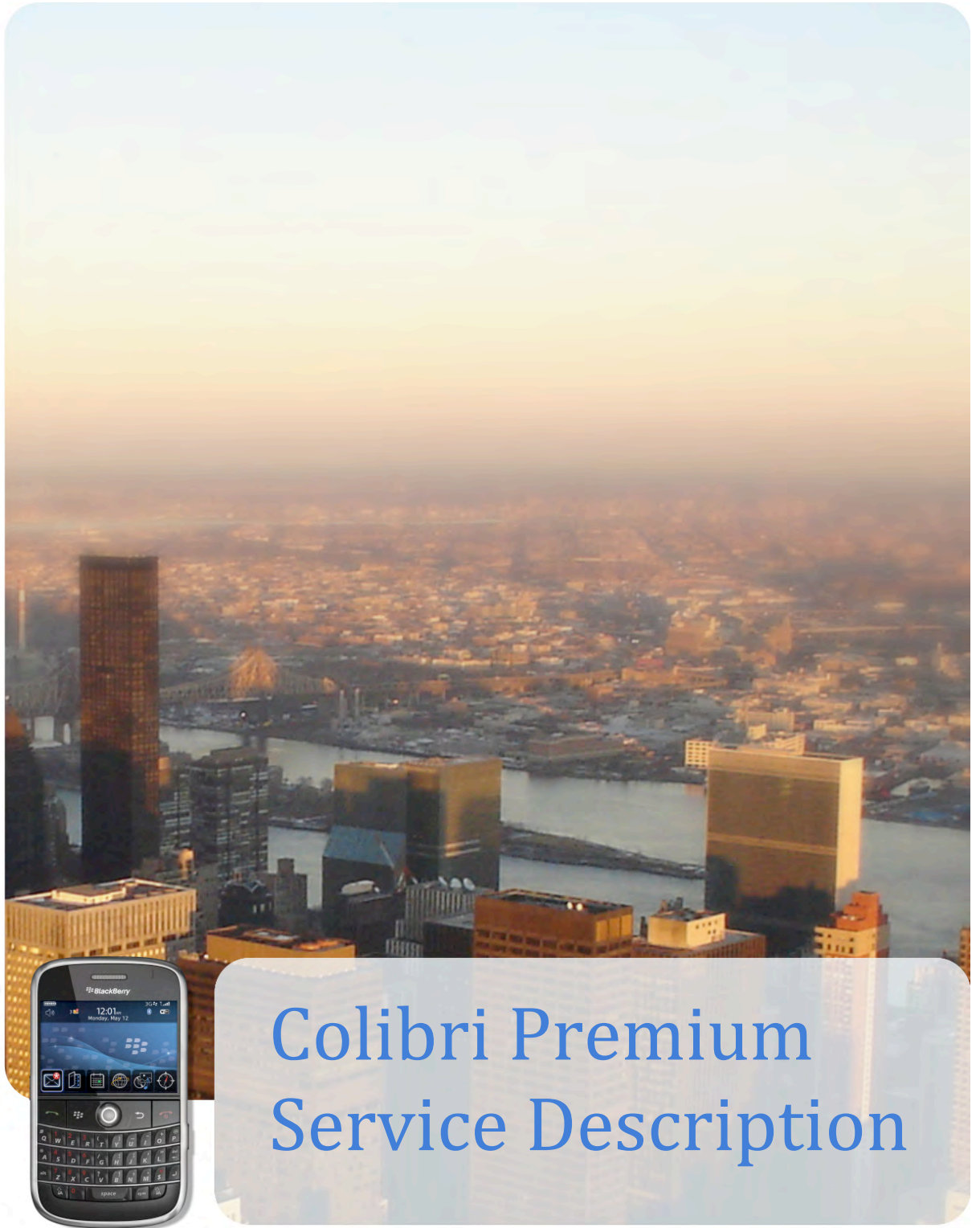




# ColibriMobile



## Colibri Premium Service Description

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## 1 What is Colibri Premium?

Colibri Premium is your mobile office on your BlackBerry handheld, with wireless email, calendar and address book synchronization, and Internet browsing. Colibri Premium is particularly suitable for small to medium-sized enterprises (SMEs) and individuals. Colibri Premium is based on the tested BlackBerry solution that gives mobile users up-to-date access to their email, calendar and address book, anytime and anywhere.

Colibri Premium is an end-to-end hosted service that seamlessly integrates with an existing Microsoft Exchange mail server.

### 1.1 Colibri Premium and BlackBerry: distinguishing features

#### **Always On, Always Connected**

BlackBerry and Colibri Premium are designed to provide the user with continuous access to his email, calendar and address book. The 'push' technology sends messages automatically and immediately to the BlackBerry handheld, as soon as the messages arrive in the users' mailbox, and synchronizes sent messages from the BlackBerry handheld automatically with the users' mailbox, thus provides bidirectional synchronization.

#### **Seamless integration**

Colibri Premium seamlessly integrates with the most common email system in the world: Microsoft Exchange

#### **High level of security**

The Colibri server communicates with the Microsoft Exchange server of the customer. Optionally this communication can take place through an HTTPS-connection with 128-bit encryption using a signed digital certificate. Using an HTTPS-connection is highly recommended. Messages between the BlackBerry handhelds and the Colibri hosting center are always encrypted by the AES/3DES encryption protocol. When using an HTTPS-connection, BlackBerry and Colibri Premium provide an end-to-end solution with a high level of security.

#### **Subscription-based service**

Colibri Premium is a subscription-based service. This means that you don't have to invest in hardware, software, installation and ongoing maintenance. All that plus activation and upgrades are completely taken care of by Colibri Mobile.

**User-friendly devices**

Colibri Premium works with BlackBerry handhelds, or BlackBerry enabled devices with the latest version of BlackBerry Connect software installed. All communication takes place from one single device, which is comparable to the functionalities of a desktop email environment. Both data and applications will be stored in a flash memory, which will be saved when the battery is empty.

**Completely wireless**

The BlackBerry solution is a platform for both wireless data traffic and voice. Wireless access to email, address book and calendar is possible in almost every country around the world using a GPRS, EDGE or UMTS network. The high security level and user-friendliness of the device compares very favorably with other wireless data solutions on the market.

## 1.2 [Components of the Colibri Premium service](#)

A complete hosted BlackBerry solution consists of the following three parts:

**Colibri Premium subscription**

With this service, wireless bidirectional synchronization of email messages, address book and calendar takes place between the BlackBerry handheld and the user's existing Microsoft Exchange mailbox. Colibri Premium is especially suitable for Small and Medium-sized Enterprises (SME) that want enterprise-class BlackBerry functionality without the significant costs of running and maintaining an own BlackBerry infrastructure.

**BlackBerry airtime subscription**

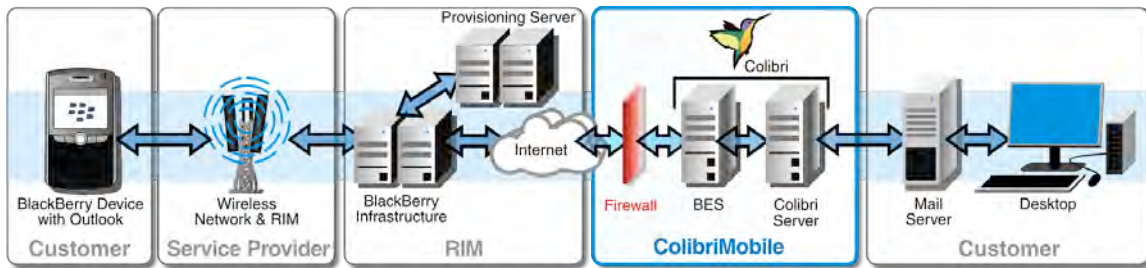
Mobile operators offer various BlackBerry subscriptions according to likely usage. Contact your mobile operator to find out what is the best offer for you.

**BlackBerry handheld**

The Colibri Premium service runs on BlackBerry handhelds or other BlackBerry enabled devices with the latest version of BlackBerry Connect software installed.

### 1.3 The Colibri Premium solution visualized

The figure below shows the infrastructure of Colibri Premium. Terms used in this figure are explained below:



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Figure 1.1: Infrastructure of Colibri Premium

#### Provider

The network of the mobile operator.

#### RIM

Research in Motion (RIM) provides a permanent, secure data infrastructure for routing BlackBerry traffic.

#### Colibri Server

Manages data synchronization between the BlackBerry handheld and the user's Microsoft Exchange mail server.

#### Mail Server

The user's primary Microsoft Exchange mail server.

### 1.4 Synchronization with Colibri Premium

Every Colibri Premium user has access to his personal email messages, calendar and address book with his BlackBerry handheld. In addition to this, the BlackBerry handheld can also be used to browse the Internet. With Colibri Premium, emails, address book and calendar are synchronized wirelessly. Tasks and memos can be synchronized by using a USB-cable and PC or laptop with Desktop Manager software installed.

Colibri Premium provides wireless synchronization of the following items:

**Email**

- New emails (inbox)
- Read/unread status changes
- Deleted emails
- Sent emails\*

**Calendar**

- New appointments
- Appointment changes
- Deleted appointments
- Meeting requests
- Recurring appointments\*\*

**Address Book**

- New contacts
- Changed contact details
- Deleted contacts

\*Only emails sent from a BlackBerry handheld are wirelessly synchronized with the Outlook mailbox. Emails sent from a PC are not wirelessly synchronized with the BlackBerry handheld.

\*\*Recurring appointments are only synchronized if the master appointment is not older than 12 years.

Colibri Premium does not provide wireless bidirectional synchronization of:

- Tasks and memos
- Attachments to appointments and contacts
- Email in the inbox's subfolders
- Recurring appointments if the master appointment is older than 12 years
- Emails sent from a PC by using Outlook

Synchronization of these items requires a wired USB connection to the user's laptop or desktop PC. At last, Colibri Premium does not provide global address book lookup.

## 1.5 Prerequisites for Colibri Premium

To be able to use the BlackBerry handheld with the Colibri Premium service, the company's environment needs to comply with the following specifications:

### **Software**

1. Microsoft Exchange Server 2000 or higher, or Microsoft Small Business Server 2000 or higher
2. When using a Microsoft Small Business Server, Forms Based Authentication must be switched off
3. Outlook Web Access must be accessible through HTTP or HTTPS

### **Other**

1. A BES-provisioned SIM-card (not BIS)
2. A permanent connection from the mail server to the Internet
3. An Internet connection with sufficient bandwidth

Because of incompatibility reasons, Colibri Premium does not work with Microsoft Internet Security and Acceleration Server (ISA).

## 1.6 Security

### 1.6.1 BlackBerry security

The BlackBerry solution uses the so-called 'Five Point Security Model'. This model consists of the following parts:

#### **AES encryption**

By applying AES encryption, emails will be encrypted when they are sent from the BlackBerry handheld. When the emails arrive at the BlackBerry Enterprise Server, they will be decrypted again. This process is also used when sending data to the device. The encryption code creates a secure AES/3DES encrypted transport from the BlackBerry Enterprise Server to the BlackBerry handheld and vice versa.

#### **No data stored on the BlackBerry Enterprise Server**

The BlackBerry Enterprise Server monitors all information exchange between the wireless network and the mail server. However, there is no customer data stored on the BlackBerry Enterprise Server, but only on the Colibri server. The BlackBerry Enterprise Server itself only forwards from and to the mail server. Also, no communication can take place between the BlackBerry Enterprise Server and the mail server without a valid encryption code.

**An 'outbound' initiated and authenticated, bidirectional connection to the wireless network**

This connection is initiated by the BlackBerry Enterprise Server (which is located at Colibri Mobile) and no other host, inside or outside Colibri Mobile, can initiate this connection. Only when the connection is authenticated, secure communication will take place between the BlackBerry Enterprise Server and the BlackBerry handheld.

**No staging area**

There is no staging area where data is decrypted and encrypted. That means that there is always a fully encrypted data transfer from the BlackBerry Enterprise Server to the BlackBerry handheld and vice versa.

**Password on the device**

Every user can specify a password to secure the BlackBerry handheld from unwanted usage. This is highly recommended.

## 1.6.2 Colibri Premium solution security

**Default security level**

The Colibri solution delivers BlackBerry functionality by integrating with the end-user's Microsoft Exchange mail environment. The Colibri platform connects to the end-user's mail environment using WebDAV requests. In order to successfully make these requests, Outlook Web Access (OWA) needs to be activated within the end-user's Microsoft Exchange environment. The following user credentials are required to connect to the user's mailbox:

- The URL of Outlook Web Access
- The domain name
- The user's email address, username and password

This information will allow the Colibri server to connect to this specific mailbox only.

**HTTPS security level**

Colibri works seamlessly with security certificates installed on the Outlook Web Access server to allow HTTPS connectivity. If a certificate is in place, it will allow the Colibri platform to communicate with the Microsoft Exchange environment over a secured connection, encrypting all information that is sent back and forth. The secured connection will use the Secured Sockets Layer (SSL) protocol. The SSL protocol is commonly used for managing the security of a message transmission on the Internet. SSL uses a program layer located between the Internet's Hypertext Transfer Protocol (HTTP) and Transmission Control Protocol (TCP) layers. The "sockets" part of the term refers to the sockets method of passing data back and forth between a client and server program in a network, in this case between the Colibri platform and the end-user's Microsoft Exchange environment over the Internet.

**IP restriction security level**

Next to or in combination with the options already mentioned above, the end-user also has the ability to restrict access to Outlook Web Access to a limited range of IP addresses. More specifically, access to the end-user's environment can be limited to the IP addresses used by the Colibri platform.

**1.7**      **Roaming**

It is possible to use Colibri Premium and the BlackBerry handheld abroad. To use the services of Colibri Premium abroad, the user needs to select an operator that has a GPRS, EDGE or UMTS roaming agreement (depending on the device) with operators in countries they will be travelling in. For more information about roaming agreements, please contact your mobile operator.

**1.8**      **Quick and effective communication**

BlackBerry users can be constantly online using GPRS. While being online, it is possible to set up and receive a GSM conversation. With most of the latest BlackBerry handhelds that have UMTS enabled, it is possible to receive data and make phone calls at the same time. With older versions of BlackBerry handhelds, data traffic will be interrupted when making a phone call or sending a text message and will be pursued after ending the call or text message.

## 2 Colibri Premium support

This chapter describes the support service offered to Colibri Premium users. In case of an interruption of the GSM and/or GPRS network service, the mobile operator or reseller should be contacted. Also questions regarding malfunctioning of the device itself can be addressed to the mobile operator or reseller. Colibri Mobile can be contacted for all questions regarding the Colibri solution.

### 2.1 2.1 Activation and de-activation of BlackBerry handhelds

#### **Loss or theft**

In case of theft or loss of a device, the end-user should contact the Colibri Mobile support desk immediately. They will wipe the device in case the SIM card is still active and inside the device. This means that all data will be removed from the device and no new messages will be sent to the device. After having the device wiped, the mobile operator needs be contacted in order to block the SIM card.

#### **Activation of new BlackBerry handhelds**

In order to start using a new or replaced BlackBerry handheld, it needs to be connected to the Colibri platform. Colibri Mobile will take care for the connection and activation of new devices.

### 2.2 Professional support

#### **Support desk**

When a problem occurs, Colibri users can contact the Colibri Mobile helpdesk during office hours from 08.00 till 17.00 hours GMT.

#### **Coordination of a support issue**

In case of a support issue, the support team can identify and resolve the issue. The support team will monitor the process. When resolving takes longer than expected, Colibri Mobile will contact the customer.

## 2.3 Colibri Premium management

The Colibri Premium components are monitored proactively, meaning that Colibri Mobile constantly monitors whether the Colibri Premium service is up and running. Interruptions will be solved immediately.

### **Maintenance**

Planned maintenance will be done on Wednesdays between 21.00 and 01.00 hours GMT. Planned maintenance which causes longer interruption of the service and/or connectivity loss will be communicated to the customer.

### **Office hours**

The office hours for the Colibri department of Colibri Mobile are Monday till Friday from 08:00 till 17:00 hours GMT.

## Definitions

### 3DES

Triple DES (3DES) is an encryption algorithm formed from the Data Encryption Standard (DES) cipher by using it three times.

### AES

Advanced Encryption Standard, is an encryption algorithm for securing sensitive but unclassified material by U.S. Government agencies and, as a likely consequence, may eventually become the de facto encryption standard for commercial transactions in the private sector.

### Colibri Premium

A Colibri Mobile service enabling full synchronization of email, address book and calendar with the BlackBerry handheld and the data on an external mail server. Web browsing and application usage is possible as well.

### EDGE

Enhanced Data rates for GSM Evolution (EDGE) or Enhanced GPRS (EGPRS), is a digital mobile phone technology that allows increased data transmission rate and improved data transmission reliability.

### Firewall

A firewall is a logical barrier designed to prevent unauthorized or unwanted communications between sections of a computer network.

### GPRS

General Packet Radio Service (GPRS) makes data traffic possible across wireless networks.

### HTTP

Hypertext Transfer Protocol (HTTP) is a method used for transferring or conveying information on the Internet. HTTP is a request/response protocol between clients and servers.

### HTTPS

HTTPS refers to the combination of a normal HTTP interaction over an encrypted Secure Socket Layers (SSL). This ensures reasonable protection against eavesdropping and hacking.

### IP address

An IP address (Internet Protocol address) is a unique address that devices use in order to identify and communicate with each other on a computer network utilizing the Internet Protocol standard (IP).

#### Master appointment

The first appointment in the calendar when setting up a recurring appointment.

#### OWA

Outlook Web Access (OWA) is a webmail service of Microsoft Exchange Server 5.0 and later, originally called Exchange Web Connect. OWA is used to access email, calendars, contacts, tasks and other mailbox contents while on the go.

#### RIM

Research In Motion (RIM) is a Canadian company known as the developer of the BlackBerry solution.

#### Roaming

Roaming is a general term in wireless telecommunications that refers to the extending of a connectivity service in a location that is different from the home location where the service was registered.

#### Smartphone

A smartphone is any electronic device that integrates the functionality of a mobile phone, personal digital assistant (PDA) or other information appliance.

#### SSL

Secure Sockets Layer (SSL) is a cryptographic protocol, which provides secure communications on the Internet for such things as web browsing, email, Internet faxing, and other data transfers.

#### TCP

TCP (Transmission Control Protocol) is a set of rules used along with the Internet Protocol (IP) to send data in the form of message units between computers over the Internet. While IP takes care of handling the actual delivery of the data, TCP takes care of keeping track of the individual units of data that a message is divided into for efficient routing through the Internet.

#### UMTS

Universal Mobile Telecommunications Service is a third-generation (3G) broadband, packet-based transmission of text, digitized voice, video, and multimedia at data rates up to 2 megabits per second. The services associated with UMTS or 3G provide the ability to transfer simultaneously both voice data (a telephone call) and non-voice data (such as downloading information, exchanging email and instant messaging).

#### URL

Uniform Resource Locator, previously Universal Resource Locator, is the unique address for a file that is accessible on the Internet.

#### WebDAV

Web-based Distributed Authoring and Versioning, refers to the set of extensions to the HTTPS protocol that the group defined which allows users to collaboratively edit and manage files on remote web servers.

#### Webmail

Webmail is a web application that allows users to access their email through the Internet, as an alternative to using an email client such as Microsoft Outlook.