

User & Administrator Guide
Mobile Data Alerter for BlackBerry

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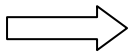
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1. using Mobile Data Alerter

Mobile Data Alerter is a simple yet very effective application. This application monitors all incoming and outgoing data packages. Depending on the active connection type, specific counters are raised and in some cases you or your system administrator is warned in case of excessive data consumption.



Please note this application is not designed to check your mobile service provider's bill! This application helps you understand and become aware of your handhelds mobile data consumption.

We categorize all data traffic into three connection types:

- **WiFi**
- **non-roaming**, your home GPRS/EDGE/3G network
- **roaming**, the donor network you use when not connected to your home network or WiFi network

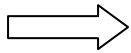


The active network is highlighted in green with a bold heading, also stating (active). In case the WiFi KPN connection is activated we assume all data traffic runs through this connection based on the least cost routing mechanism built into the BlackBerry operating system. Please note that in some cases applications use direct connections and overrule the default least cost routing mechanism. This could lead to an undesired incorrect representation of data consumption. Please check this within the applications you run on your BlackBerry smartphone.

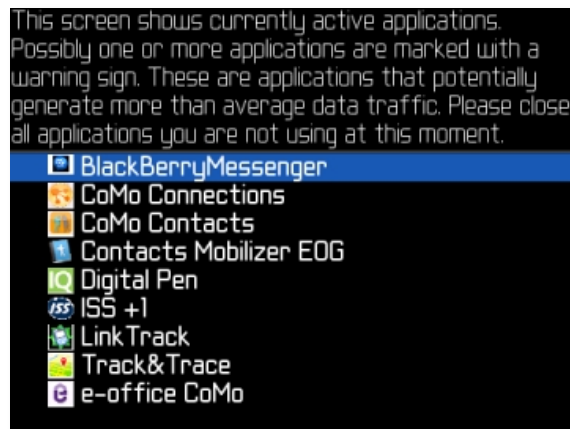
Active incoming and outgoing data traffic is displayed in Kb and/or Mb units transmitted from and to your handheld. For your convenience we've displayed the consumption in a bar graph.

In the sample picture above the user is currently connected to his/her home GPRS/EDGE/3G home network provided by the carrier named NL KPN. The Mobile Data Alerter icon and background changes from green to orange to red, depending on your data consumption and configured thresholds. In the example above 1.2MB (green), 2.9MB (orange) and 5.2MB (red) is consumed.

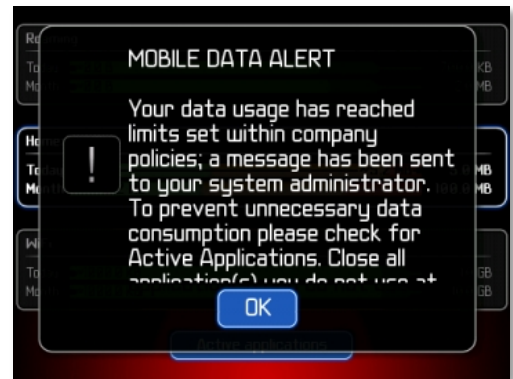
The Active applications button will show a list of applications that run in background on your BlackBerry. Depending on specific IT Policies set on the BlackBerry Enterprise Server some applications are marked with an exclamation sign.



Unfortunately the BlackBerry API's do not allow you to close applications from this screen or switch to a selected application.



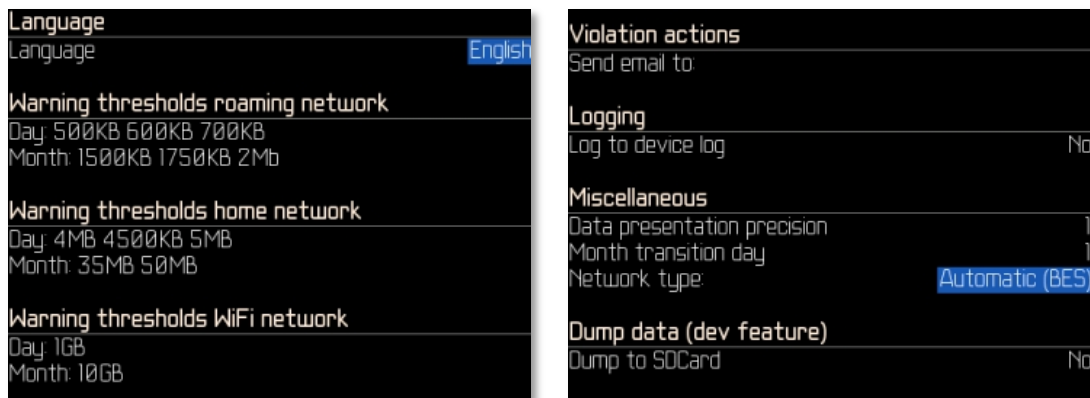
In the event a threshold is surpassed the end-user is notified by a message box. The first message box only alerts the user. The moment the last threshold is met, the Mobile Data Alerter will send out an email message to the system administrator.



2. configuring Mobile Data Alerter

The Mobile Data Alerter application Works on BlackBerry smartphones connected to a BlackBerry Enterprise Server (BES) and BlackBerry smartphones connected to the BlackBerry Internet Service (BIS). Mobile Data Alerter automatically selects the correct network type. BlackBerry smartphones without BES and/or BIS service books provisioned are **not** supported.

Select the Configuration option from the menu to open the screen displayed below.



You are able to set the application language. Currently only English and Dutch language support is available.

2.1. configuring the warning thresholds

Warning thresholds are configured for your roaming and non-roaming GPRS/EDGE/3G and WiFi connections. You must enter at least one value per connection type. You are allowed to enter more than one value per threshold separated with spaces. Only threshold values in KB and MB are valid.

In the picture above three thresholds are configured for the home network:

- 4MB - 4500KB - 5MB

When this number of kilobytes or megabytes is reached, the Mobile Data Alerter will notify you and/or your system administrator. In the sample picture above three thresholds are configured. The first two thresholds will only generate warnings for the BlackBerry smartphone enduser. You can personalize your warnings with sounds and vibrations as well through your BlackBerry smartphones profiles menu. The moment the last threshold is met (or first when there is just one threshold configured), Mobile Data Alerter will send a warning e-mail message to a pre-configured e-mail address. This address is shown in the Violations actions section. BIS users are free to configure this address themselves. BES administrators are able to configure thresholds and this warning e-mail address through IT policies. Once configured with IT policies, the end-user is not able change these values anymore.

3. licenses

The Mobile Data Alerter application requires a license to function. These licenses are automatically requested from <http://mobilicser.e-office.com/MobiLicSerProxyEUA> and transparently returned to the Client application. Only in case of continuing errors, while the license is expired, the user is informed of this. The application requires at least a BIS or BES connection for this retrieval.

For use in enterprises, you can centrally define some settings without the user being able to adjust them in the configuration screen anymore. This requires the device is attached to a BES and the use of IT Policy variables. Enterprise usage has the additional advantage that users do not get prompted with the end user agreement and license download dialogs.

To enable enterprise usage, please send the e-mail domain (not full addresses) of your BlackBerry users to mobile@e-office.com. We will send you a license text which you need to use for a specific IT Policy variable. Please see next chapter for more information.

4. BlackBerry Enterprise Server IT policies

By default, the user can adjust settings in the configuration screen of the application. For enterprise use, you typically want to define settings like thresholds centrally without the user being able to adjust it. By setting IT Policy variables on the BES you can enable the enterprise usage of the application. You require a license text of e-office for the variable 'MobileDataAlerter.Options' to enable enterprise usage. This and additional variables are summed in the following table:

Mobile Data Alerter specific IT Policy variable	default value if not specified
MobileDataAlerter.Thresholds.Roaming.Day	500KB 600KB 700KB
MobileDataAlerter.Thresholds.Roaming.Month	1500KB 1750KB 2Mb
MobileDataAlerter.Thresholds.Home.Day	4MB 4500KB 5MB
MobileDataAlerter.Thresholds.Home.Month	35MB 50MB
MobileDataAlerter.Thresholds.WiFi.Day	1GB
MobileDataAlerter.Thresholds.WiFi.Month	10GB
MobileDataAlerter.Violation.Email	
MobileDataAlerter.Applications.Warning	
MobileDataAlerter.CorrectionFactor45	1024
MobileDataAlerter.MonthTransitionDay	1
MobileDataAlerter.Options	

Check appendix for information on how to set these variables

- **MobileDataAlerter.Thresholds.***: all values represent a certain amount of data traffic. When more than one value is configured the values should be in increasing order. The values must be in KB, MB or GB and have such as a suffix.
- **MobileDataAlerter.Violation.Email**: a valid e-mail address. When no address is configured no messages will be sent
- **MobileDataAlerter.Applications.Warning**: you can highlight applications in the Active Applications screen with exclamation mark signs. You can force this highlighting by entering the application names, separated with semicolons, in this field. For instance Google Maps; Bloomberg etc.. Please note that entering *Maps* as value will not trigger any highlighting of the Google Maps and/or BlackBerry Maps applications.
- **MobileDataAlerter.CorrectionFactor45**: devices running on OS 4.5 do not supply the actual data traffic in bytes. This options allows to correct this behaviour.
- **MobileDataAlerter.MonthTransitionDay**: Align the transition of one period to another with the billing period of your carrier by specifying the day of month.
- **MobileDataAlerter.Options**: Enterprise options to signal the application to enable certain features including using the IT Policy variables

generic IT Policy configuration	value
internal domains	
external domains	
browser filter domains	
disposition	required / optional / disallowed
interprocess communication	allowed
internal network connections	allowed
external network connections	allowed / prompt user
local connections	not permitted
phone access	not permitted
message access	permitted
PIM data access	not permitted
browser filters	not permitted
event injection	not permitted
Bluetooth serial profile	not permitted
BlackBerry Device Keystore	not permitted
Device GPS	not permitted
Theme data	not permitted
User authenticator	not permitted
marked values influence the Mobile Data Alerter	

5. installation

The client distribution package comes with three files:

1. A .COD file
2. An .ALX file
3. A .JAD file

Using these files you are able to install the application by:

1. OTA-push: pushed by the BES using software configurations
2. OTA-pull: pulled by manual install via the Blackberry browser
3. Wired: pulled by manual install via the Desktop Manager

It is advised to do the OTA-push installation because this gives you some advantages:

1. No user interaction required to install the application
2. Centrally control who gets the application
3. Centrally control future updates of the application
4. Centrally control the most important variables

5.1.1. OTA-Pull

For OTA-pull installation you need to rename the COD file with a '.zip' extension and unzip the contents. The unzipped files and the JAD file must be used. The files can then be placed on a web server. Make sure that the web server uses the correct MIME types:

1. JAD: text/vnd.sun.j2me.app-descriptor
2. COD: application/vnd.rim.cod

Use the Blackberry Browser to load the JAD file.

As an alternative you can use the <http://mda.e-office.com> download location.

5.1.2. OTA-Push

For OTA-push installations you need the original COD file (not unzipped as with OTA-Pull) and the ALX file. Please, check the documentation of RIM that came with your BES software package for more information. Here, the steps will be described in short;

1. The files are placed in a certain folder './Common Files/Research In Motion/Shared/Applications/<Application Folder Name>' on the BES.
2. Make sure the folder './Common Files/Research In Motion' has Windows sharing enabled.
3. The 'loader.exe' must be executed with the '/reindex' option.
4. Check that in each application folder containing the COD and JAD files two extra files are created.
5. In the software configuration you must point to the shared folder. Then you can select the applications
6. Assign the software configuration to the user(s)
7. Optionally. In case you have a recent BES, right click the user and select 'Deploy Applications'.

Note

When you add the application in a software configuration, you might also want to set application control policies. With the application policy you can give all applications within the software configuration access to network, phone etc. Without these policies users will be prompted with security warnings during execution.

appendix: setting IT policy variables

The configuration variables which are adjustable by policy have default burnt-in values. To adjust these values afterwards you can use the IT Policy. In this appendix the detailed steps are described for BES 4.1 servers.

A Get to the User Defined Items of the IT Policy

1. In the Blackberry Manager on the BES, do 'Edit Properties' on the 'Blackberry Domain'.
2. Click on 'IT Policy' and then on the button on the right next to 'IT Policies'.
3. Create a new one (or adjust an existing one). A dialog named 'New policy' will open.
4. Select the last item at the bottom: 'User Defined Items'.

B Create an IT Policy Template and populate it with variables.

1. Click the button on the right of 'IT Policy Template'. A dialog named 'IT Policy Template' will open.
2. Click 'new...'. A dialog named 'IT Policy Item' will open.
3. Click on 'IT Policy Template Item' on the left. Now, on the right you can enter the properties of a variable. Do not forget to set the type to 'String' instead of 'Boolean' Note that the name is specified in the exact same casing as the Blackberry reads it case-sensitive.
4. You can repeat with step B.2 to create all the desired variables.
5. When finished with all variables, close the 'IT Policy Template'.

C Specify the values of the variables and assign IT Policy

1. Make sure you are back in the 'Policy' dialog (result of step A.4)
2. Expand 'Policy Item Settings' on the right. You will see all the variables you've created in B.
3. In the right column, you can now enter the values.
4. Close all dialogs.
5. Make sure you are in the 'Global Properties' dialog (result of A.1)
6. Click on 'IT Policy' and then on the button on the right next to 'IT Policy to User Mapping'.
7. Assign the policies and close all dialogs.