
IceWarp Unified Communications

RIM BlackBerry Synchronization Guide

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RIM BlackBerry Synchronization

Blackberry Enterprise Server

IceWarp Server is not compatible with Blackberry Enterprise Server. No middleware is required to synchronize a Blackberry with IceWarp Server using ActiveSync, which further simplifies your network infrastructure.

- If you already have BES installed (i.e. you are migrating from Microsoft Exchange or IBM Lotus Domino infrastructure) and there are numerous Blackberry devices in your organization, you will want to keep it for device management. Furthermore, you will need it to provision the devices with new Enterprise Activation which will allow them to connect directly to Internet (not just to BES server) and then to IceWarp Server. For details, see the documentation for BES. When done, each device must request the new settings using **Home – Options – Enterprise Activate**.

NOTE: BES can be used together with any IMAP server for email synchronization (only), including IceWarp Mail Server. The disadvantage of this setup is that BES polls the email server each couple of minutes for new messages, instead of pushing email down to the device as it arrives. On high-volume, high-traffic email servers or whenever traffic volume is a concern, this will cause undesired server traffic and can significantly decrease the server performance. Therefore such a setup is not recommended.

- If you don't have your own BES server (i.e. you are migrating from hosted Exchange for example), you will not need it. Instead, each Blackberry user will need to subscribe to BIS (Blackberry Internet Service) provided through RIM by your wireless carrier (Verizon, T-Mobile...) for a monthly fee which can be arranged with a limited or unlimited data plan included.
- If you are new to Blackberry or there are only users who do not synchronize with any server yet, each Blackberry user will need to subscribe to BIS (Blackberry Internet Service) provided through RIM by your wireless carrier (Verizon, T-Mobile..) for a monthly fee which can be arranged with a limited or unlimited data plan included.
- If there are only a couple of Blackberry devices and you do not want to use BES nor BIS, you can provision the devices using Blackberry Desktop Manager to enable direct connection to Internet, using WAP or TCP/IP.

Choosing the Wireless Connection

Depending on the selected scenario, the device needs to be able to connect to Internet (and to IceWarp Server) by any of the following three protocols. Corresponding Service Books need to be installed on the device, provided either wirelessly through BES Enterprise Activation, through wired connection using Blackberry Desktop Manager (TCP/IP, WAP) or automatically upon subscription by the wireless carrier (BIS).

- **For TCP/IP: *Service Book Desktop [IPPP] or BlackBerry [IPPP]****
Contains information that is required to use and browse the Internet using the BlackBerry® Mobile Data System (BlackBerry MDS).
- **For WAP: *WAP Transport [WAP] or WAP2 Transport [WPTCP]***
Contains information that is required to connect to a wireless provider's WAP 1.x or 2.x gateway respectively.
- **For BIS: *5 Click [BrowserConfig] or 5 Click [IPPP] or 5 Click [WAP], optional <blackberry_email_address> [CMIME]***
Contains settings that are used to create a new BlackBerry® Internet Service account or maintain an existing one, and send and receive email through BIS. These are deployed automatically upon the BIS subscription (leave a few hours to propagate) and you do not need to worry about them any more. Simply contact the wireless provider should any connectivity issues arise.

Technically, the choice of protocol should not make any difference. However, each Blackberry OS version implements the stacks differently and there can be rare cases where a protocol stack on a particular device running a particular OS version has a bug and the user needs to make a different choice to resolve a malfunction.

There are significant differences in regard to billing, security and performance which need to be noted. We strongly recommend BIS for simplicity of deployment. BIS is supported by the wireless service provider. For support of BES you need to contact RIM. No further instructions from IceWarp are available about the connectivity configuration.

	BIS	TCP/IP	WAP
Cost	Requires data plan specific to Blackberry	Requires extra data plan (any type, non-Blackberry)	Billed per minute or included in voice plan
Configuration	By carrier, easy	By BES or BDM, not trivial + APN set on device	By BES, simple
Routing	Through Ontario, Canada based RIM data center	Direct through carrier	
Speed (downlink, kbit/s)	EDGE up to 236.8 UMTS up to 384 HSDPA up to 7372.8		GSM up to 9.6

Alternatively, you can use the built-in WiFi (where available) to establish connection to Internet, but synchronization will then only work when you are within the WiFi coverage. This may again require activation through BES or wireless carrier.

BIS Email Account

With each BIS activation, you will automatically obtain an email account (such as user@organization.blackberry.com) hosted on RIM servers. This will integrate with the Email icon and home screen message preview, while the other email accounts hosted on your IceWarp Server will be available only through the AstraSync or NotifySync icon.

This free account can be configured to download either user's private (AOL, Gmail, Yahoo) email to the Blackberry device, or even integrate with a corporate email account hosted on your IceWarp Server.

However, this setup may not provide the exactly same Push experience and may cause unwanted server traffic. RIM servers connect through IMAP to IceWarp Server to check for new and unread messages. Some are polling the server each 10-15 minutes (resulting in delivery delay of 10-15 minutes), while some have been already upgraded to instantaneous mailbox updates through IMAP IDLE command which IceWarp Server fully supports. Still the IMAP reconnects can result in more data traffic (and lower battery life) than with ActiveSync DirectPush. For simplicity of deployment, using BIS email account for Push email is not recommended.

Plug-in Installation

1. Make sure you can connect to IceWarp by accessing WebClient in your browser:
<http://<mx.yourdomain.com>:32000/webmail/pda/>
2. Note for BIS only. If you intend to use the email account that comes with your BIS subscription (see the **BIS Email Account** chapter) in addition to your company's account serviced by the plug-in, you will need to activate the BIS account first and delete the conflicting [CICAL] Service Book.
 - * The BIS account is activated through a web based wizard. The exact URL will be communicated to you upon your subscription.
 - * Once setup on the web, wait about one hour to allow for the service books to be sent down to the device. You will get a confirmation message once done.
 - * Delete the [CICAL] Service Book before installing AstraSync or NotifySync. From the device Home screen, select **Options – Advanced Options – Service Book**. Locate any items that end with [CICAL] and remove them by selecting the **Delete** action from the context menu.
 - * If you are experiencing calendar issues because you have setup a BIS account after the plugin was installed, do the same as in the preceding step.
 - * If you choose to activate the BIS account later, you will need to deactivate the synchronization through plugin first, then activate the BIS email account, wait one hour to receive the Service Books, then delete the [CICAL] service book, perform a soft reset and reactivate the plug-in synchronization again.
3. Register for a free trial with the plug-in vendor. The purchase can then be made directly from the application or from the web portal. No reinstallation is needed.
http://www.notifycorp.com/free_eval_form/notifysync/index.htm
<https://www.astrasync.com/portal/login.aspx>
4. Open the Browser and type the appropriate URL to install the plug-in over-the-air:
<http://notifysync.notify.net/ota.asp>
<http://astrasync.com/dwl>
5. Or download the installation archive from the vendor's website and install it using the Blackberry Desktop Manager. Do NOT use any synchronization software to synchronize your Email and PIM once the installation is complete. This can cause item duplication.
6. Follow the installation wizard. See the **ActiveSync – On-device Setup** chapter for basic instructions. For details, refer to documentation that comes with the plug-in and/or resources on website of the respective plug-in vendor:
<http://help.notify.net/TechDocs/device/BBP/UserGuide/NetHelp/>
<http://www.astrasync.com/support/Manual/>

Installing an SSL Certificate

Many mail servers will require an encrypted connection, and so will need to establish an SSL protected session. The server's certificate may automatically be accepted by the BlackBerry device.

If the certificate is not accepted, you will see an error message, with the option to trust the certificate. It is likely that trusting the certificate directly from the error message will not resolve the issue, and your phone will subsequently give the error message: 'The certificate could not be added to the Trusted Key Store due to IT Policy restrictions.' To resolve this issue:

- Open the BlackBerry browser and go to your server's URL. Generally this is your WebClient address without the **/webmail** trailing.
- Trust the certificate here following the popup that appears.
- Return to plug-in application to see whether the error has gone away.
If the problem still persists:
- On the device's main menu, select **Settings – Security Options – Certificates**.
- Find the **mail.example.com** certificate relating to your server and select it.
- Press **Menu**.
- Select **Trust**.
- Press **Menu** again on the certificate.
- Select **Details**.
- Select **Fetch Status**.

ActiveSync Alternatives

To cut costs, you can consider using **SyncML** rather than **ActiveSync**, with the option of a free, open-source **Funambol** plug-in, or the commercial (and supported) **SyncJe** plugin.

The same conditions for network connectivity as with ActiveSync apply, see the **Choosing the Wireless Connection** chapter.

Inspect the logs to see if the RIM or Funambol servers are using IMAP IDLE to connect to your mail server. If not, reconsider the traffic and performance implications these connections will have and better use ActiveSync.

Mind the privacy implications arising from the use of 3rd party services. For details, refer to legal information on the providers' websites:

http://www.blackberry.com/legal/pdfs/BIS/BIS_EUA_Global_English.pdf

http://my.funambol.com/c/portal/layout?_fnbl_guest_tabs1=terms_and_conditions

http://my.funambol.com/c/portal/layout?p_l_id=PUB.1001.1&_fnbl_guest_tabs1=privacy_policy

1. For email, setup the BIS email account (if available) to download messages from your corporate email account hosted on IceWarp Server.
2. Optionally, you can use an alternative to BIS by Funambol, a free service to push messages to your mobile phone which is normally only delayed a couple minutes. You do not even need a BIS subscription, just a working Internet connection (with an adequate data plan).

When you sign up for the Funambol service, they will provide you the appropriate client that should be installed on your Blackberry device. Sign-up for the service at My Funambol Portal:

<http://my.funambol.com/>

Or directly download and install the Funambol Push Email Client (free) without any registration:

<https://www.forge.funambol.org/download/downloads-bb.html>

Once you sign up with the Funambol service (and install the Funambol client application), you can (just as with the Blackberry Internet Service) configure Funambol to scan your corporate mailbox for new and unread messages. If a new message is found, the Funambol service will push the message to the Blackberry device and the Funambol email client program on your Blackberry, where you can read, reply, forward the email or compose a new message.

This method provides a significant cost savings over the BIS service with only a modest diminution in performance.

NOTE: There is no integration with the built-in Email icon and homescreen preview just as with ActiveSync.

NOTE: The My Funambol service also provides the option to backup your contacts and calendars to Funambol server (to "cloud"). For privacy and performance reasons, we recommend to turn off this option and instead use a direct synchronization with IceWarp Server only for contacts, calendars, tasks and notes (read below).

3. For contacts, calendar, tasks and notes, download and install either of these SyncML clients:

<https://www.forge.funambol.org/download/downloads-bb.html>

SyncJe 2.47 (paid)

http://nexthaus.com/products_b_blackBerry.html

Funambol 7.2 (free)

SyncML setup for Blackberry is the same as for other mobile platforms. Configuration through SMS is not supported on Blackberry devices.

For instructions and other information on SyncML, please refer to the appropriate section of the IceWarp documentation.

For client configuration, refer to the documentation supplied with these clients or the vendor's websites.