BlackBerry Enterprise Server Express for IBM Lotus Domino

Version: 5.0 | Service Pack: 2

System Requirements Reference Guide

::: BlackBerry.

Contents

Hardware requirements: BlackBerry Enterprise Server Express

The following are requirements for a BlackBerry® Enterprise Server Express and the BlackBerry Enterprise Server Express components that you install on a single computer, and excludes the BlackBerry Collaboration Service and the BlackBerry MDS Integration Service. The requirements are for a BlackBerry Enterprise Server Express environment that includes users that receive 100 to 200 email messages each day.

The following are requirements for a BlackBerry® Enterprise Server Express and the BlackBerry Enterprise Server Express components that you install on a single computer that uses IBM® Lotus® Domino®. The requirements are for a BlackBerry Enterprise Server Express environment that includes users that receive 100 to 200 email messages each day.

You can improve the performance and reliability of the BlackBerry Enterprise Server Express by installing the BlackBerry Enterprise Server Express components on multiple computers. If your BlackBerry Enterprise Server Express environment supports up to 1000 users, install the BlackBerry Configuration Database on a computer that is separate from the computer that hosts the BlackBerry Enterprise Server Express. If your BlackBerry Enterprise Server Express environment supports up to 2000 users, install the BlackBerry Configuration Database and the BlackBerry Administration Service on computers that are separate from the computer that hosts the BlackBerry Enterprise Server Express.

You can improve the performance and reliability of the BlackBerry Enterprise Server Express by installing the BlackBerry Enterprise Server Express components on multiple computers.

If your BlackBerry Enterprise Server Express environment supports up to 1000 users, install the BlackBerry Configuration Database on a computer that is separate from the computer that hosts the BlackBerry Enterprise Server Express. If your BlackBerry Enterprise Server Express environment supports up to 2000 users, install the BlackBerry Configuration Database and the BlackBerry Administration Service on computers that are separate from the computer that hosts the BlackBerry Enterprise Server Express.

Item	Requirement
BlackBerry Enterprise Server Express that supports up to 200 users	• Two processors, 2.0 GHz Intel® Xeon® • 3 GB of memory • 64-bit operating system: Two 64 GB drives (minimum), RAID 1 • 32-bit operating system: Two 36 GB drives (minimum), RAID 1
BlackBerry Enterprise Server Express that supports up to 500 users	• Two processors, 2.8 GHz Intel Xeon • 3 GB of memory • 64-bit operating system: Two 64 GB drives (minimum), RAID 1 or four 64 GB drives (minimum), RAID 1+0 • 32-bit operating system: Two 36 GB drives (minimum), RAID 1 or four 36 GB drives (minimum), RAID 1+0

Item	Requirement
BlackBerry Enterprise Server Express that supports up to 1000 users	• Single processor, 3.0 GHz Intel Xeon 5100 Series (Dual Core) or two processors, 1.6 GHz Intel Xeon 5100 Series (Dual Core) • 4 GB of memory • 64-bit operating system: Four 64 GB drives (minimum), RAID 1+0 • 32-bit operating system: Four 36 GB drives (minimum), RAID 1+0
BlackBerry Enterprise Server Express that supports up to 2000 users	• 64-bit operating system recommended • Single processor, 2.83 GHz Intel Xeon 5400 Series (Quad Core) or two processors, 3.0 GHz Intel Xeon 5100 Series (Dual Core) • 4 GB of memory • 64-bit operating system: Six 64 GB drives (minimum), RAID 1+0 or eight 64 GB drives (minimum), RAID 1+0 • 32-bit operating system: Six 36 GB drives (minimum), RAID 1+0 or eight 36 GB drives (minimum), RAID 1+0

System requirements

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For information about calculating hardware requirements, visit www.blackberry.com/go/serverdocs to see the *BlackBerry Enterprise Server Capacity Calculator* and *BlackBerry Enterprise Server Performance Benchmarking Guide.*

System requirements: BlackBerry Enterprise Server Express

Item	Requirement
operating system	Any of the following operating systems: • Windows Server® 2003 SP2 (32-bit or 64-bit) • Windows Server 2003 R2 SP2 (32-bit or 64-bit) • Windows Server 2008 SP2 (32-bit or 64-bit) • Windows Server 2008 R2
messaging server	Any of the following servers: • IBM Lotus Domino 8.0.2 with a primary Domino Directory • IBM Lotus Domino 8.5.1 with a primary Domino Directory • IBM Lotus Domino 8.5.2 with a primary Domino Directory
32-bit IBM Lotus Domino	A 32-bit IBM Lotus Domino server, even if the operating system is a 64-bit operating system
notes.ini file	A notes.ini file with the following conditions: • read and write permissions • SERVERKEYFILENAME value configured for the server.id name
partitioning of the messaging server	A nonpartitioned messaging server on the computer that you want to install the BlackBerry® Enterprise Server Express on
permissions for the messaging server	A messaging server with the following permissions: • membership in the LocalDomainServers group • manager-level access to the mail files for user accounts
DIIOP task running	In your organization's environment, an IBM Lotus Domino server running the DIIOP task and, if you are using IBM Lotus Domino authentication with the BlackBerry Administration Service or BlackBerry® Web Desktop Manager, the directory assistance feature turned on

Item	Requirement
browser	Windows® Internet Explorer® 7.0 to 8.0 with language preferences configured to display encoded web pages
media player	One of the following: • if using Windows Server 2008, to support audio attachments, Windows Media® Format SDK (for more information, visit support.microsoft.com to read article 972098) • if using Windows Server 2003, to support audio attachments, Windows Media Player 9 or later
network proximity	A high-speed, switched connection between the BlackBerry Enterprise Server Express and messaging servers

System requirements: BlackBerry Administration Service and BlackBerry Web Desktop Manager

The following system requirements apply when you install the BlackBerry® Administration Service and BlackBerry® Web Desktop Manager on a computer that is separate from the computer that hosts the BlackBerry® Enterprise Server Express.

Item	Requirement
operating system	Any of the following operating systems: • Windows Server® 2003 SP2 (32-bit or 64-bit) • Windows Server 2003 R2 SP2 (32-bit or 64-bit) • Windows Server 2008 SP2 (32-bit or 64-bit) • Windows Server 2008 R2 • Microsoft hotfix 955839 installed on the computer that hosts the BlackBerry Administration Service and BlackBerry Web Desktop Manager
BlackBerry Web Desktop Manager users	To support BlackBerry Web Desktop Manager users, the following conditions: • Internet accounts and passwords for IBM® Lotus® Domino® for BlackBerry Web Desktop Manager users • all user accounts located on the same IBM Lotus Domino server

Item	Requirement
DIIOP task running	In your organization's environment, an IBM Lotus Domino server running the DIIOP task and, if you use IBM Lotus Domino authentication with BlackBerry Administration Service or BlackBerry Web Desktop Manager, with the directory assistance feature turned on.

System requirements: BlackBerry Enterprise Server Express databases

Item	Requirement
database management system	Any of the following database management systems: • Microsoft® SQL Server® 2005 SP3 (32-bit or 64-bit) • Microsoft SQL Server 2005 Express Edition SP3 • Microsoft SQL Server 2008 SP1 (32-bit or 64-bit) • Microsoft SQL Server 2008 Express Edition SP1 (32-bit or 64-bit) • Microsoft SQL Server 2008 R2 (32-bit or 64-bit)
collation setting	To configure collation settings, the following conditions: • database server collation configured to default case-insensitive • BlackBerry® Configuration Database collation configured to default case-insensitive • collation must be the same for the Microsoft SQL Server instance and the database server that hosts the BlackBerry database notification system (BlackBerry Configuration Database) • default collations are suggested though non-default collations are supported (for more information, visit www.blackberry.com/btsc to read articles KB04785 and KB15534)
database connectivity	TCP/IP network protocols turned on
database transactional replication	To support database transactional replication for the BlackBerry Configuration Database , the following conditions: • the database server must be Microsoft SQL Server 2005 SP3 or later • the database server that hosts the replicated database must use the same version and build as the database server that hosts the primary database

System requirements: BlackBerry Attachment Service

The following system requirements apply when you install the BlackBerry® Attachment Service on a computer that is separate from the computer that hosts the BlackBerry® Enterprise Server Express.

Item	Requirement
operating system	Any of the following operating systems: • Windows Server® 2003 SP2 (32-bit or 64-bit) • Windows Server 2003 R2 SP2 (32-bit or 64-bit) • Windows Server 2008 SP2 (32-bit or 64-bit) • Windows Server 2008 R2
media player	One of the following: • if using Windows Server 2008, to support audio attachments, Windows Media® Format SDK (for more information, visit support.microsoft.com to read article 972098) • if using Windows Server 2003, to support audio attachments, Windows Media Player 9 or later
browser	Windows® Internet Explorer® 7.0 to 8.0 with language preferences configured to display encoded web pages

System requirements: BlackBerry MDS Connection Service

The following system requirements apply when you install the BlackBerry® MDS Connection Service on a computer that is separate from the computer that hosts the BlackBerry® Enterprise Server Express.

Item	Requirement
operating system	Any of the following operating systems: • Windows Server® 2003 SP2 (32-bit or 64-bit) • Windows Server 2003 R2 SP2 (32-bit or 64-bit) • Windows Server 2008 SP2 (32-bit or 64-bit) • Windows Server 2008 R2

Item	Requirement
RSA® Authentication Agent	To support enhanced network authentication (optional), RSA Authentication Agent 6.1 for Windows Server 2003 or RSA Authentication Agent 7.0.1 for Windows Server 2008.
memory	One of the following: • if you install a central push server and less than 1000 user accounts, a minimum of 1024 MB • if you install a central push server and more than 1000 user accounts, a minimum of 3 GB • if you do not install a central push server, a minimum of 512 MB

System requirements: BlackBerry Router

To install the BlackBerry® Router on a computer that is separate from the computer that hosts the BlackBerry® Enterprise Server Express, any of the following operating systems:
• Windows Server® 2003 SP2 (32-bit or 64-bit)
• Windows Server 2003 R2 SP2 (32-bit or 64-bit)
• Windows Server 2008 SP2 (32-bit or 64-bit)
• Windows Server 2008 R2

System requirements for your organization's environment

The following system requirements apply when you configure single sign-on authentication for the BlackBerry® Administration Service and BlackBerry® Web Desktop Manager or configure the BlackBerry MDS Connection Service to support Integrated Windows® authentication.

Item	Requirement
network services	Microsoft® Active Directory® running at Windows Server® 2003 domain functional level or higher
application server	For the BlackBerry MDS Connection Service to support Integrated Windows authentication, Microsoft® IIS 6.0 or 7.0 using Integrated Windows authentication
file server	For the BlackBerry MDS Connection Service to support Integrated Windows authentication, Windows Server 2003 file services or Windows Server 2008 file services

System requirements: Computers for BlackBerry Web Desktop Manager and BlackBerry Administration Service users

Item	Requirement
browser	• Windows® Internet Explorer® 7.0 to 8.0 • Mozilla® Firefox® 3.6 • Safari 4 for Mac • Google Chrome™ 4 Windows Internet Explorer 7 or later provides optimal support for BlackBerry® Web Desktop Manager features and BlackBerry Administration Service features. Depending on the browser that you use, the BlackBerry Web Desktop Manager and BlackBerry Administration Service might not recognize BlackBerry devices and the browser might prevent you from activating devices that are connected to the computer, backing up and restoring device data, or adding or updating device applications.

browser settings for Windows Internet Explorer	To support browser access, you must configure the following settings:
	• language preferences configured to display encoded web pages
	• Microsoft hotfix 955839 installed on the users' computers to make sure the correct time zones are displayed
	• the following settings turned on to support Microsoft® ActiveX®:
	   • Automatic prompting for Microsoft ActiveX controls
	   • Download signed Microsoft ActiveX controls
	   • Run Microsoft ActiveX controls and plug-ins
	   • Script Microsoft ActiveX controls marked safe for scripting
	• support for JavaScript®
	• cookies turned on
	• support for TLS or SSL
	• the SSL certificate installed to permit trusted connections to the BlackBerry Administration Service
	• if using Windows Vista™, the BlackBerry Administration Service web address added as a trusted web site and Enable protected mode cleared

Item	Requirement

	• if you configure single sign-on authentication for the BlackBerry Administration Service
	  • the BlackBerry Web Desktop Manager and BlackBerry Administration Service web sites assigned to the local intranet zone
	  • Enable Integrated Windows Authentication selected
	• if you do not configure single sign-on authentication for the BlackBerry Administration Service
	  • the BlackBerry Web Desktop Manager and BlackBerry Administration Service web sites assigned to the local intranet or trusted sites security zone

browser settings for Firefox, Safari, and Google Chrome	To support browser access, you must configure the following settings: • support for JavaScript • cookies turned on • support for TLS or SSL • to permit trusted connections to the BlackBerry Administration Service, the SSL certificate installed Single sign-on authentication for the BlackBerry Administration Service is not supported by Google Chrome.

System requirements: Messaging server

Any of the following messaging servers located in close proximity to where you want to install the BlackBerry® Enterprise Server Express:

- IBM Lotus Domino 8.0.2
- IBM Lotus Domino 8.5.1
- IBM Lotus Domino 8.5.2

To see the current compatibility matrix for the BlackBerry Enterprise Server Express, visit www.blackberry.com/go/compatibility.

System requirements: Email applications for users

To support the BlackBerry® Enterprise Server Express, any of the following email applications:
- IBM Lotus Notes version 8.0.2

- IBM Lotus Notes version 8.5.0 or 8.5.1

System requirements: Firewall

To install the BlackBerry® Enterprise Server Express, configure a firewall or proxy firewall with the following conditions:
- exclusive use of port 3101 to open and maintain an outbound, bidirectional TCP/IP connection to an external server
- support for resolving Internet addresses that use DNS
- for proxy firewalls, transparency of the proxy server

Supported features and environments

Item	Description
upgrades	You can upgrade any version of the BlackBerry Enterprise Server Express to a later version without having to uninstall the current version.
BlackBerry Domain	Your organization's BlackBerry Domain can contain more than one BlackBerry Enterprise Server Express instance. The different BlackBerry Enterprise Server Express instances in the BlackBerry Domain can be different versions, but the BlackBerry Configuration Database must be the same version as the latest BlackBerry Enterprise Server Express instance. The version of the BlackBerry Administration Service that you use to manage the BlackBerry Enterprise Server Express instances must be the same version as the BlackBerry Configuration Database.
	For example, if your organization's BlackBerry Domain contains a BlackBerry Enterprise Server Express 5.0 SP1 and a BlackBerry Enterprise Server Express 5.0 SP2, the BlackBerry Configuration Database must be version 5.0 SP2, and the BlackBerry Administration Service that you use to manage both BlackBerry Enterprise Server Express instances must be version 5.0 SP2.
virtual environment	The BlackBerry® Enterprise Server Express and BlackBerry Enterprise Server Express components support VMware® Infrastructure 3.5, VMware® vSphere™ 4, and Microsoft® Hyper-V® 2008.
enhanced network authentication	The BlackBerry Enterprise Server Express and BlackBerry Enterprise Server Express components support RSA® Authentication Agent 6.1 for Windows Server® 2003 and RSA Authentication Agent 7.0.1 for Windows Server 2008.

Item	Description
multiple IBM® Lotus® Domino® domains	The BlackBerry Messaging Agent supports multiple IBM Lotus Domino domains with the following conditions: • the IBM Lotus Domino server on the computer that hosts the BlackBerry Enterprise Server Express configured with the Connection documents for the other IBM Lotus Domino servers in the domains that the server replicates from • the IBM Lotus Domino server on the computer that hosts the BlackBerry Enterprise Server Express configured with membership in the LocalDomainServers group in all the domains in your organization's environment • cross-certification established between the messaging servers and directory servers in other domains
IP	BlackBerry Enterprise Server Express components support only IPv4 for TCP/IP connections.
SNMP monitoring	The BlackBerry Enterprise Server Express and BlackBerry Enterprise Server Express components support the SNMP service.
remote access	The BlackBerry Enterprise Server Express and BlackBerry Enterprise Server Express components support remote access by administrators who use Remote Desktop Connection.

Unsupported environments

Item	Description
DMZ	The BlackBerry® Enterprise Server Express and BlackBerry Enterprise Server Express components, with the exception of the BlackBerry Router, do not support installation in a DMZ.
email application	The BlackBerry Enterprise Server Express and BlackBerry Enterprise Server Express components do not support installation on computers that host email applications. Email applications use data files that can cause conflicts with the BlackBerry Enterprise Server Express components. As a result, the BlackBerry Enterprise Server Express components might not function as expected.
IBM® DB2® UDB	The BlackBerry Enterprise Server Express and BlackBerry Enterprise Server Express components do not support IBM DB2 UDB.

Item	Description
BlackBerry Attachment Service	If the BlackBerry Attachment Service is hosted on Windows Server® 2008, the BlackBerry Attachment Service does not support .mp3 audio files on BlackBerry devices, and the BlackBerry Attachment Service does not support any audio file formats on BlackBerry® 7100 Series devices that support CDMA networks. You must host the BlackBerry Attachment Service on Windows Server 2003 if you want the BlackBerry Attachment Service to support .mp3 audio files on devices and all audio formats on BlackBerry 7100 Series devices that support CDMA networks.
upgrades or migration	The BlackBerry Enterprise Server Express does not support upgrades or migration from the following products: • BlackBerry® Enterprise Server versions 5.x, 4.x, 3.x, or 2.x • BlackBerry® Professional Software version 4.1.4
mixed environment	You cannot connect both a BlackBerry Enterprise Server and a BlackBerry Enterprise Server Express to the same BlackBerry Configuration Database. To run both a BlackBerry Enterprise Server and a BlackBerry Enterprise Server Express in the same organization, you can configure one BlackBerry Configuration Database for the BlackBerry Enterprise Server instances, and another BlackBerry Configuration Database for the BlackBerry Enterprise Server Express instances.

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