

IT support – Installing BlackBerry Enterprise Server (BES)



Mobile information technology services are quickly gaining popularity in enterprises and institutions. The BlackBerry Company provides businesses with solutions that synchronize email service with their employees' mobile phones. There are two such services on the market, and they are BIS and BES. In this article, we will focus on the latter. The BES Server redirects e-mails to the terminal and provides centralized control over all BlackBerry devices in the company. It is surely a very convenient solution and aids in the functioning and controlling of a business, therefore influencing work results.

Two variants of the BlackBerry service are available on the market. Depending on the selected service, it must be activated by the mobile phone network operator:

- **BlackBerry Internet Service (BIS)** – it is a service that allows using email on the BlackBerry terminal. It allows supporting up to 10 email accounts, therefore it is dedicated to individual customers and small businesses, where the most important thing is accessing emails and being able to send them directly from the terminal. Mailbox configuration can be performed both from the device itself - using a simple mail setup wizard – or from web browser level. Every operator has a separate Web portal, where, after entering the device's IMEI number and PIN code, an account can be set up, through which the email inboxes can be managed.
- **BlackBerry Enterprise Server (BES)**. – it is a service for companies that use mail systems such as Lotus, Exchange, Novell or Groupwise. It Provides access from terminal level not only to email service, but also to the contacts list, calendar and tasks, which are an intergral part of an email inbox, as well as to the shared files that can be found on the servers of our organization. Another advantage of this technology is the fact, that devices are managed centrally by the administrator.

In this article, we will focus on the operation and configuration of the BES service based on free BlackBerry Enterprise Server Express software that works in an organization with the mail system [Microsoft Exchange 2010](#).

1. The organization must have at least one email server to be able to fully use the abovementioned advantages of the BES service. It is necessary to install special software on one of these servers.

The BlackBerry Enterprise Server Express application can be downloaded directly from the company website (<http://worldwide.blackberry.com/pl/>) after registration. The software is free, with no hidden costs.

In this article we will discuss the installation of the service on a Microsoft Exchange mail server. According to BlackBerry recommendations we can use this server as long as the number of terminals we wish to connect does not exceed 75. Apart from the disk space needed for installation, we need to allocate 1.5 GB of RAM to the needs of running BlackBerry services.

If the number of terminals is greater than 75, the BlackBerry Enterprise Server Express application must be installed on a dedicated server. The latest version of this service also supports virtual environments based on Hyper-V and VMware technologies.

The server's operating system required for properly operating BlackBerry services is Windows Windows Server 2003/2008 or Windows 2003/2008 R2, in both 32 - and 64-bit versions. BESx can also be installed on Windows Small Business 2003/2008.

Supported mail servers of Microsoft products are:

- Microsoft Exchange 2010
- Microsoft Exchange 2007 SP2
- Microsoft Exchange 2003 SP2

2. After downloading the software and preparing the server, we can proceed to the actual installation process. First, we have to create an account in the domain for BESx and give it the appropriate permissions. It is very important to properly configure our account, otherwise there may be problems of the installation or later with synchronization of all elements (e-mail, contacts, calendar) with the terminal. The type of granted permission varies depending on our version of the mail server.

According with the accepted terminology, the account should be called "BESAdmin". Along with the account, we must create an email inbox. As per the assumptions, our server is MS Exchange 2010, so we must add the following permissions:

- Receive email:

Get-MailboxDatabase | Add-ADPermission -User "BESAdmin" - AccessRightsExtendedRight -ExtendedRights

Receive-As, ms-Exch-Store-Admin.

- Add the BESAdmin account to the View-Only Organization Management group:

Add-RoleGroupMember "View-Only Organization Management" - Member "BESAdmin".

- Send (the following command gives the user “BESAdmin “ permission to send on behalf of users located in a specific container in Active Directory):

Add-ADPermission -InheritedObjectType User - InheritanceTypeDescendants - ExtendedRights Send-As -User "BESAdmin" -Identity

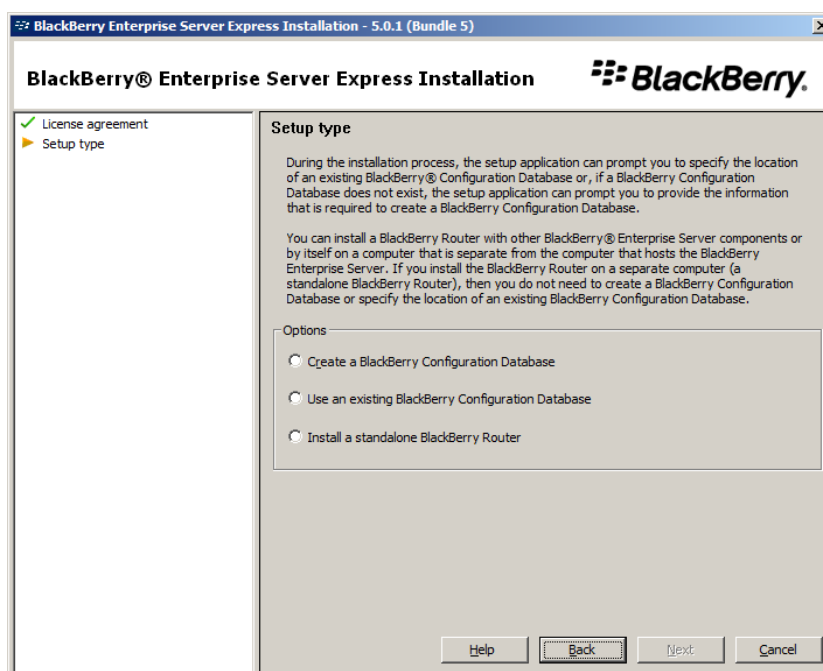
"OU=<organizational_unit>,DC=<domain_1>,DC=<domain_2>,DC=<domain_3>

- The BESAdmin account also must be added to the local administrators group on the server the application will be installed on (the account cannot be a member of the Domain Administrators group).

By default, Exchange 2010 limits the number of connections of the BlackBerry server to the global phone book to 50 simultaneous connections. If we have more terminals, we should increase this limit. This can be done on the Exchange server that is running the Client Access role (CAS). It is necessary to modify the file *microsoft.exchange.addressbook.service.exe.config*, which is located in *<drive>:\Program Files\Microsoft\Exchange Server\V14\Bin*. The parameter „MaxSessionsPerUser” is responsible for the number of connections.

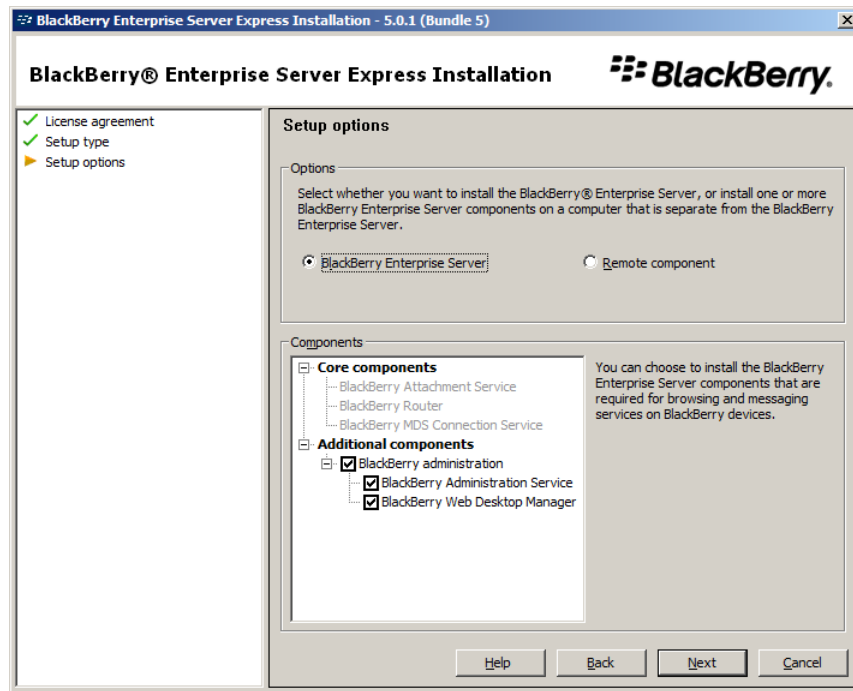
We also have to install Collaboration Data Objects version 1.2.1 on our server. It can be downloaded from the Microsoft website. Microsoft Office cannot be installed on the server.

3. Once that is done, we can proceed to install the software. For this purpose, we log in to the BESAdmin account created on the server and run the installer. After accepting the license agreement, we must decide whether to create a new database with the BESx configuration or if we already have one and only want to connect to it (schema 1). In this case, we will be creating a new database.



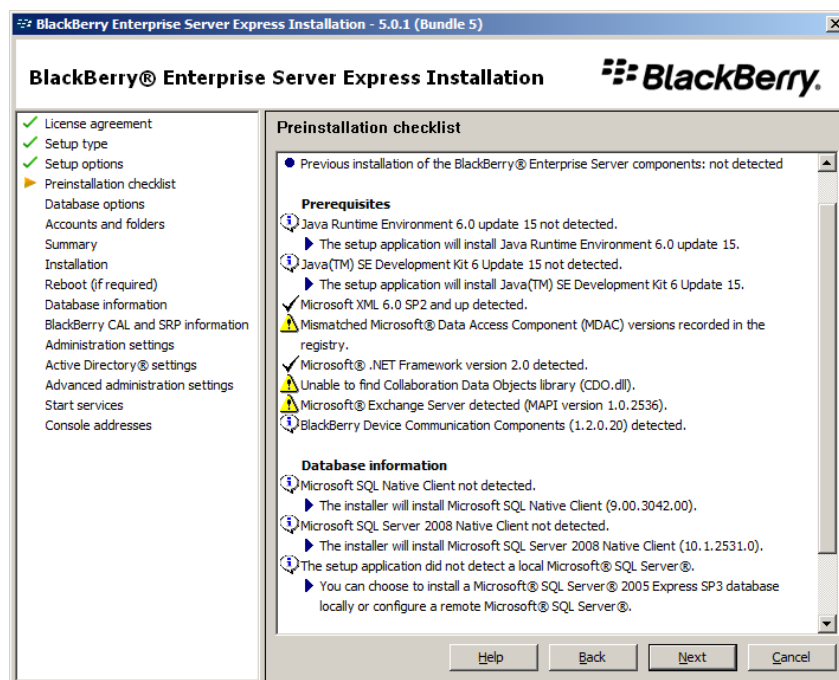
Scheme 1 - Installation of BESx

Next, we select the components that we wish to install (scheme 2). Of course, the BESx application itself must be installed on the server on which the installer is being run, but the tools to manage BESx can be installed on a different server.



Scheme 2 - Installation of BESx: the choice of components

At this stage we can see that the management of BESx can be reached via a web browser (this has been implemented since the fifth version of BESx) so we can manage the server from any computer in the network.

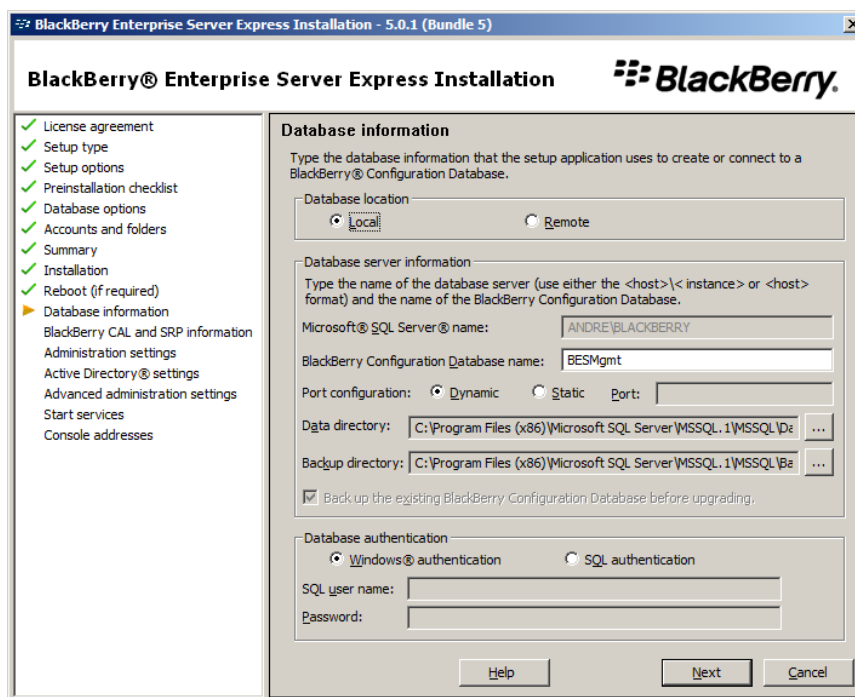


Scheme 3 - Installation of BESx: checklist before installing

The next step of the installer is to verify the granted permissions' correctness to a BESAdmin user. What's more, it displays information about which components are missing in the system and if the program will install them by itself (scheme 3).

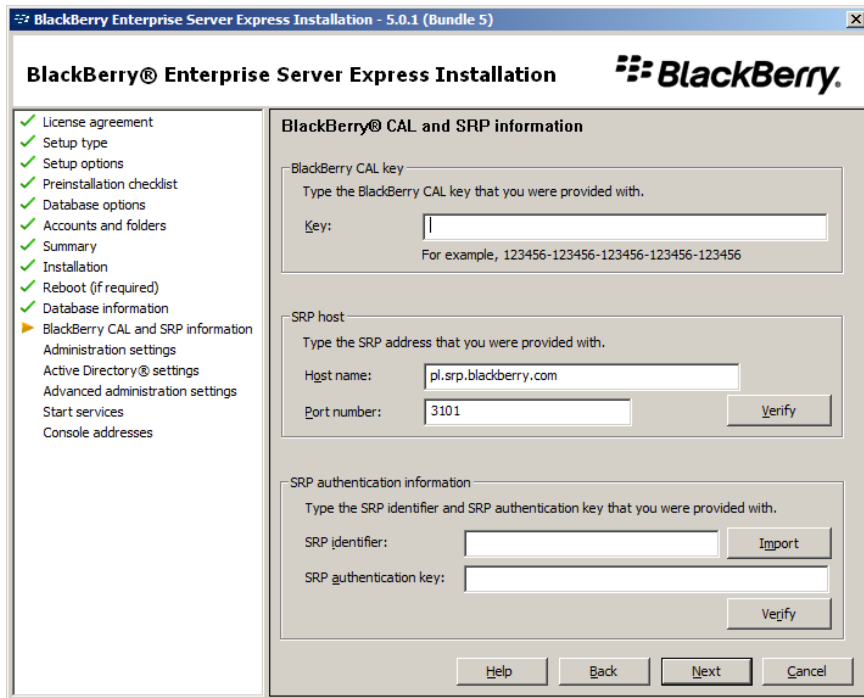
We will have to meet all the requirements of the installer before the installation. Then we must decide if we want to use the SQL server we already have in our organization or if we want to install a new one. By default, the BESx installer will offer to install the Microsoft SQL Server 2005 Express SP3

Then, we indicate the location for installing the application, the location of logs, and credentials for the BESAdmin account. The BlackBerry services will run on this account. After installation and server reboot, we log in to the BESAdmin account – the BESx configuration wizard should launch immediately.



Scheme 4 - Installation of BESx: re-run the installer

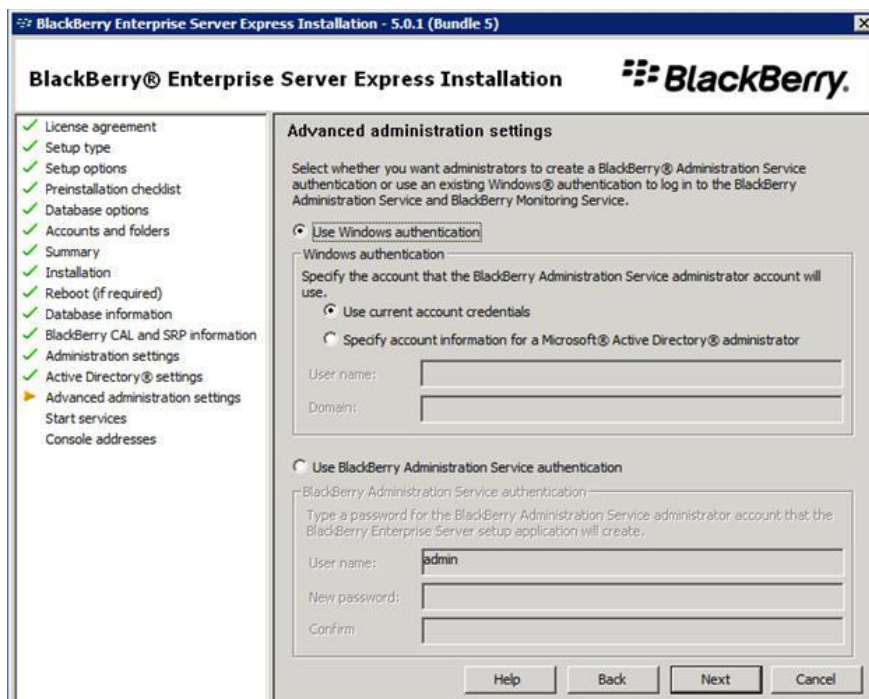
If it does not, we must run the installer again (scheme 4). To do that, we enter the SQL Server, databases and log locations. If the SQL was installed with BESx, we can use the BESAdmin account for authentication. If we use SQL that was already in the organization, we have to grant sysadmin permissions to the BESAdmin user.



Scheme 5 - Installation of BESx - License keys

After filling in all the fields, the database is automatically created. We then enter the license keys we received during the registration process before downloading the BESx software from the BlackBerry website (scheme 5).

The final thing we must do to complete the installation process is to enter an administrative account from which the BESx server will be managed. This can be either a domain account or a separate account in the BlackBerry system (scheme 6).



Scheme 6 - Installation of BESx: declaration of an administrative account

At the end wizard will run all the services needed for the BESx to operate . From now on we can manage our BlackBerry server from the website browser level.

BlackBerry solutions are a very attractive proposition for businesses. In conjunction with Microsoft Exchange, they offer many possibilities for smartphone users. For example, they allow for wireless synchronization of the inbox, calendar, contacts, notes and tasks. It lets us manage folders and search the mailbox on the server, set meetings and automatic replies for the time of absence. Moreover, it is a completely free solution, which means it does not require any additional licenses or fees.

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Support Online company uses BlackBerry services for its business. We also implement these solutions for our clients. We have rich experience and vast knowledge of both the mail server and BlackBerry applications. If you are interested in the BlackBerry services for your company, or other IT solutions - contact us:

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Sources: <http://us.blackberry.com/apps-software/business/server/express/>