



Installation and Administration Guide

BlackBerry Web Desktop Manager for IBM Lotus Domino

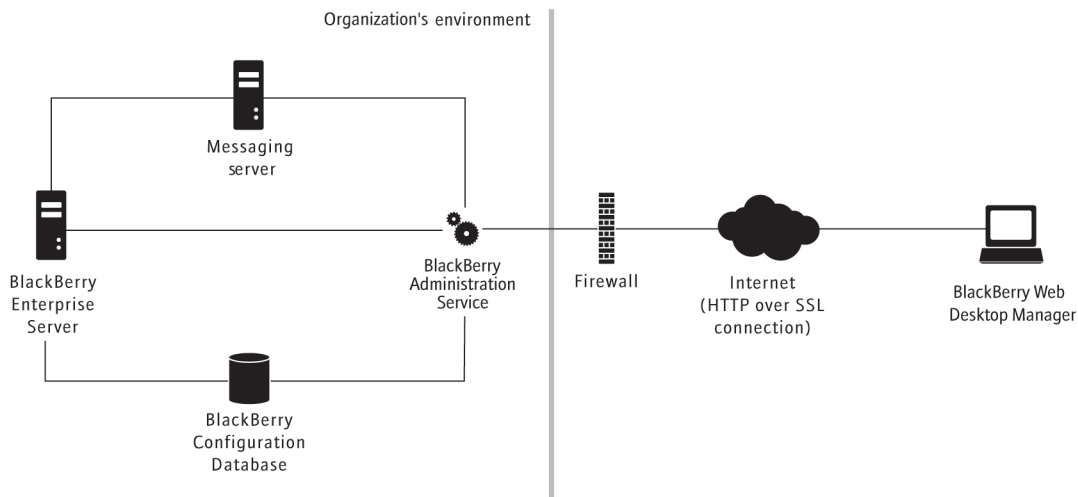
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Architecture: BlackBerry Web Desktop Manager and BlackBerry Administration Service

When you run the BlackBerry® Administration Service setup program, you install the server components and create the Microsoft® Windows® Services that run the BlackBerry® Web Desktop Manager. You also set up the BlackBerry Administration Service to communicate with your existing BlackBerry® Enterprise Server and messaging environments. When you complete the installation and setup processes, the server and client components communicate in the following ways:



Component	Description
BlackBerry Administration Service	The BlackBerry Administration Service is the server component that processes and manages BlackBerry Web Desktop Manager tasks. It consists of the application server and native code container components, which run as separate Microsoft Windows Services. The setup program installs these components in the JBoss® Web Server container that comes with your installation media.
BlackBerry Enterprise Server	The BlackBerry Enterprise Server is designed to provide enterprise application data to BlackBerry users.
BlackBerry Configuration Database	The BlackBerry Configuration Database is a relational database that contains configuration information such as BlackBerry Enterprise Server connection details and user information. The BlackBerry Administration Service and the BlackBerry Enterprise Server use the information stored in the BlackBerry Configuration Database to run tasks.

Component	Description
Messaging server	The messaging server stores the email accounts of the BlackBerry Web Desktop Manager users and the BlackBerry Enterprise Server users.
BlackBerry Web Desktop Manager	The BlackBerry Web Desktop Manager is the application that users open in a browser to manage BlackBerry devices.

Prerequisites: Installing the BlackBerry Administration Service

Item	Requirements
Hardware	<ul style="list-style-type: none">• You can install the BlackBerry® Administration Service on the computer that hosts the BlackBerry® Enterprise Server, or on a separate computer. To improve system performance, consider installing the BlackBerry Administration Service on a separate computer.
BlackBerry Enterprise Server	<ul style="list-style-type: none">• BlackBerry Enterprise Server Version 4.0 SP6 or later is installed and running in your environment. The software, network, and system requirements for the BlackBerry Enterprise Server also apply to the BlackBerry Administration Service.• You must add the user accounts that you want to set up for the BlackBerry® Web Desktop Manager to the BlackBerry Enterprise Server.• Optionally, in the BlackBerry Manager, you can set up software configurations to control the BlackBerry® Device Software and applications that you make available to BlackBerry Web Desktop Manager users. <p>For more information about installing and administering the BlackBerry Enterprise Server, see the <i>BlackBerry Enterprise Server Installation Guide</i> and the <i>BlackBerry Enterprise Server System Administration Guide</i>.</p>
Database environment	<ul style="list-style-type: none">• The BlackBerry Administration Service does not support an IBM® DB2® UDB environment.
Messaging server environment	<ul style="list-style-type: none">• IBM® Lotus® Domino® Version 6.0 or later is installed and running in your environment.• You must start the DIIOP Server task on your IBM Lotus Domino server. For more information about the DIIOP task, visit www-128.ibm.com/developerworks/lotus/documentation/domino to read the IBM Lotus Domino documentation.• You must assign IBM Lotus Domino Internet accounts and passwords to the BlackBerry Web Desktop Manager users. The users require these credentials to authenticate to the messaging server.• The user accounts you want to set up for the BlackBerry Web Desktop Manager must be located on the same IBM Lotus Domino server.

Installing the BlackBerry Administration Service

Information required during the installation process

Information	Description	Example
account name and password of the Microsoft® Windows® user	The Microsoft Windows user account and password that you used to install the BlackBerry® Enterprise Server.	-
domain name of the IBM® Lotus® Domino® server	The DNS name of the IBM Lotus Domino server that hosts the user accounts that you want to set up for the BlackBerry® Web Desktop Manager.	serverdomain.mycompany.com

Install the BlackBerry Administration Service

- Gather the credentials and server information required to complete the installation process.
- Log in to your computer using the credentials that you used to install the BlackBerry® Enterprise Server.

Your BlackBerry Enterprise Server can be running while you install the BlackBerry® Administration Service. During the installation process, the setup program adds new tables to your BlackBerry Configuration Database.

1. Unzip the contents of **bas_1.0.0.exe** to the <drive>\Research in Motion\BlackBerry Administration Service 1.0.0 folder.
2. Double-click **setup.exe**.
3. Follow the instructions on the screen.
4. When prompted to upgrade the BlackBerry Configuration Database, click **Yes**.
5. Click **Continue**.
6. If prompted to restart your computer, click **Yes**.

After you log in to your computer again, the setup program starts automatically.

7. When prompted, type a password for the key store in alphanumeric characters.
8. Follow the instructions on the screen.
9. To complete the installation process, click **Finish**.
10. To start the Microsoft® Windows® Services that run the BlackBerry Administration Service, click **Start Services**.

Configuring the BlackBerry Web Desktop Manager

Controlling BlackBerry Web Desktop Manager features

If you want to display, hide, or specify limitations for the BlackBerry® Web Desktop Manager features in your environment, you can change IT policy rule settings in the BlackBerry Manager or in the `bas-config.properties` file that is included with the BlackBerry® Administration Service installation media. For example, you can allow users to set enterprise activation passwords in the BlackBerry Web Desktop Manager to activate their BlackBerry devices over the wireless network, or prevent users from switching their BlackBerry devices.

For more information about changing IT policy rule settings in the BlackBerry Manager, see the *BlackBerry Enterprise Server System Administration Guide*.

Control BlackBerry Web Desktop Manager features

Before you change IT policy rule settings in the `bas-config.properties` file, consider backing up the file and save the backup in a folder other than the default folder. Do not save nondefault files in the `<drive>\Program Files\Research In Motion\BlackBerry Administration Service\server\default\conf` folder.

1. Navigate to `<drive>\Program Files\Research In Motion\BlackBerry Administration Service\server\default\conf`.
2. Open **bas-config.properties** in a text editor.
3. If necessary, change the parameters.
4. Save the file in its default folder.

The changes take effect the next time that the users log in to the BlackBerry® Web Desktop Manager.

BlackBerry Web Desktop Manager IT policy rules

Policy rule	Description	Default setting	Use
Auto Backup Enabled	Specify whether the option to back up the BlackBerry® device is turned on automatically.	False	In the BlackBerry Manager, set this IT policy rule to True to allow the BlackBerry® Web Desktop Manager to update the status in the backup and restore settings, and to allow recovery of the BlackBerry device data in the event that you must replace the BlackBerry device.
Auto Backup Exclude Messages	Specify whether messages are excluded from automatic backups.	False	Rule dependency: in the BlackBerry Manager, if you set this IT policy rule to True, you must set the Auto Backup Include All rule to False.
Auto Backup Exclude Sync	Specify whether organizer data is excluded from automatic backups.	False	Rule dependency: in the BlackBerry Manager, if you set this IT policy rule to True,

Policy rule	Description	Default setting	Use
			you must set the Auto Backup Include All rule to False.
Auto Backup Frequency	Specify the frequency of automatic BlackBerry device data backups, in days.	7	In the BlackBerry Manager, set this value to 2 or more days so that users can make changes on the BlackBerry device to data that is stored between backups. If the user's local hard disk space is limited, save backup files to a network drive.
Auto Backup Include All	Specify whether all data is included in automatic backups.	True	In the BlackBerry Manager, if you set this IT policy to True, the Backup all BlackBerry device application data option in the Backup and Restore options of the BlackBerry Web Desktop Manager is selected. Set this IT policy rule to False if you set the Auto Backup Exclude Sync and Auto Backup Exclude Messages rules to True.
Default Handheld Software SharePath	Specify the shared network folder that contains the BlackBerry® Device Software and applications that BlackBerry Web Desktop Manager users can upgrade or install on their BlackBerry devices.	-	In the bas-config.properties file, add this IT policy to specify the shared network folder in the form <code>DefaultHandheldSoftwareSharePath="\\<full_computer_name>\\<path>".</code> You must separate each folder name with two backslashes (\\). This IT policy rule takes effect if you have not assigned a software configuration to users in the BlackBerry Manager.
Desktop Allow Device Switch	Specify whether the BlackBerry Web Desktop Manager or the BlackBerry® Desktop Software allows users to switch BlackBerry devices.	True	In the BlackBerry Manager, set this IT policy rule to False to prevent users from switching to use other BlackBerry devices.
Desktop Password Cache Timeout	Specify the length of time, in minutes, that the BlackBerry Web Desktop Manager caches the BlackBerry device password in memory.	10	In the BlackBerry Manager, if you set this IT policy rule to 0, the BlackBerry device clears the password cache only when the BlackBerry device physical connection to the computer is terminated, regardless of the length of time it is connected.
Do Not Save Sent Messages	Specify whether the BlackBerry device saves a copy of each message that the user sends in a Sent messages folder.	-	In the BlackBerry Manager, set this IT policy rule to False so that the messaging server stores messages sent from the BlackBerry device.

Policy rule	Description	Default setting	Use
Force Load Count	Specify the number of times users can decline to update their BlackBerry devices before the update occurs automatically.	-	To turn on the forced update feature, in the BlackBerry Manager, set this IT policy rule to 0 or greater. If you turn on the forced update feature, when BlackBerry Web Desktop Manager users log in and connect a BlackBerry device to a computer, the BlackBerry Web Desktop Manager automatically checks whether newer versions of the BlackBerry Device Software are available, and prompts users to update their BlackBerry devices.
Force Load Message	Specify the message that appears when the BlackBerry Web Desktop Manager prompts users to update to a later version of the BlackBerry Device Software.	-	Rule dependency: in the BlackBerry Manager, if you set the Force Load Count rule to 0 or greater, the BlackBerry device uses this IT policy rule only.
Show Application Loader	Specify whether the user has access to the application loader tool in the BlackBerry Web Desktop Manager.	True	In the BlackBerry Manager, set this IT policy rule to False to hide the Device Software tab in the BlackBerry Web Desktop Manager.
Wireless Activation Password Policy	Specify whether the BlackBerry Web Desktop Manager allows users to set their own enterprise activation passwords to activate their BlackBerry devices over the wireless network.	IT_POLICY_PERMITTED	In the bas-config.properties file, set this IT policy rule to IT_POLICY_DENIED to hide the Device setup screen in the Advanced Settings tab in the BlackBerry Web Desktop Manager.
Wireline Activation Policy	Specify whether the BlackBerry Web Desktop Manager allows users to activate a BlackBerry device using a wired connection to a computer.	WIRELINE_ACTIVATE_ANY_PIN	In the bas-config.properties file, set this IT policy rule to WIRELINE_ACTIVATE_UNUSED_PIN_ONLY to prevent users from activating a BlackBerry device that another user has already activated.
Wireline Device Backup Restore Policy	Specify whether the BlackBerry Web Desktop Manager allows users to back up and restore data on their BlackBerry devices using a wired connection to a computer.	IT_POLICY_PERMITTED	In the bas-config.properties file, set this IT policy to IT_POLICY_DENIED to hide the Backup and Restore tab in the BlackBerry Web Desktop Manager.
Wireline Device Backup Domain Restrictions	Specify the domains in which the users' computers must be located before the BlackBerry Web Desktop Manager allows users to back up data on their BlackBerry devices using a wired connection to a computer.	-	In the bas-config.properties file, specify one or more domain restrictions. If you specify multiple domains, use a comma to separate the domain names.

Customize the text colors in the BlackBerry Web Desktop Manager UI

1. On the computer that hosts the BlackBerry® Administration Service, at the command prompt, navigate to `<drive>\Program Files \Research In Motion\BlackBerry Administration Service\bin\`.
2. Type `basConfig.bat` and the following parameters. The optional parameters are listed in square brackets.
 - `-cmd branding`
 - `-driver <database_driver_class>`
 - `-url <database_URL>`
 - `-login <database_login>` (use for Microsoft® SQL authentication)
 - `-password <database_password>` (use for Microsoft SQL authentication)
 - `-ntlm <true_or_false>`
 - `[-c1 <hexadecimal_value_for_color_1>]`
 - `[-c2 <hexadecimal_value_for_color_2>]`
 - `[-c3 <hexadecimal_value_for_color_3>]`
 - `[-c4 <hexadecimal_value_for_color_4>]`
 - `[-c5 <hexadecimal_value_for_color_5>]`
 - `[-c6 <hexadecimal_value_for_color_6>]`
 - `[-c7 <hexadecimal_value_for_color_7>]`
 - `[-c8 <hexadecimal_value_for_color_8>]`

Example: Customizing the text color in error messages

```
basConfig.bat -cmd branding -driver com.microsoft.sqlserver.jdbc.SQLServerDriver -url
jdbc:sqlserver://localhost:1433;DatabaseName=BESMgmt;integratedSecurity=true -login
BESAdmin -password password1 -ntlm false -c3 #ff0000
```

BlackBerry Web Desktop Manager text customization parameters

Parameter	Description
-cmd	This parameter specifies the task that the <code>basConfig.bat</code> file performs. The branding value customizes the BlackBerry® Web Desktop Manager UI text colors.
-driver	This parameter specifies the JDBC driver class that your BlackBerry Configuration Database uses. For more information about locating the JDBC driver class, see the documentation for your database management system.
-url	This parameter specifies the URL of the BlackBerry Configuration Database in the form <code><protocol>://<database_server_name>:<port_number>;DatabaseName=<BlackBerry_Configuration_Database_name></code> . If your BlackBerry Configuration Database uses Microsoft® Windows® authentication, you must

Parameter	Description
	add ;integratedSecurity=true after the BlackBerry Configuration Database name. For example, DatabaseName=BESMgmt;integratedSecurity=true.
-login	This parameter specifies the BlackBerry Configuration Database login name if you use Microsoft SQL authentication.
-password	This parameter specifies the BlackBerry Configuration Database password if you use Microsoft SQL authentication.
-ntlm	This parameter specifies the BlackBerry Configuration Database authentication type, using the following permitted values: <ul style="list-style-type: none"> • true: specifies that the BlackBerry Configuration Database uses Microsoft Windows authentication • false: specifies that the BlackBerry Configuration Database uses Microsoft SQL authentication
-c1	This parameter specifies the hexadecimal color value of the description text in the BlackBerry Web Desktop Manager UI.
-c2	This parameter specifies the hexadecimal color value of the copyright text in the BlackBerry Web Desktop Manager UI.
-c3	This parameter specifies the hexadecimal color value of the text in the BlackBerry Web Desktop Manager error messages.
-c4	This parameter specifies the hexadecimal color value of the text in the BlackBerry Web Desktop Manager information messages.
-c5	This parameter specifies the hexadecimal color value of unavailable links in the BlackBerry Web Desktop Manager UI. For example, options that you make unavailable using IT policy rule settings use this parameter.
-c6	This parameter specifies the hexadecimal color value of the text in the BlackBerry Web Desktop Manager headers, and the text in the tab links that point to web pages that the user is not currently visiting.
-c7	This parameter specifies the hexadecimal color value of the text in the available BlackBerry Web Desktop Manager menu and option links.
-c8	This parameter specifies the hexadecimal color value of the BlackBerry Web Desktop Manager link text when a user pauses a mouse cursor on a link.

Display a custom image in the BlackBerry Web Desktop Manager UI

You can display a custom image in the upper-right corner of the BlackBerry® Web Desktop Manager UI. The image file that you specify must be a .jpg or .gif file located on a trusted web site.

1. On the computer that hosts the BlackBerry® Administration Service, at the command prompt, navigate to `<drive>\Program Files\Research In Motion\BlackBerry Administration Service\bin\`.
2. Type `basConfig.bat` and all of the following parameters:
 - `-cmd branding`

- -driver <database_driver_class>
- -url <database_URL>
- -login <database_login_name> (use for Microsoft® SQL authentication)
- -password <database_password> (use for Microsoft SQL authentication)
- -ntlm <true_or_false>
- -desktopimage <image_file_web_page_address>

Example: Displaying your company logo in the BlackBerry Web Desktop Manager UI

```
basConfig.bat -cmd branding -driver com.microsoft.sqlserver.jdbc.SQLServerDriver -url
jdbc:sqlserver://localhost:1433;DatabaseName=BESMgmt;integratedSecurity=true -login
BESAdmin -password password1 -ntlm false -desktopimage https://www.mydomain.com/images/
myCompanyLogo.jpg
```

BlackBerry Web Desktop Manager image customization parameters

Parameter	Description
-cmd	This parameter specifies the task that the basConfig.bat file performs. The branding value customizes the BlackBerry® Web Desktop Manager image file.
-driver	This parameter specifies the JDBC driver class that your BlackBerry Configuration Database uses. For more information about locating the JDBC driver class, see the documentation for your database management system.
-url	This parameter specifies the URL of the BlackBerry Configuration Database in the form <protocol>://<database_server_name>:<port_number>;DatabaseName=<BlackBerry_Configuration_Database_name>. If your BlackBerry Configuration Database uses Microsoft® Windows® authentication, you must add ;integratedSecurity=true after the BlackBerry Configuration Database name. For example, DatabaseName=BESMgmt;integratedSecurity=true.
-login	This parameter specifies the BlackBerry Configuration Database login name if you use Microsoft SQL authentication.
-password	This parameter specifies the BlackBerry Configuration Database password if you use Microsoft SQL authentication.
-ntlm	This parameter specifies the BlackBerry Configuration Database authentication type, using the permitted values: <ul style="list-style-type: none"> • true: specifies that the BlackBerry Configuration Database uses Microsoft Windows authentication • false: specifies that the BlackBerry Configuration Database uses Microsoft SQL authentication
-desktopimage	This parameter specifies the web page address of the image file that you want to display on each BlackBerry Web Desktop Manager page. You must specify a .jpg or .gif file that is located on a trusted web site.

Make BlackBerry Device Software and applications available to BlackBerry Web Desktop Manager users

Specify the shared network folder that contains the BlackBerry® Device Software and applications that BlackBerry® Web Desktop Manager users can upgrade or install on their BlackBerry devices. The network drive that you specify in the `bas-config.properties` file takes effect only if you did not assign a software configuration to users in the BlackBerry Manager.

1. On a computer in your environment, create a network folder in `<drive>\Program Files\Common Files\Research In Motion\AppLoader\Shared`.
2. Copy the BlackBerry Device Software installation file to the network folder that you created.
3. In the network folder, double-click the **.exe** file.
4. Complete the installation process.
5. On the computer that hosts the network folder you created, share the `<drive>\Program Files\Common Files\Research In Motion` folder.
6. On the computer that hosts the BlackBerry® Administration Service, navigate to `<drive>\Program Files\Research In Motion\BlackBerry Administration Service\server\default\conf`.
7. Open **bas-config.properties** in a text editor.
8. Add the following line: `DefaultHandheldSoftwareSharePath="\\\\<full_computer_name>\Program Files\Common Files\Research In Motion"` where `<full_computer_name>` is the name of the computer on which you created the network folder. You must separate each folder name with two backslashes (`\\`).
9. Save the file in the default location.

When users log in to the BlackBerry Web Desktop Manager, the application loader tool lists the available BlackBerry Device Software and applications.

Making the BlackBerry Web Desktop Manager available to users

Installing the BlackBerry Web Desktop Manager client components on user computers

By default, when users open and log in to the BlackBerry® Web Desktop Manager for the first time, the browser prompts them to accept a client authentication certificate and install the required RIMWebComponents.cab file. The RIMWebComponents.cab file provides the BlackBerry® Device Manager and USB drivers required to use the BlackBerry Web Desktop Manager. To install these components, users must log in to their computers as a local administrator.

If you use Microsoft® Active Directory® in your environment, consider creating Microsoft® Windows® GPOs to install the BlackBerry Web Desktop Manager client components on user computers automatically. When you use this installation method, the browser does not display the security or installation prompts to users, and users do not require local administrator permissions to complete the installation process.

Publish the BlackBerry Web Desktop Manager client file in a Microsoft Windows GPO

1. Navigate to <drive>\Program Files\Research In Motion\BlackBerry Administration Service\JBoss\ejb\server\default\tmp\deploy\tmp<number>basClientWebDesktop-exp.war\.
2. Copy **RIMWebComponents.msi** from **RIMWebComponents.cab** to a shared network folder.
3. In Microsoft® Active Directory® Users and Computers, right-click the organizational unit to which you want to assign the GPO. Click **Properties**.
4. On the **Group Policy** tab, click **New**.
5. Type a name for the new GPO.
6. In the list of GPOs, click the GPO name.
7. Click **Edit**.
8. In the Group Policy Editor, click **User Configuration > Software Settings**.
9. Right-click **Software Installation**. Click **New > Package**.
10. Type the UNC path and name of the copied **RIMWebComponents.msi**.
11. Click **Open**.
12. In the Deploy Software window, click **Advanced**.
13. Click **OK**.
14. In the Group Policy Object properties window, on the **Deployment** tab, under **Deployment type**, click **Published**.
15. Under **Installation user interface options**, click **Basic**.
16. If you use Microsoft® Windows Server® 2003, perform the following actions:
 - On the **Deployment** tab, click **Advanced**. Click **Include OLE class and product information**.
17. Click **OK**.

You must add the registry key HKEY_LOCAL_MACHINE\Software\Microsoft\WindowsCurrentVersion\Internet Settings\UseCoInstall to the user computers.

Set up user computers to install the BlackBerry Web Desktop Manager client file automatically

You can create a new Microsoft® Windows® GPO to add the registry key HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Internet Settings\UseCoInstall to the user computers. When you add the registry key, the users' computers install the required RIMWebComponents.msi file and other administrator-approved Microsoft® ActiveX® controls automatically.

1. On the computer that hosts Microsoft® Active Directory®, in a new text file, type the following lines:

```
CLASS MACHINE

CATEGORY !!RegistrySettings

KEYNAME "Software\Microsoft\Windows\CurrentVersion\Internet Settings"
;KEYNAME "Software\Policies\Microsoft\Windows\CurrentVersion\Internet Settings"

POLICY !!EnableActiveXInstallFromAD

EXPLAIN !!EnableActiveXInstallFromAD_Explain

VALUENAME "UseCoInstall"

VALUEON NUMERIC 1

VALUEOFF NUMERIC 0

END POLICY

END CATEGORY

[strings]

EnableActiveXInstallFromAD="Allow user computers to install administrator-approved
Microsoft ActiveX components."

EnableActiveXInstallFromAD_Explain="Allow user computers to install administrator-
approved Microsoft ActiveX components."

RegistrySettings="Registry Settings"
```

2. Save and name the file **EnableActiveXInstallFromAD.adm**.
3. In Microsoft Active Directory Users and Computers, right-click the organizational unit to which you want to assign the GPO. Click **Properties**.
4. On the **Group Policy** tab, click **New**.
5. Type a name for the new GPO.
6. In the list of GPOs, click the GPO name. Click **Edit**.
7. In the Group Policy Object Editor, click **Computer Configuration > Administrative Templates**.
8. Right-click **Administrative Templates**. Perform one of the following actions:
 - If you use Microsoft® Windows 2000 Server®, clear the **View – Show Policies Only** option.
 - If you use Microsoft Windows Server 2003, click **View – Filtering**. Clear the **Only show policy settings that can be fully managed** check box.

9. Right-click **Administrative Templates**. Click **Add/Remove Templates**.
10. Add the EnableActiveXInstallFromAD.adm custom administrative template to the GPO.
11. Click **Administrative Templates > Registry Settings**.
12. Double-click **Allow user computers to install administrator-approved Microsoft ActiveX components**.
13. Click **Enabled**.
14. Click **OK**.

The GPO adds the registry key to computers in the organizational unit to which you assigned the GPO.

For more information about registry-based GPOs, visit <http://technet2.microsoft.com/WindowsServer/en/library> to read *Using Administrative Template Files with Registry-Based Group Policy*.

Make the BlackBerry Web Desktop Manager available to users

The BlackBerry Web Desktop Manager web page address takes the form https://<full_computer_name>/webdesktop/login. If you customized the BlackBerry Web Desktop Manager text colors or image and you want to display the changes on the login screen, you must send users a web page address that takes the form https://<full_computer_name>/webdesktop/app?page=Login&service=page&orgId=0.

Send users the following information in a message:

- The BlackBerry® Web Desktop Manager web page address.
- The IBM® Lotus® Domino® Internet user names and passwords that you set up for the users in your messaging environment

Prerequisites: Using the BlackBerry Web Desktop Manager

Item	Requirement
Operating system	User computers must have one of the following operating systems installed: <ul style="list-style-type: none"> • Microsoft® Windows® 2000 Professional SP4 or later • Microsoft Windows XP Professional
Browser	User computers must have Microsoft® Internet Explorer® Version 5.5 or later installed.
Browser settings	<ul style="list-style-type: none"> • the BlackBerry® Web Desktop Manager web page address is added as a trusted site or local intranet site • to run and install Microsoft® ActiveX® controls, the following settings must be turned on: <ul style="list-style-type: none"> • Automatic prompting for ActiveX controls • Download signed ActiveX controls • Run ActiveX controls and plug-ins

Item	Requirement
	<ul style="list-style-type: none"><li data-bbox="829 251 1293 274">• Script ActiveX controls marked safe for scripting<li data-bbox="765 296 1115 319">• support for JavaScript® is turned on<li data-bbox="765 331 1105 354">• support for TLS or SSL is turned on<li data-bbox="765 366 1329 453">• the SSL client authentication certificate must be installed to allow trusted connections with the BlackBerry® Administration Service <p data-bbox="725 479 1329 614">If you use Microsoft® Active Directory®, consider creating a Microsoft Windows GPO to make sure that the browser settings are correct for your organization's environment. Alternatively, you must check these settings on user computers and, if necessary, change them.</p>

Configuring BlackBerry Administration Service logging settings

Changing logging levels

Change the logging level of the debug log files for the BlackBerry Administration Service application server

Specify the message types that the BlackBerry® Administration Service records in the application server debug log files located in <drive:>\Program Files\Research In Motion\BlackBerry Administration Service\Logs. By default, the BlackBerry Administration Service records information messages in the debug log files for the application server.

1. In the Registry Editor, navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Administration Service\Administration Service - Application Server\Logging Info.
2. Change **DebugLogLevel** to one of the following values:
 - To record errors in the log files, type 1.
 - To record warnings in the log files, type 2.
 - To record information messages in the log files, type 3.
 - To record debug messages in the log files, type 4.
 - To record trace messages in the log files, type 5.
3. Click **OK**.

Change the logging level of the event log files for the BlackBerry Administration Service application server

Specify the message types that the BlackBerry® Administration Service application server records in the Event Viewer log files. By default, the BlackBerry Administration Service records warnings in the event log files for the application server.

1. In the Registry Editor, navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Administration Service\Administration Service - Application Server\Logging Info.
2. Change **EventLogLevel** to one of the following values:
 - To record errors in the log files, type 1.
 - To record warnings in the log files, type 2.
 - To record information messages in the log files, type 3.
 - To record debug messages in the log files, type 4.
 - To record trace messages in the log files, type 5.
3. Click **OK**.

Change the logging level of the debug log files for the BlackBerry Administration Service native code container

Specify the message types that the BlackBerry® Administration Service records in the native code container debug log files located in `<drive>:\Program Files\Research In Motion\BlackBerry Administration Service\Logs`. By default, the BlackBerry Administration Service records information messages in the native code container debug log files.

1. In the Registry Editor, navigate to `HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Administration Service\Administration Service - Native Code Container\Logging Info`.
2. Change **DebugLogLevel** to one of the following values:
 - To record errors in the log files, type 1.
 - To record warnings in the log files, type 2.
 - To record information messages in the log files, type 3.
 - To record debug messages in the log files, type 4.
 - To record trace messages in the log files, type 5.
3. Click **OK**.

Change the logging level of the event log files for the BlackBerry Administration Service native code container

Specify the message types that the BlackBerry® Administration Service native code container records in the Event Viewer log files. By default, the BlackBerry Administration Service records warnings in the event log files for the native code container.

1. In the Registry Editor, navigate to `HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Administration Service\Administration Service - Native Code Container\Logging Info`.
2. Change **EventLogLevel** to one of the following values:
 - To record errors in the log files, type 1.
 - To record warnings in the log files, type 2.
 - To record information messages in the log files, type 3.
 - To record debug messages in the log files, type 4.
 - To record trace messages in the log files, type 5.
3. Click **OK**.

Managing log file size

Change the maximum size of the debug log files for the BlackBerry Administration Service application server

To help save hard disk space, you can change the maximum size of the debug log files for the BlackBerry® Administration Service application server. By default, the maximum size is 100 MB.

1. In the Registry Editor, navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Administration Service\Administration Service - Application Server\Logging Info.
2. Change the **DebugLogSize** value to the maximum size of the log files in megabytes.
3. Click **OK**.

Specify whether the BlackBerry Administration Service overwrites existing log files when they exceed the maximum size

You can specify whether the BlackBerry® Administration Service overwrites an existing log file with new log file entries when a BlackBerry Administration Service log file reaches its maximum size. By default, the BlackBerry Administration Service creates a new log file when the existing log file reaches the maximum size.

1. In the Registry Editor, navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Administration Service\Administration Service - Application Server\Logging Info.
2. Change **DebugLogAutoRoll** to one of the following values:
 - To overwrite the existing log file when it reaches the maximum size, type 0.
 - To create a new log file when the existing log file reaches the maximum size, type 1.
3. Click **OK**.

Managing log folders

Change the root folder in which the BlackBerry Administration Service creates log files

By default, the BlackBerry® Administration Service creates log files in <drive:>\Program Files\Research In Motion\BlackBerry Administration Service\Logs.

1. In the Registry Editor, navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Administration Service\Logging Info.
2. Change the **LogRoot** value to the path and name of the root folder in which you want the BlackBerry Administration Service to create the log files.
3. Click **OK**.

Specify whether the BlackBerry Administration Service creates log files in subfolders

By default, the BlackBerry® Administration Service creates log files in subfolders that are named according to date. You can specify whether the BlackBerry Administration Service creates log files in subfolders or in the default log folder.

1. In the Registry Editor, navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Administration Service\Logging Info.
2. Change **DailyLogFileFolder** to one of the following values:
 - To create log files in daily subfolders, type 1.
 - To create log files in the default log folder, type 0.
3. Click **OK**.

Add a prefix to BlackBerry Administration Service log files

You can add the text that appears before the log file names for the BlackBerry® Administration Service. By default, the log file names do not contain a prefix.

1. In the Registry Editor, navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Administration Service\Logging Info.
2. Change the **LogFilePrefix** value to the new prefix.
3. Click **OK**.

Changing BlackBerry Administration Service security settings after the installation

Import a nondefault SSL certificate after the BlackBerry Administration Service installation

When you install the BlackBerry® Administration Service, the setup program generates a default SSL certificate. If you prefer, you can import a self-signed SSL certificate or an SSL certificate that is signed by a different certificate authority after the installation process.

1. Copy the SSL certificate from a secure web site to a .cer file.
2. On the computer that hosts the BlackBerry Administration Service, copy the .cer file to the <drive>\Program Files\Java\<JRE_version>\lib\security folder.
3. At the command prompt, navigate to <drive>\Program Files\Java\<JRE_version>\bin.
4. Type `keytool -import -trustcacerts -alias <alias_name> -file <cert_file_name> -keystore cacerts`.
5. Type the key store password.
6. To add the certificate to the key store, when prompted, click **Yes**.

For more information about using the keytool, visit www.java.sun.com/j2se/1.5.0/docs/tooldocs/windows/keytool.html.

Change the key store password after the BlackBerry Administration Service installation

The key store password must contain alphanumeric characters only.

1. In the Registry Editor, navigate to `HKEY_CURRENT_USER\SOFTWARE\Research In Motion\BlackBerry Administration Service\Key Store`.
2. Change the **WebKeyStorePass** value to the new password for the key store.
3. Click **OK**.

Troubleshooting: Users cannot log in to the BlackBerry Web Desktop Manager

Possible cause	Possible solution
You might have specified an incorrect URL for the BlackBerry® Configuration Database during the BlackBerry® Administration Service installation process.	Change the BlackBerry Configuration Database URL
You might have specified an incorrect URL for the IBM® Lotus® Domino® server during the BlackBerry Administration Service installation process.	Change the IBM Lotus Domino server URL

Change the BlackBerry Configuration Database URL

1. On the computer that hosts the BlackBerry Administration Service, at the command prompt, navigate to `<drive>\Program Files\Research In Motion\BlackBerry Administration Service\bin\`.
2. Type `basConfig.bat` and all of the following parameters:
 - `-cmd database`
 - `-file "<drive>\Program Files\Research In Motion\BlackBerry Administration Service\jboss\ejb\server\default\deploy\bas-ds.xml"`
 - `-driver <database_driver_class>`
 - `-url <database_URL>`
 - `-ntlm <true_or_false>`
3. To change the native code container configuration file, run **basConfig.bat** again using `<drive>\Program Files\Research In Motion\BlackBerry Administration Service\jboss\ejb\server\nc\deploy\bas-ds.xml` as the value for the `-file` parameter, and the other parameters that you specified when you ran the script for the first time.

Example: Changing the BlackBerry Configuration Database URL

Running the `basConfig.bat` file to update the application server configuration file:

```
basConfig.bat -cmd database -file "C:\Program Files\Research In Motion\BlackBerry Administration Service\jboss\ejb\server\default\deploy\bas-ds.xml" -driver com.microsoft.sqlserver.jdbc.SQLServerDriver -url jdbc:sqlserver://localhost:1433;DatabaseName=BESMgmt;integratedSecurity=true -ntlm true
```

Running the `basConfig.bat` file a second time to update the native code container configuration file:

```
basConfig.bat -cmd database -file "C:\Program Files\Research In Motion\BlackBerry Administration Service\jboss\ejb\server\nc\deploy\bas-ds.xml" -driver
```

```
com.microsoft.sqlserver.jdbc.SQLServerDriver -url jdbc:sqlserver://localhost:1433;DatabaseName=BESMgmt;integratedSecurity=true -ntlm true
```

BlackBerry Configuration Database parameters

Parameter	Description
-cmd	This parameter specifies the task that the basConfig.bat file performs. The database value changes the BlackBerry® Configuration Database information.
-file	This parameter specifies the paths of the JBoss® Web Server configuration files. You must insert quotation marks around the value specified for this parameter. By default, the path of the application server configuration file is <i><drive>\Program Files\Research In Motion\BlackBerry Administration Service\JBoss\ejb\server\default\deploy\bas-ds.xml</i> , and the path of the native code container configuration file is <i><drive>\Program Files\Research In Motion\BlackBerry Administration Service\ncc\deploy\bas-ds.xml</i> .
-driver	This parameter specifies the JDBC driver class that your BlackBerry Configuration Database uses. For more information about locating the JDBC driver class, see the documentation for your database management system.
-url	This parameter specifies the BlackBerry Configuration Database URL in the form <i><protocol>//<database_server_name>:<port_number>;DatabaseName=<database_name></i> . If your BlackBerry Configuration Database uses Microsoft® Windows® authentication, you must add <i>;integratedSecurity=true</i> after the BlackBerry Configuration Database name. For example, <i>DatabaseName=BESMgmt;integratedSecurity=true</i> .
-ntlm	This parameter specifies the BlackBerry Configuration Database authentication type, using the following permitted values: <ul style="list-style-type: none">• true: specifies that the BlackBerry Configuration Database uses Microsoft Windows authentication• false: specifies that the BlackBerry Configuration Database uses Microsoft SQL authentication

Change the IBM Lotus Domino server URL

1. On the computer that hosts the BlackBerry Administration Service, at the command prompt, navigate to *<drive>\Program Files\Research In Motion\BlackBerry Administration Service\bin*.
2. Type basConfig.bat and all of the following parameters:
 - -cmd domino
 - -file *<location_of_bas_config_properties>*
 - -serverUrl "*<server_DNS_name>*"

Example: Changing to an IBM Lotus Domino server in a different domain

```
basConfig.bat -cmd domino -file C:\Program Files\Research In Motion\BlackBerry Administration Service\server\default\conf\bas-config.properties -serverUrl "mydomain.mycompany.net"
```

IBM Lotus Domino server parameters

Parameter	Description
-cmd	Specifies the task that the basConfig.bat file performs. To change IBM® Lotus® Domino® server information, type domino.
-file	Specifies the path and name of the JBoss® Web Server configuration file. By default, the path is <drive>\Program Files\Research In Motion\BlackBerry Administration Service\JBoss\ejb\server\default\deploy\bas-ds.xml.
-serverUrl	Specifies the DNS name of the new IBM Lotus Domino server. You must place quotation marks around the value specified for this parameter.

Glossary

CORBA

Common Object Request Broker Architecture

DIIOP

The Domino Internet Inter-ORB Protocol (DIIOP) allows CORBA-based applications to communicate with, and access information in, IBM® Lotus® Domino® databases.

DNS

A Domain Name System (DNS) is an Internet database that translates domain names that are meaningful and recognizable by people into the numeric IP addresses that the Internet uses.

GPO

A Group Policy Object (GPO) is a collection of policy settings that you can apply to users and computers in a Microsoft® Active Directory® environment.

HTTP

The HyperText Transfer Protocol (HTTP) is a communications protocol that transfers data, such as web page requests from a browser, on the Internet.

IBM DB2 UDB

IBM® DB2 Universal Database™

JDBC

Java® Database Connectivity (JDBC) is an API that Java applications use to access SQL databases.

MAPI

Messaging Application Programming Interface

ORB

Object request broker

SQL

Structured Query Language

SSL

Secure Sockets Layer (SSL) is designed to provide additional security for message transmission over the Internet.

TLS

Transport Layer Security (TLS) is designed to provide additional security for message transmission over the Internet. TLS is the successor of SSL.

UI

A user interface (UI) allows users to interact with computer applications or hardware.

UNC

Universal Naming Convention (UNC) is used to identify the location of a shared folder or file on a network. A UNC path takes the form `\\<computer_name>\<file_path_and_name>`.

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BlackBerry Web Desktop Manager Installation and Administration Guide

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Research In Motion Limited

295 Phillip Street

Waterloo, ON N2L 3W8

Canada

Research In Motion UK Limited

200 Bath Road

Slough, Berkshire SL1 3XE

United Kingdom

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 - c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
 - d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a 'work that uses the Library'. Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a 'work that uses the Library' with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a 'work that uses the library'. The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a 'work that uses the Library' uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a 'work that uses the Library' with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable 'work that uses the Library', as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the 'work that uses the Library' must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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