

HP Anywhere

For the Windows® operating system

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Administrator Guide

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Welcome to This Guide

This guide explains how to set up the HP Anywhere server, enabling the administrator to download mini apps to the end user's mobile devices.

It also provides a detailed explanation of the HP Anywhere Administrator Console.

Chapter 1

Overview

HP Anywhere is a multi-platform application for distributing and consuming IT Management information and operations on mobile devices (smartphones and tablets) on different platforms, such as iOS and Android. HP Anywhere allows you to mobilize HP Software products that you are familiar with, in new ways.

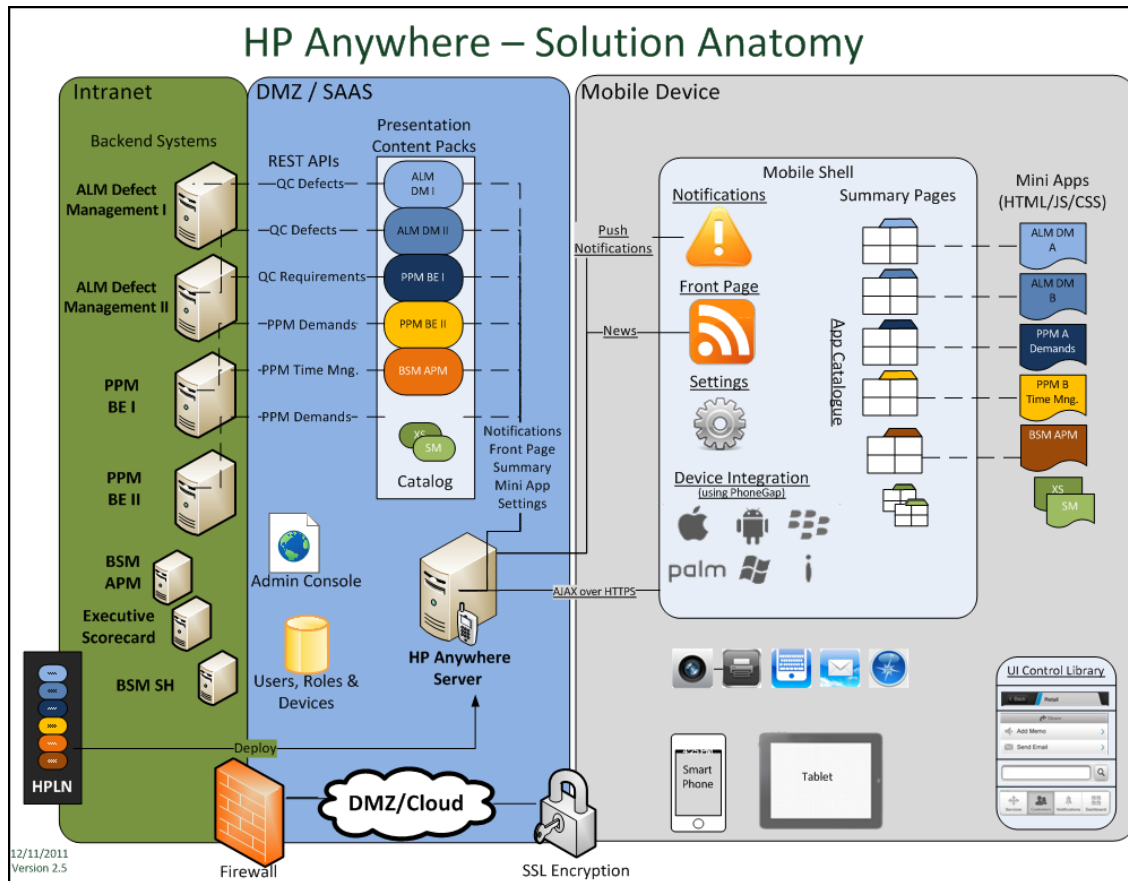
HP Anywhere is comprised of three components:

- **HP Anywhere Server:** Provides the platform for connecting to the mini app versions of your IT Management Systems
- **HP Anywhere Client:** The mobile application that is distributed and installed on the end user devices. Via the client, the end user connects to the HP Anywhere server and retrieves data of the relevant mini apps.
- **Mini Apps:** Applications that are downloaded to the end user devices at runtime via the mobile client application. These applications provide interface to specific IT Management tasks or modules.

HP Anywhere provides a hybrid solution - mini apps are built once and can be run on multiple platforms with all the advantages of the native application.

HP Anywhere Architecture

The following diagram provides an overview of the HP Anywhere architecture.



The HP Anywhere Architecture is comprised of three areas:

- **Backend Servers** - Provides the data of each mini app.
- **HP Anywhere Server** - Provides the platform for connecting to the mini apps.
- **Mini Apps** - Divided into two areas:
 - Client side - The interface that the end user sees on their mobile device
 - Server side - The interface that act as a proxy between the mobile device and backend:

Mini Apps

The administrator is responsible for downloading the mini apps from HPLN and making them available to the end user. The end user can then install the mini app onto their HP Anywhere mobile client .

Examples of currently available mini apps are:

- HP ALM Defect Management for Smartphone
- HP Executive Scorecard for Smartphone

- HP Executive Scorecard for Tablet
- HP PPM Demand Management for Smartphone
- HP BSM Service Health for Smartphone
- HP BSM Application Performance Management for Smartphone

See the Support Matrix at <http://support.openview.hp.com/selfsolve/manuals> for the latest supported versions of each mini app and its corresponding backend application.

Implementation Workflow

This section presents the steps to be performed in order to implement HP Anywhere. The scenario includes three roles: Mini App Developer, Administrator, and End User.

1. **Mini App Developer:** Develop the mini app and upload it to a cloud service named HP Live Network (HPLN).
2. **Administrator:** Install the mini apps from HPLN and enable them from the Administrator Console. After the mini apps are installed and enabled, the end user can see them on the mobile device. The administrator chooses the mini apps according to the end user's role. The mini apps are presented on the end user mobile device based on the persona selected by the end user during registration to the HP Anywhere application.
3. **End User:** Download the HP Anywhere client from the provided link and log into HP Anywhere on the mobile device. The end user can select additional mini apps from the catalog.

The following diagram shows the interface between the HP Anywhere Client, Server and the mini apps:



HP Anywhere supports a single sign-on mechanism, authenticating the user once only, and then ensuring that authorization definitions are carried over to all the mobile access use cases.

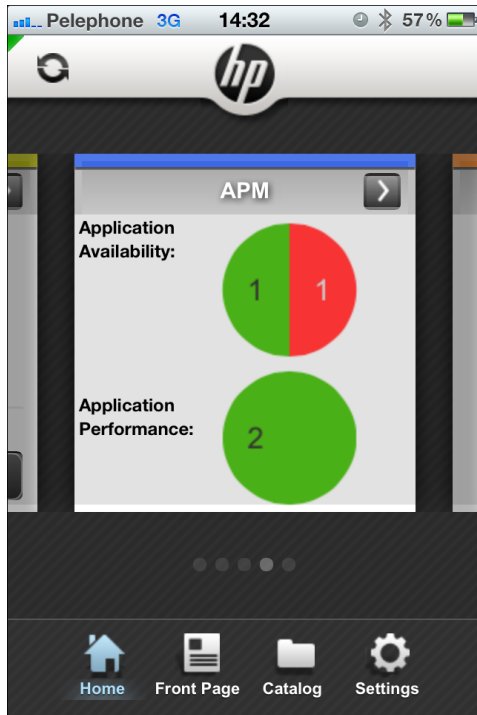
Mobile Client

The mobile client consists of the following sections:

- ["Home" \(on page 12\)](#)
- ["Front Page " \(on page 12\)](#)
- ["Settings" \(on page 13\)](#)
- ["Catalog" \(on page 14\)](#)

Home

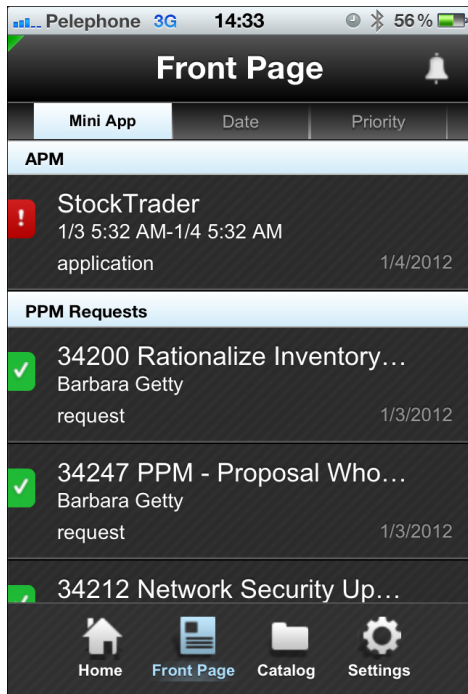
The Home Page presents an aggregated view of activity for each mini app. This view provides enough information at a glance to make quick decisions and decide whether or not to drill down further.



Front Page

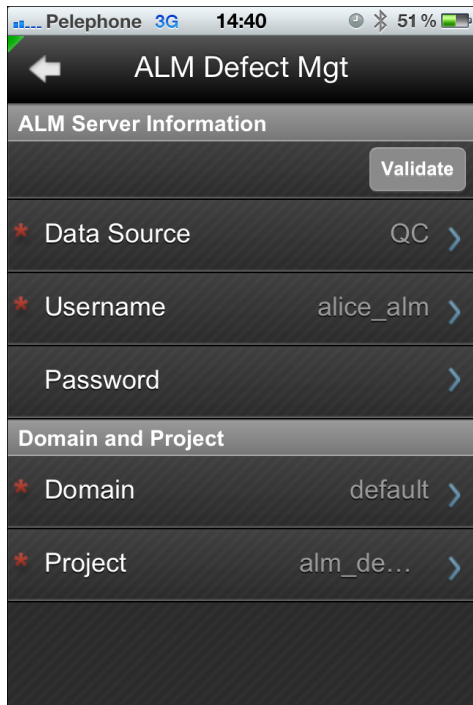
The Front Page shows important items from the different mini apps installed on the mobile device. These items can be sorted according to mini app, date and priority.

Any alerts that have occurred are shown on the Front Page. From the Front Page view, the end user can drill down directly to the point in a mini app where an action can take place.



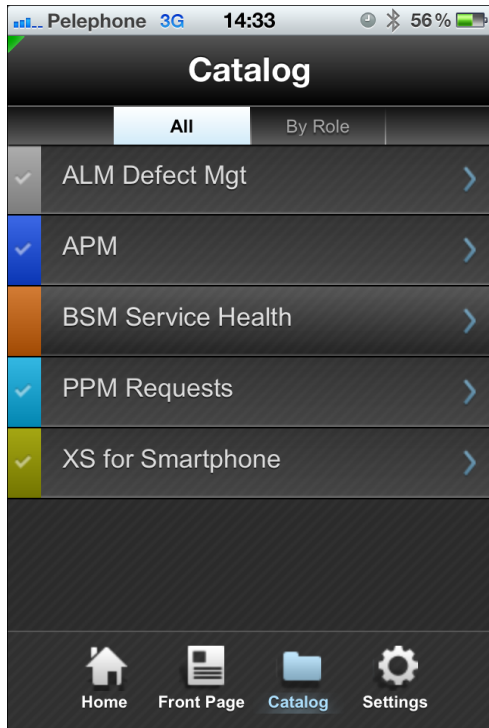
Settings

In the Settings Page, the end user can change the specific settings of each mini app.



Catalog

In the Catalog Page, the end user can select the mini apps to install/uninstall on the mobile device in addition to the default mini apps provided according to his/her role.



Chapter 2

Authorization Roles

HP Anywhere implements three types of user roles:

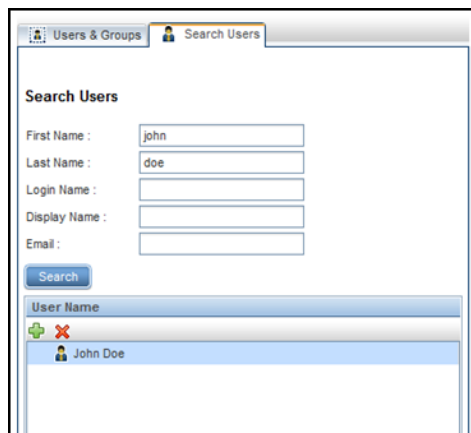
- **Admin:** For logging in to the "[Administrator Console](#)" (on page 17).
- **BSF_Admin_Role:** Users with the role BSF_Admin_Role are permitted to login to the User Management UI to manage users and assign roles to them.
- **Tester:** Users with the role Tester can test new mini apps. When a new mini app is installed, all the services it contains are disabled by default. A user with tester role can test these new services before the Admin user enables them.

Assign HP Anywhere Roles to LDAP Users

After HP Anywhere has been installed, only a single user exists with the name 'admin' and role 'Admin'.

After configuring the LDAP staging environment, you need to map real LDAP users to HP Anywhere authorization roles as follows:

1. Open the User Management UI: **http://<url>:<port>/bsf**.
2. Log into AUM (BSF) using your temporary admin user (name: **admin**) with the password that the administrator configured during the post-installation.
3. Select the **User Management** tab.
4. Then, select the **Search Users** tab.

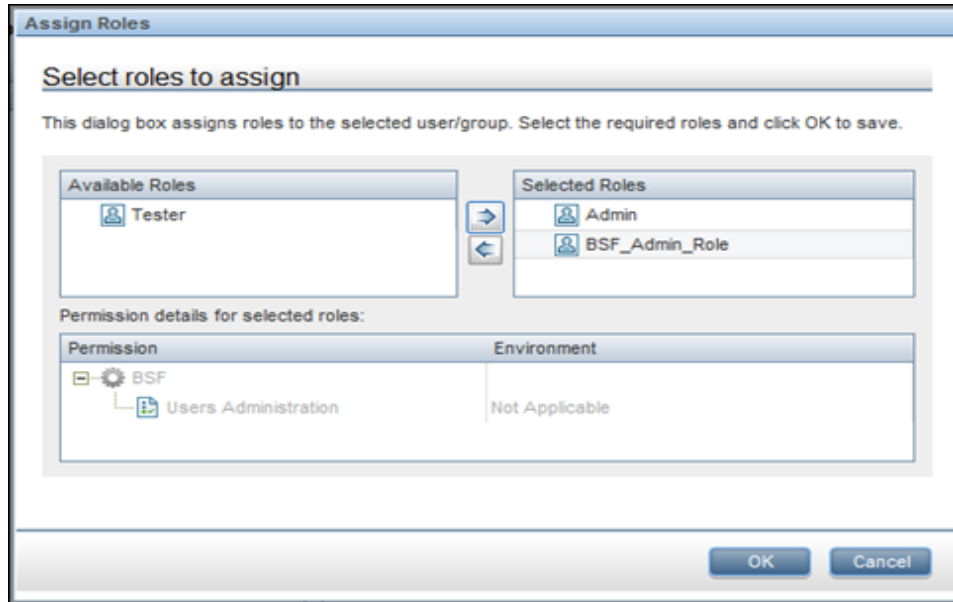


Note: The search operation is not case sensitive. You can use an asterisk (*) character in the search to search for any character(s).

5. Type the name of the (LDAP) user to search for.

Note: You can map roles to a group of users and not only single users.

6. From the right pane, under **Roles and Permissions**, select **Assign Role**. The Assign Roles window opens:



7. Add one or more roles (**Admin**, **BSF_Admin_Role** and **Tester**) to the selected user.

Note: You must assign the **Admin** and **BSF_Admin_Role** roles to at least one of the users. In this way, the user(s) can login to the ["Administrator Console"](#) (on page 17) and User Management UI.

Chapter 3

Administrator Console

The Administrator Console is the central location from which you, the HP Anywhere administrator, manage and configure your mini apps.

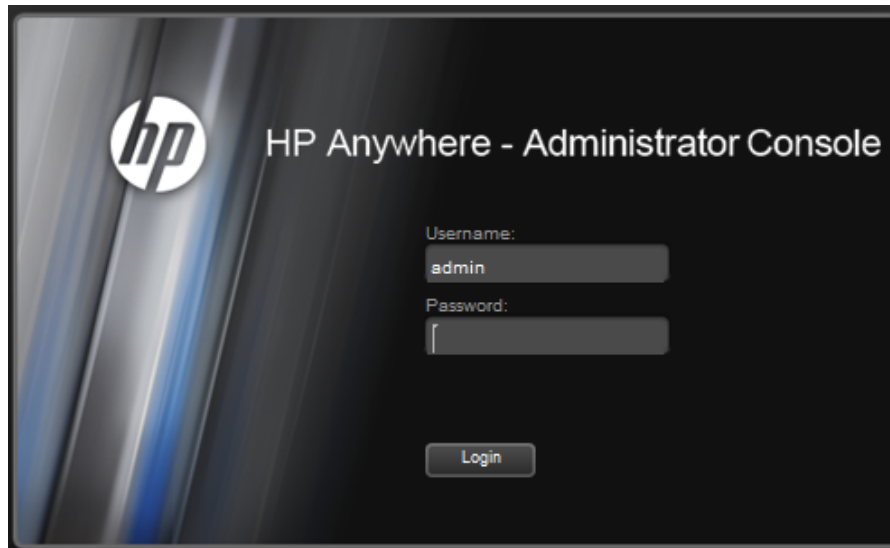
From the Administrator Console, you can:

- View and enable available mini apps
- Install a new mini app on the server
- Configure personas and associate them with mini apps
- Configure the backend data source instances
- Configure system settings

Log into the Administrator Console

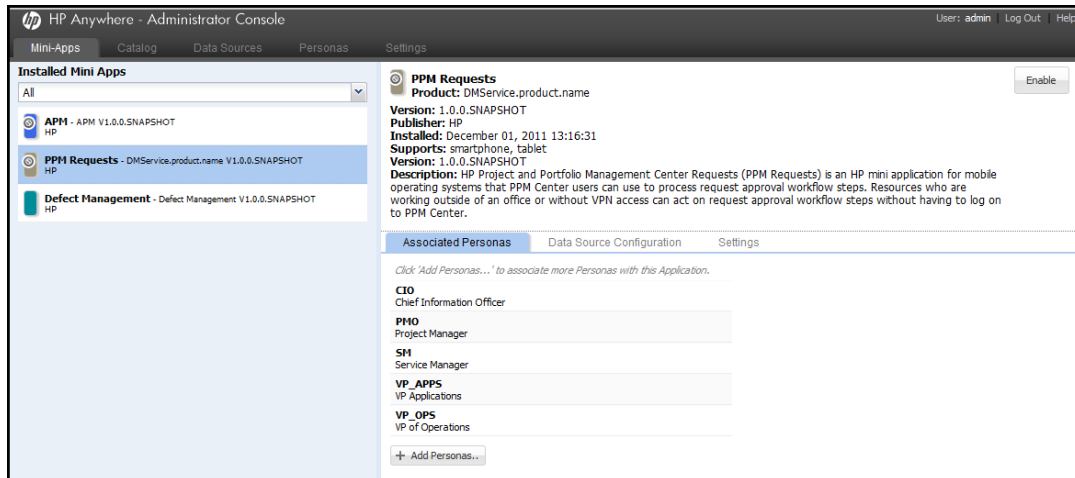
To log into the Administrator Console:

1. Go to the URL **http://<hostname>:20002/btoa/admin/**. The login page opens:



2. Enter your user name and password.

After your login is authenticated, the Administrator Console main screen opens:



Admin Console Tabs

The Admin Console tabs, located at the top Admin Console page, contain options for managing the different HP Anywhere components. Click on a link for more information on each option.

- **Catalog:** Presents the list of available mini apps that have been uploaded to HP Live Network (HPLN). For details, see ["Catalog" \(on page 21\)](#)

Mini Apps: Presents the list of mini apps and their details. For details, see ["Mini Apps " \(on page 18\)](#)

- **Data Sources:** Presents the list of data sources along with their instances. For details, see ["Data Source" \(on page 21\)](#)

- **Personas:** Opens a list of personas defined in the system. For details, see ["Personas" \(on page 22\)](#)

- **Settings:** Presents various system parameters, including Google and Apple Push Notification parameters, and parameters related to each mini app. For details, see ["Settings" \(on page 22\)](#)

Mini Apps

The Mini Apps tab presents the list of the mini apps that the administrator has installed from the Catalog. From the mini app list, you can enable or disable a mini app. Upon installation, all mini apps are disabled by default.

When you enable a mini app, it becomes available to the end user on their mobile device.

Before enabling a mini apps, you must ensure that the relevant configuration has been set. For example, configuring the data source, and the relevant settings where appropriate.

View Installed Mini Apps

The left area of the Admin Console window shows a list of all the mini apps that the administrator has installed from the HP Catalog.

Each mini app is listed along with its version number, publisher name, and product name.

Each product may have a number of different mini apps, each with its own unique identifier - publisher name, product name, and version.


A mini app can be in enabled/disabled state. If the mini app is disabled, the end user will not see it on their device.

To disable a mini app, click the Disable button in the top right corner of the window.

To enable a disabled mini app, click the Enable button in the top right corner of the window.

Note: HP Anywhere never uninstalls a mini app, only upgrades/updates it. However, you can change the configuration of a mini app, or disable it as required.

HP Anywhere assigns a specific color to each mini app, both in the Admin Console and on the mobile device, making it easy to recognize.

Note: If no data source is defined for the mini app, a  sign appears next to the mini app name.

View Mini App Details

The mini app details area is located on the right side of the Admin Console window.

At the top of the area, a detailed description of the mini app is shown along with the date of installation on the Anywhere server site.

Under the description, there are three tabs:

- ["Associated personas " \(on page 19\)](#)
- ["Data source configuration" \(on page 19\)](#)
- ["Settings " \(on page 20\)](#)

Associated personas

The list shown in this tab contains built-in personas (roles). You can associate additional personas with the mini app using the **Add personas** button. You can select more than one persona using the **Ctrl** button. End users will select their roles from this list on their mobile device

Personas shown in gray are built-in to the system and cannot be updated or removed.

To remove the association of a persona from the mini app, click **X** next to the persona name.

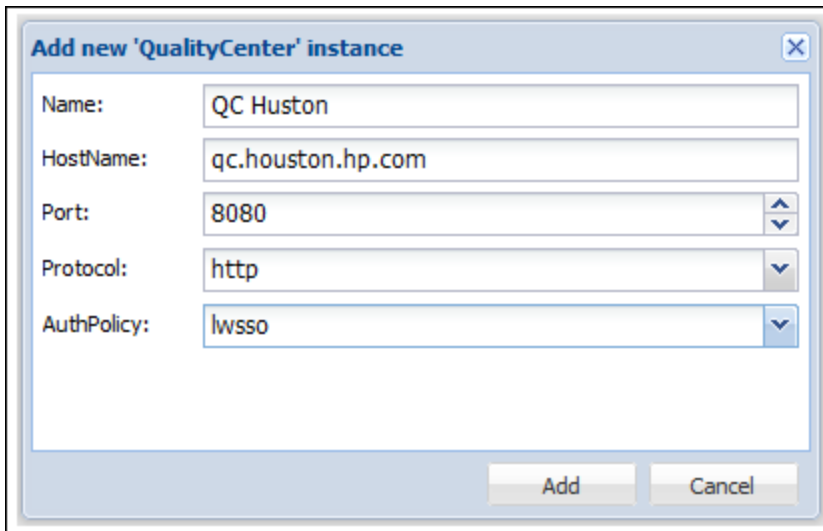
You can manage the list of persona from the Admin Console menu. For details, see ["Persona Management" \(on page 1\)](#).

Data source configuration

Each mini app (or group of mini apps) is connected to the HP Anywhere backend. The mini app is a proxy to a product. In the Data source configuration tab, you configure this connection. Each data source can be used by more than one mini app.

You can add a new data source using the **Add Instance** button.

1. Fill in parameters of the new instance (data source provider).



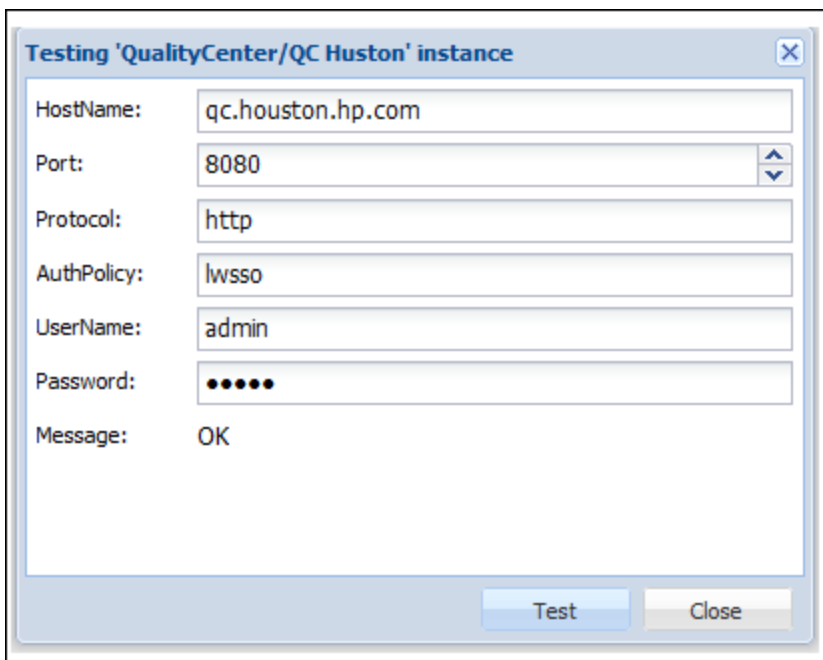
The screenshot shows a dialog box titled "Add new 'QualityCenter' instance". It contains the following fields and values:

Name:	QC Huston
HostName:	qc.houston.hp.com
Port:	8080
Protocol:	http
AuthPolicy:	lwss0

At the bottom right, there are two buttons: "Add" and "Cancel".

2. After adding the new instance, click **Test** to test that the connection with the backend is valid.

In the Test dialog box, two new fields are shown, for use in identification in the backend: User Name and Password.



The screenshot shows a dialog box titled "Testing 'QualityCenter/QC Huston' instance". It contains the following fields and values:

HostName:	qc.houston.hp.com
Port:	8080
Protocol:	http
AuthPolicy:	lwss0
UserName:	admin
Password:	•••••
Message:	OK

At the bottom right, there are two buttons: "Test" and "Close".

3. Type in the User Name and Password and click **Test**.


Settings

From this tab, you can configure the global settings of the mini app. This tab may be empty. For details on the settings you need to configure for each mini app, see the relevant Getting Started Guide for your mini app.

Install a Mini App

After a mini app has been enabled, you can install it onto the HP Anywhere server:

1. Select the mini app and click the Install button in the corner of the Details area. A confirmation message opens.
2. Click **Yes** to approve the installation.

After installing a mini app, it is marked with the  icon.


Catalog

Presents the list of available mini apps that have been uploaded to HP Live Network (HPLN).

The administrator can download and install these mini apps onto the HP Anywhere server from the Catalog.

You can filter the catalog list by selecting one of the options from the Filter by drop down list:

- **All:** Shows all the mini apps (installed and not yet installed).
- **New:** Shows the new mini apps available that have not yet been installed on the HP Anywhere server.
- **Updates Available:** Shows the installed mini apps for which an updated version is available.

These mini apps are marked in the list with the Update icon .

- **Up to date:** Shows the mini apps that are installed and are in the latest version.

Data Source

Presents the list of data sources along with their instances. This area contains the same information as in the Data Source tab of the Mini App Management Details area. See "[Mini Apps](#)" (on page 18).

A data source defines the structure of the data, i.e., the type of information it contains. For example, the Quality Center data source is made up of four types of information: Host Name, Port, Protocol and Authentication Policy. A data instance defines a single occurrence of the information content. For example:



The screenshot shows a configuration form for a data source instance. It contains four fields, each with a label and a value:

HostName:	qc.houston.hp.com
Port:	8080
Protocol:	http
AuthPolicy:	lvss0

On the mobile device, the end user selects the relevant data source instance from which the mini app will retrieve its data.

Each mini app defines its own data source information. The relevant data source is added as part of the mini app installation.

You can add, delete, or edit data source instances. If you make changes to a data source instance, all the mini apps that use this data source instance are automatically updated with the new information.

To add a new data source instance, click **Add Instance...**

For details on adding a new data instance, see **Data source configuration:** in "[Mini Apps](#)" (on page 18).

Personas

Opens a list of personas defined in the system. There are two types of persona in the system:

- **Built-in (shown in gray):** Supplied with the system. You cannot delete them or change their details.
- **Custom (shown in black):** Customized persona added by the administrator.

To add a new persona:

1. Click **Add Persona** and in the Name field, type in a persona name. The Name field (Key) is automatically in upper case and must not contain spaces.
2. In the **Description** field, type in a description for this persona. This description is mandatory as this is the text that will appear as a role name on the end user's mobile device.

Note: The end user does not see the persona name on their device, they only see the **Description** text.

To delete customized persona:

1. Click **X** next to the persona name.
2. When the message opens, click **Yes** to confirm the deletion.

Settings

In the Settings area you define generic settings that affect the entire system.

The **General** category is for HP Anywhere settings parameters and contains settings related to the Push Notification.

Each mini app can have its own system settings. These are shown in the Admin Console Settings area.

For example, **settings.xs.content_name** is the name of the category that contains the parameters related to the XS mini app.

Some categories are divided into different sections, containing parameters related to the same subject.

The following screen shows an example of the parameters for the HP Anywhere General category:

General
Edit Category's settings:

Timer Frequency

Alerts frequency for Front Page data

Storage Frequency of HPLN Manager Meta...

Google Push Notifications (C2DM)

HTTP Proxy URL

HTTP Proxy port

C2DM Authentication Code

C2DM Thread Pool Size

Apple Push Notifications (APNS)

Enable Feedback Service Timer

Feedback Service timer schedule expression

APNS Certification File Path

APNS Certificate Password

SOCKS Proxy URL

SOCKS Proxy port

APNS Thread Pool Size

For each parameter, a tooltip shows the parameter description and an indication of when changes to this parameter take affect.

To update the value of a parameter:

1. Select the related category.
2. In the parameter field, type or select a new value from the drop down menu.
3. Click **Save**.

Note: Mandatory parameters are shown in red. For example:

HTTP Proxy url	<input type="text"/>
HTTP Proxy port	<input type="text"/>
settings.c2dm.auth.token.name	<input type="text"/>

Chapter 4

Alerts and Push Notifications

HP Anywhere is supplied with an Alerts and Push Notifications engine. This feature enables end users to receive push notifications on their mobile device about information to which they are subscribed.

HP Anywhere supports Push Notifications for the following device types:

- iOS devices (iPhone, iPad). See "[Configure Push Notifications for iOS Devices \(Apple\)](#)" (on [page 24](#)).
- Android devices. "[Configure Push Notifications for Android Devices \(Google\)](#)" (on [page 26](#))

In order to use Push notifications, configure each device type as described in the relevant sections.

Note: Push notifications from the HP Anywhere server require an internet connection for accessing Google and Apple services.

Configure Push Notifications for iOS Devices (Apple)

Before configuring Push notifications for iOS devices, you must have an Apple Push Notifications Service (APNS) certificate. For details on how to obtain the APNS certificate file and password, see "[Mobile Client Configuration](#)" (on [page 28](#)).

To configure push notifications:

1. In the Admin Console, select the Settings tab.

General
Edit Category's settings:

Timer Frequency

Alerts frequency for Front Page data	30
Storage Frequency of HPLN Manager Meta...	24

Google Push Notifications (C2DM)

HTTP Proxy URL	
HTTP Proxy port	
C2DM Authentication Code	
C2DM Thread Pool Size	20

Apple Push Notifications (APNS)

Enable Feedback Service Timer	True
Feedback Service timer schedule expression	0 0 0 * * *
APNS Certification File Path	
APNS Certificate Password	
SOCKS Proxy URL	
SOCKS Proxy port	
APNS Thread Pool Size	20

2. Set the value of the following fields:
 - a. APNS Certification File Path – This is the full path to the file, for example “C:\myCert.cer”.
 - b. APNS Certificate Password
 - c. SOCKS Proxy URL (Optional)
 - d. SOCKS Proxy port (Optional)
3. Use JMX to test the connection as follows:
 - a. Go to: **http://<host>:<port>/ViewObjectRes//Server%3Atype%3DPushNotifications.**
 - b. Click **testAPNSConnection.**
 - c. Verify that the following message is shown with the value `true`:

The operation returned with the value:
`true`

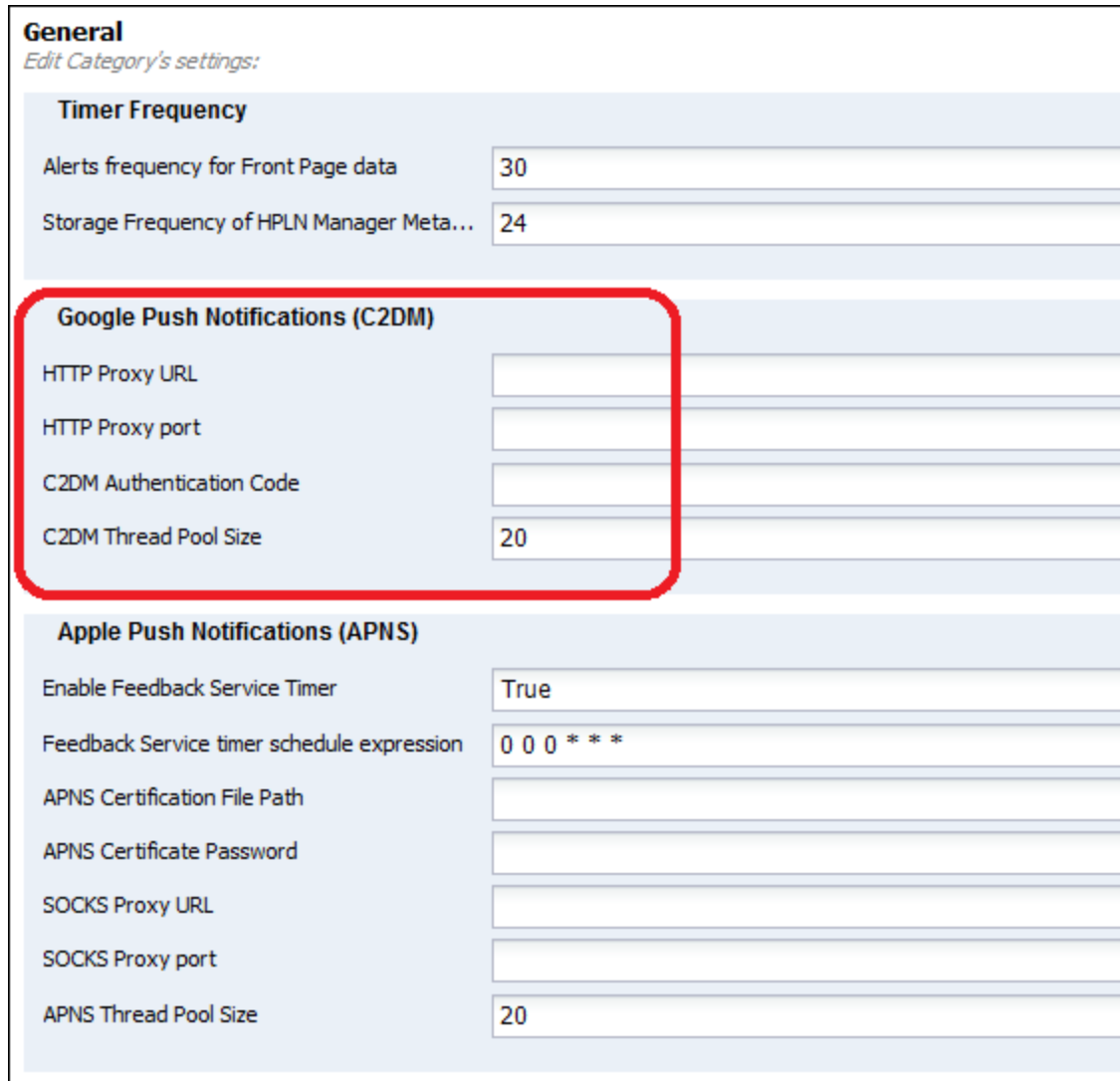
If the connection test fails, try the troubleshooting tips in ["Alerts and Push Notifications"](#) (on page 24).

Configure Push Notifications for Android Devices (Google)

Before configuring Push notifications for Android devices, you must have a Cloud To Device Messaging Framework (Google C2DM) authentication code. For details on how to obtain a C2DM authentication code, see ["Mobile Client Configuration"](#) (on page 28).

To configure push notifications:

1. In the Admin Console, select the Settings tab.



General
Edit Category's settings:

Timer Frequency

Alerts frequency for Front Page data	30
Storage Frequency of HPLN Manager Meta...	24

Google Push Notifications (C2DM)

HTTP Proxy URL	
HTTP Proxy port	
C2DM Authentication Code	
C2DM Thread Pool Size	20

Apple Push Notifications (APNS)

Enable Feedback Service Timer	True
Feedback Service timer schedule expression	0 0 0 * * *
APNS Certification File Path	
APNS Certificate Password	
SOCKS Proxy URL	
SOCKS Proxy port	
APNS Thread Pool Size	20

2. Set the value of the following fields:
 - a. C2DM Authentication Code
 - b. HTTP Proxy URL (Optional)
 - c. HTTP Proxy port (Optional)

3. Use JMX to test the connection as follows:
 - a. Go to: **http://<host>:<jmx-port>/ViewObjectRes//Server%3Atype%3DPushNotifications**.
Note: The initial jmx port is 21942.
 - b. Click **testC2DMConnection**.
 - c. Verify that the following message is shown with the value `true`:

```
The operation returned with the value:  
true
```

If the connection test fails, try the troubleshooting tips in "[Troubleshooting Push Notifications](#)" (on [page 27](#)).

Troubleshooting Push Notifications

Apple

Problem: APNS test connection fails

Solution 1: You may need to define a SOCKS proxy in order to get a internet connection. Set the SOCKS proxy URL and port and try again.

Solution 2: Replace the Apple certificate file with a new one. If the connection still fails, you need to update the admin setting in order to reload the certificate (HP Anywhere reads the certificate upon startup or when settings are updated).

Android

Problem: C2DM test connection fails

Solution: You may need to define an HTTP proxy in order to get a internet connection. Set the HTTP proxy URL and port and try again.

Problem: Users on Android devices do not receive Push notifications

Solution: Make sure that a Google account exists on the mobile device. You can only receive push notifications from apps on an Android device after a Google account is set.

Chapter 5

Mobile Client Configuration

In order to implement HP Anywhere on its end users mobile devices, each customer must have its own mobile client configuration.

This configuration is comprised of customizing the server address and enabling push notification.

In order to run the configuration you must obtain the following information:

- "[HP Anywhere Server URL](#)" (on page 28)
- "[iOS Developer Certificate](#)" (on page 28)
- "[Android Keystore](#)" (on page 29)

HP Anywhere Server URL

The HP Anywhere server URL must include the port number and must be in the following format:

```
http://<web_address>:<port>
```

For example:

```
http://www.your-server-address.com:80
```

When running the mobile client for the first time, it will use this address as the default address. The end user can change the address on the mobile device at a later stage.

iOS Developer Certificate

In order to generate the iOS Developer Certificate with Push Notification enabled, you must follow the steps below:

1. Sign up to iOS Developer Enterprise Program at <http://developer.apple.com/programs/ios/enterprise/> .
2. Follow the instructions at <http://developer.apple.com/ios/my/certificates/howto.action> to generate a certificate.
3. Follow the instructions at <http://developer.apple.com/ios/manage/bundles/howto.action> to generate an app id for Apple push notification with the bundle identifier of `com.hp.btoa.your-company-name`.
4. Run your Mac OS keychain (password management system) application.
5. Select the login keychain.
6. Select the Certificates category.
7. Choose your certificate and export it using the **File > Export Items** option. A P12 Public Key Cryptography Standards file is produced.
8. Send the P12 file to the HP Anywhere support team leader.

Android Keystore

Generating an Android keystore is a straightforward process. There is no need to contact Google during this process.

Note: In order to use push notification, you must have a valid Google email account (your-app-name@gmail.com). Send your email address and password to the HP Anywhere support team, and you will receive the AuthToken to be used in the HP Anywhere configuration.

In order to generate an Android keystore using Eclipse, follow the steps below:

1. Read <http://developer.android.com/sdk/installing.html>.
2. Install Android Development Tools (ADT) from <http://developer.android.com/guide/developing/tools/index.html>.
3. Install Eclipse (Software Development Environment) from <http://www.eclipse.org/downloads/>. (Select one of the download options, for example, Eclipse IDE for Java Developers.)
4. Start **Eclipse**.
5. Create a new temporary Android project.
6. Right click on the project name and select **Android Tools > Export Signed Application Package**.
7. In the new screen, click **Next** and select **Create New Keystore**.
8. Choose a location and password and click **Next**.
9. In the next screen, fill the required fields and click **Next**.
10. Click **Finish**.
11. Send the new keystore to the HP Anywhere support team leader with your server URL and the two passwords you used during the keystore creation.

Note: For detailed information, see <http://developer.android.com/guide/publishing/app-signing.html>

Artifacts to Send to the HP Anywhere Support Team

After performing the above steps, you need to send certain files and information to the HP Anywhere support team in order to generate a WAR file containing iOS and Android shells.

For iOS, send the following information:

- P12 certificate (File with private/public key certificates).
- Developer name (e.g., "iPhone Distribution: your-company-name").
- Provisioning profile (File with .mobileprovision extension).

For Android, send the following information:

- Keystore with two passwords.
- Keystore alias.
- Gmail address with password.

Additionally, you need to send your server address so that it can be used as the default server in the mobile client.

After sending all the above artifacts, the HP Anywhere support team sends you a WAR file.

Deploy the WAR File and Publish the Client URL

To deploy the WAR file received from the support team, perform the following steps:

1. Login to the Glassfish Administration Console (By default, your server address with port 20001).
2. From the sidebar options, select **Applications**.
3. Go to the “btoa-client” line and select **Deploy**.
4. Select the new WAR file and confirm the operation.
The URL is now available.
5. Publish the URL **http://www.your-server-address.com:80/btoa/client** to the end users by SMS, email, QR (Quick Response) code or any other distribution method.
6. Your end users can now connect to **http://www.your-server-address.com:80/btoa/client**, perform authentication and install HP Anywhere onto their iPhone/iPad/Android device.

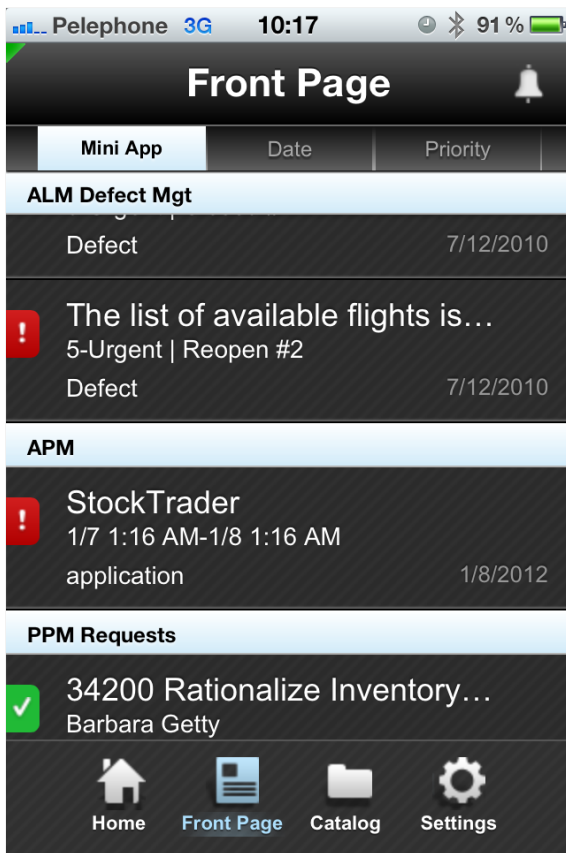
Chapter 6

End User Alerts

Alert Rules

Each end user can define rules for getting alerts about new/modified data items.

To create the rules, end users click on the “Create Alert” button on the Front Page of their mobile device, as shown in the example below:

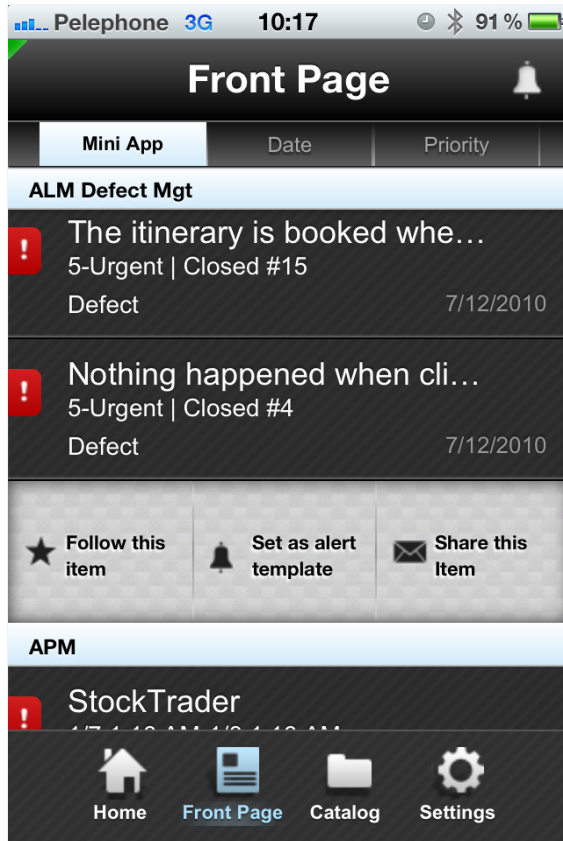


The alert is sent as a Push Notification to the user’s mobile device.

After the alert arrives, the user clicks the Push Notification message box and HP Anywhere opens with the relevant data.

Follow Items

When the user swipes on a Front Page item, a menu opens. From this menu, they can follow the Front Page item by selecting **Follow this item**.



The following rules are relevant when sending alerts:

1. Alerts are sent only on items that are returned in front page. If an item no longer appears on the Front Page, it will not be followed until it reappears on the Front Page.
2. Alerts (by rule or by followed items) are sent only when changes are made on specific properties that the user sees when creating an alert rule.
3. Alerts are sent only on enabled services.

