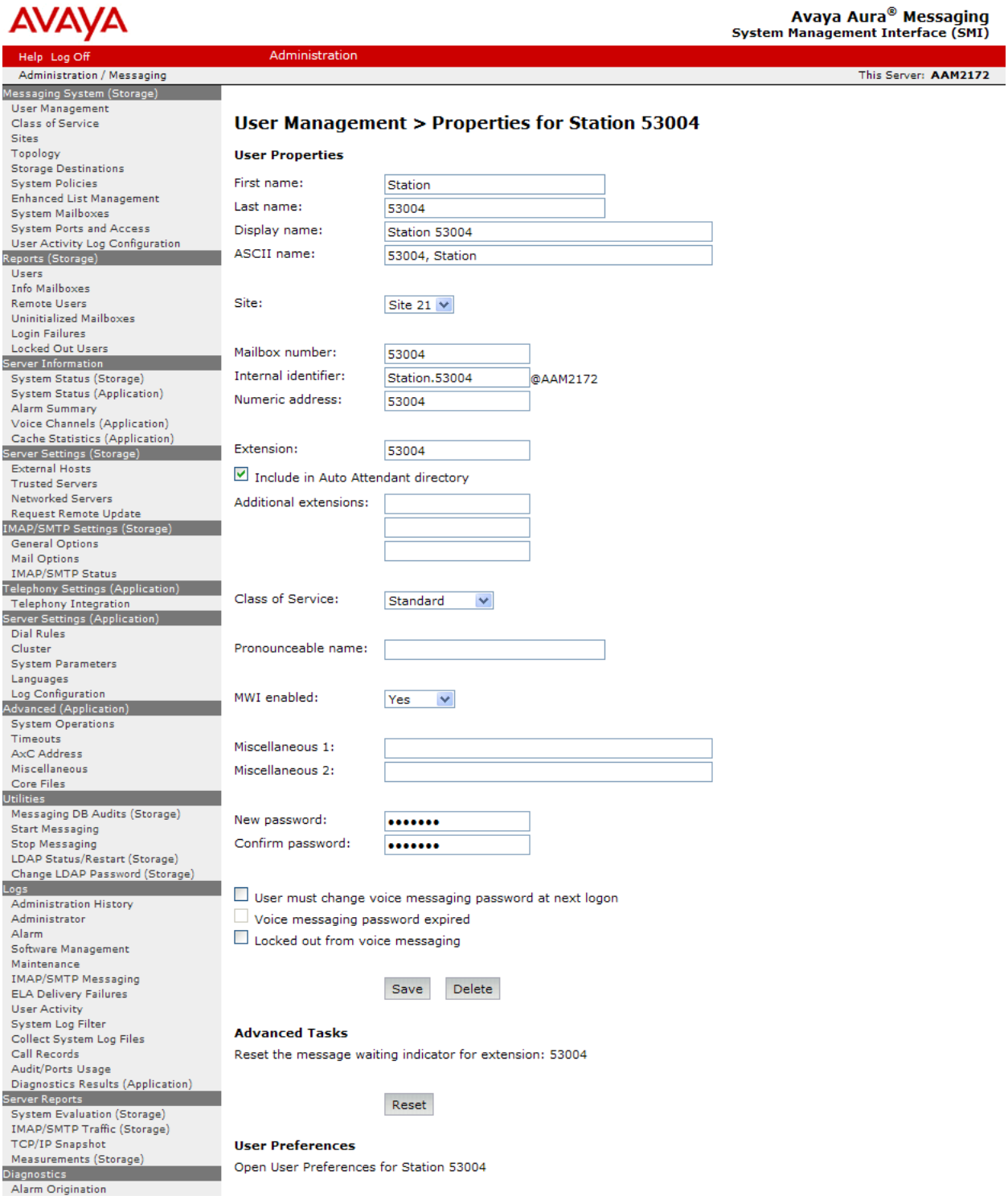
Use **Administration → Messaging** menu and select **User Management** under **Messaging System (Storage).** Under **Add User/Info Mailbox** section, click **Add** (not shown).

Under **User Properties**, enter the following values and use default values for remaining fields.

- **First name:** Enter first name of the user
- **Last name:** Enter last name of the user
- **Display name:** Enter display name of the user
- **Mailbox number:** Enter mailbox number corresponding to a station
- **Extension:** Enter dialed number of station
- **Class of Service:** Select Class of Service defined in **Section 5.2**
- **MWI enabled:** Select "**Yes**"
- **Password:** Enter numeric password

Click the **Save** button to save changes.

The screen on the following page shows a new subscriber defined in sample configuration.



6. Configure PAETEC-Iperia Visual Messaging

6.1. Configure Mobile Gateway Platform Configuration

The Mobile Gateway has two types of configurations: platform and account configuration. Platform configuration is stored in multiple files (in *<instance root>/conf* directory), with each file representing a specific sub component.

The configuration files and descriptions are shown below:

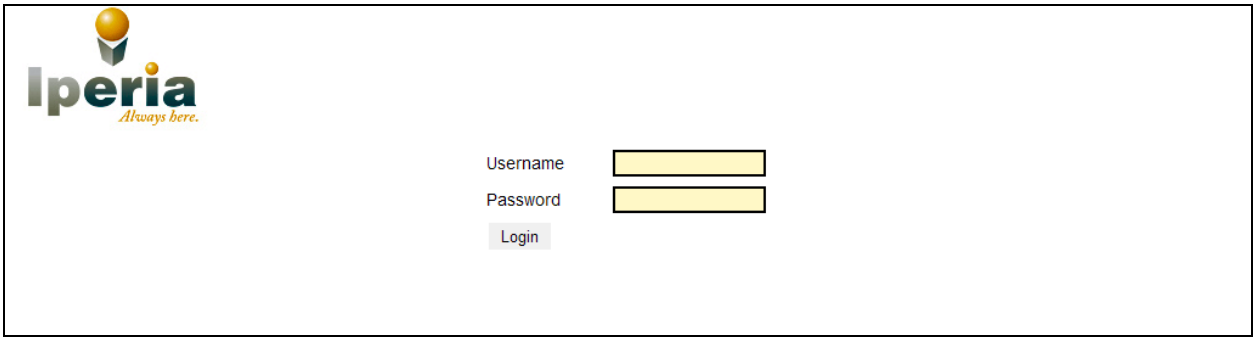
File	Description
mg-db.config	Database configuration
mg-imap.config	IMAP storage access configuration
mg-license.config	Configuration holding licensing information, seat numbers and license signature
mg-push.config	Configuration for Apple push notification and TCP Push notifications
mg-transcription.config	Transcription engine configuration
mg-xsi.config	Settings for integrating with Broadsoft XSI Events and XSI Action protocols
mg-smtp.config	Settings for connecting to the SMTP server for sending emails
mobile-gateway.config	General settings
version.inc	Version name and build number of the application. This configuration file should not be modified.
license.cer	X.509 certificate that is used to verify validity of the license. This certificate is embedded into the code and if changed or replaced will make the system non-operational.
schema/*	Files used to set integration between sub components of the system. May not be changed.

The IMAP access configuration sets IMAP storage connectivity. It is located in <*instance root*>*/conf /mg-imap.config*. The following settings should be set in the *mg-imap.config* file:

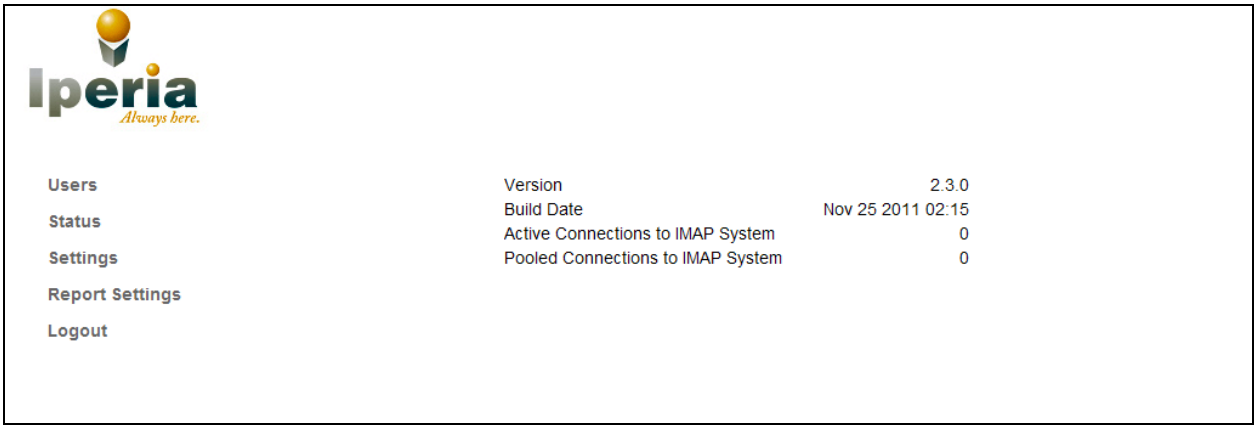
Setting	Value	Description
com.iperia.vx.mg.server.host	(public IP not shown)	IP Address where IMAP Service hosted
com.iperia.vx.mg.server.port	143	TCP Port IMAP Service is bound to
com.iperia.vx.mg.server.usessl	false	Flag indicating whether SSL connection should be used to operate with underlying IMAP server
com.iperia.vx.mg.server.ntlm-disable	true	Aura shows capability of NTLM auth but follows the process of normal plain text authentication, so disabling ntml auth as it fails to login to imap account
com.iperia.vx.mg.local-port.start	5000	Local socket port binding range start
com.iperia.vx.mg.local-port.end	6000	Local socket port binding range end. Allocate 2 x imap-connection-pool.size (not shown)
com.iperia.vx.mg.server.adapter	avayaAuraAdapter	Parameter indicating what type of IMAP Server is used
com.iperia.vx.mg.imap.idle.enabled	true	This flag enables IMAP IDLE feature used to fast notification about message deposit

6.2. Configure Mobile Gateway Account Configuration

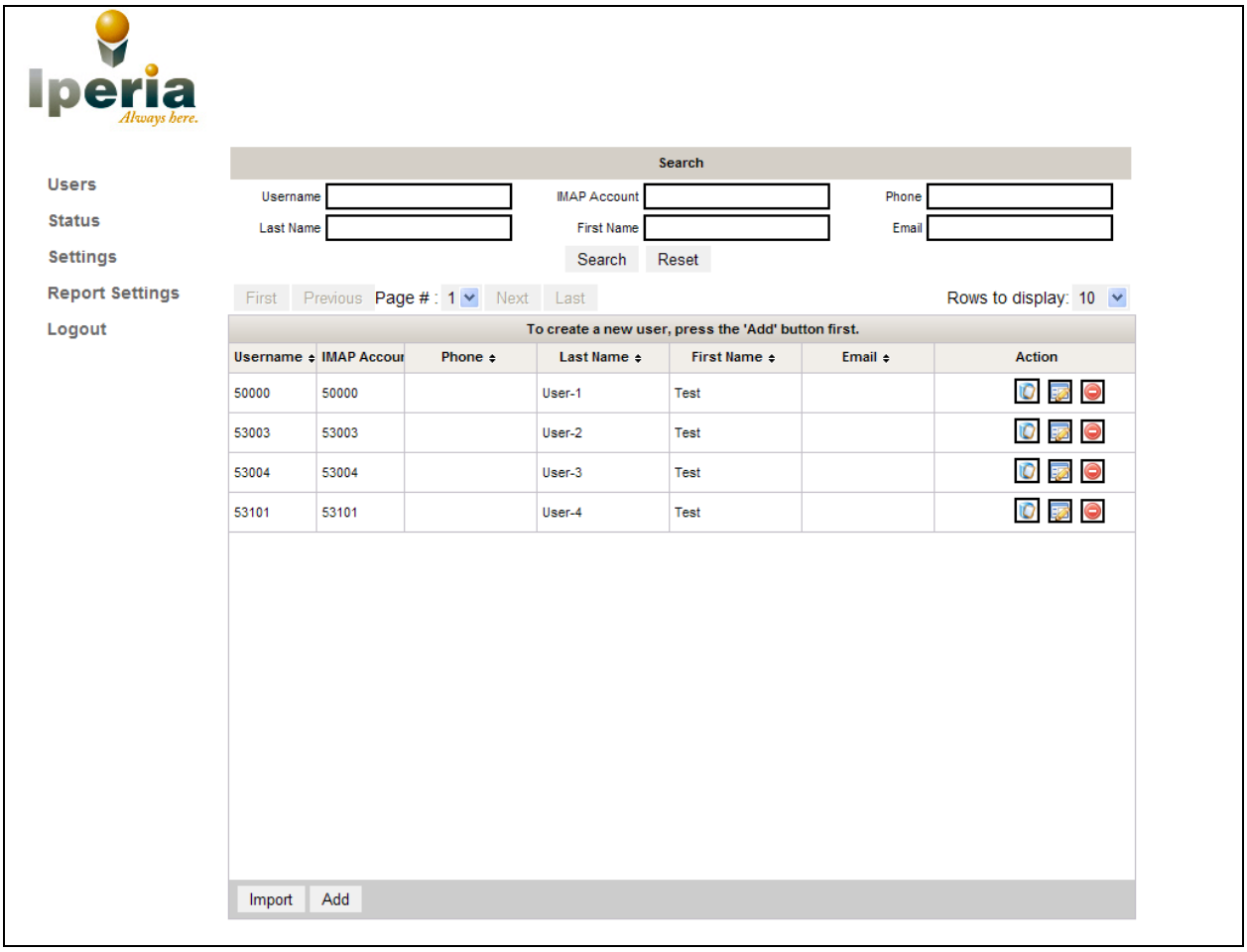
The Mobile Gateway console can be accessed by entering the following URL in a web browser http://<ip_address>:<port>/mg-console/ where <ip_address> is the Mobile Gateway host IP address, and <port> is the Mobile Gateway. Log in using the credentials set during installation.



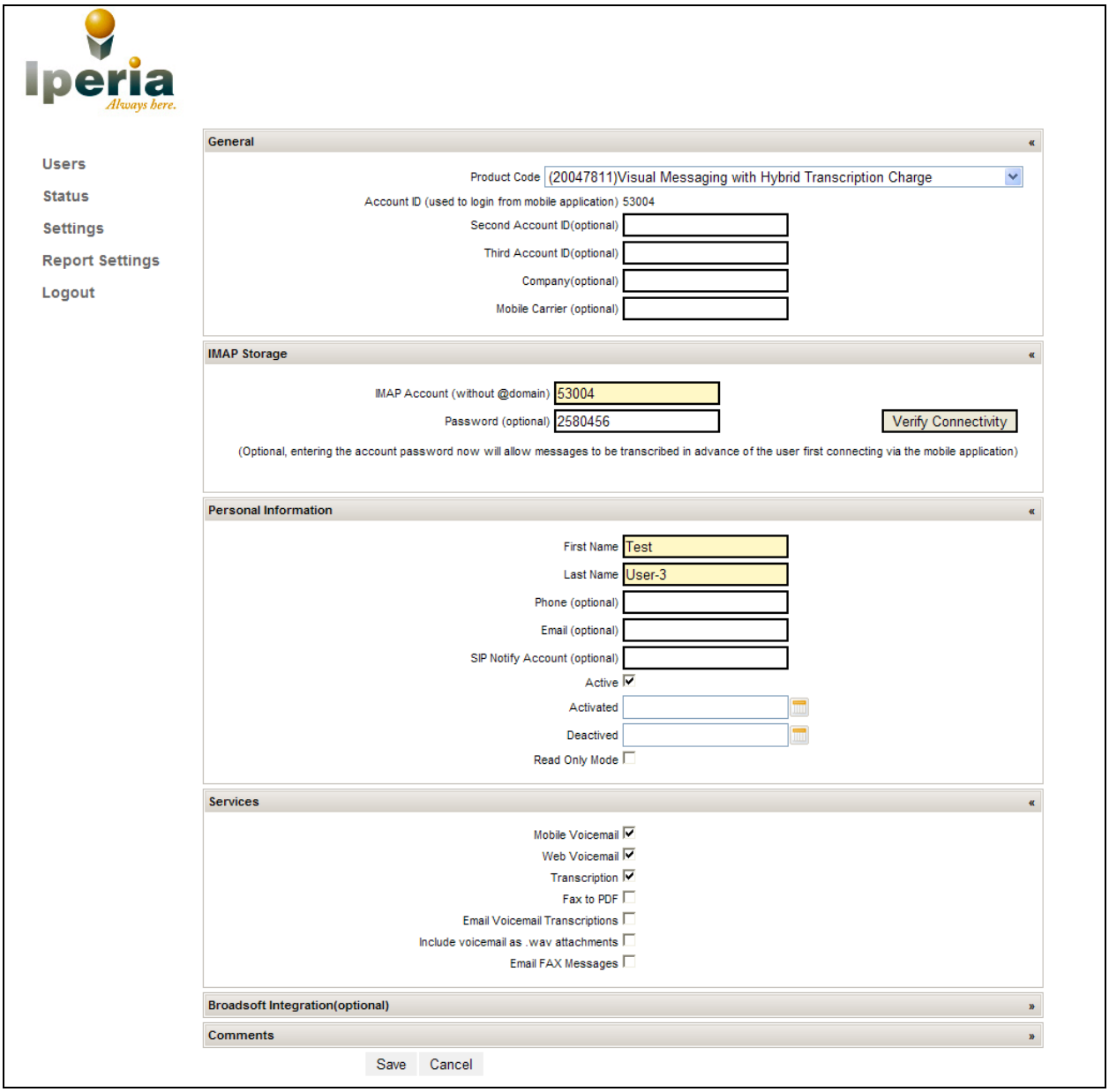
After logging in, the **Status** screen will appear as shown below.



Click the **Users** link on the left to view the current list of administered users. To add a new user, click the **Add** button on the bottom of the page.



The example screen below shows a user being created for IMAP account 53004. Ensure the **IMAP Account** and **Password** field values match the subscriber **Mailbox Number** and **Password** field values configured in **Section 5.3**. After adding or modifying a user, click the **Save** button at the bottom of the screen.



6.3. Configure Visual Messaging Application

The PAETEC-Iperia Android Visual Messaging application can be downloaded from the Apple App Store. After downloading and installing the application, open the application and navigate to **Settings → Manage Account**.

- Set **Organization ID** to *Iperia*
- Set **Account** to the account configured in **Section 6.2**
- Set **PIN/Password** to password configured in **Section 6.2**
- Set **Server** to http:// <ip_address>:<port>/mg-svc/services where <ip_address> is the Mobile Gateway host IP address, and <port> is the Mobile Gateway

7. Verification Steps

The following steps may be used to verify the configuration:

- Log into the PAETEC-Iperia Visual Messaging application using the appropriate user credentials. Leave several new messages in the subscriber's mailbox. Verify the Visual Messaging application indicates the user has new messages.
- Open the Visual Messaging application and verify the list of messages for that subscriber is displayed.
- Play one of the messages and perform various functions during the playback such as pause, fast forward, rewind, etc. Verify the playback.
- Delete one of the messages using the Visual Messaging application. Verify the message is deleted on the Avaya Aura® Server.
- Toggle the message status for each of the messages (read/unread). Verify the message status on the Avaya Aura® Messaging server and the MWI lamp on the user's desk phone are updated appropriately.

8. Conclusion

The PAETEC-Iperia Mobile Gateway and Android Visual Messaging application passed compliance testing. These Application Notes describe the configuration steps required for the PAETEC-Iperia Mobile Gateway and Android Visual Messaging application to interoperate of Avaya Aura® Messaging, to support the reference configuration shown in **Figure 1**.

9. Additional References

This section provides references to the product documentation relevant to these Application Notes. Avaya product documentation may be found at http://support.avaya.com.

Avaya Aura® Session Manager

[1] Avaya Aura® Session Manager Overview, Doc ID 03-603323
[2] Installing and Configuring Avaya Aura® Session Manager
[3] Avaya Aura® Session Manager Case Studies
[4] Maintaining and Troubleshooting Avaya Aura® Session Manager, Doc ID 03-603325
[5] Administering Avaya Aura® Session Manager, Doc ID -3-603324

Avaya Aura® Communication Manager

[6] Avaya Aura® Communication Manager Feature Description and Implementation, Doc ID: 555-245-205
[7] Administering Avaya Aura® Communication Manager, Doc ID: 03-300509

Avaya Aura® Messaging

[8] Administering Avaya Aura® Messaging
[9] Using Avaya Aura® Messaging
[10] Implementing Avaya Aura® Messaging

PATEC-Iperia documentation can be obtained from PAETEC-Iperia by using the contact information provided in **Section 2.3**.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.