

BlackBerry Enterprise Server
Resource Kit

BlackBerry Analysis, Monitoring, and
Troubleshooting Tools

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Service Pack: 4



Administration Guide

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Overview

1

The BlackBerry Enterprise Server Resource Kit is a suite of tools that you can use to help manage and monitor an MDM domain. You can download the BlackBerry Enterprise Server Resource Kit from www.blackberry.com/support/downloads.

The BlackBerry Enterprise Server Resource Kit consists of the following tools:

- BlackBerry Enterprise Server User Administration Tool: a command-line tool that allows you to collect statistics and manage user accounts and devices.
- BlackBerry Enterprise Transporter: an application that you can use to migrate user accounts from an MDM domain to a different MDM domain.
- BlackBerry Analysis, Monitoring, and Troubleshooting Tools: various tools that you can use to collect and analyze user data and log files.

This guide provides the configuration and use instructions for the BlackBerry Analysis, Monitoring, and Troubleshooting Tools. For more information about the BlackBerry Enterprise Server User Administration Tool and the BlackBerry Enterprise Transporter, visit www.blackberry.com/go/serverdocs to read the *BlackBerry Enterprise Server User Administration Tool Administration Guide* and the *BlackBerry Enterprise Transporter Installation and Administration Guide*.

BlackBerry Analysis, Monitoring, and Troubleshooting Tools

You can use the BlackBerry Analysis, Monitoring, and Troubleshooting Tools to streamline management tasks, monitor events, collect statistics, and troubleshoot issues with the BlackBerry Enterprise Server components.

The following BlackBerry Analysis, Monitoring, and Troubleshooting Tools are available:

Tool	Description
BlackBerry Directory Sync Tool (DirectorySync.exe)	<p>You can use this application to synchronize the membership of security groups and distribution groups in Microsoft Active Directory with groups on a BlackBerry Enterprise Server.</p> <p>The tool can synchronize groups only if the user accounts in Microsoft Active Directory have matching user accounts on the BlackBerry Enterprise Server. If matching user accounts do not exist on the BlackBerry Enterprise Server,</p>

Tool	Description
	<p>you can add the user accounts manually using the BlackBerry Administration Service, or you can enable the provisioning feature so that the tool can add user accounts during the synchronization process.</p>
BlackBerry Application Reporting Tool (HHAppReport.exe)	<p>You can use this command-line tool to list the applications that are installed on BlackBerry devices in an MDM domain. You can use this tool to audit the MDM domain and evaluate the applications that are installed on devices.</p>
BlackBerry IT Policy Import and Export Tool (ITPolicyImportExport.exe)	<p>You can use this command-line tool to export IT policy information from a BlackBerry Configuration Database to a backup file. You can use the backup file to import the information to a different BlackBerry Configuration Database, making the IT policies available to a different MDM domain.</p>
BlackBerry Message Receipt Confirmation Tool (MessageConfirmService.exe)	<p>You can use this application to verify that the BlackBerry Enterprise Server is successfully delivering messages to devices. At an interval that you specify, the tool sends a message to the specified user accounts, monitors the status of the message, and confirms that the devices received the message.</p>
BlackBerry System Log Monitoring and Reporting Tool (BESSysLog.exe)	<p>You can use this application to monitor the BlackBerry Enterprise Server log files for events generated by the BlackBerry Dispatcher and the BlackBerry Messaging Agent. You can specify which components to monitor, the events that you want to track, and the types of notifications and reports that you want the tool to send to administrators.</p>
BlackBerry Enterprise Server Log Monitoring Tool (LogMonitor.exe)	<p>You can use this command-line tool to monitor the information that is written to the log files for BlackBerry Enterprise Server components. You can specify actions that you want the tool to perform when it finds specific values, such as events or text strings. For example, you can configure the tool to run a custom batch file when it finds a specific event ID in the BlackBerry Dispatcher log file.</p>
BlackBerry System Requirements Tool (BBCheckCmd.exe)	<p>You can use this application to determine whether a computer can run a BlackBerry Enterprise Server component successfully.</p>
BlackBerry Domain Administration History Reporting Tool (AdminHistory.exe)	<p>You can use this command-line tool to read the ServerConfigHistory table in the BlackBerry Configuration Database. The tool displays configuration changes, such as newly added user accounts, in a .csv file. The tool records the date and time of each change and the name of the administrator who made the change.</p> <p>The tool is designed for use only with BlackBerry Enterprise Server 4.1 SP7 and earlier.</p>

BlackBerry Enterprise Server Log Analysis Tool

The BlackBerry Enterprise Server Log Analysis Tool is an application that you can use to run various log analysis tools that check the BlackBerry Enterprise Server log files and collect data about user accounts, message flow, server performance, and historical statistics. You can configure and run the log analysis tools from the BlackBerry Enterprise Server Log Analysis Tool, or you can run the tools individually using the command prompt.

Tool	Description
BlackBerry Calendar Synchronization Reporting Tool (CalSync.exe)	Collects data from the BlackBerry Messaging Agent (MAGT) log file about the calendar synchronization process that you can enable using the BlackBerry Enterprise Trait Tool.
BlackBerry Delayed Notifications Monitoring Tool (DelayedNotifications.exe)	Analyzes the BlackBerry Messaging Agent (MAGT) log file and detects when the BlackBerry Enterprise Server is no longer receiving regular notifications for new email messages and calendar items. Designed for use in a Microsoft Exchange environment only.
BlackBerry Historical Statistics Tool (HistoricalStats.exe)	Analyzes the BlackBerry Dispatcher (DISP) log file and the BlackBerry Messaging Agent (MAGT) log file to provide statistics about daily use patterns for each user account.
BlackBerry MAPI and CDO Error Monitoring Tool (MapiCdoErrors.exe)	Analyzes the BlackBerry Messaging Agent (MAGT) log file to identify common MAPI and CDO errors and custom events. Designed for use in a Microsoft Exchange environment only.
BlackBerry MDS Services Data Monitoring Tool (MDSPushvsPull.exe)	Analyzes the (MDAT) log file to determine whether the BlackBerry MDS Connection Service processes more data from push applications or from BlackBerry Browser requests.
BlackBerry Message Flow Reporting Tool (Messageflow.exe)	Analyzes the BlackBerry Dispatcher (DISP), BlackBerry Messaging Agent (MAGT), and BlackBerry Router (ROUT) log files to track the flow of messages through the BlackBerry Enterprise Server to devices.
BlackBerry Thread Analyzer Tool (NoResponseCheck.exe)	Analyzes all BlackBerry Enterprise Server log files (except for the MDAT and instant messaging log files) to identify threads that are nonresponsive, and to distinguish between true nonresponsive threads and slow threads.
BlackBerry Message Pending Delivery Tool (Pending.exe)	Analyzes the BlackBerry Messaging Agent (MAGT) log file to track user accounts that have a pending message count that is higher than a maximum count that you specify.
BlackBerry Usage Monitoring Tool (OutOfCoverage.exe)	Analyzes the BlackBerry Dispatcher (DISP) log file to check for devices that do not send or receive data in a specified period of time.
BlackBerry User Activity Reporting Tool (AvailIndex.exe)	Analyzes the BlackBerry Messaging Agent (MAGT) log file to create a snapshot report of user account activity over a period of days.

Tool	Description
	Designed for use in a Microsoft Exchange environment only.

What's new in the BlackBerry Analysis, Monitoring, and Troubleshooting Tools

Tool	New feature
BlackBerry Directory Sync Tool	<p>You can now use the tool to provision new user accounts on the BlackBerry Enterprise Server. When you enable provisioning, you map Microsoft Active Directory groups to virtual provisioning groups. During the synchronization process, the tool identifies the Microsoft Active Directory users that do not have matching user accounts on the BlackBerry Enterprise Server, and adds the user accounts as necessary.</p> <p>The tool can add the user accounts to the BlackBerry Enterprise Server as device-enabled user accounts, or as administrator accounts that are not device-enabled.</p> <p>If you enable deprovisioning, the tool identifies user accounts that are not mapped to a virtual provisioning group and removes them from the BlackBerry Enterprise Server. For more information about provisioning rules, see Synchronization and provisioning rules.</p> <p>If you enable provisioning and deprovisioning, it is a best practice to add and remove user accounts from the BlackBerry Enterprise Server using the tool only, instead of adding and removing the user accounts manually using the BlackBerry Administration Service. For more information, see Prerequisites and Synchronization and provisioning rules.</p>
BlackBerry Domain Search	<p>BlackBerry Domain Search has been deprecated due to the release of BlackBerry Mobile Fusion Studio. For more information about BlackBerry Mobile Fusion Studio, visit www.blackberry.com/go/serverdocs to see the <i>BlackBerry Mobile Fusion Studio Installation Guide</i> and the <i>BlackBerry Mobile Fusion Studio Administration Guide</i>.</p>

Support for UTF-8 encoding

The BlackBerry Analysis, Monitoring, and Troubleshooting Tools support UTF-8 encoding for input files and for the characters that you type in the command prompt. The tools are compatible with input files that you save using UTF-8 encoding.

The tools that use a command prompt support UTF-8 encoded characters that you type using keystroke commands, or that you copy and paste from the character map in the command prompt.

Configuring the BlackBerry Enterprise Server User Administration Tool and the BlackBerry Analysis, Monitoring, and Troubleshooting Tools to use UAC-compliant file paths

If you install the BlackBerry Enterprise Server User Administration Tool or any of the BlackBerry Analysis, Monitoring, and Troubleshooting Tools that use a command-line interface, when you run the setup application you can specify whether you want the tool to use a UAC-compliant file path for configuration files, input files, output files, and log files. The setup application creates a subfolder for the files in the application data folder for the current user. For example:

- Configuration files: `<drive>:\Users\<user_name>\AppData\Local\VirtualStore\Program Files (x86)\Research In Motion\BlackBerry Enterprise Server Resource Kit`
- Log files, reports, input files and output files: `<drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\` or `<drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\`

When you use the BlackBerry Enterprise Server User Administration Tool or any of the BlackBerry Analysis, Monitoring, and Troubleshooting Tools that use a command-line interface, you can use the `-uac` or `-no_uac` subparameters when you run a command to override the setting that you configured when you installed the tool. For example, if you configured the BlackBerry Application Reporting Tool to use a UAC-compliant file path, you can use the `-no_uac` subparameter to write output files and log files to a file path that is relative to the current working directory (for example, `<drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools`).

BlackBerry Directory Sync Tool

2

The BlackBerry Directory Sync Tool is an application that you can use to synchronize the membership of security groups and distribution groups in Microsoft Active Directory with groups on a BlackBerry Enterprise Server. After you map one-to-one relationships between Microsoft Active Directory groups and BlackBerry Enterprise Server groups, you can start the synchronization process manually, or you can use a task scheduling application to run the synchronization at a set interval.

When you run the synchronization process, it compares the Microsoft Active Directory group to the BlackBerry Enterprise Server group that you mapped it to. If the tool finds any differences in group membership, it assigns user accounts to, or removes user accounts from, the BlackBerry Enterprise Server group until the membership matches the Microsoft Active Directory group. For more information about synchronization rules, see [Synchronization and provisioning rules](#).

The tool can synchronize groups only if the user accounts in Microsoft Active Directory have matching user accounts on the BlackBerry Enterprise Server. If matching user accounts do not exist on the BlackBerry Enterprise Server, you can add the user accounts manually using the BlackBerry Administration Service, or you can enable the provisioning feature so that the tool can add user accounts during the synchronization process.

When you enable provisioning, you map Microsoft Active Directory groups to virtual provisioning groups. During the synchronization process, the tool identifies the Microsoft Active Directory users that do not have matching user accounts on the BlackBerry Enterprise Server, and adds the user accounts as necessary. If you enable deprovisioning, the tool identifies user accounts that are not mapped to a virtual provisioning group and removes them from the BlackBerry Enterprise Server. For more information about provisioning rules, see [Synchronization and provisioning rules](#).

If you enable provisioning and deprovisioning, it is a best practice to add and remove user accounts from the BlackBerry Enterprise Server using the tool only, instead of adding and removing the user accounts manually using the BlackBerry Administration Service. For more information, see [Prerequisites](#) and [Synchronization and provisioning rules](#).

Configure the BlackBerry Directory Sync Tool

Configure the BlackBerry Directory Sync Tool to search for groups in Microsoft Active Directory

1. On the computer that hosts the BlackBerry Directory Sync Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Directory Sync Tool client**.
2. In the **Directory Group Search** section, click **Configure**.
3. In the **Server Discovery** drop-down list, perform one of the following actions:
 - If you want the tool to search for Microsoft Active Directory groups in the domain that you are currently logged in to, click **Automatic**. The Windows account that you are currently using must have read permissions for Microsoft Active Directory.
 - If you want the tool to search for Microsoft Active Directory groups in a specific domain or server, click **Manual**.
4. If necessary, in the **Domain or Server** field, type the name of the domain or server that hosts Microsoft Active Directory.
5. If necessary, in the **Port** field, type the port number that you want the tool to use to connect to Microsoft Active Directory. The default port number is 389.
6. If you want the tool to limit the search to a specific DN, in the **Search Path DN** field, type the path of the DN (for example, OU=Groups,DC=sample,DC=net).
7. In the **Maximum Results** field, type the maximum number of Microsoft Active Directory groups that you want the tool to find and display.
8. In the **Group search** drop-down list, perform one of the following actions:
 - If you want the tool to discover and list the Microsoft Active Directory groups automatically, click **Automatic**.
 - If you want to search for Microsoft Active Directory groups manually using a search field, click **Manual**.
9. Click **Save**.

Related information

[No Directory groups to display. Please check the configuration, 31](#)

Configure the BlackBerry Directory Sync Tool to search for groups in an MDM domain

1. On the computer that hosts the BlackBerry Directory Sync Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Directory Sync Tool client**.
2. In the **BlackBerry Group Search** section, click **Configure**.
3. In the **Administrator Credentials** section, in the **Authentication Type** drop-down list, perform one of the following actions:
 - If the administrator account that you want the tool to use to access the BlackBerry Enterprise Server uses Microsoft Active Directory authentication, click **Active Directory**.
 - If the administrator account that you want the tool to use to access the BlackBerry Enterprise Server uses BlackBerry native authentication, click **Native**.
4. In the **Username** field, type the user name of the BlackBerry Enterprise Server administrator account. The administrator account must exist in and have the required permissions in every MDM domain that you want the tool to connect to.
5. In the **Password** field, type the password of the BlackBerry Enterprise Server administrator account.
6. If necessary, in the **Domain** field, type the name of the Microsoft Active Directory domain.
7. In the **Add BlackBerry Domain** section, in the **Label** field, type a label for an MDM domain.
8. In the **Hostname** field, type the FQDN of the computer that hosts the BlackBerry Administration Service for the MDM domain (for example, BAS-HOST1.test.rim.net).
9. If necessary, in the **Port** field, type the port number that you want the tool to use to connect to the BlackBerry Administration Service. The default value for the BlackBerry Administration Service is 443 (BlackBerry Enterprise Server) or 3443 (BlackBerry Enterprise Server Express).
10. Click **Add**.
11. Repeat steps 7 to 10 for each MDM domain that you want the tool to connect to.
12. Click **Save**.

Related information

[No BlackBerry groups to display. Please check the configuration, 31](#)

[Exception retrieving BlackBerry groups, 32](#)

[Invalid URI: The hostname could not be parsed, 32](#)

Configure provisioning options

The tool can synchronize groups only if the user accounts in Microsoft Active Directory have matching user accounts on the BlackBerry Enterprise Server. If matching user accounts do not exist on the BlackBerry Enterprise Server, you can add the user accounts manually using the BlackBerry Administration Service, or you can enable the provisioning feature so that the tool can add user accounts during the synchronization process.

1. On the computer that hosts the BlackBerry Directory Sync Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Directory Sync Tool**.
2. In the **BlackBerry Group Search** section, click **Configure**.
3. In the **Provisioning Options** section, select **Enable user provisioning with virtual provisioning mappings**.
4. If you want the tool to manage the removal of user accounts from the BlackBerry Enterprise Server, select **Enable user de-provisioning when removed from provisioning mappings**. In the **De-provisioning Warning** dialogue box, click **Yes**. In the **De-provisioning action** drop-down list, perform one of the following actions:
 - If you want the tool to remove user accounts from the BlackBerry Enterprise Server if they do not exist in Microsoft Active Directory groups that are mapped to virtual provisioning groups, click **Delete users**.
 - If you want the tool to identify in the report and the log file the user accounts that should be deleted, and you do not want the tool to delete the user accounts, click **Log only**. Use the information in the report or log file to remove the user accounts using the BlackBerry Administration Service.
5. Click **Save**.

After you finish: Configure mappings between Microsoft Active Directory groups and virtual provisioning groups.

Related information

[Map groups in Microsoft Active Directory to virtual provisioning groups](#), 23
[Synchronization and provisioning rules](#), 19

Configure reporting preferences

1. On the computer that hosts the BlackBerry Directory Sync Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Directory Sync Tool client**.
2. Click **Edit > Preferences**.
3. If you want to hide "User not found" warning messages in the report when the tool tries to assign user accounts to groups, select the **Suppress "User not found" warnings when assigning users to groups** check box.
4. Click **Save**.

Related information

Interpreting the reports that the BlackBerry Directory Sync Tool creates, 27

Change the performance and configuration settings for the BlackBerry Directory Sync Tool

The BlackBerry Directory Sync Tool retrieves information from Microsoft Active Directory by reading standard property names for group names, email addresses, and user display names. If your organization uses property names that are not standard, you can edit the configuration file to specify the property names.

You can change the performance settings for the BlackBerry Directory Sync Tool if you want to change how the tool completes the provisioning and synchronization process. It is a best practice to use the default performance settings for the tool. Changing the settings might have a performance impact on your organization's BlackBerry Mobile Fusion environment.

1. On the computer that hosts the BlackBerry Directory Sync Tool, navigate to `<drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools`.
2. In a text editor, open the **DirectorySync.exe.config** file.
If your computer's operating system uses UAC and does not permit you to modify the configuration file at this location, open the virtualized copy of the DirectorySync.exe.config file in the application data folder for the current user (for example, `<drive>\Users\<user_name>\AppData\Local\VirtualStore\Program Files (x86)\Research In Motion\BlackBerry Enterprise Server Resource Kit`).
3. If your organization uses a property name for group names in Microsoft Active Directory that is not standard, in the `<appSettings>` section, type `<add key="groupNameProperty" value="<group_property_name>"/>`, where `<group_property_name>` is the required property name. The default value is "name".
4. If your organization uses a property name for email addresses in Microsoft Active Directory that is not standard, in the `<appSettings>` section, type `<add key="emailAddressProperty" value="<email_property_name>"/>`, where `<email_property_name>` is the required property name. The default value is "mail".
5. If your organization uses a property name for user display names in Microsoft Active Directory that is not standard, in the `<appSettings>` section, type `<add key="displayNameProperty" value="<display_property_name>"/>`, where `<display_property_name>` is the required property name. The default value is "displayName".
6. To specify the maximum number of changes that you want the tool to synchronize to a group each time you run the tool, in the `<appSettings>` section, type `<add key="maxNumberOfChanges" value="<max_changes>"/>`, where `<max_changes>` is a value greater than zero. The default value is 0 (no limit). When you start the synchronization process, the tool counts the number of changes to be made to a group; if the number of changes exceeds the value that you specified, the tool does not make any changes to the group.
7. To specify the maximum size of a BlackBerry Enterprise Server group that the tool can synchronize changes to, in the `<appSettings>` section, change the value of `<add key="maxNumberOfUsersInBasGroup" value="<max_users_group>"/>`, where `<max_users_group>` is the maximum number of user accounts in a group. The tool does not synchronize changes to BlackBerry Enterprise Server groups with more user accounts than the value that you specify. The default value is 2000.

8. To specify how long you want the tool to wait before synchronizing each change (for example, assigning a user account to a group), in the `<appSettings>` section, change the value of `<add key="changeDelay" value="<change_delay>" />`, where `<change_delay>` is a value greater than zero, in seconds. The default value is 1 second.
9. To specify the maximum level of nested groups that the tool can synchronize, in the `<appSettings>` section, type `<add key="maxNestingLevel" value="<max_nesting_level>" />`, where `<max_nesting_level>` is a value of 0 or greater. The default value is -1 (no limit).
10. To specify the maximum number of errors that can occur before the tool stops performing actions in an MDM domain, in the `<appSettings>` section, type `<add key="maxNumberOfErrors" value="<max_errors>" />`, where `<max_errors>` is a value of 0 (no limit) or greater. The default value is 5.
11. To specify the minimum number of assignments before the tool caches all of the users in an MDM domain instead of searching for the users individually, in the `<appSettings>` section, type `<add key="bbUserCacheThreshold" value="<threshold>" />`, where `<threshold>` is a value of 0 (no cache) or greater. The default value is 100. If you want the tool to perform a large number of synchronization tasks, caching might improve the tool's performance.
12. To change the level of logging information written to the BlackBerry Directory Sync Tool console, in the `<appSettings>` section, type `<add key="consoleLogLevel" value="<log_level>" />`, where `<log_level>` is a value between 0 (no logging) and 5 (trace log level).
13. To change the level of logging information written to the BlackBerry Directory Sync Tool log files, in the `<appSettings>` section, type `<add key="fileLogLevel" value="<log_level>" />`, where `<log_level>` is a value between 0 (no logging) and 5 (trace log level).
14. Save and close the **DirectorySync.exe.config** file.

Example appSettings section

```
<appSettings>
  <add key="groupNameProperty" value="GroupExample" />
  <add key="emailAddressProperty" value="EmailExample" />
  <add key="displayNameProperty" value="DisplayNameExample" />
  <add key="maxNumberOfChanges" value="1000" />
  <add key="maxNumberOfUsersInBasGroup" value="1000" />
  <add key="changeDelay" value="2" />
  <add key="maxNestingLevel" value="5" />
  <add key="maxNumberOfErrors" value="10" />
  <add key="bbUserCacheThreshold" value="150" />
  <add key="consoleLogLevel" value="5" />
  <add key="fileLogLevel" value="5" />
</appSettings>
```

Configure the BlackBerry Directory Sync Tool to skip certificate validation

When the BlackBerry Directory Sync Tool connects to the BlackBerry Administration Service, it verifies that the FQDN that you configured the tool to use matches the SSL certificate of the BlackBerry Administration Service. You can configure the tool to skip this verification process for specific servers.

1. On the computer that hosts the BlackBerry Directory Sync Tool, navigate to `<drive>:\Program Files (x86)\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry Directory Sync Tool`.
2. In a text editor, open the **DirectorySync.exe.config** file.
If your computer's operating system uses UAC and does not permit you to modify the configuration file at this location, open the virtualized copy of the DirectorySync.exe.config file in the application data folder for the current user (for example, `<drive>\Users\<user_name>\AppData\Local\VirtualStore\Program Files (x86)\Research In Motion\BlackBerry Enterprise Server Resource Kit`).
3. In the `<appSettings>` section, type the following: `<add key="certValidationExcludedHosts" value="<server>"/>`, where `<server>` is the FQDN or IP address of the computer that hosts the BlackBerry Administration Service. If you want to specify multiple computers, separate each FQDN or IP address using a comma (,) or semi-colon (;).
Example: `<add key="certValidationExcludedHosts" value="server1.testnet.company.net;192.0.2.124"/>`
4. Save and close the **DirectorySync.exe.config** file.

After you finish: Restart the BlackBerry Directory Sync Tool.

Prerequisites

- The user accounts that you want to synchronize from Microsoft Active Directory groups must have matching user accounts on the BlackBerry Enterprise Server. If matching user accounts do not exist on the BlackBerry Enterprise Server, add the user accounts manually, or enable provisioning so that the tool can add the user accounts to the BlackBerry Enterprise Server during the synchronization process. For more information about the provisioning feature, see [Configure provisioning options](#).
- The Windows account that you use to run the tool must have read permissions for Microsoft Active Directory.
- The administrator account that you configure the tool to use must exist in every MDM domain that you want the tool to connect to. In a BlackBerry Enterprise Server or BlackBerry Enterprise Server Express environment, the administrator account must have a role with permissions to view and edit groups, and to create and delete user accounts.
- By default, the tool cannot synchronize changes to BlackBerry Enterprise Server groups that have more than 2000 members. If you want to synchronize changes to BlackBerry Enterprise Server groups that have more than 2000 members, change the maximum group size limit in the configuration file (DirectorySync.exe.Config). For more

information about changing the configuration file, see [Change the performance and configuration settings for the BlackBerry Directory Synchronization Tool](#).

- If your organization uses property names for group names, email addresses, or display names that are not standard, add the property names to the configuration file (DirectorySync.exe.Config) so that the tool can retrieve information from Microsoft Active Directory. For more information about adding property names, see [Change the performance and configuration settings for the BlackBerry Directory Synchronization Tool](#).
- If any of the Microsoft Active Directory groups that you want to synchronize have nested subgroups, decide if you want to synchronize the membership of the subgroups as well.
- If you enable provisioning and deprovisioning, it is a best practice to add and remove user accounts from the BlackBerry Enterprise Server using the tool only, instead of adding and removing the user accounts manually using the BlackBerry Administration Service. If you enable deprovisioning and configure the tool to be able to remove user accounts, the tool requires that every user account on the BlackBerry Enterprise Server exists in a Microsoft Active Directory group that is mapped to a virtual provisioning group. If you enable deprovisioning and do not configure and maintain provisioning mappings, the tool could remove user accounts from the BlackBerry Enterprise Server unexpectedly.
- It is a best practice to run the tool during low-usage periods. Depending on the number of changes that must be synchronized, the tool might have a performance impact on your organization's environment.
- It is a best practice to always preview the provisioning and synchronization process so that you can verify that the changes will occur as expected.

Related information

[Change the performance and configuration settings for the BlackBerry Directory Sync Tool](#), 16

Synchronization and provisioning rules

Synchronization rules

Rule	Description
One-way synchronization	The tool synchronizes changes from Microsoft Active Directory groups to BlackBerry Enterprise Server groups. Changes made to BlackBerry Enterprise Server groups using the BlackBerry Administration Service do not affect the membership of Microsoft Active Directory groups.
Does not manage user accounts that are not integrated with Microsoft Active Directory	The tool does not manage user accounts that have no Microsoft Active Directory identifiers, for example, default system accounts like system administrator. The tool can only manage user accounts that are associated with Microsoft Active Directory user accounts (user accounts that were added to the

Rule	Description
	BlackBerry Enterprise Server by importing user information from Microsoft Active Directory).
Does not add groups	The tool does not create new groups on the BlackBerry Enterprise Server.
One-to-one mappings	<p>The tool supports one-to-one mappings of Microsoft Active Directory groups to BlackBerry Enterprise Server groups. You can configure as many one-to-one mappings as required.</p> <p>For example, if you want to map both Group A and Group B in Microsoft Active Directory to Group 1 on the BlackBerry Enterprise Server, you can configure two mappings: Group A to Group 1 and Group B to Group 1.</p>
Nested subgroups	<p>You can configure the tool to synchronize nested groups in Microsoft Active Directory with BlackBerry Enterprise Server groups. The tool does not create new subgroups on the BlackBerry Enterprise Server.</p> <p>For example, Group A in Microsoft Active Directory has a nested subgroup called Group B. You create Group 1 with no members on the BlackBerry Enterprise Server. You map Group A to Group 1 and you permit the tool to synchronize nested groups. When you run the tool, the user accounts in Group A and the nested Group B are assigned to Group 1.</p>
Synchronization outcomes	<p>When you map a Microsoft Active Directory group to a BlackBerry Enterprise Server group and run the synchronization process, the following occurs:</p> <ul style="list-style-type: none"> • If a user account exists in the Microsoft Active Directory group but not in the BlackBerry Enterprise Server group, the tool adds the user account to the BlackBerry Enterprise Server group. • If a user account does not exist in the Microsoft Active Directory group but does exist in the BlackBerry Enterprise Server group, the tool removes the user account from the BlackBerry Enterprise Server group.
Force synchronization option	<p>If the tool cannot find the Microsoft Active Directory group, or the group is no longer valid, one of the following occurs:</p> <ul style="list-style-type: none"> • If Force Synchronization is selected, the user accounts are removed from the BlackBerry Enterprise Server group. • If Force Synchronization is not selected, the user accounts are not removed from the BlackBerry Enterprise Server group. Details are written to the report and log file. <p>If you select this option, always preview the provisioning and synchronization process so that you can verify that the changes will occur as expected.</p>

Rule	Description
Provisioning resolves before synchronization	If you configured mappings of Microsoft Active Directory groups to virtual provisioning groups and mappings of Microsoft Active Directory groups to BlackBerry Enterprise Server groups, the synchronization process resolves the provisioning tasks first (adding or removing user accounts), then performs the synchronization tasks.

Rules when the provisioning feature is disabled

Rule	Description
Does not add user accounts	If the tool identifies a Microsoft Active Directory user account that does not have a matching user account on the BlackBerry Enterprise Server, the tool does not add the user to the BlackBerry Enterprise Server, and cannot synchronize the user account to a BlackBerry Enterprise Server group. The tool writes details to the report and log file.

Rules when the provisioning feature is enabled

Rule	Description
Adds user accounts	<p>You map a Microsoft Active Directory group to a virtual provisioning group and start the synchronization process. If the tool identifies a Microsoft Active Directory user account that does not have a matching user account on the BlackBerry Enterprise Server, the tool adds the required user account to the BlackBerry Enterprise Server.</p> <p>If the Microsoft Active Directory group is mapped to the Provision User as Device Enabled virtual provisioning group, the tool adds a device-enabled user account. If the Microsoft Active Directory group is mapped to the Provision User virtual provisioning group, the tool adds an administrator account that is not device-enabled.</p> <p>When the tool adds a device-enabled user account to the BlackBerry Enterprise Server, the BlackBerry Enterprise Server does not send an activation email to users. You must send the activation information to users.</p>
Does not assign roles	<p>When the tool adds an administrator account that is not device-enabled to the BlackBerry Enterprise Server, it does not assign an administrative role to the account.</p> <p>It is a best practice to assign roles to administrator accounts by mapping the accounts to BlackBerry Enterprise Server groups that are already associated with roles. You can also assign roles to administrator accounts using the BlackBerry Administration Service.</p>

Rule	Description
Deprovisioning	<p>If you enable deprovisioning, every user account on the BlackBerry Enterprise Server must have a matching user account in a Microsoft Active Directory group that is mapped to one of the virtual provisioning groups. If the tool identifies a user account that does not exist in a provisioning mapping, the tool removes the user account from the BlackBerry Enterprise Server (if the De-provisioning action is set to Delete users). The tool does not remove user accounts that are not integrated with Microsoft Active Directory.</p>
Deprovisioning options	<p>If the tool identifies a BlackBerry Enterprise Server user account that does not exist in a provisioning mapping, one of the following occurs:</p> <ul style="list-style-type: none"> • If the De-provisioning action is set to Delete users, the user account is removed from the BlackBerry Enterprise Server. • If the De-provisioning action is set to Log only, the user account is not removed from the BlackBerry Enterprise Server. Details are written to the report and log file. You can use this list to remove the user accounts manually.
Provisioning priority	<p>If a Microsoft Active Directory user account is mapped to both types of virtual provisioning groups, and the user does not currently have a matching user account on the BlackBerry Enterprise Server, the tool adds the user to the BlackBerry Enterprise Server as a device-enabled user account.</p>
Provisioning conflicts	<p>If you add an administrator account to the BlackBerry Enterprise Server that is not device-enabled, and you later try to add the user to the BlackBerry Enterprise Server again as a device-enabled user account, the tool does not complete the task and writes details to the report and log file. You can remove and add the user again using the BlackBerry Administration Service, or you can configure mappings to remove the user account and add the user account again.</p> <p>If you add a device-enabled user account to the BlackBerry Enterprise Server, and you later try to add the user to the BlackBerry Enterprise Server again as an administrator account that is not device-enabled, the tool does not complete the task and writes details to the report and log file. You can remove and add the user again using the BlackBerry Administration Service, or you can configure mappings to remove the user account and add the user account again.</p>

Map groups in Microsoft Active Directory to virtual provisioning groups

If you want to use the tool to add user accounts to the BlackBerry Enterprise Server, you must enable the provisioning feature and then map Microsoft Active Directory groups to virtual provisioning groups. When you run the synchronization process, the tool identifies the Microsoft Active Directory users that do not currently have user accounts on the BlackBerry Enterprise Server and adds the required user accounts. This process does not add the user accounts to BlackBerry Enterprise Server groups; you must create separate mappings to synchronize group membership.

Before you begin: Enable and configure the provisioning feature. For more information, see [Configure provisioning options](#).

1. On the computer that hosts the BlackBerry Directory Sync Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Directory Synch Tool client**.
2. In the **Directory Group Search** section, perform one of the following actions:
 - If you configured the directory group search to be manual, in the search field, type the name of a Microsoft Active Directory group. Click the Search button.
 - If you configured the directory group search to be automatic, in the filter field, type the name of a Microsoft Active Directory group.
3. In the results list, select a group.
4. In the **BlackBerry Group Search** section, perform one of the following actions:
 - If you want to add device-enabled user accounts to the BlackBerry Enterprise Server, select the appropriate **Provision User as Device Enabled** virtual provisioning group.
 - If you want to add administrator accounts that are not device-enabled to the BlackBerry Enterprise Server, select the appropriate **Provision User** virtual provisioning group.
5. Click **Create Group Mapping**.
6. If you want the tool to check user accounts in nested subgroups in the Microsoft Active Directory group, in the **Group Mappings** section, select the **Nested** check box. Note that the tool does not create groups or sub-groups on the BlackBerry Enterprise Server.
7. Repeat steps 2 to 6 to create additional mappings.
8. Click **Save**.

After you finish:

- If you want to disable a provisioning mapping temporarily, in the **Group Mappings** section, clear the appropriate **Enabled** check box.
- To delete a mapping, in the **Group Mappings** section, click the appropriate **Delete** button.
- You can double-click the fields in the **Group Mappings** section to change the directory group path, the MDM domain name, and the BlackBerry Enterprise Server group name. The tool does not validate the changes that you make, so verify that the changes are accurate before you start the synchronization process.
- Map groups in Microsoft Active Directory to groups in an MDM domain.
- Preview the synchronization process. After you review the results of the preview and resolve any errors, you can start the synchronization process.

Related information

[Configure provisioning options, 15](#)

Map groups in Microsoft Active Directory to groups in an MDM domain

Before you begin:

- If necessary, create BlackBerry Enterprise Server groups that you want to synchronize with Microsoft Active Directory groups.
 - If necessary, add user accounts to the BlackBerry Enterprise Server. The tool can synchronize group membership only if the user accounts in Microsoft Active Directory have matching user accounts on the BlackBerry Enterprise Server. You can add the user accounts manually using the BlackBerry Administration Service, or you can enable the provisioning feature so that the tool can add user accounts during the synchronization process.
1. On the computer that hosts the BlackBerry Directory Sync Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Directory Synch Tool client**.
 2. In the **Directory Group Search** section, perform one of the following actions:
 - If you configured the directory group search to be manual, in the search field, type the name of a Microsoft Active Directory group. Click the Search button.
 - If you configured the directory group search to be automatic, in the filter field, type the name of a Microsoft Active Directory group.
 3. In the results list, select a group.
 4. In the **BlackBerry Group Search** section, in the filter field, type the name of a BlackBerry Enterprise Server group.
 5. In the results list, select a group.

6. Click **Create Group Mapping**.
7. If a Microsoft Active Directory group contains nested groups that you want to synchronize, in the **Group Mappings** section, select the **Nested** check box. Note that the tool does not create nested groups or sub-groups on the BlackBerry Enterprise Server.
8. Repeat steps 2 to 7 to create additional mappings.
9. Click **Save**.

After you finish:

- If you want to prevent synchronization from occurring between a Microsoft Active Directory group and a BlackBerry Enterprise Server group temporarily, in the **Group Mappings** section, clear the appropriate **Enabled** check box.
- To delete a mapping, in the **Group Mappings** section, click the appropriate **Delete** button.
- You can double-click the fields in the **Group Mappings** section to change the directory group path, the MDM domain name, and the BlackBerry Enterprise Server group name. The tool does not validate the changes that you make, so verify that the changes are accurate before you start the synchronization process.
- Preview the synchronization process. After you review the results of the preview and resolve any errors, you can start the synchronization process.

Related information

[Synchronization and provisioning rules, 19](#)

Preview the synchronization process

Before you synchronize groups in Microsoft Active Directory with BlackBerry Enterprise Server groups, you can preview the synchronization process to identify and resolve any potential issues.

Before you begin: Map groups in Microsoft Active Directory to groups in an MDM domain.

1. On the computer that hosts the BlackBerry Directory Sync Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Directory Synch Tool client**.
2. Perform one of the following actions:
 - If you want to remove all user accounts from a BlackBerry Enterprise Server group if the Microsoft Active Directory group that it is mapped to does not exist in the directory, select the **Force Synchronization** check box.
 - If you do not want to remove user accounts from a BlackBerry Enterprise Server group if the Microsoft Active Directory group that it is mapped to does not exist in the directory, clear the **Force Synchronization** check box. Details are written to the report and log file.
3. If you want to view the report after the preview completes, select the **Show Report** check box.
4. Click **Preview**.

5. To review the report, click **View > Report**.
6. To review the log file, click **File > Open Application Data Folder**.

After you finish: After you resolve any issues, start the synchronization process.

Related information

[Synchronization and provisioning rules](#), 19

Start the synchronization process

The amount of time that the BlackBerry Directory Sync Tool requires to complete the synchronization process varies depending on the number of changes that the tool must complete. The amount of time that the tool requires to assign a user account to a group or to remove a user account from a group is similar to the amount of time that it takes to perform the same task using the BlackBerry Administration Service.

Note: It is a best practice to run the tool during low usage periods. Depending on the number of changes that must be synchronized, the BlackBerry Directory Sync Tool might have a performance impact on your organization's environment.

Before you begin:

- If necessary, map groups in Microsoft Active Directory to virtual provisioning groups.
 - Map groups in Microsoft Active Directory to groups in an MDM domain.
 - Preview the synchronization process.
1. On the computer that hosts the BlackBerry Directory Sync Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Directory Synch Tool client**.
 2. Perform one of the following actions:
 - If you want to remove all user accounts from a BlackBerry Enterprise Server group if the Microsoft Active Directory group that it is mapped to does not exist in the directory, select the **Force Synchronization** check box.
 - If you do not want to remove user accounts from a BlackBerry Enterprise Server group if the Microsoft Active Directory group that it is mapped to does not exist in the directory, clear the **Force Synchronization** check box. Details are written to the report and log file.
 3. If you want to view the report after the preview completes, select the **Show Report** check box.
 4. Click **Execute**.
 5. To review the report, click **View > Report**.
 6. To review the log file, click **File > Open Application Data Folder**.

After you finish:

- If you enabled provisioning and the synchronization process added administrator accounts to the BlackBerry Enterprise Server, use the BlackBerry Administration Service to assign administrative roles to the accounts.
- When the tool adds a device-enabled user account to the BlackBerry Enterprise Server, the BlackBerry Enterprise Server does not send an activation email to users. You must send the activation information to users.
- You can use the Scheduled Tasks system tool in Windows, or any task scheduling application, to run the tool automatically at a set interval. When you create the scheduled task to run the tool, specify the full path of the tool and the `-preview` or `-execute` command. If the path includes spaces, enclose the path in quotation marks (for example, "**C:\Program Files (x86)\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools\DirectorySync.exe**" `-execute`). Configure the task to run using the same Windows account that you used to map groups.
- If you change the membership of a BlackBerry Enterprise Server group using the BlackBerry Administration Service, you must make the same changes to the Microsoft Active Directory group that is mapped to the BlackBerry Enterprise Server group. If you do not make the same changes to the Microsoft Active Directory group, the changes that you made might be reverted the next time you run the synchronization process.

Related information

[Synchronization and provisioning rules](#), 19

Interpreting the reports that the BlackBerry Directory Sync Tool creates

To view the reports that the tool creates, in the BlackBerry Directory Sync Tool, click **View > Report**. To view the log files that the tool creates, click **File > Open Application Data Folder**.

Message	Type	Description
Assigning user [USER] found in directory group to [GROUP NAME] User [USER] successfully assigned to group [GROUP NAME]	INFO	The tool assigned a user account to a group.
Unassigning user [USER] not found in directory group from [GROUP NAME] User [USER] successfully unassigned from group [GROUP NAME]	INFO	The tool removed a user account from a group.
Creating user [USER] found in directory group in [MDM DOMAIN]	INFO	The tool added an administrator account that is not device-enabled to the MDM domain.

Message	Type	Description
User [USER] successfully created in [MDM DOMAIN]		
Creating device enabled user [USER] found in directory group in [MDM DOMAIN]	INFO	The tool added a device-enabled user account to the MDM domain.
User [USER] successfully created as device enabled in [MDM DOMAIN]		
Deleting user [USER] not found in directory group(s) from [MDM DOMAIN]	INFO	The tool deleted a user account from the MDM domain.
User [USER] successfully deleted from [MDM DOMAIN]		
Maximum number of users [MAX NUM] has been reached for BlackBerry group [MDM DOMAIN NAME\GROUP NAME]	INFO	<p>The number of users in a group exceeded the maximum size configured in the DirectorySync.exe.Config file (maxNumberOfUsersInBasGroup). The tool does not synchronize changes to groups that exceed this value. The default value is 2000.</p> <p>Verify that the size of the group does not exceed the maximum size. If necessary, change the value of maxNumberOfUsersInBasGroup.</p>
User [USER] not found in [MDM DOMAIN NAME]	WARNING	<p>The tool did not find the user account in the MDM domain. Verify that the user account exists in the MDM domain.</p> <p>If you want to hide "User not found" warning messages in the report, in Edit > Preferences, select the "Suppress 'User not found' warnings when assigning users to groups" check box.</p>
Multiple records found for user [USER] in [MDM DOMAIN NAME]	WARNING	The tool found multiple user records when searching for a user account to assign to a group. The tool did not assign the user account to the group.
User [USER] already exists as device enabled	WARNING	<p>The tool tried to provision a user as an administrator account that is not device-enabled, but the user already exists in the MDM domain as a device-enabled user account.</p> <p>Delete the user account using the BlackBerry Administration Service and try to add the user again as an administrator account.</p>

Message	Type	Description
User [USER] already exists but is not device enabled	WARNING	<p>The tool tried to provision a user as a device-enabled user account, but the user already exists in the MDM domain as an administrator account that is not device-enabled.</p> <p>Delete the user account using the BlackBerry Administration Service and try to add the user again as a device-enabled user account.</p>
Skipping all provisioning mappings for [MDM DOMAIN NAME]. Provisioning option is disabled.	WARNING	<p>Provisioning mappings were configured but the provisioning feature was disabled.</p> <p>If you want to provision user accounts, enable the provisioning feature.</p>
Skipping unidentifiable user [USER]	WARNING	The tool could not identify the user account in the MDM domain as a Microsoft Active Directory user. The tool does not manage user accounts that are not integrated with Microsoft Active Directory.
Directory group [LDAP PATH] cannot be found. Treating the missing group as empty.	WARNING	<p>The tool could not find a group in Microsoft Active Directory and the Force Synchronization option was selected.</p> <p>Verify that the group exists in Microsoft Active Directory.</p>
Another copy of Directory Sync is already running. Multiple instances cannot be run!	ERROR	The tool did not run because another instance of the tool is already running. You cannot run multiple instances of the tool at the same time.
Failed to retrieve group members from [MDM DOMAIN NAME\GROUP NAME]	ERROR	The tool did not find a group in the MDM domain, or an error occurred when the tool tried to find the group.
Failed to retrieve all users from BlackBerry domain [MDM DOMAIN NAME]	ERROR	An error occurred when the tool tried to retrieve the list of all users from the MDM domain.
Failed to get user details for DisplayName=[DISPLAY NAME], UID=[USER UID]	ERROR	An error occurred when the tool tried to retrieve more details for a user.
Failed to find user [USER]	ERROR	An error occurred when the tool searched for the user account to assign to a group.
Failed to assign user [USER] to group [MDM DOMAIN NAME\GROUP NAME]	ERROR	An error occurred when the tool tried to assign the user account to a group.
Failed to unassign user [USER] from group [MDM DOMAIN NAME\GROUP NAME]	ERROR	An error occurred when the tool tried to remove the user account from a group.

Message	Type	Description
Failed to create user [USER] in BlackBerry domain [MDM DOMAIN NAME]	ERROR	An error occurred when the tool tried to provision the user account.
Failed to delete user [USER] from BlackBerry domain [MDM DOMAIN NAME]	ERROR	An error occurred when the tool tried to delete the user account.
Failed to authenticate to any BlackBerry domains	ERROR	The administrator account that you configured the tool to use is not authorized in any of the configured MDM domains. Verify that the administrator account exists in and has the required role or permissions in each MDM domain.
Failed to initialize BlackBerry domain [MDM DOMAIN NAME]	ERROR	An error occurred when the tool tried to set up an MDM domain.
Failed to get directory group members	ERROR	An error occurred when the tool tried to retrieve group members from Microsoft Active Directory.
Too many changes detected for [MDM DOMAIN NAME or GROUP NAME]. Total=[NUM OF CHANGES], Max=[MAX NUM OF CHANGES]	ERROR	The number of changes to synchronize to a group exceeded the maximum number configured in the DirectorySync.exe.Config file (MaxNumberOfChanges). The tool counts the number of changes; if the number exceeds the value that you specified, the tool does not make any changes to the group. The default value is 0 (no limit). If necessary, change the value of MaxNumberOfChanges.
The server is not operational	ERROR	The tool cannot access the domain that hosts Microsoft Active Directory.
Logon failure: unknown user name or bad password	ERROR	The tool cannot connect to an MDM domain using the login information that you specified. Verify that the login information is correct and verify that the administrator account exists in the MDM domain.
Exception retrieving group member [AD PATH]	ERROR	The tool cannot find a user account in Microsoft Active Directory. Verify that the Windows account that you are using to run the tool has access to the Microsoft Active Directory domain and has read permissions for Microsoft Active Directory.

Related information

[Configure reporting preferences](#), 15

Troubleshooting

No Directory groups to display. Please check the configuration

Description

This message appears when the BlackBerry Directory Sync Tool cannot connect to Microsoft Active Directory using the information that you specified.

Possible solution

Perform any of the following actions:

- Verify that the directory settings that you specified are correct.
- Verify that the Search Path DN that you specified is a valid path. From left to right, the path should specify the general organizational units (OU) to the specific domain components (DC) (for example, OU=Groups,DC=sample,DC=net).
- If you selected Automatic in the Server Discovery drop-down list, verify that the Windows account that you are currently using has read permissions for Microsoft Active Directory.

No BlackBerry groups to display. Please check the configuration

Description

This message appears when the BlackBerry Directory Sync Tool cannot connect to an MDM domain using the information that you specified.

Possible solution

Perform any of the following actions:

- Verify that the login information that you specified for the administrator account is correct.
- Verify that the administrator account has permissions to view and edit groups.
- Verify that the information that you specified for an MDM domain is correct.

- Verify that groups exist in the MDM domain.
- Verify that the BlackBerry Administration Service that you are trying to connect to is running.
- Verify that the administrator account exists in each MDM domain that you want the tool to connect to.

Exception retrieving BlackBerry groups

Description

This message appears if the Microsoft .NET Framework 3.5 (full package) is not installed on the computer that hosts the BlackBerry Directory Sync Tool.

Possible solution

Install the Microsoft .NET Framework 3.5 (full package) on the computer that hosts the BlackBerry Directory Sync Tool.

Invalid URI: The hostname could not be parsed

Description

This message appears if the tool cannot process the hostname that you specified for an MDM domain.

Possible solution

In the Hostname field, verify that you typed the correct full path name of the computer that hosts the BlackBerry Enterprise Server (for example, UDS-HOST1.company.com). Do not include http:// or https://.

BlackBerry Application Reporting Tool

3

The BlackBerry Application Reporting Tool is a command-line tool that you can use to list the applications that are installed on BlackBerry devices in an MDM domain. You can use this tool to audit the MDM domain and evaluate the applications that are installed on devices.

The tool creates an output file that is named `HHAppReport_<yyyymmdd>_<hhmm>.csv`, where `<yyyymmdd>` is the year, month, and day, and `<hhmm>` is the hour and minute that the tool created the file.

Run the BlackBerry Application Reporting Tool

1. On the computer that hosts the BlackBerry Application Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Application Reporting Tool**.
2. In the command prompt window, type **HHAppReport** and the following parameters:

Parameter	Description
<code>-db <database_name></code>	This parameter specifies the name of the BlackBerry Configuration Database.
<code>-n <database_server></code>	This parameter specifies the host name, computer name, or IP address of the server that hosts the BlackBerry Configuration Database. By default, the tool uses the name localhost.

3. Type any of the following optional parameters:

Parameter	Description
<code>-dbauth</code>	This parameter specifies that the tool must use Microsoft SQL Server authentication. By default, the tool uses Windows authentication.

Parameter	Description
	If you specify this parameter, you must also specify the <code>-dbuser <user_name></code> and <code>-dbpass <password></code> parameters.
<code>-dbuser <user_name></code>	This parameter specifies the username that the tool uses for database authentication. If you use this parameter, you must also specify the <code>-db_auth</code> and <code>dbpass <password></code> parameters.
<code>-dbpass <password></code>	This parameter specifies the password that the tool uses for database authentication. If you use this parameter, you must also specify the <code>-db_auth</code> and <code>dbuser <user_name></code> parameters.
<code>-o <file_name></code>	This parameter specifies the name of the output file that the tool creates.

Example: Running the tool to find all applications in an MDM domain

```
HHAppReport -db BESMgmt -n server01
```

Example: Running the tool using Microsoft SQL Server authentication

```
HHAppReport -db BESMgmt -n server01 -dbauth -dbuser admin -dbpass password
```

Example: Running the tool and specifying an output file name

```
HHAppReport -db BESMgmt -n server01 -o myApplicationsReport20120418.csv
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **HHAppReport -?** or **HHAppReport -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at `<drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\` or `<drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\`. If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, `<drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools .`

Example: Output file for the BlackBerry Application Reporting Tool

```
Application Title,Application Version
BussinessToday, 1.0.0.126
```

```
FCEUXpb, 1.0.0.16  
Score Mobile, 1.2.0.305
```

BlackBerry IT Policy Import and Export Tool

4

The BlackBerry IT Policy Import and Export Tool is a command-line tool that you can use to export IT policy information from a BlackBerry Configuration Database to a backup file. You can use the backup file to import the information to a different BlackBerry Configuration Database to make the IT policies available to a different MDM domain.

The tool supports exporting and importing IT policy information between any 5.0.x or later versions of the BlackBerry Enterprise Server, or between 5.0.x versions of the BlackBerry Enterprise Server Express. The tool does not support exporting from or importing to versions earlier than 5.0.

The source and destination BlackBerry Configuration Database must be associated with the same type of product. For example, you cannot export IT policy information from the BlackBerry Configuration Database of a BlackBerry Enterprise Server and import the IT policy information to the BlackBerry Configuration Database of a BlackBerry Enterprise Server Express; each product supports a different set of IT policy rules.

The tool does not support importing IT policy information to a version of the BlackBerry Enterprise Server or BlackBerry Enterprise Server Express that is earlier than the version you exported the IT policy information from.

The tool does not support exporting and importing IT policy information between different platforms of the BlackBerry Enterprise Server. For example, you cannot export IT policy information from the BlackBerry Enterprise Server for Microsoft Exchange and import the IT policy information to the BlackBerry Enterprise Server for IBM Lotus Domino.

Run the BlackBerry IT Policy Import and Export Tool

Before you begin: Verify that the BlackBerry IT Policy Import and Export Tool can connect to the BlackBerry Configuration Database.

1. On the computer that hosts the BlackBerry IT Policy Import and Export Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry IT Policy Import and Export Tool**.
2. In the command prompt window, type **ITPolicyImportExport -export** or **ITPolicyImportExport -import** and the following parameters:

Parameter	Description
-n <database_server>	This parameter specifies the host name, computer name, or IP address of the server that hosts the BlackBerry Configuration Database that you want to export IT policies from or import IT policies into.
-db <database_name>	This parameter specifies the name of the BlackBerry Configuration Database that you want to export IT policies from or import IT policies into.
-file <file_name>	This parameter specifies the name of the backup file that the tool creates, or the name of the backup file that you want to use to import IT policy information to a BlackBerry Configuration Database. By default, the tool prompts you for this information.

3. Type any of the following parameters:

Parameter	Description
-itpolicy <IT_policy_name>	This parameter specifies the single IT policy that you want to export or import. Type the IT policy name in quotation marks (") if the name contains a space or special characters.
-selectall	This parameter exports or imports all available IT policies.
-renamed_itpolicy <new_IT_policy_name>	This parameter changes the name of the IT policy that you specify using the -itpolicy parameter during the export process or import process. Type the IT policy name in quotation marks if the name contains a space or special characters.
-dbauth	This parameter specifies that the tool must use Microsoft SQL Server authentication. By default, the tool uses Windows authentication. If you specify this parameter, you must also specify the -dbuser <user_name> and -dbpass <password> parameters.

Example: Exporting all IT policies using Windows authentication

```
ITPolicyImportExport -export -n server01 -db BESMgmt01 -selectall -file itpolicy.txt
```

Example: Importing all IT policies using Windows authentication

```
ITPolicyImportExport -import -n server02 -db BESMgmt02 -selectall -file itpolicy.txt
```

Example: Exporting all IT policies using Microsoft SQL Server authentication

```
ITPolicyImportExport -export -n server01 -db BESMgmt01 -dbauth -dbuser admin -dbpassword  
password -selectall -file itpolicy.txt
```

Example: Importing all IT policies using Microsoft SQL Server authentication

```
ITPolicyImportExport -import -n server02 -db BESMgmt02 -dbauth -dbuser admin -dbpassword
password -selectall -file itpolicy.txt
```

Example: Exporting a single IT policy using Windows authentication

```
ITPolicyImportExport -export -n server01 -db BESMgmt01 -itpolicy "executive IT policy" -file itpolicy.txt
```

Example: Importing a single IT policy using Windows authentication

```
ITPolicyImportExport -import -n server02 -db BESMgmt02 -itpolicy "executive IT policy" -file itpolicy.txt
```

Example: Exporting and renaming a single IT policy

```
ITPolicyImportExport -export -n server01 -db BESMgmt01 -itpolicy "executive IT policy" -
renamed_itpolicy "executive permission" -file itpolicy.txt
```

View the IT policies that are available on a BlackBerry Enterprise Server or in a text file

You can use the BlackBerry IT Policy Import and Export Tool to view the IT policies that are available on a BlackBerry Enterprise Server or in a .txt file. When you use the `-list` subparameter, the IT policies are not imported or exported.

Before you begin: Verify that the BlackBerry IT Policy Import and Export Tool can connect to the BlackBerry Configuration Database.

1. On the computer that hosts the BlackBerry IT Policy Import and Export Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry IT Policy Import and Export Tool**.
2. In the command prompt window, type `ITPolicyImportExport -export` or `ITPolicyImportExport -import` and the following parameters:

Parameter	Description
<code>-n <database_server></code>	This parameter specifies the host name, computer name, or IP address of the server that hosts the BlackBerry Configuration Database.
<code>-db <database_name></code>	This parameter specifies the name of the BlackBerry Configuration Database.
<code>-list</code>	This parameter lists the IT policies that are available in a BlackBerry Configuration Database or in a .txt file that you specify.

Parameter	Description
-file <file_name>	This parameter specifies the name of the backup .txt file that contains IT policy information. By default, the tool prompts you for this information.

Example: Viewing the IT policies that are available in a BlackBerry Configuration Database

```
ITPolicyImportExport -export -n server01 -db BESMgmt01 -list
```

Example: Viewing the IT policies that are available in an exported file

```
ITPolicyImportExport -import -n server01 -db BESMgmt01 -file itpolicy.txt -list
```

Parameters for the BlackBerry IT Policy Import and Export Tool

The parameters that are listed in brackets are optional.

Parameter	Description
-db <database_name>	This parameter specifies the name of the BlackBerry Configuration Database that you want to export IT policies from or import IT policies into.
[-dbauth]	This parameter specifies that you want to use database authentication. By default, the tool uses Windows authentication. If you specify this parameter, you must also specify the -dbuser <user_name> and -dbpass <password> parameters.
[-dbpass <password>]	This parameter specifies the password for database authentication. If you use this parameter, you must also specify the -db_auth and dbuser <user_name> parameters.
[-dbuser <user_name>]	This parameter specifies the user name for database authentication. If you use this parameter, you must also specify the -db_auth and dbpass <password> parameters.
-export	This parameter specifies that you want to export IT policies.
-file <file_name>	This parameter specifies the name of the backup file that the tool creates, or the name of the backup file that you want to use to import IT policy information to a

Parameter	Description
	BlackBerry Configuration Database. By default, the tool prompts you for this information.
-import	This parameter specifies that you want to import IT policies.
[-itpolicy <IT_policy_name>]	This parameter specifies the single IT policy that you want to export or import. Type the IT policy name in quotation marks (") if the name contains a space or special characters.
[-list]	This parameter lists the IT policies that are available in a BlackBerry Configuration Database or in a .txt file that you specify.
-n <database_server>	This parameter specifies the host name, computer name, or IP address of the server that hosts the BlackBerry Configuration Database that you want to export IT policies from or import IT policies into.
[-renameditpolicy <new_IT_policy_name>]	<p>This parameter changes the name of the IT policy that you specify using the -itpolicy parameter during the export process or import process. Type the IT policy name in quotation marks if the name contains a space or special characters.</p> <p>If you use this parameter when you export an IT policy, the tool changes the name of the IT policy when it exports the IT policy from the BlackBerry Configuration Database to the backup file. The tool does not change the name of the IT policy in the source BlackBerry Configuration Database. If you use the parameter when you import an IT policy, the tool changes the name of the IT policy when it imports the IT policy from the backup file to the destination BlackBerry Configuration Database.</p>
[-selectall]	This parameter exports or imports all available IT policies.
[-?] or [-h]	Each of these parameters provides more information about the tool. No other parameters are required when you use one of these parameters.

BlackBerry Message Receipt Confirmation Tool

5

The BlackBerry Message Receipt Confirmation Tool is an application that you can use to verify that the BlackBerry Enterprise Server is successfully delivering messages to devices. At an interval that you specify, the tool sends a message to the specified user accounts, monitors the status of the message, and confirms that the devices received the message. The tool runs as a Windows service.

Each time the tool starts, it clears the existing message delivery status values. The tool obtains the list of user accounts to monitor and sends a message to the devices that are associated with the user accounts. The tool assigns a serial number to each message and then increases the serial number by one each time it resends the message. When the tool reaches the interval value that is specified in the Last Message Delivery Check field, it checks whether the messages were successfully delivered and updates the Last Message Sent field, the Serial Number field, and the Deliveries list.

If the tool reaches the value that is specified in the Delivery Timeout Interval field, a timeout status message for the user account displays in the Deliveries list, and the tool sends a delivery timeout notification message to the defined SMTP email account to indicate that the message was not delivered.

To confirm the message delivery, the tool uses the following options in the message subject line:

<\${Confirm,RemoveOnDelivery,SuppressSaveInSentItems}>

Configure monitoring and notification settings for the BlackBerry Message Receipt Confirmation Tool

1. On the computer that hosts the BlackBerry Message Receipt Confirmation Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Message Receipt Confirmation Tool client**.
2. Click **Configuration**.
3. Perform the following tasks:

Task	Steps
Specify the subject of the message that the tool sends to the BlackBerry device.	In the Subject of Message Send field, type a subject.
Specify how frequently the tool sends messages.	In the Message Send Interval field, type a value using the following format: <i>hours:minutes</i> (for example, 1:30 or 0:30).
Specify how frequently the tool checks the administrator's mailbox for a delivery confirmation message.	In the Delivery Check Interval field, type a value, in minutes.
Specify how long the tool continues to check for delivery confirmation messages before it notifies you that the attempt to deliver the message has timed out.	In the Delivery Timeout Interval field, type a value, in minutes.
Specify the email account that receives the delivery timeout notification message from the service.	In the Send Notifications To field, type an SMTP email address.
Specify the subject of the delivery timeout notification message that the service sends to the specified email account.	In the Subject of Notifications field, type a subject.
Specify the user accounts that you want to monitor.	<p>You can monitor up to five devices on different BlackBerry Enterprise Server instances that use the same BlackBerry Configuration Database.</p> <ol style="list-style-type: none"> 1. In the BlackBerry Enterprise Servers list, click a BlackBerry Enterprise Server. 2. Click each user account that you want to monitor. 3. Click Monitor.

4. Click **OK**.

Run the BlackBerry Message Receipt Confirmation Tool

1. On the computer that hosts the BlackBerry Message Receipt Confirmation Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Message Receipt Confirmation Tool client**.

- In the **BlackBerry Message Receipt Confirmation Tool** window, verify that the messages were delivered, and verify the delivery times.

Change where the log file is stored

When you start the BlackBerry Message Receipt Confirmation Tool for the first time, the tool creates a string value in the Registry named DebugLogFile at HKEY_CURRENT_USER\Software\Research In Motion\BlackBerry Message Receipt Confirmation Tool\Configuration. This string value specifies the file path where the tool stores daily log files (this value is blank until you run the tool for the first time).

If you chose to use a UAC-compliant file path when you installed the tool, by default, the tool stores log files in the application data folder for the current user (for example, <drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\). If you chose not to use a UAC-compliant file path, the tool stores log files to a file path that is relative to the current working directory (for example, <drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools). You can change the value of DebugLogFile if you want the tool to store log files at a different location.

- On the computer that hosts the BlackBerry Message Receipt Confirmation Tool, on the taskbar, click **Start > Run**.
- Type **regedit**. Click **OK**.
- In the left pane, navigate to HKEY_CURRENT_USER\Software\Research In Motion\BlackBerry Message Receipt Confirmation Tool\Configuration.
- Right-click the **DebugLogFile** string value and click **Modify**.
- In the **Value Data** field, type the full file path of the location where you want to store daily log files, including the file name to use for the log files (for example, C:\Logs\MRCLog.txt).
- Click **OK**.

Messages from the BlackBerry Message Receipt Confirmation Tool

Type of message	Example
Message sent to the BlackBerry device	To: <user_account> Subject: <\$Confirm,RemoveOnDelivery,SuppressSaveInSentItems> <subject_of_message_send>

Type of message	Example
Delivery timeout notification message sent to the specified SMTP email account	To: <send_notifications_to> Subject: <subject_of_notifications> Body: Could not confirm delivery to <user_account>

Status fields of a BlackBerry Message Receipt Confirmation Tool output

Field	Description
Service Start	This field specifies the date and time that the BlackBerry Message Receipt Confirmation Tool started running.
Last Message Send	This field specifies the time of the last attempt to send a message to BlackBerry devices.
Serial Number	This field specifies the unique number that is assigned automatically to each message that the tool sends.
Last Message Delivery Check	This field specifies the last time that the tool checked for a successful delivery notification message.
Deliveries	<p>This field specifies the list of user accounts and the status of the message delivery to devices.</p> <p>Example: Successful Status/Deliveries display sequences</p> <p><user_account> / Message Send Successful <user_account> / Delivery Confirmed</p> <p>or</p> <p><user_account> / Message Send Successful <user_account> / Delivery Unconfirmed <user_account> / Delivery Confirmed</p> <p>Example: Unsuccessful Status/Deliveries display sequence - tool sends a delivery failure notification message</p> <p><user_account> / Message Send Successful</p>

Field	Description
	<code><user_account></code> / Delivery Unconfirmed
	<code><user_account></code> / Delivery Timeout
	Example: Unsuccessful Status/Deliveries display - tool does not send a delivery failure notification message
	<code><user_account></code> / Message Send Error
	The Message Send Error message indicates that the tool could not send a message to the user account.

Stop monitoring message delivery to user accounts

1. On the computer that hosts the BlackBerry Message Receipt Confirmation Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Message Receipt Confirmation Tool client**.
2. Click **Configuration**.
3. In the **BlackBerry Enterprise Servers** list, click a BlackBerry Enterprise Server.
4. Click the user accounts that you want to stop monitoring.
5. Click **Remove**.
6. Click **OK**.

BlackBerry System Log Monitoring and Reporting Tool

6

You can use the BlackBerry System Log Monitoring and Reporting Tool to monitor the BlackBerry Enterprise Server log files for events generated by the BlackBerry Dispatcher and the BlackBerry Messaging Agent. You can specify which components to monitor, the events that you want to track, and the types of notifications and reports that you want the tool to send to administrators.

The tool runs as a Windows service.

Output files generated by the BlackBerry System Log Monitoring and Reporting Tool

File name	Location	Description
bessyslog<yyyymmdd>.txt	Logs folder	The BlackBerry System Log Monitoring and Reporting Tool service creates the Logs folder.
msgs_<host_name><yyyymmdd>.txt	Folder that contains the BESSysLog.exe file	The log file contains detailed information about all of the messages that the BlackBerry Enterprise Server processes. The tool writes information to the file every 10 minutes. You cannot change this interval.
rescan_<host_name><yyyymmdd>.txt	Folder that contains the BESSysLog.exe file	The log file contains a summary of scan averages for the past hour plus detailed information about any scan that takes longer than 5 seconds. The tool prints rescan information every hour.
bessyslogerror<yyyymmdd>.txt	Folder that contains the BESSysLog.exe file	The tool uses this log file to generate nightly reports.
bessyslogdebug<yyyymmdd>.txt	Folder that contains the BESSysLog.exe file	The tool uses this log file to generate nightly reports.

Configuring the BlackBerry System Log Monitoring and Reporting Tool

Specify the port numbers that the BlackBerry System Log Monitoring and Reporting Tool monitors

The BlackBerry System Log Monitoring and Reporting Tool service receives messages on a socket. You must configure the SysLogLevel and SysLogHost registry keys for the BlackBerry Enterprise Server to enable the BlackBerry Enterprise Server services to write to this socket.

1. In the Registry Editor, browse to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Enterprise Server\Logging Info .
2. For each BlackBerry Enterprise Server service that you want to monitor, change the SysLogLevel and SysLogHost registry keys for that service.

Key	Steps
SysLogLevel	<ol style="list-style-type: none">1. If the SysLogLevel registry key does not exist, create a DWORD value named SysLogLevel.2. Double-click the SysLogLevel registry key.3. In the Value data field, type 3.4. Click OK.
SysLogHost	<ol style="list-style-type: none">1. Double-click the existing SysLogHost registry key. If the key does not exist, create a String Value named SysLogHost. Double-click the key and type the local host and port number of the computer that hosts the BlackBerry Enterprise Server service, using the following format: <i><localhost>:<port_number></i>. For example, localhost:4070.2. In the Value data field, type the host name or IP address and port number (514) of the computer where the BlackBerry System Log Monitoring and Reporting Tool service runs, using one of the following formats:<ul style="list-style-type: none">• <i><ip_address>:514</i>• <i><hostname>:514</i>

Key	Steps
	<ul style="list-style-type: none"> • <localhost>:4071,<localhost>:4070,<xx.xx.xx.xx>:514 <p>3. Click OK.</p> <p>Do not remove the original registry key information from the SysLogHost registry key. Add the entries to the existing key, separating them using a comma. Do not use space characters in the Value data field.</p>

After you finish: Restart the BlackBerry Enterprise Server services that you changed.

Configure the SMTP settings for the account that sends notification messages

1. On the computer that hosts the BlackBerry System Log Monitoring and Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry System Log Monitoring and Reporting Tool client**.
2. In the **SMTP Host Name** field, type the full computer name of the outgoing messaging server that delivers the notification messages and nightly reports.
3. In the **"From" Email Address** field, type the SMTP email address of the SMTP account that sends notification messages.
4. In the **SMTP Account Name** field, type the name of the SMTP account that sends notification messages.
5. Click **OK**.

Configure a user account to receive notification messages

1. On the computer that hosts the BlackBerry System Log Monitoring and Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry System Log Monitoring and Reporting Tool client**.
2. In the **Users** section, click **Add**.
3. Type the information for the user account.
4. Specify whether the user account receives nightly reports.
5. Click **Alerts**.

6. Select the check boxes for the alerts that you want to exclude from the notification messages that the user account receives.
7. To add a custom alert, perform the following actions:
 - a. Click **Add**.
 - b. Type the **Event ID** and **Description**.
 - c. Click **OK**.
8. Click **OK**.
9. To specify the BlackBerry Enterprise Server instance that the user account receives notification messages for, perform the following actions:
 - a. Click **Servers**.
 - b. Click **Add**.
 - c. Type the server name and a description.
 - d. Click **OK**.

Related information

[Change the frequency of notification messages, 52](#)

[Remove a user account from the list of recipients of notification messages, 50](#)

[Notification messages, 53](#)

Change filters and customized subject lines for a user account

1. On the computer that hosts the BlackBerry System Log Monitoring and Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry System Log Monitoring and Reporting Tool client**.
2. In the **Users** list, click the user account.
3. Click **Edit**.
4. Perform any of the following tasks:

Task	Steps
Create a customized subject line for a notification message for the user account.	<ol style="list-style-type: none">1. Click Alerts.2. Click Add.3. Type a BlackBerry Enterprise Server service event ID and customized description.

Task	Steps
	<p>Only event IDs that correspond to actual BlackBerry Enterprise Server service event IDs trigger a notification message.</p> <ol style="list-style-type: none"> Click OK. Select a range of events to exclude from the notification messages.
Delete a customized subject line for a notification message for the user account.	<ol style="list-style-type: none"> Click Alerts. In the My Custom Alerts list, click a notification message. Click Delete.
Create a filter to prevent a specific BlackBerry Enterprise Server from sending a specific event to the user account.	<ol style="list-style-type: none"> Click Alerts. Click Add. Type -< <i>event ID</i> >.
Delete a filter that prevents the user account from receiving notification messages about a specific event.	<ol style="list-style-type: none"> Click Alerts. In the list of notification messages, click a notification message. Click Delete.
Create a filter to prevent a specific BlackBerry Enterprise Server from sending notification messages to the user account.	<ol style="list-style-type: none"> Click Servers. Click Add. Type the BlackBerry Enterprise Server information as it appears in the List of known BlackBerry Servers (default servers) list. In the Description field, type remove.
Delete a filter that prevents a specific BlackBerry Enterprise Server from sending notification messages to the user account.	<ol style="list-style-type: none"> Click Servers. Click a BlackBerry Enterprise Server. Click Delete.

- Click **OK**.

Remove a user account from the list of recipients of notification messages

- On the computer that hosts the BlackBerry System Log Monitoring and Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry System Log Monitoring and Reporting**

Tool > BlackBerry Analysis Monitoring and Reporting Tools > BlackBerry System Log Monitoring and Reporting Tool client.

2. In the **Users** section, click the name of the user account that you want to remove from the list of recipients.
3. Click **Remove**.
4. Click **Yes**.

Change how the BlackBerry System Log Monitoring and Reporting Tool starts

The BlackBerry System Log Monitoring and Reporting Tool runs as a Windows service. During the installation process, you configure whether the startup type for the tool is automatic or manual.

After installation, you can change the startup type in the Windows Services.

1. On the computer that hosts the BlackBerry System Log Monitoring and Reporting Tool, in the Windows Services, right-click **BlackBerry Syslog**. Click **Properties**.
2. On the **General** tab, in the **Startup type** list, click the required startup option.
3. In the **Service status** section, click **Start**.

Changing the frequency of notification messages

By default, the BlackBerry System Log Monitoring and Reporting Tool limits the number of notification messages that it sends to user accounts in a specific period of time. You can adjust this functionality in the Windows registry using the BlackBerry Syslog Server registry key.

The tool creates the following DWORD values after you run the tool for the first time:

- OneMinuteThreshold: default value is 5 notification messages
- FiveMinuteThreshold: default value is 10 notification messages
- FifteenMinuteThreshold: default value is 15 notification messages
- SixtyMinuteThreshold: default value is 30 notification messages

If the OneMinuteThreshold value is set to 2, the first notification message that the tool sends contains the notification content. For example:

```
<7>Mar 03 15:10:23 brktest3 BlackBerry Dispatcher BES50_JI {0x18C8} 0243: (#50105) Dispatcher Database connection dropped
```

The next notification message in the same minute contains the notification content and a message that the tool has reached the threshold value. For example:

<7>Mar 03 15:11:13 brktest3 BlackBerry Dispatcher BES50_JI {0x1B18} 0279: (#50108) Dispatcher Database connection dropped

NOTE: The threshold for email alerts has been reached, subsequent alerts will be throttled.

The subsequent notification messages in the same minute are throttled, and the user account does not receive additional notification messages until the threshold is reset (for example, after one minute or after the configured interval). The first notification message that the tool sends after this period contains the notification content and a count of the number of throttled messages. For example:

<7>Mar 03 15:11:12 brktest3 BlackBerry Dispatcher BES50_JI {0x1B18} 0232: (#50105) Dispatcher Database connection dropped

NOTE: 4 alert(s) have been throttled since your last email alert.

Change the frequency of notification messages

Before you begin: The BlackBerry System Log Monitoring and Reporting Tool creates the values for the BlackBerry Syslog Server registry key after you start the tool for the first time. If the registry keys do not display, in the Windows Services, stop and restart the BlackBerry Syslog service.

1. On the computer that hosts the BlackBerry System Log Monitoring and Reporting Tool, click **Start > Run**.
2. Type **regedit**.
3. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Research In Motion\BlackBerry Syslog Server.
4. Right-click any of the following DWORD values that you want to change:
 - OneMinuteThreshold
 - FiveMinuteThreshold
 - FifteenMinuteThreshold
 - SixtyMinuteThreshold
5. Click **Modify**.
6. In the **Value data** field, type the new threshold value for notification messages.

Parameters for running the BlackBerry System Log Monitoring and Reporting Tool from the command prompt

The parameters listed in brackets are optional.

Parameter	Description
[-debug] [-console]	These parameters specify that the BlackBerry System Log Monitoring and Reporting Tool runs in the command prompt window.
[-b <Broadcast_Port>]	This parameter specifies the port number that the BlackBerry System Log Monitoring and Reporting Tool monitors for events from the BlackBerry Enterprise Server component. You specify the port number during the installation process for the tool. By default, the port number is 514.

Notification messages

The BlackBerry System Log Monitoring and Reporting Tool sends a notification message to all specified user accounts when an event matches a configured alert and triggers the message.

A notification message contains the following information:

Item	Description
Subject	<ul style="list-style-type: none"> Event ID number Host name of the BlackBerry Enterprise Server instance that triggered the alert Description of the event
Body	Log entry from the BlackBerry Dispatcher instance or BlackBerry Messaging Agent instance

Example: Notification message that the tool sends to a user account

To: jpalmer@test.rim.net

Subject: 50001 - SERVER1 - Starting BlackBerry Server...

Body: <7>Nov 11 10:54:30 SERVER1 BlackBerry messaging agent SERVER1 {0x10F4} 0000: (#50001)
Starting BlackBerry Server...

Nightly reports

The BlackBerry System Log Monitoring and Reporting Tool sends a nightly report that summarizes the messages that the tool received from the BlackBerry Enterprise Server components that it monitored.

A nightly report contains the following information:

Item	Description
Host name	Host name of the BlackBerry Enterprise Server component that triggered each message
Service	The BlackBerry Messaging Agent or BlackBerry Dispatcher
Event	The event ID number
Occ.	The number of occurrences of the event
Description	The description of the event

Example: Nightly report that the tool sends to a user account

```

Messages Logged at Error, Warning and Other:
Host Name: SERVER1
Service: BlackBerry Dispatcher CN=SERVER1/OU=SERVERS/O=TEST
Event Occ. Description
-----
10000      1 CRITICAL ERROR in the BlackBerry Dispatcher
50000      1
50075      1 Starting BlackBerry Dispatcher %s - version %s
Service: BlackBerry Messaging Agent SERVER1
Event Occ. Description
-----
10398      1 Unable to open mail database for user %s (server=%s) (db=
%s)
20000      1
20089      1 Unable to open %s DB for %s
50001      2 Starting BlackBerry Server ...
50002      1 Shutting down BlackBerry ServerMessages
Messages Logged at Information, Debug and Trace Level:

```

BlackBerry Enterprise Server Log Monitoring Tool

7

You can use the BlackBerry Enterprise Server Log Monitoring Tool (LogMonitor.exe) to monitor the log files for a BlackBerry Enterprise Server component for specific events or text strings, and to perform an action when the tool finds the events or text strings. You can use the tool to monitor a specific log file, or to continuously monitor the log files that a component creates each day.

For example, you can configure the tool to monitor the BlackBerry Dispatcher (DISP) log files for event ID 50108. In the component log files, event IDs are enclosed in brackets ([]) at the beginning of log entries, using the following format: "[50108] (08/18 15:56:55.723):{0xDB0} Dispatcher Database connection dropped". When the tool finds the event ID or text string, it performs the specified action. For example, you can configure the tool to run a custom batch file to restart the BlackBerry Dispatcher.

You can configure the tool to monitor the log files for one component at a time.

Specifying values and actions for the BlackBerry Enterprise Server Log Monitoring Tool

You can use the command prompt or an input text file to specify the events or text strings that you want the BlackBerry Enterprise Server Log Monitoring Tool to find in log files, and the actions that you want the tool to perform when it finds the events or text strings.

Specifying values and actions from the command prompt

Using specific commands, you can specify a list of event IDs or text strings that you want the BlackBerry Enterprise Server Log Monitoring Tool to find in a log file, and you can specify the actions that you want the tool to perform when it finds the values.

You run the tool using a series of parameters and corresponding values from the command prompt. You use the `-events` parameter to specify event IDs or text strings, and the `-action` parameter to specify the action that you want the tool to perform when it finds the event IDs or text strings. An event ID is a five-digit number or six-digit number. You can specify multiple event IDs using a comma-separated (,) list. The tool treats each event individually with an assigned action for each event.

Specifying values and actions in an input file

You can create an input text file to specify the event IDs or text strings that you want the BlackBerry Enterprise Server Log Monitoring Tool to find in a log file, and the actions that you want the tool to perform when it finds the specified values. You use the `-input` parameter to specify the input file when you run the tool from the command prompt.

The input file uses the following format:

```
action=<action>
<eventID>
<string>
```

You first specify the action that you want the tool to perform (for example, run a batch file), and then specify a list of the event IDs or text strings that you want the tool to find. When the tool finds one of the specified event IDs or text strings, it performs the action. When the tool finds an action line, the tool identifies it as the current action to perform when it finds the event IDs or text strings that follow it. You can add multiple actions and associated event IDs and text strings to the input file.

You specify actions in the input file using the following format: `action=<action>`. For example, if the action is to run a batch file, you specify the name of the `.bat` file as the action: `action=example.bat`. You can specify any standard actions that the Windows command prompt supports.

You specify event IDs or text strings as text values or regular expressions. The tool treats input lines that contain exactly five digits or six digits as event IDs and searches for the event IDs. If you want the tool to monitor multiple event IDs, you must use a comma-separated (,) list. The tool treats text strings as regular expressions that are not case-sensitive.

Example: Creating an input file that instructs the BlackBerry Enterprise Server Log Monitoring Tool to restart the BlackBerry Dispatcher

The BlackBerry Enterprise Server administrator creates a batch file named `restart.bat` that contains the following command:

```
net start "BlackBerry Dispatcher"
```

The administrator creates an input file named `restart.txt` with the following contents:

```
action=restart.bat
50099
```

The administrator runs the BlackBerry Enterprise Server Log Monitoring Tool using the following parameters:

```
LogMonitor.exe -L "C:\Program Files (x86)\Research In Motion\BlackBerry Device Service\Logs" -type DISP -input restart.txt
```


The tool monitors the BlackBerry Dispatcher log file and identifies the following log entry: [50099] (08/18 15:56:55.770):{0xDB0} BlackBerry Dispatcher Shutdown complete. Since the log entry includes the event ID specified in the input.txt file, the tool performs the action that is specified in the input file. The tool runs the restart.bat file, which restarts the BlackBerry Dispatcher.

Environmental variables that the BlackBerry Enterprise Server Log Monitoring Tool uses

The BlackBerry Enterprise Server Log Monitoring Tool sets the following environmental variables before it performs any of the actions that you specify:

Variable	Description
LogMonitorEncoding	This variable specifies the type of encoding that is used for the file. For example, the value might be " " or UTF-8 encoded.
LogMonitorEvent	This variable specifies the event ID in the log file name.
LogMonitorAction	This variable specifies the action that the tool performs after it finds the requested event ID or text string.
LogMonitorText	This variable specifies the text string.
LogMonitorValue	This variable specifies the value that the tool returns that matches an event ID or text string.

You can use these variables when you specify the actions that you want the tool to perform. For example, you can use the variables in a batch script (.bat file) that sends an email message when the tool finds a specific event ID. You can design the script to use the LogMonitorEvent value in the subject line of the email message. For example, the script can send an email message with the subject "40702".

Example: Accessing and displaying environmental variables on the screen

A batch script that accesses and displays environmental variables on the screen can include the following lines:

```
@echo off
echo "LogMonitorEncoding=%LogMonitorEncoding%"
echo "LogMonitorEvent=%LogMonitorEvent%"
echo "LogMonitorAction=%LogMonitorAction%"
echo "LogMonitorText=%LogMonitorText%"
echo "LogMonitorValue=%LogMonitorValue%"
```

Run the BlackBerry Enterprise Server Log Monitoring Tool

1. On the computer that hosts the BlackBerry Enterprise Server Log Monitoring Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Monitoring Tool**.
2. In the command prompt window, type **LogMonitor -L <file_path>**, and the parameters that you want to use to run the tool. See [Parameters for the BlackBerry Enterprise Server Log Monitoring Tool](#).

Example: Monitoring a specific log file and running a batch script when the tool finds the event IDs

```
LogMonitor -L "C:\Program Files (x86)\Research In Motion\BlackBerry Enterprise Server\Logs\COMP1_DISP_01_20111215_0001.txt" -action cmd.bat -events 50099,50108
```

Example: Monitoring a specific log file and using an input file to specify event IDs and the actions to perform when the tool finds the event IDs

```
LogMonitor -L "C:\Program Files (x86)\Research In Motion\BlackBerry Enterprise Server\Logs\COMP1_DISP_01_20111215_0001.txt" -input input.txt
```

Example: Monitoring the BlackBerry Dispatcher log files daily and creating a debug file when the tool finds the event IDs

```
LogMonitor -L "C:\Program Files (x86)\Research In Motion\BlackBerry Enterprise Server\Logs" -instance 0001 -type DISP -events 50099,50108 -debug troubleshooting.txt
```

After you finish: If you want to stop the tool, press CTRL+C.

Parameters for the BlackBerry Enterprise Server Log Monitoring Tool

The parameters listed in brackets ([]) are optional.

Parameter	Description
[-action <action>]	This parameter specifies the action or actions that you want the BlackBerry Enterprise Server Log Monitoring Tool to perform when it finds the event IDs or text strings that you specify using the -events parameter or an input file.

Parameter	Description
	<p>You can specify any standard actions that the Windows command prompt supports. For example, you can type the name of an executable file or a batch file that you want the tool to open when it finds a specific event ID. By default, if you do not specify an action, the tool displays the output on the screen.</p> <p>To stop the tool after it performs a specified action, precede the action with a tilde (~), or use the tilde only.</p>
[-all]	This parameter specifies that the tool examines the entire contents of a log file, not just the information that is written to the log file after you run the tool.
[-debug <file_name>]	This parameter specifies that the tool creates a more detailed output file for debugging purposes, and also specifies the name of the debug file.
[-events <event_IDs>]	This parameter specifies the event IDs or text strings that you want the tool to find in the log file. You must use commas (,) to separate multiple event IDs. If a text string contains spaces, enclose the string in quotation marks (" ").
[-input <file_name>]	This parameter specifies the name of the input text file that you created. The input file contains the event IDs and text strings that you want the tool to find, and the actions that you want the tool to perform when it finds each value.
[-instance <instance>]	<p>Use this parameter when you use the -L parameter to specify the folder that contains the log files, and the -type parameter to specify the type of component log file.</p> <p>This parameter specifies the instance number of the log file (the last number in the name of a log file). The instance number indicates the order of the log files if more than one daily log file is created for a BlackBerry Enterprise Server component. When a log file reaches the maximum size, an additional daily log file is created and the instance number in the file name is increased by one. By default, the instance used by the tool is 0001.</p>
-L <file_path>	<p>This parameter specifies the file path of a specific log file that you want the tool to monitor, or the file path of the folder that contains the log files that you want the tool to monitor. If the file path contains spaces, enclose the file path in quotation marks.</p> <p>If you specify the file path of a specific log file, the tool monitors the specified file only. It does not continue to monitor the log files that are generated by the BlackBerry Enterprise Server component on a daily basis.</p> <p>If you specify the file path of a folder (for example, C:\Program Files (x86)\Research In Motion\BlackBerry Enterprise Server\Log), the tool opens the specified folder and examines the contents of the latest <yyyymmdd></p>

Parameter	Description
	subfolder for new files that match the -type and -instance parameters that you specify. The tool continues to monitor the log files that the BlackBerry Enterprise Server component creates on a daily basis.
[-timeout <time>]	This parameter specifies the length of time, in seconds, that the tool continues to run after no new messages are written to the log file that the tool is monitoring. By default, there is no timeout value.
[-type <pattern>]	Use this parameter when you use the -L parameter to specify the folder that contains the log files, and the -instance parameter to specify the instance number of the log files that you want to monitor. This parameter uses a string value to specify the BlackBerry Enterprise Server component that you want the tool to monitor log files for. For example, to monitor the log files for the BlackBerry Dispatcher, specify the component log file identifier DISP. For a full list of the component identifiers for the BlackBerry Enterprise Server log files, visit www.blackberry.com/go/serverdocs to read the <i>BlackBerry Enterprise Server Administration Guide</i> .
[/?] [-?]	These parameters provide more information about the tool and the parameters that you can use with the tool. No other parameters are required when you use one of these parameters.
[-help]	

Examples: Running the BlackBerry Enterprise Server Log Monitoring Tool

The last three steps in these examples simulate how a BlackBerry Enterprise Server component writes new log events to a log file that is being monitored. These steps are not required in a production environment.

Example: Running the tool to create a separate file for each user account that contains the log messages for the user account

When the BlackBerry Enterprise Server Log Monitoring Tool finds the specified text strings in the log.txt file, the tool creates files named `jpalmer@test.rim.net.txt` and `karlatetzel@test.rim.net.txt`.

1. Create a file named **cmd.bat** that contains the following text:

```
@echo off
echo %LogMonitorText% >>%LogMonitorValue%.txt
```

2. Create an input file named **input.txt** that contains the following string (regular expression) for the tool to monitor:

```
?:\} \{ ([^\}]*)
```

3. Create a file named **log.txt** to store and append the log information.
4. At the command prompt, run the following command:

```
LogMonitor -L log.txt -input input.txt -action cmd.bat
```

5. Create a text file named **SampleMessage.txt**.
6. Copy the following lines to **SampleMessages.txt**:

```
[40702] (08/16 00:00:11):{0x12E8} {jpalmer@rim.test.net} Starting
message rescan
[40703] (08/16 00:00:12):{0x12E8} {jpalmer@test.rim.net} Message
rescan completed
[40702] (08/16 00:00:12):{0x12E8} {karlatetzel@test.rim.net}
Starting message rescan
[40703] (08/16 00:00:12):{0x12E8} {karlatetzel@test.rim.net}
Message rescan completed
```

7. To append the contents of **SampleMessages.txt** to **log.txt**, at the command prompt, type **type SampleMessages.txt >>log.txt**.

Example: Running the tool so that when it finds events 40702 or 40703, it runs a cmd.bat file and closes

When the BlackBerry Enterprise Server Log Monitoring Tool finds the log entries in the log.txt file, the BlackBerry Enterprise Server Log Monitoring Tool completes the action in the cmd.bat file. For example, if cmd.bat is the same file that you used in the first example, the BlackBerry Enterprise Server Log Monitoring Tool creates files named 40702.txt and 40703.txt.

1. Create a file named **cmd.bat**.
2. Create a text file named **log.txt** to store and append the log information.
3. At the command prompt, run the following command:

```
LogMonitor -L log.txt -events 40702,40703 -action cmd.bat
```

4. Create a file named **SampleMessage.txt**.
5. Copy the following log lines to **SampleMessages.txt**:

```
[40702] (08/16 00:00:11):{0x12E8} {jpalmer@rim.test.net} Starting
message rescan
[40703] (08/16 00:00:12):{0x12E8} {jpalmer@rim.test.net} Message
rescan completed
[40702] (08/16 00:00:12):{0x12E8} {karlatetzel@test.rim.net}
Starting message rescan
[40703] (08/16 00:00:12):{0x12E8} {karlatetzel@test.rim.net}
Message rescan completed
```

6. To append the contents of **SampleMessages.txt** to **log.txt**, at the command prompt, type **type SampleMessages.txt >>log.txt**.

BlackBerry System Requirements Tool

8

You can use the BlackBerry System Requirements Tool (BBCheck.exe) to verify whether a computer can run a BlackBerry Enterprise Server component. You can also use the tool to help you troubleshoot an installation or configuration issue. For example, if a changed permission prevents you from performing a task that you could previously complete, you can run the tool to help identify and resolve the issue.

You can specify whether the tool runs preconfigured tests or a test configuration file that you create. Optionally, you can run the tool from the command prompt.

By default, the tool creates an output file and a log file in the folder that you run the application from. You can specify a different file location when you install the tool. The name of the output file is BBCheck_<host_name>_<yyyymmdd>_<hhmmss>.txt, where <host_name> is the name of the computer that runs the tool and <yyyymmdd>_<hhmmss> is the date and time that the tool created the file. The name of the log file is BBCheck_Log_<yyyymmdd>_<hhmmss>.txt, where <yyyymmdd_<hhmmss> is the date and time that the tool created the file.

Tests that the BlackBerry System Requirements Tool can run

Test	Description
General Information	Retrieves information about the current user, host name, and OS version. Verifies permissions to log on as a service and log on locally Verifies whether the current user is a member of local administrators
BES Information	Retrieves information about the BlackBerry Enterprise Server, such as the version number, installation path, and access node
Service Account	Retrieves information about the BlackBerry Enterprise Server service account, verifies whether the account has the required Send As permissions, and verifies domain group memberships

Test	Description
Exchange Permissions	Verifies whether the current account has the required permissions for a Microsoft Exchange environment, including: Create Named Properties in the Information Store, Send As, Receive As, and Administer Information Store
MAPI Subsystem	Retrieves the version of the MAPI/CDO subsystem
GC	Retrieves the global catalog server information of the GC that the current workstation was assigned during the initialize boot sequence
Database	Retrieves information about the database configuration on the computer
DB BES Instance Versions	Retrieves the version information for all BlackBerry servers in the database
Java	Retrieves information about the Java Runtime that is installed on the computer
.NET Framework	Retrieves information about the version of the Microsoft .NET Framework that is installed on the computer
MSMQ	Retrieves information about the version of the MSMQ on the computer
Network	Retrieves network-related information
SRP Connectivity	Attempts to connect to the BlackBerry Infrastructure and reports the result
System Information	Retrieves system and hardware information
System Hotfixes	Retrieves a list of the hotfixes that have been installed for the operating system
Current Processes	Retrieves a list of the processes that are currently running on the computer

Create a test configuration file

Using a text editor, you can create a test configuration file (.testconfig) that specifies the tests that you want the tool to run. Note the following standards when you create the configuration file:

- To indicate a comment line that you want the tool to ignore, begin the line with a number sign (#). The tool ignores blank lines and comment lines.
- Test names are case-sensitive. If a name includes embedded spaces, include only one space between the words.

1. Create a .txt file and open it in a text editor.
2. Type the comment line **# BlackBerry System Requirements Tool Test Configuration**.

3. List the following tests, one test per line:
 - General Information
 - BES Information
 - Service Account
 - Exchange Permissions
 - MAPI Subsystem
 - GC
 - Database
 - DB BES Instance Versions
 - Java
 - .NET Framework
 - MSMQ
 - Network
 - SRP Connectivity
 - System Information
 - System Hotfixes
 - Current Processes
4. After each test name, specify one of the following values (do not include any spaces):
 - If you want the tool to run the test, type **=true**. For example, **System Information=true**.
 - If you do not want the tool to run the test, type **=false**. For example, **System Information=false**. If you do not specify a value for a test, the default value is false.
5. Save and close the .txt file.
6. Rename the text file and replace the extension ".txt" with ".testconfig".

Example: Test configuration file

```
# BlackBerry System Requirements Tool Test Configuration
# a.testconfig
General Information=true
BES Information=true
Service Account=true
Exchange Permissions=true
```

```
MAPI Subsystem=true
GC=true
Database=true
DB BES Instance Versions=true
Java=true
.NET Framework=true
MSMQ=true
Network=true
SRP Connectivity=true
System Information=true
System Hotfixes=true
Current Processes=true
```

Run the BlackBerry System Requirements Tool

1. On the computer that hosts the BlackBerry System Requirements Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry System Requirements Tool GUI**.
2. In the **Test Configuration** section, perform one of the following actions:
 - Select the tests that you want the tool to run.
 - If you want to use a test configuration file (.testconfig) to specify the tests that you want the tool to run, click **Load from File**. Navigate to and select the test configuration file. Click **Open**.

If you want to save a custom .testconfig file for later use based on the tests that you selected in the **Test Configuration** section, click **Save As**.

3. In the **System Requirements Collection** section, click **Collect System Data**.
4. In the **Status** window, verify that the tests run successfully.
5. Perform one of the following actions:
 - To open the output file, click **View Data**.
 - To select a different file, or to open the log file, click **Open Data Folder**.

After you finish: By default, the log file and output file can be found in <drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT .

Run the BlackBerry System Requirements Tool from the command prompt

1. On the computer that hosts the BlackBerry System Requirements Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry System Requirements Tool**.
2. In the command prompt window, type **BBCheckCmd** and any of the following parameters (parameters in brackets are optional):

Parameter	Description
<code>[-r <test_name>]</code>	<p>This parameter specifies the name of the test that you want to run. You can specify a single test, or you can type -r all or -run all to run all available tests. The test name is not case-sensitive when you use it as a parameter.</p> <p>You can specify any of the following tests. If a test name contains an embedded space, you must enclose the test name in quotation marks (" "), and you can include only one space between any two words.</p> <ul style="list-style-type: none"> • "General Information" • "BES Information" • "Service Account" • "Exchange Permissions" • "MAPI Subsystem" • GC • Database • "DB BES Instance Versions" • Java • ".NET Framework" • MSMQ • Network • "SRP Connectivity" • "System Information" • "System Hotfixes" • "Current Processes"
<code>[-run <test_name>]</code>	

Parameter	Description
	If you want to use a single command to run multiple tests, but you do not want to run all of the tests, you can use a test configuration file (.testconfig) and the <code>-f <file_path></code> parameter.
<code>[-f <file_path>]</code> <code>[-file <file_path>]</code>	If you want to use a test configuration file (.testconfig) to specify the tests that you want to run, use this parameter to specify the file path to the .testconfig file and the name of the file. If the file path includes a space, enclose the path in quotation marks (" ").
<code>[-v <level>]</code>	This parameter specifies the level of detail that is written to the log files. The options are TRACE, DEBUG, or INFO. The default log level is INFO.

Example: Running a single test

```
BBCheckCmd -r "General Information"
```

Example: Running all available tests

```
BBCheckCmd -r all
```

Example: Running the tests specified in a configuration file

```
BBCheckCmd -f "C:\Documents and Settings\jpalmer\Application Data\Research In Motion\AMT\Custom.testconfig"
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **BBCheckCmd -?** or **BBCheckCmd -h** or **BBCheckCmd -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at `<drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\` or `<drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\`. If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, `<drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools`.

Example: Output file

```
Detection Report
[GENERAL]
Current User:      TEST\jpalmer
Host Name:        jpalmer-XP2
OS Version:       Microsoft Windows XP, Service Pack 3
```

```

Log on as a service right:    Deny
Log on locally right:        Allow
Local Administrators member:  Yes

BES]
Platform:                    Unknown
Version:                     Unknown
Install Path:                Unknown
MAPI Profile:                Unknown
MAPI GC:                    Unknown

[SERVICE_ACCOUNT]

BlackBerry Server Account:    Unknown
Active Directory 'Send As':   Allow
Domain Group Membership:
    ExchangeViewOnlyAdmins

[EXCHANGE_PERMISSIONS]

Exchange permission 'Create Named Properties in the information store'
over Administrative Groups for group: Everyone

Administrative Group: CN=r1,CN=Administrative
Groups,CN=RIM,CN=Microsoft
Exchange,CN=Services,CN=Configuration,DC=core,DC=sqm,DC=testnet,DC=rिम,
DC=net
Group: Everyone has allow

Administrative Group: CN=r2,CN=Administrative
Groups,CN=RIM,CN=Microsoft
Exchange,CN=Services,CN=Configuration,DC=core,DC=sqm,DC=testnet,DC=rिम,
DC=net
Group: Everyone has allow

Exchange permissions 'Send As', 'Receive As', 'Administer Information
Store' for account: core\jiadmin

Domain Name:                  test.rim.net
GC Name:                      Mixd01.test.rim.net
GC IP:                        XX.XX.XXX.XX

[MAPI_SUBSYSTEM]

EXMAPI32.DLL:                Unable to find EXMAPI32.DLL version information!
MAPI32.DLL:                  1.0.2536.0 (C:\WINDOWS\system32\mapi32.dll)
EMSMDB32.DLL:                Unable to find EMSMDB32.DLL version information!
CDO.DLL:                     Unable to find CDO.DLL version information!

[GC]

Domain Name:                  test.rim.net
GC Name:                      server01.test.rim.net
GC IP:                        xx.xx.xxx.xx

[DATABASE]

```

```
Hostname:      Unknown
DB Name:      Unknown
Location:     Unknown
DB info via TSQL: unable to connect to database!

SQL Version:   Unable to find SQL version!
MSDE Version:  Unable to find MSDE version!
MDAC Version:  2.81.1117.0
MSADO15.DLL:  2.81.1128.0 (C:\Program Files\Common Files\system\ado
\msado15.dll)

[DB_BES_INSTANCE_VERSIONS]

[JAVA]

Version:      1.6
Path:         C:\Program Files\Java\jre6

MDS JVM Path: Unknown

[DOT_NET_FRAMEWORK]

Version 1.0:           INSTALLED
Version 1.1 (1.1.4322): INSTALLED
Version 2.0 (2.0.50727): INSTALLED
Version 3.0 (3.0.0456.30): MISSING

[MSMQ]

MSMQ Version:  Unknown

[NETWORK]

Local IP:      xx.xx.xx.xx
TCP/IP Provider: xx.xx.xxxx.xxxx (C:\WINDOWS\System32\wsock32.dll)
Winsock2 File:  xx.xx.xx.xxxx (C:\WINDOWS\System32\mswsock.dll)

[SRP_CONNECTIVITY]

Host:         srp.test.blackberry.net
IP:          xxx.xxx.xx.xx

Status: Connection Successful

[SYSTEM_INFORMATION]

Processor:

Processor Identifier: x86 Family 6 Model 15 Stepping 6
Processor Vendor:    GenuineIntel
Processor Name:      Intel(R) Core(TM)2 CPU           6400 @ 2.13GHz
Processor Speed:     2136 MHz
Number of CPUs:      2

Memory:
```

```

Memory In Use:          58%
Total Memory:          1,047,724 KB
Memory Available:      435,140 KB
Memory Limit:          2,523,672 KB
Available Commit:      2,066,788 KB

```

Hard Drive:

```

Drive:      C:\, Free: 28,349,001 KB, Total: 74,348,269 KB

```

Time Info:

```

Uptime:          2 days 13 hours 37 minutes 37 seconds
Time Zone:       Eastern Daylight Time (GMT-05:00)

```

[SYSTEM_HOTFIXES]

```

B955839 - Update for Windows XP (KB955839)
KB958687 - Security Update for Windows XP (KB958687)
KB960714 - Security Update for Windows XP (KB960714)
KB960715 - Security Update for Windows XP (KB960715)
KB967715 - Update for Windows XP (KB967715)

```

[PROCESSES]

Number of Processes: 12

Process	PID	Threads
System	4	68
smss.exe	832	2
csrss.exe	896	13
winlogon.exe	928	24
services.exe	972	16
svchost.exe	1408	60
sqlservr.exe	1208	23
winlogon.exe	1564	10
ccApp.exe	1752	9
ctfmon.exe	2356	1
MOM.exe	3280	9
logon.scr	3956	1
BBCheck.exe	2076	4

BlackBerry Domain Administration History Reporting Tool

You can use the BlackBerry Domain Administration History Reporting Tool (AdminHistory.exe) to audit and report on changes to the ServerConfigHistory table in the BlackBerry Configuration Database. For example, the tool reports the date and time that an administrator added user accounts or applied IT policy settings or security settings to user accounts.

The tool is designed for use only with BlackBerry Enterprise Server 4.1 SP7 and earlier.

The tool creates an output file that is named AdminHistory_Log_<yyyymmdd>_<hhmm>.csv, where <yyyymmdd> is the year, month, and day, and <hhmm> is the hour and minute that the tool created the file.

Run the BlackBerry Domain Administration History Reporting Tool

1. On the computer that hosts the BlackBerry Domain Administration History Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Domain Administration History Reporting Tool**.
2. In the command prompt window, type **AdminHistory** and the following parameters:

Parameter	Description
-db <database_name>	Use this parameter if the BlackBerry Configuration Database is installed on a Microsoft SQL Server database engine. This parameter specifies the host name or IP address of the BlackBerry Configuration Database.
-db2 -db2schema <schema>	Use these parameters if the BlackBerry Configuration Database is installed on an IBM Lotus Domino database engine. This configuration is supported in an IBM Lotus Domino environment only. Specify the schema name of the BlackBerry Configuration Database. By default, the tool uses the schema name BESADMIN.

Parameter	Description
-n <database_server>	This parameter specifies the host name, computer name, or IP address of the server that hosts the BlackBerry Configuration Database. By default, the tool uses the name localhost.

3. Type any of the following optional parameters:

Parameter	Description
-date	This parameter is used to specify the date range for the report. If you specify this parameter, you must also specify the -f <from_date> and -t <to_date> parameters.
-f <from_date>	This parameter specifies the start date (from date) for the report, using the format <i>yyyymmdd</i> . For example, 20120522. If you specify this parameter, you must also specify the -date and -t <to_date> parameters.
-t <to_date>	This parameter specifies the end date (to date) for the report, using the format <i>yyyymmdd</i> . For example, 20120525. If you specify this parameter, you must also specify the -date and -f <from_date> parameters.
-l <limit>	This parameter specifies the maximum number of records to retrieve from the BlackBerry Configuration Database. By default, the tool processes all of the records in the ServerConfigHistory table. If you do not remove the previous output file, the tool appends the new output file to the previous file. The average limit is 1000 to 2000 lines.
-SQLAuth	Use this parameter if you want the tool to use database authentication. By default, the tool uses Windows authentication. If you specify this parameter, you must also specify the -login <database_login_name> and -password <database_password> parameters.
-login <database_login_name>	If you want the tool to use database authentication, this parameter specifies the login name that the tool uses. If you specify this parameter, you must also specify the -SQLAuth and -password <database_password> parameters.
-password <database_password>	If you want the tool to use database authentication, this parameter specifies the password that the tool uses. If you specify this parameter, you must also specify the -SQLAuth and -login <database_login_name> parameters.

Parameter	Description
<code>-o <output_filename></code>	This parameter specifies the name of the output file that the tool creates.

Example: Running the tool using Windows authentication

```
AdminHistory -db BESMgmt -n server01 -o output.csv -l 1000
```

Example: Running the tool to retrieve records for a specific date range

```
AdminHistory -db BESMgmt -n server01 -date -f 20120420 -t 20120425 -o output.csv
```

Example: Running the tool using Microsoft SQL Server authentication

```
AdminHistory -db BESMgmt -n server01 -SQLAuth -login "Julie Palmer" -password password1 -o output.csv -l 1000
```

Example: Running the tool using IBM DB2 UDB authentication

```
AdminHistory -db BESMgmt -n server01 -db2 -db2schema besadmin -SQLAuth -login "Julie Palmer" -password password1 -o output.csv -l 1000
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **AdminHistory -?**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at `<drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\` or `<drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\`. If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, `<drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools`.

Interpreting configuration changes that are reported in the log file

Item	Description
Time	This column specifies the time of the configuration change.
Table	This column specifies the table in the BlackBerry Configuration Database that changed.

Item	Description
ServerName	This column specifies the name of the BlackBerry Enterprise Server instance that made the change to the BlackBerry Configuration Database.
DisplayName	This column specifies the display name of the user account whose data changed.
UserName	This column specifies the name of the user account whose data changed.
Operation	This column specifies the type of change.
Details	This column provides a description of the change.
SecDisplayName	This column specifies the name of the user account that made the change.

Example: Log file for a successful connection to the BlackBerry Configuration Database

```
[20000] (05/02 09:14:22:56.850):{0x34C} Attempting Database Connection...
[20000] (05/02 09:14:22:57.260):{0x34C} Database Connection Successful!
[20000] (05/02 09:14:22:57.260):{0x34C} Attempting To Create/Open Output CSV File...
[10000] (05/02 09:14:22:57.260):{0x34C} Performing SELECT On ServerConfigHistory
Table...
[10000] (05/02 09:14:22:57.751):{0x34C} Retrieving the recordset size. This may
take a few minutes...
[10000] (05/02 09:14:22:57.754):{0x34C} 876 Record Limit Requested By User.
[20000] (05/02 09:14:23:00.059):{0x34C} 876 Records Returned.
[20000] (05/02 09:14:23:00.059):{0x34C} 876 Total Entries Processed.
[20000] (05/02 09:14:23:00.059):{0x34C} CSV Write Operation Complete!
[20000] (05/02 09:14:23:00.059):{0x34C} File Location: C:\AdminHistory DEMO
\AdminHistory_1\20070502.csv
```

Example: Log file for an unsuccessful attempt to connect to the BlackBerry Configuration Database

```
[20000] (05/02 13:10:30:36.850):{0x34C} Attempting Database Connection...
[20000] (05/02 13:11:38:57.453):{0x34C} Database Connection Failed!
[20000] (05/02 13:11:38:57.453):{0x34C} Database Error: COM Error 0x80004005 in
ADOConnectionItem:ConnectToDB() -
[Microsoft][ODBC SQL Server Driver][DBNETLIB]SQL Server does not exist or access
denied. - Unspecified error
[20000] (05/02 13:11:38:57.453):{0x34C} BlackBerry Domain Administration History
Reporting Tool Terminating...
[20000] (05/02 13:11:38:57.453):{0x34C} Attempting To Write Debug Log...
```

BlackBerry Enterprise Server Log Analysis Tool

10

The BlackBerry Enterprise Server Log Analysis Tool is an application that you can use to run the various log analysis tools that are available in the BlackBerry Enterprise Server Resource Kit. You can configure and run the log analysis tools from the BlackBerry Enterprise Server Log Analysis Tool or from the command prompt.

The BlackBerry Enterprise Server Log Analysis Tool contains the following log analysis tools that you can use to manage and troubleshoot your BlackBerry Enterprise Server environment:

- BlackBerry Calendar Synchronization Reporting Tool
- BlackBerry Delayed Notifications Monitoring Tool
- BlackBerry Historical Statistics Tool
- BlackBerry MAPI and CDO Error Monitoring Tool
- BlackBerry MDS Services Data Monitoring Tool
- BlackBerry Message Flow Reporting Tool
- BlackBerry Thread Analyzer Tool
- BlackBerry Message Pending Delivery Tool
- BlackBerry Usage Monitoring Tool
- BlackBerry User Activity Reporting Tool

Prepare to run the log analysis tools

For more information about how to change the logging levels for BlackBerry Enterprise Server components, visit www.blackberry.com/go/serverdocs to read the *BlackBerry Enterprise Server Administration Guide*.

Before you begin:

- Verify that the versions of the log analysis tools are compatible with the version of the BlackBerry Enterprise Server in your organization's environment.
- Verify that you installed the tools on a computer that does not host BlackBerry Enterprise Server components.
- Verify that the computer that you want to use to run the log analysis tools has a large volume of free disk space to accommodate the size of the log files and the log analysis output files.

1. Set the logging level to **4** for each of the following log files:

Tool	Component log file name
BlackBerry Delayed Notifications Monitoring Tool (DelayedNotifications.exe)	MAGT log file
BlackBerry Historical Statistics Tool (HistoricalStats.exe)	DISP log file
BlackBerry MAPI and CDO Error Monitoring Tool (MapiCdoErrors.exe)	MAGT log file
BlackBerry MDS Services Data Monitoring Tool (MDSPushvsPull.exe)	MDAT log file
BlackBerry Message Flow Reporting Tool (Messageflow.exe)	MAGT log file, DISP log file, and ROUT log file
BlackBerry Message Pending Delivery Tool (Pending.exe)	MAGT log file
BlackBerry Thread Analyzer Tool (NoResponseCheck.exe)	All BlackBerry log files except the MDAT log files; the logging levels do not have to be set to 4
BlackBerry Usage Monitoring Tool (OutOfCoverage.exe)	DISP log file
BlackBerry User Activity Reporting Tool (AvailIndex.exe)	MAGT log file
BlackBerry Calendar Synchronization Reporting Tool (CalSync.exe)	MAGT log file

2. Copy the log files for the required BlackBerry Enterprise Server components to the computer that hosts the tool.
3. Record the log folder name and path. You must provide the location if it is different from the folder that contains the log analysis tool.

Configure the messaging platform

1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
2. Click **Settings > Messaging Platform**.
3. Select the appropriate option.
4. Click **OK**.
5. Click **File > Save Settings**.

Configure default log settings

1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
2. Click **Settings > Log**.
3. If necessary, in the **Output Verbosity** section, click **Debug Log Level**. Click the **browse** button beside the **Debug Output File** field. Navigate to and select a debug output file.
4. If necessary, in the **Log Identifiers** section, type the log identifier information of the log files for the BlackBerry Enterprise Server components.
5. Click **OK**.
6. Click **File > Save Settings**.

Configure the default input folder and default output folder

1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
2. Click **Settings > Default Folders**.
3. Beside the **Input Folder** field, click the **browse** button. Navigate to and select the default folder for input files.
4. Beside the **Output Folder** field, click the **browse** button. Navigate to and select the default folder for output files.
5. Click **OK**.
6. Click **File > Save Settings**.

BlackBerry Calendar Synchronization Reporting Tool

11

In a BlackBerry Enterprise Server environment, you can use the BlackBerry Enterprise Trait Tool to turn on an automatic calendar synchronization process. You can use the BlackBerry Calendar Synchronization Reporting Tool (CalSync.exe) in a Microsoft Exchange or IBM Lotus Domino environment to retrieve data from a BlackBerry Messaging Agent (MAGT) log file about the calendar synchronization process. You can use the data to troubleshoot calendar synchronization issues.

The tool reports the results of a query in files that are named CalParseServerSummary_<mmdd>.csv, CalParseUserSummary_<mmdd>.csv, and CalParseUserDetails_<mmdd>.csv, where <mmdd> is the month and day. You can also use the tool to compile the user details in multiple CalParseUserDetails_<mmdd>.csv files into a CalDiffSummary_<start_mmdd>-<end_mmdd>.csv file.

Related information

[BlackBerry Enterprise Server Log Analysis Tool, 77](#)

Run the BlackBerry Calendar Synchronization Reporting Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Messaging Agent (MAGT) log files to the computer that hosts the BlackBerry Calendar Synchronization Reporting Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **Calendar Synchronization Reporting**.

3. Click **Open Tool**.
4. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the BlackBerry Messaging Agent (MAGT) log files.
If multiple BlackBerry Messaging Agent (MAGT) log files exist in the input folder that you specify, the tool processes the MAGT log file with the most recent date.
5. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files for the BlackBerry Calendar Synchronization Reporting Tool.
6. To configure the tool to analyze only log files that are located in a subfolder with the current date, click the **Only search for a subdirectory with today's date** check box.
7. Click **Run**.
8. To view the results, click the **Console** tab.

Compare calendar synchronization information using the BlackBerry Enterprise Server Log Analysis Tool

You can use the BlackBerry Calendar Synchronization Reporting Tool to compile the user details information in multiple CalParseUserDetails_<mmdd>.csv files into a CalDiffSummary_<start_mmdd>-<end_mmdd>.csv file.

1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **Calendar Synchronization Reporting**.
3. Click **Open Tool**.
4. Click the **Diff** tab.
5. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the CalParseUserDetails_<mmdd>.csv files.
6. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the summary output file.
7. Click **Run**.
8. To view the results, click the **Console** tab.

Run the BlackBerry Calendar Synchronization Reporting Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Messaging Agent (MAGT) log files to the computer that hosts the BlackBerry Calendar Synchronization Reporting Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Calendar Synchronization Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Calendar Synchronization Reporting Tool**.
 2. In the command prompt window, type **CalSync** and the following parameters:

Parameter	Description
-parse	This parameter specifies that the tool analyzes the BlackBerry Messaging Agent log files to extract data about the calendar synchronization process.
-p E[exchange] -p D[omino]	This parameter specifies the messaging platform. Type -p E for Microsoft Exchange, or -p D for IBM Lotus Domino.

3. Type any of the following optional parameters:

Parameter	Description
-today	This parameter specifies that the tool analyzes only log files that are located in a subfolder with the current date.
-L <path>	This parameter specifies the location of the log files to query if the files are not located in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").
-OL <path>	This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").
-agent <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Messaging Agent log files. If you do not specify a name, the BlackBerry Calendar Synchronization Reporting Tool uses MAGT.

Parameter	Description
-debug <filename.txt>	This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file. If you do not specify a file name, the tool displays the debugging information on the screen.

Example: Producing a detailed output file for the calendar synchronization information in a specified log file

```
CalSync -parse -p E -debug detail.txt -L C:\BRK
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **CalSync -?** or **CalSync -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at <drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\ or <drive>:\Documents and Settings\user_name\Application Data\Research In Motion\AMT\. If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, <drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools .

Compare calendar synchronization information from the command prompt

You can use the BlackBerry Calendar Synchronization Reporting Tool to compile the user details information in multiple CalParseUserDetails_<mmdd>.csv files into a CalDiffSummary_<start_mmdd>-<end_mmdd>.csv file.

1. On the computer that hosts the BlackBerry Calendar Synchronization Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Calendar Synchronization Reporting Tool**.
2. In the command prompt window, type **CalSync** and the following parameters:

Parameter	Description
-diff	This parameter specifies that the tool reports the differences between two detailed output files.
-p E[xchange]	This parameter specifies the messaging platform. Type -p E for Microsoft Exchange, or -p D for IBM Lotus Domino.
-p D[omino]	

3. Type any of the following optional parameters:

Parameter	Description
-today	This parameter specifies that the tool analyzes only log files that are located in a subfolder with the current date.
-L <path>	This parameter specifies the location of the log files to query if the files are not located in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").
-OL <path>	This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").
-agent <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Messaging Agent log files. If you do not specify a name, the BlackBerry Calendar Synchronization Reporting Tool uses MAGT.
-debug <filename.txt>	This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file. If you do not specify a file name, the tool displays the debugging information on the screen.

Example: Compiling user details information from multiple CalParseUserDetails.csv files into a CalDiffSummary.csv output file

```
CalSync -diff -p e -L C:\BRK
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **CalSync -?** or **CalSync -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at <drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\ or <drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\ . If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, <drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools .

Results of the BlackBerry Calendar Synchronization Reporting Tool query

Results in the CalParseServerSummary file

Column	Description
BES	This column specifies the name of the BlackBerry Enterprise Server.
Server	This column specifies the messaging server that hosts the BlackBerry Enterprise Server.
Missing on device	This column specifies the number of calendar entries that exist on users' computers but do not exist on BlackBerry devices.
Different	This column specifies the number of calendar entries on users' computers that are different from the calendar entries on devices.
Same	This column specifies the number of calendar entries that are the same on users' computers and on devices.
Missing on < messaging_server >	This column specifies the number of calendar entries that exist on devices but do not exist on users' computers.
Original Total Device	This column specifies the number of calendar entries that were created on devices.
Original Total < messaging_server >	This column specifies the number of calendar entries that were created on users' computers.
Net Total	This column specifies the total number of calendar entries that are missing on the messaging server and that were created on users' computers.

Results in the CalParseUserSummary file

Column	Description
BES	This column specifies the BlackBerry Enterprise Server that the user account is associated with.
Server	This column specifies the messaging server that hosts the user account.

Column	Description
User	This column specifies the user account.
Missing on device	This column specifies the number of calendar entries that exist on the user's computer but do not exist on the device.
Different	This column specifies the number of calendar entries on the user's computer that are different from the calendar entries on the device.
Same	This column specifies the number of calendar entries that are the same on the user's computer and on the device.
Missing on < messaging_server >	This column specifies the number of calendar entries that exist on the device but do not exist on the user's computer.
Original Total Device	This column specifies the number of calendar entries that the user created on the device.
Original Total < messaging_server >	This column specifies the number of calendar entries that the user created on the user's computer.
Net Total	This column specifies the total number of calendar entries that are missing on the messaging server and that were created on the user's computer.

Results in the CalParseUserDetails file

Column	Description
BES	This column specifies the BlackBerry Enterprise Server that the user account is associated with.
Server	This column specifies the messaging server that the user account is associated with.
User	This column specifies the user account.
Type	This column specifies whether the calendar entry on the user's computer is different from the entry on the device. If necessary, this column also specifies how the calendar entry is different on the user's computer or on the device.
RefID	This column specifies the reference ID of the calendar entry on the user's computer.
PRefID	This column specifies the reference ID of the calendar entry on the device.
Time	This column specifies the time that the message was written to the log file.

Results in the CalDiffSummary file

Column	Description
Day	This column specifies the day that the log information was collected on for a specific calendar entry.
BES	This column specifies the BlackBerry Enterprise Server that the user account is associated with.
Server	This column specifies the messaging server that the user account is associated with.
User	This column specifies the user account.
Type	This column specifies whether the calendar entry on the user's computer is different from the entry on the device. If necessary, this column also specifies how the calendar entry is different on the user's computer or on the device.
RefID	This column specifies the reference ID of the calendar entry on the user's computer.
PRefID	This column specifies the reference ID of the calendar entry on the device.
Time	This column specifies the time that the message was written to the log file.

BlackBerry Delayed Notifications Monitoring Tool

12

You can use the BlackBerry Delayed Notifications Monitoring Tool (DelayedNotifications.exe) to obtain an overview of the performance of the BlackBerry Enterprise Server and the Microsoft Exchange Server.

The tool displays the results of a query in a file that is named DelayedNotifications_<mmdd>.<#>.csv, where <mmdd> is the month and day, and <#> is the number of BlackBerry Messaging Agent restarts that the tool finds in the log files.

High counts of delayed notifications indicate that the Microsoft Exchange Server is no longer providing UDP notifications for new messages promptly to the BlackBerry Enterprise Server.

If a user account is in a delayed-notification state, the BlackBerry Enterprise Server might not receive notifications for new messages and calendar items from the Microsoft Exchange Server. The BlackBerry Enterprise Server is designed to use rescans to detect messages and calendar items.

Related information

[BlackBerry Enterprise Server Log Analysis Tool](#), 77

Run the BlackBerry Delayed Notifications Monitoring Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Messaging Agent (MAGT) log files to the computer that hosts the BlackBerry Delayed Notifications Monitoring Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **Delayed Notifications Monitoring**.
 3. Click **Open Tool**.

4. In the **User Selection** section, perform one of the following actions:
 - To run the tool for all user accounts, click **All**.
 - To run the tool for a specific user account, click **Email Address**. Type the SMTP email address of the user account.
 - To run the tool for user accounts that are listed in an email address file, click **Email Address File**. Beside the **Email Address File** field, click the **browse** button. Navigate to the email address file.
5. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the BlackBerry Messaging Agent (MAGT) log files.
6. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files.
7. Click **Run**.
8. To view the results, click the **Console** tab.

Run the BlackBerry Delayed Notifications Monitoring Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Messaging Agent (MAGT) log files to the computer that hosts the BlackBerry Delayed Notifications Monitoring Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Delayed Notifications Monitoring Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Delayed Notifications Monitoring Tool**.
 2. In the command prompt window, type **DelayedNotifications** and the following parameters:

Parameter	Description
-p E	This parameter specifies that you use the tool in a Microsoft Exchange environment.
-u <SMTP_address>	This parameter specifies the SMTP email address of the user account that you want to monitor.
-u all	To monitor all user accounts, type -u all .

3. Type any of the following optional parameters:

Parameter	Description
-input <filename.txt>	This parameter specifies the name of the file that contains the SMTP email addresses of the user accounts that you want to monitor. You use a carriage return to separate each entry in the file. This parameter overrides the value that is specified with the -u parameter.
-L <path>	This parameter specifies the location of the debug log files that you want to query if they are not in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").
-OL <path>	This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").
-agent <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Messaging Agent log files. If you do not specify an abbreviation, by default, the BlackBerry Delayed Notifications Monitoring Tool uses MAGT.
-debug <filename.txt>	This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file. If you do not specify a file name, the tool displays the debugging information on the screen.

Example: Identifying all user accounts in a file that are in a delayed-notification state

```
DelayedNotifications -p E -u all -input users.txt
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **DelayedNotifications -?** or **DelayedNotifications -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at <drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\ or <drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\. If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, <drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools .

Results of a BlackBerry Delayed Notifications Monitoring Tool query

Column	Description
Server	This column specifies the Microsoft Exchange Server that hosts the user account.
Email Address	This column specifies the email address of the BlackBerry device user.
DeviceID	This column specifies the PIN of the device.
SRPid	This column specifies the SRP identifier for the BlackBerry Enterprise Server.
MAPISession	This column specifies the MAPI session that the delayed notification occurred in.
Start	This column specifies the time that the delayed notification occurred.
Stop	This column specifies the time that multiple occurrences of delayed notifications completed. For a single occurrence, this time matches the start time.
Count	This column specifies the number of times that a reported delay occurred.
Type	This column specifies whether the delay affected the delivery of email messages or calendar items.
File	This column specifies the file name that contains this record.

BlackBerry Historical Statistics Tool

13

You can use the BlackBerry Historical Statistics Tool (HistoricalStats.exe) to obtain detailed statistical information for a specific user account, or for all user accounts, for a single day. You can use this information to track usage trends for the BlackBerry Enterprise Server and BlackBerry devices.

The tool displays the results of a query in a report file that is named `HistoricalStats_<account>_<mmdd>.<#>.csv`, where `<account>` is the name of the user account, `<mmdd>` is the month and day, and `<#>` is the number of BlackBerry Messaging Agent restarts that the tool finds in the log files.

If you query all user accounts, the report file is named `HistoricalStats_<mmdd>.<#>.csv`.

Related information

[BlackBerry Enterprise Server Log Analysis Tool, 77](#)

Run the BlackBerry Historical Statistics Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the log files for the BlackBerry Messaging Agent and BlackBerry Dispatcher to the computer that hosts the BlackBerry Historical Statistics Tool and BlackBerry Enterprise Server Log Analysis Tool.
 - If necessary, change the logging level to 4 for the following fields in the DISP log files: CICAL FROM (in bytes), CMIME FROM (in bytes), and MDS FROM (in bytes).
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **Historical Statistics**.
 3. Click **Open Tool**.

4. In the **User Selection** section, perform one of the following actions:
 - To run the tool for all user accounts, click **All**.
 - To run the tool for a specific user account, click **Email Address**. Type the SMTP email address of the user account.
 - To run the tool for user accounts that are listed in an email address file, click **Email Address File**. Beside the **Email Address File** field, click the **browse** button. Navigate to the email address file.
5. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the BlackBerry Messaging Agent (MAGT) log files and BlackBerry Dispatcher (DISP) log files.
6. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files for the BlackBerry Historical Statistics Tool.
7. To create one output file for each user account, select the **One output file for each user** check box.
8. Click **Run**.
9. To view the results, click the **Console** tab.

Run the BlackBerry Historical Statistics Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the log files for the BlackBerry Messaging Agent and BlackBerry Dispatcher to the computer that hosts the BlackBerry Historical Statistics Tool and BlackBerry Enterprise Server Log Analysis Tool.
 - If necessary, change the logging level to 4 for the following fields in the DISP log files: CICAL FROM (in bytes), CMIME FROM (in bytes), and MDS FROM (in bytes).
1. On the computer that hosts the BlackBerry Historical Statistics Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Historical Statistics Tool**.
 2. In the command prompt window, type **HistoricalStats** and the following parameters:

Parameter	Description
-p E[xchange]	This parameter specifies the messaging platform.
-p D[omino]	
-p G[roupWise]	

Parameter	Description
-u <account>	This parameter specifies the user account.
-u all	To query all user accounts in the log files, type -u all . To query a specific user account, type the user name in one of the following formats: <ul style="list-style-type: none"> • Microsoft Exchange: SMTP email address (for example, jpalmer@<domain>.net) • IBM Lotus Domino: canonical name (for example, Julie Palmer/Organization) • Novell GroupWise: first name and last name (for example, Julie Palmer)

3. Type any of the following optional parameters:

Parameter	Description
-input <filename.txt>	This parameter specifies the name of the file that contains the SMTP email addresses of the user accounts that you want to monitor. Use a carriage return to separate each entry in the file. This parameter overrides the value that is specified with the -u parameter.
-L <path>	This parameter specifies the location of the debug log files that you want to query if the files are not in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").
-OL <path>	This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").
-output user	This parameter specifies how to organize the data in output files.
-output all	To create one file for each user account, type -output user . To create one file for all user accounts, type -output all . This is the default value.
-agent <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Messaging Agent log files. If you do not specify an abbreviation, the BlackBerry Historical Statistics Tool uses MAGT.
-dispatcher <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Dispatcher log files. If you do not specify a name, the tool uses DISP.

Parameter	Description
-debug <filename.txt>	<p>This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file.</p> <p>If you do not specify a file name, the tool displays the debugging information on the screen.</p>

Example: Querying historical statistics for a BlackBerry Enterprise Server for Microsoft Exchange

```
HistoricalStats -p E -u all -L C:\BRK -output all
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **HistoricalStats -?** or **HistoricalStats -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at <drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\ or <drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\. If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, <drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools .

Results of a BlackBerry Historical Statistics Tool query

Column	Description
Server	<p>This column specifies the messaging server that hosts the user accounts.</p> <p>This column applies to the BlackBerry Enterprise Server for Microsoft Exchange and the BlackBerry Enterprise Server for IBM Lotus Domino only.</p>
User	<p>This column specifies the name of the user account in one of the following formats:</p> <ul style="list-style-type: none"> • Microsoft Exchange: SMTP email address • IBM Lotus Domino: canonical name • Novell GroupWise: first name and last name
Email address	This column specifies the SMTP email address of the user account.

Column	Description
	This column applies only to the BlackBerry Enterprise Server for IBM Lotus Domino.
Display name	This column specifies the display name of the user account.
DeviceID	This column specifies the PIN of the device.
SRPID	This column specifies the SRP identifier for the BlackBerry Enterprise Server that hosts the user account.
Messages to	This column specifies the number of messages that were sent to the device.
Messages from	This column specifies the number of messages that were sent from the device. If your organization's environment uses BlackBerry Enterprise Server for IBM Lotus Domino, when a user replies to an email message, the original message is attached and counted as a separate message. As a result, this field might display a higher number of messages than expected.
replied to/forwarded from	This column specifies the number of messages replied to or forwarded from the device. This value is a subset of the messages that were sent from the device.
Attachment requests	This column specifies the number of attachment requests that were sent from the device.
OTAFM TO	This column specifies the number of wireless email reconciliation requests that were sent to the device.
OTAFM FROM	This column specifies the number of wireless email reconciliation requests that were sent from the device.
CICAL TO (in bytes)	This column specifies the number of bytes of wireless calendar data that were sent to the device.
CICAL FROM (in bytes)	This column specifies the number of bytes of wireless calendar data that were sent from the device.
CMIME TO (in bytes)	This column specifies the number of CMIME bytes that were sent to the device.
CMIME FROM (in bytes)	This column specifies the number of CMIME bytes that were sent from the device.
MDS TO (in bytes)	This column specifies the number of bytes of data that were sent to the device through the BlackBerry MDS Connection Service. You can find this statistic in the log file for the BlackBerry Dispatcher.

Column	Description
MDS FROM (in bytes)	<p>This column specifies the number of bytes of data that were sent from the device through the BlackBerry MDS Connection Service.</p> <p>You can find this statistic in the log file for the BlackBerry Dispatcher (DISP).</p>
OTASYNC TO (in bytes)	<p>This column specifies the number of bytes of organizer data synchronization information that were sent over the wireless network to the device.</p> <p>You can find this statistic in the log file for the BlackBerry Dispatcher (DISP).</p>
OTASYNC FROM (in bytes)	<p>This column specifies the number of bytes of organizer data synchronization information that were sent over the wireless network from the device.</p> <p>You can find this statistic in the log file for the BlackBerry Dispatcher (DISP).</p>

BlackBerry MAPI and CDO Error Monitoring Tool

14

You can use the BlackBerry MAPI and CDO Error Monitoring Tool (MapiCdoErrors.exe) to troubleshoot MAPI and CDO issues for the BlackBerry Enterprise Server for Microsoft Exchange.

The tool reports the events that are associated with BlackBerry Enterprise Server startup, versions, and user account settings.

The tool reports the results of a query in a file that is named MapiCdoErrors_<mmdd>.<#>.csv, where <mmdd> is the month and day, and <#> is the number of BlackBerry Messaging Agent restarts that the tool finds in the log files.

Related information

[BlackBerry Enterprise Server Log Analysis Tool, 77](#)

Run the BlackBerry MAPI and CDO Error Monitoring Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Messaging Agent log files to the computer that hosts the BlackBerry MAPI and CDO Error Monitoring Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **MAPI and CDO Error Monitoring**.
 3. Click **Open Tool**.
 4. In the **User Selection** section, perform one of the following actions:
 - To run the tool for all user accounts, click **All**.

- To run the tool for a specific user account, click **Email Address**. Type the SMTP email address of the user account.
 - To run the tool for user accounts that are listed in an email address file, click **Email Address File**. Beside the **Email Address File** field, click the **browse** button. Navigate to the email address file.
5. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the BlackBerry Messaging Agent (MAGT) log files.
 6. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files.
 7. If necessary, perform any of the following actions:
 - To create one output file for each user account, select the **One output file for each user** check box.
 - To create the output file in .txt file format, select the **.txt output file format** check box.
 - To override the default events and process only the events that you specify, select the **Override Default Events** check box.
 - To display the list of default events monitored, select the **List Default Events** check box.
 8. To specify the events that the tool monitors using an input file, click the **browse** button beside the **Events File** field. Navigate to the input file.

The input file overrides the list of default events that the tool monitors. The tool does not check for duplicates or valid events, but it verifies that the events are in numerical order.
 9. To specify the events that the tool monitors, in the **Events** field, type the events. Use commas (,) to separate multiple events.

By default, the tool monitors all events that are associated with BlackBerry Enterprise Server startup, versions, and user account settings.
 10. Click **Run**.
 11. To view the results, click the **Console** tab.

Run the BlackBerry MAPI and CDO Error Monitoring Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
- Copy the BlackBerry Messaging Agent log files to the computer that hosts the BlackBerry MAPI and CDO Error Monitoring Tool and BlackBerry Enterprise Server Log Analysis Tool.

1. On the computer that hosts the BlackBerry MAPI and CDO Error Monitoring Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry MAPI and CDO Error Monitoring Tool**.
2. In the command prompt window, type **MapiCdoErrors** and the following parameters:

Parameter	Description
-p E	This parameter specifies that you use the tool in a Microsoft Exchange environment.
-u <SMTP_address>	This parameter specifies the SMTP email address of the user account that you want to monitor.
-u all	To monitor all user accounts, type -u all .

3. Type any of the following optional parameters:

Parameter	Description
-input <filename.txt>	This parameter specifies the name of the file that contains the SMTP email addresses of the user accounts that you want to monitor. Use a carriage return to separate each entry in the file. This parameter overrides the value that is specified with the -u parameter.
-events <"event_ids">	This parameter specifies the events that the tool monitors. You use commas to separate the events in the list. By default, the tool monitors all events that are associated with BlackBerry Enterprise Server startup, versions, and user account settings.
-override	This parameter is used with the -events parameter to specify that the tool ignores the default events list and processes only specified events.
-eventsfile <filename.txt>	This parameter specifies the name of the input file that contains the events that the tool monitors for. This parameter overrides the default list of events that the tool monitors. The tool does not check for duplicates or valid events, but it verifies that the events are in numerical order.
-output user	This parameter specifies how to organize the data in output files.
-output all	To create one file for each user account, type -output user . To create one file for all user accounts, type -output all . This is the default value.
-raw	This parameter specifies that the tool creates an output .txt file instead of a .csv file.

Parameter	Description
-list	This parameter specifies that the tool displays the default list of monitored events on the screen.
-L <path>	This parameter specifies the location of the debug log files that you want to query if the files are not in the same folder as the tool.
-OL <path>	This parameter specifies the folder where the tool writes the output files.
-agent <acronym>	This parameter specifies the abbreviation for the BlackBerry Messaging Agent log files. If you do not specify an abbreviation, the tool uses MAGT.
-debug <filename.txt>	This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file. If you do not specify a file name, the tool displays the debugging information on the screen.

Example: Finding two events that might create MAPI and CDO errors

```
MapiCdoErrors -p E -input users.txt -L C:\logs -output all -events "20018,20055" -override -raw
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **MapiCdoErrors -?** or **MapiCdoErrors -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at <drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\ or <drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\. If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, <drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools .

Results of a BlackBerry MAPI and CDO Error Monitoring Tool query

Column	Description
Server	This column specifies the messaging server that hosts the user account.
Email Address	This column specifies the SMTP email address of the BlackBerry device user.

Column	Description
DeviceID	This column specifies the PIN of the device. If the PIN has changed, the last PIN displays.
SRPid	This column specifies the SRP identifier for the BlackBerry Enterprise Server instance that hosts the user account.
Mailbox	This column specifies the mailbox name of the device user.
Error	This column specifies the log line for the captured error.

BlackBerry MDS Services Data Monitoring Tool

15

You can use the BlackBerry MDS Services Data Monitoring Tool (MDSPushvsPull.exe) to determine whether the BlackBerry MDS Connection Service is processing more data by pushing applications to BlackBerry devices or by devices pulling data.

The tool displays the result of the query in a file that is named MDSPushvsPull_<mmdd>.<#>.csv, where <mmdd> is the month and day, and <#> is the number of BlackBerry MDS Connection Service restarts that the tool finds in the log files.

Related information

BlackBerry Enterprise Server Log Analysis Tool, 77

Run the BlackBerry MDS Services Data Monitoring Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry MDS Connection Service log files to the computer that hosts the BlackBerry MDS Services Data Monitoring Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **MDS Services Data Monitoring**.
 3. Click **Open Tool**.
 4. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the BlackBerry MDS Connection Service (MDAT) log files.

5. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files.
6. Select the types of events that you want the tool to monitor.
7. Click **Run**.
8. To view the results, click the **Console** tab.

Run the BlackBerry MDS Services Data Monitoring Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry MDS Connection Service log files to the computer that hosts the BlackBerry MDS Services Data Monitoring Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry MDS Services Data Monitoring Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry MDS Services Data Monitoring Tool**.
 2. In the command prompt window, type **MDSPushvsPull** and the following parameters:

Parameter	Description
-p E[xchange]	This parameter specifies the messaging platform.
-p D[omino]	
-p G[roupWise]	

3. Type any of the following optional parameters:

Parameter	Description
-type pull	This parameter specifies whether the tool monitors push or pull events. If you do not specify a type, the tool provides results for both types.
-type push	
-L <path>	This parameter specifies the location of the debug log files that you want to query if the files are not in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").
-OL <path>	This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").

Parameter	Description
-MDS <acronym>	This parameter specifies the abbreviation for the BlackBerry MDS Connection Service log files. If you do not specify an abbreviation, the tool uses MDAT.
-debug <filename.txt>	This parameter specifies that the BlackBerry MDS Services Data Monitoring Tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file. If you do not specify a file name, the tool displays the debugging information on the screen.

Example: Obtaining information about events that are pushed to BlackBerry devices

```
MDSPushvsPull -p E -type push -L C:\BRK
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **MDSPushvsPull -?** or **MDSPushvsPull -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at <drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\ or <drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\ . If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, <drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools .

Results of a BlackBerry MDS Services Data Monitoring Tool query

Column	Description
Type	This column specifies the type of request. The options are push or pull.
Source	This column specifies one of the following sources for the request: <ul style="list-style-type: none"> • Pull: PIN of the BlackBerry device that made the request • Push: BlackBerry MDS Connection Service instance that made the request
Destination	This column specifies one of the following destinations for the request:

Column	Description
	<ul style="list-style-type: none">• Pull: web site that the device requests• Push: device or email address that is associated with the user account
Date	This column specifies the date that the request was made.
Time	This column specifies the time that the request was made.
Port	This column specifies the port number that the request was made over.
Size	This column specifies the size of the request, in bytes.

BlackBerry Message Flow Reporting Tool

16

You can use the BlackBerry Message Flow Reporting Tool (Messageflow.exe) to track the flow of messages through the BlackBerry Enterprise Server. The tool can help you to troubleshoot message flow issues and can provide statistical data on message flow trends.

The tool reports the results of a query in a file that is named MessageFlow_<date>.<#>.csv, unless you use the -multiday parameter.

The date uses either the format <yyyymmdd> or the format <mmdd>. The <#> is the number of BlackBerry Messaging Agent restarts that the tool finds in the log files.

If you query a single user account or multiple user accounts using the -input parameter, the tool creates an individual file for each user account that you queried.

Related information

[BlackBerry Enterprise Server Log Analysis Tool, 77](#)

Run the BlackBerry Message Flow Reporting Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the log files for the BlackBerry Messaging Agent, BlackBerry Dispatcher, and BlackBerry Router to the computer that hosts the BlackBerry Message Flow Reporting Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **Message Flow Reporting**.
 3. Click **Open Tool**.

4. In the **User Selection** section, perform one of the following actions:
 - To run the tool for all user accounts, click **All**.
 - To run the tool for a specific user account, click **Email Address**. Type the SMTP email address of the user account.
 - To run the tool for user accounts that are listed in an email address file, click **Email Address File**. Beside the **Email Address File** field, click the **browse** button. Navigate to the email address file.
5. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the BlackBerry Messaging Agent (MAGT) log files, BlackBerry Dispatcher (DISP) log files, and BlackBerry Router (ROUT) log files.
6. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files.
7. To create one output file for each user account, select the **One output file for each user** check box.
8. If necessary, select the **Start Date** option. Click a date in the drop-down list.
9. If necessary, select the **End Date** option. Click a date in the drop-down list.
10. Click **Run**.
11. To view the results, click the **Console** tab.

Run the BlackBerry Message Flow Reporting Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the log files for the BlackBerry Messaging Agent, BlackBerry Dispatcher, and BlackBerry Router to the computer that hosts the BlackBerry Message Flow Reporting Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Message Flow Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Message Flow Reporting Tool**.
 2. In the command prompt window, type **MessageFlow** and the following parameters:

Parameter	Description
-p E[xchange]	This parameter specifies the messaging platform.
-p D[omino]	
-p G[roupWise]	

Parameter	Description
-u <account>	This parameter specifies the user account.
-u all	To query all user accounts in the log files, type -u all . To query a specific user account, type the user name in one of the following formats: <ul style="list-style-type: none"> • Microsoft Exchange: SMTP email address (for example, jpalmer@<domain>.net) • IBM Lotus Domino: canonical name (for example, Julie Palmer/Organization) • Novell GroupWise: first name and last name (for example, Julie Palmer)

3. Type any of the following optional parameters:

Parameter	Description
-input <filename.txt>	This parameter specifies the name of the file that contains the list of user accounts that you want to monitor. Use the appropriate format as described for the -u parameter. Use a carriage return to separate each entry in the file. This parameter overrides the value that is specified with the -u parameter.
-multiday <start_date>-<end_date>	This parameter specifies the dates that the tool checks log files for. To check message flow across multiple days, type a date value to specify the subfolders in the log file that the tool checks. The tool checks subfolders from the current date. Use the format <yyyymmdd>-<yyyymmdd> for a date range or <yyyymmdd> for a single date that is used as the start date. When you use this parameter with two dates, the tool creates an output file that is named MessageFlow_<user_name>_<start_date>-<end_date>.<#>.csv. When you use this parameter with one date, the tool uses the date as the start date and creates an output file that is named MessageFlowEnding_<end_date>.<#>.csv, where the <end_date> is the last date that was logged. If you do not type a date value, the tool cannot check the subfolders.
-output user	This parameter specifies how to organize the data in output files.
-output all	To create one file for each user account, type -output user . To create one file for all user accounts, type -output all . This is the default value.

Parameter	Description
-L <path>	This parameter specifies the location of the debug log files that you want to query if they are not in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").
-OL <path>	This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").
-agent <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Messaging Agent log files. If you do not specify an abbreviation, the BlackBerry Message Flow Reporting Tool uses MAGT.
-dispatcher <abbreviation>]	This parameter specifies the abbreviation for the BlackBerry Dispatcher log files. If you do not specify a name, the tool uses DISP.
-router <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Router log files. If you do not specify a name, the tool uses ROUT.
-debug <filename.txt>	This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file. If you do not specify a file name, the tool displays the debugging information on the screen.

Example: Querying all user accounts in a Microsoft Exchange environment using the log files that are in a specified location

```
MessageFlow -p E -u all -L C:\logs
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **MessageFlow -?** or **MessageFlow -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at <drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\ or <drive>:\Documents and Settings\user_name\Application Data\Research In Motion\AMT\ . If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, <drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools .

Results of a BlackBerry Message Flow Reporting Tool query

Column	Description
Server	<p>This column specifies the messaging server that hosts the user accounts.</p> <p>This column applies to the BlackBerry Enterprise Server for Microsoft Exchange and the BlackBerry Enterprise Server for IBM Lotus Domino only.</p>
User	<p>This column specifies the name of the user account in one of the following formats:</p> <ul style="list-style-type: none"> • Microsoft Exchange: SMTP email address • IBM Lotus Domino: canonical name • Novell GroupWise: first name and last name
EntryID/NotelD	This column specifies the identifier that tracks the message from its initial stages.
RefID	This column specifies the unique identifier that is assigned to each message or calendar appointment and that the BlackBerry Enterprise Server or the BlackBerry device uses for tracking.
AGT Tag	<p>This column specifies the identifier that tracks the message between the BlackBerry Messaging Agent and the BlackBerry Dispatcher.</p> <p>The identifier is assigned by the BlackBerry Messaging Agent.</p>
Disp Tag	<p>This column specifies the identifier that tracks the message from the BlackBerry Dispatcher to the wireless network.</p> <p>The identifier is assigned by the BlackBerry Dispatcher.</p>
Total Time	<p>The total time, in minutes, between the time that the messaging server receives the message and the time that the BlackBerry Enterprise Server completes the processing.</p> <p>The time displays as a negative value when the device sends a message.</p>
Server Time	This column specifies the amount of time that the BlackBerry Enterprise Server takes to process a message and deliver it to the device.

Column	Description
Posted	This column specifies the time that the messaging server posts the message to the mail store.
Mail Del	This column specifies the time that the messaging server indicates that the message is delivered.
Queue 1	This column specifies the time that the BlackBerry Enterprise Server first recognizes the message.
Queue out	This column specifies the time that the message enters the second queue stage.
Sending	This column specifies the time that the BlackBerry Messaging Agent sends the message to the BlackBerry Dispatcher.
Disp Recv	This column specifies the time that the BlackBerry Dispatcher receives the message.
Router Recv	This column specifies the time that the BlackBerry Router receives the message.
Router Del	This column specifies the time that the BlackBerry Router sends the message.
Disp Del	This column specifies the time that the BlackBerry Dispatcher receives the delivery notification message.
Agt Status	This column specifies the status of whether the BlackBerry Messaging Agent receives the delivery notification message.
Status time	This column specifies the time of the message delivery.
Retry CNT	This column specifies the number of times that the BlackBerry Enterprise Server tries to send the message.
Discovery	In a BlackBerry Enterprise Server for Microsoft Exchange environment, this column specifies how the BlackBerry Enterprise Server discovers the message.
Path	This column specifies the whether the message is sent over the wireless network or over a serial connection.
Pending	This column specifies the number of pending messages.

BlackBerry Thread Analyzer Tool

17

You can use the BlackBerry Thread Analyzer Tool (NoResponseCheck.exe) to monitor how well a BlackBerry Enterprise Server instance is running, based on the number of nonresponsive threads.

If a BlackBerry Enterprise Server instance appears to have a number of nonresponsive threads, you can run the tool to determine the status of the threads. The tool reports whether a thread is a false positive. A false positive thread is one that reports as nonresponsive but continues to do work, performing a single task for a long time.

You can use the tool as an early indicator of the health of a BlackBerry Enterprise Server instance and its threads. Based on the information that the tool provides, you can then explore the log files further.

Related information

[BlackBerry Enterprise Server Log Analysis Tool, 77](#)

Run the BlackBerry Thread Analyzer Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy any log files for the BlackBerry Enterprise Server components, except the log file for the BlackBerry MDS Connection Service, to the computer that hosts the BlackBerry Thread Analyzer Tool and BlackBerry Enterprise Server Log Analysis Tool
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **Thread Analyzer**.
 3. Click **Open Tool**.

4. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the log files.
5. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files.
6. To configure the BlackBerry Thread Analyzer Tool to create a detailed output file for debugging purposes, in the **Debug Log Identifier** field, type a name for the debug output file.
7. To prevent the BlackBerry Thread Analyzer Tool from checking for false positives, select the **Skip False Positive Checking** check box.
8. Click **Run**.
9. To view the results, click the **Console** tab.

Run the BlackBerry Thread Analyzer Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy any log files for the BlackBerry Enterprise Server components, except the log file for the BlackBerry MDS Connection Service, to the computer that hosts the BlackBerry Thread Analyzer Tool and BlackBerry Enterprise Server Log Analysis Tool
1. On the computer that hosts the BlackBerry Thread Analyzer Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Thread Analyzer Tool**.
 2. In the command prompt window, type **NoResponseCheck** and the following parameter:

Parameter	Description
-p E[xchange]	This parameter specifies the messaging platform.
-p D[omino]	
-p G[roupWise]	

3. Type any of the following optional parameters:

Parameter	Description
-NoFP	This parameter prevents the tool from checking for false positives.

Parameter	Description
-type <abbreviation>	<p>You can use this parameter to limit the tool to checking the log files for a specific BlackBerry Enterprise Server component. Specify the abbreviation for the log files that you want to analyze. For example, type MAGT to analyze the log files for the BlackBerry Messaging Agent only.</p> <p>For more information about the abbreviations used for different components, visit www.blackberry.com/go/serverdocs to read the <i>BlackBerry Enterprise Server Administration Guide</i>.</p>
-MDS <abbreviation>	<p>This parameter specifies the abbreviation for the BlackBerry MDS Connection Service log files. If you do not specify an abbreviation, the tool uses MDAT.</p> <p>You require this parameter to bypass any reference to the BlackBerry MDS Connection Service log files in the log files for other BlackBerry Enterprise Server components. If the tool finds a reference to the BlackBerry MDS Connection Service log files, the tool stops running.</p>
-L <path>	<p>This parameter specifies the location of the log files that you want to analyze if the files are not in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").</p>
-OL <path>	<p>This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").</p>
-debug <filename.txt>	<p>This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file.</p> <p>If you do not specify a file name, the tool displays the debugging information on the screen.</p>

Example: Producing detailed output for the BlackBerry Enterprise Server for IBM Lotus Domino log files

```
NoResponseCheck -p D -debug Detailed.txt -L C:\BRK\logs
```

Example: Analyzing the log files for the BlackBerry Messaging Agent only without checking for false positives

```
NoResponseCheck -p E -NoFP -type MAGT -L C:\BRK\logs
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **NoResponseCheck -?** or **NoResponseCheck -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at <drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\ or <drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\. If you did not configure the tool to use a UAC-compliant file path, the output file is located

in a file path relative to the current working directory, for example, <drive>:\Program Files\Research In Motion \BlackBerry Enterprise Server Resource Kit \BlackBerry AMT Tools .

Results of a BlackBerry Thread Analyzer Tool query

Column	Description
ThreadID	This column specifies the ID of a reporting thread.
Start Time	This column specifies the time that the failure started.
End Time	This column specifies the time that the failure ended. If the field is empty, the thread did not recover.
Total Time	This column specifies the total time of the failure, in minutes. If the field is empty, the thread did not recover.
Wait Count	This column specifies an increasing number that equals x multiplied by the health check interval for the BlackBerry Enterprise Server, which is usually 10 minutes. For example, if the wait count equals 2, the thread has been nonresponsive or slow for 20 minutes.
False Positive	This column specifies the whether the tool reported a false positive (a slow thread instead of a nonresponsive thread).
Activity	This column specifies the last activity before the failure, the user account that is associated with the failure, and the name of the BlackBerry Enterprise Server instance.
File	This column specifies the file name that contains the thread that is reported as nonresponsive.
Last Activity	This column specifies the entry for the failure in the log file.

BlackBerry Message Pending Delivery Tool

18

You can use the BlackBerry Message Pending Delivery Tool (Pending.exe) to detect an increase in the number of messages in the mail queue.

The tool displays the results of a query in a file that is named Pending_<mmdd>.<#>.csv, where <mmdd> is the month and day, and <#> is the number of BlackBerry Messaging Agent restarts that the tool detects in the log files.

Related information

[BlackBerry Enterprise Server Log Analysis Tool, 77](#)

Run the BlackBerry Message Pending Delivery Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Messaging Agent log files to the computer that hosts the BlackBerry Message Pending Delivery Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **Message Pending Delivery**.
 3. Click **Open Tool**.
 4. In the **User Selection** section, perform one of the following actions:
 - To run the tool for all user accounts, click **All**.
 - To run the tool for a specific user account, click **Email Address**. Type the SMTP email address of the user account.

- To run the tool for user accounts that are listed in an email address file, click **Email Address File**. Beside the **Email Address File** field, click the **browse** button. Navigate to the email address file.
5. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the BlackBerry Messaging Agent (MAGT) log files.
 6. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files.
 7. To create one output file for each user account, select the **One output file for each user** check box.
 8. If necessary, in the **Minimum Pending Messages** field, type the minimum number of pending messages that you want the tool to monitor.
The default value is 0.
 9. To configure the tool to display the single highest pending count for each user account that is greater than the minimum pending messages count that you specify, select the **Show highest pending count** check box.
 10. If necessary, select the **Start Time** option. Specify a start time for the query.
 11. If necessary, select the **Stop Time** option. Specify a stop time for the query.
 12. Click **Run**.
 13. To view the results, click the **Console** tab.

Run the BlackBerry Message Pending Delivery Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Messaging Agent log files to the computer that hosts the BlackBerry Message Pending Delivery Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Message Pending Delivery Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Message Pending Delivery Tool**.
 2. In the command prompt window, type **Pending** and the following parameters:

Parameter	Description
-p E[exchange]	This parameter specifies the messaging platform.
-p D[omino]	

Parameter	Description
-p G[roupWise]	
-u <account>	This parameter specifies the user account.
-u all	To query all user accounts in the log files, type -u all . To query a specific user account, type the user name in one of the following formats: <ul style="list-style-type: none"> • Microsoft Exchange: SMTP email address (for example, jpalmer@<domain>.net) • IBM Lotus Domino: canonical name (for example, Julie Palmer/Organization) • Novell GroupWise: first name and last name (for example, Julie Palmer)

3. Type any of the following optional parameters:

Parameter	Description
-input <filename.txt>	This parameter specifies the name of the file that contains the list of user accounts that you want to monitor. Use the appropriate format as described for the -u parameter. Use a carriage return to separate each entry in the file. This parameter overrides the value that is specified with the -u parameter.
-pending <#>	This parameter specifies the minimum number (#) of pending messages that the tool tracks. By default, the value is 0.
-onlyhigh	This parameter specifies that the tool prints the single highest pending count for a user account that is greater than the count you specify for -pending.
-output user	This parameter specifies how to organize the data in output files.
-output all	To create one file for each user account, type -output user . To create one file for all user accounts, type -output all . This is the default value.
-time <start time>	This parameter specifies the starting time for the query or the interval for the query.
-time <start-stop time>	For example, to process all log entries that are created after 16:00:00, type pending -p E -u all -time 16:00:00 . To process log entries that are created between 16:00:00 and 17:00:00, type pending -p E -u all -time 16:00:00-17:00:00 .

Parameter	Description
-agent <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Messaging Agent log files. If you do not specify a name, the tool uses MAGT.
-L <path>	This parameter specifies the location of the debug log files that you want to query if they are not in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").
-OL <path>	This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").
-debug <filename.txt>	This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file. If you do not specify a file name, the tool displays the debugging information on the screen.

Example: Querying all user accounts for more than one pending message, and printing out information for the user account with the highest pending count

```
Pending -p E -u all -output all -pending 1 -onlyhigh
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **Pending -?** or **Pending -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at <drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\ or <drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\ . If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, <drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools .

Results of a BlackBerry Message Pending Delivery Tool query

Column	Description
Server	This column specifies the messaging server that hosts the user account.

Column	Description
Common Name	This column specifies the canonical name of the user account (for IBM Lotus Domino environments only).
Email Address	This column specifies the SMTP email address of the user account (for Microsoft Exchange environments only).
DeviceID	This column specifies the PIN of the BlackBerry device. If the PIN for the BlackBerry device changed, this is the last PIN.
SRPid	This column specifies the SRP identifier of the BlackBerry Enterprise Server.
Pending	This column specifies the number of pending messages that were detected.
Time	This column specifies the time that the pending count was detected.
High	An asterisk (*) indicates that the value is the highest pending count for a user account.

BlackBerry Usage Monitoring Tool

19

You can use the BlackBerry Usage Monitoring Tool (OutOfCoverage.exe) to identify user accounts that have not sent or received data packets for a period of time that you specify.

The tool displays the results of a query in a file that is named OutofCoverage_<mmdd>.<#>.csv, where <mmdd> is the month and day, and <#> is the number of BlackBerry Dispatcher restarts that the tool finds in the log files.

Related information

[BlackBerry Enterprise Server Log Analysis Tool, 77](#)

Run the BlackBerry Usage Monitoring Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Dispatcher (DISP) log files to the computer that hosts the BlackBerry Usage Monitoring Tool and BlackBerry Enterprise Server Log Analysis Tool. If you want the tool to process usage information over multiple days, you must copy the log files for those days to the same folder.
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **Usage Monitoring**.
 3. Click **Open Tool**.
 4. In the **User Selection** section, perform one of the following actions:
 - To run the tool for all user accounts, click **All**.

- To run the tool for a specific user account, click **Email Address**. Type the SMTP email address of the user account.
 - To run the tool for user accounts that are listed in an email address file, click **Email Address File**. Beside the **Email Address File** field, click the **browse** button. Navigate to the email address file.
5. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the BlackBerry Dispatcher (DISP) log files.
 6. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files.
 7. To create one output file for each user account, select the **One output file for each user** check box.
 8. To specify how often the tool checks for gaps in BlackBerry device usage, select the **Out of Coverage** check box. In the drop-down list, click the required number of minutes.
 9. Click **Run**.
 10. To view the results, click the **Console** tab.

Run the BlackBerry Usage Monitoring Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Dispatcher (DISP) log files to the computer that hosts the BlackBerry Usage Monitoring Tool and BlackBerry Enterprise Server Log Analysis Tool. If you want the tool to process usage information over multiple days, you must copy the log files for those days to the same folder.
1. On the computer that hosts the BlackBerry Usage Monitoring Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Usage Monitoring Tool**.
 2. In the command prompt window, type **OutofCoverage** and the following parameters:

Parameter	Description
-p E[xchange]	This parameter specifies the messaging platform.
-p D[omino]	
-p G[roupWise]	
-u <account>	This parameter specifies the user account.

Parameter	Description
-u all	To query all user accounts in the log files, type -u all . To query a specific user account, type the user name in one of the following formats: <ul style="list-style-type: none"> • Microsoft Exchange: SMTP email address (for example, jpalmer@<domain>.net) • IBM Lotus Domino: canonical name (for example, Julie Palmer/Organization) • Novell GroupWise: first name and last name (for example, Julie Palmer)
-t <minutes>	This parameter specifies the frequency, in minutes, that the tool checks for gaps (between 10 and 1440 minutes).

3. Type any of the following optional parameters:

Parameter	Description
-input <filename.txt>	This parameter specifies the name of the file that contains the list of user accounts that you want to monitor. Use the appropriate format as described for the -u parameter. Use a carriage return to separate each entry in the file. This parameter overrides the value that is specified with the -u parameter.
-output user	This parameter specifies how to organize the data in output files.
-output all	To create one file for each user account, type -output user . To create one file for all user accounts, type -output all . This is the default value.
-dispatcher <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Dispatcher log files. If you do not specify a name, the tool uses DISP.
-L <path>	This parameter specifies the location of the debug log files that you want to query if they are not in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").
-OL <path>	This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").
-debug <filename.txt>	This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debug file.

Parameter	Description
	If you do not specify a file name, the tool displays the debug information on the screen.

Example: Checking in specified log files whether a user account has not sent or received data packets for 25 minutes

```
OutofCoverage -p E -u jpalmer@test.rim.net -t 25 -L C:\BRK\logs
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **OutofCoverage -?** or **OutofCoverage -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at `<drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\` or `<drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\`. If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, `<drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools`.

Results of a BlackBerry Usage Monitoring Tool query

Column	Description
Email address	This column specifies the SMTP email address of the BlackBerry device user. This column applies to the BlackBerry Enterprise Server for Microsoft Exchange and the BlackBerry Enterprise Server for IBM Lotus Domino only.
Disp name	This column specifies the display name of the user account.
DeviceID	This column specifies the PIN of the device.
SRPid	This column specifies the SRP identifier for the BlackBerry Enterprise Server.
Length	This column specifies the length of the outage, in minutes (0.5 equals 30 seconds).
Start	This column specifies the start time for the period of time that the device is outside of a wireless coverage area.

Column	Description
Stop	This column specifies the stop time for the period of time that the device is outside of a wireless coverage area.
Multi-day	This column appears only if you process log files from multiple days or from multiple files from the same day. An asterisk (*) indicates a multi-day gap.

BlackBerry User Activity Reporting Tool

20

You can use the BlackBerry User Activity Reporting Tool (AvailIndex.exe) to check statistics on rescan events for the BlackBerry Enterprise Server for Microsoft Exchange.

The tool reports the results of a query in a file that is named *AvailIndex_<mmdd>.<#>.csv*, where *<mmdd>* is the month and day, and *<#>* is the number of BlackBerry Messaging Agent restarts that the tool finds in the log file.

Related information

[BlackBerry Enterprise Server Log Analysis Tool, 77](#)

Run the BlackBerry User Activity Reporting Tool using the BlackBerry Enterprise Server Log Analysis Tool

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Messaging Agent (MAGT) log files to the computer that hosts the BlackBerry User Activity Reporting Tool and BlackBerry Enterprise Server Log Analysis Tool.
1. On the computer that hosts the BlackBerry Enterprise Server Log Analysis Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry Enterprise Server Log Analysis Tool**.
 2. In the BlackBerry Enterprise Server Log Analysis Tool, on the **Tools** menu, click **User Activity Reporting**.
 3. Click **Open Tool**.
 4. Beside the **Input Folder** field, click the **browse** button. Navigate to the folder that contains the BlackBerry Messaging Agent (MAGT) log files.
 5. Beside the **Output Folder** field, click the **browse** button. Navigate to the folder where you want to save the output files.

6. Click **Run**.
7. To view the results, click the **Console** tab.

Run the BlackBerry User Activity Reporting Tool from the command prompt

Before you begin:

- See [Prepare to run the log analysis tools](#).
 - Copy the BlackBerry Messaging Agent log files to the computer that hosts the BlackBerry User Activity Reporting Tool.
1. On the computer that hosts the BlackBerry User Activity Reporting Tool, on the taskbar, click **Start > All Programs > BlackBerry Enterprise Server Resource Kit > BlackBerry Analysis Monitoring and Troubleshooting Tools > BlackBerry User Activity Reporting Tool**.
 2. In the command prompt window, type **AvailIndex**.

Parameter	Description
-p E	This parameter specifies that you are using the tool in a Microsoft Exchange environment.

3. Type any of the following optional parameters:

Parameter	Description
-agent <abbreviation>	This parameter specifies the abbreviation for the BlackBerry Messaging Agent log files. If you do not specify a name, the tool uses MAGT.
-L <path>	This parameter specifies the location of the debug log files that you want to query if they are not in the same folder as the tool. If the path contains spaces, enclose the path in quotation marks (" ").
-OL <path>	This parameter specifies the folder where the tool writes the output files. If the path contains spaces, enclose the path in quotation marks (" ").
-debug <filename.txt>	This parameter specifies that the tool creates a more detailed output file for debugging purposes, and it specifies the name of the debugging file. If you do not specify a file name, the tool displays the debugging information on the screen.

Example: Producing a detailed output file for the events in a specified log file

```
AvailIndex -p E -debug Details.txt -L C:\BRK\logs
```

After you finish:

- If you want to view the help information for the tool, including the list of available parameters, in the command window, type **AvailIndex -?** or **AvailIndex -help**.
- If you configured the tool to use a UAC-compliant file path, the output file is located at `<drive>:\Users\<user_name>\AppData\Roaming\Research In Motion\AMT\` or `<drive>:\Documents and Settings\<user_name>\Application Data\Research In Motion\AMT\`. If you did not configure the tool to use a UAC-compliant file path, the output file is located in a file path relative to the current working directory, for example, `<drive>:\Program Files\Research In Motion\BlackBerry Enterprise Server Resource Kit\BlackBerry AMT Tools`.

Results of a BlackBerry User Activity Reporting Tool query

Column	Description
Server	This column specifies the Microsoft Exchange server that hosts the user account that is associated with the BlackBerry device.
Email Address	This column specifies the SMTP email address of the BlackBerry device user account.
Availability	This column specifies the percentage of the total busy time divided by the total log time of the device. A higher percentage is a better result than a lower percentage.
Busy Time	This column specifies the total time for all of the rescan events.
Outages (>15min)	This column specifies the number of times that the BlackBerry Enterprise Server performed a rescan that took longer than 15 minutes.
Longest Outage	This column specifies the count, in seconds, for the longest rescan over 15 minutes.
Operation Count	This column specifies the number of rescan events of all types that the BlackBerry Enterprise Server performs.

Column	Description
Most Frequent Event	This column specifies the most frequent type of rescan, and the number of times it occurs.
Longest Event	This column specifies the type of rescan with the longest time, and the duration of the rescan in seconds.
MESSAGE_RESCAN count	This column specifies the number of times that the MESSAGE_RESCAN event occurs.
MESSAGE_RESCAN Total in seconds	This column specifies the total time of MESSAGE_RESCAN events, in seconds.
CALENDAR_RESCAN count	This column specifies the number of times that the CALENDAR_RESCAN event occurs.
CALENDAR_RESCAN Total in seconds	This column specifies the total time of CALENDAR_RESCAN events, in seconds.
MESSAGE_DELETED_RESCAN count	This column specifies the number of times that the MESSAGE_DELETED_RESCAN event occurs.
MESSAGE_DELETED_RESCAN Total in seconds	This column specifies the total time of MESSAGE_DELETED_RESCAN events, in seconds.
MESSAGE_MOVED_RESCAN count	This column specifies the number of times that the MESSAGE_MOVED_RESCAN event occurs.
MESSAGE_MOVED_RESCAN Total in seconds	This column specifies the total time of MESSAGE_MOVED_RESCAN events, in seconds.
MESSAGE_STATUS_RESCAN count	This column specifies the number of times that the MESSAGE_STATUS_RESCAN event occurs.
MESSAGE_STATUS_RESCAN Total in seconds	This column specifies the total time of MESSAGE_STATUS_RESCAN events, in seconds.
RELOAD_FOLDERS count	This column specifies the number of times that the RELOAD_FOLDERS event occurs.
RELOAD_FOLDERS Total in seconds	This column specifies the total time of RELOAD_FOLDERS events, in seconds.
GENERATE_FOLDER_LIST count	This column specifies the number of times that the GENERATE_FOLDER_LIST event occurs.
GENERATE_FOLDER_LIST Total in seconds	This column specifies the total time of GENERATE_FOLDER_LIST events, in seconds.

Column	Description
PIM_ADDRESSBOOK_RESCAN count	This column specifies the number of times that the PIM_ADDRESSBOOK_RESCAN event occurs.
PIM_ADDRESSBOOK_RESCAN Total in seconds	This column specifies the total time of PIM_ADDRESSBOOK_RESCAN events, in seconds.
PIM_MEMO_RESCAN count	This column specifies the number of times that the PIM_MEMO_RESCAN event occurs.
PIM_MEMO_RESCAN Total in seconds	This column specifies the total time of PIM_MEMO_RESCAN events, in seconds.
PIM_TASK_RESCAN count	This column specifies the number of times that the PIM_TASK_RESCAN event occurs.
PIM_TASK_RESCAN Total in seconds	This column specifies the total time of PIM_TASK_RESCAN events, in seconds.
CALENDAR_SLOWSYNC count	This column specifies the number of times that the CALENDAR_SLOWSYNC event occurs.
CALENDAR_SLOWSYNC Total in seconds	This column specifies the total time of CALENDAR_SLOWSYNC events, in seconds.
EMAIL_RECONCILIATION count	This column specifies the number of times that the EMAIL_RECONCILIATION event occurs.
EMAIL_RECONCILIATION Total in seconds	This column specifies the total time of EMAIL_RECONCILIATION events, in seconds.
Log total in seconds	This column specifies the total number of seconds between the first and the last message in the log file.

Port information for the BlackBerry Enterprise Server Resource Kit tools

Port information for tools that connect to the BlackBerry Configuration Database

Tool	Connection type	Default port number
BlackBerry Application Reporting Tool	TCP	1433
BlackBerry Domain Administration History Reporting Tool	TCP	1433
BlackBerry Enterprise Transporter	TCP	1433
BlackBerry IT Policy Import and Export Tool	TCP	1433
BlackBerry Message Receipt Confirmation Tool	TCP	1433

Port information for tools that connect to the BlackBerry Administration Service, BlackBerry Administration API, and BlackBerry Web Services

Tool	Connection type	Default port number
BlackBerry Enterprise Server User Administration Tool	TCP	<ul style="list-style-type: none">BlackBerry Enterprise Server: 443BlackBerry Enterprise Server Express: 8443
BlackBerry Enterprise Transporter	TCP	<ul style="list-style-type: none">BlackBerry Enterprise Server: 443BlackBerry Enterprise Server Express: 8443
BlackBerry Directory Sync Tool	TCP	<ul style="list-style-type: none">BlackBerry Enterprise Server: 443BlackBerry Enterprise Server Express: 8443

Port information for the BlackBerry Message Receipt Confirmation Tool

Action	Connection type	Default port number
Sends messages	MAPI	125

Port information for the BlackBerry System Log Monitoring and Reporting Tool

Action	Connection type	Default port number
Listens for packets	UDP	514
Sends messages over SMTP	TCP	25

Glossary

22

BlackBerry Domain	A BlackBerry Domain consists of the BlackBerry Configuration Database with its users and any BlackBerry Enterprise Server instances that connect to it.
BlackBerry MDS	BlackBerry Mobile Data System
CDO	Collaboration Data Object
CMIME	Compressed Multipurpose Internet Mail Extension
.csv	comma-separated values
IBM DB2 UDB	IBM DB2 Universal Database
IP	Internet Protocol
IP address	An Internet Protocol (IP) address is an identification number that each computer or mobile device uses when it sends or receives information over a network, such as the Internet. This identification number identifies the specific computer or mobile device on the network.
MAPI	Messaging Application Programming Interface
MDAC	Microsoft® Data Access Components
MDM domain	<p>An MDM domain consists of a BlackBerry Mobile Fusion database and any BlackBerry Mobile Fusion services or components that are associated with it. An MDM domain can refer to any of the following environments:</p> <ul style="list-style-type: none">• BlackBerry Enterprise Server domain: A BlackBerry Configuration Database and any BlackBerry Enterprise Server components that are associated with it• BlackBerry Enterprise Server Express domain: A BlackBerry Configuration Database and any BlackBerry Enterprise Server Express components that are associated with it• BlackBerry Device Service domain: A BlackBerry Configuration Database and any BlackBerry Device Service components that are associated with it• Universal Device Service domain: A Management Database and any Universal Device Service components that are associated with it
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

MSMQ	Microsoft® Message Queuing
PIM	personal information management
PIN	personal identification number
SMTP	Simple Mail Transfer Protocol
SQL	Structured Query Language
SRP	Server Routing Protocol
Triple DES	Triple Data Encryption Standard
UAC	User Account Control
UCS	Universal Content Stream
UTF-8	8-bit UCS/Unicode Transformation Format

Legal notice

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