



BlackBerry UEM

Managing BlackBerry Dynamics apps

Administration

12.11

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Managing BlackBerry Dynamics apps

If your organization uses BlackBerry Dynamics apps, you must configure connectivity settings and other options that apply only to BlackBerry Dynamics apps. You may have to configure additional app settings. For example, if your organization uses BlackBerry Work, you configure settings for the app to send email to devices rather than using the email profile.

For more information on the features and settings supported by individual BlackBerry Dynamics apps, see the documentation for the app.

For more information on configuring BlackBerry UEM to support BlackBerry Dynamics apps, including communication settings and Kerberos, see [Configuring BlackBerry UEM to support BlackBerry Dynamics apps](#).

To use BlackBerry Dynamics apps in your organization, perform the following actions:


Step	Action
1	Check BlackBerry Dynamics connectivity settings and change them if necessary.
2	Create a BlackBerry Dynamics profile or update the Default BlackBerry Dynamics profile.
3	Add BlackBerry Dynamics apps to BlackBerry UEM.
4	If required, change BlackBerry Dynamics apps settings.
5	Add the work app catalog to the BlackBerry Dynamics Launcher.
6	Assign the BlackBerry Dynamics profile and BlackBerry Dynamics connectivity profile to user accounts or user groups .
7	Assign BlackBerry Dynamics apps to user accounts or user groups .
8	For users who want to activate BlackBerry Dynamics apps on devices without the UEM Client, generate access keys for the apps.

Setting up network connections for BlackBerry Dynamics apps

BlackBerry Dynamics connectivity profiles define the network connections, Internet domains, IP address ranges, and app servers that BlackBerry Dynamics apps can connect to

BlackBerry UEM includes a Default BlackBerry Dynamics connectivity profile with preconfigured settings. If no BlackBerry Dynamics connectivity profile is assigned to a user account or to a user group that a user belongs to, BlackBerry UEM sends the Default BlackBerry Dynamics connectivity profile to a user's devices. BlackBerry UEM automatically sends a BlackBerry Dynamics connectivity profile to a device when a user activates it, when you update an assigned BlackBerry Dynamics connectivity profile, or when a different BlackBerry Dynamics connectivity profile is assigned to a user account or device.

Create a BlackBerry Dynamics connectivity profile

1. On the menu bar, click **Policies and Profiles**.
2. Click **Networks and connections > BlackBerry Dynamics connectivity**
3. Click **+**.
4. Type a name and description for the profile.
5. If you have previously exported BlackBerry Dynamics connectivity profile settings that you want to reuse to a .csv file, click  to import the settings.
6. Configure the appropriate values for the profile settings. For more information about each profile setting, see [BlackBerry Dynamics connectivity profile settings](#).
7. To add an app server for a BlackBerry Dynamics app, see [Add an app server to a BlackBerry Dynamics connectivity profile](#).
8. Click **Save**.

After you finish: If necessary, [rank profiles](#).

BlackBerry Dynamics connectivity profile settings

[BlackBerry Dynamics connectivity profiles](#) are supported on the following device types:

- iOS
- macOS
- Android
- Windows


BlackBerry Dynamics connectivity profile setting	Description
Infrastructure	

BlackBerry Dynamics connectivity profile setting	Description
Route all traffic	<p>Specify whether all BlackBerry Dynamics app data is routed through BlackBerry Proxy. For more information, see Routing BlackBerry Dynamics app data through BlackBerry Proxy. This option takes precedence over other settings in the profile. This option is supported only for apps developed with a version of the BlackBerry Dynamics SDK earlier than 6.0.</p> <p>If you select Route all traffic, you can specify a BlackBerry Proxy cluster to route through or select Deny to block all connections.</p>
Domain	<p>Specify the Internet domains that you want to allow or deny access to. For example, <code>blackberry.com</code> allows access to any server in the <code>blackberry.com</code> domain. BlackBerry Dynamics apps are allowed to connect through your organization's firewall to any server in the listed domains and their subdomains.</p> <p>For BlackBerry Dynamics apps running BlackBerry Dynamics SDK versions 6.0 or later, the Route All option has been replaced with a Default route option allowing for more detailed control over how BlackBerry Dynamics apps can connect to app servers. For more information, see Setting the default route for BlackBerry Dynamics app data.</p>
BlackBerry Proxy cluster	<p>Select this option to specify the BlackBerry Proxy clusters that must be used to reach the domain. For more information, see Routing BlackBerry Dynamics app data through BlackBerry Proxy.</p>
Direct	<p>Select this option to route traffic directly from the app to the domain without going through BlackBerry Proxy. This option is supported only for apps developed with BlackBerry Dynamics SDK version 6.0 and later.</p>
Deny	<p>Select this option to block the app from connecting to the domain. This option is supported for apps developed with BlackBerry Dynamics SDK version 6.0 and later.</p>
Primary and Secondary BlackBerry Proxy Clusters	<p>Specify the fully qualified domain name, port and priority of the BlackBerry Proxy clusters that must be used to reach the domain.</p>
Default domains	
Domain	<p>Specify the default allowed domains (for example, <code>qa.blackberry.com</code>). BlackBerry Dynamics apps may try to connect to an unqualified hostname like "portal" instead of using a fully qualified name like "portal.sales.xyzcorp.com". The domains in this list will be appended to unqualified hostnames to construct fully qualified names.</p>
Additional servers	
Server	<p>Specify the fully qualified domain name of any additional servers that BlackBerry Dynamics apps can connect to. Add servers to this list instead of using the "Allowed Domains" list if you want BlackBerry Dynamics apps to connect only to certain servers and not to every server in a domain.</p>

BlackBerry Dynamics connectivity profile setting	Description
IP address ranges	
Range	<p>Specify a range of IP addresses that BlackBerry Dynamics apps can access. Address ranges must be entered with a lower and upper bound address (for example, 192.168.2.0-192.168.2.255) or in IPv4 CIDR notation (for example, 192.168.2.0/24). For example:</p> <ul style="list-style-type: none"> Discrete addresses: Example: 192.168.2.0-192.168.2.255 An entire subnet: Example: 192.168.2.0/24
App servers	<p>If you have a BlackBerry Dynamics app that is served from an app server or web server, you can specify the name of the server and the priority of the BlackBerry Proxy clusters used for communication with it.</p> <p>For more information, see Add an app server to a BlackBerry Dynamics connectivity profile.</p>

Export BlackBerry Dynamics connectivity profile settings

You can export BlackBerry Dynamics connectivity profile settings to a .csv file if you need to create additional profiles with similar settings.

1. On the menu bar, click **Policies and Profiles**.
2. Click **Networks and connections > BlackBerry Dynamics connectivity**
3. Click the name of the profile that you want to export.
4. Click .
5. Click **Cancel** to close the profile without saving changes.

Setting the default route for BlackBerry Dynamics app data

For BlackBerry Dynamics apps running BlackBerry Dynamics SDK versions 6.0 and later, the Route All option has been replaced with a Default route option in the BlackBerry Dynamics Connectivity profile, allowing for more detailed control over how BlackBerry Dynamics apps connect to app servers. BlackBerry Dynamics apps running BlackBerry Dynamics SDK versions 6.0 or later use the routing configuration that applies to the app in the following order of precedence:

1. If an app server is specified for the app in the connectivity profile, the app uses the routing option specified for the app server.
2. If the app can connect to a server listed in the Additional servers table, the app uses the routing option specified for that server.
3. If the app can connect to any IP addresses listed in the IP address ranges table, the app uses the routing option specified for that server.

4. If the app can connect to an allowed domain specified in the Allowed domains table, the app uses the option specified for the allowed domain.
5. If the app server address does not have any domain information specified, the connection is made using information specified in the default domain
6. If the above rules do not apply, the default rule is used.

Note: For apps running BlackBerry Dynamics SDK versions earlier than 6.0, the following rules apply:

- If a server or additional server is set to use Direct route and Route All is also enabled, then Route All setting is used.
- If a connection to a sub-domain is set to use the Direct route and Route All is also enabled, then Route All setting is used.

Routing BlackBerry Dynamics app data through BlackBerry Proxy

In the BlackBerry Dynamics connectivity profile, you can specify the servers that your users' BlackBerry Dynamics apps are allowed to access through the firewall using BlackBerry Proxy.

Routing traffic through BlackBerry Proxy has the following benefits:

- Web browsers and BlackBerry Dynamics apps on devices can connect to any server behind the firewall that is reachable by BlackBerry Proxy.
- You can easily monitor data traffic between BlackBerry Dynamics apps and your resources.

For apps developed with the BlackBerry Dynamics SDK version 6.0 and later, you can specify the BlackBerry Proxy clusters that data must route through.

For apps developed with a version of the BlackBerry Dynamics SDK, earlier than 6.0, you select the Route all traffic option, to route all BlackBerry Dynamics app data, regardless of domain or subnet, through BlackBerry Proxy.

You should be aware of the following considerations when you route data through BlackBerry Proxy:

- Establishing connections to servers on the Internet can take longer.
- If you are using a web proxy to allow access to external sites and have settings configured in your proxy to restrict certain sites, when you select the Route all traffic option, you also need to set the proxy properties in BlackBerry Proxy. Otherwise, apps will not be able to access external sites. For more information on configuring BlackBerry Proxy settings, [see the Configuration content](#).
- BlackBerry Access can be configured with a PAC file that determines allowable sites. In this case, the PAC file determines the proxy settings. For more information, [see the BlackBerry Access Administration Guide](#).

Considerations for creating or editing a BlackBerry Dynamics Connectivity profile after upgrading to BlackBerry UEM 12.11

In the BlackBerry Dynamics connectivity profile, you can specify the servers that your users' BlackBerry Dynamics apps are allowed to access through the firewall using BlackBerry Proxy.

- When you create a new profile, the Default route for BlackBerry Dynamics app data is set to Direct.
- If you did not select the Route All traffic option before the upgrade, the Default route is set to Direct.
- If you did select the Route All traffic option before the upgrade and you chose the BlackBerry Proxy cluster option, the Default route is set to the BlackBerry Proxy that you have configured.

- If you selected the Route All traffic option before the upgrade and you did not choose the BlackBerry Proxy cluster option, the Default route is set to Direct.
- If an entry in the Allowed domains, Default domains, Additional servers, or IP address ranges tables had no proxy cluster before the upgrade, the Default route is set to Direct.
- If an entry had a proxy cluster before the upgrade, it maintains the proxy cluster and the Default route is set to the BlackBerry Proxy that you have configured.



Edit an existing BlackBerry Dynamics Connectivity profile after upgrading to BlackBerry UEM 12.11

After you upgrade to BlackBerry UEM12.11, you should update your organization's BlackBerry Dynamics Connectivity profile to ensure that you benefit from the new configuration options available. Note that a warning icon will display beside any profiles that you are required to edit.

1. Navigate to **Policies and profiles > Networks and Connections > BlackBerry Dynamics connectivity** and click on the name of your organization's profile.
2. Click the name of the domain that you have set in the **Allowed domains** table.
3. Select one of the following options:
 - **BlackBerry Proxy cluster:** When selected, BlackBerry Dynamics app data is routed through BlackBerry Proxy.
 - **Direct:** When selected, BlackBerry Dynamics apps connect directly to the app server and do not go through the BlackBerry Dynamics NOC or BlackBerry Proxy for unspecified domains.
 - **Deny:** When selected, BlackBerry Dynamics apps cannot connect to any unspecified domains.
4. Click **Save**.
5. Repeat steps 2-4 for any domains, servers or IP address ranges that you have set in the **Default domains, Additional servers** and **IP address ranges** tables.
6. Click **Save**.

Add an app server to a BlackBerry Dynamics connectivity profile

If you have a BlackBerry Dynamics app that is served from an app server or web server, you can specify the name of that server and the priority of the BlackBerry Proxy clusters used for communication with it.

1. On the menu bar, click **Policies and Profiles**.
2. Click **Networks and connections > BlackBerry Dynamics connectivity**.
3. Click the BlackBerry Dynamics connectivity profile that you want to add an app server to.
4. Click .
5. Under **App servers**, click **Add**.
6. Select the BlackBerry Dynamics app that you want to add an app server for.
7. Click **Save**.
8. In the table for the app, click .
9. In the **Server** field, specify the FQDN of the app server.
10. In the **Port** field, specify the port of the BlackBerry Proxy cluster that is used to access the server.

11. In the **Priority** drop-down list, specify the priority of the BlackBerry Proxy cluster that must be used to reach the domain.
12. In the **Primary BlackBerry Proxy cluster** drop-down list, specify the name of the BlackBerry Proxy cluster that you want to set as the primary cluster.
13. In the **Secondary BlackBerry Proxy cluster** drop-down list, specify the name of the BlackBerry Proxy cluster that you want to set as the secondary cluster.
14. Click **Save**.

Controlling BlackBerry Dynamics on users devices

The BlackBerry Dynamics profile enables BlackBerry Dynamics for users and sets standards for BlackBerry Dynamics app access, data protection, and logging.

BlackBerry UEM includes a Default BlackBerry Dynamics profile with preconfigured settings. If no BlackBerry Dynamics profile is assigned to a user account, a user group that a user belongs to, or a device group that a user's devices belong to, BlackBerry UEM sends the Default BlackBerry Dynamics profile to a user's devices. BlackBerry UEM automatically sends a BlackBerry Dynamics profile to a device when a user activates it, when you update an assigned BlackBerry Dynamics profile, or when a different BlackBerry Dynamics profile is assigned to a user account or device.

You can assign the BlackBerry Dynamics profile to user accounts, user groups, or device groups.

Create a BlackBerry Dynamics profile

1. On the menu bar, click **Policies and Profiles**.
2. Click **Policy > BlackBerry Dynamics**
3. Click **+**.
4. Type a name and description for the profile.
5. Configure the appropriate values for the profile settings. For more information about each profile setting, see [BlackBerry Dynamics profile settings](#).
6. Click **Add**.

After you finish: If necessary, [rank profiles](#).

BlackBerry Dynamics profile settings

[BlackBerry Dynamics profiles](#) are supported on the following device types:

- iOS
- macOS
- Android
- Windows

BlackBerry Dynamics profile setting	Description
Configuration	
Require device management to use BlackBerry Dynamics apps	This setting specifies whether a device must be activated with MDM to use BlackBerry Dynamics apps.

BlackBerry Dynamics profile setting	Description
Enable UEM Client to enroll in BlackBerry Dynamics	If a device is using the BlackBerry UEM Client, this setting specifies whether the BlackBerry Dynamics manages the activation of BlackBerry Dynamics apps and whether BlackBerry Dynamics apps can be used on the device. If this option is not selected, BlackBerry Dynamics apps could be removed from the device because the device will not be enabled for BlackBerry Dynamics. If you do not plan to use BlackBerry Dynamics in your environment, do not select this setting.
Password	
Password expiration	This setting specifies whether the password for a BlackBerry Dynamics app expires and the number of days a password remains valid before it expires.
Do not allow previous passwords	This setting specifies whether previous passwords can be used and the maximum number of previous passwords that cannot be used for a BlackBerry Dynamics app.
Minimum password length	This setting specifies the minimum length of the password for a BlackBerry Dynamics app.
Allowed occurrences of a character	This setting specifies how many times a character can appear in a password for a BlackBerry Dynamics app.
Require both letters and numbers	This setting specifies whether the password must contain both letters and numbers for a BlackBerry Dynamics app.
Require both uppercase and lowercase	This setting specifies whether the password must contain both uppercase and lowercase letters for a BlackBerry Dynamics app.
Require at least one special character	This setting specifies whether the password must contain at least one special character for a BlackBerry Dynamics app.
Do not allow sequences of more than two numbers	This setting specifies whether the password can contain more than two sequential numbers (for example, 1, 2, 3) for a BlackBerry Dynamics app.
Do not allow more than one password change per day	This setting specifies whether a password can be changed more than once every 24 hours for a BlackBerry Dynamics app.
Do not allow personal information	This setting specifies whether the following personal information can be used in a password for a BlackBerry Dynamics app: <ul style="list-style-type: none"> • The user's first and last names (excluding initials) as recorded in Active Directory • The part of an email address before the @ sign.

BlackBerry Dynamics profile setting	Description
Allow Biometrics	<p>This setting specifies whether BlackBerry Dynamics apps can be unlocked using biometric input when they are already open in the app switcher on iOS devices. You can allow the following options:</p> <ul style="list-style-type: none"> • None • Allow Touch ID • Allow Face ID • Allow Touch ID and Face ID
Enable Touch ID and Face ID from cold start	<p>This setting specifies whether BlackBerry Dynamics apps can be unlocked using the selected biometric input methods when they are opened for the first time after a device restarts.</p>
Require password to be re-entered and disable Touch ID and Face ID	<p>This setting specifies a period of time after which users must enter a password to unlock a BlackBerry Dynamics app and re-enable Touch ID, Face ID, or both.</p>
Allow Android fingerprint authentication	<p>This setting specifies whether BlackBerry Dynamics apps can be unlocked using Android fingerprint authentication.</p>
Do not require password	<p>These settings specify whether a user can access a BlackBerry Dynamics app without entering a password. The choices are:</p> <ul style="list-style-type: none"> • iOS • macOS • Android • Windows
Blocked password list	
Blocked password file (.txt)	<p>This setting specifies a list of banned passwords. You can download the previously uploaded list of banned passwords. Passwords in the list must meet the following requirements: each password must be separated by a hard return, only UTF-8 characters are supported, and passwords must be 14 characters or less.</p>
Lock screen	
Require password when BlackBerry Dynamics apps start	<p>This setting specifies whether a password is required each time a BlackBerry Dynamics app is started.</p> <p>Note: If you are using authentication delegation, do not select this option.</p>
Require password after period of inactivity	<p>This setting specifies the period of inactivity that must elapse before a password is required.</p>

BlackBerry Dynamics profile setting	Description
Take action after invalid password attempts	<p>This setting specifies whether there is a limit to the number of times that a user can enter an incorrect password. If you select this rule, specify the number of times that a user can enter an incorrect password and the action that occurs after the limit has been reached. Choose one of the following actions:</p> <ul style="list-style-type: none"> • Lock out user • Wipe Data
Wearables	
Allow wearables	<p>This setting specifies whether BlackBerry Dynamics apps can be used on a wearable device. If you select this rule, specify the how much time must elapse before the wearable device is disconnected and whether the wearable can reconnect automatically.</p>
App authentication delegation	

**BlackBerry
Dynamics profile setting**

Description

You can designate a BlackBerry Dynamics app to act as the authentication delegate on behalf of other BlackBerry Dynamics apps so that users do not have to create a password for each BlackBerry Dynamics app that they install. After an authentication delegate is configured, each time a user opens a BlackBerry Dynamics app, the device displays the password screen for the authentication delegate instead of the app that they are attempting to open. After the user enters the password for the authentication delegate, the user can open the BlackBerry Dynamics app.

You can choose any app to be the authentication delegate for other apps, but it is recommended that you choose your most commonly used app to be the primary authentication delegate to provide the most seamless experience for the user.

As a best practice, it is recommended that you set only one authentication delegate. This prevents unnecessarily complex and undesirable authentication delegate switching and simplifies administrative management. If a user accidentally deletes the authentication delegate, they must reinstall it. If more than one authentication delegate is required, for example, the primary authentication delegate does not exist for a given platform and an alternate delegate is configured, refer to the following recommendations to make sure that BlackBerry Dynamics apps are successfully installed and activated:


- Users should always install the primary authentication delegate first and they should not activate it using an already installed, alternate authentication delegate app.
- If the user already has an alternate authentication delegate installed and in use, and then later installs the primary authentication delegate, they need to make sure that the existing, installed authentication delegate is in an unlocked state to successfully complete the authentication. If the alternate authentication delegate has been force closed, the user will encounter various errors and may be blocked.
- Users must not delete the currently installed authentication delegate after they install their primary authentication delegate. Apps that are currently using that authentication delegate will need to automatically switch to the new authentication delegate when the app is next launched in online mode.
- If the primary authentication delegate is deleted, users should reactivate the authentication delegate using an access key. If they attempt to activate the authentication delegate with any other app, it may cause various errors.
- Even if the **Allow self-authentication when no authentication delegate application is detected** option is selected, or if an app that is designated as a secondary or tertiary authentication delegate is installed, there is no fallback mechanism to allow apps to change the authentication delegate without the original authentication delegate being installed and unlocked.
- Select the **Allow self-authentication when no authentication delegate application is detect** option if you want to allow the user to authenticate the app when an authentication delegate is not installed on a device.

Data leakage prevention

BlackBerry Dynamics profile setting	Description
Do not allow copying data from non BlackBerry Dynamics apps into BlackBerry Dynamics apps	This setting specifies whether users can copy data from non BlackBerry Dynamics apps to BlackBerry Dynamics apps. Note: If you are using an app-based PKI solution such as Purebred, do not select this option.
Do not allow Android dictation	This setting specifies whether Android device users can use voice dictation with BlackBerry Dynamics apps.
Do not allow screen captures on Android devices	This setting specifies whether Android device users can take screen captures in BlackBerry Dynamics apps.
Do not allow screen recording and sharing on iOS devices	This setting specifies whether iOS device users can share and record screens in BlackBerry Dynamics apps. This setting applies to devices running iOS 11 and later.
Do not allow iOS dictation	This setting specifies whether iOS device users can use voice dictation with BlackBerry Dynamics apps.
Do not allow custom keyboards on iOS devices	This setting specifies whether iOS device users can use custom keyboards with BlackBerry Dynamics apps.
Enable Android keyboard restricted mode	This setting specifies whether Android device users can use custom keyboards with BlackBerry Dynamics apps.
Enable FIPS	This setting specifies whether compliance with U.S. Federal Information Processing standard 140-2 is enforced. Federal Information Processing Standards (FIPS) are U.S. government regulations regarding computing and computing security. When you enable FIPS compliance, the major effect is on associated applications. Enabling FIPS compliance enforces the following constraints in conformance with FIPS: <ul style="list-style-type: none"> • MD4 and MD5 are prohibited by FIPS, which means that access to NTLM- or NTLM2-protected web pages and files is blocked. • Wrapped applications are blocked. • In secure socket key exchanges with ephemeral keys, with servers that are not configured to use Diffie-Hellman keys of sufficient length, BlackBerry Dynamics retries with static RSA cipher suites.
Certificates	
Enable device certificate store	This setting specifies whether BlackBerry Dynamics apps can get certificates from the device certificate store.
Detailed logging	

BlackBerry Dynamics profile setting	Description
Enable detailed logging for BlackBerry Dynamics apps	This setting specifies whether log files can be generated and uploaded from BlackBerry Dynamics apps.
Prevent users from turning on detailed logging in BlackBerry Dynamics apps	This setting specifies whether users can turn on the ability to generate and share detailed log files from BlackBerry Dynamics apps.
Agreement	
Enable an agreement message for BlackBerry Dynamics apps	<p>This setting specifies whether to display a message in BlackBerry Dynamics apps that the user must acknowledge. If authentication delegation is enabled, the message is displayed only in the authenticator app. If you select this rule, complete the following actions:</p> <ul style="list-style-type: none"> • Specify if the message is displayed each time the app is unlocked, otherwise the message is only displayed the first time the user opens the app. • In the Message field, create the message that you want to display. <p>Note: On Android devices, only the first 4000 characters are displayed.</p>

Adding BlackBerry Dynamics apps to the app list

You add BlackBerry Dynamics apps to the app list in the same way as [adding any app to the app list](#); however, you have additional configuration steps to use BlackBerry Dynamics apps. Apps listed in the app list with a lock icon  are BlackBerry Dynamics apps.

Add public BlackBerry Dynamics apps to the app list

To add public BlackBerry Dynamics apps to the app list in BlackBerry UEM, your organization must be entitled to use apps in the BlackBerry Marketplace for Enterprise Software. The BlackBerry Marketplace for Enterprise Software contains a catalog of BlackBerry Dynamics apps. After your organization is entitled to use the app, you can [update the app list](#) to synchronize the apps with BlackBerry UEM right away or wait until BlackBerry UEM synchronizes automatically. BlackBerry UEM synchronizes BlackBerry Dynamics apps every 24 hours.

For general information on adding public apps, see [Add public apps to the app list](#).

Note: Users should activate the dynamics applications on the same BlackBerry UEM environment that the applications are assigned from. Activating BlackBerry Dynamics apps with access keys from an external BlackBerry Dynamics environment is not supported.

1. Log in to your account at <https://marketplace.blackberry.com/apps>.
2. Locate the app in the BlackBerry Marketplace for Enterprise Software and request a trial. The app will be made available to your organization and can be assigned to users after the app has been synchronized to BlackBerry UEM.
3. To purchase the app, follow the instructions provided by the app developer.

View public BlackBerry Dynamics app entitlements

1. Log in to <https://account.blackberry.com/pce/#/a/organization//servers>.
2. Expand **Entitlements**.


Add an internal BlackBerry Dynamics app entitlement

To add an internal BlackBerry Dynamics app, you must add an entitlement for it. After the entitlement has been added, you can upload the app source files.

For general information on adding internal apps, see [Add internal apps to the app list](#).

Before you begin:

- [Specify the shared network location for storing internal apps](#).
- You must have an Application Edition or Content Edition license to be able to add an internal BlackBerry Dynamics app entitlement

1. On the menu bar, click **Apps**.
2. Click .
3. Click **Internal BlackBerry Dynamics app entitlements**.
4. In the Name field, type the name of the app that you want to add.
5. In the **BlackBerry Dynamics entitlement ID** field, enter the entitlement ID of the app that you want to add. If you do not know the entitlement ID for the app, contact the app developer. For more information on entitlement IDs, [see the BlackBerry Dynamics SDK documentation](#). The entitlement ID must be in the following format:

- Reverse domain name form, for example, `com.yourcompany.appname`.
 - Cannot begin with any of the following
 - `com.blackberry`
 - `com.good`
 - `com.rim`
 - `net.rim`
 - Cannot contain uppercase letters
 - Must conform to the <subdomain> format defined in section 2.3.1 of RFC 1035, as amended by Section 2.1 of RFC 1123.
6. In the **BlackBerry Dynamics entitlement version** field, enter the entitlement version. If you do not know the entitlement version for the app, contact the app developer. The entitlement version must be in the following format:
- From one to four segments of digits, separated by periods, for example, 100 or 1.2.3.4.
 - No leading zeroes in the numeric segments. For example, you cannot use 0100 or 01.02.03.04.
 - The length of the numeric segments can be from one to three characters, for example, 100.200.300.400.
7. Optionally, add an app description.
8. Click **Add**.

After you finish:

- [Upload BlackBerry Dynamics app source files](#)
- For apps that will be installed on Android Enterprise devices, complete one of the following tasks:
 - [Host an internal app for devices with an Android work profile in Google Play using the .apk file](#)
 - [Host an internal app for Android devices with a work profile in BlackBerry UEM using a .json file](#)

Adding public BlackBerry Dynamics apps as internal apps

You can upload the source files for BlackBerry Dynamics apps from the public Google Play so that users can install the apps without accessing Google Play. When you add Google Play apps as internal apps, the Send to and Restricted versions options are not supported.

For Android Enterprise activation types, when Google Play is not accessible and the "Add Google Play account to work space" option is not selected in the activation profile that is assigned to the user, only the app source files are sent to the device.

For Android Enterprise activation types, when Google Play is accessible and the "Add Google Play account to work space" option is selected in the activation profile that is assigned to the user, only the published app in Google Play is sent to the device. This also applies to Samsung KNOX activation types with "Google Play app management for Samsung KNOX Workspace devices" selected in activation profile.

Upload BlackBerry Dynamics app source files

After a BlackBerry Dynamics app entitlement has been created, you can upload the source files for the applicable device platforms.

Note: Users should activate the dynamics applications on the same BlackBerry UEM environment that the applications are assigned from. Activating BlackBerry Dynamics apps with access keys from an external BlackBerry Dynamics environment is not supported.

Before you begin:

- [Add an internal BlackBerry Dynamics app entitlement](#)

1. On the menu bar, click **Apps**.

2. Click the app that you want to upload source files for.
3. Click the tab for the device platform that you want to upload a source file for.
4. In the **App source file** section, click **Add**.
5. Click **Browse**. Navigate to the app that you want to add or update.
6. Click **Add**.
7. If necessary, update the app settings. For more information, see [Manage settings for a BlackBerry Dynamics app](#).

Manage settings for a BlackBerry Dynamics app

You can manage app configurations, server configurations, and app settings.

1. On the menu bar, click **Apps**.
2. Click the BlackBerry Dynamics app that you want to change.
3. On the **Settings > BlackBerry Dynamics** tab, perform any of the following tasks:

Task	Steps
Specify a BlackBerry Dynamics profile for the app	If you want the app to use a specific BlackBerry Dynamics profile instead of the BlackBerry Dynamics profile that is assigned to the user, select the profile from the Override BlackBerry Dynamics profile drop-down list.
Specify a compliance profile for the app	If you want the app to use a specific compliance profile rather than the compliance profile that is assigned to the user, select the profile from the Override compliance profile profile drop-down list.
Add or change the app configuration for an internal app	<ol style="list-style-type: none"> a. Beside App configuration, click Upload a template to add a new app configuration template. b. Browse to the location of the template. c. Click Save. <p>For more information on creating the template, see the BlackBerry Dynamics SDK Development Guide</p>
Add or change the app configuration for a public app	<ol style="list-style-type: none"> a. In the App configuration table, click +. b. Type a name for the app configuration. c. Edit the configuration settings. d. Click Save. e. If required, use the arrows to move the app configuration up or down to change the priority. <p>For more information see BlackBerry UEM Client app configuration settings .</p> <p>For more information about BlackBerry Work, BlackBerry Notes and BlackBerry Tasks app configuration settings, see Configure BlackBerry Work app settings and Configure BlackBerry Notes and BlackBerry Tasks app settings in the BlackBerry Work, Notes, and Tasks Administration content.</p>
Add or change the server configuration payload to specify the keys and values used to configure settings for the app	<p>If the app has custom app policies, the custom policies are added to the Server configuration payload area.</p> <ol style="list-style-type: none"> a. In the Server configuration payload section, click Add. b. In the text box, enter the XML or JSON code for the configuration payload.
Allow BlackBerry Dynamics apps to use user certificates, SCEP profiles, and user credential profiles	<p>Select whether the app can use user certificates as an authentication option. For more information about configuring your environment to using certificates with BlackBerry Dynamics apps, see Sending certificates to devices and apps using profiles.</p>

4. Click the tab for the device platform that you want to manage and set the appropriate options.
5. Click **Save**.

iOS and macOS: BlackBerry Dynamics app settings

Most of the following settings are supported only for iOS devices and don't appear on the macOS tab.

iOS and macOS settings	Description
iOS or macOS app package ID	This setting specifies the package ID for the app.
App name	This setting specifies the name of the app that appears on the app list.
Vendor	This setting specifies the vendor of the app.
App description	This setting specifies the app description.
Category	This setting specifies a category to filter apps in the app list by category and to organize the apps into categories in the work apps list on users' devices. You can select a category or type a name to create a new category.
Screenshots	This setting specifies screenshots for the app. Click "Add" to select the images. The supported image types are .jpg, .jpeg, .png, or .gif.
Supported device form factor	This setting specifies the form factors that the app can be installed on. For example, you can prevent the app from being available in the Work Apps app on iPad devices.
Remove the app from the device when the device is removed from BlackBerry UEM	<p>This setting specifies whether the app is deleted from the device when the device is removed from BlackBerry UEM.</p> <p>This setting applies only to apps with a disposition marked as "Required" and the default installation for required apps is set to "Prompt once."</p>
Disable iCloud backup for the app	<p>This setting specifies whether the app can be backed up to the iCloud online service.</p> <p>This option applies only to apps with a disposition marked as "Required."</p>
Default installation for required apps	<p>This setting specifies whether users are prompted to install required apps. Select one of the following options:</p> <ul style="list-style-type: none"> • Prompt once: users to receive one prompt to install the app on their iOS devices. If users dismiss the prompt, they can install the app later using the Work Apps screen in the BlackBerry UEM Client app or the Work Apps icon on the device. • No prompt: Users don't receive a prompt to install the app. <p>This setting applies only to apps with the disposition set to "Required." You set the disposition of the app when you assign the app to a user or group.</p>

iOS and macOS settings	Description
Convert installed personal app to work app	This setting specifies whether to convert the app to a work app if it is already installed on iOS devices. If you select "Convert," after you assign the app to a user, the app is converted to a work app and can be managed by BlackBerry UEM.
Restricted versions	This setting specifies versions of the app that you want to prevent users from installing on their devices. If you add multiple versions, separate each version with a comma.

Android: BlackBerry Dynamics app settings

Android settings	Description
Android app package ID	This setting specifies the package ID for the app.
App name	This setting specifies the name of the app that appears on the app list.
Vendor	This setting specifies the vendor of the app.
App description	This setting specifies the app description.
Category	This setting specifies a category to filter apps in the app list by category and to organize the apps into categories in the work apps list on users' devices. You can select a category or type a name to create a new category.
Send to	This setting specifies whether the app is sent to all Android devices, only Android Enterprise devices, or only Samsung KNOX Workspace devices.
Restricted versions	This setting specifies versions of the app that you want to prevent users from installing on their devices. If you add multiple versions, separate each version with a comma.

Windows: BlackBerry Dynamics app settings

Windows settings	Description
Windows 10 (UWP) package family name	This setting specifies the package family name for a Windows 10 app.
App name	This setting specifies the name of the app that appears on the app list.
Vendor	This setting specifies the vendor of the app.
App description	This setting specifies the app description.

Windows settings	Description
Category	This setting specifies a category to filter apps in the app list by category and to organize the apps into categories in the work apps list on users' devices. You can select a category or type a name to create a new category.
Screenshots	This setting specifies screenshots for the app. Click "Add" to select the images. The supported image types are .jpg, .jpeg, .png, or .gif.
Remove the app from the device when the device is removed from BlackBerry UEM	<p>This setting specifies whether the app is deleted from the device when the device is removed from BlackBerry UEM.</p> <p>This setting applies only to apps with a disposition marked as "Required" and the default installation for required apps is set to "Prompt once."</p>
Restricted versions	This setting specifies versions of the app that you want to prevent users from installing on their devices. If you add multiple versions, separate each version with a comma.

BlackBerry UEM Client app configuration settings

Option	Description
Allow use of Bypass Unlock in the UEM Client	If you select this option, the UEM Client will bypass the BlackBerry Dynamics user authentication/lock screen and the user can open the UEM Client without needing to unlock the UEM Client app. If you have BlackBerry 2FA configured, the BlackBerry 2FA accept/decline screen will display and the user must click Accept. Then user is then logged in to the app or service through BlackBerry 2FA.
App name	Type a name for the app. You select this option when you want to use your organization's app-based PKI solution, such as Purebred, to enroll certificates for BlackBerry Dynamics apps. You can install the app on devices and allow BlackBerry Dynamics apps to use certificates enrolled through the PKI app. This option is supported only for iOS devices
UTI schemes	Specify the UTI schemes for your organization's app-based PKI solution. For example, if you are using the Purebred app, use the following schemes: purebred.zip.all, purebred.zip.no_filter.

Add the work app catalog to the BlackBerry Dynamics Launcher

For devices that are enabled for BlackBerry Dynamics, you can add the work app catalog to the BlackBerry Dynamics Launcher so that users have quick access to a list of their assigned work apps.

1. On the menu bar, click **Groups**.
2. Select the **All users** group.
3. In the **Assigned apps** section, click **+**.
4. In the search field, search for **Feature – BlackBerry App Store**.
5. Select **Feature – BlackBerry App Store**.
6. In the **Disposition** drop-down list for the app, select **Required**.
7. Click **Assign**.

Generate access keys for BlackBerry Dynamics apps

BlackBerry Dynamics apps require an access key to be activated on a device. BlackBerry UEM Client can request access keys automatically from BlackBerry UEM after users install an app. You or a user must manually generate access keys and send them to activate BlackBerry Dynamics apps in the following situations:

- For Samsung KNOX Workspace devices
- For iOS and Android devices that don't need MDM and do not have the UEM Client installed
- For users who want to activate BlackBerry Dynamics apps on devices that don't require the BlackBerry UEM Client.

You can generate access keys when you create a new user, or anytime afterwards. Users do not need to activate their devices in BlackBerry UEM to receive access keys. Users do not require an email address for you to generate an access key. Users can also generate access keys in BlackBerry UEM Self-Service.

1. On the menu bar, click **Users > Managed devices**.
2. Search for a user account.
3. In the search results, click the name of the user account.
4. Click **Set activation password**.
5. In the **Activation option** drop-down list, select **BlackBerry Dynamics access key generation**.
6. In the **Number of access keys to generate** drop-down list, select the number of access keys that you want to create for the user.
7. Select the number of days that you want the access keys to remain valid.
8. In the **Email template** drop-down list, select the email template that you want to use. If the user does not have an email address, select **None**. For more information, see [Email templates](#).
9. Click **Submit**.



If the user does not have an email address, to find the access key, click the link that displays the number of generated keys in the **Activation details** section, under **BlackBerry Dynamics access keys**.

Manage BlackBerry Dynamics access keys

After you generate BlackBerry Dynamics access keys, the number of keys that you generated is listed in the Activation details section on the user summary screen.

Before you begin: [Generate access keys for BlackBerry Dynamics apps](#).

1. On the menu bar, click **Users > Managed devices**.
2. Search for a user account.
3. In the search results, click the name of the user account.
4. In the **Activation details** section, under **BlackBerry Dynamics access keys**, click the link that displays the number of generated keys. If you do not see this section, no access keys have been generated for the user.
5. In the **BlackBerry Dynamics access keys** dialog box, select one of the following options:

Option	Description
	Resend the access key to the user.
	Delete the access key.

6. Click **Save**.

Send a BlackBerry Dynamics app unlock key to a user




You can send app unlock keys to a user if one of their BlackBerry Dynamics apps has become locked.

Note: You can [edit the template for the email message that is sent to the user](#) .

1. On the menu bar, click **Users**.
2. Search for a user account.
3. In the search results, click the name of the user account.
4. Click the user's device.
5. In the BlackBerry Dynamics section in the **App actions** row, select "Unlock app" for the app that you want to send an email to the user for.
6. In the **Unlock app** page, in the **Email template** field, select BlackBerry Dynamics unlock key email.
7. Click **Send**.



Rank app installation

You can rank apps to control the order that the apps are installed when you assign them to devices. Setting the rank ensures that any authentication delegate apps are pushed to the device first. The ranking applies only to iOS and Android apps that are hosted in BlackBerry UEM.

1. On the menu bar click, **Apps > App installation ranking**.
2. Click .
3. Click .
4. Click the checkbox beside the apps that you want to rank.
5. Click **Add**.
6. On the App installation ranking page, click  in the **Rank** column to place the apps in the order that you want them to be installed on the devices.
7. Click **Save**.


Edit the app installation ranking list

You can edit the installation sequence for the apps that will be installed on your organization's devices. The ranking applies only to iOS apps.

1. On the menu bar click, **Apps > App installation ranking**.
2. Click .
3. Click  in the **Rank** column to place the apps in the order that you want them to be installed on the devices.
4. Click **Save**.

Remove an app from the app installation ranking list

You can remove an app from the app installation ranking list. The ranking applies only to iOS apps.

1. On the menu bar click, **Apps > App installation ranking**.
2. Click .
3. In the list, click  beside the app that you want to remove.
4. Click **Remove**.
5. Click **Save**.

Manage BlackBerry Dynamics app services

App services are shared functions that are offered by a mobile or server-based app. Using the BlackBerry Dynamics SDKs, an app developer can expose a function of an app that other developers can use in their own BlackBerry Dynamics apps. Using the management console, you can register app services for your organization and supply the service definition from the developer. Your organization's developers can review the registered app services and can leverage the available service definitions in the BlackBerry Dynamics apps that they create.

App services for select BlackBerry Dynamics apps and partner apps are also available for use, and you can view the associated service definitions in the management console. For more information about app service development, visit the [BlackBerry Dynamics Developer Community](#).

Before you begin: If you want to register an app service for your organization, verify that you have the app service ID, version number, and service definition.

1. In the management console, on the menu bar, click **Settings > BlackBerry Dynamics**.
2. Click **App services**.
3. Perform any of the following tasks:

Task	Steps
Register an app service for your organization	<ol style="list-style-type: none">a. Click +.b. In the Service type drop-down list, perform one of the following actions:<ul style="list-style-type: none">• If the app service is offered by a mobile app, click Application.• If the app service is offered by a server-based app, click Server.c. In the ID field, type the app service ID. The ID must be a unique string (all lowercase) in reverse DNS notation (for example, com.example.service.print).d. Type a name and description for the app service.e. In the Version field, type the version. The version number must include digits only. If you want to add one or more sub-version numbers (for example, the build version), use periods to separate the segments. Each segment cannot begin with 0 (for example, 1.1.5 is valid, 1.1.05 is not).f. Optionally, type a description for the version.g. In the Service definition field, type the service definition in JSON format.h. Click Save.

Task	Steps
Edit an app service	<p>Use the following steps to edit an app service that was registered for your organization (for example, to add a new version). You cannot change the app service type or ID. You cannot edit a BlackBerry Dynamics app service or partner app service.</p> <ol style="list-style-type: none"> a. Search for the app service that you want to edit. b. Click the app service name. c. Edit the app service details as necessary. To add a new version, click + and specify the version number, description, and service definition. <p>Note: Deleting an app service version does not have any impact on the apps that offer or use the service, it simply removes the service definition from the management console so that your organization's developers cannot refer to it.</p> <ol style="list-style-type: none"> d. Click Save.
Delete an app service	<p>You cannot delete a BlackBerry Dynamics app service or partner app service. Deleting an app service from the management console does not have any impact on the apps that offer or use the service, it simply removes the service definition from the management console so that your organization's developers cannot refer to it.</p> <ol style="list-style-type: none"> a. Search for the app service that you want to remove. b. Click X next to the service. c. Click Delete.

After you finish: Optionally, you can bind an app service version to a managed app so that the management console can indicate that the app provides the service. For more information, see [Manage settings for a BlackBerry Dynamics app](#).

Turning off notifications outside of work hours

You can use Do not disturb profiles to block device notifications outside of work hours in BlackBerry Work for Android and BlackBerry Work for iOS. This feature requires BEMS 2.8 or later.

Create a Do not disturb profile

Before you begin:

- BEMS 2.8 or later is installed and configured in your environment. For instructions, [see the BEMS installation and configuration guides](#).
- BlackBerry Work is added to the BlackBerry Dynamics connectivity profile. See [Configure BlackBerry Work connection settings in the BlackBerry Work administration content](#).

1. On the menu bar, click **Policies and Profiles**.
2. Click **Protection > Do not disturb**
3. Click **+**.
4. Type a name and description for the profile.
5. Enter a message to display on devices when BlackBerry Work notifications are blocked . If you leave this field blank, a default message is displayed.
6. Do one of the following:

Task	Steps
Specify common work days and hours.	<ol style="list-style-type: none">a. Click the Select common work days and hours option.b. In the From drop-down lists, specify the time that work days start.c. In the To drop-down lists, specify the time that work days end.d. In the Work days list, select the days of the week that are work days.
Specify custom work hours for specific days.	<ol style="list-style-type: none">a. Click the Select custom work days and hours option.b. Select a day of the week.c. In the From drop-down lists, specify the time that the work day starts.d. In the To drop-down lists, specify the time that the work day ends.e. Repeat steps 2 to 4 for each day of the week that is a work day.

7. Click **Add**.

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