

Technical Note

Placing the BlackBerry Enterprise Solution in a Segmented Network

Version 4.0 and 4.1

Contents

1 BlackBerry Enterprise Server components in a segmented network.....	3
Overview.....	3
Communication among BlackBerry Enterprise Server components.....	3
Architecture: BlackBerry Enterprise Server components in a segmented network.....	4
2 BlackBerry Enterprise Solution connection types and port numbers.....	7
BlackBerry Attachment Service connection types and port numbers.....	7
BlackBerry Collaboration Service connection types and port numbers.....	7
BlackBerry Configuration Database connection types and port numbers.....	8
BlackBerry Controller connection types and port numbers.....	9
BlackBerry Dispatcher connection types and port numbers.....	10
BlackBerry Manager connection type and port number.....	12
BlackBerry Messaging Agent connection types and port numbers.....	12
BlackBerry MDS Connection Service connection types and port numbers.....	13
BlackBerry MDS Services connection types and port numbers	14
BlackBerry MDS Application Repository connection types and port numbers	16
BlackBerry Policy Service connection types and port numbers	16
BlackBerry Router connection types and port numbers	17
BlackBerry Synchronization Service connection types and port numbers	18
CalHelper connection type and port number.....	19
IBM Lotus Domino connection types and port numbers.....	19
IBM Lotus Sametime connection type and port number.....	19
Microsoft Exchange connection types and port numbers.....	20
Microsoft Office Live Communications Server connection types and port numbers	20
BlackBerry Instant Messaging for Microsoft Office Live Communications Server port numbers and connection types	21
Novell GroupWise connection types and port numbers.....	21
Novell GroupWise Messenger connection type and port number.....	21
SNMP agent connection types and port numbers.....	22
Syslog connection type and port number.....	22
3 Changing port numbers.....	23
Change the port number that BlackBerry Enterprise Server components use to connect to the BlackBerry Configuration Database	23

Change the port number that the syslog tools monitor BlackBerry Enterprise Server events on.....	23
4 Glossary.....	25
5 Legal notice	27

BlackBerry Enterprise Server components in a segmented network 1

A segmented network is designed to isolate potential attacks within the organization's LAN and contain them on one computer. The BlackBerry® Enterprise Server supports installation in a segmented network, and permits you to run BlackBerry Enterprise Server components in different network segments. To set up remote communications when each BlackBerry Enterprise Server component is located in its own network segment behind a firewall, you open only the port connections that the BlackBerry Enterprise Server components use.

To place a BlackBerry Enterprise Server component in its own network segment, you can install the component on a separate computer and then place the component in a separate network segment. To segment third-party products, such as the messaging server or the database, see the documentation for those products.

Overview

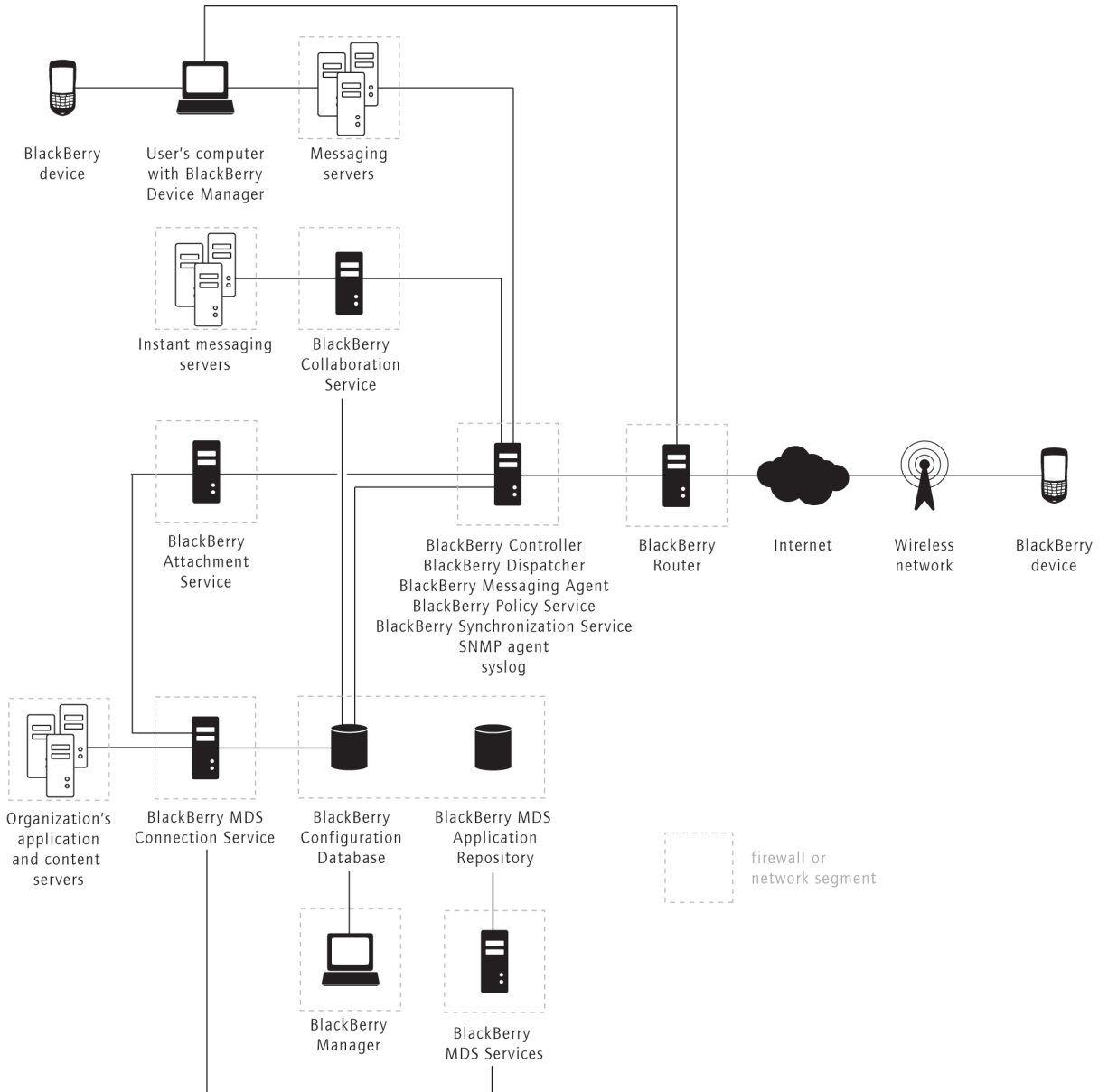
You can distribute the BlackBerry® Enterprise Server in different network segments within the protected network of your organization. The protected network is the area of your organization's network that is located inside the firewalls, and does not include the DMZ.

Installation of the BlackBerry Enterprise Server in the DMZ is not supported; however, you can place the BlackBerry Router in the DMZ. For more information, see *Placing the BlackBerry Router in the DMZ*.

Communication among BlackBerry Enterprise Server components

The BlackBerry® Enterprise Server encrypts data between specific BlackBerry Enterprise Server components that share a secure communication password. When one of these components initiates a connection to the BlackBerry Dispatcher, a Research In Motion® proprietary protocol generates an encryption key, which the BlackBerry Enterprise Server uses to encrypt the data that it sends to any components that store the same secure communication password.

Architecture: BlackBerry Enterprise Server components in a segmented network



Component	Description
BlackBerry® Attachment Service	The BlackBerry Attachment Service converts supported message attachments into a format that users can view on their BlackBerry devices.
BlackBerry Collaboration Service	The BlackBerry Collaboration Service provides a connection between the instant messaging server and the enterprise instant messaging application on BlackBerry devices.
BlackBerry Configuration Database	The BlackBerry Configuration Database is a relational database that contains the configuration data that BlackBerry® Enterprise Server components use.
BlackBerry Controller	The BlackBerry Controller monitors the BlackBerry Enterprise Server components and restarts them if they stop responding.
BlackBerry Dispatcher	The BlackBerry Dispatcher compresses and encrypts all of the data that is sent to and from BlackBerry devices. It sends the data through the BlackBerry Router to and from the wireless network.
BlackBerry Manager	The BlackBerry Manager runs on an administrator's computer and connects to the BlackBerry Configuration Database. You use the BlackBerry Manager to manage the BlackBerry Enterprise Server, including user accounts and device administration.
BlackBerry MDS Application Repository	The BlackBerry MDS Application Repository stores BlackBerry MDS Runtime Applications that developers in your organization can create and publish using BlackBerry® MDS Studio. You can use the BlackBerry Manager to manage any BlackBerry MDS Runtime Application that is stored in the BlackBerry MDS Application Repository.
BlackBerry MDS Connection Service	The BlackBerry MDS Connection Service permits users to access web content on your organization's intranet or on the Internet. It also permits applications on BlackBerry devices to connect to your organization's application and content servers for data and updates.
BlackBerry MDS Services	The BlackBerry MDS Services provide application-level integration for a BlackBerry MDS Runtime Application on BlackBerry devices. You can use the BlackBerry MDS Services to install, on BlackBerry devices, a BlackBerry MDS Runtime Application that is stored in the BlackBerry MDS Application Repository. You can also use it to manage, update, and remove a BlackBerry MDS Runtime Application.

Component	Description
BlackBerry Messaging Agent	The BlackBerry Messaging Agent connects to the messaging server to provide services for messaging, calendar management, address lookups, attachment viewing, and generation of encryption keys. The BlackBerry Messaging Agent also acts as a gateway for the BlackBerry Synchronization Service to access organizer data on the messaging server.
BlackBerry Policy Service	The BlackBerry Policy Service performs administration services over the wireless network, such as sending IT policies and IT administration commands, and provisioning service books. IT policies and IT administration commands define BlackBerry device security, settings for wireless data synchronization, and other configuration settings on BlackBerry devices. Service books can configure feature and component settings on BlackBerry devices.
BlackBerry Router	The BlackBerry Router connects to the wireless network to send data to and from BlackBerry devices. It also sends data within your organization's network to BlackBerry devices that are connected to computers using the BlackBerry® Device Manager.
BlackBerry Synchronization Service	The BlackBerry Synchronization Service synchronizes organizer data between BlackBerry devices and the messaging server over the wireless network.
organization's application and content servers	The organization's application and content servers provide push applications and intranet content for the BlackBerry MDS Services.
instant messaging server	The instant messaging server stores instant messaging accounts.
messaging server	The messaging server stores email accounts.
SNMP agent	The SNMP agent monitors the SNMP queries and traps for the BlackBerry Enterprise Server components.
syslog	The syslog monitors events that the BlackBerry Enterprise Server components produce.
user's computer with the BlackBerry Device Manager	The users' computers with BlackBerry Device Manager enable users to connect their BlackBerry devices to their computers over a serial or USB connection. The BlackBerry Enterprise Server uses this connection to send data to and receive data from the BlackBerry devices.

BlackBerry Enterprise Solution connection types and port numbers 2

The BlackBerry® Enterprise Server components authenticate the port connections over a TCP/IP or UDP/IP connection that uses SSL or TLS.

BlackBerry Attachment Service connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming document submissions from the BlackBerry® Attachment Service	TCP	1900	BlackBerry Configuration Panel
outgoing conversion results to the connector for the BlackBerry Attachment Service	TCP	1900	BlackBerry Configuration Panel
incoming connections from and outgoing connections to the BlackBerry Attachment Service tab of the BlackBerry Configuration Panel	TCP	1999	BlackBerry Configuration Panel
incoming document queries from the BlackBerry Attachment Service	TCP	2000	BlackBerry Configuration Panel
outgoing conversion results of large attachments to the connector for the BlackBerry Attachment Service	TCP	2000	BlackBerry Configuration Panel

BlackBerry Collaboration Service connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the Microsoft® Office Live Communications Server	TLS	5061	BlackBerry® Configuration Panel
incoming data connections from and outgoing data connections to IBM® Lotus® Sametime®	TCP/IP	1533	BlackBerry Configuration Panel

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to Novell® GroupWise® Messenger	SSL	8300	BlackBerry Configuration Panel
incoming data connections from and outgoing data connections to the BlackBerry Dispatcher	TCP	3200 3201	—
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that a Microsoft® SQL Server™ database hosts	TCP	1433	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database \Port
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that an IBM® DB2® UDB hosts	TCP/IP	50000	IBM DB2 UDB setup application
outgoing syslog connections to the SNMP agent	UDP	4071	Microsoft Windows registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion \BlackBerrySNMPAgent \Parameters\UDPPort

BlackBerry Configuration Database connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
for Microsoft® SQL Server™ or MSDE, incoming data connections from and outgoing data connections to any of the following BlackBerry® Enterprise Server components: <ul style="list-style-type: none"> BlackBerry Collaboration Service BlackBerry Dispatcher 	TCP	1433	Microsoft® Windows® registry

Item	Connection type	Default port number	Where to configure the connection
<ul style="list-style-type: none"> BlackBerry Manager BlackBerry MDS Connection Service BlackBerry Messaging Agent BlackBerry Policy Service BlackBerry Synchronization Service 			HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database \Port
for IBM® DB2® UDB, incoming data connections from and outgoing data connections to any of the following BlackBerry Enterprise Server components:	TCP/IP	50000	IBM DB2 UDB setup application
<ul style="list-style-type: none"> BlackBerry Collaboration Service BlackBerry Dispatcher BlackBerry Manager BlackBerry MDS Connection Service BlackBerry Messaging Agent BlackBerry Policy Service BlackBerry Synchronization Service 			

BlackBerry Controller connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming syslog connections from the BlackBerry® Messaging Agent	UDP	4070	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Logging Info\Mailbox Agent \SysLogHost

Item	Connection type	Default port number	Where to configure the connection
outgoing syslog connections to the BlackBerry Messaging Agent	UDP	port number that the BlackBerry Messaging Agent provides	—

BlackBerry Dispatcher connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from the BlackBerry Messaging Agent	TCP	5096	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \\SOFTWARE\\Research In Motion\\BlackBerry Enterprise Server\\Agents \\TcpPortDispatcher
incoming data connections from and outgoing data connections to one or more of the following BlackBerry Enterprise Server components: <ul style="list-style-type: none"> BlackBerry Collaboration Service BlackBerry MDS Connection Service BlackBerry Policy Service BlackBerry Synchronization Service 	TCP	3200 3201	—
outgoing data connection that uses SRP to the BlackBerry Router	TCP	3101	Microsoft Windows registry

Item	Connection type	Default port number	Where to configure the connection
			HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server \Dispatcher\TcpPort
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that a Microsoft® SQL Server™ hosts	TCP	1433	Microsoft Windows registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database \Port
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that an IBM® DB2® UDB hosts	TCP/IP	50000	IBM DB2 UDB setup application
incoming data connection from the BlackBerry database notification system	UDP	first unused port number from 4185 to 4499	—
outgoing syslog connection to the SNMP agent	UDP	4071	Microsoft Windows registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion \BlackBerrySNMPAgent \Parameters\UDPPort

BlackBerry Manager connection type and port number

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the BlackBerry® Configuration Database that a Microsoft® SQL Server™ hosts	TCP	1433	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database \Port

BlackBerry Messaging Agent connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
outgoing data connections to the BlackBerry® Dispatcher	TCP	5096	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Agents \TcpDispatcher
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that a Microsoft® SQL Server™ hosts	TCP	1433	Microsoft Windows registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database \Port

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that an IBM® DB2® UDB hosts	TCP/IP	50000	IBM DB2 UDB setup application
incoming syslog connections from the BlackBerry Controller and CalHelper	UDP	first unused port number from 4085 to 4499	—
outgoing syslog connections to the BlackBerry Controller	UDP	4070	Microsoft Windows registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Agents\SysLogHost
outgoing syslog connections to the SNMP agent	UDP	4071	Microsoft Windows registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Agents\UDPPort
incoming data connections from the BlackBerry database notification system	UDP	first unused port number from 4185 to 4499	—

BlackBerry MDS Connection Service connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
if access control for push applications is turned on, incoming connections for the HTTP listener port for HTTP	HTTP	8080	—

Item	Connection type	Default port number	Where to configure the connection
if access control for push applications is turned on, incoming connections for the HTTP listener port for HTTPS	HTTPS	8443	—
incoming data connections from and outgoing data connections to the BlackBerry® Dispatcher	TCP	3200 3201	—
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that a Microsoft® SQL Server™ hosts	TCP	1433	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database \Port
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that an IBM® DB2® UDB hosts	TCP/IP	50000	IBM DB2 UDB setup application
outgoing syslog connections to the SNMP agent	UDP	4071	Microsoft Windows registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion \BlackBerrySNMPAgent \Parameters\UDPPort

BlackBerry MDS Services connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the BlackBerry MDS Application Repository that a Microsoft® SQL Server™ hosts	TCP	1433	Microsoft® Windows® registry

Item	Connection type	Default port number	Where to configure the connection
			HKEY_LOCAL_MACHINE \\SOFTWARE\\Research In Motion\\BlackBerry Enterprise Server\\Database \\Port
incoming data connections from and outgoing data connections to the BlackBerry MDS Application Repository that an IBM® DB2® UDB hosts	TCP/IP	50000	IBM DB2 UDB setup application
incoming data connections from and outgoing data connections to the BlackBerry MDS Connection Service	TCP	3200	–
for versions of the BlackBerry Enterprise Server earlier than BlackBerry Enterprise Server version 4.1 SP5, incoming data connections from and outgoing data connections to the Apache Tomcat™ server for the web service that is responsible for messaging and the setup of BlackBerry devices	TCP	7080 (HTTP)	an Apache Tomcat server.xml file Note: You cannot change the port number after you start the BlackBerry MDS Services.
for versions of the BlackBerry Enterprise Server earlier than BlackBerry Enterprise Server version 4.1 SP5, incoming data connections from and outgoing data connections to the Apache Tomcat server for the administration web service	TCP	7442 (HTTPS)	an Apache Tomcat server.xml file Note: You cannot change the port number after you start the BlackBerry MDS Services.
for versions of the BlackBerry Enterprise Server earlier than BlackBerry Enterprise Server version 4.1 SP5, incoming data connections from and outgoing data connections to the Apache Tomcat server for the shutdown process	TCP	7005	an Apache Tomcat server.xml file Note: You cannot change the port number after you start the BlackBerry MDS Services.

Item	Connection type	Default port number	Where to configure the connection
for versions of the BlackBerry Enterprise Server earlier than BlackBerry Enterprise Server version 4.1 SP5, incoming data connections from and outgoing data connections to the Apache Tomcat server for notification messages	TCP	7090 (HTTP)	BlackBerry MDS Application RepositorySERVER table, NOTIFICATION_PORT row

BlackBerry MDS Application Repository connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
for a Microsoft® SQL Server™ or MSDE, incoming data connections from and outgoing data connections to the BlackBerry MDS Services	TCP	1433	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database \Port
for an IBM® DB2® UDB, incoming data connections from and outgoing data connections to the BlackBerry MDS Services	TCP/IP	50000	IBM DB2 UDB setup application

BlackBerry Policy Service connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the BlackBerry® Dispatcher	TCP	3200	—
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that a Microsoft® SQL Server™ hosts	TCP	1433	Microsoft® Windows® registry

Item	Connection type	Default port number	Where to configure the connection
			HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database\Port
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that an IBM® DB2® UDB hosts	TCP/IP	50000	IBM DB2 UDB setup application
incoming data connections from the BlackBerry database notification system	UDP	first unused port number from 4185 to 4499	—

BlackBerry Router connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming data connections that use SRP from the BlackBerry® Dispatcher	TCP	3101	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerryRouter\TcpPort
outgoing data connections that use SRP to the BlackBerry® Infrastructure	TCP	3101	Microsoft Windows registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerryRouter\TcpPort

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the BlackBerry devices that use the BlackBerry® Device Manager to bypass the wireless network	TCP	4101	BlackBerry Device Manager
outgoing syslog connections to the SNMP agent	UDP	4071	Microsoft Windows registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion \BlackBerrySNMPAgent \Parameters\UDPPort

BlackBerry Synchronization Service connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the BlackBerry® Dispatcher	TCP	3200	—
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that a Microsoft® SQL Server™ hosts	TCP	1433	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database \Port
incoming data connections from and outgoing data connections to the BlackBerry Configuration Database that an IBM® DB2® UDB hosts	TCP/IP	50000	IBM DB2 UDB setup application
incoming data connections from the BlackBerry database notification system	UDP	first unused port number from 4185 to 4499	—

CalHelper connection type and port number

Item	Connection type	Default port number	Where to configure the connection
outgoing logger connections to the BlackBerry® Messaging Agent	UDP	port number that the BlackBerry Messaging Agent provides	—

IBM Lotus Domino connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the IBM® Lotus® Domino® Web server	TCP/IP	80	IBM Lotus Domino Directory
incoming data connections from and outgoing data connections to the IBM Lotus Domino Web server	SSL	443	IBM Lotus Domino Directory

IBM Lotus Sametime connection type and port number

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the BlackBerry® Collaboration Service	TCP/IP	1533	IBM® Lotus® Sametime® Administration Tool

Microsoft Exchange connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
RPC endpoint mapper	TCP	135	For more information, visit support.microsoft.com to read article 270836.
Microsoft® Exchange System Attendant service	TCP	—	For more information, visit support.microsoft.com to read article 270836.
NSPI service	TCP	—	For more information, visit support.microsoft.com to read article 270836.
Microsoft Exchange Information Store service	TCP	—	For more information, visit support.microsoft.com to read article 270836.

Microsoft Office Live Communications Server connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the connector for the Microsoft® Office Live Communications Server	TLS	5061	Microsoft Office Live Communications Server
incoming data connections from and outgoing data connections to the connector for the Microsoft Office Live Communications Server	TCP	5060	Microsoft Office Live Communications Server

BlackBerry Instant Messaging for Microsoft Office Live Communications Server port numbers and connection types

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the Microsoft® Office Live Communications Server	TLS	5061	BlackBerry® Configuration Panel
incoming data connections from and outgoing data connections to the Microsoft Office Live Communications Server	TCP	5060	BlackBerry Configuration Panel

Novell GroupWise connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the API for Novell® GroupWise® version 6.5	TCP	1677	BlackBerry® Configuration Panel
incoming data connections from and outgoing data connections to the SOAP API	TCP	7191	BlackBerry Configuration Panel
incoming data connections from and outgoing data connections to the SOAP API	TCP	9000	BlackBerry Configuration Panel

Novell GroupWise Messenger connection type and port number

Item	Connection type	Default port number	Where to configure the connection
incoming data connections from and outgoing data connections to the BlackBerry® Collaboration Service	SSL	8300	Novell® GroupWise® server that hosts the Novell GroupWise Messaging Agent

SNMP agent connection types and port numbers

Item	Connection type	Default port number	Where to configure the connection
incoming syslog connections from the following BlackBerry® Enterprise Server components: <ul style="list-style-type: none"> BlackBerry Messaging Agent BlackBerry Dispatcher BlackBerry Router 	UDP	4071	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion \BlackBerrySNMPAgent \Parameters\UDPPort
incoming syslog connections from SNMP queries and traps	UDP	161	Microsoft Windows registry
outgoing syslog connections from SNMP queries and traps	TCP	162	Microsoft Windows registry

Syslog connection type and port number

Item	Connection type	Default port number	Where to configure the connection
listener port for the BlackBerry® Enterprise Server events	UDP	514	Microsoft® Windows® registry HKEY_LOCAL_MACHINE \SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Logging Info\ <i><component></i> \ (Default)

Changing port numbers

3

Change the port number that BlackBerry Enterprise Server components use to connect to the BlackBerry Configuration Database

You can change the port numbers that BlackBerry® Enterprise Server components use if you changed the port number for the BlackBerry Configuration Database after installing the BlackBerry Enterprise Server.

By default, on a Microsoft® SQL Server™, the BlackBerry Configuration Database accepts TCP/IP connections to 1433. The BlackBerry Configuration Database accepts connections through ports 1024 to 65535.

1. On the computer that hosts the BlackBerry Enterprise Server component, open the Microsoft® Windows® Registry Editor.
2. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Database.
3. If it does not exist, create a DWORD value that is named **Port**.
4. Set the DWORD value to the TCP/IP port number you have specified on the database server.
5. Click **OK**.
6. If the computer is running BlackBerry Enterprise Server version 4.0 and the computer hosts the BlackBerry Manager, perform the following actions:
 - a. Navigate to HKEY_USERS\SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Management.
 - b. Repeat steps 3 through 5.
7. In the Microsoft Windows Services, restart the appropriate service for the BlackBerry Enterprise Server component.
8. Repeat steps 1 through 7 on each computer that hosts a BlackBerry Enterprise Server component that connects to the BlackBerry Configuration Database

Change the port number that the syslog tools monitor BlackBerry Enterprise Server events on

You can change the port number that the syslog tools listen on. By default, the syslog tools listen to BlackBerry® Enterprise Server events on port 514.

1. On the computer that hosts the BlackBerry Enterprise Server component, open the Microsoft® Windows® Registry Editor.
2. Navigate to HKEY_LOCAL_MACHINE\Software\Research In Motion\BlackBerry Enterprise Server.
3. In the **Logging Info** registry key, click a BlackBerry Enterprise Server component.
4. If it does not exist, create a DWORD value that is named **(Default)**.
5. Change the DWORD value to the port number that the syslog tools listen on.

6. Click **OK**.

Glossary

4

- API**
application programming interface
- BlackBerry MDS**
BlackBerry® Mobile Data System
- DMZ**
A demilitarized zone (DMZ) is a neutral subnetwork outside of an organization's firewall. It exists between the trusted LAN of the organization and the untrusted external wireless network and public Internet.
- HTTP**
Hypertext Transfer Protocol
- HTTPS**
Hypertext Transfer Protocol over Secure Sockets Layer
- IBM DB2 UDB**
IBM® DB2 Universal Database™
- LAN**
local area network
- messaging server**
A messaging server sends and processes messages and provides collaboration services, such as updating and communicating calendar and address book information.
- MSDE**
Microsoft® SQL Server™ Desktop Engine
- NSPI**
Name Service Provider Interface
- RPC**
remote procedure call
- SNMP**
Simple Network Management Protocol
- SOAP**
Simple Object Access Protocol

SQL

Structured Query Language

SRP

Server Routing Protocol

SSL

Secure Sockets Layer

TCP

Transmission Control Protocol

TCP/IP

Transmission Control Protocol/Internet Protocol (TCP/IP) is a set of communication protocols that is used to transmit data over networks, such as the Internet.

TLS

Transport Layer Security

UDP

User Datagram Protocol

UDP/IP

User Datagram Protocol/Internet Protocol

USB

Universal Serial Bus

Legal notice

5

©2008 Research In Motion Limited. All rights reserved. BlackBerry®, RIM®, Research In Motion®, SureType® and related trademarks, names, and logos are the property of Research In Motion Limited and are registered and/or used as trademarks in the U.S., Canada, and countries around the world.

Apache Tomcat is a trademark of Apache Software Foundation. IBM, DB2, DB2 Universal Database, Domino, Lotus, and Sametime are trademarks of International Business Machines Corporation. Microsoft, SQL Server, and Windows are trademarks of Microsoft Corporation. Novell and GroupWise are trademarks of Novell, Inc. All other trademarks are the properties of their respective owners.

The BlackBerry smartphone and other devices 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 the U.S. and in various countries around the world. Visit www.rim.com/patents for a list of RIM (as hereinafter defined) patents.

This documentation including all documentation incorporated by reference herein such as documentation provided or made available at www.blackberry.com/go/docs is provided or made accessible "AS IS" and "AS AVAILABLE" and without condition, endorsement, guarantee, representation, or warranty of any kind by Research In Motion Limited and its affiliated companies ("RIM") and RIM assumes no responsibility for any typographical, technical, or other inaccuracies, errors, or omissions in this documentation. In order to protect RIM proprietary and confidential information and/or trade secrets, this documentation may describe some aspects of RIM technology in generalized terms. RIM reserves the right to periodically change information that is contained in this documentation; however, RIM makes no commitment to provide any such changes, updates, enhancements, or other additions to this documentation to you in a timely manner or at all.

This documentation might contain references to third-party sources of information, hardware or software, products or services including components and content such as content protected by copyright and/or third-party web sites (collectively the "Third Party Products and Services"). RIM does not control, and is not responsible for, any Third Party Products and Services including, without limitation the content, accuracy, copyright compliance, compatibility, performance, trustworthiness, legality, decency, links, or any other aspect of Third Party Products and Services. The inclusion of a reference to Third Party Products and Services in this documentation does not imply endorsement by RIM of the Third Party Products and Services or the third party in any way.

EXCEPT TO THE EXTENT SPECIFICALLY PROHIBITED BY APPLICABLE LAW IN YOUR JURISDICTION, ALL CONDITIONS, ENDORSEMENTS, GUARANTEES, REPRESENTATIONS, OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY CONDITIONS, ENDORSEMENTS, GUARANTEES, REPRESENTATIONS OR WARRANTIES OF DURABILITY, FITNESS FOR A PARTICULAR PURPOSE OR USE, MERCHANTABILITY, MERCHANTABILITY QUALITY, NON-INFRINGEMENT, SATISFACTORY QUALITY, OR TITLE, OR ARISING FROM A STATUTE OR CUSTOM OR A COURSE OF DEALING OR USAGE OF TRADE, OR RELATED TO THE DOCUMENTATION OR ITS USE, OR PERFORMANCE OR NON-PERFORMANCE OF ANY SOFTWARE, HARDWARE, SERVICE, OR ANY THIRD PARTY PRODUCTS AND SERVICES REFERENCED HEREIN, ARE HEREBY EXCLUDED. YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY BY STATE OR PROVINCE. SOME JURISDICTIONS MAY NOT ALLOW THE EXCLUSION OR LIMITATION OF IMPLIED WARRANTIES AND CONDITIONS. TO THE EXTENT PERMITTED BY LAW, ANY IMPLIED WARRANTIES OR CONDITIONS RELATING TO THE

DOCUMENTATION TO THE EXTENT THEY CANNOT BE EXCLUDED AS SET OUT ABOVE, BUT CAN BE LIMITED, ARE HEREBY LIMITED TO NINETY (90) DAYS FROM THE DATE YOU FIRST ACQUIRED THE DOCUMENTATION OR THE ITEM THAT IS THE SUBJECT OF THE CLAIM.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW IN YOUR JURISDICTION, IN NO EVENT SHALL RIM BE LIABLE FOR ANY TYPE OF DAMAGES RELATED TO THIS DOCUMENTATION OR ITS USE, OR PERFORMANCE OR NON-PERFORMANCE OF ANY SOFTWARE, HARDWARE, SERVICE, OR ANY THIRD PARTY PRODUCTS AND SERVICES REFERENCED HEREIN INCLUDING WITHOUT LIMITATION ANY OF THE FOLLOWING DAMAGES: DIRECT, CONSEQUENTIAL, EXEMPLARY, INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE, OR AGGRAVATED DAMAGES, DAMAGES FOR LOSS OF PROFITS OR REVENUES, FAILURE TO REALIZE ANY EXPECTED SAVINGS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, LOSS OF BUSINESS OPPORTUNITY, OR CORRUPTION OR LOSS OF DATA, FAILURES TO TRANSMIT OR RECEIVE ANY DATA, PROBLEMS ASSOCIATED WITH ANY APPLICATIONS USED IN CONJUNCTION WITH RIM PRODUCTS OR SERVICES, DOWNTIME COSTS, LOSS OF THE USE OF RIM PRODUCTS OR SERVICES OR ANY PORTION THEREOF OR OF ANY AIRTIME SERVICES, COST OF SUBSTITUTE GOODS, COSTS OF COVER, FACILITIES OR SERVICES, COST OF CAPITAL, OR OTHER SIMILAR PECUNIARY LOSSES, WHETHER OR NOT SUCH DAMAGES WERE FORESEEN OR UNFORESEEN, AND EVEN IF RIM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW IN YOUR JURISDICTION, RIM SHALL HAVE NO OTHER OBLIGATION, DUTY, OR LIABILITY WHATSOEVER IN CONTRACT, TORT, OR OTHERWISE TO YOU INCLUDING ANY LIABILITY FOR NEGLIGENCE OR STRICT LIABILITY.

THE LIMITATIONS, EXCLUSIONS, AND DISCLAIMERS HEREIN SHALL APPLY: (A) IRRESPECTIVE OF THE NATURE OF THE CAUSE OF ACTION, DEMAND, OR ACTION BY YOU INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR ANY OTHER LEGAL THEORY AND SHALL SURVIVE A FUNDAMENTAL BREACH OR BREACHES OR THE FAILURE OF THE ESSENTIAL PURPOSE OF THIS AGREEMENT OR OF ANY REMEDY CONTAINED HEREIN; AND (B) TO RIM AND ITS AFFILIATED COMPANIES, THEIR SUCCESSORS, ASSIGNS, AGENTS, SUPPLIERS (INCLUDING AIRTIME SERVICE PROVIDERS), AUTHORIZED RIM DISTRIBUTORS (ALSO INCLUDING AIRTIME SERVICE PROVIDERS) AND THEIR RESPECTIVE DIRECTORS, EMPLOYEES, AND INDEPENDENT CONTRACTORS.

IN ADDITION TO THE LIMITATIONS AND EXCLUSIONS SET OUT ABOVE, IN NO EVENT SHALL ANY DIRECTOR, EMPLOYEE, AGENT, DISTRIBUTOR, SUPPLIER, INDEPENDENT CONTRACTOR OF RIM OR ANY AFFILIATES OF RIM HAVE ANY LIABILITY ARISING FROM OR RELATED TO THE DOCUMENTATION.

Prior to subscribing for, installing, or using any Third Party Products and Services, it is your responsibility to ensure that your airtime service provider has agreed to support all of their features. Installation or use of Third Party Products and Services with RIM's products and services may require one or more patent, trademark, copyright, or other licenses in order to avoid infringement or violation of third party rights. You are solely responsible for determining whether to use Third Party Products and Services and if any third party licenses are required to do so. If required you are responsible for acquiring them. You should not install or use Third Party Products and Services until all necessary licenses have been acquired. Any Third Party Products and Services that are provided with RIM's products and services are provided as a convenience to you and are provided "AS IS" with no express or implied conditions, endorsements, guarantees, representations, or warranties of any kind by RIM and RIM assumes no liability whatsoever, in relation thereto. Your use of Third Party Products and Services shall be governed by and subject to you agreeing to the terms of separate licenses and other agreements applicable thereto with third parties, except to the extent expressly covered by a license or other agreement with RIM.

The terms of use of any RIM product or service are set out in a separate license or other agreement with RIM applicable thereto. NOTHING IN THIS DOCUMENTATION IS INTENDED TO SUPERSEDE ANY EXPRESS WRITTEN AGREEMENTS OR WARRANTIES PROVIDED BY RIM FOR PORTIONS OF ANY RIM PRODUCT OR SERVICE OTHER THAN THIS DOCUMENTATION.

Certain features outlined in this documentation require a minimum version of BlackBerry® Enterprise Server Software, BlackBerry® Desktop Software, and/or BlackBerry® Device Software and may require additional development or Third Party Products and Services for access to corporate applications.

This product includes software developed by the Apache Software Foundation (www.apache.org/) and/or licensed pursuant to Apache License, Version 2.0 (www.apache.org/licenses/). For more information, see the NOTICE.txt file included with the software. Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

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

Research In Motion UK Limited
200 Bath Road
Slough, Berkshire SL1 3XE
United Kingdom

Published in Canada