



# BlackBerry Enterprise Server for Novell GroupWise

Version 4.1.1

Installation Guide

BlackBerry Enterprise Server Version 4.1.1 for Novell GroupWise Installation Guide

Last modified: 18 July 2006

Part number: SWD\_X\_BES(EN)-151.003

At the time of publication, this documentation is based on BlackBerry Enterprise Server Version 4.1.1 for Novell GroupWise.

Send us your comments on product documentation: <https://www.blackberry.com/DocsFeedback>.

©2006 Research In Motion Limited. All Rights Reserved. The BlackBerry and RIM families of related marks, images, and symbols are the exclusive properties of Research In Motion Limited. RIM, Research In Motion, BlackBerry, "Always On, Always Connected" and the "envelope in motion" symbol are registered with the U.S. Patent and Trademark Office and may be pending or registered in other countries.

Adobe, Acrobat, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries. IBM, Lotus, and Sametime are either registered trademarks or trademarks of International Business Machines Corporation in the United States, other countries, or both. Linux is either a registered trademark or a trademark of Linus Torvalds. Microsoft, Windows, and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Novell, GroupWise, NetWare, and ConsoleOne are either registered trademarks or trademarks of Novell, Inc., in the United States and other countries. ACE/Agent and SecurID are either registered trademarks or trademarks of RSA Security Inc. in the United States and/or other countries. Java, JavaScript, JDBC and Java 2 Platform, Standard Edition (J2SE) are either registered trademarks or trademarks of Sun Microsystems, Inc. in the U.S. or other countries. All other brands, product names, company names, trademarks and service marks are the properties of their respective owners.

The BlackBerry device and/or associated software are protected by copyright, international treaties, and various patents, including one or more of the following U.S. patents: 6,278,442; 6,271,605; 6,219,694; 6,075,470; 6,073,318; D445,428; D433,460; D416,256. Other patents are registered or pending in various countries around the world. Visit [www.rim.com/patents](http://www.rim.com/patents) for a list of RIM [as hereinafter defined] patents.

This document is provided "as is" and Research In Motion Limited and its affiliated companies ("RIM") assume no responsibility for any typographical, technical, or other inaccuracies in this document. In order to protect RIM proprietary and confidential information and/or trade secrets, this document may describe some aspects of RIM technology in generalized terms. RIM reserves the right to periodically change information that is contained in this document; however, RIM makes no commitment to provide any such changes, updates, enhancements, or other additions to this document to you in a timely manner or at all. RIM MAKES NO REPRESENTATIONS, WARRANTIES, CONDITIONS, OR COVENANTS, EITHER EXPRESS OR IMPLIED (INCLUDING WITHOUT LIMITATION, ANY EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS OF FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, MERCHANTABILITY, DURABILITY, TITLE, OR RELATED TO THE PERFORMANCE OR NON-PERFORMANCE OF ANY SOFTWARE REFERENCED HEREIN OR PERFORMANCE OF ANY SERVICES REFERENCED HEREIN). IN CONNECTION WITH YOUR USE OF THIS DOCUMENTATION, NEITHER RIM NOR ITS RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, OR CONSULTANTS SHALL BE LIABLE TO YOU FOR ANY DAMAGES WHATSOEVER BE THEY DIRECT, ECONOMIC, COMMERCIAL, SPECIAL, CONSEQUENTIAL, INCIDENTAL, EXEMPLARY, OR INDIRECT DAMAGES, EVEN IF RIM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INCLUDING WITHOUT LIMITATION, LOSS OF BUSINESS REVENUE OR EARNINGS, LOST DATA, DAMAGES CAUSED BY DELAYS, LOST PROFITS, OR A FAILURE TO REALIZE EXPECTED SAVINGS.

This document might contain references to third-party sources of information, hardware or software, products or services and/or third-party web sites (collectively the "Third-Party Information"). RIM does not control, and is not responsible for, any Third-Party Information, including, without limitation the content, accuracy, copyright compliance, compatibility, performance, trustworthiness, legality, decency, links, or any other aspect of Third-Party Information. The inclusion of Third-Party Information in this document does not imply endorsement by RIM of the Third-Party Information or the third-party in any way. Installation and use of Third-Party Information with RIM's products and services may require one or more patent, trademark, or copyright licenses in order to avoid infringement of the intellectual property rights of others. Any dealings with Third-Party Information, including, without limitation, compliance with applicable licenses and terms and conditions, are solely between you and the third-party. You are solely responsible for determining whether such third-party licenses are required and are responsible for acquiring any such licenses relating to Third-Party Information. To the extent that such intellectual property licenses may be required, RIM expressly recommends that you do not install or use Third-Party Information until all such applicable licenses have been acquired by you or on

your behalf. Your use of Third-Party Information shall be governed by and subject to you agreeing to the terms of the Third-Party Information licenses. Any Third-Party Information that is provided with RIM's products and services is provided "as is". RIM makes no representation, warranty or guarantee whatsoever in relation to the Third-Party Information and RIM assumes no liability whatsoever in relation to the Third-Party Information even if RIM has been advised of the possibility of such damages or can anticipate such damages.

Research In Motion Limited  
295 Phillip Street  
Waterloo, ON N2L 3W8  
Canada

Research In Motion UK Limited  
Centrum House, 36 Station Road  
Egham, Surrey TW20 9LF  
United Kingdom

Published in Canada



# Contents

<b>1</b>	<b>Planning your BlackBerry environment</b>	<b>7</b>
	Choosing a BlackBerry Enterprise Server setup type	7
	Upgrading the BlackBerry Enterprise Server	9
<b>2</b>	<b>System requirements</b>	<b>11</b>
	Hardware requirements	11
	System requirements for the BlackBerry Enterprise Server	11
	Checklist: Operating system requirements	12
	Checklist: Messaging and collaboration server software requirements	13
	Checklist: Security support requirements	14
	Checklist: Multidomain support requirements	14
	Checklist: Multilanguage support requirements	15
	Checklist: Additional software requirements	15
	Checklist: Network environment settings	15
	Checklist: Messaging and collaboration environment settings	15
	Checklist: Terminal service settings	16
	Checklist: Database environment settings	17
	System requirements for remote components	18
	Checklist: BlackBerry MDS Services system requirements	18
	Checklist: BlackBerry Enterprise Server with BlackBerry MDS Services system requirements	19
	Checklist: BlackBerry Attachment Service system requirements	21
	Checklist: BlackBerry Manager system requirements	22
	Checklist: BlackBerry Router system requirements	23
	Checklist: BlackBerry MDS Connection Service system requirements	23
	Checklist: BlackBerry Collaboration Service system requirements	24
<b>3</b>	<b>Configuring your environment</b>	<b>25</b>
	Enable the messaging environment to communicate with the BlackBerry Enterprise Server	25
	Create the BlackBerryAdmins group	25
	Modify the server document to permit moving users within a BlackBerry Domain	25
	Create a service account and mailbox	26
	Configure Windows permissions for the service account	26
	Configure Microsoft Exchange permissions for the service account	26

Install the trusted application key generator.....	27
Create the trusted application key and configuration file.....	27
Confirm the trusted application key generated successfully.....	28
Enable MAPI profiles.....	28
Configuring Microsoft Exchange to support wireless calendar synchronization.....	28
Setting database permissions.....	29
Set Microsoft SQL Server permissions.....	29
Set DB2 UDB permissions.....	29
Configure remote authentication for the local system account.....	30
Create Windows groups to support administrative roles.....	30
Enable authentication for administrative roles on remote BlackBerry Managers.....	31
<b>4 Installing the BlackBerry Enterprise Server software.....</b>	<b>33</b>
Checklist: Confirm BlackBerry Enterprise Server installation requirements.....	33
Install the BlackBerry Enterprise Server.....	34
Install remote components.....	34
Install the database notification system.....	34
Installing the Hosted BlackBerry for IBM Lotus Domino.....	35
Installing the Hosted BlackBerry for Microsoft Exchange.....	35
Troubleshooting the BlackBerry Enterprise Server installation process.....	35
Resolving issues during the installation process.....	35
Resolving issues after the installation process completes.....	37
Postinstallation tasks.....	37
<b>5 Removing the BlackBerry Enterprise Server software.....</b>	<b>39</b>
Remove the BlackBerry Enterprise Server software.....	39
Remove the BlackBerry MDS Services software.....	39
Remove registry entries from your computer.....	40
Remove the database notification system.....	40

# Planning your BlackBerry environment

Choosing a BlackBerry Enterprise Server setup type  
Upgrading the BlackBerry Enterprise Server

## Choosing a BlackBerry Enterprise Server setup type

The BlackBerry Enterprise Server™ consists of services and components. The BlackBerry® services are designed to provide productivity tools—such as email, instant messaging, and personal information management (PIM) functionality—and data from enterprise applications to mobile users. The BlackBerry components are designed to monitor BlackBerry services; process, route, compress, and encrypt data; and communicate with the wireless network.

You can install all BlackBerry components on one computer, or you can install particular components on separate computers. Consider any impacts on system resources when deciding where to install a component.

You can choose only one setup type for each computer in your environment.



**Warning:** After you choose a setup type, you cannot modify it. You must remove one setup type before you can install another.

Setup type	Description	Considerations
BlackBerry Enterprise Server	This setup type installs all BlackBerry components, except the BlackBerry Mobile Data System™ (BlackBerry MDS™) Services.	—

## BlackBerry Enterprise Server for Novell GroupWise Installation Guide

Setup type	Description	Considerations
BlackBerry MDS Services	<p>This setup type installs the BlackBerry Controller and the following BlackBerry MDS Services on a remote computer:</p> <ul style="list-style-type: none"> <li>• BlackBerry MDS Application Integration Service</li> <li>• BlackBerry MDS Data Optimization Service</li> <li>• BlackBerry MDS Provisioning Service</li> <li>• BlackBerry MDS Administrative and Management Service</li> <li>• BlackBerry MDS Studio™ Application Repository</li> </ul>	<p>A remote instance of the BlackBerry MDS Services can support multiple BlackBerry Enterprise Servers and one BlackBerry MDS Studio Application Repository.</p> <p>The BlackBerry MDS Services might use increased system resources when it processes content requests. Install an instance of the BlackBerry MDS Services on a remote computer to minimize the impact on message delivery.</p> <p>You must install the BlackBerry MDS Studio Application Repository on the same database server as the BlackBerry Configuration Database.</p>
BlackBerry Enterprise Server with BlackBerry MDS Services	This setup type installs all BlackBerry components including BlackBerry MDS Services.	—
BlackBerry Attachment Service	This setup type installs the BlackBerry Attachment Service and the BlackBerry Controller on a remote computer.	<p>A remote BlackBerry Attachment Service can support multiple BlackBerry Enterprise Servers.</p> <p>The BlackBerry Attachment Service might use increased system resources when it processes concurrent conversion requests. Install the BlackBerry Attachment Service on a remote computer to increase the number of concurrent conversions without impacting message delivery.</p>
BlackBerry Manager	This setup type installs the BlackBerry Manager on a remote computer.	A remote BlackBerry Manager enables you to manage multiple BlackBerry Domains from your computer.
BlackBerry Router	This setup type installs the BlackBerry Router and the BlackBerry Controller on a remote computer.	<p>A remote BlackBerry Router can support multiple BlackBerry Enterprise Servers and is designed to provide wireless network bypass to BlackBerry devices.</p> <p>The BlackBerry Router does not use many system resources, but it is a critical connection point for the BlackBerry Enterprise Solution™. You can install several standby BlackBerry Routers as failover locations in case your primary BlackBerry Router is unavailable.</p>
BlackBerry MDS Connection Service	This setup type installs the BlackBerry MDS Connection Service and the BlackBerry Controller on a remote computer.	<p>A remote BlackBerry MDS Connection Service can support one BlackBerry Enterprise Server.</p> <p>The BlackBerry MDS Connection Service might use increased system resources when it processes content requests. Install the BlackBerry MDS Connection Service on a remote computer to minimize the impact on message delivery.</p>



Setup type	Description	Considerations
BlackBerry Collaboration Service	This setup type installs the BlackBerry Collaboration Service, the BlackBerry Instant Messaging Connector, and the BlackBerry Controller on a remote computer.	<p>A remote BlackBerry Collaboration Service can support one BlackBerry Enterprise Server. Your instant messaging environment can be IBM® Lotus® Sametime®, Microsoft® Live Communications Server, or Novell® GroupWise® Messenger. Your choice is not limited by your messaging server.</p> <p>You can install only one type of the BlackBerry Collaboration Service, and users can use only one type of enterprise messenger application on the BlackBerry device.</p> <p>The BlackBerry Collaboration Service requires the following persistent connections, based on your instant messaging environment:</p> <ul style="list-style-type: none"> <li>• If your instant messaging server is Microsoft Live Communications Server 2005 and you are using Transport Layer Security (TLS) as the communication protocol, you require one persistent socket connection for each instant messaging session.</li> <li>• If your instant messaging server is Microsoft Live Communications Server 2005 and you are using Transmission Control Protocol (TCP) as the communication protocol, you require three persistent socket connections for each instant messaging session.</li> <li>• If your instant messaging server is Sametime, you require three persistent socket connections to create one TCP connection, and all instant messaging sessions use that connection.</li> <li>• If your instant messaging server is GroupWise Messenger, you require one persistent socket connection for each instant messaging session.</li> </ul> <p>Install the BlackBerry Collaboration Service on a remote computer to maximize the number of available sockets.</p>

## Upgrading the BlackBerry Enterprise Server

See the *BlackBerry Enterprise Server Version 4.1.1 Upgrade Guide* for more information.



# System requirements

Hardware requirements  
 System requirements for the BlackBerry Enterprise Server  
 System requirements for remote components

## Hardware requirements

Visit [www.blackberry.com/knowledgecenterpublic](http://www.blackberry.com/knowledgecenterpublic) to read the *Hardware Sizing: BlackBerry Enterprise Server Version 4.0 Service Pack 1 for Novell GroupWise* for more information about calculating hardware requirements based on the expected use of the BlackBerry Enterprise Server in your environment.

## System requirements for the BlackBerry Enterprise Server

You must confirm that the computer on which you plan to install the BlackBerry Enterprise Server meets the system requirements. You must also confirm that settings in your network, messaging and collaboration, and database environments are configured to support the BlackBerry Enterprise Server.

Checklists	Description	Reference
Checklist: Operating system requirements	This checklist describes the operating system software and settings that are required on the computer on which you plan to install the BlackBerry Enterprise Server.	See page 12.
Checklist: Messaging and collaboration server software requirements	This checklist describes the messaging server software and settings that are required on the computer on which you plan to install the BlackBerry Enterprise Server.	See page 13.
Checklist: Security support requirements	This checklist describes the security software that is required on the computer on which you plan to install the BlackBerry Enterprise Server, if you want to support specific security features.	See page 13.
Checklist: Multilanguage support requirements	This checklist describes the configuration that is required on the computer on which you plan to install the BlackBerry Enterprise Server, if you want to support localized message content.	See page 13.
Checklist: Additional software requirements	This checklist describes the additional software that is required on the computer on which you plan to install the BlackBerry Enterprise Server, if you want to read the documentation and help file, or if you want to implement multiple BlackBerry devices from a single computer.	See page 13.
Checklist: Network environment settings	This checklist describes how your BlackBerry Enterprise Server must connect to your firewall.	See page 14.
Checklist: Messaging and collaboration environment settings	This checklist describes the software and settings that are required on your messaging server, your instant messaging server, and your desktop email program.	See page 14.

Checklists	Description	Reference
Checklist: Terminal service settings	This checklist describes the software and settings that are supported for installing the BlackBerry Enterprise Server using a terminal or remote desktop session.	See page 14.
Checklist: Database environment settings	This checklist describes the software and settings that are required on your database server.	See page 15.

## Checklist: Operating system requirements



**Note:** Research In Motion (RIM) recommends that you install the most current service pack for each Microsoft product.

### Considerations

Install one of the following operating systems on the computer on which you plan to install the BlackBerry Enterprise Server:

- Microsoft Windows® 2000 Service Pack 4 (Server or Advanced Server editions)
- Microsoft Windows Server™ 2003 (Service Pack 1 is required for Microsoft Live Communications Server support)

Install Microsoft Messaging Queue (MSMQ) Version 3.0 (required for Microsoft Live Communications Server support).

**Note:** If you install MSMQ separately from Windows Server 2003, clear the default **Active Directory Integration and Triggers** subcomponents and select only the **Common** subcomponent.

Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.

Install Microsoft .NET Framework Version 1.1 (Service Pack 1 is required for Microsoft Live Communications Server support). You can install this program during the BlackBerry Enterprise Server installation.

If Microsoft .NET Framework Version 1.1 is installed in a language other than English, you must download and install Service Pack 1 in the appropriate language.

Visit [www.microsoft.com/netframework/downloads/](http://www.microsoft.com/netframework/downloads/) for more information.

Install one of the following Microsoft Data Access Component (MDAC) versions on the computer on which you plan to install the BlackBerry Enterprise Server:

- MDAC Version 2.8 with Security Patch MS04-003 (Version 2000.85.1025.00)
- MDAC Version 2.8 Service Pack 2 (Version 2000.86.1830.00)

**Note:** MDAC Version 2.8 Service Pack 2 is shipped only with Windows Server 2003 Service Pack 1.

Install Java™ 2 Platform, Standard Edition (J2SE™) Runtime Environment Version 5.0 update 4. You can install this program during the BlackBerry Enterprise Server installation.

If you are using Microsoft SQL Server, download and install the appropriate Java Database Connectivity (JDBC) driver.

- **Microsoft SQL Server 2000 driver for JDBC™ Service Pack 3:**  
Visit [www.microsoft.com/technet/prodtechnol/sql/2000/downloads/default.msp](http://www.microsoft.com/technet/prodtechnol/sql/2000/downloads/default.msp) for more information.
- **Microsoft SQL Server 2005 driver for JDBC:**  
Visit [www.microsoft.com/technet/prodtechnol/sql/2005/downloads/default.msp](http://www.microsoft.com/technet/prodtechnol/sql/2005/downloads/default.msp) for more information.

## Checklist: Messaging and collaboration server software requirements

### Considerations

Install the Novell GroupWise Client Version 6.5 SP6 on the same computer on which you plan to install the BlackBerry Enterprise Server. The US-English language client is required.

Download the field technical file (FTF) for Version 6.5 SP6 rev 2 of the Novell GroupWise Client. Apply this FTF to your current GroupWise Client Version 6.5 SP6 installation. Visit [www.novell.com](http://www.novell.com) for more information about TID#2973709.

If your instant messaging server is Microsoft Live Communications Server 2005 and you are using Transport Layer Security (TLS) as the communication protocol, you must install or import a Mutual TLS (MTLS) certificate on the computer on which you plan to install the BlackBerry Collaboration Service.

If your instant messaging server is Microsoft Live Communications Server 2005 with Service Pack 1 and you are using TLS as the communication protocol, you must install or import a server authentication certificate under the computer account on the computer on which you plan to install the BlackBerry Collaboration Service.

Visit [www.office.microsoft.com/en-us/FX011526591033.aspx](http://www.office.microsoft.com/en-us/FX011526591033.aspx) for more information about configuring certificates on Microsoft Live Communications Server 2005.

If your instant messaging server is IBM Lotus Sametime Server, you must add the IP address of each computer on which you plan to install the BlackBerry Collaboration Service to the CommunityConnectivity document on the Sametime server.

If your instant messaging server is GroupWise Messenger, you must turn on support for Secure Socket Layer (SSL) authentication of the GroupWise Messenger agents on the computer on which you plan to install the BlackBerry Collaboration Service. Visit [www.novell.com/documentation](http://www.novell.com/documentation) to read the *Messenger 1.0 Administration Guide* for more information.

## Checklist: Security support requirements

### Considerations

If you are using RSA SecurID® authentication, you must install the RSA ACE/Agent® for Microsoft Windows Version 5.0 on the computer on which you plan to install the BlackBerry MDS Connection Service.

## Checklist: Multilanguage support requirements

### Considerations

Verify that the default language group of the operating system is set to your language.

The Western Europe and United States language group (English, French, German, Italian, and Spanish code pages) is supported by default. Visit [www.microsoft.com/globaldev/handson/user/xpintltsupp.aspx](http://www.microsoft.com/globaldev/handson/user/xpintltsupp.aspx) for more information about downloading and installing additional language support.

Set your language preferences in Microsoft Internet Explorer to display encoded web pages correctly.

## Checklist: Additional software requirements

### Considerations

If you run a Universal Serial Bus (USB) hub to implement BlackBerry devices while connected to the BlackBerry Manager, verify that the USB driver supports USB1.1-compliant hubs.

Install Adobe® Acrobat® Reader® Version 3.0 or later so that you can view the product guides.

Set Microsoft Internet Explorer Version 4.0 or later with Java or JavaScript™ enabled as your default browser so that you can view the online help.

#### Considerations

Install Microsoft XML Parser Version 4.0 or later. You can install this program during the BlackBerry Enterprise Server installation.

## Checklist: Network environment settings

#### Considerations

Verify that the BlackBerry Enterprise Server is physically close to the messaging servers. Use a high-speed switched connection between the BlackBerry Enterprise Server and the messaging servers. Network latency impacts the performance of the BlackBerry Enterprise Server.

Verify that the BlackBerry Enterprise Server is not installed in a perimeter network (demilitarized zone). Visit [www.blackberry.com/knowledgecenterpublic](http://www.blackberry.com/knowledgecenterpublic) to read article TAE-00038 for more information.

Verify that you have configured the corporate firewall or proxy to permit the BlackBerry Enterprise Server to initiate and maintain an outbound connection to the BlackBerry Infrastructure on TCP port 3101.

Verify that the corporate firewall can resolve Internet addresses using the Domain Name System (DNS).

Verify that the proxy server is transparent, if you are using a proxying firewall.

## Checklist: Messaging and collaboration environment settings

#### Considerations

Do not install the BlackBerry Enterprise Server on the same computer as the GroupWise messaging server.

Your messaging server must be Novell GroupWise Version 6.5 Service Pack 1 or later for post offices that contain BlackBerry user accounts. The BlackBerry Enterprise Server supports NetWare®, Windows, and Linux® GroupWise messaging environments.

Enable support for the Minshall Algorithm on your GroupWise messaging server. Visit [www.blackberry.com/knowledgecenterpublic/](http://www.blackberry.com/knowledgecenterpublic/) to read article KB-04224 for more information about enabling the Minshall Algorithm. Visit [www.support.novell.com/cgi-bin/search/searchtid.cgi?10089921.htm](http://www.support.novell.com/cgi-bin/search/searchtid.cgi?10089921.htm) for more information.

Your instant messaging server must be one of the following:

- IBM® Lotus® Sametime® Version 3.0 Community Server
- Sametime Version 3.1 Community Server
- Sametime Version 6.5.1 Community Server
- Microsoft Live Communications Server 2005 or later
- GroupWise Messenger server Version 1.0.2 or later

## Checklist: Terminal service settings

#### Considerations

If your operating system is Windows Server 2000, you can install and access the BlackBerry Enterprise Server using the Terminal Services program.

You must install the Terminal Services program using Remote Administration mode. Visit [www.support.microsoft.com/kb/306624](http://www.support.microsoft.com/kb/306624) for more information.

**Note:** RIM does not recommend using Application Server mode. If you install the Terminal Services program using Application Server mode and then install the BlackBerry Enterprise Server, unpredictable results might occur.

### Considerations

If your operating system is Windows Server 2003, you can install and access the BlackBerry Enterprise Server using the Microsoft Remote Desktop Connection program that is included with Windows Server 2003.

**Note:** Do not install the Terminal Services program. If you install the Terminal Services program on Windows Server 2003, the Terminal Services program installs in Application Server mode automatically, which RIM does not recommend.

## Checklist: Database environment settings

### Considerations

Install one of the following database programs on the computer on which you plan to install the BlackBerry Configuration Database:

- Microsoft SQL Server 2000 Desktop Engine (MSDE 2000)
- Microsoft SQL Server 2000 Service Pack 3a
- Microsoft SQL Server 2005 (Professional, Enterprise, or Express)

**Notes:** If you are installing BlackBerry MDS Services, you cannot use Microsoft SQL Server 2005 Express as your database program.

You can install MSDE 2000 during the BlackBerry Enterprise Server installation.

Install one of the following MDAC versions on the computer on which you plan to install the BlackBerry Configuration Database:

- MDAC Version 2.8 with Security Patch MS04-003 (Version 2000.85.1025.00)
- MDAC Version 2.8 Service Pack 2 (Version 2000.86.1830.00)

MDAC Version 2.8 Service Pack 2 is shipped only with Windows Server 2003 Service Pack 1.

You must manage the BlackBerry Configuration Database using a BlackBerry Manager that is configured to support the database management system (DBMS) type. You select the DBMS type of the BlackBerry Manager during the BlackBerry Enterprise Server installation.

The version of MSDE 2000 (MSDE 2000 Release A) provided with the BlackBerry Enterprise Server does not support upgrading from a previous version of MSDE. Visit [www.support.microsoft.com/kb/829925](http://www.support.microsoft.com/kb/829925) for more information.

If you are using Microsoft SQL Server, install the program using the default case-insensitive collation setting.

If you are using Microsoft SQL Server, you can install the BlackBerry Configuration Database on a non-default instance. During the installation process, you can specify *servername\instancename*.

If you are using Microsoft SQL Server and if you are using Windows authentication between the BlackBerry Enterprise Server and the BlackBerry Configuration Database, you must set Microsoft SQL Server to run under the Local System account.

If the BlackBerry Configuration Database is on a remote computer or you want to use a remote BlackBerry Manager, you must enable named pipes and TCP/IP network protocols.

If you are installing the BlackBerry MDS Services, you must install the BlackBerry MDS Services databases on the same DBMS and on the same database server as the BlackBerry Configuration Database.

If you are installing the BlackBerry MDS Services and if you are using Microsoft SQL Server, the Microsoft SQL Server must support mixed-mode authentication. If you install the BlackBerry Configuration Database on MSDE 2000, you are prompted to accept this change in authentication.

If you are installing the BlackBerry MDS Services, you must use SQL authentication to create the BlackBerry MDS Services databases.

If you are using SQL authentication to create the BlackBerry Configuration Database, you must use a different SQL account to create the BlackBerry MDS Services databases.

**Note:** The BlackBerry MDS Services store their BlackBerry MDS Service database access credentials in plain text form in *<Installation directory>\BlackBerry MDS Services 4.1.1\jakarta-tomcat-5.5.9\conf\server.xml*. To protect the access credentials in that storage location, you must limit read and write control to that location.

## System requirements for remote components

If you plan to install BlackBerry components on remote computers, you must confirm that those computers meet the system requirements.

Checklists	Description	Reference
Checklist: BlackBerry MDS Services system requirements	This checklist describes the software and settings that are required on the computer on which you plan to install the BlackBerry MDS Services.	See page 16.
Checklist: BlackBerry Enterprise Server with MDS Services system requirements	This checklist describes the software and settings that are required on the computer on which you plan to install the BlackBerry Enterprise Server with BlackBerry MDS Services.	See page 17.
Checklist: BlackBerry Attachment Service system requirements	This checklist describes the software and settings that are required on the computer on which you plan to install the BlackBerry Attachment Service.	See page 18.
Checklist: BlackBerry Manager system requirements	This checklist describes the software and settings that are required on the computer on which you plan to install the BlackBerry Manager.	See page 19.
Checklist: BlackBerry Router system requirements	This checklist describes the software and settings that are required on the computer on which you plan to install the BlackBerry Router.	See page 19.
Checklist: BlackBerry MDS Connection Service system requirements	This checklist describes the software and settings that are required on the computer on which you plan to install the BlackBerry MDS Connection Service.	See page 20.
Checklist: BlackBerry Collaboration Service system requirements	This checklist describes the software and settings that are required on the computer on which you plan to install the BlackBerry Collaboration Service.	See page 20.

### Checklist: BlackBerry MDS Services system requirements

System requirement	Considerations
operating system	<p>Install one of the following operating systems on the computer on which you plan to install the BlackBerry MDS Services: <input type="checkbox"/></p> <ul style="list-style-type: none"> <li>• Microsoft Windows 2000 (Server or Advanced Server editions)</li> <li>• Microsoft Windows Server 2003</li> <li>• Microsoft Windows XP</li> </ul> <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p> <p>If you are using Microsoft SQL Server, download and install the appropriate JDBC driver.</p> <ul style="list-style-type: none"> <li>• <b>Microsoft SQL Server 2000 driver for JDBC Service Pack 3:</b> Visit <a href="http://www.microsoft.com/technet/prodtechnol/sql/2000/downloads/default.mspx">www.microsoft.com/technet/prodtechnol/sql/2000/downloads/default.mspx</a> for more information.</li> <li>• <b>Microsoft SQL Server 2005 driver for JDBC:</b> Visit <a href="http://www.microsoft.com/technet/prodtechnol/sql/2005/downloads/default.mspx">www.microsoft.com/technet/prodtechnol/sql/2005/downloads/default.mspx</a> for more information.</li> </ul>
additional software requirement	<p>Install Adobe Acrobat Reader Version 3.0 or later so that you can view the product guides. <input type="checkbox"/></p>



## Checklist: BlackBerry Enterprise Server with BlackBerry MDS Services system requirements

System requirement	Considerations
operating system	<p>Install one of the following operating systems on the computer on which you plan to install the BlackBerry Enterprise Server with BlackBerry MDS Services: <input type="checkbox"/></p> <ul style="list-style-type: none"> <li>Microsoft Windows 2000 Service Pack 4 (Server or Advanced Server editions)</li> <li>Microsoft Windows Server 2003</li> </ul> <p>Install MSMQ Version 3.0 (required for Microsoft Live Communications Server support).</p> <p><b>Note:</b> If you install MSMQ separately from Windows Server 2003, clear the default <b>Active Directory Integration</b> and <b>Triggers</b> subcomponents and select only the <b>Common</b> subcomponent.</p> <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p> <p>Install Microsoft .NET Framework Version 1.1 Service Pack 1. You can install this program during the BlackBerry Enterprise Server installation.</p> <p>If Microsoft .NET Framework Version 1.1 is installed in a language other than English, you must download and install Service Pack 1 in the appropriate language. Visit <a href="http://www.microsoft.com/netframework/downloads/">www.microsoft.com/netframework/downloads/</a> for more information.</p> <p>Install one of the following MDAC versions:</p> <ul style="list-style-type: none"> <li>MDAC Version 2.8 with Security Patch MS04-003 (Version 2000.85.1025.00)</li> <li>MDAC Version 2.8 Service Pack 2 (Version 2000.86.1830.00)</li> </ul> <p><b>Note:</b> MDAC Version 2.8 Service Pack 2 is shipped only with Windows Server 2003 Service Pack 1.</p> <p>Install J2SE Runtime Environment Version 5.0 update 4. You can install this program during the BlackBerry Enterprise Server installation.</p> <p>If you are using Microsoft SQL Server, download and install the appropriate JDBC driver.</p> <ul style="list-style-type: none"> <li><b>Microsoft SQL Server 2000 driver for JDBC Service Pack 3:</b> Visit <a href="http://www.microsoft.com/technet/prodtechnol/sql/2000/downloads/default.msp">www.microsoft.com/technet/prodtechnol/sql/2000/downloads/default.msp</a> for more information.</li> <li><b>Microsoft SQL Server 2005 driver for JDBC:</b> <a href="http://www.microsoft.com/technet/prodtechnol/sql/2005/downloads/default.msp">www.microsoft.com/technet/prodtechnol/sql/2005/downloads/default.msp</a> for more information.</li> </ul>
messaging and collaboration server software	<p>Install the Novell GroupWise Client Version 6.5 SP 6 on the same computer on which you plan to install the BlackBerry Enterprise Server with BlackBerry MDS Services. The US-English language client is required. <input type="checkbox"/></p> <p>Download the field technical file (FTF) for Version 6.5 SP6 rev 2 of the Novell GroupWise Client. Apply this FTF to your current GroupWise Client Version 6.5 SP6 installation. Visit <a href="http://www.novell.com">www.novell.com</a> for more information about TID#2973709.</p> <p>If your instant messaging server is Microsoft Live Communications Server 2005 and you are using TLS as the communication protocol, you must install or import an MTL certificate on the computer on which you plan to install the BlackBerry Collaboration Service.</p> <p>If your instant messaging server is Microsoft Live Communications Server 2005 with Service Pack 1 and you are using TLS as the communication protocol, you must install or import a server authentication certificate under the computer account on the computer on which you plan to install the BlackBerry Collaboration Service.</p> <p>Visit <a href="http://www.office.microsoft.com/en-us/FX011526591033.aspx">www.office.microsoft.com/en-us/FX011526591033.aspx</a> for more information about configuring certificates on Microsoft Live Communications Server 2005.</p> <p>If your instant messaging server is IBM Lotus Sametime Server, you must add the IP address of each computer on which you plan to install the BlackBerry Collaboration Service to the CommunityConnectivity document on the Sametime server.</p>

System requirement	Considerations
multilanguage support requirements	<p>Verify that the default language group of the operating system is set to your language. <input type="checkbox"/></p> <p>The Western Europe and United States language group (English, French, German, Italian, and Spanish code pages) is supported by default. Visit <a href="http://www.microsoft.com/globaldev/handson/user/xpintl supp.msp x">www.microsoft.com/globaldev/handson/user/xpintl supp.msp x</a> for more information about downloading and installing additional language support.</p> <p>Set your language preferences in Microsoft Internet Explorer to display encoded web pages correctly.</p>
security support requirements	<p>If you are using RSA SecurID authentication, you must install the RSA ACE/Agent for Microsoft Windows Version 5.0 on the computer on which you plan to install the BlackBerry MDS Connection Service. <input type="checkbox"/></p>
additional software requirement	<p>If you run a USB hub to implement BlackBerry devices that are connected to the BlackBerry Manager, verify that the USB driver supports USB1.1-compliant hubs. <input type="checkbox"/></p> <p>Install Adobe Acrobat Reader Version 3.0 or later so that you can view the product guides.</p> <p>Set Microsoft Internet Explorer Version 4.0 or later with Java or JavaScript enabled as your default browser so that you can view the online help.</p> <p>Install Microsoft XML Parser Version 4.0 or later. You can install this program during the BlackBerry Enterprise Server installation.</p>

## Checklist: BlackBerry Attachment Service system requirements

System requirement	Considerations
operating system	<p>Install one of the following operating systems on the computer on which you plan to install the BlackBerry Attachment Service: <input type="checkbox"/></p> <ul style="list-style-type: none"> <li>• Microsoft Windows 2000 Service Pack 4 (Server or Advanced Server editions)</li> <li>• Microsoft Windows Server 2003</li> <li>• Microsoft Windows XP</li> </ul> <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p>
multilanguage support requirements	<p>Verify that the default language group of the operating system is set to your language. <input type="checkbox"/></p> <p>The Western Europe and United States language group (English, French, German, Italian, and Spanish code pages) is supported by default. Visit <a href="http://www.microsoft.com/globaldev/handson/user/xpintl supp.msp x">www.microsoft.com/globaldev/handson/user/xpintl supp.msp x</a> for more information about downloading and installing additional language support.</p> <p>Set your language preferences in Microsoft Internet Explorer to display encoded web pages correctly.</p>
additional software requirement	<p>Install Adobe Acrobat Reader Version 3.0 or later so that you can view the product guides. <input type="checkbox"/></p> <p>Set Microsoft Internet Explorer Version 4.0 or later with Java or JavaScript enabled as your default browser so that you can view the online help.</p> <p>Install Microsoft XML Parser Version 4.0 or later. You can install this program during the BlackBerry Enterprise Server installation.</p>

## Checklist: BlackBerry Manager system requirements

System requirement	Considerations	
operating system	<p>Install one of the following operating systems on the computer on which you plan to install the BlackBerry Manager:</p> <ul style="list-style-type: none"> <li>• Microsoft Windows 2000 (Professional, Server, or Advanced Server editions)</li> <li>• Microsoft Windows Server 2003</li> <li>• Microsoft Windows XP Professional</li> </ul> <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p> <p>Install Microsoft .NET Framework Version 1.1 Service Pack 1. You can install this program during the BlackBerry Enterprise Server installation.</p> <p>If Microsoft .NET Framework Version 1.1 is installed in a language other than English, you must download and install Service Pack 1 in the appropriate language. Visit <a href="http://www.microsoft.com/netframework/downloads/">www.microsoft.com/netframework/downloads/</a> for more information.</p> <p>In the operating system, turn on printer and file sharing to provision BlackBerry devices.</p>	<input type="checkbox"/>
messaging and collaboration server software	<p>Install the Novell GroupWise Client Version 6.5 SP6 on the same computer on which you plan to install the BlackBerry Manager. The US-English language client is required.</p> <p>Download the field technical file (FTF) for Version 6.5 SP6 rev 2 of the Novell GroupWise Client. Apply this FTF to your current GroupWise Client Version 6.5 SP6 installation. Visit <a href="http://www.novell.com">www.novell.com</a> for more information about TID#2973709.</p>	<input type="checkbox"/>
multilanguage support requirements	<p>Verify that the default language group of the operating system is set to your language.</p> <p>The Western Europe and United States language group (English, French, German, Italian, and Spanish code pages) is supported by default. Visit <a href="http://www.microsoft.com/globaldev/handson/user/xpintl supp.msp">www.microsoft.com/globaldev/handson/user/xpintl supp.msp</a> for more information about downloading and installing additional language support.</p> <p>Set your language preferences in Microsoft Internet Explorer to display encoded web pages correctly.</p>	<input type="checkbox"/>
additional software requirement	<p>Install Adobe Acrobat Reader Version 3.0 or later so that you can view the product guides.</p> <p>Set Microsoft Internet Explorer Version 4.0 or later with Java or JavaScript enabled as your default browser so that you can view the online help.</p> <p>Install Microsoft XML Parser Version 4.0 or later. You can install this program during the BlackBerry Enterprise Server installation.</p>	<input type="checkbox"/>

## Checklist: BlackBerry Router system requirements

System requirement	Considerations	
operating system	<p>Install one of the following operating systems on the computer on which you plan to install the BlackBerry Router:</p> <ul style="list-style-type: none"> <li>• Microsoft Windows 2000 (Server or Advanced Server editions)</li> <li>• Microsoft Windows Server 2003</li> <li>• Microsoft Windows XP</li> </ul> <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p>	<input type="checkbox"/>
additional software requirement	<p>Install Adobe Acrobat Reader Version 3.0 or later so that you can view the product guides.</p> <p>Install Microsoft XML Parser Version 4.0 or later. You can install this program during the BlackBerry Enterprise Server installation.</p>	<input type="checkbox"/>

System requirement	Considerations
network environment settings	<p>You can install the BlackBerry Router in a perimeter network (demilitarized zone). <input type="checkbox"/></p> <p>Verify that the firewall settings allow the BlackBerry Router computer to initiate a two-way TCP/IP connection to an external server on port 3101.</p> <p>Verify that the corporate firewall can resolve Internet addresses using the DNS.</p> <p>Verify that the proxy is transparent, if you are using a proxying firewall.</p>

## Checklist: BlackBerry MDS Connection Service system requirements

System requirement	Considerations
operating system	<p>Install one of the following operating systems on the computer on which you plan to install the BlackBerry MDS Connection Service: <input type="checkbox"/></p> <ul style="list-style-type: none"> <li>• Microsoft Windows 2000 (Server or Advanced Server editions)</li> <li>• Microsoft Windows Server 2003</li> <li>• Microsoft Windows XP</li> </ul> <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p>
security support requirements	<p>If you are using RSA SecurID authentication, you must install the RSA ACE/Agent for Microsoft Windows Version 5.0 on the computer on which you plan to install the BlackBerry MDS Connection Service. <input type="checkbox"/></p>
additional software requirement	<p>Install Adobe Acrobat Reader Version 3.0 or later so that you can view the product guides. <input type="checkbox"/></p>

## Checklist: BlackBerry Collaboration Service system requirements

System requirement	Considerations
operating system	<p>Install one of the following operating systems on the computer on which you plan to install the BlackBerry Collaboration Service: <input type="checkbox"/></p> <ul style="list-style-type: none"> <li>• Microsoft Windows 2000 (Server or Advanced Server editions)</li> <li>• Microsoft Windows Server 2003 Service Pack 1 (required for Microsoft Live Communications Server support)</li> <li>• Microsoft Windows XP</li> </ul> <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p> <p>Install Microsoft .NET Framework Version 1.1 Service Pack 1 (required for Microsoft Live Communications Server support). You can install this program during the BlackBerry Enterprise Server installation.</p> <p>If Microsoft .NET Framework Version 1.1 is installed in a language other than English, you must download and install Service Pack 1 in the appropriate language. Visit <a href="http://www.microsoft.com/netframework/downloads/">www.microsoft.com/netframework/downloads/</a> for more information.</p> <p>Install MSMQ Version 3.0 (required for Microsoft Live Communications Server support).</p> <p><b>Note:</b> If you install MSMQ separately from Windows Server 2003, clear the default <b>Active Directory Integration</b> and <b>Triggers</b> subcomponents and select only the <b>Common</b> subcomponent.</p>

System requirement	Considerations	
messaging and collaboration server software	<p>If your instant messaging server is Microsoft Live Communications Server 2005 and you are using TLS as the communication protocol, you must install or import an MTLS certificate on the computer on which you plan to install the BlackBerry Collaboration Service.</p> <p>If your instant messaging server is Microsoft Live Communications Server 2005 with Service Pack 1 and you are using TLS as the communication protocol, you must install or import a server authentication certificate under the computer account on the computer on which you plan to install the BlackBerry Collaboration Service.</p> <p>Visit <a href="http://www.office.microsoft.com/en-us/FX011526591033.aspx">www.office.microsoft.com/en-us/FX011526591033.aspx</a> for more information about configuring certificates on Microsoft Live Communications Server 2005.</p> <p>If your instant messaging server is GroupWise Messenger, you must turn on support for SSL authentication of the GroupWise Messenger agents on the computer on which you plan to install the BlackBerry Collaboration Service. Visit <a href="http://www.novell.com/documentation">www.novell.com/documentation</a> to read the <i>Messenger 1.0 Administration Guide</i> for more information.</p> <p>If your instant messaging server is IBM Lotus Sametime Server, you must add the IP address of each computer on which you plan to install the BlackBerry Collaboration Service to the CommunityConnectivity document on the Sametime server.</p>	□
additional software requirement	Install Adobe Acrobat Reader Version 3.0 or later so that you can view the product guides.	□



# Configuring your environment

Enable the messaging environment to communicate with the BlackBerry Enterprise Server  
Setting database permissions

## Enable the messaging environment to communicate with the BlackBerry Enterprise Server

You must generate a trusted application key to enable communication between the BlackBerry Enterprise Server and the primary domain on your GroupWise messaging server. If you have multiple BlackBerry Enterprise Servers, you might choose to generate multiple trusted application keys to have a unique trusted application key for each BlackBerry Enterprise Server.

### Install the trusted application key generator

1. Using a Novell administrator account with supervisor rights to the GroupWise system, log in to the computer where Novell NetWare® is installed.
2. Copy the **Key Generator Application** folder and its contents from the BlackBerry Enterprise Server installation media to the local drive.

### Create the trusted application key and configuration file

If you choose to create multiple trusted application keys, give each key and configuration file a unique name. You can only use the default trusted application key name once.

If you generate a new trusted application key after you install the BlackBerry Enterprise Server, use the BlackBerry Server Configuration Panel to update the BlackBerry Enterprise Server configuration with the new key. See the *BlackBerry Enterprise Server Administration Guide* for more information.

1. In ConsoleOne®, locate the UNC path that points to the **wpsdomain.db** file for the domain that you are creating the trusted application key for.
2. Browse to the **Key Generator Application** folder on the local drive.
3. Double-click **Generate\_GW\_Trusted\_App.exe**.
4. In the **GroupWise Domain Path** field, type the path that points to the location of the **wpsdomain.db** file.
5. In the **Name** field, type a name for the trusted application key.
6. In the **Description** field, type a description for the trusted application key.
7. Click **Generate**.

8. Click **Yes**.
9. To create a configuration file that contains the trusted application key, click **Yes**.
10. Save the configuration file.
11. If a message prompts you to overwrite an existing configuration file, confirm that you are overwriting the correct file, and then click **Yes**.

## Confirm the trusted application key generated successfully

1. Browse to the **Key Generator Application** folder on the local drive.
2. Double-click **Generate\_GW\_Trusted\_App.exe**.
3. Click **Load File**.
4. Browse to the configuration file location.
5. Double-click the file.
6. Verify that the trusted application key exists in the file.

## Setting database permissions

When you run the setup program, the account that you use must have permissions on the database server. The type of permission depends on the setup type you choose and whether you are creating the BlackBerry Configuration Database on the same computer as the BlackBerry Enterprise Server or on a remote database server.

If you create the BlackBerry Configuration Database on the same computer as the BlackBerry Enterprise Server, you also install a custom event-based notification system that is designed to reduce the number of database queries made by the BlackBerry Enterprise Server to the BlackBerry Configuration Database. You require a higher level of permission for this installation because you must register this database notification system.

If you create the BlackBerry Configuration Database on a remote database server, you do not install the database notification system automatically, so you require a lower level of permission. You can install the database notification system manually after you complete the setup program. See "Install the database notification system" on page 34 for more information.

If you install the BlackBerry MDS Services, you must use a database login instead of a Windows account to create and access the BlackBerry MDS Services databases. If you are using a database login to create the BlackBerry Configuration Database, you must use a different login for the BlackBerry MDS Services databases.

The BlackBerry MDS Services store their BlackBerry MDS Service database access credentials in plain text form in *<Installation directory>\BlackBerry MDS Services 4.1.1\jakarta-tomcat-5.5.9\conf\server.xml*. To protect the access credentials in that storage location, you must limit read and write control to that location.

If you install MSDE 2000 during the BlackBerry Enterprise Server installation, you do not need to set additional permissions. When you select Windows (trusted) authentication during the BlackBerry Enterprise Server installation, the required permissions are given to the account that you used to run the setup program.



Visit [www.msdn.microsoft.com/library/default.asp?url=/library/en-us/adminsql/ad\\_security\\_05bt.asp](http://www.msdn.microsoft.com/library/default.asp?url=/library/en-us/adminsql/ad_security_05bt.asp) for more information about Microsoft SQL Server security.

## Set Microsoft SQL Server permissions

> Perform one of the following actions:

Action	Procedure
Create the BlackBerry Configuration Database on the same computer as the BlackBerry Enterprise Server and register the database notification system.	> Assign System Administrator permission.
Create the BlackBerry Configuration Database on a remote database server during the BlackBerry Enterprise Server installation.	> Assign Server Administrator and Database Creator permissions.
Create the BlackBerry MDS Services databases during the BlackBerry MDS Services or BlackBerry Enterprise Server with BlackBerry MDS Services installations.	> Assign System Administrator permission.



# Installing the BlackBerry Enterprise Server software

[Checklist: Confirm BlackBerry Enterprise Server installation requirements](#)  
[Install the BlackBerry Enterprise Server](#)  
[Install remote components](#)  
[Install the database notification system](#)  
[Troubleshooting the BlackBerry Enterprise Server installation process](#)  
[Postinstallation tasks](#)

## Checklist: Confirm BlackBerry Enterprise Server installation requirements

Use the following checklist to confirm that you are ready to start the installation:

Step	
Select a setup type. See "Choosing a BlackBerry Enterprise Server setup type" on page 7 for more information.	<input type="checkbox"/>
Verify that you have met all the system requirements. See "System requirements for the BlackBerry Enterprise Server" on page 11 for more information.	<input type="checkbox"/>
Create the required accounts for the messaging server to access the BlackBerry Enterprise Server. See "Enable the messaging environment to communicate with the BlackBerry Enterprise Server" on page 25 for more information.	<input type="checkbox"/>
Log in to the computer using an administrative account with the appropriate database permissions. See "Setting database permissions" on page 29 for more information.	<input type="checkbox"/>
<b>Note:</b> The administrative account is added automatically to the Security administrator role in the BlackBerry Configuration Database.	
Confirm that you have the following required credentials from the BlackBerry Enterprise Server installation media:	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• client access license key</li> <li>• SRP identifier</li> <li>• SRP key</li> <li>• SRP host</li> </ul>	
Confirm that you have the following required installation credentials from your environment:	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• computer name and port of the messaging server</li> <li>• Novell administration account</li> <li>• trusted application key</li> <li>• computer name and port of the instant messaging server</li> <li>• computer name and port of the proxy server</li> </ul>	
<b>Note:</b> If you are using a .PAC file to configure the connection, you can specify the file after you complete the installation process.	

## Install the BlackBerry Enterprise Server

You add BlackBerry Enterprise Servers to a BlackBerry Domain by specifying a shared BlackBerry Configuration Database and the same GroupWise connection settings during the installation process.

1. Double-click the **setup.exe** file.
2. Complete the instructions on the screen.
3. When prompted to restart the computer, click **Yes**.
4. Log in using the same account that you used for the setup program.
5. Complete the instructions on the screen.

## Install remote components

1. Double-click the **setup.exe** file.
2. Complete the instructions on the screen.
3. When prompted to restart the computer, click **Yes**.
4. Log in using the same account that you used for the setup program.
5. Complete the instructions on the screen.

## Install the database notification system

1. Connect to the Microsoft SQL Server instance using an account with System Administration permissions.
2. Copy the **RimEsp.dll** file to C:\Program Files\Microsoft SQL Server\MSSQL\Binn.
3. In the SQL Query Analyzer, browse to the \Database\DBInstallScripts\SQLServer\4.1 folder on the installation media.
4. Open the **NotifyInstall.sql** file and replace <\_DATABASENAME\_> with the name of your BlackBerry Configuration Database.
5. Run the script.
6. Confirm that the Query Analyzer displays the message "Function dbo.xp\_RIM\_xxxx registered."
7. Repeat steps 1 through 5 for additional BlackBerry Configuration Databases in your environment.

# Troubleshooting the BlackBerry Enterprise Server installation process

## Resolving issues during the installation process

Symptom	Possible solution
One of the third-party tools installed by the setup program does not install successfully and the setup program ends.	<ol style="list-style-type: none"> <li>1. In the BlackBerry Enterprise Server installation media, open the <b>Tools</b> folder and locate the program that you want to install.</li> <li>2. Install the third-party tool manually.</li> <li>3. Restart the setup program.</li> </ol>
When you start the setup program, the message "Previous version detected but no database available" appears and the setup program ends.	<p>Verify that the registry keys identifying your BlackBerry Configuration Database are present.</p> <ol style="list-style-type: none"> <li>1. On the server where you plan to install the BlackBerry Enterprise Server, start the Registry Editor.</li> <li>2. In the left pane, browse to HKEY_LOCAL_MACHINE/Research In Motion/BlackBerry Enterprise Server/.</li> <li>3. Create the following string values (if they do not exist): <ul style="list-style-type: none"> <li>• <b>DatabaseName</b>: Type the name of the BlackBerry Configuration Database.</li> <li>• <b>DatabaseServerMachineName</b>: Type the computer name of the database server.</li> </ul> <p><b>Note:</b> These values are case sensitive.</p> </li> <li>4. Restart the setup program.</li> </ol>
After you attempt to add the CAL license key, the "Failed to write License Key to the Database" message appears.	<ol style="list-style-type: none"> <li>1. Cancel the installation.</li> <li>2. Log off the computer.</li> <li>3. Log into the computer using the same account that you used to start the installation.</li> <li>4. Double-click the <b>setup.exe</b> file to proceed with the installation..</li> </ol>
When you install service pack 1 to a previously installed version of Microsoft .NET Framework Version 1.1, the setup program prompts you for access to the original installation media for Microsoft .NET Framework Version 1.1.	<ol style="list-style-type: none"> <li>1. When the setup program prompts you for the location of the <b>netfx.msi</b> file, browse to the <b>Tools</b> folder in the BlackBerry Enterprise Server installation media.</li> <li>2. Select the file.</li> </ol>

## Resolving issues after the installation process completes

Symptom	Possible solution
The BlackBerry Enterprise Server is not connecting to the Novell GroupWise server as a trusted application.	> After the BlackBerry Enterprise Server is installed, open ConsoleOne and verify that the name you gave the trusted application key (for example, "RIM BES") appears in the list of trusted applications.
The BlackBerry Collaboration Service is not connecting to the Microsoft Live Communications Server.	<p>If you are using TLS as the communication protocol, verify that authentication is configured.</p> <ol style="list-style-type: none"> <li>1. Visit <a href="http://www.microsoft.com/downloads">www.microsoft.com/downloads</a> to download Microsoft Office Communicator 2005 Trial Edition.</li> <li>2. Install the Microsoft Office Communicator 2005 client on the computer where the BlackBerry Collaboration Service is located.</li> <li>3. Use Microsoft Office Communicator 2005 to connect to the Microsoft Live Communications Server.</li> <li>4. If a connection cannot be made, confirm that you have installed or imported the required authentication certificates.</li> </ol>

## Postinstallation tasks

Action	Resource
Add administrators to roles.	<i>BlackBerry Enterprise Server Version 4.1.1 System Administration Guide</i>
Add users to the BlackBerry Enterprise Server.	<i>BlackBerry Enterprise Server Version 4.1.1 System Administration Guide</i>
Implement BlackBerry devices.	<i>BlackBerry Enterprise Server Version 4.1.1 System Administration Guide</i>
Configure a connection between the BlackBerry Enterprise Server and the BlackBerry MDS Services.	<i>BlackBerry Enterprise Server Version 4.1.1 System Administration Guide</i>

# Removing the BlackBerry Enterprise Server software

Remove the BlackBerry Enterprise Server software  
 Remove the BlackBerry MDS Services software  
 Remove registry entries from your computer  
 Remove the database notification system

## Remove the BlackBerry Enterprise Server software

The Java Runtime Environment and Java Web Start software is not removed when you remove the BlackBerry Enterprise Server. You must remove these applications manually.

1. On the taskbar, click **Start > Settings > Control Panel > Add/Remove Programs**.
2. Click **BlackBerry Enterprise Server**.
3. Click **Remove**.
4. Click **Yes**.

## Remove the BlackBerry MDS Services software

1. On the taskbar, click **Start > Settings > Control Panel > Add/Remove Programs**.
2. Click **BlackBerry MDS Services**.
3. Click **Remove**.
4. Click **Yes**.

## Remove registry entries from your computer

1. On the computer where you removed the BlackBerry Enterprise Server, start the Registry Editor.
2. Delete any of the following registry entries:

Entry	Location
Research In Motion	HKEY_LOCAL_MACHINE\Software\
BBAAttachServer and any keys starting with "BES" or "BlackBerry"	HKEY_LOCAL_MACHINE\System\CurrentControlSet\Service\ HKEY_LOCAL_MACHINE\System\ControlSet001\Service\ HKEY_LOCAL_MACHINE\System\ControlSet002\Service\
Research In Motion	HKEY_CURRENT_USER\Software\

Entry	Location
any keys named BlackBerryServer, BlackBerry Server Management, or listed as the name of your BlackBerry Enterprise Server	HKEY_CURRENT_USER\Software\Microsoft\Windows NT\CurrentVersion\Windows Messaging SubSystem\Profiles\
any key in which the ProductName is BlackBerry Enterprise Server	HKEY_CLASSES_ROOT\Installer\Products\

## Remove the database notification system

You might need to restart the Microsoft SQL Server to complete the removal. If you do not want to restart the server, rename the `RimEsp.dll` file (for example, to `RimEspXXX.tmp`).

1. In the SQL Query Analyzer, browse to the `\Database\DBInstallScripts\SQLServer\4.1` folder on the installation CD.
2. Open the `NotifyUnInstall.sql` file.
3. Perform one of the following actions:

Action	Procedure
Remove the database notification system from one BlackBerry Configuration Database.	<ol style="list-style-type: none"> <li>1. Delete all commands after <code>– delete notification stored procedures</code> and <code>– delete notification tables</code>.</li> <li>2. Run the script.</li> </ol>
Remove the database notification system from all BlackBerry Configuration Databases.	<ol style="list-style-type: none"> <li>1. Run the script.</li> <li>2. At <code>C:\Program Files\Microsoft SQL Server\MSSQL\Binn</code>, delete the <code>RimEsp.dll</code> file.</li> </ol>







©2006 Research In Motion Limited

Published in Canada.