# User's Guide

## HP Web Services Enterprise Portal

**Software Version 1.0**

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# Contents

# Introduction

HP Anywhere lets you make enterprise applications (apps) available for use on employees' mobile devices. Developers use the HP Web Services Enterprise Portal to submit new apps and to update existing apps. Administrators use the Enterprise Portal to manage other Enterprise Portal users and to manage the Application Catalog. Users download the apps from the HP Web Services Application Catalog in HP Anywhere on their mobile devices.

## The Enterprise Portal

The HP Web Services Enterprise Portal is a management portal for the HP Web Services Application Catalog. You run the Enterprise Portal in a web browser.

The Enterprise Portal allows specific enterprise users to manage Enterprise Portal users. It also allows specific enterprise users to manage applications in the Application Catalog. For information about which Enterprise Portal users can perform which tasks, see "Roles and tasks."

The software that runs in the browser communicates securely with software on HP Anywhere and HP Web Services servers.

This diagram shows the major task areas for the Enterprise Portal. For a more detailed list of tasks, see "Organization of this guide."
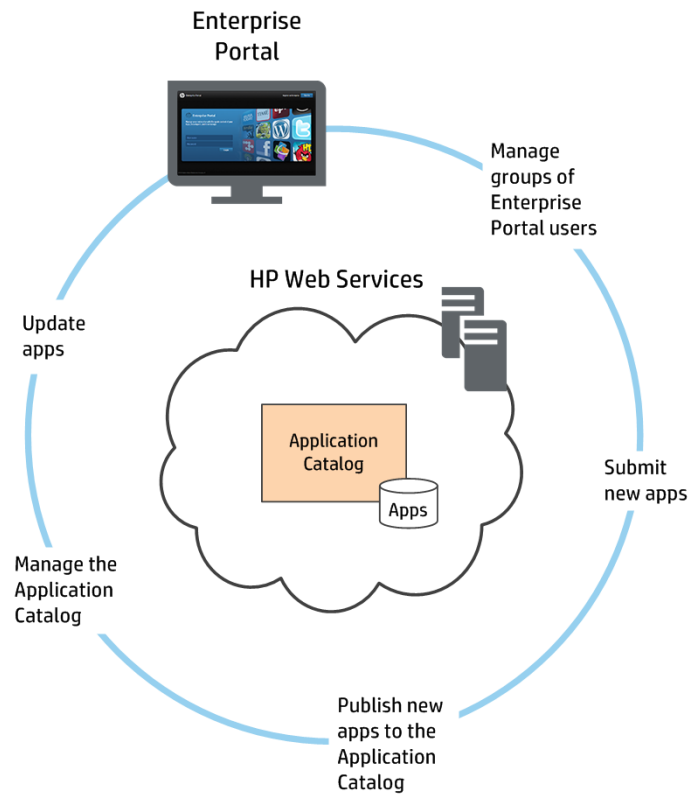
## Basic concepts

The following table explains some basic concepts.

| | |
|---|---|
| **Enterprise application** | In the context of HP Anywhere, an application is a software program that runs on a mobile device such as a smartphone or tablet. An application is an *enterprise application* because: |
| | • It is provided and managed by the enterprise. |
| | • It helps the user accomplish enterprise tasks, such as communicating through corporate email. |
| | An enterprise application on a mobile device usually communicates through a secure communications channel with "back-end" servers in the enterprise that provide access to company communications, files, and data. |
| **Enterprise user** | An *enterprise user* is a user, for example, an employee or contractor, who is authorized to use some enterprise IT resources. |
| | HP Anywhere and the Application Catalog enable easy use of secure company apps. An enterprise user can view and download specific enterprise applications from the Application Catalog (for example, apps for accessing company email and for secure messaging), and use those applications. |
| | Optionally, the enterprise can make specific public apps in the Apple iTunes Store and the Google Play Store available to enterprise users through the Application Catalog. |

| | |
|---|---|
| **Group** | A *group* is a group of enterprise users that will have a specific role when using the Enterprise Portal, or that is relevant for making specific enterprise apps available to specific users. For example, a group of developers could develop a sales-forecasting app, to be used by groups that include all enterprise users in the Sales and Marketing departments. |
| | Assigning a role to a group specifies the role that users in the group have in the Enterprise Portal—whether the users can manage other users or submit apps, for example. |
| | Associating an app with a group specifies that users in the group can view and download the app in the Application Catalog, if other filtering criteria permit the user to view the app (for example, the app is the correct version for the operating system on the user's device). |
| **Enterprise Portal** | The *HP Web Services Enterprise Portal* is an app-management portal that you run in a web browser. It allows specific groups of enterprise users to manage Enterprise Portal users. It also allows specific groups of enterprise users to manage the app submission process and apps in the Application Catalog. |
| **Enterprise Portal user** | Enterprise portal users are enterprise users who can use the Enterprise Portal. |
| **Role** | Assigning one of three Enterprise Portal roles (Enterprise Admin, Developer Admin, or Developer) to a group makes the enterprise users in that group Enterprise Portal users, and lets those users perform specific tasks in the Enterprise Portal. |
| **Application Catalog** | The *HP Web Services Application Catalog* is a catalog of enterprise applications that enterprise users access through HP Anywhere. Enterprise admins and developer admins use the Enterprise Portal to manage the Application Catalog. Enterprise users install HP Anywhere on their mobile devices, and view and download the apps in the Application Catalog. |
| **HP Anywhere** | The HP software solution that allows enterprise users to use enterprise apps anywhere. HP Anywhere servers are in enterprise data centers. The Application Catalog and enterprise apps are "in the cloud" on HP Web Services servers. |

# HP Anywhere

With HP Anywhere, employees in your enterprise can use enterprise applications on their own mobile devices. They do not need additional mobile devices (for example, a "work phone") to run enterprise applications. Reasons for adopting an HP Anywhere solution include:

- **End-to-end workflow**: HP Anywhere includes all of the pieces needed to develop enterprise apps, submit them, publish them, and manage them.

- **Security**: Security is built into the parts of HP Anywhere. A personal mobile device running enterprise applications can have the same level of security as a company-issued mobile device.

- **Ease of use**: The Enterprise Portal makes management tasks easy. The Application Catalog is also easy to use.

# The Application Catalog

The Application Catalog in HP Anywhere allows enterprise users to browse and search for enterprise apps that are managed by the enterprise. The apps are developed by the enterprise or acquired. iOS apps, Android apps, and MiniApps are supported. MiniApps are installed on HP Anywhere servers and run in the context of HP Anywhere on both Android and iOS devices.

It is also possible to make free public iOS and Android apps available in the Application Catalog, if the apps reside in the Apple iTunes Store or the Google Play Store.

The Application Catalog only displays apps for the enterprise user that are appropriate for the user's mobile device regarding operating system, operating system version, and the device version (for Apple iOS mobile devices) or format (for Android devices). Also, only apps that the user is permitted to view and download are displayed, based on the groups in which the user is a member (for example, Sales and All Employees). For more information, see "Which apps can an enterprise user see in the Application Catalog?"

# The enterprise experience

This diagram shows the major logical enterprise parts of an HP Anywhere solution. Numbers in the diagram correspond to explanations that follow the diagram.
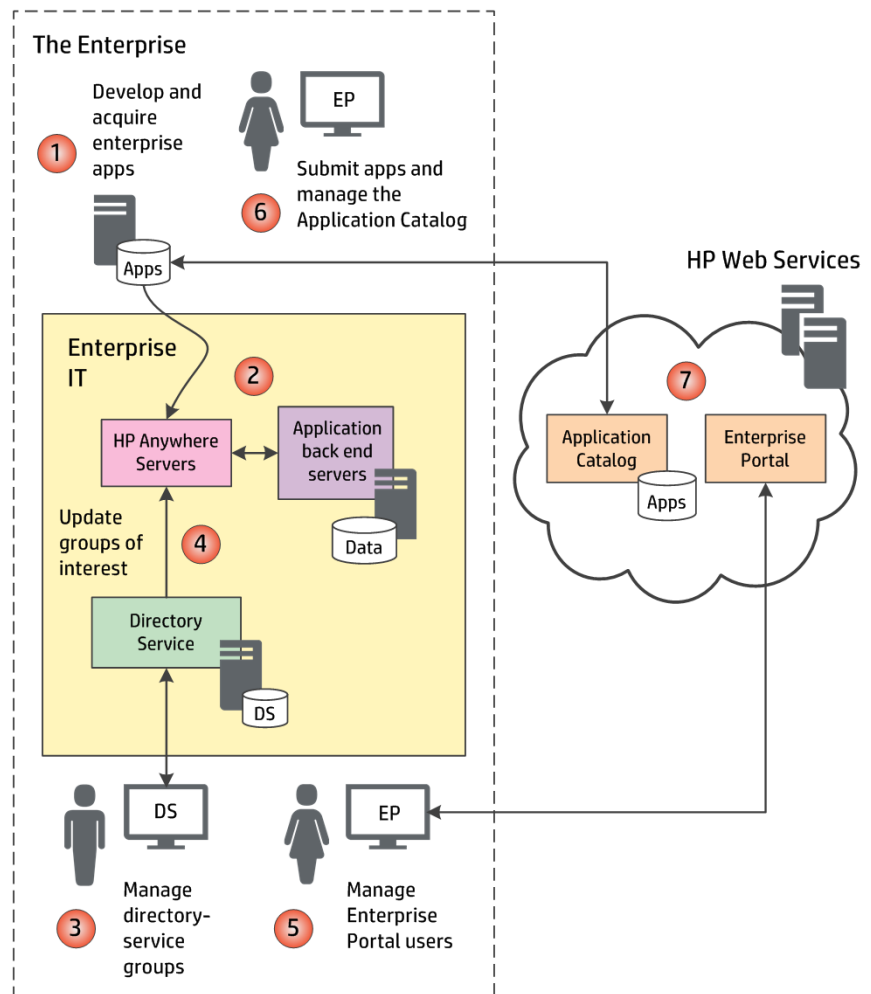
In the diagram above:

1. Enterprise developers and/or IT personnel develop or acquire enterprise applications.

2. The server parts of enterprise applications ("back ends") run on enterprise IT servers. The application clients ("apps") are installed on enterprise users' mobile devices. Communication between the apps and the enterprise applications is through HP Anywhere servers.

3. Enterprise IT personnel manage the enterprise directory service. This is not done using the Enterprise Portal. The directory service places employees and contractors in groups that specify their access to corporate IT resources. Not all directory-service groups are of interest to HP Anywhere. Only groups related to managing Enterprise Portal users and enterprise apps are of interest. Enterprise IT personnel identify the groups of interest.

4. Periodically, the HP Anywhere servers acquire information about the groups of interest and their members from the enterprise directory service.

   **Note**: It can take up to 24 hours for changes made in the directory service to appear in the Enterprise Portal.

5. Some Enterprise Portal users (enterprise admins and developer admins) manage other Enterprise Portal users.

6. Enterprise Portal users submit new apps and manage the Application Catalog. Management tasks include updating apps, changing the statuses of apps, and associating apps with groups (which publishes the apps in the Application Catalog). Which tasks a user can perform depends on the user's role. For more information, see "Roles and tasks."

7. The Application Catalog and the apps that are available for download to enterprise users' devices reside on HP Web Services servers.

# The user experience

This diagram illustrates an enterprise user using the Application Catalog to download an enterprise app and then using the app. Numbers in the diagram correspond to explanations that follow the diagram.



In the diagram above:

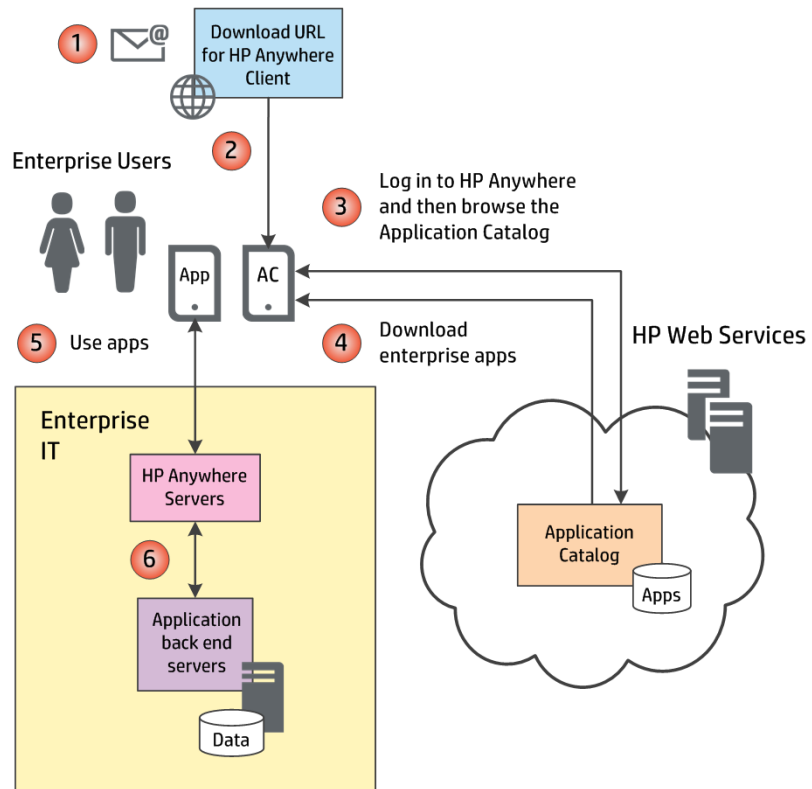1. The Enterprise IT department informs enterprise users about the availability of HP Anywhere, for example, by sending an email message. The email contains the download URL.

2. Enterprise users read the email on their devices and click on the download URL (or enter the URL in a browser on their devices), obtain the HP Anywhere app from the download URL, and install the app on their mobile devices.

3. Enterprise users log into HP Anywhere, providing their enterprise login credentials for authentication. Then they browse the Application Catalog to find enterprise applications that they can use. The Application Catalog and apps reside on HP Web Services servers.

4. Enterprise users download and install apps from the Application Catalog.

5. Enterprise users use the enterprise apps. The apps typically communicate with servers at the enterprise. For example, an email app would communicate with the enterprise email servers. This communication occurs through HP Anywhere servers.

# Organization of this guide

This guide has the following chapter organization:

- **Introduction**: This chapter introduces the Enterprise Portal, HP Anywhere, and the Application Catalog.

- **Getting started**: This chapter leads the reader through the basic series of tasks needed from starting using the Enterprise Portal to having an app available in the Application Catalog.

- **Managing your directory service**: The Enterprise Portal relies on directory-service groups. This is background information about the groups. You probably do not need to read it, but it is here for reference.

- **Using the Enterprise Portal**: This chapter describes how to run and use the Enterprise Portal.

- **Managing groups of users of the Enterprise Portal**: This chapter describes how to manage groups of users of the Enterprise Portal by associating roles with groups.

- **About apps**: This chapter describes the apps that can be submitted for inclusion in the Application Catalog.

- **Submitting new apps**: This chapter describes how to submit new apps to the Application Catalog.

- **Publishing new apps**: This chapter describes how to make apps that are in the Application Catalog available to specific groups of users, if they have compatible devices.

- **Managing the Application Catalog**: This chapter describes how to manage apps in the Application Catalog, including tasks such as changing the groups that can access an app and changing the status of an app.

- **Updating apps**: This chapter describes how to update apps.

# Getting started

This section explains the basic steps that are required to use the Enterprise Portal and to make enterprise apps available in the Application Catalog.

Note: This chapter stands on its own. It assumes that necessary setup tasks for the directory service have been done. Subsequent chapters do not assume that the tasks in this chapter were completed. They give more detailed information about the specific tasks.

## Introducing Acme Corporation

In this section and the remainder of this guide, we will use a fictitious enterprise, the Acme Corporation, to illustrate how to use the Enterprise Portal. Information for the Acme Corporation will be presented like this:

Acme: For Acme Corporation, you would click the group "Mobility Developer Admins."

### Mobility

Acme Corporation has a device mobility initiative. Enterprise users will use an assortment of enterprise apps and public apps on their own iOS and Android mobile devices, as well as on personal computers. Acme Corporation has selected HP Anywhere as their solution, and will manage their enterprise Application Catalog using the Enterprise Portal. Developers at Acme Corporation will develop the apps.

### Groups of Enterprise Portal users and their roles

Acme Corporation will create three groups in their directory service for Enterprise Portal users, corresponding to the three Enterprise Portal roles. They will add users who need the roles to the groups.

| Role | Directory-Service Group | Members |
| --- | --- | --- |
| **Developer** | Mobility App Developers | All developers who develop apps for the enterprise |
| **Developer Admin** | Mobility Developer Admins | Lead developers and engineering managers who supervise the work of the developers |
| **Enterprise Admin** | Mobility Enterprise Admins | Administrators, possibly in the software engineering department or IT department or both, who manage the mobility initiative and administer users of the Enterprise Portal |

### Enterprise apps and their groups of users

Acme Corporation wants to roll out the enterprise and public applications in the following table to the indicated groups of enterprise users.

| App: | Group: Sales | Customer Support | All Managers | All Employees |
|---|---|---|---|---|
| Acme Expenses | | | | ✔ |
| Acme Approvals | | | ✔ | |
| Acme CRM | ✔ | | | |
| Acme Support | | ✔ | | |
| Email App (public app) | | | | ✔ |
| Collaboration App (public app) | | | | ✔ |

# Requirements

Before you can use the Enterprise Portal, the following prior steps must have been completed. They occur during "on-boarding," when HP Anywhere is set up for your enterprise. They should already have occurred, and you should not need to worry about them:

- The enterprise has been registered with HP. Registration provides HP with the information needed to set up HP Anywhere for your enterprise.

- HP Anywhere software has been installed on HP Anywhere and HP Web Services servers. The Enterprise Portal will be available at a specific URL.

- Directory-service groups have been set up for Enterprise Portal users, and the membership of each group is correct. One of the groups is identified as the first group of enterprise admins.

- Directory-service groups have been set up for the users of the enterprise apps and public apps that will be available in the Application Catalog (and/or existing groups are used), and the membership of each group is correct.

- All directory-service groups of interest to HP Anywhere (for Enterprise Portal users and enterprise users) have been identified as such to HP Anywhere. HP Anywhere does not need to know about all of the groups in the directory service.

For MiniApps, there is an additional requirement. The apps being submitted for inclusion in the Application Catalog must be installed on HP Anywhere servers. The installation of MiniApps is not managed by the Enterprise Portal.

## Supported web browsers

The following web browsers are supported:

| Browser | Versions | Operating System |
| --- | --- | --- |
| Internet Explorer | Versions 8 and 9 | Windows 7 |
| Chrome | Version 24 | Windows 7 |
| Firefox | Version 17 | Mac OS X |

## Running the Enterprise Portal and logging in

To run the Enterprise Portal and log in:

1. Open a new web browser window. For supported browsers, see "Supported web browsers."

2. Run the Enterprise Portal by directing a supported browser to the URL for the Enterprise Portal that was provided to you.

   Your browser displays the *landing page* for the Enterprise Portal:



3. Enter your enterprise user name and password, and then click **Log In**. In this case, you are logging in as an enterprise admin.

   > **Acme**: For Acme Corporation, you can log in as an enterprise admin because you are a member of the first group of enterprise admins, "Mobility Enterprise Admins."

As long as a window of the browser you are using for the Enterprise Portal is open, you remain logged in.

## Creating developer admins

During on-boarding, only the first group of enterprise admins is created. An enterprise admin in that group must assign the role Developer Admin to the group or groups of enterprise users that will manage developers.

To create developer admins, repeat this procedure for each group of developer admins:

1. Log in to the Enterprise Portal as an enterprise admin.

2. Click **Groups** in the main menu, and then click a group to which you want to assign the role Developer Admin.

> **Acme**: For Acme Corporation, you would click the group "Mobility Developer Admins."

3. Select the role **Developer Admin** from the **Select Role** drop-down list.

For more information about roles, see "Roles and tasks."

## Creating developers

A developer admin or an enterprise admin must assign the role Developer to the group or groups of enterprise users that will develop apps.

To create developers, repeat this procedure for each group of developers:

1. Log in to the Enterprise Portal as a developer admin or an enterprise admin.

2. Click **Groups** in the main menu, and then click a group to which you want to assign the role Developer.

> **Acme**: For Acme Corporation, you would click the group "Mobility App Developers."

3. Select the role **Developer** from the **Select Role** drop-down list.

## Submitting new apps

Developers use the Enterprise Portal to submit applications that will be available in the Application Catalog. Developer admins and enterprise admins can also submit apps. This section describes the information and assets needed to submit a new app, and then provides the procedure.

**Note**: Submitting an app for inclusion in the Application Catalog does not make the app available to Application Catalog users. For MiniApps, the app must also be installed on HP Anywhere servers, the status must be changed to **Published**, and the app must be associated with groups. For all other apps, the app must also be associated with groups.

### Required information and files

Before beginning the app submission process, collect the following information and files. All of the information and files are required, except as noted below.

> **Acme**: For Acme Corporation, developers would collect this information and these assets for the enterprise apps "Acme Expenses," "Acme Approvals," "Acme CRM," and "Acme Support," as well as for the public apps "Email App" and "Collaboration App."

| | |
|---|---|
| **Upload Application** | Specify the location of the app:<br><br>• **Upload App**: Browse to a local file. The file must be an Android app (APK file), iOS app (IPA file), or MiniApp (MNA file).<br><br>• **Link App**: Specify the URL from which the Application Catalog will obtain the app.<br><br>Following is an example of a Google Play Store URL:<br><br>https://play.google.com/store/apps/details?id=com.roidapp.photogrid<br><br>Following is an example of an Apple iTunes Store URL:<br><br>https://itunes.apple.com/us/app/pic-stitch/id454768104?mt=8<br><br>• **Version**: Specify the version of the app. This is the "marketing" version, not a build version.<br><br>The Enterprise Portal enforces the following app versioning convention during validation of the app version: the app version must conform to the pattern #.#.#, where # is a number. Three version numbers are required. For example, 1.1.0 and 2.1.3 are valid version numbers. |
| **Public Application Information** | Specify public app information:<br><br>• **Application Title**: Enter the title (name) of the application.<br><br>• **Company Name**: Enter the name of the company that developed the application.<br><br>• **Description**: Enter a description of the application. |

| | |
|---|---|
| **Technical Application Information** | Specify technical app information: |
| | • **Public App ID**: This information is generated automatically and is not editable. |
| | • **Minimum OS Version (iOS and Android apps)**: For an iOS app, select the minimum version of the operating system that this app runs on. For an Android app, this information is obtained from the APK file, and you cannot edit it. Minimum OS Version does not apply to MiniApps. |
| | • **Device**: Select the device or devices that this app runs on. |
| |     **For Android apps**: Checkmarks indicate the supported generalized screen sizes. The Enterprise Portal obtains this information from the APK file. You cannot change the selected devices. |
| |     **For iOS apps**: Click checkboxes next to supported iPhone, iPad, and iPod touch models. |
| |     **For MiniApps**: Click checkboxes that indicate both the supported generalized screen sizes (for running the app on Android devices) and the supported iPhone, iPad, and iPod touch models (for running the app on Apple iOS devices). |
| | • **App Version**: For an iOS app, enter the app version. For an Android app, the app version is obtained from the APK file. For a MiniApp, the app version is obtained from the MiniApp file. For a pubic app (Link App was chosen and a URL provided), this field is populated from the prior screen. |
| | • **Category**: Select the top-level category that best describes this app. To add a category, click **Add Category** in the drop-down menu. |
| | • **Subcategory**: Select up to three subcategories that best describe this app. Subcategories are category specific. One subcategory is required. To add a subcategory, click **Add Subcategory** in the drop-down menu. |
| **App Icon Images** | Browse to icon images that will represent the app. The file type can be JPG or PNG. |
| | • **Small Icon Image**: 48 pixels wide x 48 pixels high |
| | • **Large Icon Image**: 64 pixels wide x 64 pixels high |
| | The small icon is used in HP Anywhere. The large icon is used in the Enterprise Portal. For iOS and Android apps that are installed on the device, the icon that is used comes from the application file. |
| **Screenshot Images** | Specify up to five screenshot images. Three images are required. Browse to the images on your computer. The file type can be JPG or PNG. Each image can be 480 pixels wide x 320 pixels high or 320 pixels wide x 480 pixels high. |
| **Video Link** | (*Optional*) Specify the URL of a YouTube video about the app. This information is visible in the Application Catalog. It is not visible in the Enterprise Portal after submitting the app. |

## Submitting the new apps

To submit the new apps, repeat the following procedure for each app.

> **Acme**: For Acme Corporation, developers would submit the enterprise applications "Acme Expenses," "Acme Approvals," "Acme CRM," and "Acme Support," as well as the public applications "Email App" and "Collaboration App."

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu, and then click **App Submissions**.

3. Click **Start New Submission**. The Enterprise Portal displays a page on which you specify the location of an app file.

4. Specify the location of the app file:

   - To upload an app file, click **Upload App** and then browse to the file.

   - To provide the URL of a public app, click **Link App** and then enter the URL of the app. The app must be in the Apple iTunes Store or the Google Play Store.

5. Click **Save**. A dialog box asks if you are sure that you want to submit the app.

6. Click **Yes**. The Enterprise Portal saves the in-progress app submission, and displays a page on which you specify all of the remaining information needed to submit the app. Required information has an asterisk (*) to the right of the entry field. For an explanation of the information, see "Required information and files."

7. Specify the information about the app, and then click **Submit**.

8. The Enterprise Portal performs automated validation for the submitted app. For enterprise apps, the validation includes a check for malware. Validation can take up to 10 minutes.

   - If the app fails validation, it receives the status **Rejected**. Correct the problem, and then submit a new version as a full update.

   - If the app passes validation, it receives the status **Pre-Published** (for MiniApps) or **Published** (for all other apps). For apps with the status **Pre-Published**, proceed to step 9. For apps with the status **Published**, proceed to "Publishing new apps to the Application Catalog."

   > **Note**: Following submission, you might see the transient app statuses **Queued for Review** and/or **Ready for Review**. You can ignore these statuses. If you see one of these statuses on the App Admin page for an app, *wait 10 minutes* and then press F5 to reload the page. If the transient status persists, contact your Mobility Program administrator.

9. (*MiniApps only*) Install the app on HP Anywhere servers.

10. (*MiniApps only*) Change the status of the app to **Published**. For that procedure, see "Changing the status of an app in the Application Catalog."

# Publishing new apps to the Application Catalog

In the Enterprise Portal, there are two ways to publish apps in the Application Catalog. Both accomplish the same thing (associating groups of enterprise users and apps), but from different directions:

- In **Groups**, you can specify the apps that users in a group can view and download in the Application Catalog. For this procedure, see "Specifying which apps a group of users can download."

- In **Applications**, you can specify the groups of Application Catalog users that can view and download the app in the Application Catalog. For this procedure, see "Specifying which groups of users can view and download an app."

**Note**: It can take up to eight hours after changes of group associations before the result of the actions is visible in the Application Catalog.

**Acme**: For Acme Corporation, we will use the first approach for the apps that will be used by all employees and the second approach for the other apps.

## Specifying which apps a group of users can download

To specify apps for a group:

1. Log in to the Enterprise Portal as an enterprise admin or developer admin.

2. Click **Groups** in the main menu, and then click a group to manage. The Enterprise Portal displays the apps that users in this group can currently view and download in the Application Catalog.

   **Acme**: For Acme Corporation, click **Groups > All Employees**.

3. Click **Edit**. The pop-up dialog box displays apps that are not selected (not available for users in this group) on the left and selected apps (which are available) on the right.

4. Click an app in the left column to make it available to users in this group. When you do, it moves to the right column. Click an app in the right column to make it unavailable to users in this group. When you do, it moves to the left column. Optionally, you can use the **Move All** buttons at the top of the dialog box to move all apps in one column to the other column.

   **Acme**: For Acme Corporation, click the apps "Acme Expenses," "Email App," and "Collaboration App" in the left column. The selected apps move to the right column.

5. When you have finished specifying the apps that will be available for users in this group, click **Update**.

## Specifying which groups of users can view and download an app

To specify groups for an app:

1. Log in to the Enterprise Portal as an enterprise admin or developer admin.

2. Click **Applications** in the main menu, and then click an app to manage.

3. Click **App Admin** to view detailed information about the app. The Enterprise Portal lists the groups in which users can currently view and download the app in the Application Catalog.

   **Acme**: For Acme Corporation, click the app "Acme Approvals." In subsequent passes through this procedure, click "Acme CRM" and then "Acme Support."

4. Click **Edit Groups**. The pop-up dialog box displays groups that are not selected (not able to view and download the app) on the left and selected groups (which are able to view and download the app) on the right.

5. Click a group in the left column to give users in the group the ability to view and download the app. When you do, it moves to the right column. Click a group in the right column to make the app unavailable to users in this group. When you do, it moves to the

left column. Optionally, you can use the **Move All** buttons at the top of the dialog box to move all groups in one column to the other column.

**Acme**: For Acme Corporation, click the group "All Managers" (for the "Acme Approvals" app). The selected group moves to the right column. In subsequent passes through this procedure, click "Sales" and then "Support" (for the "Acme CRM" and "Acme Support" apps respectively).

6. When you have finished specifying the groups that will be able to view and download the app, click **Update**.

# Managing your directory service

The Enterprise Portal relies on information about specific groups in your directory service for two important functions. First, groups are used to specify which enterprise users can use the Enterprise Portal and their roles. Second, they are used to specify which apps enterprise users can view and download in the Application Catalog.

Note: The initial setup tasks explained in this chapter are required before you can use the Enterprise Portal. The tasks are performed as a part of "on-boarding" (initial deployment of HP Anywhere for your enterprise). The information is summarized here for completeness. Directory-service details are deployment specific. Other documents describe the details for your deployment.

## Assumptions

This chapter does not explain deployment-specific details that can vary from deployment to deployment. Other documentation is provided during the on-boarding process to document those details.

In this guide, we assume the following about the directory service:

- Enterprise admins, developer admins, and developers are all in single groups. Enterprise Admins are in a group that is created during on-boarding. Groups for developer admins and developers (one of each) are assigned the roles Developer Admin and Developer respectively during initial setup.

- All enterprise admins can manage all developer admins and developers (role assignments and in-progress app submissions) and all developer admins can manage all developers (role assignments and in-progress app submissions).

- All enterprise admins and developer admins can manage publication and app status changes for all apps.

These assumptions represent a simplest-case deployment. Deployment specifics can change these assumptions.

## How directory-service groups are used by the Enterprise Portal

Enterprise IT departments manage users' access to company resources by assigning users to groups in a directory service. The groups grant and withhold privileges to use specific resources. The privileges assigned in the directory service are *not* used by the Enterprise Portal.

Groups are used in two ways in the Enterprise Portal:

- **Assigning roles to Enterprise Portal users**: In the Enterprise Portal, enterprise admins and developer admins can assign roles to groups of enterprise users. The assigned roles determine which tasks the users in the groups can perform in the Enterprise Portal.

  We recommend that you create directory-service groups specifically for Enterprise Portal roles.

- **Specifying which groups of enterprise users can view and download which enterprise apps**: In the Enterprise Portal, enterprise admins and developer admins can select the apps that users in a group can view and download in the Application Catalog. Alternatively, groups can be selected for each app.

  In some cases, you might be able to use existing directory-service groups. In other cases, you will want to create new directory-service groups.

In neither of these cases can you manage individual users. You cannot assign Enterprise Portal roles to individual users, or specify whether individual enterprise users can view and download apps.

## Specifics about the information that is used

Note the following about the information that is used:

- The Enterprise Portal and Application Catalog only use the names of groups and the names of the enterprise users in the groups. Other information in the directory service is not used.

- When considering whether an enterprise user is a member of a specific group, direct membership in the group and inherited membership are both considered. The Enterprise Portal does not care how an enterprise user is a member of a group.

- The Enterprise Portal and Application Catalog do not have direct access to any information in the directory service. They obtain the needed subset of information from a server in the HP Anywhere deployment that periodically polls the directory service for the information.

  **Note**:   It can take up to 24 hours for changes made in the directory service to appear in the Enterprise Portal.

- Neither the Enterprise Portal nor the Application Catalog reveals the membership of groups.

## Privileges when running an app

The group-app association that allows a user to view and download an app in the Application Catalog does *not* affect what the user can do when running an app. The directory-service group or groups to which a user belongs *might* affect what a user can do when running an app. That is under the control of the app developer.

# Planning directory-service groups

There are two planning tasks:

- **Planning groups for Enterprise Portal users**: Each Enterprise Portal user has the role Enterprise Admin, Developer Admin, or Developer because of the user's membership in a group of interest to which the role is assigned. You need to consider who will use the Enterprise Portal, and create directory-service groups for the Enterprise Portal users. In some cases, you might be able to use existing groups.

- **Planning groups of enterprise users that will view and download apps in the Application Catalog, and who will use the apps**: Your enterprise will develop and acquire enterprise apps, and make these apps, and possibly public apps, available to enterprise users through the Application Catalog. You need to consider who will use which apps, and create or re-use the directory-service groups needed for the app-group associations.

# Indicating groups of interest

Not all groups in the directory service are of interest to the Enterprise Portal and the Application Catalog. Only groups that contain enterprise users who will also be Enterprise Portal users and groups that will use enterprise apps are of interest.

HP Anywhere servers obtain a list of groups of interest from the directory service. Only groups of interest appear in the Enterprise Portal. From the viewpoint of an Enterprise Portal user, the groups are just groups.

# Initial setup tasks

Initial setup tasks include both directory-service tasks and tasks using the Enterprise Portal. In the diagram that follows, the assumption is made that enterprise apps have already been developed or acquired.

This diagram shows the directory-service tasks for initial setup of the HP Anywhere solution. Numbers in the diagram correspond to explanations that follow the diagram.

**Enterprise Portal users**

**Apps in
Application Catalog**

**Planning**

1 — Consider Enterprise Portal roles and privileges. Plan groups and membership for Enterprise portal users.

2 — Consider apps and enterprise users. Plan groups and membership to give specific users access to specific apps.

**Directory Service**

DS

3 — Create or reuse groups for Enterprise Portal roles
Add enterprise users to the groups

4 — Create or reuse groups for access to enterprise apps
Add enterprise users to the groups

5 — Indicate these groups as groups of interest to HP Anywhere

**Enterprise Portal**

EP

6 — Assign roles to groups in the Enterprise Portal

7 — Associate apps with groups in the Enterprise Portal

Specific enterprise users can use the Enterprise Portal with specific privileges

Specific enterprise users can view and download specific apps in the Application Catalog

The goals are to create Enterprise Portal users and to make enterprise apps available in the Application Catalog. Follow the arrows on the left side to create Enterprise Portal users. Follow the arrows on the right side to make enterprise apps available in the Application Catalog. One task in the middle is a common task.

In this diagram:

1. Consider Enterprise Portal roles and privileges. For information, see "Roles and tasks." Plan the directory-service groups and group membership for Enterprise Portal users.

2. Consider enterprise apps and who will use them. Plan the directory-service groups and group membership for categories of enterprise app users.

3. Create groups and add members to them for Enterprise Portal roles. In some cases it might be possible to use existing groups.

4. Create groups and add members to them for access to enterprise apps. In some cases, it might be possible to use existing groups.

HP

5. Indicate that all of the groups in steps 3 and 4 are groups of interest for HP Anywhere.

6. Use the Enterprise Portal to assign roles to groups. For information about roles, see "Roles and tasks." For the procedure, see "Assigning a role to a group."

7. Use the Enterprise Portal to associate apps with groups. For information about this task, see "Publishing new apps to the Application Catalog."

Note: The assignments and associations that you make in steps 6 and 7 (and that other users of the Enterprise Portal make here) are not arbitrary ones. They are the role assignments and app associations that were planned in steps 1 and 2.

# Maintenance tasks

Maintenance is easier than initial setup, in most cases.

### If directory-service groups do not change

As long as the groups of interest to HP Anywhere do not change their names or purposes, then the only maintenance tasks are in the directory service—adding enterprise users to groups and removing them from groups as needed, for both Enterprise Portal roles and categories of apps.

This diagram shows the directory-service tasks for maintenance of the HP Anywhere solution. Numbers in the diagram correspond to explanations that follow the diagram.
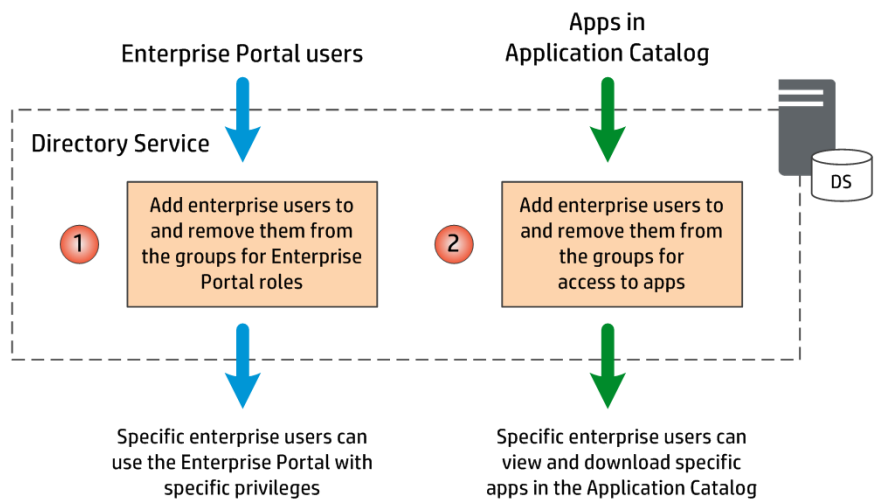


In this diagram:

1. Add enterprise users to the groups for Enterprise Portal roles, and remove them from the groups as needed.

2. Add enterprise users to the groups for access to apps, and remove them from the groups as needed.

### If directory-service groups change

If groups do change, the maintenance tasks are more complex:

- If there are no changes in the names of groups, or the set of groups of interest, but just different plans regarding the use of apps, then the only task is to change the associations between apps and groups in the Enterprise Portal.

For example, for the decision to let Marketing use a Sales app, if both groups are already groups of interest, then the Enterprise Portal task would be to associate the Sales app with the Marketing group.

- If there are changes in the names of groups, this changes the set of groups of interest. There also might be other changes in the groups of interest, for example, to include a new group as a group of interest. In this case, the directory-service groups must be changed, and then the groups of interest for HP Anywhere must be changed. After that, the Enterprise Portal task is to change the associations between apps and groups as needed,

For example, the enterprise reorganizes and adds a Pre-sales Support team. The plan is for the Pre-sales Support team to use a Marketing app that is already used by the Marketing group. In this case, the first task is to create the group "Pre-sales Support in the directory service, and to add the appropriate members to the group. The second task is to indicate that the group "Pre-sales Support" is a group of interest to HP Anywhere. Using the Enterprise Portal, the third task is to associate the Marketing app with the Pre-sales Support group.

For more information about scenarios for changes in Enterprise Portal users that might affect directory-service groups, see "Maintenance goals and tasks for Enterprise Portal users."

For more information about scenarios for changes the use of apps that might affect directory-service groups, see "Maintenance goals and tasks for apps."

# Using the Enterprise Portal

You manage the availability of applications with the Enterprise Portal for HP Anywhere. You also use the Enterprise Portal to manage the users who can manage applications (and other users). This chapter explains the basics of using the Enterprise Portal.

## Supported web browsers

The following web browsers are supported:

| Browser | Versions | Operating System |
| --- | --- | --- |
| **Internet Explorer** | Versions 8 and 9 | Windows 7 |
| **Chrome** | Version 24 | Windows 7 |
| **Firefox** | Version 17 | Mac OS X |

## Running the Enterprise Portal and logging in

To run the Enterprise Portal and log in:

1.  Open a new web browser window. For supported browsers, see "Supported web browsers."

2.  Run the Enterprise Portal by directing a supported browser to the URL for the Enterprise Portal that was provided to you.

    Your browser displays the *landing page* for the Enterprise Portal:

3.  Enter your enterprise user name and password, and then click **Log In**.

> Note: To log in, you must be an enterprise user in a group that has been assigned a role in the Enterprise Portal. For more information, see "Managing groups of users of the Enterprise Portal."

You are now logged in as a specific Enterprise Portal user with one of three roles: Enterprise Admin, Developer, or Developer. The Enterprise Portal does not identify your role, but you can infer your role from the menus that you see. For more information, see "Menus."

As long as a window of the browser you are using for the Enterprise Portal is open, you remain logged in.

To switch users, log out and then log in again using different enterprise credentials.

# Navigating the Enterprise Portal

Navigate the Enterprise Portal using menus, user-interface controls (such as buttons), and breadcrumbs.

Note:   You can also use the back and forward buttons in your browser for navigation.

After you log in, you see the *start page* of the Enterprise Portal. This is an example of the start page for an enterprise admin:
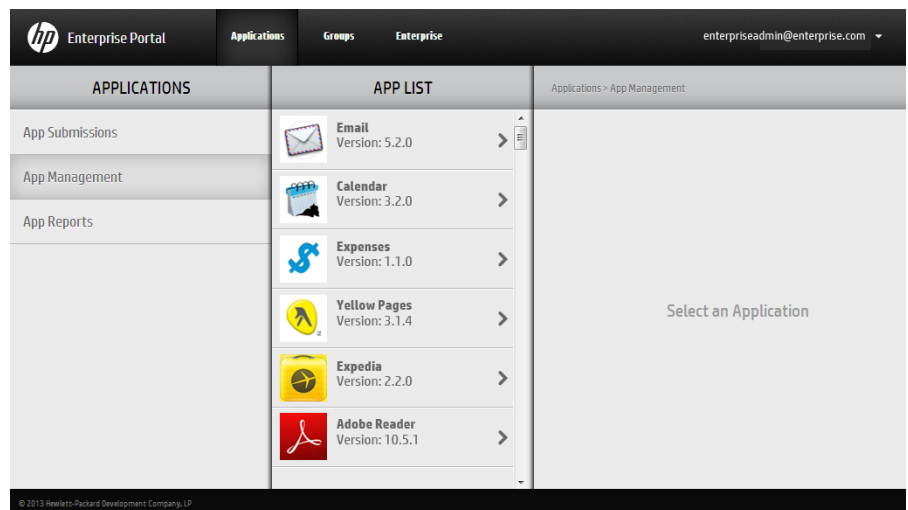


## Menus

The main menu is at the top of the Enterprise Portal. Sections are:

| | |
|---|---|
| **Applications** | View the list of applications in the Application Catalog. View detailed information about apps. Specify groups of users that can view and download an app. Submit an app for inclusion in the Application Catalog. View and download app reports. |
| | Developers, developer admins, and enterprise admins can use the Applications menu. |

| **Groups** | View the list of groups. Assign an Enterprise Portal role to a group. Select apps that a user in the group can view and download in the Application Catalog. |
| | Developer admins and enterprise admins can use the Groups menu. |
| **Enterprise** | View and edit enterprise details. View the history of Enterprise Portal user actions. |
| | Only enterprise admins can use the Enterprise menu. |
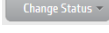
Submenus are on the left. Some menus cascade.

## User-interface controls

The following user-interface controls are used in the Enterprise Portal:

| | |
| --- | --- |
| ✓ | Information that you entered has been accepted. |
| ✗ | There is a problem with information that you entered, or an error occurred. |
| › | More information is available when you select (click) this item. For example, when managing apps, click an app to view information about the app. |
| | Move something to the right. For example, move a group from the left (not able to view an app) to the right (able to view an app). |
| ‹ | Move something to the left. For example, move a group from the right (able to view an app) to the left (not able to view an app). |
| ⌄ | An item in a menu has been expanded to show sub-items (which are listed below the item). For example, clicking on an app might display multiple versions of the app. |
| › | Reveal a hidden menu. Sometimes while you are using the Enterprise Portal, it will hide a menu that you are not using. When it does, this icon is available to display the hidden menu. |
| ‹ | Hide a menu. When this icon is present, you can click it to hide a menu that you are not using. When you do, the icon described in the row above this one is displayed. |
| Run Report | Click a button to perform the task named on the button. |
| Change Status ⌄ | Select from a drop-down menu. In this example, you are changing the status of an app. |
| ⊕ | Add something. For example, add a subcategory or screenshot during app submission. |
| ⊖ | Remove something. For example, remove a subcategory or screenshot during app submission. |
| ▢　✓ | Unselected and selected checkboxes. Click the checkbox to change between selected and unselected. |

|  |  | Unselected and selected radio buttons. Click one to select that alternative. |
| --- | --- | --- |

## Breadcrumbs

As you navigate in menus, breadcrumbs immediately below the main menus indicate where you are:

**Applications > App Management > Acme Expense Reports > View**

You can navigate by clicking on a breadcrumb. For the example above, you could click **App Management** to return to the Manage Apps level or click **Applications** to return to the top-level Applications menu.

# Logging out

When you have finished using the Enterprise Portal, log out.

To log out, click your user name in the upper-right corner of the Enterprise Portal, and then click **Log Out** in the drop-down menu.

# Managing groups of users of the Enterprise Portal

Enterprise Information Technology (IT) departments create groups of users in a directory service to control which users can access what information. In the Enterprise Portal, roles are assigned to groups to control who can use the Enterprise Portal and which tasks users can perform.

## Prerequisites

Before you can manage groups of users in the Enterprise Portal, the initial setup steps in "Initial setup tasks" must have been completed.

## Roles and tasks

Users of the Enterprise Portal acquire their privileges to perform various tasks by assigning roles to the groups to which the users belong.

Here are the Enterprise Portal roles and the tasks that users with these roles can perform:

| Role | Tasks |
| --- | --- |
| **No Role** | A role has not been assigned yet for this group, or the role was changed from a different role to No Role. Users who are only members of groups to which the role No Role is assigned cannot log into the Enterprise Portal. |

| Role | Tasks |
|---|---|
| **Developer** | A user who is a member of a group or groups to which the Developer role is assigned (but no higher role) can log into the Enterprise Portal and can perform the following tasks:<br><br>• Submitting applications for publication in the Application Catalog<br><br>• Saving his or her own in-progress app submissions<br><br>For apps that a specific developer has submitted, or that are in-progress submissions by the developer, that developer can perform the following tasks:<br><br>• Completing in-progress app submissions<br><br>• Viewing information about the applications that he or she submitted or saved during the submission process.<br><br>• Downloading the apps that he or she submitted from the Application Catalog for testing and validation.<br><br>• Updating the applications that he or she submitted (full update or metadata update)<br><br>• Changing the status of apps in the Application Catalog for all users<br><br>A developer cannot perform these tasks for applications that were submitted or saved by other developers. |
| **Developer Admin** | Users who are members of groups to which the Developer Admin role is assigned can log into the Enterprise Portal and can perform the following tasks:<br><br>• All tasks that require the role Developer, for developers that the developer admin administers, plus the following tasks<br><br>• Giving a group of enterprise users access to the Enterprise Portal as developers by assigning the Developer role to a group<br><br>• Revoking the access of a group of developers to the Enterprise Portal by removing the Developer role from a group<br><br>For apps that the developer admin has submitted, as well as for apps submitted by the developers that he or she administers, the developer admin can perform the following tasks:<br><br>• Viewing and completing in-progress app submissions<br><br>• Publishing apps to the Application Catalog by associating apps with groups<br><br>• Changing which groups of Application Catalog users can view and download which apps<br><br>• Changing the status of apps in the Application Catalog for all users |

| Role | Tasks |
| --- | --- |
| **Enterprise Admin** | The first enterprise admin and users who are members of groups to which the Enterprise Admin role is assigned can log into the Enterprise Portal and can perform the following tasks:<br><br>• All developer admin tasks and all developer tasks, plus the following tasks<br><br>• Giving a group of enterprise users access to the Enterprise Portal as enterprise admins by assigning the Enterprise Admin role to a group<br><br>• Revoking the access of a group of enterprise admins to the Enterprise Portal (except for the first group of enterprise admins) by removing the Enterprise Admin role from a group<br><br>• Giving a group of enterprise users access to the Enterprise Portal as developer admins by assigning the Developer Admin role to a group<br><br>• Revoking the access of a group of developer admins to the Enterprise Portal by removing the Developer Admin role from a group<br><br>• Viewing a history of user actions (the audit history)<br><br>• Viewing and editing information about the enterprise |

# Setup tasks

Everything is now set up regarding the directory service. The final step for managing users of the Enterprise Portal is to assign roles to groups in the Enterprise Portal.

Enterprise admins can assign any role to a group, and can remove the assignment of any role from a group. Developer admins can assign the Developer role to a group, and can remove the Developer role assignment from a group. Developers cannot manage role-group associations.

This diagram illustrates how enterprise users become users of the Enterprise Portal. Numbers in the diagram correspond to notes that follow the diagram.
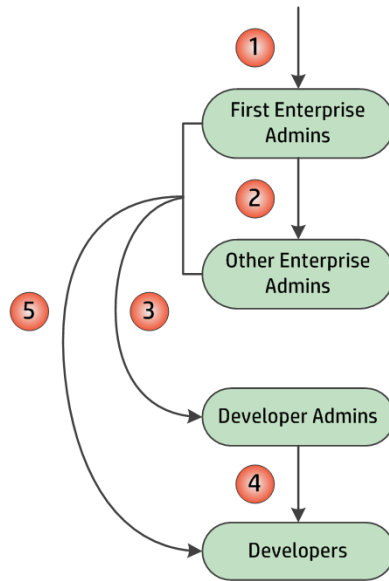


In the diagram:

1. HP creates the first enterprise admins by assigning the role Enterprise Admin to a group of enterprise users. The Enterprise Admin role cannot be removed from that group.

2. The first enterprise admins can create other enterprise admins, if enterprise users in other groups need to be enterprise admins, by assigning the role Enterprise Admin to another group or other groups.

3. The enterprise admins create developer admins by assigning the role Developer Admin to another group or other groups.

4. The developer admins create developers by assigning the role Developer to another group or other groups.

5. Enterprise admins can create developers by assigning the role Developer to another group or other groups.

Note:   Deployment specifics determine whether there can be more than one group for each of these roles, as well as directory-service requirements.

# Maintenance tasks

Maintenance of Enterprise Portal users is mostly a matter of ensuring that enterprise users are added to the appropriate directory-service groups.

Only if the groups change will it be necessary to assign roles to groups as a maintenance task.

**Maintenance goals and tasks for Enterprise Portal users**

Depending on the maintenance goal for Enterprise Portal users, required changes might involve directory-service groups, group membership, groups of interest, and/or tasks in the Enterprise Portal. The following table indicates where changes are needed for various goals.

| Changes:<br><br>Goal: | Directory service groups | Group members | Groups of Interest | Enterprise Portal |
|---|:---:|:---:|:---:|:---:|
| Make significant changes that affect Enterprise Portal users, for example, a reorganization where new groups are added and/or groups are renamed. | ✔ | ✔ | ✔ | ✔ |
| Individuals change jobs in the enterprise and that changes their Enterprise Portal roles (no changes in the names of groups). | | ✔ | | |
| Remove a directory-service group. Members of the group will no longer have access to the Enterprise Portal (based on that group). | ✔ | | ✔ | |
| Temporarily block access to the Enterprise Portal for members of a directory-service group. | | | | ✔ |
| A directory-service group should no longer be present in the Enterprise Portal (it should not be possible to associate a role with it). | | | ✔ | |
| Add an existing directory-service group as a group of interest, and then make members of the group Enterprise Portal users. | | | ✔ | ✔ |
| Change the Enterprise Portal role for members of an existing group. | | | | ✔ |

# Assigning a role to a group

Assigning a role to a group allows the users in that group to log in to the Enterprise Portal and to perform the tasks that are permitted for that group.

To assign a role to a group:

1. Find out the name of the group to which you will assign the role.

2. Log in to the Enterprise Portal as an enterprise admin or developer admin. To assign the role Enterprise Admin or Developer Admin, you must log in as an enterprise admin. To assign the role Developer, you can log in as an enterprise admin or a developer admin.

3. Click **Groups** in the main menu, and then click the group to which you want to assign a role.

4. Select the role from the **Select Role** drop-down list. To give the group no role, select **No Role**. You cannot remove the role assignment from the group to which you belong.

**Acme**: For Acme Corporation, the group "Mobility Enterprise Admins" has already been assigned the role Enterprise Admin. For developer admins, click **Groups > Mobility Developer Admins**, and then select the role **Developer Admin** from the **Select Role** drop-down list. For developers, click **Groups > Mobility App Developers**, and then select the role **Developer** from the **Select Role** drop-down list.

# About apps

The Enterprise Portal lets you manage the enterprise apps that enterprise users can view and download in the Application Catalog in HP Anywhere. Some of these apps are probably developed at your enterprise. Other apps might be acquired from third-party vendors. The Enterprise Portal can also manage public apps in the Apple iTunes Store and Google Play Store, so that the public apps are also visible in the Application Catalog.

## Kinds of apps

Following are the kinds of apps that can be published in the Application Catalog, and that enterprise users can use on their mobile devices.

### Enterprise apps

The Enterprise Portal can manage the submission of these kinds of enterprise apps and their publication in the Application Catalog:

- **Android apps**: These apps are installed on Android devices. Updates can be made available in the Application Catalog.

- **iOS apps**: These apps are installed on iOS devices. Updates can be made available in the Application Catalog.

- **MiniApps**: These apps are installed on HP Anywhere servers and run in the context of HP Anywhere on both Android and iOS devices. MiniApps are updated automatically. When you launch a MiniApp from My Apps, you get the latest version of the app.

### Public apps

The Enterprise Portal can manage the submission of these kinds of public apps and their publication in the Application Catalog:

- **Free apps in the Google Play Store**: These apps are installed on Android devices, and the apps and operating system can inform the user about updates. Updates can also be made available in the Application Catalog.

- **Free apps in the Apple iTunes Store**: These apps are installed on iOS devices, and the apps and operating system can inform the user about updates. Updates can also be made available in the Application Catalog.

# Which apps can an enterprise user see in the Application Catalog?

The Application Catalog uses six criteria to determine which apps to display for a specific enterprise user. These can be thought of as "filters" that prevent users that do not satisfy one or more criteria from viewing and downloading the app. The criteria are:

- **Device operating system**: A user with an Apple iOS device sees iOS enterprise apps, iOS public apps, and MiniApps. A user with an Android device sees Android enterprise apps, Android public apps, and MiniApps.

  For enterprise apps, the Enterprise Portal inspects the app file to determine the operating system (Android or iOS) of the app. For public apps, the Enterprise Portal inspects the URL.

- **Minimum operating system version (for iOS and Android apps)**: Users see specific app versions that have a minimum operating system version that is equal to or later than the operating system version on the device.

  For Android enterprise apps, the Enterprise Portal obtains the minimum operating system version from the APK file. For iOS enterprise apps and public apps, an Enterprise Portal user specifies the minimum operating system version during initial submission of an app, a metadata update, or a full update. This filter does not apply for MiniApps.

- **Device**: Users see specific app versions for which the user's device is specified as a supported device.

  For Android enterprise apps, the Enterprise Portal obtains this information from the APK file. For iOS enterprise apps, MiniApps, and iOS and Android public apps, an Enterprise Portal user specifies the supported devices during initial submission of an app, a metadata update, or a full update.

- **App status**: Users only see apps that have the status **Published**.

  Developers, developer admins, and enterprise admins use the Enterprise Portal to manage app statuses.

- **Membership in groups**: Users only see apps that are associated with directory-service groups to which they belong.

  Developer admins and enterprise admins use the Enterprise Portal to manage the app-group associations.

- **App version**: Users see the version of an app that has the highest version number that passes all of the other filtering criteria.

# Lifecycle of apps for the Enterprise Portal and Application Catalog

Apps have a lifecycle. They exist outside of the Enterprise Portal and Application Catalog before being managed by the Enterprise Portal and being available in the Application Catalog. Apps can be suspended, making them unavailable to all enterprise users.

The following diagrams show the lifecycle of apps relative to the Enterprise Portal and the Application Catalog. Numbers in the diagrams correspond to notes that follow each diagram.

## Enterprise iOS and Android apps
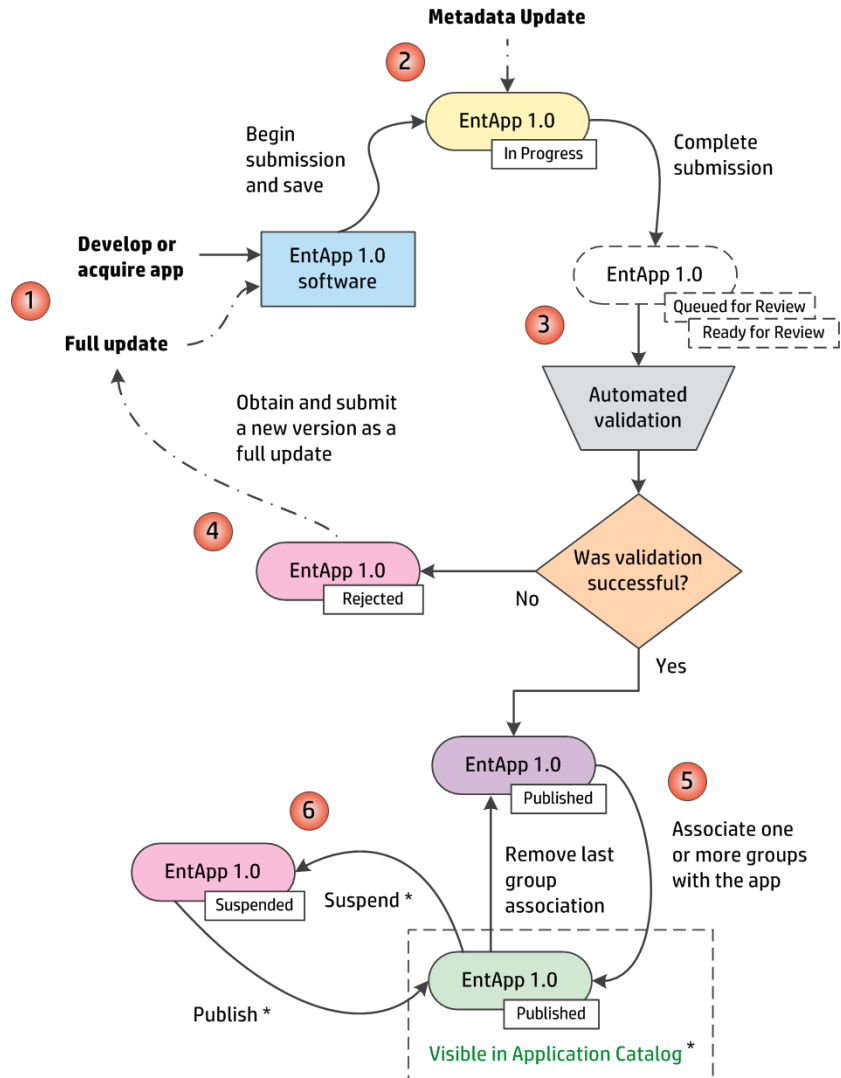


\* Visibility of changes in the Application Catalog can take up to eight hours following a change in the association of groups and apps, or an app status change.

In the diagram:

1. The enterprise develops or acquires the app. A full update also begins with providing the app file.

2. The first status for an app during submission is **In Progress**. In-progress app submissions are listed in the Enterprise Portal (click **Applications > App Submission**). The developer who began the app submission, or a developer admin or enterprise admin, can complete the app submission. When a metadata update is begun, the status of the app changes to **In Progress**.

3. Submitted apps go through the transient statuses **Queued for Review** and **Ready for Review**, and then through an automated validation process that includes checking the app for malware. Validation can take up to 10 minutes.

4.  If an app is rejected by the automated validation, the status is **Rejected**. This version of the app remains in the Enterprise Portal, but is not in the Application Catalog. It cannot be published, and groups cannot be associated with it. To resubmit a new app submission or full update that failed, you must do a full update of the app, providing a new app file and updating metadata as required. To resubmit a metadata update that failed, correct the problem with the metadata and perform another metadata update (this is not shown in the diagram).

5.  If the app passes the automated validation, the status is **Published**. The app is in the Application Catalog, but it is not yet visible to any users. To enable users to view and download the app, associate the app with one or more groups of enterprise users.

6.  You can suspend the access of all users to a published app by suspending the app (on the App Admin page, click **Change Status > Suspend**). To re-publish the app, click **Change Status > Publish**. You can also suspend and re-publish an app with the status **Published** that has no associated groups (this is not shown in the diagram).

**Note**:   It can take up to eight hours after changes of group associations or app statuses before the result of the actions is visible in the Application Catalog.

If there are multiple versions of an app, a status change applies to all versions, except to versions with the status **Rejected** (which retain that status). You cannot change the status of specific versions independently. For example, if you suspend one version of an app, all versions are suspended. To make all versions available again, click **Change Status > Publish** on the App Admin page for one version of the app. To suspend access to a specific version of an app, but not to all versions, remove all associations between that app version and groups.

**MiniApps**



\*   Before you click Activate, the MiniApp must be installed on the HP Anywhere Server.

\*\*   Visibility of changes in the Application Catalog can take up to eight hours following a change in the association of groups and apps, or an app status change.
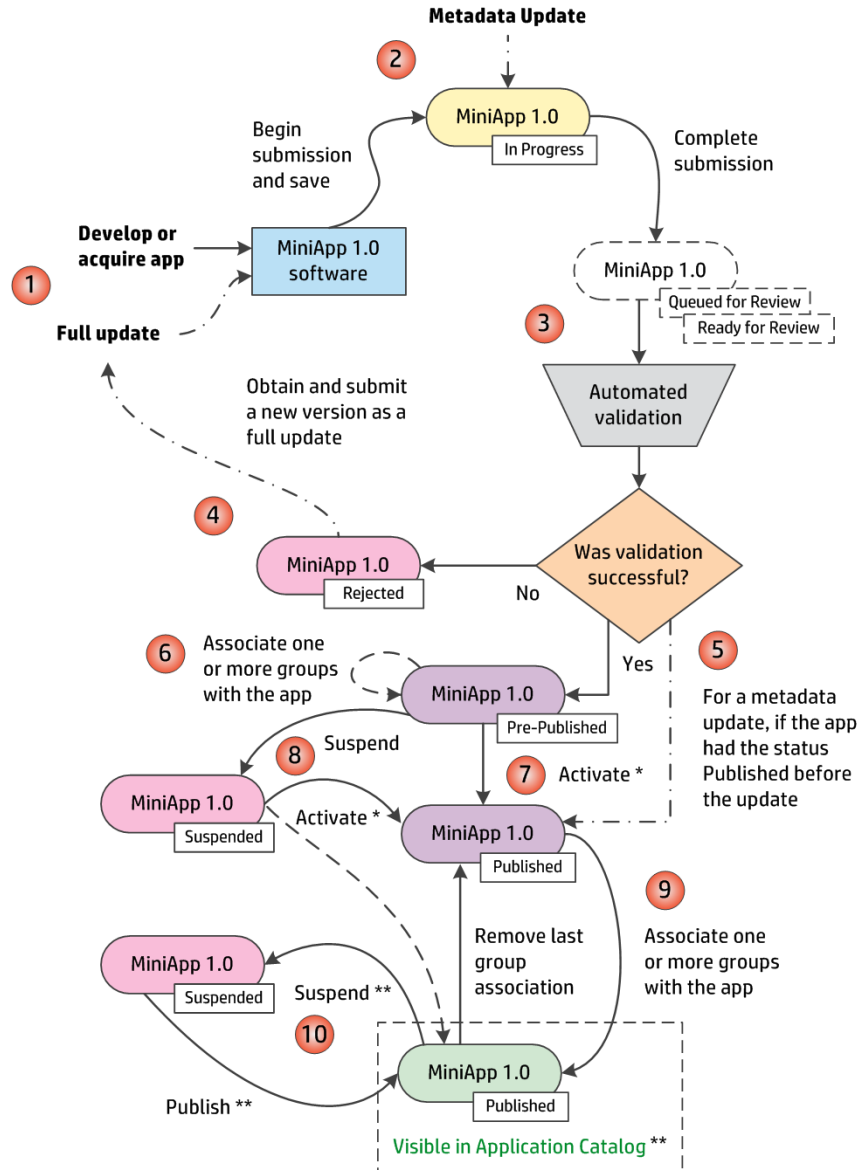
In the diagram:

1.   The enterprise develops or acquires the app software. A full update also begins with providing the app software.

2.   The first status for an app during submission is **In Progress**. In-progress app submissions are listed in the Enterprise Portal (click **Applications > App Submission**). The developer who began the app submission, or a developer admin or enterprise admin, can complete the app submission. When a metadata update is begun, the status of the app changes to **In Progress**.

3.   Submitted apps go through the transient statuses **Queued for Review** and **Ready for Review**, and then through an automated validation process that includes checking the app for malware. Validation can take up to 10 minutes.

4. If an app is rejected by the automated validation, the status is **Rejected**. This version of the app remains in the Enterprise Portal, but is not in the Application Catalog. It cannot be published, and groups cannot be associated with it. To resubmit a new app submission or full update that failed, you must do a full update of the app, providing a new app file and updating metadata as required. To resubmit a metadata update that failed, correct the problem with the metadata and perform another metadata update (this is not shown in the diagram).

5. If the app passes the automated validation, the status is **Pre-Published**. For a full update, the status is also **Pre-Published**. For a metadata update, the status is **Published** if the app had the status **Published** before the update; otherwise the status is **Pre-Published**.

6. It is possible to associate groups with the app while it is in the **Pre-Published** state. Doing so does not make the app visible to users in the Application Catalog.

7. A developer, developer admin, or enterprise admin must activate the app (on the App Admin page, click **Change Status > Activate**). This changes the status to **Published** and the App is in the Application Catalog, but not yet visible to users if no groups are associated with it. If groups were associated with the app while it had the status **Pre-Published**, then the app is visible to users.

   **Note**: Before you click **Activate** in this step or in step 8, the app must be installed on the HP Anywhere server.

8. You can also suspend an app with the status **Pre-Published**. To publish the app, click **Change Status > Activate**. The status changes to **Published**. If groups were associated with the app in step 6, then the app becomes visible to users in the Application Catalog.

9. To enable users to view and download the app, associate the app with one or more groups of enterprise users.

10. You can suspend the access of all users to a published app by suspending the app (on the App Admin page, click **Change Status > Suspend**). To re-publish the app, click **Change Status > Publish**. You can also suspend and re-publish an app with the status **Published** that has no associated groups (this is not shown in the diagram).

**Note**: It can take up to eight hours after changes of group associations or app statuses before the result of the actions is visible in the Application Catalog.

If there are multiple versions of an app, a status change applies to all versions, except to versions with the status **Rejected** (which retain that status). You cannot change the status of specific versions independently. For example, if you suspend one version of an app, all versions are suspended. To make all versions available again, click **Change Status > Publish** on the App Admin page for one version of the app. To suspend access to a specific version of an app, but not to all versions, remove all associations between that app version and groups.

## Public iOS and Android apps
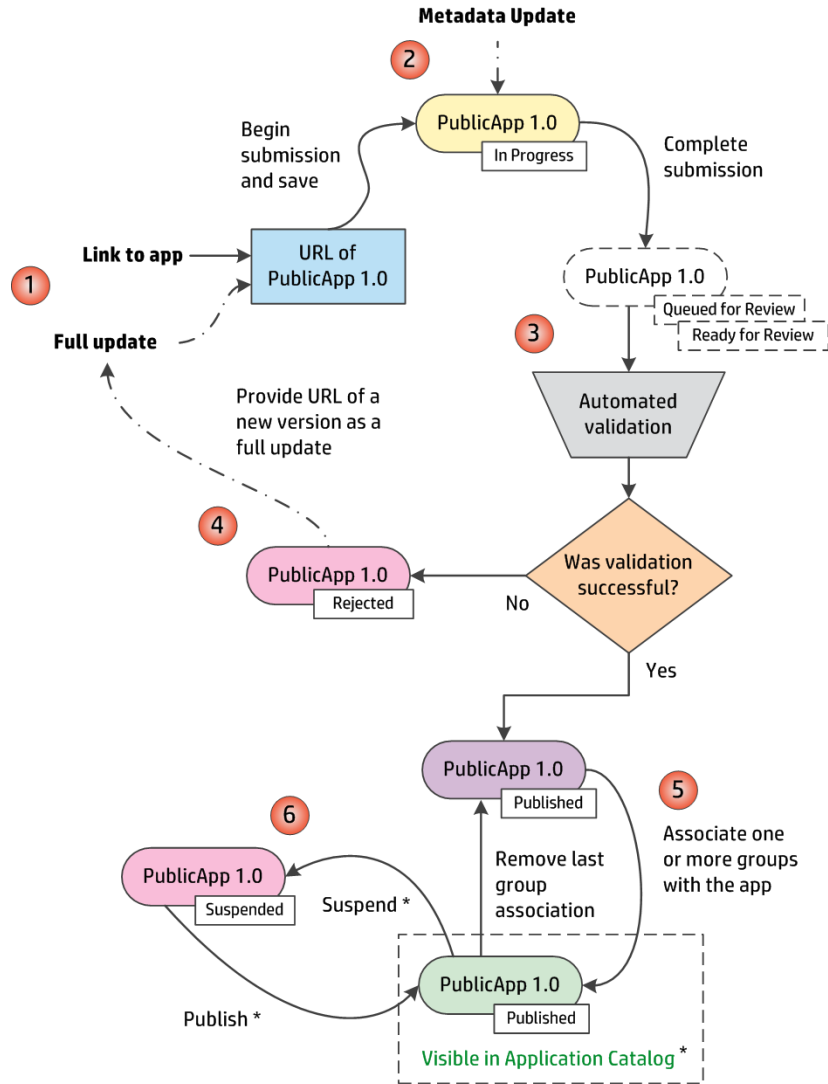


* Visibility of changes in the Application Catalog can take up to eight hours following a
change in the association of groups and apps, or an app status change.

In the diagram:

1. The Enterprise Portal user who submits the app provides a link (URL) to the app
   software in the Apple iTunes Store or the Google Play Store. A full update also begins
   with providing the URL to the new app software.

2. The first status for an app during submission is **In Progress**. In-progress app
   submissions are listed in the Enterprise Portal (click **Applications > App Submission**). The
   developer who began the app submission, or a developer admin or enterprise admin,
   can complete the app submission. When a metadata update is begun, the status of the
   app changes to **In Progress**.

3. Submitted apps go through the transient statuses **Queued for Review** and
   **Ready for Review**, and then through an automated validation process. The validation
   does *not* include checking the app for malware. Validation can take up to 10 minutes.

4. If an app is rejected by the automated validation, the status is **Rejected**. This version of
   the app remains in the Enterprise Portal, but is not in the Application Catalog. It cannot

be published, and groups cannot be associated with it. To resubmit a new app submission or full update that failed, you must do a full update of the app, providing a new app URL and updating metadata as required. To resubmit a metadata update that failed, correct the problem with the metadata and perform another metadata update (this is not shown in the diagram).

5.    If the app passes the automated validation, the status is **Published**. The app is in the Application Catalog, but it is not yet visible to any users. To enable users to view and download the app, associate the app with one or more groups of enterprise users.

6.    You can suspend the access of all users to a published app by suspending the app (on the App Admin page, click **Change Status > Suspend**). To re-publish the app, click **Change Status > Publish**. You can also suspend and re-publish an app with the status **Published** that has no associated groups (this is not shown in the diagram).

**Note**:   It can take up to eight hours after changes of group associations or app statuses before the result of the actions is visible in the Application Catalog.

If there are multiple versions of an app, a status change applies to all versions, except to versions with the status **Rejected** (which retain that status). You cannot change the status of specific versions independently. For example, if you suspend one version of an app, all versions are suspended. To make all versions available again, click **Change Status > Publish** on the App Admin page for one version of the app. To suspend access to a specific version of an app, but not to all versions, remove all associations between that app version and groups.

# Submitting new apps

After an enterprise app has been developed or acquired, or when a public app is available, a developer, developer admin, or enterprise admin can submit the app for inclusion in the Application Catalog.

**Note**: This chapter describes how to submit new apps, that is, apps that are the first version with a specific Public App ID and Application Title. For information about updating existing apps, see "Updating apps."

## All of the steps from app development to use

The steps from app development (or acquisition, or referencing a public app) to use of the app are:

1. **Developing and acquiring enterprise apps**: Developers at the enterprise can develop apps that are used by enterprise employees. The enterprise can also acquire apps for use by their employees. For more information, see "About apps."

2. **Referencing public apps**: When public apps will be made available in the Application Catalog, a developer will provide the URL to the app during app submission.

3. **Submitting apps for publication in the Application Catalog**: Developers, developer admins, and enterprise admins can submit apps for publication in the Application Catalog. For more information, see this chapter.

4. **Publishing apps to the Application Catalog**: Publishing apps to the Application Catalog is accomplished by associating the apps with groups of enterprise users. This makes the available to enterprise users in the groups with which the app is associated, if the users have compatible devices. For more information, see "Publishing new apps to the Application Catalog."

## What makes an app a new app?

Basically, a new app is one that has never been submitted to the Application Catalog before. An app is considered new if both of these are true:

- No app that was previously submitted to the Application Catalog has the same Public App ID or Application Title.

- No in-progress submission has the same Public App ID.

**Note**: You can change the Application Title of an app when performing a full update or a metadata update. This does not create a new app; it just changes the title of the existing app for the updated version.

If you submit an app, and a message informs you that the app is already in the system, then proceed as follows:

- To change anything about an app that is already in the Application Catalog (about the app itself or the metadata, not group associations or the app status), perform a full update or metadata update as required.

- For an in-progress submission, just complete the submission process.

# Required information and files

Before beginning the app submission process, collect the following information and files. All of the information and files are required, except as noted below.

| | |
|---|---|
| **Upload Application** | Specify the location of the app:<br><br>• **Upload App**: Browse to a local file. The file must be an Android app (APK file), iOS app (IPA file), or MiniApp (MNA file).<br><br>• **Link App**: Specify the URL from which the Application Catalog will obtain the app.<br><br>Following is an example of a Google Play Store URL:<br><br>https://play.google.com/store/apps/details?id=com.roidapp.photogrid<br><br>Following is an example of an Apple iTunes Store URL:<br><br>https://itunes.apple.com/us/app/pic-stitch/id454768104?mt=8<br><br>• **Version**: Specify the version of the app. This is the "marketing" version, not a build version.<br><br>The Enterprise Portal enforces the following app versioning convention during validation of the app version: the app version must conform to the pattern #.#.#, where # is a number. Three version numbers are required. For example, 1.1.0 and 2.1.3 are valid version numbers. |
| **Public Application Information** | Specify public app information:<br><br>• **Application Title**: Enter the title (name) of the application.<br><br>• **Company Name**: Enter the name of the company that developed the application.<br><br>• **Description**: Enter a description of the application. |

| | |
|---|---|
| **Technical Application Information** | Specify technical app information:<br><br>• **Public App ID**: This information is generated automatically and is not editable.<br><br>• **Minimum OS Version (iOS and Android apps)**: For an iOS app, select the minimum version of the operating system that this app runs on. For an Android app, this information is obtained from the APK file, and you cannot edit it. Minimum OS Version does not apply to MiniApps.<br><br>• **Device**: Select the device or devices that this app runs on.<br><br>    **For Android apps**: Checkmarks indicate the supported generalized screen sizes. The Enterprise Portal obtains this information from the APK file. You cannot change the selected devices.<br><br>    **For iOS apps**: Click checkboxes next to supported iPhone, iPad, and iPod touch models.<br><br>    **For MiniApps**: Click checkboxes that indicate both the supported generalized screen sizes (for running the app on Android devices) and the supported iPhone, iPad, and iPod touch models (for running the app on Apple iOS devices).<br><br>• **App Version**: For an iOS app, enter the app version. For an Android app, the app version is obtained from the APK file. For a MiniApp, the app version is obtained from the MiniApp file. For a pubic app (Link App was chosen and a URL provided), this field is populated from the prior screen.<br><br>• **Category**: Select the top-level category that best describes this app. To add a category, click **Add Category** in the drop-down menu.<br><br>• **Subcategory**: Select up to three subcategories that best describe this app. Subcategories are category specific. One subcategory is required. To add a subcategory, click **Add Subcategory** in the drop-down menu. |
| **App Icon Images** | Browse to icon images that will represent the app. The file type can be JPG or PNG.<br><br>• **Small Icon Image**: 48 pixels wide x 48 pixels high<br><br>• **Large Icon Image**: 64 pixels wide x 64 pixels high<br><br>The small icon is used in HP Anywhere. The large icon is used in the Enterprise Portal. For iOS and Android apps that are installed on the device, the icon that is used comes from the application file. |
| **Screenshot Images** | Specify up to five screenshot images. Three images are required. Browse to the images on your computer. The file type can be JPG or PNG. Each image can be 480 pixels wide x 320 pixels high or 320 pixels wide x 480 pixels high. |
| **Video Link** | (*Optional*) Specify the URL of a YouTube video about the app. This information is visible in the Application Catalog. It is not visible in the Enterprise Portal after submitting the app. |

# Submitting a new app

Note: Submitting an app for inclusion in the Application Catalog does not make the app available. An additional step, publishing the app to the Application Catalog, must be performed.

To submit a new app for inclusion in the Application Catalog:

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu, and then click **App Submissions**.

3. Click **Start New Submission**. The Enterprise Portal displays a page on which you specify the location of an app file.

4. Specify the location of the app file:

   - To upload an app file, click **Upload App** and then browse to the file.

   - To provide the URL of a public app, click **Link App** and then enter the URL of the app. The app must be in the Apple iTunes Store or the Google Play Store.

5. Click **Save**. The Enterprise Portal saves the in-progress app submission, and displays a page on which you specify all of the remaining information needed to submit the app. Required information has an asterisk (*) to the right of the entry field. For an explanation of the information, see "Required information and files."

6. Specify the information about the app, and then click **Submit**.

7. The Enterprise Portal performs automated validation for the submitted app. For enterprise apps, the validation includes a check for malware. Validation can take up to 10 minutes.

   - If the app fails validation, it receives the status **Rejected**. Correct the problem, and then submit a new version as a full update.

   - If the app passes validation, it receives the status **Pre-Published** (for MiniApps) or **Published** (for all other apps). For apps with the status **Pre-Published**, proceed to step 8. For apps with the status **Published**, proceed to "Publishing new apps to the Application Catalog."

   Note: Following submission, you might see the transient app statuses **Queued for Review** and/or **Ready for Review**. You can ignore these statuses. If you see one of these statuses on the App Admin page for an app, *wait 10 minutes* and then press F5 to reload the page. If the transient status persists, contact your Mobility Program administrator.

8. (*MiniApps only*) Install the app on HP Anywhere servers.

9. (*MiniApps only*) Change the status of the app to **Published**. For that procedure, see "Changing the status of an app in the Application Catalog."

Acme: For Acme Corporation, developers would submit the enterprise applications "Acme Expenses," "Acme Approvals," "Acme CRM," and "Acme Support," as well as the public applications "Email App" and "Collaboration App."

# Saving an in-progress app submission

While submitting an application, if you discover that you lack some information, you can save the submission and complete it later.

To save an in-progress app submission, specify the Application Name and upload the file or provide a link to a file, and then click **Save**. After you save that information, a second page appears on which you provide information about the app. You cannot save the information that you provide on the second page of the app submission.

# Viewing in-progress app submissions

To view in-progress app submissions:

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu, and then click **App Submissions**. In-progress app submissions are listed in the column IN PROGRESS. In-progress app updates are also listed.

# Resuming an in-progress app submission

To resume an in-progress app submission:

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu, and then click **App Submissions**. In-progress app submissions are listed in the column IN PROGRESS.

3. Click the application for which you want to resume the submission. The Enterprise Portal displays a page on which you specify all of the remaining information needed to submit the app. Required information has an asterisk (*) to the right of the entry field. For an explanation of the information, see "Required information and files."

4. Specify the information about the app, and then click **Submit**.

5. The Enterprise Portal performs automated validation for the submitted app. For enterprise apps, the validation includes a check for malware. Validation can take up to 10 minutes.

   - If the app fails validation, it receives the status **Rejected**. Correct the problem, and then submit a new version as a full update.

   - If the app passes validation, it receives the status **Pre-Published** (for MiniApps) or **Published** (for all other apps). For apps with the status **Pre-Published**, proceed to step 6. For apps with the status **Published**, proceed to "Publishing new apps to the Application Catalog."

   **Note**: Following submission, you might see the transient app statuses **Queued for Review** and/or **Ready for Review**. You can ignore these statuses. If you see one of these statuses on the App Admin page for an app, *wait 10 minutes* and then press F5 to reload the page. If the transient status persists, contact your Mobility Program administrator.

6. (*MiniApps only*) Install the app on HP Anywhere servers.

7. (*MiniApps only*) Change the status of the app to **Published**. For that procedure, see "Changing the status of an app in the Application Catalog."

# Publishing new apps

When apps have been submitted, and for MiniApps installed on HP Anywhere servers and then activated, the apps are in the Application Catalog. They have the status Published, but they are not yet visible in the Application Catalog. To finish publication, an app must be associated with one or more groups. Only then is it visible in the Application Catalog, for users in those groups who have compatible devices.

## Publishing new apps to the Application Catalog

In the Enterprise Portal, there are two ways to publish apps in the Application Catalog. Both accomplish the same thing (associating groups of enterprise users and apps), but from different directions:

- In **Groups**, you can specify the apps that users in a group can view and download in the Application Catalog. For this procedure, see "Specifying which apps a group of users can download."

- In **Applications**, you can specify the groups of Application Catalog users that can view and download the app in the Application Catalog. For this procedure, see "Specifying which groups of users can view and download an app."

**Note**: It can take up to eight hours after changes of group associations before the result of the actions is visible in the Application Catalog.

**Acme**: For Acme Corporation, we will use the first approach for the apps that will be used by all employees and the second approach for the other apps.

### Specifying which apps a group of users can download

To specify apps for a group:

1. Log in to the Enterprise Portal as an enterprise admin or developer admin.

2. Click **Groups** in the main menu, and then click a group to manage. The Enterprise Portal displays the apps that users in this group can currently view and download in the Application Catalog.

   **Acme**: For Acme Corporation, click **Groups > All Employees**.

3. Click **Edit**. The pop-up dialog box displays apps that are not available for users in this group (on the left) and apps that are available (on the right).

4. Click an app in the left column to make it available to users in this group. When you do, it moves to the right column. Click an app in the right column to make it unavailable to users in this group. When you do, it moves to the left column. Optionally, you can use

the **Move All** buttons at the top of the dialog box to move all apps in one column to the other column.

> **Acme**: For Acme Corporation, click the apps "Acme Expenses," "Email App," and "Collaboration App" in the left column. The selected apps move to the right column.

5. When you have finished specifying the apps that will be available for users in this group, click **Update**.

### Specifying which groups of users can view and download an app

To specify groups for an app:

1. Log in to the Enterprise Portal as an enterprise admin or developer admin.

2. Click **Applications** in the main menu, and then click an app to manage.

3. Click **App Admin** to view detailed information about the app. The Enterprise Portal lists the groups in which users can currently view and download the app in the Application Catalog.

> **Acme**: For Acme Corporation, click the app "Acme Approvals." In subsequent passes through this procedure, click "Acme CRM" and then "Acme Support."

4. Click **Edit Groups**. The pop-up dialog box displays groups that are not selected (not able to view and download the app) on the left and selected groups (which are able to view and download the app) on the right.

5. Click a group in the left column to give users in the group the ability to view and download the app. When you do, it moves to the right column. Click a group in the right column to make the app unavailable to users in this group. When you do, it moves to the left column. Optionally, you can use the **Move All** buttons at the top of the dialog box to move all groups in one column to the other column.

> **Acme**: For Acme Corporation, click the group "All Managers" (for the "Acme Approvals" app). The selected group moves to the right column. In subsequent passes through this procedure, click "Sales" and then "Support" (for the "Acme CRM" and "Acme Support" apps respectively).

6. When you have finished specifying the groups that will be able to view and download the app, click **Update**.

# What happens if an app is already on a device?

It is possible that an app you are publishing in the Application Catalog is already on a user's device. For example, it might be an enterprise app that was installed on enterprise device, or a public app that was installed on a personal device.

In this case:

- The enterprise user will see the app in the Application Catalog (if all of the filtering criteria are met), but will not see an indication in the Application Catalog that the app is already installed. If the app has a later version than the installed app, the user will not see an indication in the Application Catalog that this is an update.

- A user who chooses to install the app from the Application Catalog will be prompted to confirm replacement of the app, or an update or replacement when installing an update to a later version.

- After installation of the app from the Application Catalog, an icon or link icon will be present in My Apps, and the Application Catalog will inform the user about updates to the app if updates are made available in the Application Catalog.

# Managing the Application Catalog

The Application Catalog lets enterprise users browse and search for enterprise apps, and possibly public apps, that they are authorized to use and that are compatible with their mobile devices.

Note: For information about updating apps, see "Updating apps." Other management tasks are explained in this chapter.

## About the directory-service groups used to control access to apps in the Application Catalog

You publish an app in the Application Catalog by associating the app with groups in the enterprise directory service. Members of the associated groups can view and download the app.

Several things are worth noting regarding the choice of directory-service groups:

- By enabling access to enterprise applications, you are enabling access to proprietary and confidential information. Consider the groups used for app access and their changing membership carefully—as carefully as you consider groups for accessing other enterprise IT resources.

- Associations of apps with directory-service groups in the Enterprise Portal enable users in those groups to view and download the apps from the Application Catalog (if they have compatible devices). After download and installation of an app, the user's membership in the group does not necessarily have any impact on what the user can do in the app, or on the access that the app has to enterprise IT resources. All of that is up to the app.

- When you consider using existing groups, consider them with the apps they will use in mind. If it is possible to use existing groups, that is simplest. But it might not be possible in all cases.

- Set up groups for which app-related maintenance will be "maintenance-free" if possible. When enterprise users are added to and removed from groups, the apps that they gain and lose access to should be correct.

- If some enterprise apps enable access to more highly privileged enterprise information, for example, to financial or HR information, then management of the groups that give access to the apps in the Application Catalog should respect existing procedures for requesting access to more highly privileged information.

## Maintenance goals and tasks for apps

Depending on the maintenance goal for apps, required changes might involve directory-service groups, group membership, groups of interest, and/or tasks in the Enterprise Portal. The following table indicates where changes are needed for various goals.

| Changes:<br><br>Goal: | Directory service groups | Group members | Groups of Interest | Enterprise Portal |
|---|---|---|---|---|
| Make significant changes that affect who can use which apps, for example, a reorganization where new groups are added and/or groups are renamed. | ✔ | ✔ | ✔ | ✔ |
| Individuals change jobs in the enterprise and that changes the apps they should see in the Application Catalog (no changes in the names of groups). | | ✔ | | |
| Remove a directory-service group. Members of the group will no longer see apps associated with that group (if the users are not in other groups associated with the app). | ✔ | | ✔ | |
| Temporarily block access to an app in the Application Catalog for members of a directory-service group (note that membership in other groups might convey access). | | | | ✔ |
| A directory-service group should no longer be present in the Enterprise Portal (it should not have any apps associated with it). | | | ✔ | |
| Add an existing directory-service group as a group of interest so that members of the group can use specific enterprise apps. | | | ✔ | ✔ |
| Change the apps that a group can view and download in the Application Catalog. | | | | ✔ |

## Viewing information about an app

You can view information about an app:

- Information that an enterprise user can view in the Application Catalog

- More detailed information

### Information visible in the Application Catalog

To view the information that is visible in the Application Catalog:

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu, and then click the app for which you want to view information. At the top of the page, APP VIEW indicates that you are viewing the information that the Application Catalog user can view.

### Detailed Information

To view detailed information about an app:

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu, and then click the app for which you want to view detailed information. At the top of the page, APP VIEW indicates that you are viewing the information that the Application Catalog user can view.

3. Click **App Admin** to view detailed information about the app. Now, the top of the page reads APP ADMIN.

## Downloading an app for testing

Downloading an app for testing is not a required part of the app submission or publishing process. It is provided in the Enterprise Portal as a convenience for those who test apps.

After an app is in the Application Catalog with the state **Pre-Published**, **Published**, or **Suspended**, a developer can download the app for testing.

Note: When downloading enterprise apps (apps that are not public apps), the Enterprise Portal uses the browser's download mechanism. Some browsers display a save-or-open dialog box. Some browsers save the downloaded file in a default download location. To determine the browser's behavior and the location of the downloaded file, read the help information for your browser.

To download an app for testing:

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu, and then click the app that you want to download.

3. Click **App Admin** to view detailed information about the app.

4. Click **Download App** to download the app. What happens next depends on the type of app:

   - For enterprise apps, the app file is downloaded.

   - For public apps, the Apple iTunes Store or Google Play Store page for the app opens in a new browser tab. You can download the app from that page.

## Managing access to apps in the Application Catalog

You manage access of *specific enterprise users* to apps by putting the users in groups that are then given access to the apps. An enterprise admin or developer admin can associate apps with a group or groups with an app. Both approaches accomplish the same thing, making the apps available in the Application Catalog for enterprise users in the associated groups.

If you are making multiple apps available to a group, it is easier to choose the group and then associate the apps. If you are making an app available to multiple groups, it is easier to choose the app and then associate the groups.

Note: It can take up to eight hours after the changes are made before the result is visible in the Application Catalog.

### Changing which apps a group of users can download

You can change which apps a group of enterprise users can view and download by changing the apps associated with the group. For that procedure, see "Specifying which apps a group of users can download."

### Changing which groups of users can view and download an app

You can change which groups of enterprise users can view and download an app by changing the groups associated with the app. For that procedure, see "Specifying which groups of users can view and download an app."

## Changing the category or subcategory for an app

Every app has a category and from one to three subcategories. In the Application Catalog, an enterprise user can browse apps by categories and subcategories.

The Enterprise Portal user who submits the app chooses the category and subcategories during app submission.

To change the category or subcategories for an app after the initial app submission:

1. Log in to the Enterprise Portal as an enterprise admin or developer admin.

2. Click **Applications** in the main menu, and then click the app for which you want to change the category or subcategories.

3. Click **App Admin** to view detailed information about the app.

4. Click **Metadata Update**.

5. From the **Category** drop-down list, select the top-level category that best describes the app. To add a category, click **Add Category** in the drop-down menu.

6. From the **Subcategory** drop-down list, select up to three subcategories that best describe the app. Subcategories are category specific. One subcategory is required. To add a subcategory, click **Add Subcategory** in the drop-down menu.

7. Click **Submit** to save the updated information about the app.

Note: It can take up to eight hours after the changes are made before the result is visible in the Application Catalog.

## Changing the status of an app in the Application Catalog

In some cases, you might want to temporarily or permanently suspend downloads of an app in the Application Catalog for all users. This is done by changing the status of the app to **Suspended**.

If there are multiple versions of an app, a status change applies to all versions, except to versions with the status **Rejected** (which retain that status). You cannot change the status of

specific versions independently. For example, if you suspend one version of an app, all versions are suspended. To make all versions available again, click **Change Status > Publish** on the App Admin page for one version of the app. To suspend access to a specific version of an app, but not to all versions, remove all associations between that app version and groups.

To change the status of an app in the Application Catalog:

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu, and then click the app for which you want to change the status.

3. Click **App Admin** to view detailed information about the app.

4. Click **Change Status**, and select the status-change action from the drop-down menu:

   - **Activate** to change the status from Pre-Published to Published (for MiniApps)

   - **Suspend** to change the status from Pre-Published to Suspended (for MiniApps)

   - **Activate** to change the status from Suspended to Published (for MiniApps)

   - **Suspend** to change the status from Published to Suspended (for native iOS and Android apps)

   - **Publish** to change the status from Suspended to Published (for native iOS and Android apps)

**Note**: It can take up to eight hours after changing the status of an app before the result is visible in the Application Catalog.

# Generating reports about apps

You can generate reports about specific apps.

## Kinds of reports

For each app, you can generate these reports:

### Downloads / Active Users

This report contains:

- The number of downloads of this app for each month in the date range.

- The number of unique active users of this app for each month in the date range.

- The total number of downloads of this app during the date range.

- The total number of unique active users for this app during the date range.

**Note**: Active users are users who still have the downloaded app installed on their devices. The users are not necessarily using the apps.

### Users / Devices

This report contains:

- Active users and the devices that they used to run the app, for each day in the date range. If a user runs the app on a specific device on a specific day, then there is an entry in the table for that day that identifies the user and the device. There is only one entry per day per user-device combination.

Users are identified by their enterprise email addresses. Devices are identified by identifiers that are generated by the Application Catalog client.

- The total number of unique active users of this app during the date range.

- The total number of unique devices used to run this app during the date range.

**Note**: Active users are users who still have the downloaded app installed on their devices. The users are not necessarily using the apps.

## Date ranges

When reports about an app are first generated, they reflect the entire lifetime of the app from when it was published in the Application Catalog until the present time. You can select a different timeframe for the reports. You select a beginning month (from date) and an ending month (to date) for the reports. Data in the reports are from the first day of the beginning month to the last day of the ending month.

## Viewing app reports

You can generate and view reports for an app through **Applications > App Reports** or through **Applications > App Management**. When you generate and view reports, you see both the "Downloads / Active Users" and "Users / Devices" reports.

To generate and view reports for an app through **Applications > App Reports**:

1. Click **Applications** > **App Reports**.

2. In the list of apps, navigate to the app for which you want to produce a report, and click the app to select it.

   The APP REPORTS page appears for the app, which displays reports for the entire lifetime of the app.

   **Note**: If multiple versions of the app are in the Application Catalog, the reports that are displayed are for the latest version of the app. To view reports for a different version, click that version in the list of apps.

3. To view reports for a different timeframe, choose the date range from the drop-down date menus, and then click **Run Report**.

To generate and view reports for an app through **Applications > App Management**:

1. Click **Applications** > **App Management**.

2. In the list of apps, navigate to the app for which you want to produce a report, and click the app to select it.

3. Click **App Admin**. In the section App Reports Summary, click **View Report**.

   The APP REPORTS page appears for the app, which displays reports for the entire lifetime of the app.

4. To view reports for a different timeframe, choose the date range from the drop-down date menus, and then click **Run Report**.

## Downloading an app report

To download an app report:

1.  Generate the app reports that you want to download, using the procedure in "Viewing app reports."

2.  Click **Download Report** under the "Downloads / Active Users" report to download that report.

3.  Click **Download Report** under the "Users / Devices" report to download that report.

An app report is in a CSV (comma-separated value) file that can be read by spreadsheet software.

**Note:**  The Enterprise Portal uses the browser's download mechanism. Some browsers display a save-or-open dialog box. Some browsers save the downloaded file in a default download location. To determine the browser's behavior and the location of the downloaded file, read the help information for your browser.

# Updating apps

Applications change. Features are added. Issues are fixed. The Enterprise Portal lets you manage these changes.

Note: This chapter describes scenarios for updating existing apps (ones that are already in the Application Catalog). For information about submitting new applications, see "Submitting new apps."

## App versions

Applications have versions. New versions of apps typically provide new features and fix known issues.

App versioning can also be used to support different mobile devices. For example, an older version of an app might be required for an older OS version, or might work best on older devices with lower-resolution screens.

Applications versions typically increment in some fashion. For example, version 1.0 is followed by 1.1 and then 1.2; or possibly by 1.01, 1.01b, and then 1.3. The app versions are "marketing" versions (that is, intended for the public), not build versions.

Note: The Enterprise Portal enforces the following app versioning convention during validation of the app version: the app version must conform to the pattern #.#.#, where # is a number. Three version numbers are required. For example, 1.1.0 and 2.1.3 are valid version numbers.

When submitting a full app update, you can specify the version of the update or you can let the Enterprise Portal generate the next version designation. The version number of the new version must be higher than the existing version.

When submitting a metadata update, you cannot change the version number.

### App versions and filtering by the Application Catalog

The version of an app is one of the filtering criteria that are used to determine whether a specific enterprise user can view and download a specific app in the Application Catalog.

Users see the version of an app that has the highest version number that passes all of the other filtering criteria.

For information about the other filtering criteria, see "Which apps can an enterprise user see in the Application Catalog?"

# Updating an app

Using the Enterprise Portal to update apps entails three basic tasks:

- Submitting an app update. You can update the app and its metadata (the most common case) or just the metadata. For more information, see "Performing a full update for an app" and "Updating the metadata for an app."

  Note: If groups were associated with the app before the update, then the app is available to those groups of users following the update, when it has the status **Published**.

- For some scenarios when updating an app, you might want to suspend all versions of the app that are currently in the Application Catalog. For that procedure, see "Changing the status of an app in the Application Catalog."

  Note: At the end of the update procedure, the updated app version and all prior versions will have the status **Published**.

  To suspend access to a specific version of an app, but not to all versions, remove all associations between that app version and groups. For that procedure, see "Managing access to apps in the Application Catalog."

- For some scenarios when updating an app, you will want to change the group or groups that can view and download the app in the Application Catalog. For those procedures, see "Managing access to apps in the Application Catalog."

Scenarios for updating apps are described in "Scenarios for app updates."

## What qualifies as an app update?

An app update is an update of an app that is already in the Application Catalog, that is, the Public App ID and Application Title of the update are the same as those for an app that is already in the Application Catalog.

For a metadata update, the version number is also the same.

For a full update, the version number must be higher.

Note: You can change the Application Title of an app when performing a full update or a metadata update. This does not create a new app; it just changes the title of the existing app for the updated version.

## App statuses for which app updates are possible

An app with the status **Pre-Published**, **Published**, or **Suspended** can be updated.

# Performing a full update for an app

Note: To perform a full update of an app, the app must have the status **Pre-Published**, **Published**, or **Suspended**.

The information that you provide when submitting a full update is the same that you provide when submitting a new app, but you cannot change the Public App ID or Application Title. You must provide a higher version number.

To update an app and its metadata:

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu. **App Management** is selected.

3. Navigate to and select the app for which you want to perform a full update.

4. Click **Full Update**. The Enterprise Portal displays a page on which you specify information about the app. For an explanation of the information, see "Required information and files."

5. Specify the information about the app, and then click **Submit**.

6. The Enterprise Portal performs automated validation for the submitted app. For enterprise apps, the validation includes a check for malware. Validation can take up to 10 minutes.

   - If the app fails validation, it receives the status **Rejected**. Correct the problem, and then submit a new version as a full update.

   - If the app passes validation, it receives the status **Pre-Published** (for MiniApps with no associated groups) or **Published** (for MiniApps with associated groups and all other apps). For apps with the status **Pre-Published**, proceed to step 7. For apps with the status **Published**, proceed to "Publishing new apps to the Application Catalog."

   Note:   Following submission, you might see the transient app statuses **Queued for Review** and/or **Ready for Review**. You can ignore these statuses. If you see one of these statuses on the App Admin page for an app, *wait 10 minutes* and then press F5 to reload the page. If the transient status persists, contact your Mobility Program administrator.

7. (*MiniApps only*) Install the app on HP Anywhere servers.

8. (*MiniApps only*) Change the status of the app to **Published**. For that procedure, see "Changing the status of an app in the Application Catalog."

If there are multiple versions of an app, a status change applies to all versions, except to versions with the status **Rejected** (which retain that status). You cannot change the status of specific versions independently. For example, if you suspend one version of an app, all versions are suspended. To make all versions available again, click **Change Status > Publish** on the App Admin page for one version of the app. To suspend access to a specific version of an app, but not to all versions, remove all associations between that app version and groups.

Note:   It can take up to eight hours after submission of a full update before the updated app is available in the Application Catalog.

# Updating the metadata for an app

Note:   To update the metadata for an app, the app must have the status **Pre-Published**, **Published**, or **Suspended**.

The information that you provide when submitting a metadata update is the same that you provide when submitting a new app, but you cannot change the Public App ID, Application Title, or version number.

To update only the metadata for an app:

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu. **App Management** is selected.

3. Navigate to and select the app for which you want to update the metadata.

4. Click **Metadata Update**. The Enterprise Portal displays a page on which you specify information about the app. For an explanation of the information, see "Required information and files."

5. Specify the information about the app, and then click **Submit**.

6. The Enterprise Portal performs automated validation for the submitted app. For enterprise apps, the validation includes a check for malware. Validation can take up to 10 minutes.

   - If the app fails validation, it receives the status **Rejected**. Correct the problem, and then submit a new metadata update.

   - If the app passes validation, it receives the status **Pre-Published** (for MiniApps with no associated groups) or **Published** (for MiniApps with associated groups and all other apps). For apps with the status **Pre-Published**, proceed to step 7. For apps with the status **Published**, proceed to "Publishing new apps to the Application Catalog."

   Note: Following submission, you might see the transient app statuses **Queued for Review** and/or **Ready for Review**. You can ignore these statuses. If you see one of these statuses on the App Admin page for an app, *wait 10 minutes* and then press F5 to reload the page. If the transient status persists, contact your Mobility Program administrator.

7. (*MiniApps only*) Change the status of the app to **Published**. For that procedure, see "Changing the status of an app in the Application Catalog."

If there are multiple versions of an app, a status change applies to all versions, except to versions with the status **Rejected** (which retain that status). You cannot change the status of specific versions independently. For example, if you suspend one version of an app, all versions are suspended. To make all versions available again, click **Change Status > Publish** on the App Admin page for one version of the app. To suspend access to a specific version of an app, but not to all versions, remove all associations between that app version and groups.

Note: It can take up to eight hours after submission of a metadata update before the updated app is available in the Application Catalog.

# Saving an in-progress app update

While submitting an app update, if you discover that you lack some information, you can save the app update and complete it later.

To save an in-progress full update, navigate away from the second app-submission page after specifying the location of the app file on the first app-submission page.

To save an in-progress metadata update, navigate away from the app-submission page.

# Viewing in-progress app updates

To view in-progress app updates (full updates and metadata updates):

1. Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2. Click **Applications** in the main menu, and then click **App Submissions**. In-progress app updates are listed together with in-progress app submissions in the column IN PROGRESS.

## Resuming an in-progress app update

To resume an in-progress app update:

1.  Log in to the Enterprise Portal as a developer, developer admin, or enterprise admin.

2.  Click **Applications** in the main menu, and then click **App Submissions**. In-progress app submissions and in-progress app updates are listed in the column IN PROGRESS.

3.  Click the application for which you want to resume the app update. The Enterprise Portal displays a page on which you specify all of the remaining information needed to submit the app update. Required information has an asterisk (*) to the right of the entry field. For an explanation of the information, see "Required information and files."

4.  Specify the information about the app, and then click **Submit**.

5.  The Enterprise Portal performs automated validation for the submitted app update. For enterprise apps, the validation includes a check for malware. Validation can take up to 10 minutes.

    *   If the app fails validation, it receives the status **Rejected**. Correct the problem, and then submit a new version as a full update or metadata update, as required.

    *   If the app passes validation, it receives the status **Pre-Published** (for MiniApps) or **Published** (for all other apps). For apps with the status **Pre-Published**, proceed to step 6. For apps with the status **Published**, the update process is complete.

    Note:   Following submission, you might see the transient app statuses **Queued for Review** and/or **Ready for Review**. You can ignore these statuses. If you see one of these statuses on the App Admin page for an app, *wait 10 minutes* and then press F5 to reload the page. If the transient status persists, contact your Mobility Program administrator.

6.  (*MiniApps only*) Install the app on HP Anywhere servers.

7.  (*MiniApps only*) Change the status of the app to **Published**. For that procedure, see "Changing the status of an app in the Application Catalog."

If there are multiple versions of an app, a status change applies to all versions, except to versions with the status **Rejected** (which retain that status). You cannot change the status of specific versions independently. For example, if you suspend one version of an app, all versions are suspended. To make all versions available again, click **Change Status > Publish** on the App Admin page for one version of the app. To suspend access to a specific version of an app, but not to all versions, remove all associations between that app version and groups.

Note:   It can take up to eight hours after submission of a full update or metadata update before the updated app is available in the Application Catalog.

## Scenarios for app updates

The following table lists the scenarios for application changes. Each scenario is described in the remaining sections in this chapter.

| Scenario: | Cause | Procedure |
| --- | --- | --- |
| **Support new OS for existing app** | Create a new version of an app to support an additional OS. | Use the Enterprise Portal to submit the app and publish it in the Application Catalog. |

| | | |
|---|---|---|
| **OS version changes; no change in app is required** | An OS update is available. The current app version works with the new OS version. | No Enterprise Portal actions are needed. OS update procedures should preserve existing apps. Users do not need to download apps again. |
| **OS version changes; an app update is required** | An OS update is available. The current app version does not work with the new OS version. | Use the Enterprise Portal to update the app in the Application Catalog (Full Update).<br><br>Notifying users that a new version of the app is available is handled by the OS and apps. Users need to download the updated app from the Application Catalog. |
| **Update the version of an app**<br><br>**(same OS and devices; current version of the app works fine)** | A new version of an app is available for the current OS and devices. The current app version works fine. | Use the Enterprise Portal to update the app in the Application Catalog (Full Update).<br><br>Notifying users that a new version of the app is available is handled by the OS and apps. Users need to download the updated app from the Application Catalog. |
| **Update the version of an app**<br><br>**(same OS and devices; current version of the app is bad)** | A new version of an app is available for the current OS and devices. The current app version has significant issues. | Remove all group associations for the current version of the app, and then update the app in the Application Catalog (Full Update).<br><br>Notifying users that a new version of the app is available is handled by the OS and apps. Users need to download the updated app from the Application Catalog. |
| **Change supported devices for an app** | A new version of an app is available with changes in the supported devices. | Several scenarios apply:<br><br>• Adding support for an additional device-type (or device-types) with a new version of the app<br><br>• Splitting device-type support<br><br>• Merging device-type support<br><br>• Removing device-type support |
| **Replace an app with a different app**<br><br>**(suspend the app to be replaced; for some or all OS and devices)** | A decision is made to use a different app with similar features, for example, to switch from an acquired app to one developed in house. | Use the Enterprise Portal to suspend the current app, and then to submit the replacement app and publish it in the Application Catalog.<br><br>Notifying users that a new version of the app is available is handled by the OS and apps.<br><br>Users need to download the replacement app from the Application Catalog. |

| **Roll an app back to a prior version** (suspend the latest version of the app; for some or all OS and devices) | The current app version has significant issues. A new version of the app is not available for the current OS and devices. | Use the Enterprise Portal to remove app group associations for the current version of the app. If a prior version of the app was available in the Application Catalog, and it has status Published, then that version becomes available. When a new version of the app becomes available, update the app in the Application Catalog (Full Update). Notifying users that a new version of the app is available is handled by the OS and apps. Users need to download the updated app from the Application Catalog. |
| **Remove an app** (suspend all versions of the app; for some or all OS and devices) | A decision is made to remove an app from the Application Catalog. | Use the Enterprise Portal to suspend the app. |
| **Change the users who can use an existing app** | A decision is made to expand or contract the set of enterprise users who can use an existing app. | If necessary, make changes in the directory-service groups and their membership. If directory-service groups change, also use the Enterprise Portal to change the group-app associations. |
| **Update an app, at the same time changing the intended users** | A decision is made to update an existing app, at the same time expanding or contracting the set of enterprise users who can use an the app. | Use the Enterprise Portal to update the app in the Application Catalog (Full Update). Notifying existing users who will remain users that a new version of the app is available is handled by the OS and apps. Users need to download the updated app from the Application Catalog. |

# Managing your enterprise

You can view and edit information about your enterprise. You can also view an audit history that lists the actions of Enterprise Portal users.

## Viewing and editing information about the enterprise

If details about your enterprise change, you can view and edit the information in the Enterprise Portal. For example, the company might move to a new address, or the contact in the Legal Department might change.

To view and edit information about your enterprise:

1. In the main menu, click **Enterprise**. Information about the enterprise is displayed.

2. Click **Edit**. Edit the information. Information is required for all fields.

3. Click **Update**.

Note: The Enterprise Portal does not send updated information to HP. If you believe that HP should be aware of the changes, contact the person who contacted your enterprise during enterprise registration.

## Viewing a history of user actions

The Enterprise Portal maintains a chronological record of the actions of Enterprise Portal users (an enterprise audit history). For each action, the date and time, and the email address of the user are recorded. Records in the history are there permanently.

Only enterprise admins can view the audit history in the Enterprise Portal.

To view the audit history:

1. In the main menu, click **Enterprise**.

2. Click **Reports**. The enterprise audit history appears. The most recent actions are displayed at the top. Click and drag to scroll to less recent actions.

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