



BlackBerry Enterprise Server for Microsoft Exchange

Version 4.1.3

Installation Guide

BlackBerry Enterprise Server Version 4.1.3 for Microsoft Exchange Installation Guide

Last modified: 12 March 2007

Part number: 10893573 Version 3

At the time of publication, this documentation is based on BlackBerry Enterprise Server Version 4.1.3 for Microsoft Exchange.

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

©2007 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 trademarks of Adobe Systems Incorporated. IBM, Lotus, and Sametime are trademarks of IBM Corporation. Internet Explorer, Microsoft, SQL Server, Windows, Windows Media Windows Server, Live Communications Server 2005, Outlook, and Active Directory are trademarks of Microsoft Corporation. Novell and GroupWise are trademarks of Novell, Inc. Ace/Agent is a trademark of Security Dynamics Technologies, Inc. RSA and SecurID are trademarks of RSA Security Inc. Java, JavaScript, and J2SE are trademarks of Sun Microsystems, Inc. VMware is a trademark of VMware. 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 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

| | | |
|----------|--|-----------|
| 1 | Planning your BlackBerry environment | 7 |
| | Choosing a BlackBerry Enterprise Server setup type | 7 |
| | Upgrading the BlackBerry Enterprise Server | 9 |
| 2 | System requirements | 11 |
| | Hardware requirements | 11 |
| | System requirements for the BlackBerry Enterprise Server | 11 |
| | Checklist: Operating system requirements | 12 |
| | Checklist: Messaging and collaboration server software requirements | 12 |
| | Checklist: Security support requirements | 13 |
| | Checklist: Multilanguage support requirements | 13 |
| | Checklist: Virtual machine support requirements | 13 |
| | Checklist: Additional software requirements | 13 |
| | System requirements for your corporate environment | 14 |
| | Checklist: Network environment settings | 14 |
| | Checklist: Messaging and collaboration environment settings | 15 |
| | Checklist: Instant messaging environment settings | 15 |
| | Checklist: Terminal service settings | 16 |
| | Checklist: Database environment settings | 16 |
| | System requirements for remote components | 17 |
| | Checklist: BlackBerry MDS Services system requirements | 17 |
| | Checklist: BlackBerry Enterprise Server with the BlackBerry MDS Services system requirements | 18 |
| | Checklist: BlackBerry Attachment Service system requirements | 20 |
| | Checklist: BlackBerry Manager system requirements | 20 |
| | Checklist: BlackBerry Router system requirements | 21 |
| | Checklist: BlackBerry MDS Connection Service system requirements | 22 |
| | Checklist: BlackBerry Collaboration Service system requirements | 22 |
| 3 | Configuring your environment | 25 |
| | Enabling the messaging environment to communicate with the BlackBerry Enterprise Server | 25 |
| | Create a service account and mailbox | 25 |
| | Configure Microsoft Windows permissions for the service account | 25 |

| | |
|---|-----------|
| Configure Microsoft Exchange permissions for the service account | 26 |
| Enable MAPI profiles..... | 26 |
| Configuring Microsoft Exchange to support wireless calendar synchronization | 26 |
| Setting database permissions..... | 27 |
| Set Microsoft SQL Server permissions | 28 |
| 4 Installing the BlackBerry Enterprise Server software..... | 29 |
| Checklist: Confirm BlackBerry Enterprise Server installation requirements..... | 29 |
| Install the BlackBerry Enterprise Server..... | 30 |
| Install a BlackBerry component on a remote computer..... | 30 |
| Install the database notification system | 30 |
| Installing the Hosted BlackBerry for Microsoft Exchange | 30 |
| Troubleshooting the BlackBerry Enterprise Server installation process | 31 |
| Resolving issues during the installation process..... | 31 |
| Resolving issues after the installation process completes..... | 32 |
| Postinstallation tasks | 32 |
| 5 Removing the BlackBerry Enterprise Server software..... | 33 |
| Remove the BlackBerry Enterprise Server software | 33 |
| Remove registry entries from your computer | 33 |
| Remove the database notification system | 34 |

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 organizer 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 MDS Services. | — |
| BlackBerry MDS Services | This setup type installs the BlackBerry Controller and the following BlackBerry MDS Services on a remote computer: <ul style="list-style-type: none"> BlackBerry MDS Application Integration Service BlackBerry MDS Data Optimization Service BlackBerry MDS Provisioning Service BlackBerry MDS Administrative and Management Service BlackBerry® MDS Studio Application Repository | <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 the 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> |

| Setup type | Description | Considerations |
|-----------------------------------|--|--|
| 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 multiple BlackBerry Enterprise Servers.</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 multiple BlackBerry Enterprise Servers.</p> <p>Your instant messaging environment can be IBM® Lotus® Sametime®, Microsoft® Live Communications Server 2005™, 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"> • 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. • 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. • If your instant messaging server is Microsoft Live Communications Server 2005 and you are using Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS) as the communication protocol, you require three persistent socket connections to create one TCP connection, and all instant messaging sessions use that connection. • 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. • If your instant messaging server is GroupWise Messenger, you require one persistent socket connection for each instant messaging session. <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 4.1.3 Upgrade Guide* for more information.

System requirements

Hardware requirements

System requirements for the BlackBerry Enterprise Server

System requirements for your corporate environment

System requirements for remote components

Hardware requirements

Visit www.blackberry.com/knowledgecenterpublic to read the *BlackBerry Enterprise Server Version 4.1 for Microsoft Exchange Server Capacity Calculator* and the *BlackBerry Enterprise Server Version 4.1 for Microsoft Exchange Performance Benchmarking* 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.

| 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 12. |
| 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: Virtual computer 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 have a virtual computer environment. | 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: Operating system requirements



Note: You must 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: | <input type="checkbox"/> |
| <ul style="list-style-type: none"> • Microsoft® Windows® 2000 Service Pack (SP) 4 (Server or Advanced Server editions) • Microsoft® Windows Server® 2003 (SP1 is required for Microsoft Windows Messenger support) | |
| Install Microsoft Messaging Queue (MSMQ) Version 3.0 (required for Microsoft Windows Messenger support). | <input type="checkbox"/> |
| 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. | <input type="checkbox"/> |
| Install Microsoft® .NET Framework Version 1.1 (SP1 is required for Microsoft Windows Messenger support). You can install this program during the BlackBerry Enterprise Server installation. | <input type="checkbox"/> |
| If Microsoft .NET Framework Version 2.0 is installed, the setup program still installs Version 1.1 or Version 1.1 SP1. | <input type="checkbox"/> |
| If Microsoft .NET Framework Version 1.1 is installed in a language other than English, you must download and install SP1 in the appropriate language. | <input type="checkbox"/> |
| Visit 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: | <input type="checkbox"/> |
| <ul style="list-style-type: none"> • MDAC Version 2.8 with Security Patch MS04-003 (Version 2000.85.1025.00) • MDAC Version 2.8 SP2 (Version 2000.86.1830.00) | |
| Note: MDAC Version 2.8 SP2 is shipped only with Microsoft Windows Server 2003 SP1. | |
| Install Java® 2 Platform, Standard Edition (J2SE™) Runtime Environment Version 5.0 update 9. You can install this program during the BlackBerry Enterprise Server installation. | <input type="checkbox"/> |

Checklist: Messaging and collaboration server software requirements



Warning: Do *not* install Microsoft® Outlook® on the same computer as the BlackBerry Enterprise Server. Visit www.support.microsoft.com/kb/266418 for more information.

| Considerations | |
|--|--------------------------|
| Install one of the following Microsoft Exchange administration tools on the computer on which you plan to install the BlackBerry Enterprise Server: | <input type="checkbox"/> |
| <ul style="list-style-type: none"> • Microsoft Exchange Version 5.5 Administrator • Microsoft Exchange 2000 System Manager • Microsoft Exchange 2003 System Manager | |
| Install the BlackBerry Enterprise Server in the same Microsoft Exchange Organization as your messaging server. | <input type="checkbox"/> |
| Review the Microsoft known issues that impact wireless calendar synchronization. | <input type="checkbox"/> |

Considerations

If your instant messaging environment supports Microsoft Windows Messenger and you are using TLS as the communication protocol, you must install or import one of the following certificates on the computer on which you plan to install the BlackBerry Enterprise Server:

- if your instant messaging server is Microsoft Live Communications Server 2005, you must install or import a Mutual TLS (MTLS) certificate
- if your instant messaging server is Microsoft Live Communications Server 2005 SP1, you must install or import a server authentication certificate under the computer account

Visit 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 , 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 Messenger, you must turn on support for Secure Sockets Layer (SSL) authentication of the Novell GroupWise Messenger agents on the computer on which you plan to install the BlackBerry Collaboration Service. Visit 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 Security Dynamics Technologies 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/xpintltsup.msp 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: Virtual machine support requirements

Considerations

Install VMware® ESX Server Version 2.5.2 on the computer on which you plan to install the BlackBerry Enterprise Server.

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.

| Considerations | |
|---|--------------------------|
| 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. | <input type="checkbox"/> |
| Install Microsoft® XML Parser Version 4.0 SP2 or later. You can install this program during the BlackBerry Enterprise Server installation. | <input type="checkbox"/> |
| If you are using SNMP monitoring, you must install the SNMP service before you install the BlackBerry Enterprise Server. Visit www.microsoft.com/technet/itsolutions/network/deploy/confeat/snmp.mspx for more information about installing and configuring the SNMP service. | <input type="checkbox"/> |
| Install Microsoft® Windows Media® Player Version 9 or later to support audio attachments. | <input type="checkbox"/> |

System requirements for your corporate environment

You must confirm that settings in your network, messaging and collaboration, instant messaging, and database environments are configured to support the BlackBerry Enterprise Server.

| Checklists | Description | Reference |
|---|--|--------------|
| 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 and your desktop email program. | See page 15. |
| Checklist: Instant messaging environment settings | This checklist describes the software and settings that are required on your instant messaging server. | See page 15. |
| Checklist: Terminal service settings | This checklist describes the supported software and settings for installing the BlackBerry Enterprise Server using a terminal or remote desktop session. | See page 16. |
| Checklist: Database environment settings | This checklist describes the software and settings that are required on your database server. | See page 16. |

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. | <input type="checkbox"/> |
| Verify that the BlackBerry Enterprise Server is not installed in a perimeter network (demilitarized zone). Visit www.blackberry.com/knowledgecenterpublic to read article TAE-00038 for more information. | <input type="checkbox"/> |
| 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. | <input type="checkbox"/> |
| Verify that the corporate firewall can resolve Internet addresses using the Domain Name System (DNS). | <input type="checkbox"/> |
| Verify that the proxy server is transparent, if you are using a proxying firewall. | <input type="checkbox"/> |

Checklist: Messaging and collaboration environment settings

Considerations

Your messaging environment must be one of the following:

- Microsoft Exchange Version 5.5 native environment
- Microsoft Exchange 2000 native environment
- Microsoft Exchange 2003 native environment
- mixed environment (any combination of Microsoft Exchange Version 5.5, Microsoft Exchange 2000, and Microsoft Exchange 2003)

Checklist: Instant messaging environment settings

Considerations

Your instant messaging server must be one of the following:

- Sametime Version 3.0 Community Server
- Sametime Version 3.1 Community Server
- Sametime Version 6.5.1 Community Server (Version 6.5.1 or later is required to support dormant mode.)
- Sametime Version 7.0 Community Server
- Sametime Version 7.5 Community Server
- Microsoft Live Communications Server 2005 (SP1 is required to support Microsoft Office Communicator and dormant mode.)
- Novell GroupWise Messenger Server Version 1.0.2 or later
- Novell GroupWise Messenger Server Version 2.0

If your instant messaging environment supports Microsoft Office Communicator, your environment must also include a Microsoft Office Communicator Web Access Server.

Verify that your Communicator Web Access Server meets the following criteria:

- includes the MTLS and HTTPS certificates required for communication with your Microsoft Live Communications Server

Visit office.microsoft.com/en-us/assistance/HA100240791033.aspx for more information.

If your instant messaging environment supports Microsoft Office Communicator, you must download and install the following hotfixes to support the AJAX Service:

- visit www.support.microsoft.com/kb/911996 to install the hotfix on your Microsoft Live Communications Server
- visit www.support.microsoft.com/kb/915066 to install the hotfix on your Communicator Web Access server

If your instant messaging environment supports Microsoft Office Communicator, you must install or configure an additional virtual server to support the AJAX Service on your Communicator Web Access server that meets the following criteria:

- uses all unassigned IP addresses
- uses forms-based authentication only (RIM® does not recommend using integrated authentication when supporting HTTPS connections)
- supports HTTPS browser connections
- contains an Internet Server API (ISAPI) filter for both the cwaauth.dll file and the ajax.dll file

Visit office.microsoft.com/en-us/assistance/HA100240791033.aspx to read the *Microsoft Office Communicator Web Access Planning and Deployment Guide* for more information about enabling the AJAX Service for Communicator Web Access.

Checklist: Terminal service settings

Considerations

If your operating system is Microsoft 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 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.

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

Note: Do not install the Terminal Services program. If you install the Terminal Services program on Microsoft 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 SP3a
- Microsoft SQL Server 2005 (Standard, 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 SP2 (Version 2000.86.1830.00)

MDAC Version 2.8 SP2 is shipped only with Microsoft Windows Server 2003 SP1.

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 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 nondefault instance. During the installation process, you can specify *servername\instancename*.

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 receive a prompt to accept this change in authentication.

Considerations

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 Services database access credentials in plain text form in `<installation directory>\MDSS\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 17. |
| Checklist: BlackBerry Enterprise Server with the 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 Enterprise Server with BlackBerry MDS Services. | See page 18. |
| 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 20. |
| 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 20. |
| 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 21. |
| 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 22. |
| 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 22. |

Checklist: BlackBerry MDS Services system requirements

| System requirement | Considerations |
|--------------------|--|
| operating system | Install one of the following operating systems on the computer on which you plan to install the BlackBerry MDS Services: <input type="checkbox"/> <ul style="list-style-type: none"> • Microsoft Windows 2000 (Server or Advanced Server editions) • Microsoft Windows Server 2003 • Microsoft Windows XP Verify that the operating system is installed in one of English, French, German, Italian, or Spanish. |

| System requirement | Considerations |
|---------------------|---|
| additional software | Install Adobe Acrobat Reader Version 3.0 or later so that you can view the product guides. <input type="checkbox"/> |

Checklist: BlackBerry Enterprise Server with the 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"> • Microsoft Windows 2000 SP4 (Server or Advanced Server editions) • Microsoft Windows Server 2003 <p>Install MSMQ Version 3.0 (required for Microsoft Windows Messenger support).</p> <p>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.</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 SP1. You can install this program during the BlackBerry Enterprise Server installation.</p> <p>If Microsoft .NET Framework Version 2.0 is installed, the setup program still installs Version 1.1 or Version 1.1 SP1.</p> <p>If Microsoft .NET Framework Version 1.1 is installed in a language other than English, you must download and install SP1 in the appropriate language. Visit www.microsoft.com/netframework/downloads/ for more information.</p> <p>Install one of the following MDAC versions:</p> <ul style="list-style-type: none"> • MDAC Version 2.8 with Security Patch MS04-003 (Version 2000.85.1025.00) • MDAC Version 2.8 SP2 (Version 2000.86.1830.00) <p>Note: MDAC Version 2.8 SP2 is shipped only with Microsoft Windows Server 2003 SP1.</p> <p>Install J2SE Runtime Environment Version 5.0 update 9. You can install this program during the BlackBerry Enterprise Server installation.</p> |
| messaging and collaboration server software | <p>Install one of the following Microsoft Exchange administration tools 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"> • Microsoft Exchange Version 5.5 Administrator • Microsoft Exchange 2000 System Manager • Microsoft Exchange 2003 System Manager <p>Review the Microsoft known issues that impact wireless calendar synchronization.</p> <p>Install the BlackBerry Enterprise Server in the same Microsoft Exchange Organization as your messaging server.</p> |

| System requirement | Considerations |
|--|---|
| messaging and collaboration server software, continued | <p>If your instant messaging environment supports Microsoft Windows Messenger and you are using TLS as the communication protocol, you must install or import one of the following certificates on the computer on which you plan to install the BlackBerry Collaboration Service: <input type="checkbox"/></p> <ul style="list-style-type: none"> • if your instant messaging server is Microsoft Live Communications Server 2005, you must install or import an MTLS certificate • if your instant messaging server is Microsoft Live Communications Server 2005 SP1, you must install or import a server authentication certificate under the computer account <p>Visit www.office.microsoft.com/en-us/FX011526591033.aspx for more information about configuring certificates on Microsoft Live Communications Server 2005.</p> <p>If your instant messaging server is Sametime, 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> <p>If your instant messaging server is Novell GroupWise Messenger, you must turn on support for SSL authentication of the Novell GroupWise Messenger agents on the computer on which you plan to install the BlackBerry Collaboration Service. Visit www.novell.com/documentation to read the <i>Messenger 1.0 Administration Guide</i> for more information.</p> |
| multilanguage support | <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 www.microsoft.com/globaldev/handson/user/xpintl supp.msp 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 | <p>If you are using RSA SecurID authentication, you must install the Security Dynamics Technologies 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 | <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 SP2 or later. You can install this program during the BlackBerry Enterprise Server installation.</p> <p>If you are using SNMP monitoring, you must install the SNMP service before you install the BlackBerry Enterprise Server. Visit www.microsoft.com/technet/itsolutions/network/deploy/confeat/snmp.msp for more information about installing and configuring the SNMP service.</p> <p>Install Microsoft Windows Media Player Version 7.1 or later so that you can support audio attachments.</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:</p> <ul style="list-style-type: none"> • Microsoft Windows 2000 SP4 (Server or Advanced Server editions) • Microsoft Windows Server 2003 • Microsoft Windows XP <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p> | <input type="checkbox"/> |
| multilanguage support | <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 www.microsoft.com/globaldev/handson/user/xpintlsetup.msp 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 | <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 SP2 or later. You can install this program during the BlackBerry Enterprise Server installation.</p> <p>Install Microsoft Windows Media Player Version 7.1 or later so that you can support audio attachments.</p> | <input type="checkbox"/> |

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"> • Microsoft Windows 2000 (Professional, Server, or Advanced Server editions) • Microsoft Windows Server 2003 • Microsoft Windows XP Professional <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 SP1. You can install this program during the BlackBerry Enterprise Server installation.</p> <p>If Microsoft .NET Framework Version 2.0 is installed, the setup program still installs Version 1.1 or Version 1.1 SP1.</p> <p>If Microsoft .NET Framework Version 1.1 is installed in a language other than English, you must download and install SP1 in the appropriate language. Visit www.microsoft.com/netframework/downloads/ for more information.</p> <p>In the operating system, turn on printer and file sharing to implement BlackBerry devices.</p> | <input type="checkbox"/> |

| System requirement | Considerations | |
|---|---|--------------------------|
| messaging and collaboration server software | <p>Install one of the following on the computer on which you plan to install the BlackBerry Manager:</p> <ul style="list-style-type: none"> • Microsoft Exchange Version 5.5 Administrator • Microsoft Exchange 2000 System Manager • Microsoft Exchange 2003 System Manager • Microsoft Outlook 2000 (Corporate or Workgroup installation) • Microsoft Outlook 2002 (XP) (Corporate or Workgroup installation) • Microsoft Outlook 2003 (Corporate or Workgroup installation) | <input type="checkbox"/> |
| multilanguage support | <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 www.microsoft.com/globaldev/handson/user/xpintlsetup.msp 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 | <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 SP2 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"> • Microsoft Windows 2000 (Server or Advanced Server editions) • Microsoft Windows Server 2003 • Microsoft Windows XP <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p> | <input type="checkbox"/> |
| additional software | <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 SP2 or later. You can install this program during the BlackBerry Enterprise Server installation.</p> | <input type="checkbox"/> |
| network environment settings | <p>You can install the BlackBerry Router in a perimeter network (demilitarized zone).</p> <p>Verify that the firewall settings permit 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> | <input type="checkbox"/> |

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"> • Microsoft Windows 2000 (Server or Advanced Server editions) • Microsoft Windows Server 2003 • Microsoft Windows XP <p>Verify that the operating system is installed in one of English, French, German, Italian, or Spanish.</p> |
| security support | <p>If you are using RSA SecurID authentication, you must install the Security Dynamics Technologies 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 | <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"> • Microsoft Windows 2000 (Server or Advanced Server editions) • Microsoft Windows Server 2003 SP1 (required for Microsoft Windows Messenger support) • Microsoft Windows XP <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 SP1 (required for Microsoft Windows Messenger support). You can install this program during the BlackBerry Enterprise Server installation.</p> <p>If Microsoft .NET Framework Version 2.0 is installed, the setup program still installs Version 1.1 or Version 1.1 SP1</p> <p>If Microsoft .NET Framework Version 1.1 is installed in a language other than English, you must download and install SP1 in the appropriate language. Visit www.microsoft.com/netframework/downloads/ for more information.</p> <p>Install MSMQ Version 3.0 (required for Microsoft Windows Messenger support).</p> <p>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.</p> |

| System requirement | Considerations | |
|---|---|---|
| messaging and collaboration server software | <p>If your instant messaging environment supports Microsoft Windows Messenger and you are using TLS as the communication protocol, you must install or import one of the following certificates on the computer on which you plan to install the BlackBerry Collaboration Service:</p> <ul style="list-style-type: none"> • if your instant messaging server is Microsoft Live Communications Server 2005, you must install or import a MTLS certificate • if your instant messaging server is Microsoft Live Communications Server 2005 SP1, you must install or import a server authentication certificate under the computer account <p>Visit www.office.microsoft.com/en-us/FX011526591033.aspx for more information about configuring certificates on Microsoft Live Communications Server 2005.</p> <p>If your instant messaging server is Sametime, 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> <p>If your instant messaging server is Novell GroupWise Messenger, you must turn on support for SSL authentication of the Novell GroupWise Messenger agents on the computer on which you plan to install the BlackBerry Collaboration Service. Visit www.novell.com/documentation to read the <i>Messenger 1.0 Administration Guide</i> for more information.</p> | □ |
| additional software requirement | Install Adobe Acrobat Reader Version 3.0 or later so that you can view the product guides. | □ |

Configuring your environment

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

Enabling the messaging environment to communicate with the BlackBerry Enterprise Server

You must create and configure a service (user) account and mailbox in the Microsoft® Active Directory® directory service for the BlackBerry Enterprise Server and the BlackBerry Manager so that these BlackBerry components can be authenticated on the Microsoft Exchange Server.

Create a service account and mailbox

You might not be able to see the service account to confirm that it has been created.

Visit www.blackberry.com/knowledgecenterpublic/ to read article KB-04707 for more information about the Send As permission and the BlackBerry Enterprise Server.

Visit www.support.microsoft.com/kb/912918 for more information about how to grant the Send As permission for multiple accounts.

1. On the taskbar, click **Start > Programs > Administrative Tools > Active Directory Users and Computers**.
2. Create an account with the following attributes:
 - **Name:** BESAdmin
 - **User location:** create a Microsoft Exchange mailbox
 - **Group membership:** Domain User
3. Give this account the Send As permission for all user accounts in the User container of your Active Directory domain.
4. Initialize the new mailbox by sending a test message.

Configure Microsoft Windows permissions for the service account

You must set the permissions on each computer where you plan to install the BlackBerry components.

1. On the taskbar, click **Start > Programs > Administrative Tools > Local Security Policy**.
2. Give the service account the following permissions:
 - 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 service account to the local Administrators group.

Configure Microsoft Exchange permissions for the service account

You must configure the permissions on each computer where you plan to install the BlackBerry components.

> Perform one of the following actions:

| Action | Procedure |
|--|--|
| Set the permissions using Microsoft Exchange Version 5.5 Administrator. | > In both the Site and Configuration containers, set the Service Account Admin permission. |
| Set the permissions using Microsoft Exchange 2000 or Microsoft Exchange 2003 System Manager. | 1. Set Exchange View Only Administrator permission with Administrative Groups as the minimum access level 2. Set Send As, Receive As, and Administer Information Store permissions at the server level. |

Enable MAPI profiles

> To initialize the Messaging Application Programming Interface (MAPI) subsystem, open the Microsoft Exchange 2000 or Microsoft Exchange 2003 System Manager.



Note: If MAPI is not present after completing this step, you might need to run a tool that enables the BlackBerry Enterprise Server installation to facilitate MAPI profile creation and editing. See "Resolving issues during the installation process" on page 31 for more information.

Configuring Microsoft Exchange to support wireless calendar synchronization

The BlackBerry Enterprise Server uses Microsoft Exchange System Manager tools to support wireless calendar synchronization with the Microsoft Exchange messaging server.

The version of the Microsoft Exchange System Manager tools that you install on the BlackBerry Enterprise Server must match the version—including service pack—that is installed on your messaging servers.

RIM recommends that you review the Microsoft known issues that might impact your messaging environment. If you experience a problem that is described in an article and have not upgraded your messaging servers to the service pack that contains the fix, download and install the hotfix on the computer where you plan to install the BlackBerry Enterprise Server.



Note: Verify that you meet the requirements described in the hotfix before you install it.

If your BlackBerry Enterprise Server connects to multiple messaging servers, select the hotfix that is applicable to the latest version of the Exchange software in your environment.

Review the following Microsoft known issues that might impact your messaging environment.

| Microsoft Exchange System Manager tools | Microsoft knowledge base articles |
|--|--|
| Microsoft Exchange Version 5.5 Administrator | <ul style="list-style-type: none"> • www.support.microsoft.com/kb/312273 • www.support.microsoft.com/kb/818709 |
| Microsoft Exchange 2000 System Manager | <ul style="list-style-type: none"> • www.support.microsoft.com/kb/314606 • www.support.microsoft.com/kb/824960 |
| Microsoft Exchange 2003 System Manager | <ul style="list-style-type: none"> • www.support.microsoft.com/kb/823343 • www.support.microsoft.com/kb/894470 |

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 that 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 that the BlackBerry Enterprise Server makes 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 30 for more information.

If you install the BlackBerry MDS Services, you must use a database login instead of a Microsoft 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>\MDSS\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 [http://msdn2.microsoft.com/en-us/library/aa905156\(SQL.80\).aspx](http://msdn2.microsoft.com/en-us/library/aa905156(SQL.80).aspx) 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 a BlackBerry component on a remote computer](#)
[Install the database notification system](#)
[Installing the Hosted BlackBerry for Microsoft Exchange](#)
[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 "Enabling 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 the service account with the appropriate server administrator and database permissions. See "Setting database permissions" on page 27 for more information. | <input type="checkbox"/> |
| Note: The service 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"> client access license key SRP identifier SRP key SRP host | |
| Confirm that you have the following required installation credentials from your environment: | <input type="checkbox"/> |
| <ul style="list-style-type: none"> computer name and port number of the instant messaging server (use the virtual server name and port number where the AJAX service is installed, if applicable in your environment) computer name and port of the proxy server | |
| Note: If you are using a .pac file to configure the connection, you can specify that 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 during the installation process.

1. Double-click **setup.exe**.
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 a BlackBerry component on a remote computer

1. Double-click **setup.exe**.
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 permission.
2. Copy **RimEsp.dll** to C:\Program Files\Microsoft SQL Server\MSSQL\Binn.
3. In the SQL Query Analyzer, browse to the <drive>\Database\DBInstallScripts\SQLServer\4.1 folder on the installation media.
4. Open **NotifyInstall.sql** and replace <_DATABASENAME_> with the name of your BlackBerry Configuration Database.
5. Run the script.
6. Confirm that the SQL Query Analyzer displays the message "Function dbo.xp_RIM_xxxx registered."
7. Repeat steps 1 through 6 for additional BlackBerry Configuration Databases in your environment.

Installing the Hosted BlackBerry for Microsoft Exchange

If you are installing the Hosted BlackBerry® for Microsoft Exchange, the installation recommendations, requirements, and procedures are identical to those for the BlackBerry Enterprise Server. The Hosted BlackBerry for Microsoft Exchange is a version of the BlackBerry Enterprise Server that you can provide to an organization. It includes all of the services and components of the BlackBerry Enterprise Server, but uses a different licensing model.

Depending on how you set up your hosted environment, additional configurations might be required after installation. See the *BlackBerry Enterprise Server Version 4.1.3 System Administration Guide* for more information about configuring a hosted 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"> 1. In the BlackBerry Enterprise Server installation media, open the Tools folder and locate the program that you want to install. 2. Install the third-party tool manually. 3. Restart the setup program. |
| 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"> 1. On the computer on which you plan to install the BlackBerry Enterprise Server, start the Registry Editor. 2. In the left pane, browse to HKEY_LOCAL_MACHINE\Research In Motion\BlackBerry Enterprise Server\Database. 3. Create the following string values (if they do not exist): <ul style="list-style-type: none"> • DatabaseName: Type the name of the BlackBerry Configuration Database. • DatabaseServerMachineName: Type the computer name of the database server. <p>Note: These values are case sensitive.</p> 4. Restart the setup program. |
| After you attempt to add the client access license key, the "Failed to write License Key to the Database" message appears. | <p>Verify that you logged in to the computer using the same account after restarting the computer.</p> <ol style="list-style-type: none"> 1. Cancel the setup program. 2. Log off the computer. 3. Log in to the computer using the same account that you used to start the installation process. 4. Restart the setup program. |

| Symptom | Possible solution |
|---|---|
| You were not prompted to edit or confirm the MAPI profile during the installation. | <p>You can create and edit the MAPI profile manually.</p> <ol style="list-style-type: none"> 1. In the BlackBerry Enterprise Server installation media, in the Tools folder, double-click the Fixmapisvc.exe file. 2. Verify that the mapisvc.inf file is installed at C:\winnt\system32\ or C:\windows\system32\. 3. On the taskbar, click Start > BlackBerry Enterprise Server > Edit MAPI Profile. 4. Type the Microsoft Exchange Server name. 5. Select the mailbox associated with the MAPI profile. 6. Click OK. |
| When you install SP1 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"> 1. When the setup program prompts you for the location of netfx.msi, browse to the Tools folder in the BlackBerry Enterprise Server installation media. 2. Click the file. |

Resolving issues after the installation process completes

| Symptom | Possible solution |
|--|---|
| The BlackBerry Collaboration Service is not connecting to Microsoft Live Communications Server 2005. | <p>If your instant messaging environment supports Microsoft Windows Messenger and you are using TLS as the communication protocol, verify that authentication is configured.</p> <ol style="list-style-type: none"> 1. Visit www.microsoft.com/downloads to download Microsoft Office Communicator 2005 Trial Edition. 2. Install the Microsoft Office Communicator 2005 client on the computer where the BlackBerry Collaboration Service is located. 3. Use Microsoft Office Communicator 2005 to connect to Microsoft Live Communications Server 2005. 4. If a connection cannot be made, confirm that you have installed or imported the required authentication certificates. |

Postinstallation tasks

| Action | Resource |
|--|---|
| Add administrators to roles. | <i>BlackBerry Enterprise Server Version 4.1.3 System Administration Guide</i> |
| Add users to the BlackBerry Enterprise Server. | <i>BlackBerry Enterprise Server Version 4.1.3 System Administration Guide</i> |
| Implement BlackBerry devices. | <i>BlackBerry Enterprise Server Version 4.1.3 System Administration Guide</i> |
| Configure a connection between the BlackBerry Enterprise Server and the BlackBerry MDS Services. | <i>BlackBerry Enterprise Server Version 4.1.3 System Administration Guide</i> |

Removing the BlackBerry Enterprise Server software

Remove the BlackBerry Enterprise Server 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 from your computer. 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 registry entries from your computer

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

| Entry | Location |
|---|--|
| Research In Motion | HKEY_LOCAL_MACHINE\Software\ |
| BBAttachServer 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\ |
| 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\ |
| BESManmmc.dll | HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\App Paths\ |
| Research In Motion | HKEY_USERS\DEFAULT\Software\ |
| any key in which the ProductName is BlackBerry Enterprise Server | HKEY_CLASSES_ROOT\Installer\Products\ |

Remove the database notification system

You might have to restart the Microsoft SQL Server to complete the removal of the database notification system. 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 <drive>\Database\DBInstallScripts\SQLServer\4.1 folder on the installation media.
2. Open **NotifyUnInstall.sql**.
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"> 1. Remove all commands after -- delete notification stored procedures and -- delete notification tables. 2. Run the script. |
| Remove the database notification system from all BlackBerry Configuration Databases. | <ol style="list-style-type: none"> 1. Run the script. 2. At C:\Program Files\Microsoft SQL Server\MSSQL\Binn, remove RimEsp.dll. |



©2007 Research In Motion Limited

Published in Canada.