

Getting Started Guide

BlackBerry Professional Software

Version 4.1 SP4

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BlackBerry Professional Software overview

The BlackBerry® Professional Software is designed for organizations with up to 30 BlackBerry device users who collaborate using the organization's messaging server. From their BlackBerry devices, users can send and receive email messages, manage calendar and address book contacts, and organize their workloads using tasks and memos. Users can also browse the Internet or work with applications that are available for their BlackBerry devices.

The BlackBerry Professional Software has been designed to streamline administration, with a simplified BlackBerry Manager to help you set up and manage user accounts and administer the BlackBerry Professional Software. The design is intended to make it easier for administrators in small organizations to manage the BlackBerry Professional Software in addition to their main responsibilities.

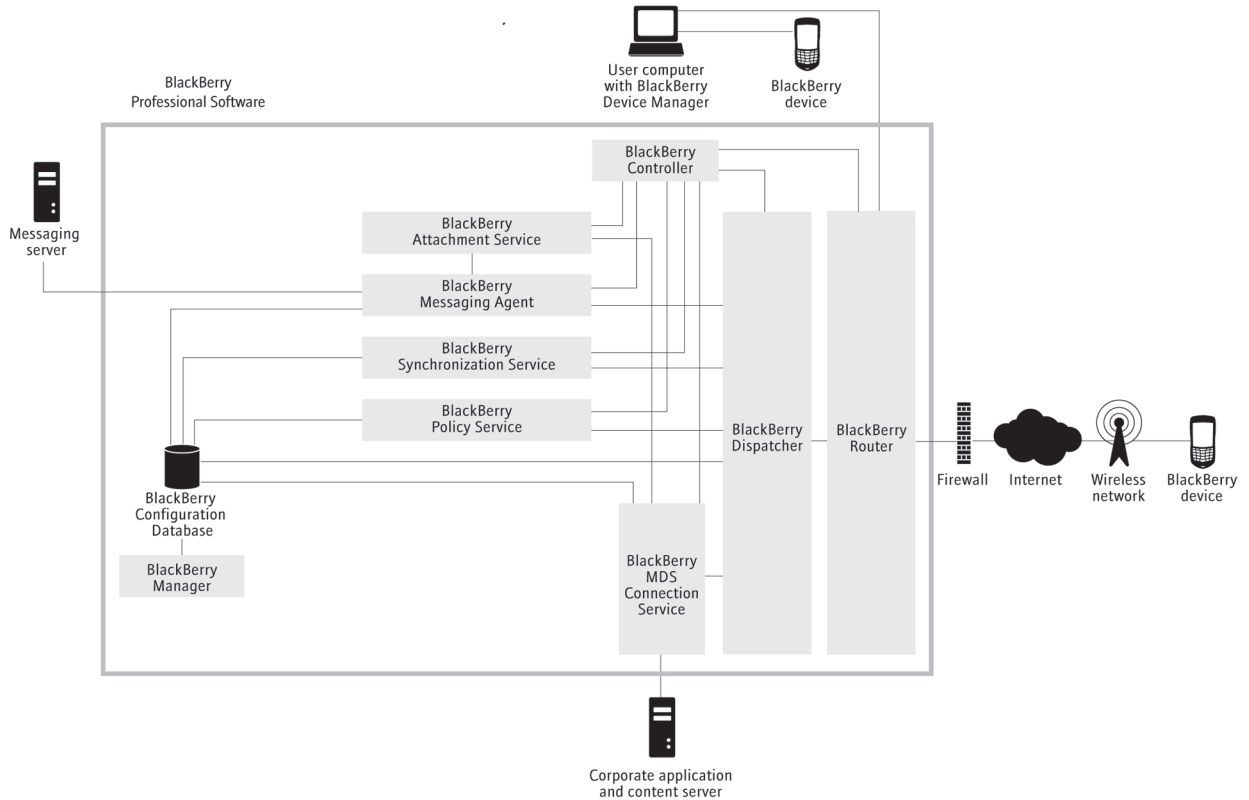
You can install the BlackBerry Professional Software on your messaging server or on a separate server. Installing the BlackBerry Professional Software and adding your first user account usually takes less than two hours.

If the number of BlackBerry device users in your organization increases, or if you find that users need access to more data or to a broader range of applications, you can upgrade from the BlackBerry Professional Software to BlackBerry® Enterprise Server Version 4.1 SP5 or later.

Architecture: BlackBerry Professional Software in a Microsoft Exchange messaging environment

The BlackBerry® Professional Software components are designed to perform the following actions:

- provide productivity tools and data from your organization's applications to your BlackBerry device users
- monitor other BlackBerry Professional Software components
- process, route, compress, and encrypt data
- communicate with the wireless network



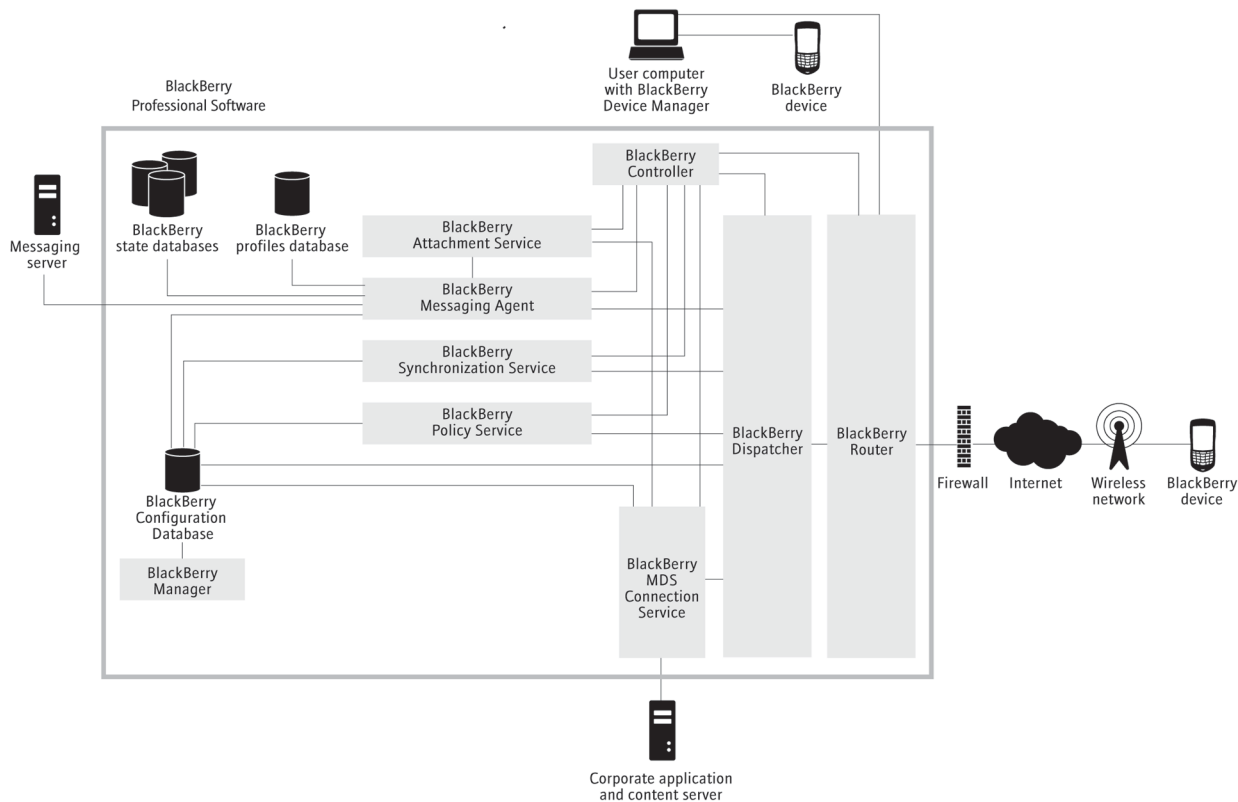
Component	Description
BlackBerry Attachment Service	The BlackBerry Attachment Service converts supported message attachments into a format that users can view on their BlackBerry devices.
BlackBerry Configuration Database	The BlackBerry Configuration Database is a relational database that contains configuration information that the components of the BlackBerry Professional Software use. The BlackBerry Configuration Database stores the following information: <ul style="list-style-type: none"> information about the connection from the BlackBerry Professional Software to the wireless network user list address mappings between PINs and email addresses for BlackBerry® MDS Connection Service push features read-only copy of the master encryption key for each BlackBerry device
BlackBerry Controller	The BlackBerry Controller monitors the components of the BlackBerry Professional Software and restarts them if they stop responding.

Component	Description
BlackBerry Dispatcher	The BlackBerry Dispatcher compresses and encrypts the data that it sends to and receives from BlackBerry devices. It sends the data through the BlackBerry Router to and from the wireless network.
BlackBerry Manager	The BlackBerry Manager connects to the BlackBerry Configuration Database. You use the BlackBerry Manager to manage user accounts and BlackBerry devices.
BlackBerry Messaging Agent	The BlackBerry Messaging Agent connects to the messaging server to provide services for messaging, calendar management, address lookup, attachment viewing, and wireless generation of encryption keys. The BlackBerry Messaging Agent also acts as a gateway for the BlackBerry Synchronization Service to access organizer data on the messaging server. In a Microsoft® Exchange messaging environment, the BlackBerry Messaging Agent also synchronizes configuration data between the BlackBerry Configuration Database and user mailboxes.
BlackBerry Policy Service	The BlackBerry Policy Service performs administration services over the wireless network, such as sending IT policies and IT administration commands and provisioning service books. IT policies and IT administration commands define BlackBerry device security, settings for wireless data synchronization, and other configuration settings on the BlackBerry device. Service books define feature and component settings on the BlackBerry device.
BlackBerry Router	The BlackBerry Router connects to the wireless network to send data to and receive data from BlackBerry devices. It also sends data within your organization's network to BlackBerry devices that are connected to computers using the BlackBerry® Device Manager.
BlackBerry Synchronization Service	The BlackBerry Synchronization Service synchronizes organizer data between BlackBerry devices and the messaging server over the wireless network.
messaging server	The messaging server stores email accounts.
user computer with the BlackBerry Device Manager	<p>The user computer with the BlackBerry Device Manager enables users to connect their BlackBerry devices to their computers using a serial connection or USB connection. The BlackBerry Professional Software uses this connection to send data to and receive data from BlackBerry devices.</p> <p>Data traffic from BlackBerry devices bypasses the wireless network while a BlackBerry device is connected to a user's computer. The BlackBerry Device Manager connects to the BlackBerry Router, which sends data directly to the BlackBerry device.</p> <p>Users can install the BlackBerry Device Manager separately or with the BlackBerry® Desktop Manager as part of the full BlackBerry® Desktop Software installation. The BlackBerry Device Manager is an optional component, but the BlackBerry Router requires it to support connections to the BlackBerry Router that bypass the BlackBerry® Infrastructure.</p>

Architecture: BlackBerry Professional Software in an IBM Lotus Domino messaging environment

The BlackBerry® Professional Software components are designed to perform the following actions:

- provide productivity tools and data from your organization's applications to your BlackBerry device users
- monitor other BlackBerry Professional Software components
- process, route, compress, and encrypt data
- communicate with the wireless network



Component	Description
BlackBerry Attachment Service	The BlackBerry Attachment Service converts supported message attachments into a format that users can view on their BlackBerry devices.
BlackBerry Configuration Database	The BlackBerry Configuration Database is a relational database that contains configuration information that the components of the BlackBerry Professional Software use. The BlackBerry Configuration Database stores the following information: <ul style="list-style-type: none"> • details about the connection from the BlackBerry Professional Software to the wireless network • user list

Component	Description
	<ul style="list-style-type: none"> • address mappings between PINs and email addresses for BlackBerry® MDS Connection Service push features • read-only copy of the master encryption key for each BlackBerry device
BlackBerry Controller	The BlackBerry Controller monitors the components of the BlackBerry Professional Software and restarts them if they stop responding.
BlackBerry Dispatcher	The BlackBerry Dispatcher compresses and encrypts the data that it sends to and receives from BlackBerry devices. It sends the data through the BlackBerry Router to and from the wireless network.
BlackBerry Manager	The BlackBerry Manager connects to the BlackBerry Configuration Database. You use the BlackBerry Manager to manage user accounts and BlackBerry devices.
BlackBerry Messaging Agent	The BlackBerry Messaging Agent connects to the messaging server to provide services for messaging, calendar management, address lookups, attachment viewing, and generation of wireless encryption keys. The BlackBerry Messaging Agent also acts as a gateway for the BlackBerry Synchronization Service to access organizer data on the messaging server. The BlackBerry Messaging Agent synchronizes configuration data between the BlackBerry Configuration Database and the BlackBerry profiles database.
BlackBerry Policy Service	The BlackBerry Policy Service performs administration services over the wireless network, such as sending IT policies and IT administration commands, and provisioning service books. IT policies and IT administration commands define BlackBerry device security, settings for wireless data synchronization, and other configuration settings on the BlackBerry device. Service books are also used to define settings on the BlackBerry device.
BlackBerry profiles database	The BlackBerry profiles database is an IBM® Lotus® Domino® database that contains configuration information for user accounts.
BlackBerry Router	The BlackBerry Router connects to the wireless network to send data to and receive data from the BlackBerry device. It also sends data within your organization's network to BlackBerry devices that are connected to computers using the BlackBerry® Device Manager.
BlackBerry state databases	The BlackBerry state databases contain information that link messages sent from or received on a BlackBerry device to corresponding messages in the email application on users' computers. The information in the BlackBerry state databases is designed to support features such as email reconciliation, message forwarding, message filing, and replying with text.
BlackBerry Synchronization Service	The BlackBerry Synchronization Service synchronizes organizer data between a BlackBerry device and the messaging server over the wireless network.
messaging server	The messaging server stores email accounts.
user computer with the BlackBerry Device Manager	<p>The user computer with the BlackBerry Device Manager enables users to connect their BlackBerry devices to their computers using a serial connection or USB connection. The BlackBerry Professional Software uses this connection to send data to and receive data from BlackBerry devices.</p> <p>Data traffic from BlackBerry devices bypasses the wireless network while a BlackBerry device is connected to a user's computer. The BlackBerry Device Manager connects to the BlackBerry Router, which sends data directly to the BlackBerry device.</p>

Component	Description
	Users can install the BlackBerry Device Manager separately or with the BlackBerry® Desktop Manager as part of the full BlackBerry® Desktop Software installation. The BlackBerry Device Manager is an optional component, but the BlackBerry Router requires it to support connections to the BlackBerry Router that bypass the BlackBerry® Infrastructure.

System requirements

You can install the BlackBerry® Professional Software on the server that hosts your messaging server or on a separate host server.

If you might upgrade to the BlackBerry® Enterprise Server in the future, consider installing the BlackBerry Professional Software on a separate host server. Installation of the BlackBerry Enterprise Server on the messaging server is not a supported environment.

The setup application can automatically install a Microsoft® SQL Server™ 2005 Express database engine, or you can configure the BlackBerry Professional Software to connect to a remote Microsoft SQL Server database engine.

Before installing the BlackBerry Professional Software, the setup application runs a preinstallation tool that verifies that your environment meets the minimum system requirements for the BlackBerry Professional Software. The tool displays the results of the analysis on the screen.

It also writes the results in the log files in the following location: <drive>\Program Files\Research In Motion\Blackberry Enterprise Server\Logs\Installer

The file name begins with DetectionLog_.

System requirements: BlackBerry Professional Software in a Microsoft Exchange messaging environment

Item	Requirement
hardware	<p>To support the BlackBerry® Professional Software installed on a separate host server, with Microsoft® SQL Server™ 2005 Express installed by the setup application on the same server, at a minimum, you require the following hardware:</p> <ul style="list-style-type: none">• Intel® Pentium® IV processor (1.5 GHz or more)• 1 GB or more of available RAM <p>To support the BlackBerry Professional Software installed on the messaging server, with Microsoft SQL Server 2005 Express installed by the setup application on the same server, at a minimum, you require the following hardware for the BlackBerry Professional Software:</p> <ul style="list-style-type: none">• IntelPentium IV processor (2 GHz or more)• 1.5 GB or more of available RAM
operating system	<p>On the host server for the BlackBerry Professional Software, install one of the following operating systems in English, French, German, Italian, or Spanish:</p> <ul style="list-style-type: none">• Microsoft® Windows Server® 2000 SP4• Microsoft Windows Server 2003 SP1 or SP2• Microsoft Windows Server 2003 (64-bit)• Microsoft Windows Small Business Server (Standard or Premium edition)• Microsoft Windows Small Business Server SP2

Item	Requirement
messaging server	Install one of the following messaging servers with all Daylight Saving Time patches: <ul style="list-style-type: none"> • Microsoft Exchange Version 5.5 native environment • Microsoft Exchange 2000 native environment • Microsoft Exchange 2003 native environment • Microsoft Exchange 2007 native environment with public folders set up • mixed environment (any combination of Microsoft Exchange Version 5.5, Microsoft Exchange 2000, Microsoft Exchange 2003, and Microsoft Exchange 2007)
messaging server administration tool	In a Microsoft Exchange Version 5.5, Microsoft Exchange 2000, or Microsoft Exchange 2003 messaging environment, install one of the following administration tools on the host server for the BlackBerry Professional Software: <ul style="list-style-type: none"> • Microsoft Exchange 5.5 Administrator • Microsoft Exchange 2000 System Manager • Microsoft Exchange 2003 System Manager In a Microsoft Exchange 2007 messaging environment, install one of the following administration tools on the host server for the BlackBerry Professional Software: <ul style="list-style-type: none"> • Microsoft Exchange 2003 SP2 with System Tools • Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1 (for more information, visit http://support.microsoft.com/kb/929590 to read KB929590)
web browser	Install Microsoft® Internet Explorer Version 6.0 with Java® or JavaScript® turned on and the language preferences configured to display encoded web pages.
CDO library	Install the latest version that is supported by the version of Microsoft Exchange in your environment.
data access components	Install one of the following data access components on the host servers for the BlackBerry Professional Software and the BlackBerry Configuration Database: <ul style="list-style-type: none"> • Microsoft Data Access Component (MDAC) Version 2.8 with Security Patch MS04-003 (Version 2000.85.1025.00) • MDAC Version 2.8 SP2 (Version 2000.86.1830.00)
database management system	Install one of the following database management systems, running on the Local System account, if applicable: <ul style="list-style-type: none"> • local MicrosoftSQL Server 2005 Express (you can install this database engine during the installation of the BlackBerry Professional Software) • local MicrosoftSQL Server 2000 Desktop Engine (MSDE 2000) • remote MicrosoftSQL Server 2000 SP3 • remote MicrosoftSQL Server 2005 (Standard or Enterprise) • remote MicrosoftSQL Server 2005 (64-bit)
Microsoft® .NET Framework	You require Microsoft .NET Framework Version 1.1 SP1. If this is not present, it is installed as part of the installation process.

Item	Requirement
virtual environment (optional)	You can use VMware® ESX Server Version 2.5.2 to isolate the BlackBerry Professional Software when it is installed on the same server as your messaging server or to isolate the BlackBerry Professional Software from other applications on a server.
network environment settings	Configure your organization's firewall or proxy to meet the following conditions: <ul style="list-style-type: none"> • firewall settings permit the host server for the BlackBerry Professional Software to initiate a two-way TCP/IP connection to an external server on port 3101 • corporate firewall can resolve Internet addresses using the DNS • proxy is transparent, if you are using a proxying firewall

System requirements: Client computers in a Microsoft Exchange messaging environment

Item	Requirement
email client software	Your email client software must be one of the following: <ul style="list-style-type: none"> • Microsoft® Outlook® 2000 • Microsoft Outlook 2003 • Microsoft Outlook 2003 SP2 • Microsoft Outlook 2007

System requirements: BlackBerry Professional Software in an IBM Lotus Domino messaging environment

Item	Requirement
hardware	<p>To support the BlackBerry® Professional Software installed on a separate host server, with Microsoft® SQL Server™ 2005 Express installed by the setup application on the same server, at a minimum, you require the following hardware:</p> <ul style="list-style-type: none"> • Intel® Pentium® IV processor (1.5 GHz or more) • 1 GB or more of available RAM <p>To support the BlackBerry Professional Software installed on the messaging server, with Microsoft SQL Server 2005 Express installed by the setup application on the same server, at a minimum, you require the following hardware for the BlackBerry Professional Software:</p> <ul style="list-style-type: none"> • IntelPentium IV processor (2 GHz or more) • 1.5 GB or more of available RAM

Item	Requirement
operating system	<p>On the host server for the BlackBerry Professional Software, install one of the following operating systems in English, French, German, Italian, or Spanish:</p> <ul style="list-style-type: none"> • Microsoft® Windows Server® 2000 SP4 • Microsoft Windows Server 2003 SP1 or SP2 • Microsoft Windows Server 2003 (64-bit)
messaging server	<p>Install one of the following messaging servers with all Daylight Saving Time patches:</p> <ul style="list-style-type: none"> • IBM® Lotus® Domino® Version 6.5.5 • IBM Lotus Domino Version 7.0.0 • IBM Lotus Domino Version 7.0.1 • IBM Lotus Domino Version 7.0.2 • IBM Lotus Domino Version 8.0.0 <p>Your messaging server must meet the following additional requirements:</p> <ul style="list-style-type: none"> • It is installed as a member of the LocalDomainServers group. • It has permission to run agents. • It has manager-level access to the mail files of BlackBerry device users.
web browser	<p>Install Microsoft® Internet Explorer Version 6.0 with Java® or JavaScript® turned on and the language preferences configured to display encoded web pages.</p>
notes.ini file	<p>Configure the following conditions in the notes.ini file:</p> <ul style="list-style-type: none"> • read/write permissions • SERVERKEYFILENAME value set to server.id name only, without full path information
data access components	<p>Install one of the following data access components on the host servers for the BlackBerry Professional Software and the BlackBerry Configuration Database:</p> <ul style="list-style-type: none"> • Microsoft Data Access Component (MDAC) Version 2.8 with Security Patch MS04-003 (Version 2000.85.1025.00) • MDAC Version 2.8 SP2 (Version 2000.86.1830.00)
database management system	<p>Install one of the following database management systems, running on the Local System account, if applicable:</p> <ul style="list-style-type: none"> • local MicrosoftSQL Server 2005 Express (you can install this database engine during the installation of the BlackBerry Professional Software) • local MicrosoftSQL Server 2000 Desktop Engine (MSDE 2000) • remote MicrosoftSQL Server 2000 SP3 • remote MicrosoftSQL Server 2005 (Standard or Enterprise) • remote MicrosoftSQL Server 2005 (64-bit)
Microsoft .NET Framework	<p>You require Microsoft .NET Framework Version 1.1 SP1. If this is not present, it is installed as part of the installation process.</p>

Item	Requirement
virtual environment (optional)	You can use VMware® ESX Server Version 2.5.2 to isolate the BlackBerry Professional Software when it is installed on the same computer as your messaging server, or to isolate the BlackBerry Professional Software from other applications on a server.
network environment settings	Configure your organization's firewall or proxy to meet the following conditions: <ul style="list-style-type: none"> • firewall settings permit the host server for the BlackBerry Professional Software to initiate a two-way TCP/IP connection to an external server on port 3101 • corporate firewall can resolve Internet addresses using the DNS • proxy is transparent, if you are using a proxying firewall

System requirements: Client computers in an IBM Lotus Domino environment

Item	Requirement
email client software	Your email client software must be one of the following: <ul style="list-style-type: none"> • IBM® Lotus Notes® Version 5.0.12 • IBM Lotus Notes Version 6.0.4 • IBM Lotus Notes Version 6.5.5 • IBM Lotus Notes Version 7.0.0 or 7.0.1

Configuring a Microsoft Exchange Version 5.5, Microsoft Exchange 2000, or Microsoft Exchange 2003 messaging environment

To configure a Microsoft® Exchange Version 5.5, Microsoft Exchange 2000, or Microsoft Exchange 2003 messaging environment, perform the following tasks:

- Create a Microsoft® Windows® account and mailbox. The account and mailbox are required so that the components of the BlackBerry® Professional Software can authenticate to the Microsoft Exchange Server.
- Configure permissions for the Microsoft Windows account. These permissions are required so that the components of the BlackBerry Professional Software can authenticate to the Microsoft Exchange Server.
- Configure Microsoft Exchange permissions for the Microsoft Windows account. These permissions allow the account to log in to the local server and run the BlackBerry Professional Software as a Microsoft Windows service.
- Start the MAPI subsystem. This task starts the messaging interface and allows messaging applications to work through a single Microsoft Exchange application.
- Identify and address Microsoft Exchange known issues for wireless calendar synchronization.

Create a Microsoft Windows account and mailbox

You create and configure a Microsoft® Windows® account and mailbox in the Microsoft® Active Directory® service to run the BlackBerry® Professional Software. The components of the BlackBerry Professional Software also use this account to authenticate to the Microsoft® Exchange messaging server.

You might not be able to see the Microsoft Windows account to verify that it has been created.

1. On the messaging server, on the taskbar, click **Start > Administrative Tools > Active Directory Users and Computers**.
2. Create an account with the following properties:
 - **Name:** besadmin
 - **User location:** create a Microsoft Exchange mailbox
 - **Group membership:** Domain User
3. Assign this account the **Send As** permission for all user accounts in the User container of your MicrosoftActive Directory domain.
4. Send a test message to activate the new mailbox.

Note: For more information about the Send As permission, visit www.support.microsoft.com to read article KB04707. For more information about assigning the Send As permission for multiple user accounts, visit www.support.microsoft.com to read article KB912918.

Configure permissions for the Microsoft Windows account

Configure the permissions of the Microsoft® Windows® account that you plan to use to install the BlackBerry® Professional Software.

1. On the server that hosts the BlackBerry Professional Software, on the taskbar, click **Start > Programs > Administrative Tools > Local Security Policy**.
2. Configure the following permissions for the Microsoft Windows account:

- log on locally with local permissions (if not assigned by default)
 - log on as a service
3. On the taskbar, click **Start > Programs > Administrative Tools > Computer Management**.
 4. Add the Microsoft Windows account to the local Administrators group.

Configuring Microsoft Exchange permissions for the Microsoft Windows account

Configure Microsoft Exchange Version 5.5 permissions for the Microsoft Windows account

On the server that hosts the BlackBerry® Professional Software, configure the Microsoft® Exchange permissions for the Microsoft® Windows® account that you plan to use to install the BlackBerry Professional Software.

In the Microsoft Exchange Version 5.5 Administrator, in both the Site and Configuration containers, configure the Service Account Admin permission.

Configure Microsoft Exchange 2000 or Microsoft Exchange 2003 permissions for the Microsoft Windows account

On the server that hosts the BlackBerry® Professional Software, configure the Microsoft® Exchange permissions for the Microsoft® Windows® account that you plan to use to install the BlackBerry Professional Software.

1. In the Microsoft Exchange 2000 or Microsoft Exchange 2003 System Manager, configure the Exchange View Only Administrator permission with the minimum access level of Administrative Groups.
2. At the server level, configure the following permissions:
 - Send As
 - Receive As
 - Administer Information Store

Start the MAPI subsystem

To start the MAPI subsystem, open the Microsoft® Exchange System Manager.

Identify and address Microsoft Exchange known issues for wireless calendar synchronization

1. Visit www.support.microsoft.com to read the following Microsoft® Exchange articles:

Microsoft Exchange tool	Microsoft article ID
Microsoft Exchange Version 5.5 Administrator	• 312273

Microsoft Exchange 2000 System Manager	<ul style="list-style-type: none">• 818709• 314606• 824960
Microsoft Exchange 2003 System Manager	<ul style="list-style-type: none">• 823343• 894470

2. Identify the hotfixes that are required for your messaging environment.
3. Download and install the hotfixes on the server that hosts the BlackBerry® Professional Software.

Configuring a Microsoft Exchange 2007 messaging environment

To configure a Microsoft® Exchange 2007 environment, perform the following tasks:

- Create a Microsoft Exchange 2007 account and mailbox. The account and mailbox are required so that the components of the BlackBerry® Professional Software can authenticate to the Microsoft Exchange Server.
- Configure Microsoft® Windows® permissions for the Microsoft Exchange account. These permissions allow the account to log in to the local server and run the BlackBerry Professional Software as a Microsoft Windows service.
- Configure Microsoft Exchange 2007 permissions for the Microsoft Exchange account.
- Assign permissions that allow BlackBerry device users to send messages in a Microsoft Exchange 2007 environment.
- If Microsoft Exchange Server 2007 storage group, database, and public folders are not installed, after you install and configure BlackBerry Professional Software, update the registry on the host server.

Create a Microsoft Exchange 2007 account and mailbox

You create and configure a Microsoft® Exchange account and mailbox to run the BlackBerry® Professional Software. The components of the BlackBerry Professional Software also use this account to authenticate to the Microsoft® Exchange messaging server.

1. Log in to the Microsoft® Exchange Server as an administrator with the permission to create an account.
2. Open the Microsoft Exchange Management Console.
3. Create a Microsoft Exchange account named **besadmin**.

Configure Microsoft Windows permissions for the Microsoft Exchange 2007 account

1. On the Microsoft® Exchange Server, right-click **My Computer**. Click **Manage**.
2. In the left pane, expand **Local Users and Groups**.
3. Navigate to the **Groups** folder.
4. In the right pane, double-click **Administrators**.
5. Click **Add**.
6. In the **Enter the object names to select** field, type **besadmin**.
7. Click **OK**.
8. Click **Apply**.
9. Click **OK**.

Configure Microsoft Exchange 2007 permissions for the Microsoft Exchange account

1. Open the Microsoft® Exchange Management Shell.

2. Perform one of the following actions:

- If you are performing the task locally on the Microsoft Exchange Server 2007, type the following command:

```
add-exchangeadministrator "BESAdmin" -role ViewOnlyAdmin
```

- If you are performing the task from another computer, type the following command:

```
set-mailboxserver "<essaging_server_name>" | add-exchangeadministrator "BESAdmin" -role ViewOnlyAdmin
```

3. Type the following command:

```
set-mailboxserver "<essaging_server_name>" | add-adpermission -user "BESAdmin" -accessrights ExtendedRight -extendedrights Send-As, Receive-As, ms-Exch-Store-Admin
```

Enable BlackBerry device users to send messages in a Microsoft Exchange 2007 environment

1. On the Microsoft® Exchange Server, on the taskbar, click **Start > Administrative Tools > Active Directory Users and Computers**.
2. On the **View** menu, click **Advanced Features**.
3. Right-click the domain root. Click **Properties**.
4. On the **Security** tab, click **Advanced**.
5. Click **Add**.
6. Type **besadmin**.
7. Click **Check Name**.
8. Click **OK**.
9. In the **Apply Onto** drop-down list, click **User Objects**.
10. In the **Allow** column, select the **Send As** check box.
11. Click **Apply**.
12. Click **OK**.

Configuring an IBM Lotus Domino messaging environment

To configure an IBM® Lotus® Domino® environment, perform the following tasks:

- Create a group for BlackBerry® Professional Software administrators.
- Configure the server document to allow administrators to move users in the BlackBerry Domain.
- Configure the local system account for Microsoft® Windows® authentication.
- Configure the local system account for database authentication.

Create a group for BlackBerry Professional Software administrators

You must verify that the LocalDomainServers group includes the server on which you plan to install the BlackBerry® Professional Software.

You must configure the IBM® Lotus® Domino® messaging environment to permit the required database access from the BlackBerry Professional Software.

Only the users included in the BlackBerryAdmins group can administer and manager the BlackBerry Professional Software.

1. In the administration server directory, create an IBM Lotus Domino group with the following properties:
 - **Name:** BlackBerryAdmins
 - **Group type:** Access Control List only
 - **Description:** users who can add, remove, and change the settings for BlackBerry device users
 - **Members:** LocalDomainServers; any users who might administer the BlackBerry Professional Software
2. On the server that hosts the BlackBerry Professional Software, replicate the group in the IBM Lotus Domino Directory.

Configure the server document to allow administrators to move users in a BlackBerry Domain

1. Open the server document for the IBM® Lotus® Domino® server on which you plan to install the BlackBerry® Professional Software.
2. Perform one of the following actions:
 - To configure permissions in an IBM Lotus Domino Version 6 or Version 7 environment, in the **Run unrestricted methods and operations** field, add the **LocalDomainServers** group.
 - To configure permissions in an IBM Lotus Domino Version 5 environment, in the **Run unrestricted Java/Javascript/COM** field, add the **LocalDomainServers** group.

Configure the local system account for Microsoft Windows authentication

Perform this task if you want to use a local system account to access the BlackBerry® Professional Software, install the BlackBerry Configuration Database on another computer, and use Microsoft® Windows® authentication to connect to the BlackBerry Configuration Database.

In the Microsoft®SQL Server™ Enterprise Manager or in the MicrosoftSQL Server Management Studio, create a new user account with the following properties:

- user name set to the name of the server for the BlackBerry Professional Software, in the following format: *<Domain> \<computer_name>\$*
- authentication method set to Microsoft Windows (trusted) authentication
- roles that are required to change the BlackBerry Configuration Database

Configure the local system account for database authentication

1. On the server that hosts the BlackBerry® Professional Software, on the taskbar, click **Start > Run**. Type **regedit**.
2. In HKEY_USERS\DEFAULT\Software\Research In Motion\BlackBerry Enterprise Server\Database, create the following String values:
 - **Login**: Type the name of the database account that has the required database permissions.
 - **Password**: Type the password for the database account.
3. Close the Registry Editor.

Setting up the database connection

The BlackBerry® Professional Software can connect to the BlackBerry Configuration Database on the Microsoft® SQL Server™ using either Microsoft® Windows® authentication or database authentication.

If you use Microsoft Windows authentication, the BlackBerry Manager logs in to the BlackBerry Configuration Database using the Microsoft Windows account that is already logged in to the computer.

If you use database authentication, the BlackBerry Manager authenticates to the BlackBerry Configuration Database using the database credentials that were configured when the database was set up.

Specifying permissions when connecting to the BlackBerry Configuration Database using Microsoft Windows authentication

During the BlackBerry® Professional Software installation process, if you choose to connect to the BlackBerry Configuration Database using Microsoft® Windows® authentication, the Microsoft Windows account that you use must have permissions on the database server. The type of permission depends on the setup type that you choose and on whether you create the BlackBerry Configuration Database on the same computer as the BlackBerry Professional Software or on another database server.

Assign MicrosoftSQL Server permissions

Complete this task only if you do not plan to install Microsoft® SQL Server™ 2005 Express during the BlackBerry® Professional Software installation process. When you select Microsoft® Windows® authentication during the BlackBerry Professional Software installation process, the setup application automatically assigns the required permissions to the Microsoft Windows account that you used to start the setup application.

Perform one of the following actions:

- If you create the BlackBerry Configuration Database on the same server as the BlackBerry Professional Software, assign system administrator permission to the Microsoft Windows account in the BlackBerry Configuration Database.
- If you create the BlackBerry Configuration Database on a separate server, assign server administrator and database creator permissions to the Microsoft Windows account. If you are using MicrosoftSQL Server Express 2005, also assign the system administrator permission to each of the following roles: SQLAgentUserRole, SQLAgentReaderRole, and SQLAgentOperatorRole.

Installing the BlackBerry Professional Software

In the first step of the installation process, the setup application runs a preinstallation tool to verify that your environment meets the following requirements:

- operating system requirements on the host computer for the BlackBerry® Professional Software
- messaging server software and environment requirements
- network environment requirements
- database software and environment requirements
- security support requirements
- virtual machine requirements, if applicable
- multilanguage support requirements, if applicable

You are notified if you must install or update any applications.

Prerequisites: Installing the BlackBerry Professional Software

Item	Requirement
credentials from the BlackBerry® Professional Software installation media	<ul style="list-style-type: none">• client access license key, or CAL key• Server Routing Protocol identifier, or SRP identifier• SRP authentication key• SRP address
installation credentials from your environment	<ul style="list-style-type: none">• name of the host server for the BlackBerry Professional Software• name of the host server for the messaging server, if the messaging server application is installed on a separate server• name of the host server for the BlackBerry Configuration Database, if the BlackBerry Configuration Database is installed on a separate server

Install the BlackBerry Professional Software in a Microsoft Exchange messaging environment

Note: During the installation process, you must restart the server that hosts the BlackBerry® Professional Software. The restart can take several minutes.

1. Log in to the server that hosts the BlackBerry Professional Software using the besadmin account that you created.
2. In the BlackBerry Professional Software installation media, double-click the **setup.exe** file.
3. Complete the BlackBerry Professional Software license agreement. Click **Next**.
4. Complete the Apache Tomcat™ license agreement. Click **Next**.

5. At the Preinstallation Checklist screen, perform one of the following actions:
 - To continue, click **Next**.
 - To address requirements identified in the checklist, click **Cancel**. You can restart the upgrade at a later time.
6. On the Installation Information screen, type the password for the Microsoft Windows account that runs the BlackBerry Professional Software and the name of the server that hosts the BlackBerry Professional Software. Record this information. You will require it to complete the configuration. Click **Next**.
7. On the SQL Server Option screen, specify whether you want the setup application to install Microsoft®SQL Server™ 2005 Express on your server. Click **Next**.
8. On the Installation Summary screen, verify the setup information.
9. Click **Next** to begin the installation.
10. When the installation process completes, click **Continue**.
11. When you are prompted to restart the server, click **Yes**.

Configure the BlackBerry Professional Software in a Microsoft Exchange messaging environment

1. Log in to the server that hosts the BlackBerry® Professional Software using the besadmin account, and wait for the setup application to restart.
2. On the Database screen, select whether to install the BlackBerry Configuration Database locally (on the same server as the BlackBerry Professional Software) or remotely.
3. Type the name or IP address of the host computer for the database.
4. Specify the database name.
5. Specify the port on which the BlackBerry Professional Software connects to the database, or accept the default port (port 1433).
6. Select one of the following authentication types:
 - If you are installing a local database, set the authentication method to **Windows (trusted)**.
 - If the BlackBerry Professional Software will connect to a remote database, select the authentication type for that database.
7. Click **Next**.
8. If you are installing a local database, when you are prompted to create the BESMgmt database, click **Yes**.
You are notified when the database is successfully created.
9. On the License Key screen, type the CAL key that you received with your installation package.
10. On the SRP Setting screen, type the SRP identifier and SRP authentication key that you received with your installation package.
11. Click **Validate SRP Key and ID** to confirm the information is correct. Click **OK** and click **Next**.
12. In the Microsoft® Exchange Server window, perform the following actions:
 - In the **Microsoft Exchange Server** field, type the name of your messaging server, if it does not display automatically.
 - In the **Mailbox** field, type the name of the mailbox that you created for your Microsoft® Windows® account.
 - Click **Check Name** to verify the information.

- Click **OK**.
13. Select the **Start Service** check box, if it is not already selected. You are notified as each of the following services starts:
 - BlackBerry Controller
 - BlackBerry Router
 - BlackBerry Dispatcher
 - BlackBerry MDS Connection Service
 - BlackBerry Policy Service
 - BlackBerry Attachment Service
 - BlackBerry Synchronization Service
 - BlackBerry Alert
 14. Click **Finish**.
 15. If a MAPI error displays when you start the BlackBerry Manager, perform the following actions:
 - On the server that hosts the BlackBerry Professional Software, on the taskbar, click **Start > Edit MAPI Profile**.
 - Verify the Microsoft Exchange Server name and the Microsoft Exchange administrator mailbox.
 - Click **OK**.

Complete the configuration in a Microsoft Exchange 2007 messaging environment

If Microsoft® Outlook® with Public Folders was not already installed when you installed Microsoft® Exchange 2007, the Microsoft Exchange installation application did not automatically install a Public Folder storage group and database, which are required by BlackBerry® Professional Software. Complete this task if the Public Folders storage group and database are not installed.

1. On the server that hosts the BlackBerry Professional Software, on the taskbar, click **Start > Run**.
2. Type **regedit**.
3. Navigate to HKEY_CURRENT_USER\Software\Microsoft\Windows NT\CurrentVersion\Windows Messaging Subsystem\Profiles\BlackBerryServer.
4. Locate the **subkey** named **00036604**.
5. Right-click the subkey.
6. Click **Modify**.
7. In the **Value data**, change the second pair of digits to **80**.
8. Click **OK**.
9. Navigate to HKEY_CURRENT_USER\Software\Microsoft\Windows NT\CurrentVersion\Windows Messaging Subsystem\Profiles\BlackBerryManager.
10. Locate the **subkey** named **00036604**.
11. Right-click the subkey.
12. Click **Modify**.
13. In the **Value data**, change the second pair of digits to **80**.
14. Click **OK**.

15. Close the Registry Editor.

Install the BlackBerry Professional Software in an IBM Lotus Domino messaging environment

Note: During the installation process, you must restart the server that hosts the BlackBerry® Professional Software. The restart can take several minutes.

1. Log in to the server that hosts the BlackBerry Professional Software using an administration account with the appropriate database permissions.
2. Click **Start > Administrative Tools > Services**.
3. Right-click **Lotus Domino Server**. Click **Properties**.
4. Set the **Startup type** to **Manual**.
5. In the **Service status** section, click **Stop**.
6. In the BlackBerry Professional Software installation media, double-click the **setup.exe** file.
7. Complete the BlackBerry Professional Software license agreement. Click **Next**.
8. Complete the Apache Tomcat™ license agreement. Click **Next**.
9. At the Preinstallation Checklist screen, perform one of the following actions:
 - To continue, click **Next**.
 - To address requirements identified in the checklist, click **Cancel**. You can restart the upgrade at a later time.
10. On the Installation Information screen, type your administration account password and the name of the host server for the BlackBerry Professional Software. Click **Next**.
11. On the SQL Server Option screen, specify whether you want the setup application to install Microsoft®SQL Server™ 2005 Express on your server. Click **Next**.
12. On the Installation Summary screen, verify the setup information.
13. Click **Next** to begin the installation.
14. When the installation process completes, click **Continue**.
15. When you are prompted to restart the server, click **Yes**.

Configure the BlackBerry Professional Software in an IBM Lotus Domino messaging environment

1. Log in to the server that hosts the BlackBerry® Professional Software using the account that you used to start the installation, and wait for the setup application to restart.
2. On the Database screen, select whether to install the BlackBerry Configuration Database locally (on the same server as the BlackBerry Professional Software) or remotely.
3. Type the name or the IP address of the host computer for the database.
4. Specify the database name.
5. Specify the port on which the BlackBerry Professional Software connects to the database, or accept the default port (port 1433).

6. Select one of the following authentication types:
 - If you are installing a local database, set the authentication method to **Windows (trusted)**.
 - If the BlackBerry Professional Software will connect to a remote database, select the authentication type for that database.
7. Click **Next**.
8. If you are installing a local database, when you are prompted to create the BESMgmt database, click **Yes**.
You are notified when the database is successfully created.
9. On the License Key screen, type the CAL key that you received with your installation package.
10. On the SRP Setting screen, type the SRP identifier and SRP authentication key that you received with your installation package.
11. Click **Validate SRP Key and ID** to confirm the information is correct. Click **OK** and click **Next**.
12. Select the **Start Service** check box, if it is not already selected. You are notified as each of the following services starts:
 - BlackBerry Controller
 - BlackBerry Router
 - BlackBerry Dispatcher
 - BlackBerry MDS Connection Service
 - BlackBerry Policy Service
 - BlackBerry Attachment Service
 - BlackBerry Synchronization Service
 - BlackBerry Alert
13. Click **Finish**.
14. On the server that hosts the BlackBerry Professional Software, on the taskbar, click **Start > Lotus Domino Server**.
15. Click **Start Domino as a Windows service**.

Troubleshooting the installation process

A third-party tool did not install successfully and the BlackBerry Professional Software setup application closed

Possible solution

1. In the BlackBerry® Professional Software installation media, double-click the **Tools** folder.
2. Double-click the setup application file for the tool.
3. Complete the instructions on the screen.
4. Restart the BlackBerry Professional Software setup application.

"Failed to write License Key to the Database"

When you try to add the CAL key, the following message appears: "Failed to write License Key to the Database."

Possible solution

After you restart the server during the BlackBerry® Professional Software installation process, you must log in using the same Microsoft® Windows® account that you used to start the installation process.

1. Close the setup application.
2. Log out from the computer.
3. Log in to the computer.
4. Restart the setup application.

"Previous version detected but no database available"

When you start the setup application, the following message appears, and the setup application stops: "Previous version detected but no database available."

Possible solution

The registry keys that identify your BlackBerry Configuration Database must exist in the Registry Editor.

1. On the server that hosts the BlackBerry Professional Software, open the Registry Editor. On the taskbar, click **Start > Run**. Type **regedit**.
2. In the left pane, navigate to HKEY_LOCAL_MACHINE\Research In Motion\BlackBerry Professional Software\Database.
3. Create the following case-sensitive String values (if they do not exist):
 - **DatabaseName**: Type the name of the BlackBerry Configuration Database.
 - **DatabaseServerMachineName**: Type the computer name of the database server.
4. Restart the setup application.

The setup application prompts for access to the installation media for Microsoft .NET Framework Version 1.1

Possible cause

When the BlackBerry® Professional Software setup application installs Microsoft® .NET Framework Version 1.1 SP1 on a computer that hosts a previously installed version of Microsoft .NET Framework Version 1.1, it prompts you for access to the installation media for Microsoft .NET Framework Version 1.1.

Possible solution

1. In the BlackBerry Professional Software installation media, double-click the **Tools** folder.
2. Double-click the **netfx.msi** file.
3. Complete the instructions on the screen.

The setup application did not prompt you to change or confirm the MAPI profile

Possible solution

You can create and change the MAPI profile manually.

1. In the BlackBerry® Professional Software installation media, double-click the **Tools** folder.
2. Double-click the **Fixmapisvc.exe** file.
3. Verify that the **mapisvc.inf** file is installed at C:\winnt\system32 or C:\windows\system32.
4. On the taskbar, click **Start > BlackBerry Professional Software > Edit MAPI Profile**.
5. Type the Microsoft® Exchange Server name.
6. Click the Microsoft® Windows® account that is associated with the MAPI profile.
7. Click **OK**.

"Could not open ID file"

When you start the BlackBerry® Professional Software setup application, the following message appears, and the setup application closes: ""Could not open ID file.""

Possible solution

1. If you installed the IBM® Lotus® Domino® server but have not started it yet, start it and stop it.
2. Restart the setup application.

Adding user accounts

You create and manage user accounts for the BlackBerry® Professional Software using the BlackBerry Manager.

In the BlackBerry Manager, you can use the Add New Users Wizard to create each user account, or you can create each user account manually. For information about creating a user account manually, see the *BlackBerry Professional Software Administration Guide*.

Preconfigured IT policies in the BlackBerry Professional Software

The BlackBerry® Professional Software provides preconfigured IT policies that you can apply when you set up a user account. You can configure additional IT policy rules in these IT policies or change any settings that are shown in the following table.

IT policy rule	Default IT policy	Basic password security IT policy	Medium password security IT policy	Medium password security (disallow application download) IT policy	Advanced security IT policy	Advanced security (disallow application downloads) IT policy
Device-Only Items policy group						
Password Required	False	True	True	True	True	True
User Can Disable Password	True	False	False	False	False	False
Maximum Security Timeout	—	30 min.	10 min.	10 min.	10 min.	10 min.
Maximum Password Age	—	60 days	30 days	30 days	30 days	30 days
User Can Change Timeout	True	True	True	True	True	True
Password Pattern Checks	0	0	at least 1 alpha and 1 numeric character	at least 1 alpha and 1 numeric character	at least 1 alpha and 1 numeric character	at least 1 alpha and 1 numeric character
Enable Long-term Timeout	—	—	True	True	True	True
Password policy group						
Maximum Password History	—	—	6	6	6	6
Security policy group						
Disallow Third Party Application Download	—	—	—	True	True	True
Force Lock When Holstered	—	—	True	True	True	True

IT policy rule	Default IT policy	Basic password security IT policy	Medium password security IT policy	Medium password security (disallow application download) IT policy	Advanced security IT policy	Advanced security (disallow application downloads) IT policy
Content Protection Strength	—	—	—	—	Strong	Strong
Disable USB Mass Storage	—	—	—	—	True	True
External File System Encryption level	—	—	—	—	Encrypt to user password (excluding multimedia directories)	Encrypt to user password (excluding multimedia directories)
Bluetooth policy group						
Disable Serial Port Profile	—	—	—	—	True	True
Disable Discoverable Mode	—	—	True	True	True	True
Disable Address Book Transfer	—	—	—	—	True	True
Disable File Transfer	—	—	—	—	True	True
Require LED Connection Indicator	—	—	—	—	True	True
WLAN policy group						
WLAN Allow Handheld Changes	—	False	False	False	False	False

Add a user account

You must set up user accounts on your messaging server before you set up user accounts in the BlackBerry® Professional Software.

When you create a user account, you can assign an IT policy to control settings for the account. You can select one of the preconfigured IT policies, or create your own and select it. For more information about the IT policy rule settings, see the *Policy Reference Guide*.

1. On the server that hosts the BlackBerry Professional Software, on the taskbar, click **Start > BlackBerry Manager**.
2. In the BlackBerry Manager, click the **Home** tab.
3. In the **Account** section, click **Add New Users Wizard**.
4. In the user list, click the name of the user whose BlackBerry Professional Software user account you want to create.
5. Click **Select**.
6. Click **OK**.
7. On the Select IT policy screen, specify the IT policy setting for the user account.

8. On the Device Deployment screen, specify how to activate the BlackBerry device.
9. Click **Done**.

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