# Administration Guide

## BlackBerry Work Drives

Version 2.0.3

# Contents

# Overview: BlackBerry Work Drives

The BlackBerry Work Drives app allows BlackBerry 10 device users to access the files and folders on your organization's network from the work space on their devices. To help improve productivity, users can use apps such as Documents To Go and File Manager to create, edit, and manage network files.

You can use the BlackBerry Push Initiator Tool to push mapping information to the work space on BlackBerry 10 devices. You can also schedule the push of mapping information to occur at regular intervals to help insure that the mapping information on the devices is up to date.

# Requirements

## BlackBerry 10 OS requirements: BlackBerry Work Drives

BlackBerry 10 devices require BlackBerry 10 OS version 10.2.1 or later for BlackBerry Work Drives.

You must install the BlackBerry Work Drives app in the work space on the BlackBerry 10 devices.

## Microsoft SharePoint support

| Item | Requirement |
|---|---|
| Supported Microsoft SharePoint versions | BlackBerry Work Drives supports mapping to servers with the following versions of Microsoft SharePoint:<br><br>• Microsoft SharePoint 2007<br>• Microsoft SharePoint 2010<br>• Microsoft SharePoint 2013 |
| Unsupported SharePoint sites | Mapping to SharePoint subsites is not supported. |
| Supported communication protocols | The BlackBerry Work Drives app uses the following communication protocols to communicate with SharePoint:<br><br>• SOAP<br>• WebDAV |
| Supported authentication protocols | The BlackBerry Work Drives app can use the following authentication protocols with SharePoint:<br><br>• Basic<br>• NTLM |
| Supported cryptographic protocols | The BlackBerry Work Drives app supports the following cryptographic protocol with SharePoint: |

| Item | Requirement |
|---|---|
| | • SSL |

# Prerequisites: Pushing mapping information to the BlackBerry Work Drives app

Before you can create an automated process that you use to initiate the push of folder mapping information to the BlackBerry Work Drives app, you must complete the following tasks:

- Install the BlackBerry Work Drives app in the work space on BlackBerry 10 devices.
- Install the BlackBerry Push Initiator Tool. This tool initiates the push of folder mapping information to the BlackBerry Work Drives app.
- Verify that users belong to a group that has Log On Locally permission for the network drives that you want them to map to.
- Create a content file to specify the folder mapping information.
- Create a customization process that modifies a content template file if you are pushing user-specific information (for example, mapping information for a personal folder) to each individual user.

# Installing the BlackBerry Work Drives app on BlackBerry 10 devices

You must install BlackBerry Work Drives app on the BlackBerry 10 devices before pushing folder mappings to the BlackBerry 10 devices.

To make the BlackBerry Work Drives app available in the work space on devices, you must do the following:

1.    Add the BlackBerry Work Drives app to the app list.

2.    Optionally, add BlackBerry Work Drives to an app group.

3.    Assign the BlackBerry Work Drives app or app group to user accounts, user groups, or device groups.

For more information about installing the BlackBerry Work Drives app on BlackBerry 10 devices, visit docs.blackberry.com/ bes12 to read the *BES12 Administration Guide*.

You can configure single sign-on so that BlackBerry 10 device users do not need to provide their usernames and passwords each time they access your organization's network files. For more information about single sign-on access, visit docs.blackberry.com/bes12 to read the *BES12 Administration Guide*.

# Installing the BlackBerry Push Initiator Tool for BlackBerry Work Drives

**5**

You must install the BlackBerry Push Initiator Tool to push folder mapping information to the BlackBerry Work Drives app on BlackBerry 10 devices. The BlackBerry Push Initiator Tool is a tool that you use when you initiate the push of data to apps installed on BlackBerry 10 devices.

The BlackBerry Push Initiator Tool is one of the tools in the BlackBerry Resource Kit.

For more information about installing the tool, visit docs.blackberry.com/blackberry-resource-kit-for-bes12 to see the *BlackBerry Resource Kit for BES12 Installation and Configuration Guide*.

# Remotely configuring an app on BlackBerry 10 devices

**6**

You can remotely configure apps on the BlackBerry 10 devices by creating the following files to initiate the push of information to the devices:

| File type | Description |
|---|---|
| Content file | Specifies the information that the BlackBerry Push Initiator Tool sends when initiating a push of information to an app. |
| Batch file | Specifies information that the BlackBerry Push Initiator Tool uses when pushing the information to an app. For example, a batch file includes information such as the name of the group that receives the information and the location of the content file. |

You can customize the information that you push to an app. For example, you can customize the folder information that you push to the BlackBerry Work Drives app. If you are pushing folder information that is common to all members in a group and you also want to push mapping information for a personal folder to each individual in the group, you can customize the mapping information, so that each individual receives mapping information for a personal folder in addition to the mapping information for the common folder.

If you are customizing information, you can use the following files to pass custom information (for example, mapping information for a personal folder) to the content file:

| File type | Description |
|---|---|
| Content template file | Specifies the information to be customized that the push initiator helper file passes to the content file. |
| Push initiator helper file | Reads from the content template file, manipulates the text, and writes the information to the content file. |

## Creating a content file

The information used in a content file is specific to the app associated with the file. The examples use JSON format.

A sample content.txt file is available in C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool\Samples.

The following are examples of the information used in the content file to push data to the BlackBerry Work Drives app on BlackBerry 10 devices. You can include multiple action blocks in a file.

**Example: Push BlackBerry Work Drives data to an individual**

```
{
"Command":"ChangeMappings",
"Content":
        [
                {
                 "Action":"CREATE",
                 "UniqueName":"Work Drive Folder",
                 "Type":"NetworkDrive",
                 "Uri":"//<web address>/"
                }
        ]
}
```

**Example: Push BlackBerry Work Drives data to a group**

```
{
"Command":"ChangeMappings",
"Content":
        [
                {
                 "Action":"CREATE",
                 "UniqueName":"SharedFolder",
                 "Type":"NetworkDrive",
                 "Uri":"//<web address>/SharedFolder/"
                }
        ]
}
```

# Parameters used in a content file for the BlackBerry Work Drives

The parameters in brackets ([ ]) are optional.

| Parameter | Description |
|---|---|
| "Command" | Use the value "ChangeMappings". |
| "Action" | This parameter specifies the action performed. <br><br> • "CREATE" - create a mapping for a folder only if another folder mapping with the same name does not exist <br><br> • "CREATEREPLACE" - create a mapping for a folder and overwrite a folder mapping with the same name, if it exists <br><br> • "DELETE" - delete a folder mapping with the specified folder name if it exists <br><br> If you use CREATE to push folder information that is incorrect, use "CREATEREPLACE" to replace the folder information with the correct folder information, or use "DELETE" to delete the folder information. |

| Parameter | Description |
|---|---|
| "UniqueName" | This parameter specifies a unique folder name as it appears in File Manager on the BlackBerry 10 device. |
| | Use upper and lowercase letters (A to Z and a to z), and numbers (0 to 9). Do not use special characters (for example, a space). |
| "Type" | This parameter specifies the type of shared network drives used by your organization. The types are as follows: |
| | • "SharePoint" for Microsoft SharePoint |
| | • "NetworkDrive" |
| | If a server with Microsoft SharePoint is configured to require Check-out for editing, all users using the BlackBerry Work Drives app have read-only permission when accessing a folder on the server regardless of the permissions assigned to the users by an administrator. |
| | If a server with Microsoft SharePoint does not require Check-out for editing, users accessing a folder on the server using the BlackBerry Work Drives app have the following permissions: |
| | • Users assigned read/write permission by the administrator have read/write permission. |
| | • Users assigned read-only permission by the administrator have read-only permission. |
| "Uri" | This parameter specifies the web address and port number for a folder mapping. The port number defaults to 80 and is only meaningful for mappings with Microsoft SharePoint. |
| ["Username"] | This parameter specifies the name of the user account. |
| ["Password"] | This parameter specifies the password for a user account if a user account is specified. |

If the "Username" or "Password" is not included when you use "CREATE" or "CREATEREPLACE" to push mapping information and the credentials for the network path do not exist on the BlackBerry 10 devices, users must add their credentials in the BlackBerry Work Drives app. The BlackBerry Work Drives app adds the folder information to the list of folders in the File Manager after users add their credentials.

# Creating a batch file

Using a batch file, you can push data to recipients without typing the parameters each time.

The following examples describe instances when you might run a batch file:

- If you add recipients to a group that you push data to for an app, run the batch file to push the data to recipients in the group, including the new recipients.

- If you remove recipients from a group, run the batch file to remove data from the former recipients' BlackBerry 10 devices.

- If you wipe a BlackBerry 10 device and reinstall the BlackBerry 10 OS and apps (for example, the BlackBerry Work Drives app), run the batch file to initiate the push of data to the recipient.

- If the data that you push to an app changes, run the batch file to update the recipients with the latest data.

Depending on how often the recipients or the data changes, you can run the batch file at scheduled intervals, using a scheduling tool to make sure that recipients have the most recent data.

# Create a batch file

You create a batch file using the same parameters that you use for the command-line tool.

A sample PushInitiatorCommand.bat file is available in C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool\Samples.

1. Create a batch file that contains the following text:

```
@echo off
```

**Note:** To see the details as the batch file runs, you can comment out @echo off

2. Type the location of the BlackBerry Push Initiator Tool .exe file:

```
set pushInitiator="<pathname>\PushInitiator.exe"
```

3. Type the recipient type:

```
set recipientType=<Group|Email>
```

4. Type the recipient name of the group or the email account:

```
set recipient=<value>
```

5. Type the application ID:

```
set application=<value>
```

6. Type the content type that is in the content file:

```
set contentType=<value>
```

7. Type the location of the content file:

```
set contentFile=<pathname>
```

8. If you are customizing the data, type the following text:

```
set customizeContentPerRecipient=-CustomizeContentPerRecipient
```

9.  Type the text that specifies the customized data:

```
set customizeCommand=<value>
```

**Note:** The value for the customized data varies depending on the app and the data that you are customizing for the app on the BlackBerry 10 devices.

**Note:** If you type a text string that contains spaces (for example, the name of a folder in a path "Push Initiator Tool"), you must enclose the string in quotation marks (" "). Each customized command must be enclosed in double quotation marks (for example, ""<value>"").

10. Optionally add a custom script to notify the administrator if the push succeeded or failed.

**Note:** If an error occurs when pushing data, review the log files for the BlackBerry Push Initiator Tool.

11. Type the call parameters.

12. Optionally add a custom script to notify the administrator if the push succeeded or failed.

13. Type the ERRORLEVEL response.

14. Save the file.

### Example: A batch file without customization to an individual for the BlackBerry Work Drives app

```
@echo off

set pushInitiator="C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry
Enterprise Service 12\BlackBerry Push Initiator Tool\PushInitiator.exe"
set recipientType=Email
set recipient=<username>@example.net
set application=sys.cfs.enterprise.gYABgJMjNCifxklxri87rZD71hA
set contentType=text/plain
set contentFile="C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry
Enterprise Service 12\BlackBerry Push Initiator Tool\content.txt"
set customizeContentPerRecipient=""
call %pushInitiator% -console -recipientType %recipientType% -recipient %recipient% -
application %application% -contentType %contentType% -contentFile %contentFile%  %
if ERRORLEVEL 0 (
            echo "Push Initiator SUCCEEDED."
) else (
            echo "Push Initiator FAILED. See log file for details."
)
```

### Example: A batch file with customization to an individual for the BlackBerry Work Drives app

The batch file, PushInitiatorHelper.bat, reads the ContentTemplate.txt and passes the values to content.txt. The BlackBerry Push Initiator Tool pushes the data in content.txt to the BlackBerry MDS Connection Service.

```
@echo off

set pushInitiator="C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry
Enterprise Service 12\BlackBerry Push Initiator Tool\PushInitiator.exe"
set recipientType=Email
set recipient=<username>@example.net
set application=sys.cfs.enterprise.gYABgJMjNCifxklxri87rZD71hA
set contentType=text/plain
set contentFile="C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry
Enterprise Service 12\BlackBerry Push Initiator Tool\content.txt"
set customizeContentPerRecipient=-customizeContentPerRecipient
set customizeCommand="\"C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for
BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool\PushInitiatorHelper.bat\" -
contentTemplateFile\"C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry
```

```
Enterprise Service 12\BlackBerry Push Initiator Tool\contentTemplate.txt\""
call %pushInitiator% -console -recipientType %recipientType% -recipient %recipient% -
application %application% -contentType %contentType% -contentFile %contentFile%
%customizeContentPerRecipient% -customizeCommand %customizeCommand%
if ERRORLEVEL 0 (
    echo "Push Initiator SUCCEEDED."
) else (
    echo "Push Initiator FAILED. See log file for details."
```

### Example: A batch file without customization to a group for the BlackBerry Work Drives app

```
@echo off

set pushInitiator="C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry
Enterprise Service 12\BlackBerry Push Initiator Tool\PushInitiator.exe"
set recipientType=Group
set recipient=<group_name>
set application=sys.cfs.enterprise.gYABgJMjNCifxklxri87rZD71hA
set contentType=text/plain
set contentFile="C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry
Enterprise Service 12\BlackBerry Push Initiator Tool\content.txt"
set customizeContentPerRecipient=""
call %pushInitiator% -console -recipientType %recipientType% -recipient %recipient% -
application %application% -contentType %contentType% -contentFile %contentFile%  %
if ERRORLEVEL 0 (
          echo "Push Initiator SUCCEEDED."
) else (
          echo "Push Initiator FAILED. See log file for details."
)
```

### Example: A batch file to a group with customization to individuals for the BlackBerry Work Drives app

```
@echo off

set pushInitiator="C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry
Enterprise Service 12\BlackBerry Push Initiator Tool\PushInitiator.exe".
set recipientType=group
set recipient=MyGroup
set application=sys.cfs.enterprise.gYABgJMjNCifxklxri87rZD71hA
set contentType=text/plain
set contentFile="C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry
Enterprise Service 12\BlackBerry Push Initiator Tool\content.txt"
set customizeContentPerRecipient=-customizeContentPerRecipient
set customizeCommand="\"C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for
BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool\PushInitiatorHelper.bat\" -
contentTemplateFile \"C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit for
BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool\contentTemplate.txt\""
call %pushInitiator% -console -recipientType %recipientType% -recipient %recipient% -
application %application% -contentType %contentType% -contentFile %contentFile%
%customizeContentPerRecipient% -customizeCommand %customizeCommand%
if ERRORLEVEL 0 (
          echo "Push Initiator SUCCEEDED."
) else (
          echo "Push Initiator FAILED. See log file for details."
)
```

# Parameters for the command prompt and batch files

The parameters listed in brackets ([ ]) are optional.

| Parameter | Description |
|---|---|
| [-console] | If this parameter is present in the command prompt, the BlackBerry Push Initiator Tool remains in the command-line tool when you initiate a push. If the parameter is not present, the BlackBerry Push Initiator Tool opens the BlackBerry Push Initiator Tool Client and fills in the fields using the parameters from the command-line tool. If the BlackBerry Push Initiator Tool encounters an invalid parameter when filling in the fields, the BlackBerry Push Initiator Tool displays an error message. You can use the BlackBerry Push Initiator Tool to determine if the values in the command prompt are valid.

The BlackBerry Push Initiator Tool also remains in the command-line tool under the following conditions when -console is not present:

• When you type -h for help

• There is an error in an argument (for example, a parameter is mistyped) |
| -recipientType <*Group\|Email*> | If you are pushing data to a group, include the variable *Group*. If you are pushing data to email accounts, include the variable *Email*. For example, if you are creating a push request to a group, use -recipientType Group. |
| -recipient<*value*> | This parameter specifies the name of the group or the email account that the BlackBerry Push Initiator Tool uses when initiating a push to the BlackBerry MDS Connection Service. |
| -application <*value*> | This parameter specifies the app. For example, the value for the BlackBerry Work Drives app is sys.cfs.enterprise.gYABgJMjNCifxklxri87rZD71hA. |
| -contentType <*value*> | This parameter specifies the type of content in the content file. The types are as follows:

• text/plain

• application/xml

• text/html |
| -contentFile <*pathname*> | This parameter specifies the path for the content file, which specifies the data to include in the push. |
| [-customizeContentPerRecipient] | This parameter specifies if customized data is pushed to recipients. If you include this command, you must also include the -customizeCommand parameter. |
| [-customizeCommand <*value*>] | This parameter specifies the content for each recipient. The values for this parameter are -recipientType <*Group\|Email*> -recipient<*value*> -application <*value*> -contentType <*value*> -contentFile <*pathname*>

Include the parameter and its values in quotation marks (" ") if spaces are included in the string. |

**Example: Push folder mapping data to a user for the BlackBerry Work Drives app**

```
PushInitiator.exe -console -recipientType email -recipient <username>@example.net -application
sys.cfs.enterprise.gYABgJMjNCifxklxri87rZD71hA -contentType text/plain -contentFile "C:\Program Files
(x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool
\content.txt"
```

**Example: Push customized folder mapping data to a user for the BlackBerry Work Drives app**

```
PushInitiator.exe -console -recipientType email -recipient <username>@example.net -application
sys.cfs.enterprise.gYABgJMjNCifxklxri87rZD71hA -contentType text/plain -contentFile "C:\Program Files
(x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool
\content.txt" -customizeContentPerRecipient -customizeCommand "\"C:\Program Files (x86)\BlackBerry
\BlackBerry Resource Kit for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool
\PushInitiatorHelper.bat\" -contentTemplateFile \"C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit
for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool\contentTemplate.txt\""
```

**Example: Push folder mapping data to a group without customized mapping data to users for the BlackBerry Work Drives app**

```
PushInitiator.exe -console -recipientType Group -recipient <group_name> -application
sys.cfs.enterprise.gYABgJMjNCifxklxri87rZD71hA -contentType text/plain -contentFile "C:\Program Files
(x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool
\content.txt"
```

**Example: Push folder mapping data to a group with customized mapping data to users for the BlackBerry Work Drives app**

```
PushInitiator.exe -console -recipientType group -recipient <group_name> -application
sys.cfs.enterprise.gYABgJMjNCifxklxri87rZD71hA -contentType text/plain -contentFile "C:\Program Files
(x86)\BlackBerry\BlackBerry Resource Kit for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool
\content.txt" -customizeContentPerRecipient -customizeCommand "\"C:\Program Files (x86)\BlackBerry
\BlackBerry Resource Kit for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool
\PushInitiatorHelper.bat\" -contentTemplateFile \"C:\Program Files (x86)\BlackBerry\BlackBerry Resource Kit
for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool\contentTemplate.txt\""
```

# Creating a content template file

If you are customizing the information pushed to individuals or to members in a group, you can create a content template file. The information used in a content template file is specific to the app associated with the file.

### Example: Push customized BlackBerry Work Drives data to an individual

In this example, the content template file passes a user's name to the content file.

The file uses JSON format.

```
{
"Command":"ChangeMappings",
"Content":
    [
        {
         "Action":"CREATE",
         "UniqueName":"SharedFolder",
         "Type":"NetworkDrive",
         "Uri":"//<web address>/SharedFolder/%USERNAME%"
        }
    ]
}
```

**Related information**

# Creating a push initiator helper batch file

If you are including custom information that you are passing to an app, you can use a push initiator helper batch file to specify the custom information that the batch file passes from a content template file to a content file.

### Example: Retrieving usernames and passing the names to a content file

The following is an example of a push initiator helper batch file that retrieves usernames from a content template file and passes the information to a content file. Depending on the custom information, the content template file might not be necessary for some types of batch files.

```
@echo off
setlocal EnableDelayedExpansion
REM You must specify which content template file to use with this batch file.
REM For example, PushInitiatorHelper.bat -contentTemplateFile "C:\contentTemplate.txt"

REM There are 3 parameters: CONTENTTEMPLATEFILE, RECIPIENT, and CONTENTFILE.
REM PushInitiator.exe always adds the RECIPIENT and CONTENTFILE as the last two parameters.
set Param=none

for %%A in (%*) do (
    if !Param! == recipient set recipient=%%~A
    if !Param! == contentFile set contentFile=%%A
    if !Param! == contentTemplateFile set contentTemplateFile=%%A
    set Param=none
    if %%A == -Recipient set Param=recipient
    if %%A == -ContentFile set Param=contentFile
    if %%A == -contentTemplateFile set Param=contentTemplateFile
)

REM This parameter extracts the username from the email address (for example, the parameter
extracts the username user01 from user01@example.net).
SET _endbit=%recipient:*@=%
CALL SET recipient=%%recipient:@%_endbit%=%%

REM Assigns the variable USERNAME to the string value "%USERNAME%" without quotes
set "USERNAME=%%USERNAME%%"

if exist %contentFile% del %contentFile%
set returnCode=-1
for /f "usebackq delims=" %%a in (%contentTemplateFile%) do (
    set newline=%%a
    REM Replace the string "%USERNAME%" with the value in variable RECIPIENT
    set newline=!newline:%USERNAME%=%recipient%!
    echo !newline! >> %contentFile%
    set returnCode=0
)

REM The return code 0 indicates that the helper batch file should exit with a value of zero
in order to indicate to PushInitiator.exe that the operation of the helper batch was
successful.
REM A non-zero value indicates that the helper batch file failed to create a useful content
file that the PushInitiator application can push.
if returnCode == -1 (
    echo Content file was deleted and was not regenerated 1>&2
)
exit returnCode
```

# Troubleshooting

If a recipient has a BlackBerry 10 device and the app is installed on the device, the BlackBerry Push Initiator Tool adds the following entry to the log file:

```
(<date> <time>):{0xC230:1} [INFO] Response from MDS-CS: [1001] - The request has been
accepted for processing, but the outcome is not yet known. This code is used in response
to a push submission to indicate that the message has been received by the PPG and seems
to be well formed and valid.
```

There is a 1001 entry for each successful push to the BlackBerry MDS Connection Service.

If an error occurs when BlackBerry Push Initiator Tool pushes data, the tool adds the following entry to the error log file:

```
(<date> <time>):{0x8F8C:1} [INFO] Response from MDS-CS: [2002] - The address specified
was not in a recognized format or was not valid or unknown (i.e. not subscribed).
```

The 2002 entry indicates that the push to the BlackBerry MDS Connection Service was unsuccessful.

An error can occur for the following reasons:

- A recipient does not have a BlackBerry 10 device.
- A recipient has a BlackBerry 10 device, but the app is not installed on the device.

If the BlackBerry Push Initiator Tool pushes data to a group and the data is not customized, the tool adds the 1001 entry if the push to the BlackBerry MDS Connection Service is successful to at least one recipient in the group. For example, if there are two recipients in a group and the push to one recipient is successful and one is unsuccessful, the BlackBerry Push Initiator Tool adds the 1001 entry to indicate a successful push. If the push to all recipients in the group is unsuccessful, the tool adds the 2002 entry.

If the BlackBerry Push Initiator Tool pushes customized data to a group, the tool separately pushes the data for each recipient in the group to the BlackBerry MDS Connection Service.

If you use the BlackBerry Push Initiator Tool UI to specify the email addresses for individual recipients and the data is not customized, the BlackBerry Push Initiator Tool adds the 1001 entry if the push to the BlackBerry MDS Connection Service is successful to at least one recipient. For example, if there are two recipients and the push to one recipient is successful and one is unsuccessful, the BlackBerry Push Initiator Tool adds the 1001 entry to indicate a successful push. If the push to all recipients is unsuccessful, the tool adds the 2002 entry to indicate that the push was unsuccessful.

If a push to an individual recipient or a group is unsuccessful, the BlackBerry Push Initiator Tool pushes data to the next recipient or group.

If a content file is greater than 8 KB, the push is unsuccessful. The BlackBerry MDS Connection Service does not process the data if the data is greater than 8 KB.

If you push data using a recipient's email address, the push is unsuccessful if the content file plus the recipient's email address is greater than 8 KB.

If you push data to recipients in a list of email addresses and the email addresses plus the content file exceed 8 KB, the BlackBerry Push Initiator Tool breaks the list into smaller packets to push with the content file. If a push to a recipient is unsuccessful (for example, the app is not installed on the user's device), the BlackBerry Push Initiator Tool stops pushing data to the BlackBerry MDS Connection Service for the remaining recipients in the list of email addresses. The BlackBerry Push Initiator Tool adds a 2002 entry to the log file for the unsuccessful push to the recipient.

# Troubleshoot a push

If the BlackBerry Push Initiator Tool shows that the push was successful, but the pushed data does not appear on the BlackBerry 10 device, use the following steps to troubleshoot the cause:

1. Review the error logs for the BlackBerry Push Initiator Tool. The default log file location for the BlackBerry Push Initiator Tool is *<Drive>*:\Users\*<username>*\AppData\Roaming\BlackBerry\BlackBerry Resource Kit for BlackBerry Enterprise Service 12\BlackBerry Push Initiator Tool\Logs.

2. Verify that the data in the following files is correct if a BlackBerry 10 device does not receive the mapping information and there are no error messages in the log file:

    • Content file

    • Content template file if used

   The content file must have a valid JSON format.

3. Push the data again after correcting the cause of the error.

**Related information**

# Product documentation

| Resource | Description |
|---|---|
| *BES12 Administration Guide* | • Basic and advanced administration for all supported device types, including BlackBerry 10 devices, iOS devices, Android devices, Windows Phone devices and BlackBerry OS (version 5.0 to 7.1) and earlier devices<br><br>• Instructions for creating user accounts, groups, roles, and administrator accounts<br><br>• Instructions for activating devices<br><br>• Instructions for creating and sending IT policies and profiles<br><br>• Instructions for managing apps on devices<br><br>• Descriptions of profile settings<br><br>Visit docs.blackberry.com/bes12 to read the guide. |
| *BlackBerry Resource Kit for BES12 Administration Guide* | The guide includes the following information about the BlackBerry Push Initiator Tool:<br><br>• Prerequisites<br><br>• Creating content files<br><br>• Pushing data<br><br>• Creating a batch file<br><br>• Troubleshooting<br><br>Visit help.blackberry.com/en/blackberry-resource-kit-for-bes12/current/manuals to read the guide. |
| *BlackBerry Resource Kit for BlackBerry Enterprise Service 12 Installation and Configuration Guide* | • System requirements<br><br>• Instructions for installing the BlackBerry Resource Kit tools<br><br>Visit help.blackberry.com/en/blackberry-resource-kit-for-bes12/current/manuals to read the guide. |

# Glossary

| | |
|---|---|
| **HTTP** | Hypertext Transfer Protocol |
| **HTTPS** | Hypertext Transfer Protocol over Secure Sockets Layer |
| **JSON** | JavaScript Object Notation |
| **NTLM** | NT LAN Manager |
| **PIN** | personal identification number |
| **SOAP** | Simple Object Access Protocol |
| **SSL** | Secure Sockets Layer |
| **URI** | Uniform Resource Identifier |
| **WebDAV** | Web Distributed Authoring and Versioning |

# Legal notice

<div style="float:right">**10**</div>

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