boolebox

Installation guide



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1 Introduction

Welcome to the INSTALLATION section of the BooleBox administrator guide. In this area, you will discover the passages needed for the correct installation of the standard platform, configured according to the default settings tested and certified by our technical support team. In addition, you will be told also how to install the BooleBox additional components, in order to exploit all the solution potential more comprehensively. Each setup file needed for the installation of the base platform and/or additional components will be provided in a secure way by the BooleBox team via a sharing link within the platform itself. In order to achieve a correct installation of the platform, BooleBox team recommends downloading and executing the setup files respecting the chronological order described sequentially within the STANDARD SERVER COMPONENTS INSTALLATION, ADDITIONAL SERVER COMPONENTS INSTALLATION, ADDITIONAL CLIENT COMPONENTS INSTALLATION...

Within this section, in the form of a note in bold, you will find some mandatory indications to obtain the Common Criteria EAL2+ certified version.



2 Supported infrastructure

By using load balance tools, you can split the installation of BooleBox components on several servers, in order to balance data traffic and - thanks to HA (High Availability) tools - provide for nodes breakdown preserving the functioning of the platform. You will also have to properly configure firewalls by opening specific ports, in order to allow the several components installed on the servers to communicate among them.

Note: the whole platform can be virtualized through virtual machines.



3 Installation prerequisites

Preconditions needed for the correct installation of BooleBox platform.

3.1 Server side installation prerequisites

Server side prerequisites description needed for installing BooleBox On-Premises platform.

3.1.1 Server side hardware prerequisites

In order to guarantee a correct installation of BooleBox platform, these hardware prerequisites must be checked:

- RAM: 8 Gb or more.
- CPU: DualCore.
- Free disk space: 40 Gb or more, in order to save log files and install all components and services.
- Nic: 1 Gb or more.
- Storage with NTFS partition and sufficient space for operational needs.

Note: the destination path for the executable files can't be a PEN DRIVE USB one.

The hardware prerequisites indicated are recommended and not binding: the platform installation will therefore be possible also if the hardware available does not meet the minimum requirements indicated; in this case, performance problems may occur that do not affect the operational environment's security objectives granted by booleBox On-Premises in any case.

Note: the server workload in terms of disk space and RAM occupation is dependent



on the specific BooleBox instance purchased (number of users and amount of data processed estimated): the specific sizing of the infrastructure will therefore be carried out before installation, according to the parameters mentioned above.

3.1.2 Server side software prerequisites

In order to guarantee a correct installation of BooleBox platform, these software requirements must be met server side:

- Microsoft Windows Server 2016 operating system or followings.
- .NET 4.8 component installed.
- IIS 7.5 or higher.
- Microsoft Update to the last available patches.
- Equivalent timing server settings for all nodes of the infrastructure.
- MySQL 5.7.22 or following versions on Windows or Linux platform.
- C++ 2013 Redistributable (component needed for MySQL installation).
- Root user or user with comparable permissions for MySQL installation.
- Administrator user or user with comparable permissions for the installation of BooleBox On-Premises platform on MS Windows operating system.
- RSA 2048 bit certificate.

Note: in order to install the Common Criteria EAL2 + certified version of BooleBox On-Premises, you must use the Microsoft Windows Server 2016 operating system, the 7.5 (or higher) IIS Web Server component version, the 4.8 .NET component version and one of the certified versions of MySQL component (Enterprise, Cluster **Carrier Grade o Community Edition).**

Note: installations of .NET 4.8 and IIS 7.5 (or higher) components must be carried out through the server manager in the ADD ROLES AND FEATURES WIZARD window.

Note: to configure the Microsoft Windows Server 2016 operating system, follow this link.



3.2 End user side installation prerequisites

End user side prerequisites description needed for installing BooleBox On-Premises platform.

3.2.1 End user side hardware prerequisites

In order to guarantee a correct installation of BooleBox platform, the software prerequisites needed for the correct functioning of the operating system in use must be met.

3.2.2 End user side software prerequisites

In order to guarantee a correct installation of BooleBox platform, these software prerequisites must be met end user side:

• 32/64-bit Windows 7 operating system (SP1 installed) or subsequent releases (8, 8.1, 10) aligned with the latest Microsoft Update patches.

Note: 64-bit operating system is required for File Encryptor Client installation on Windows operating system.

Note: this prerequisite must be satisfied in order to install the Common Criteria EAL2+ certified version of BooleBox On-Premises.

- MacOSX 10.8 OSX (Mountain Lion) operating system or subsequent releases.
- One of the following browsers: Internet Explorer (version 10 or later), Google Chrome, Safari, Opera, Firefox.

Note: this prerequisite must be satisfied in order to install the Common Criteria EAL2+ certified version of BooleBox On-Premises.



• Microsoft Outlook version 2010 or later for the installation of Outlook Encryptor (for Windows operating system only).

Note: it is strongly recommended to use an HTML 5 compliant browser.

Note: in case of sharing documents with DENY PRINT SCREEN AND VIDEO CAPTURE, **DETER PHOTO SHOTS advanced sharing option or with the PROTECTED VIEW sharing** template, to view the received file, the recipient of the sharing will have to download an executable file containing the protected BooleBox viewer for Microsoft Windows OS. Therefore, the antivirus must have configured permission to download and run the executable of the BooleBox viewer as an exception.



4 Users and installation privileges

For a correct installation and configuration, in order to guarantee the complementarity between the installation of the platform and the safety objectives of the operating environment, BOOLEBOX ON PREMISES requires system users and privileges specially configured according to the following specifications:

- An Active Directory/local user with administrative rights on the server/s dedicated to BOOLEBOX ON PREMISES, to the additional components (MySQL, .NET Framework 4.5, IIS and ASP.net State Service) and the servers used for additional services (Node.IS, Document Manager, BooleBox Server Service, BooleBox Storage Service, BooleBox AD Service and Office Web Apps Service) to allow the installation of components listed above.
- A user domain related to the IIS pool application with permission "Full Control" on the path defined in the Settings file of the BOOLEBOX STORAGE SERVICE, i.e. with read, write and deletion permissions of the folder used for encrypted data storage.
- A MySQL user with DB Admin powers (comparable to root) to guarantee the necessary permissions for database management operations.



5 Standard server components installation

Installation procedure of standard server components needed for a correct functioning of BooleBox platform.

Note: during the installation of the individual components, it will be necessary to accept the End User Licens Agreement (EULA). Otherwise, the NEXT button of each EULA window will not be enabled and it will be impossible to proceed.

Note: at the start of each setup file provided by the technical support team, available disk space will be checked: if it is not enough, the installation will be blocked.

Note: for each component to be installed, a specific installation path will be defined directly from the application. This path will be indicated and it will be possible to modify it.

In order to install the Common Criteria EAL2+ certified version of BooleBox On-Premises, you must install all the components listed in this section.

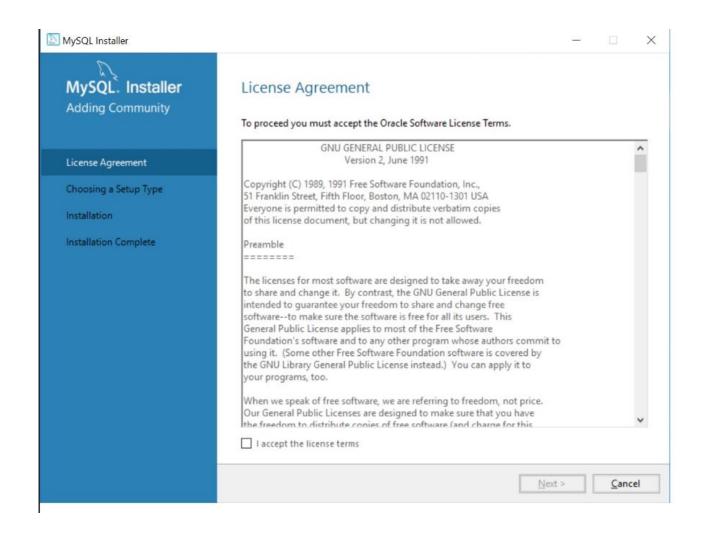
5.1 MySQL installation

MySQL™ installation procedure, i.e. the repository in which the metadata of the files stored in the platform related to users, shares and audits are saved.

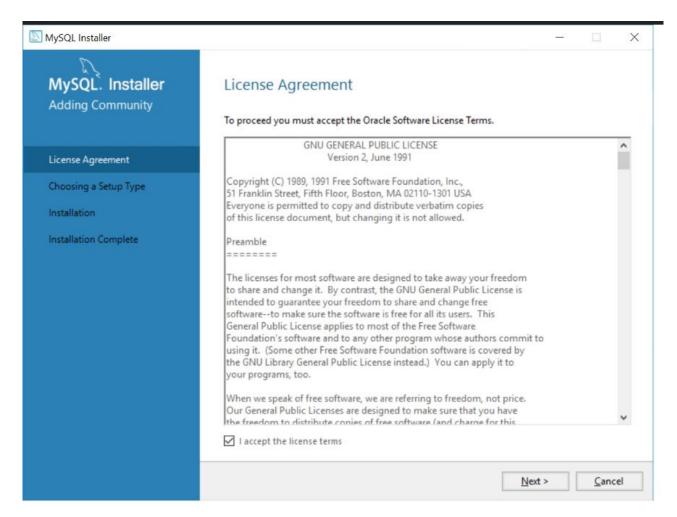
To complete the installation of MySQL™ component:

- Open the application provided by the technical support team.
- In the LICENSE AGREEMENT tab, click on the I ACCEPT THE LICENSE TERMS chceckbox.



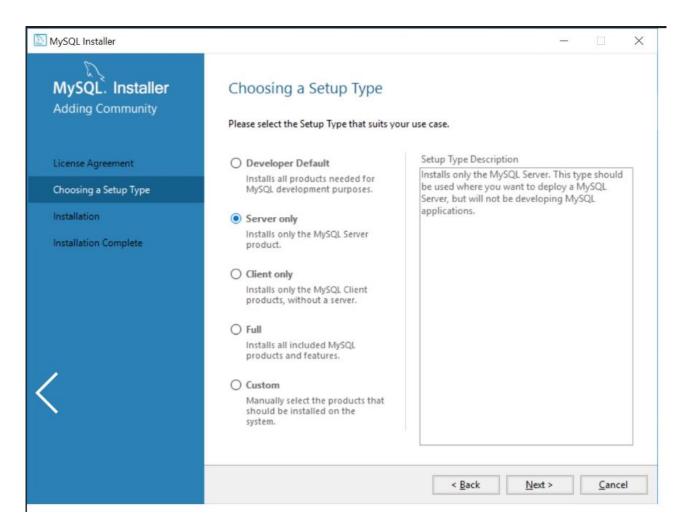






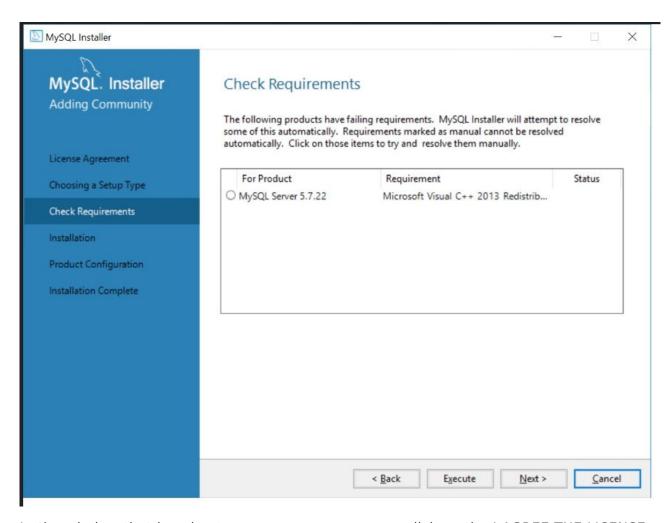
- Click on NEXT.
- In the CHOOSING A SETUP TYPE tab, select the item SERVER ONLY and click on NEXT. The other items listed in the dropdown menu provide tools not needed in order to install BooleBox platform.



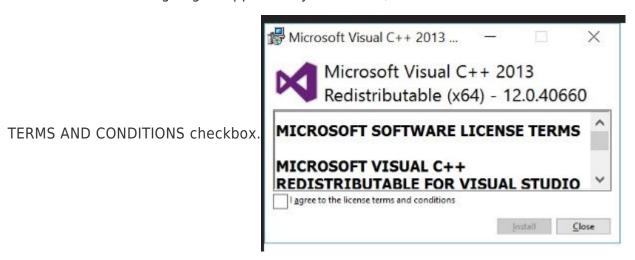


• In the CHECK REQUIREMENTS tab, click on EXECUTE.





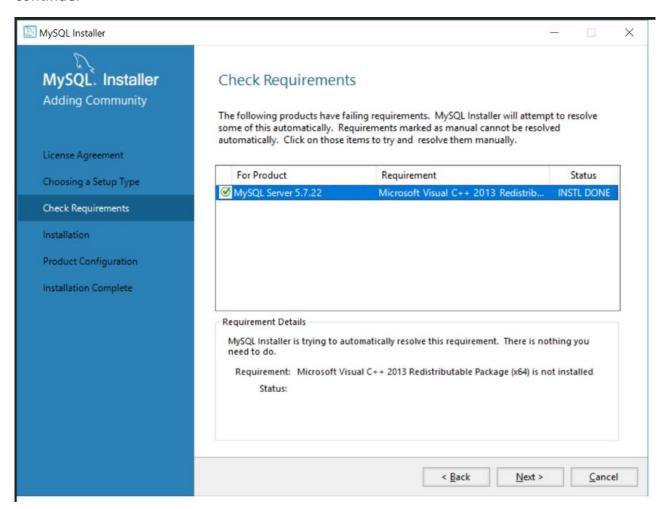
• In the window that is going to appear on your screen, click on the I AGREE THE LICENSE



• Click on INSTALL.

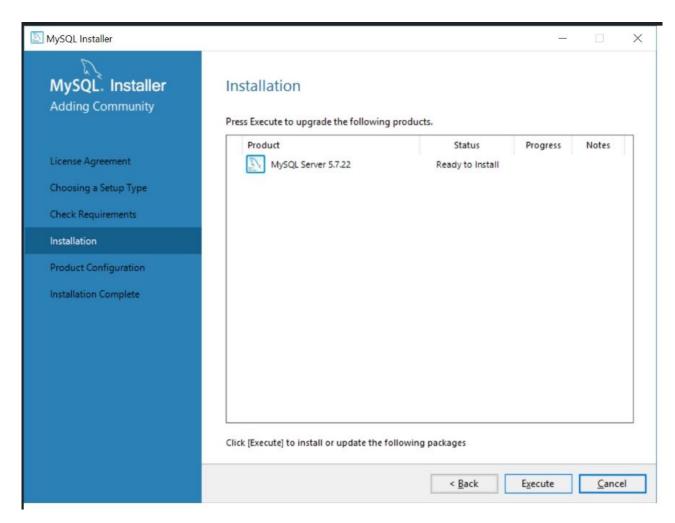


• After the installation of Microsoft Visual C ++ 2013 Redistributable, click on NEXT to continue.



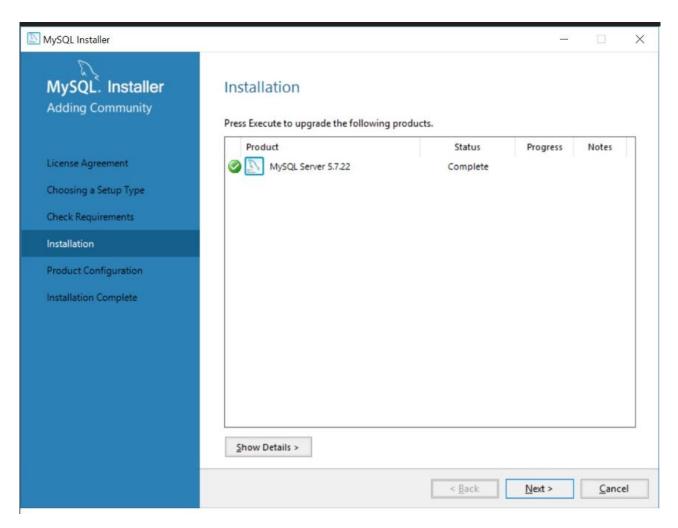
• In the INSTALLATION tab, click on EXECUTE.





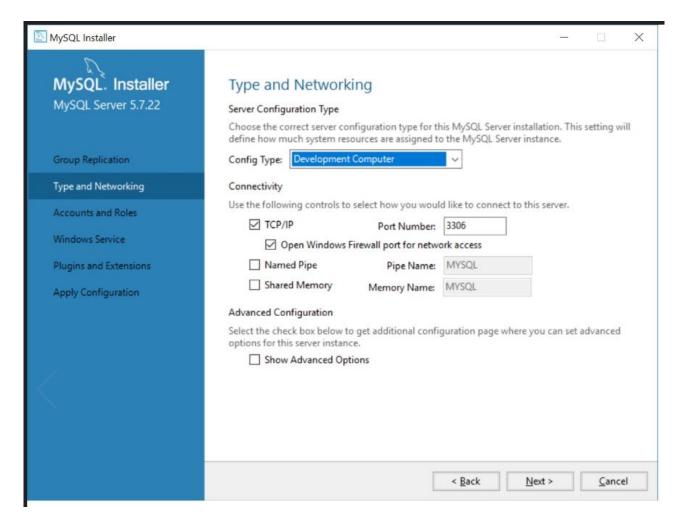
• Click on NEXT.





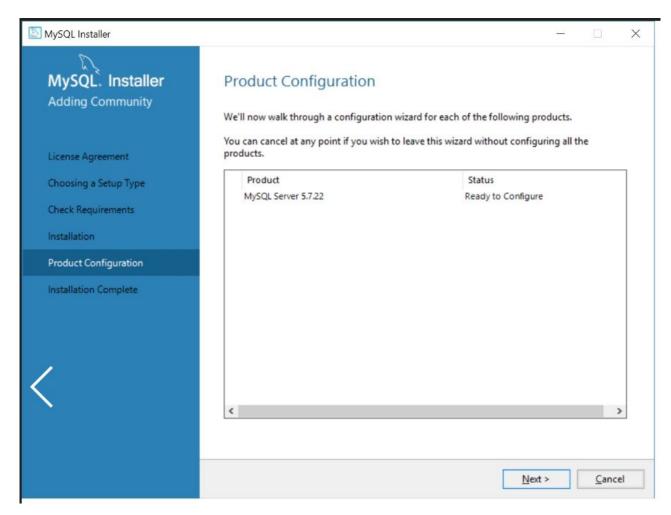
• Click on NEXT.





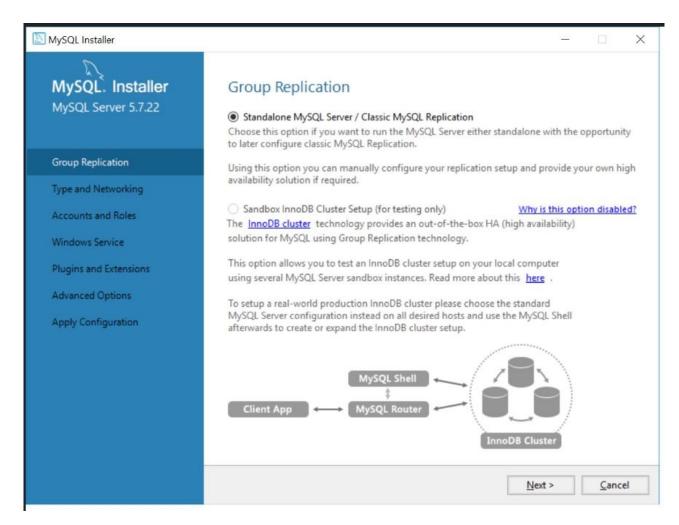
• In the PRODUCT CONFIGURATION tab, click on NEXT.





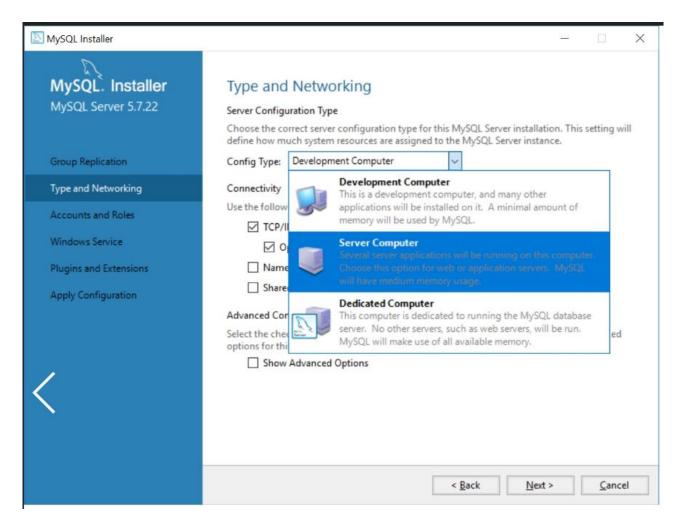
• In the GROUP REPLICATION tab, select the STANDALONE MYSQL SERVER/CLASSIC MYSQL REPLICATION item and click on NEXT.





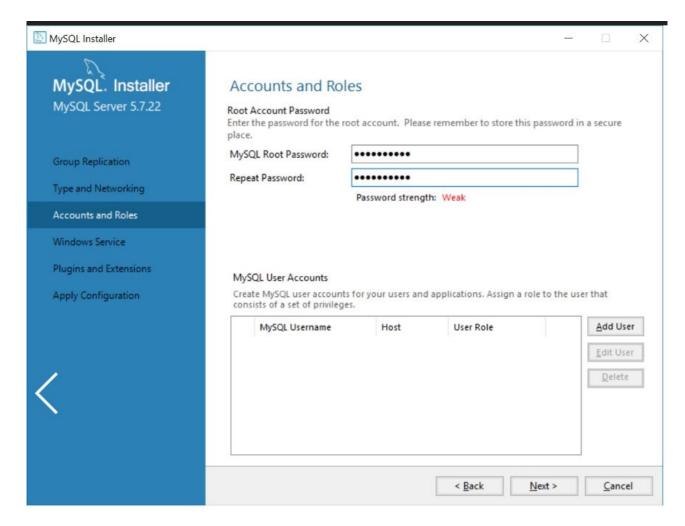
• In the TYPE AND NETWORKING tab, from the CONFIG TYPE dropdown menu, select the SERVER COMPUTER item.





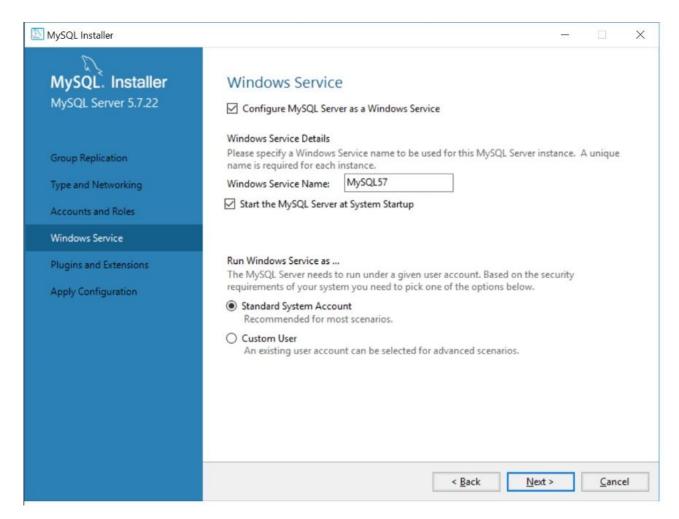
· Click on NEXT.





- In the ACCOUNT AND ROLES tab, enter a root password in the MYSQL ROOT PASSWORD field and repeat the sequence entered in the field below.
- In the MYSQL USER ACCOUNTS area, if you want to add one or more users enabled to access and manage the database at different levels, click on ADD USER and provide the details for the user you want to add.
- Click on NEXT.



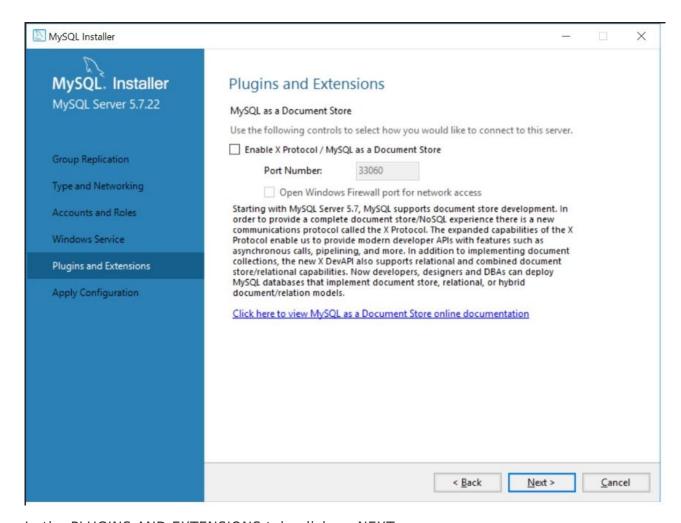


- In the WINDOWS SERVICE tab, take note of WINDOWS SERVICE NAME: it will be the name assigned to the Windows MySQL service of the machine on which the database is running.
- In the RUN WINDOWS SERVICE AS area, select the STANDARD SYSTEM ACCOUNT item, i.e. the default option.

If you want to indicate users other than the STANDARD SYSTEM ACCOUNT, to initialize the service, select the CUSTOM USER item and enter the details of the users designated for this type of activity.

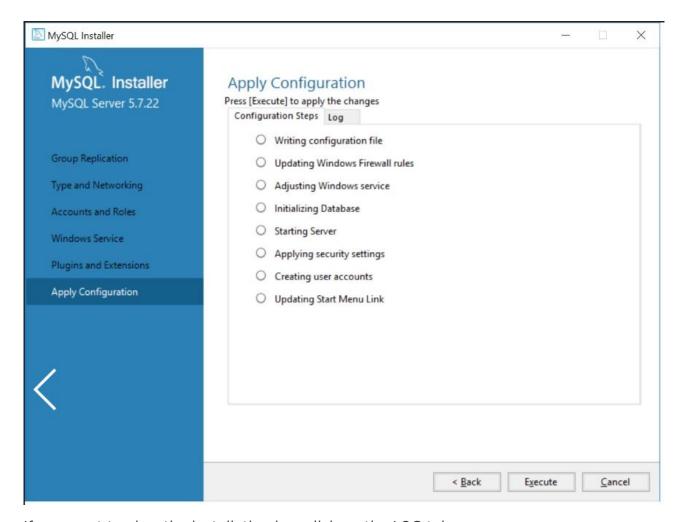
Click on NEXT.





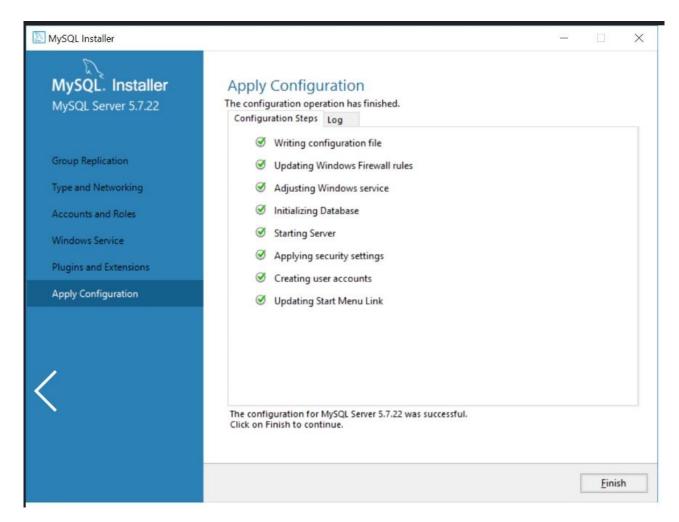
- In the PLUGINS AND EXTENSIONS tab, click on NEXT.
- In the APPLY CONFIGURATION tab, click on EXECUTE.





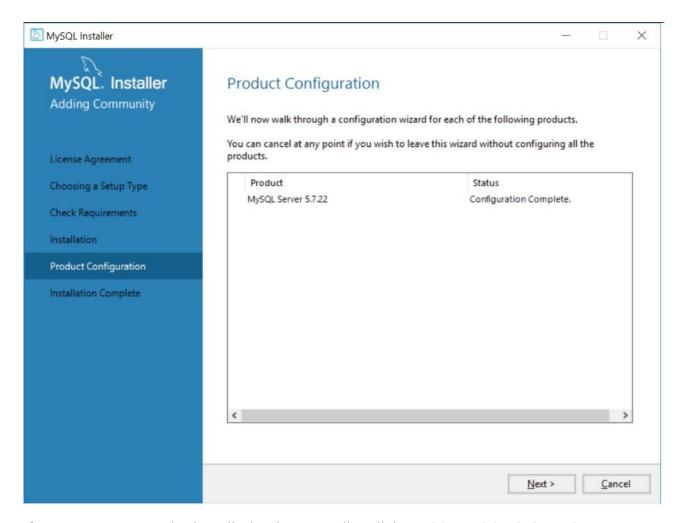
- If you want to view the installation log, click on the LOG tab.
- Once you have completed the CONFIGURATION STEPS, click on FINISH.





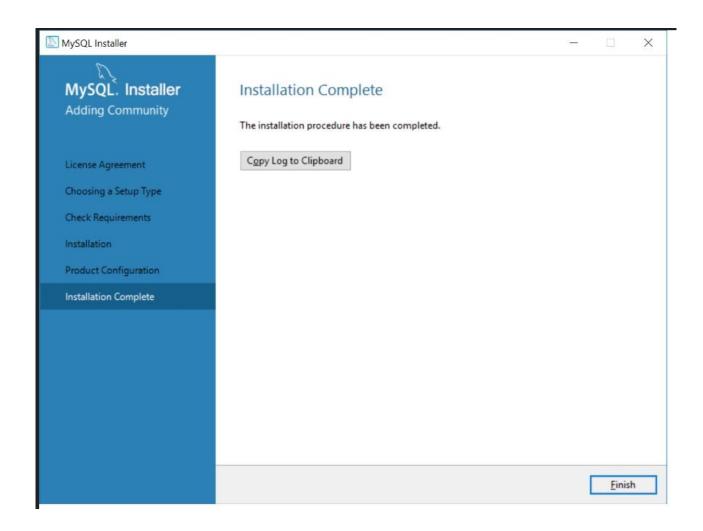
• In the PRODUCT CONFIGURATION tab, click on NEXT.





- If you want to copy the installation log to a clip, click on COPY LOG TO CLIPBOARD.
- Click on FINISH to complete the installation of MySQL application.





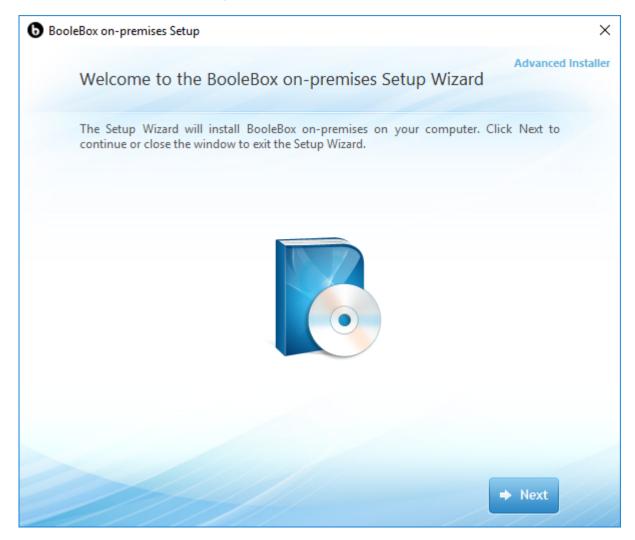


5.2 BooleBox On-Premises installation

BooleBox On-Premises installation procedure, i.e. the web platform used for collaboration, encryption and file exchange.

To complete the installation of BooleBox On-Premises component:

- Open the application provided by the technical support team.
- In the SETUP WIZARD screen, click on NEXT.

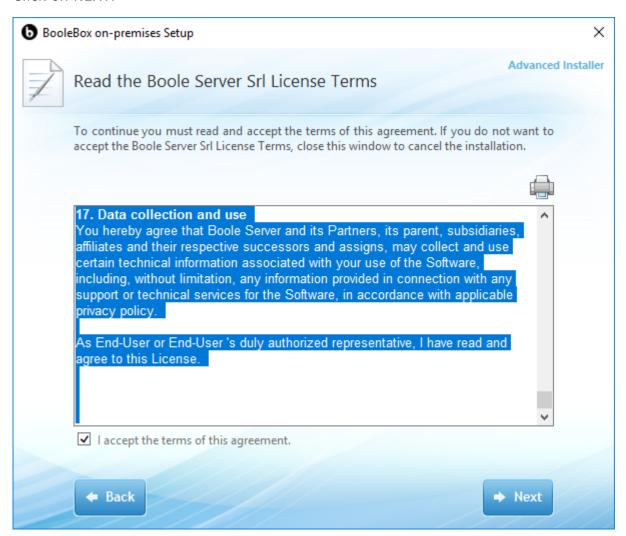


• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE



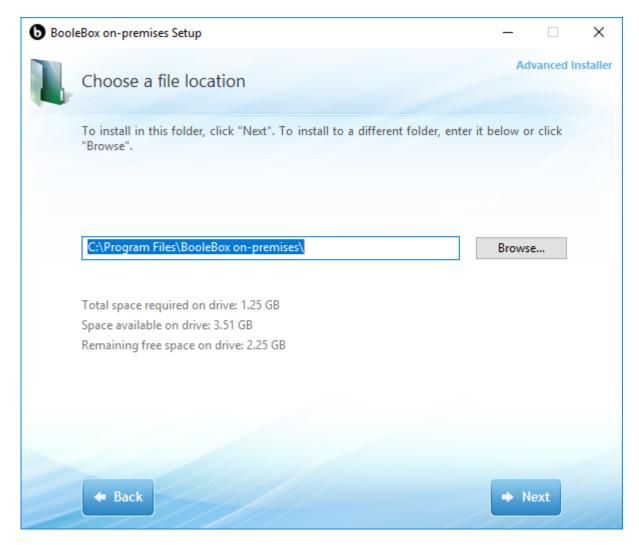
TERMS OF THIS AGREEMENT checkbox.

Click on NEXT.



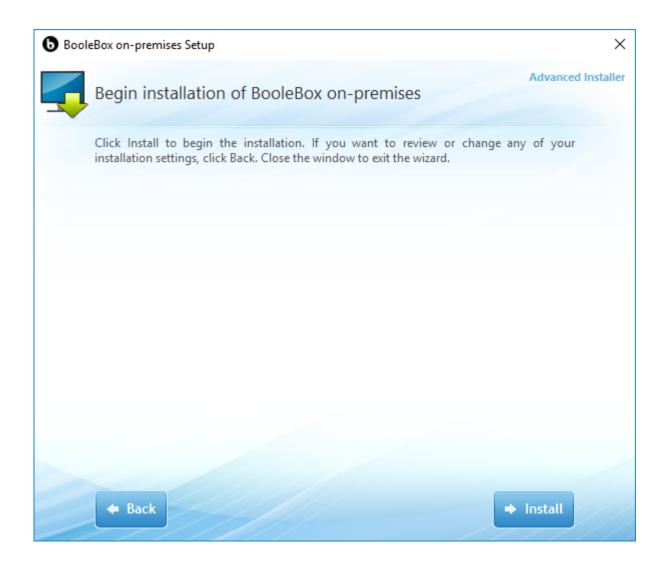
- In the CHOOSE A FILE LOCATION window, click on BROWSE if you want to change the installation path of the application.
- Click on NEXT.



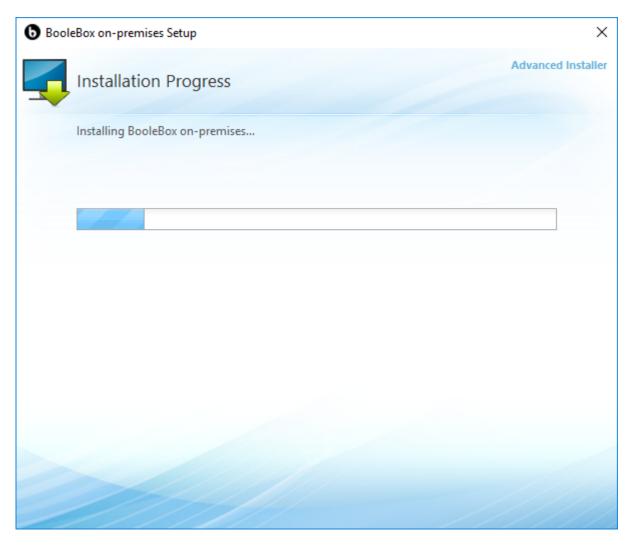


• On the BEGIN INSTALLATION OF BOOLEBOX ON-PREMISES screen, click on INSTALL.



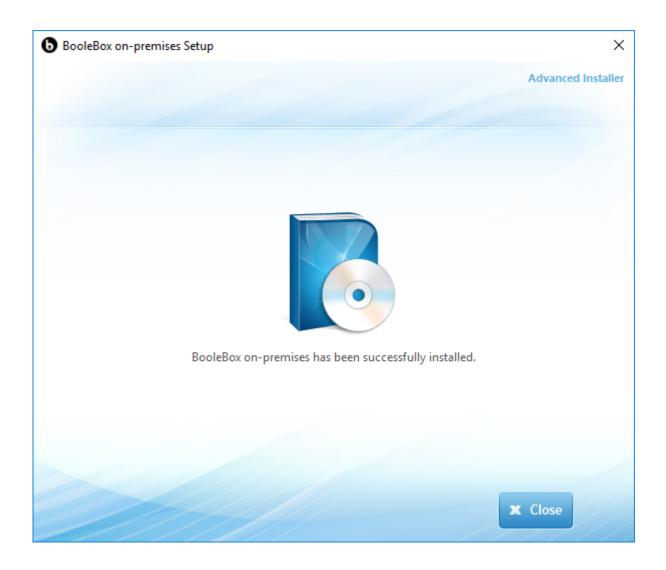






• Once the installation process has been completed, click on CLOSE to finish the installation of the BooleBox On-Premises application.





Note: if you are installing the Common Criteria EAL2 + certified version of BooleBox On-Premises, the administrator user must make sure that the downloaded executable is related to the 4.2.x.y version of the application. In order to do this: right click on the downloaded executable and check the FILE VERSION item in the **DETAILS** tab.

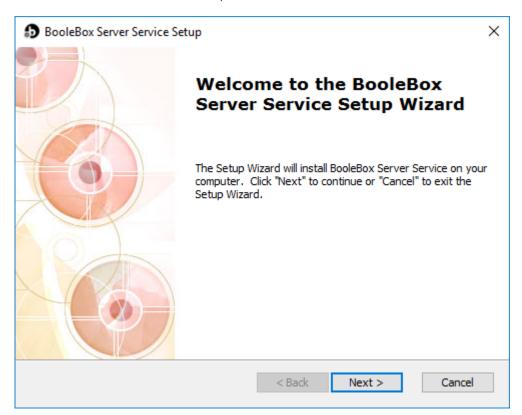


5.3 BooleBox Server Service installation

BooleBox Server Service installation procedure, i.e. the component used to verify the service state of the platform components when the installation is splitted on several servers.

To complete the Server Service component installation:

- Open the application provided by the technical support team.
- In the SETUP WIZARD screen, click on NEXT.

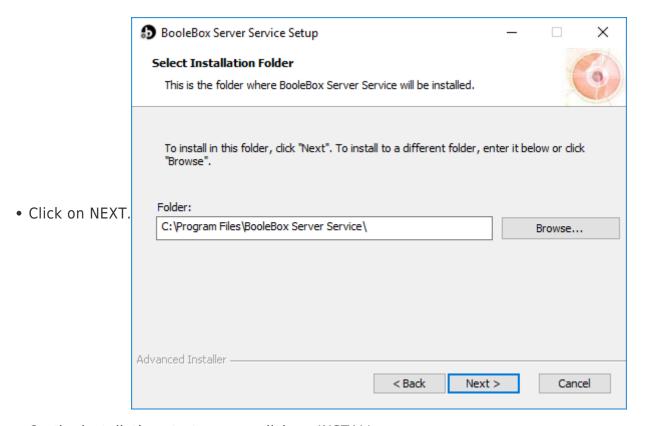


• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE TERMS IN THE LICENSE AGREEMENT item.

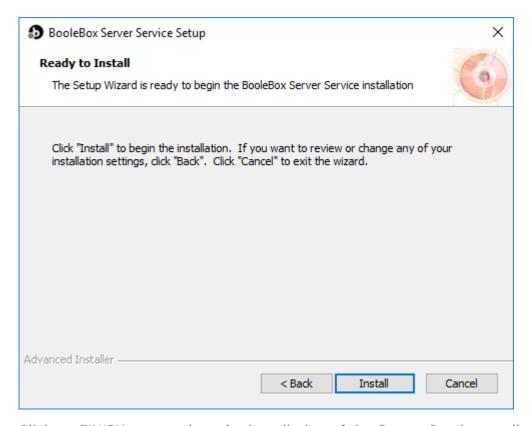






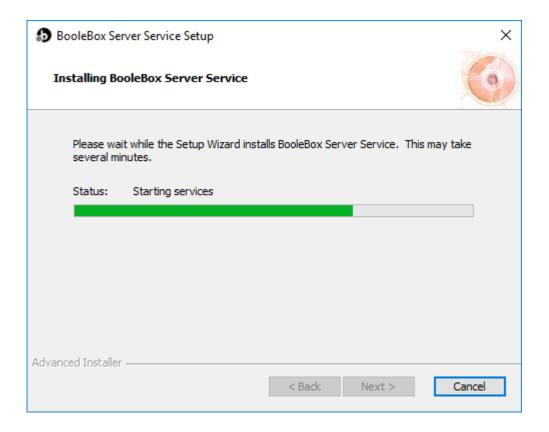




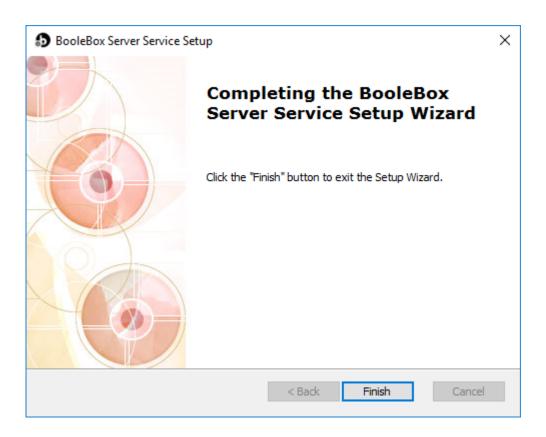


• Click on FINISH to complete the installation of the Server Service application.









Note: the Server Service application must be installed on each system machine and it communicates through the network port TCP/IP 2450.

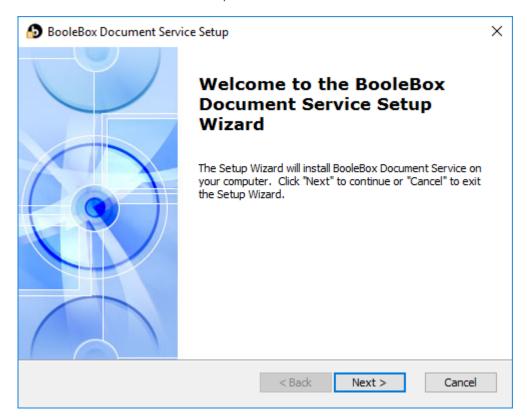


5.4 BooleBox Document Service installation

Document Service installation procedure, i.e. the component used to generate the previews of the documents loaded on the platform.

To complete the installation of the Document Service component:

- Open the application provided by the technical support team.
- In the SETUP WIZARD screen, click on NEXT.

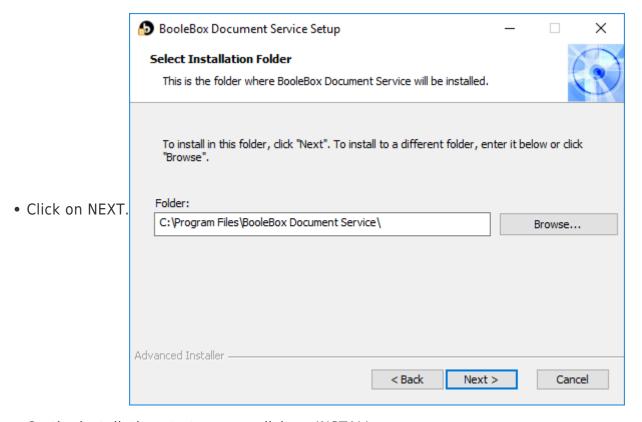


• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE TERMS IN THE LICENSE AGREEMENT item.

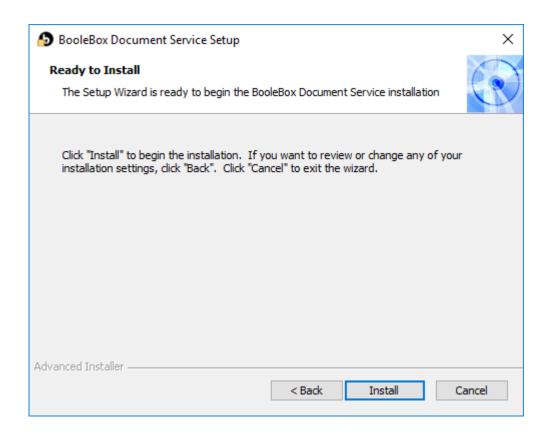




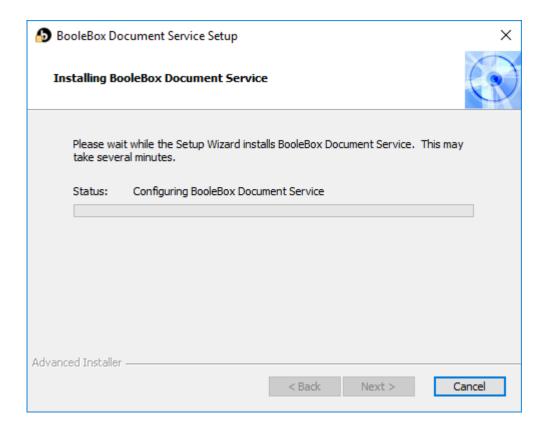






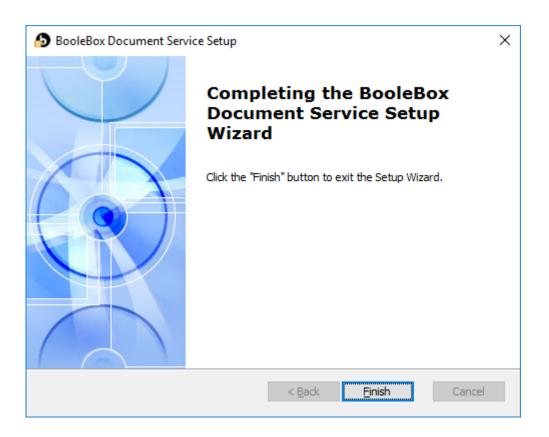






Click on FINISH to complete the installation of the Document Service application.





Note: to complete the installation you need to carry out the following operations:

- Import the pfx certificate in the web app for the encryption of the master key;
- Copy the BooleBoxCert.dat file available on the web app in the path C:\Program Files\BooleBox on-premises\WebApp in the folder of the document server C:\Program Files\BooleBox Document Service

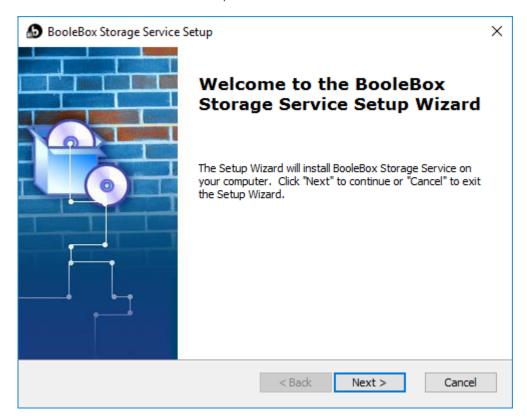


5.5 BooleBox Storage Service installation

Storage Service installation procedure, i.e. the component defining the storage space in which files used on BooleBox Web platform are saved.

To complete the Storage Service component installation:

- Open the application provided by the technical support team.
- In the SETUP WIZARD screen, click on NEXT.

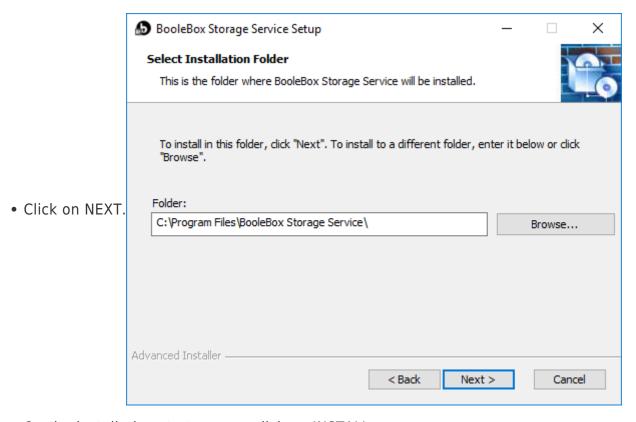


• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE TERMS IN THE LICENSE AGREEMENT item.

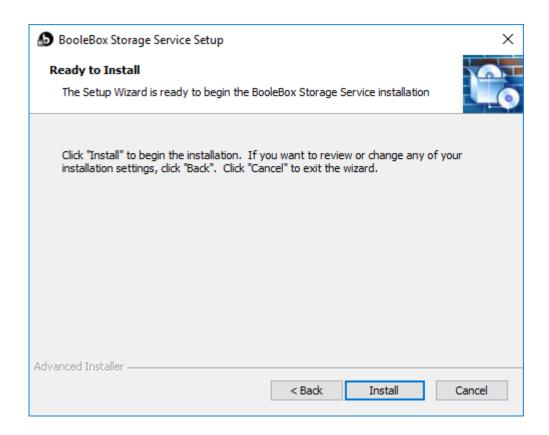




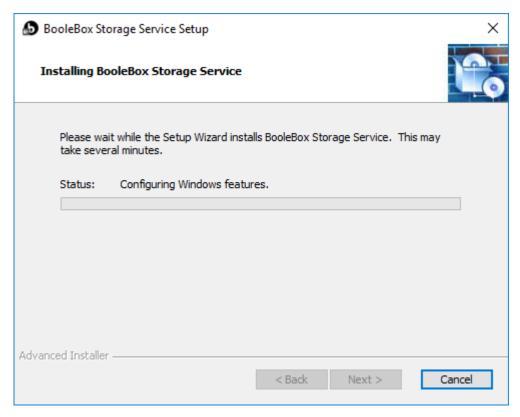






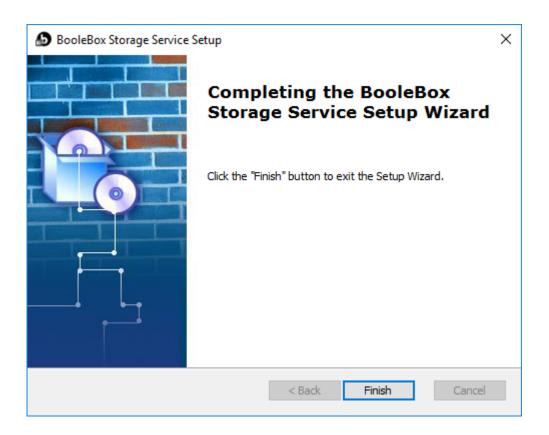






• Click on FINISH to complete the installation of the Storage Service application.





Note: the Storage Service component must be accessible only through the private corporate network. In order to install the Common Criteria EAL2+ certified version of BooleBox On-Premises, it is therefore recommended not to expose the component to the Internet.



6 Optional server components installation

Installation procedure of optional server components, useful for exploiting all the functionalities provided by BooleBox platform.

Note: during the installation of the individual components, it will be necessary to accept the End User Licens Agreement (EULA). Otherwise, the NEXT button of each **EULA** window will not be enabled and it will be impossible to proceed.

Note: at the start of each setup file provided by the technical support team, available disk space will be checked: if it is not enough, the installation will be blocked.

Note: for each component to be installed, a specific installation path will be defined directly from the application. This path will be indicated and it will be possible to modify it.

Note: in order to install the Common Criteria EAL2+ certified version of BooleBox On-Premises, you must NOT install the components listed in this section.

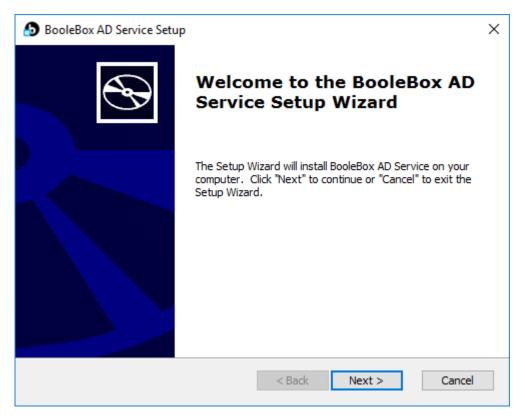
6.1 BooleBox AD Service installation

AD Service installation procedure, i.e. the component checking that the login password used for AD users is correct.

To complete the installation of the AD Service component:

- Open the application provided by the technical support team.
- In the SETUP WIZARD screen, click on NEXT.



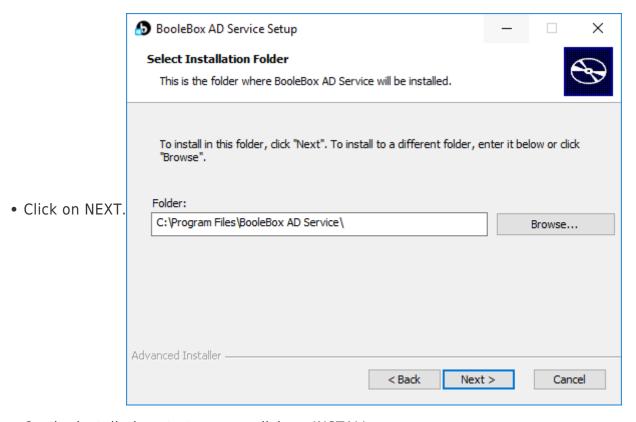


• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE TERMS IN THE LICENSE AGREEMENT item.

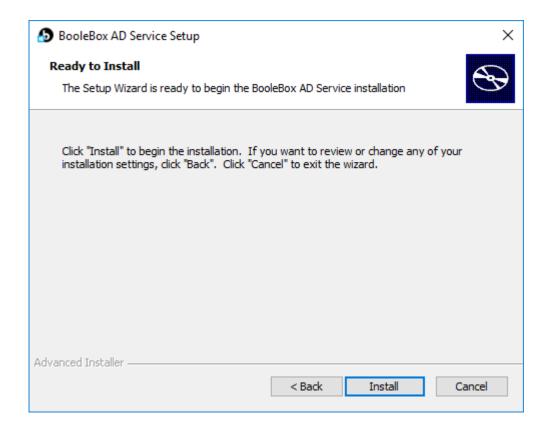




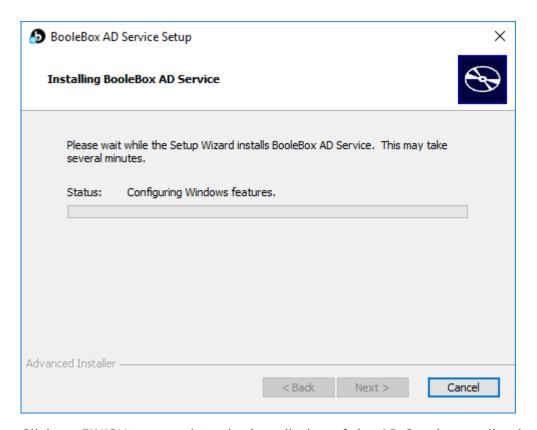






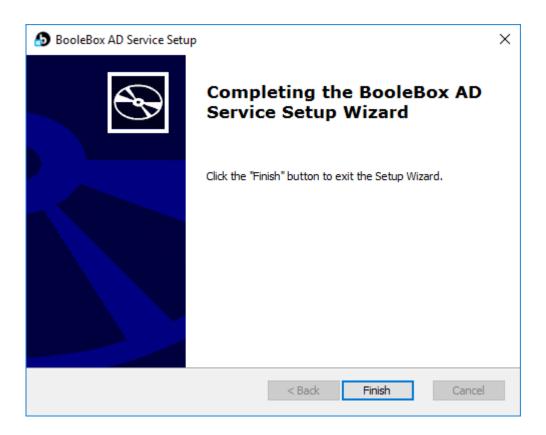






• Click on FINISH to complete the installation of the AD Service application.





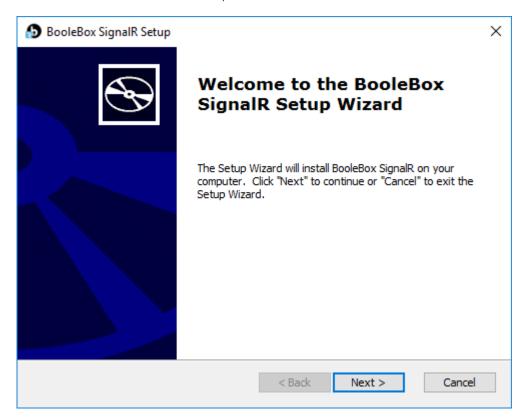


6.2 SignalR installation

SignalR installation procedure, i.e. the component used by Smart Secure Sync and Office Online Server for managing contemporary accesses to documents.

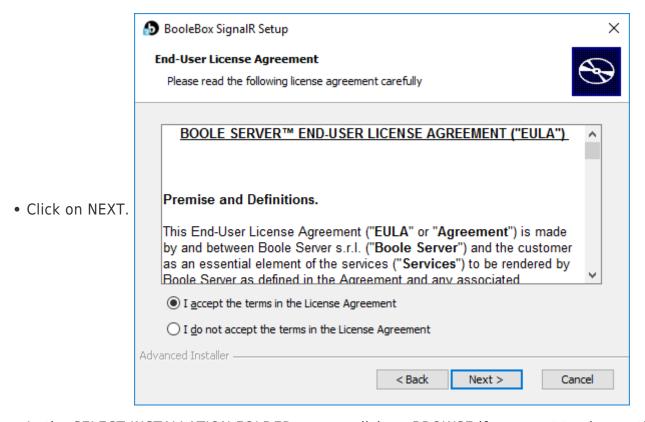
To complete the SignalR component installation:

- Open the application provided by the technical support team.
- In the SETUP WIZARD screen, click on NEXT.

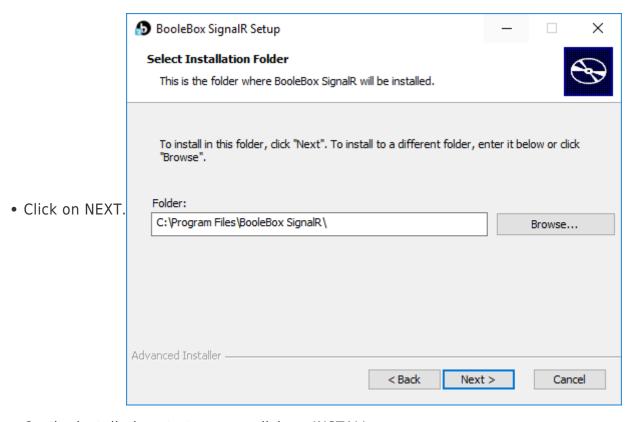


• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE TERMS IN THE LICENS AGREEMENT item.

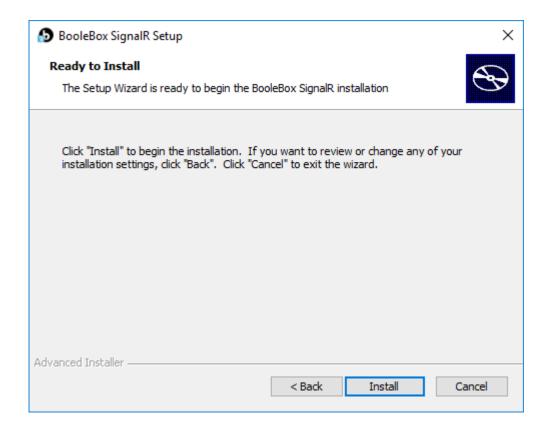




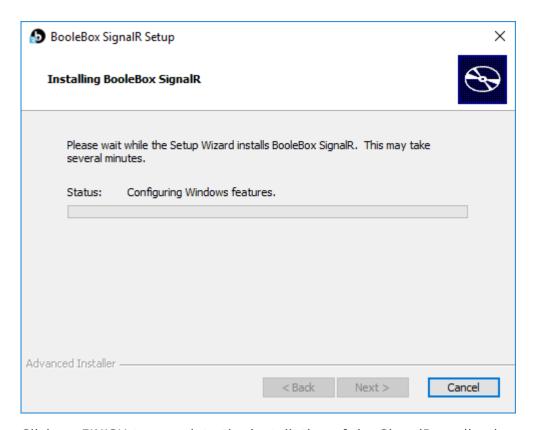






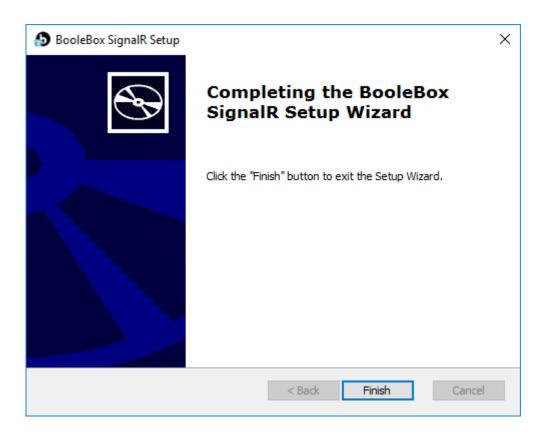






• Click on FINISH to complete the installation of the SignalR application.





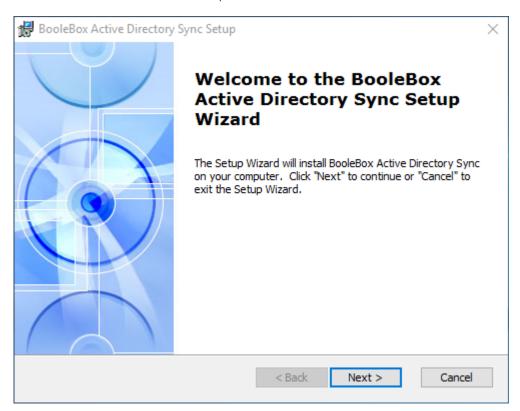


6.3 AD Sync installation

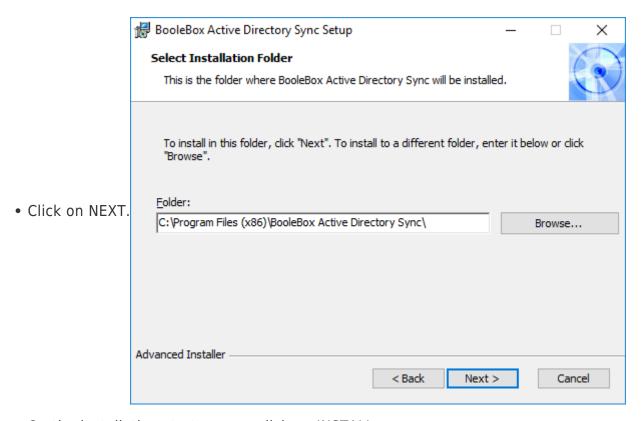
AD Sync installation procedure, i.e. the component used to synchronize BooleBox platform with an Active Directory domain already existing.

To complete the installation of the AD Sync component:

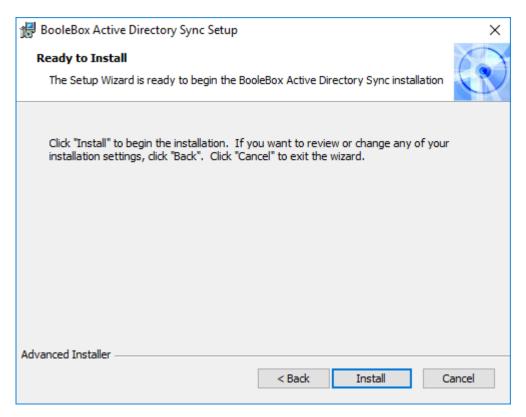
- Open the application provided by the technical support team.
- In the SETUP WIZARD screen, click on NEXT.





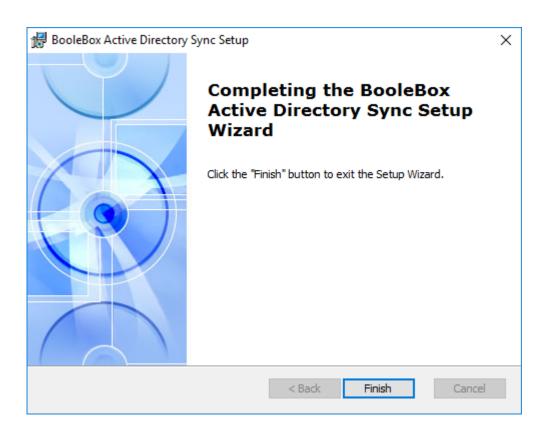






• Click on FINISH to complete the installation of the AD Sync application.





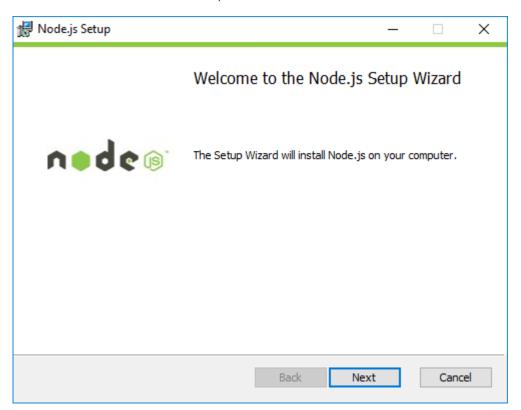


6.4 Node.JS installation

Node.JS installation procedure, i.e. the component used to send the platform push notifications.

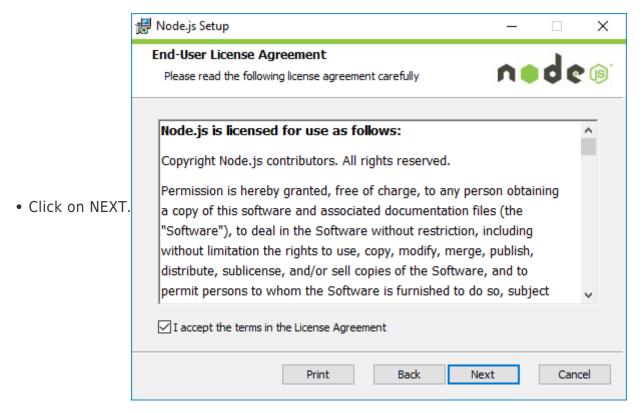
To complete the installation of Node.js component:

- Open the application provided by the technical support team.
- In the SETUP WIZARD screen, click on NEXT.



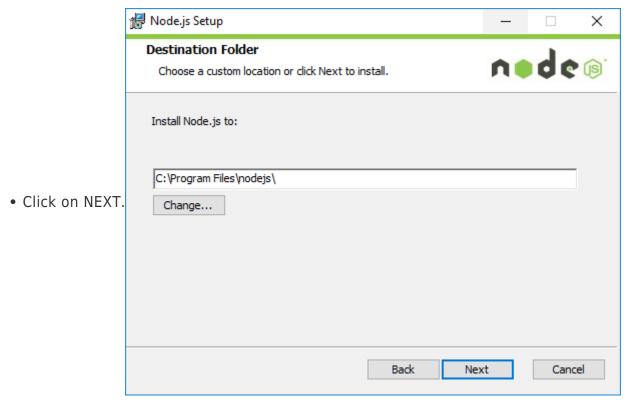
• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE TERMS IN THE LICENSE AGREEMENT checkbox.





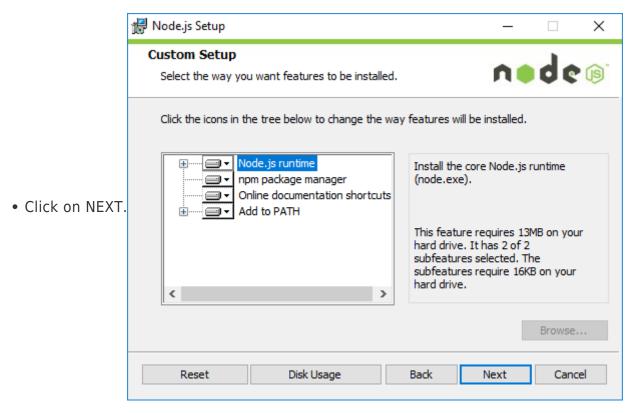
• In the DESTINATION FOLDER window, click on CHANGE if you want to change the installation path of the application.





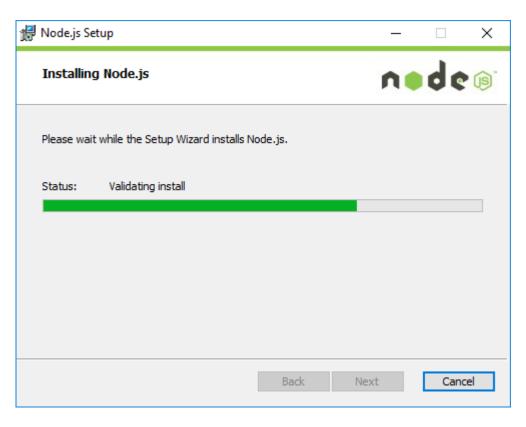
• On the CUSTOM SETUP screen, click on NODE.JS RUNTIME.

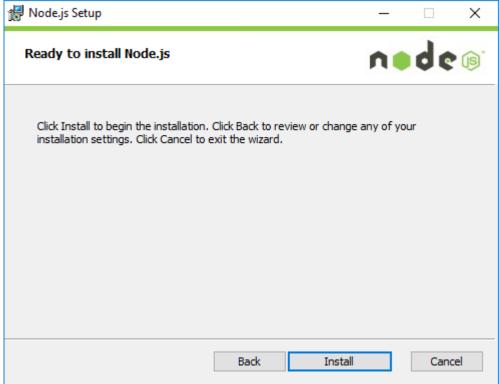




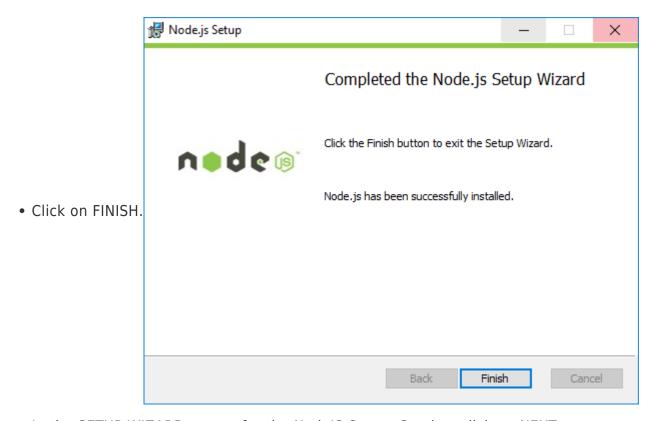
• On the installation start screen, click on INSTALL.





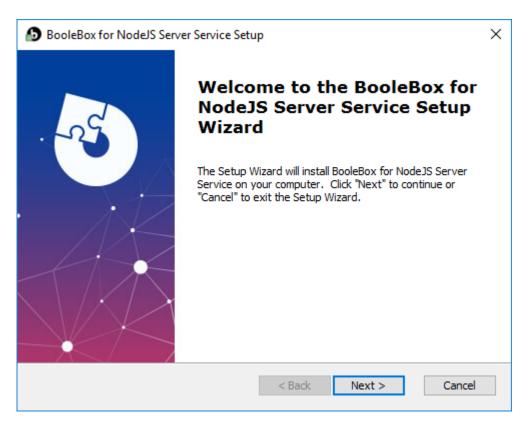






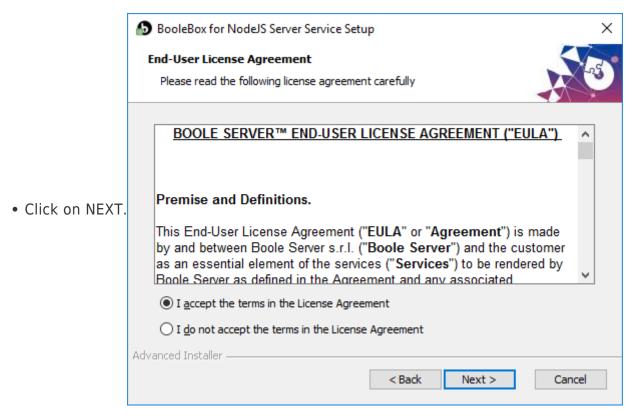
• In the SETUP WIZARD screen for the NodeJS Server Service, click on NEXT.





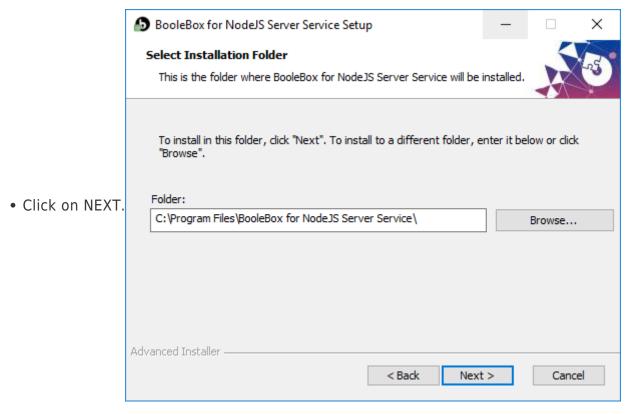
• In the acceptance screen of the service terms and condition, click on I ACCEPT THE TERMS IN THE LICENSE AGREEMENT item.





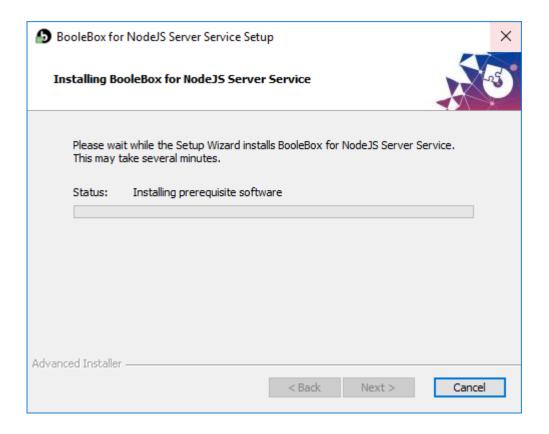
• In the SELECT INSTALLATION FOLDER window, click on BROWSE if you want to change the installation path of the application.



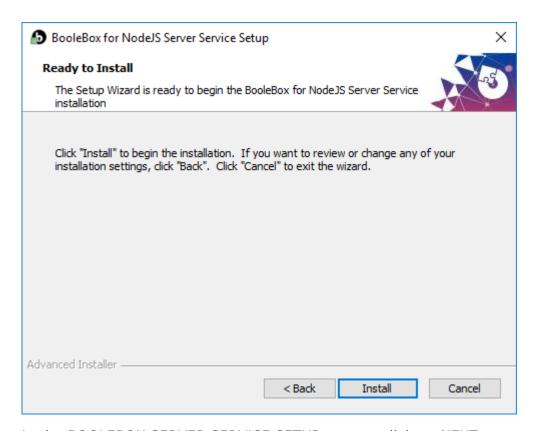


• To start the installation, click on INSTALL.









• In the BOOLEBOX SERVER SERVICE SETUP screen, click on NEXT.





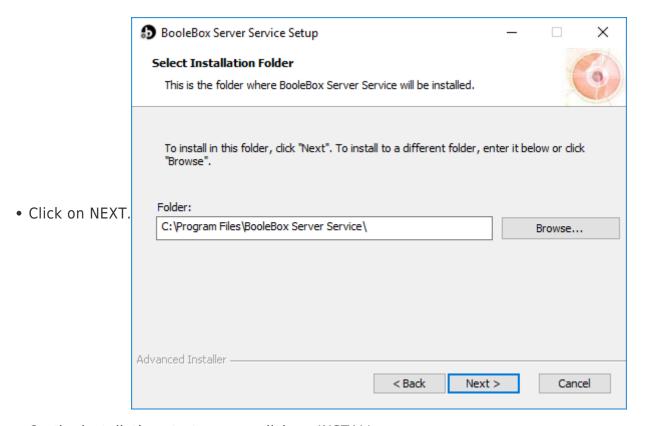
• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE TERMS IN THE LICENSE AGREEMENT checkbox.





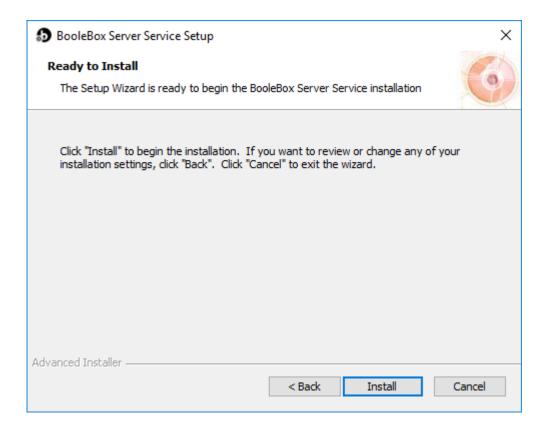
• In the SELECT INSTALLATION FOLDER window, click on BROWSE if you want to change the installation path of the application.



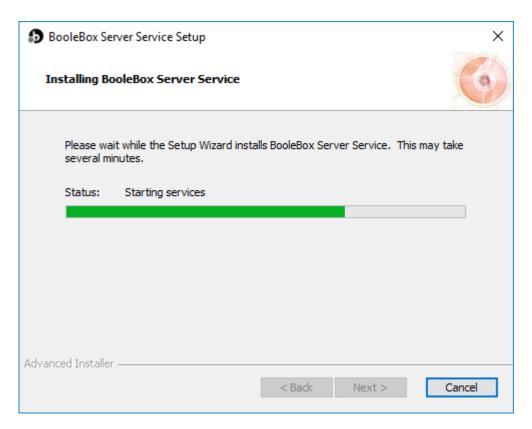


• On the installation start screen, click on INSTALL.



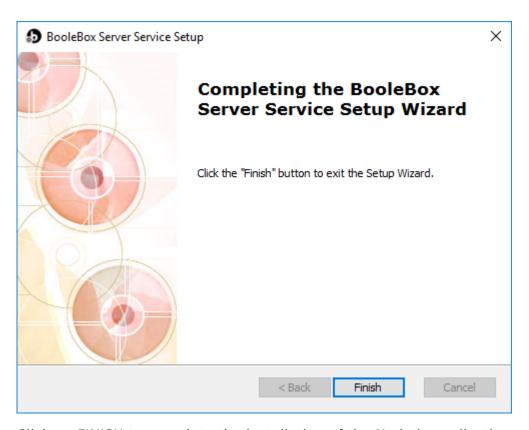






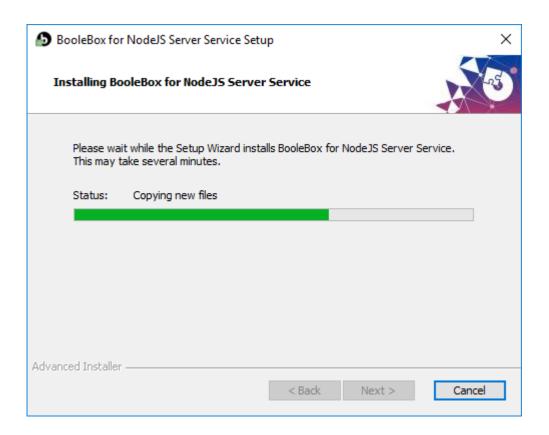
• On the next screen, click on FINISH to complete the operation.



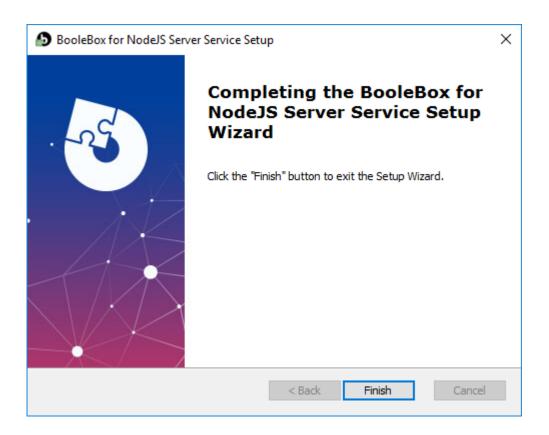


• Click on FINISH to complete the installation of the Node.js application.









X



6.5 File Encryptor Server installation

File Encryptor Server installation procedure, i.e. the component used to protect with the military encryption system provided by BooleBox the files located on the file server(s).

To complete the installation of File Encryptor Server component:

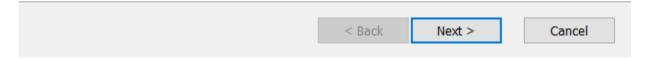
- Open the application provided by the technical support team.
- In the SETUP WIZARD screen, click on NEXT.
 - Boolebox File Encryptor 4.3.3.4 (Service) Setup



Welcome to the Boolebox File Encryptor 4.3.3.4 (Service) Setup Wizard

The Setup Wizard will install Boolebox File Encryptor 4.3.3.4 (Service) on your computer. Click "Next" to continue or "Cancel" to exit the Setup Wizard.

Connected with boolebox



• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE



TERMS IN THE LICENSE AGREEMENT item.

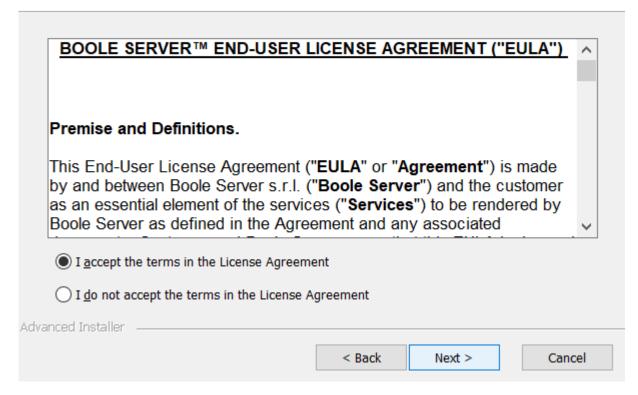
Click on NEXT.



End-User License Agreement

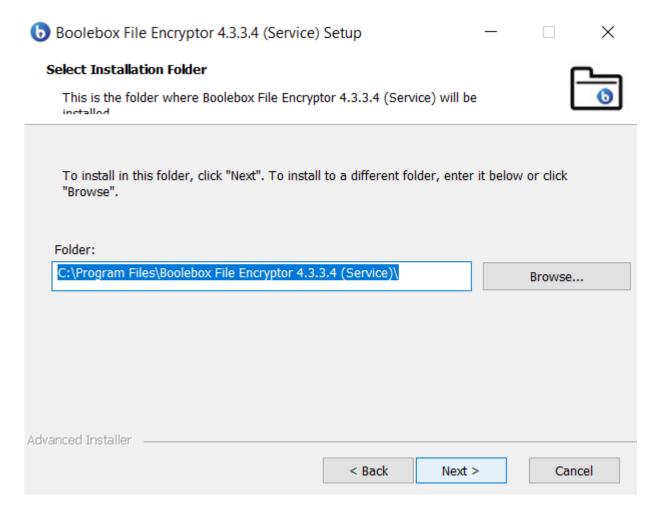
Please read the following license agreement carefully





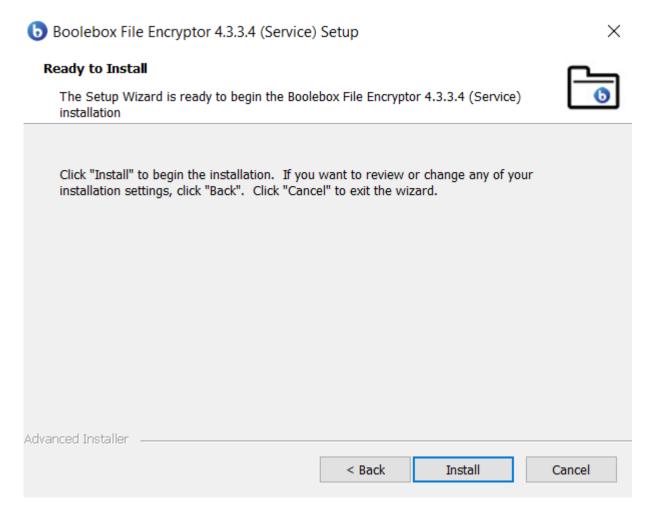
- In the SELECT INSTALLATION FOLDER screen, click on BROWSE if you want to change the installation path of the application.
- Click on NEXT.





• On the installation start screen, click on INSTALL.





• Click on FINISH to complete the installation of the File Encryptor Server application.









Completing the Boolebox File Encryptor 4.3.3.4 (Service) **Setup Wizard**

Click the "Finish" button to exit the Setup Wizard.

Connected with boolebox





6.6 Office Online installation

For the installation of the Office Online server application, please refer to Microsoft official installation page..



7 Optional client components installation

Installation procedure of optional client components, useful for exploiting all the functionalities provided by BooleBox platform.

Note: during the installation of the individual components, it will be necessary to accept the End User Licens Agreement (EULA). Otherwise, the NEXT button of each EULA window will not be enabled and it will be impossible to proceed.

Note: at the start of each setup file provided by the technical support team, available disk space will be checked: if it is not enough, the installation will be blocked.

Note: for each component to be installed, a specific installation path will be defined directly from the application. This path will be indicated and it will be possible to modify it.

Note: in order to install the Common Criteria EAL2+ certified version of BooleBox On-Premises, you must NOT install the components listed in this section. □□

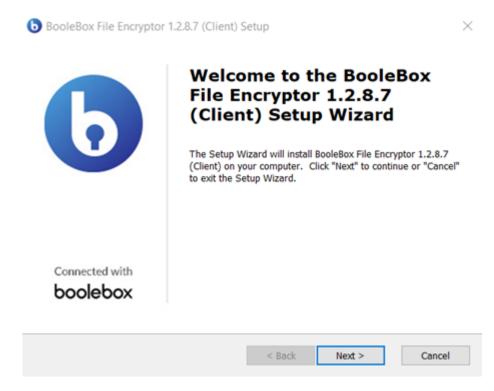
7.1 File Encryptor Client installation

File Encryptor Client installation procedure, i.e. the component that - once installed on work stations - allows to access encrypted files.

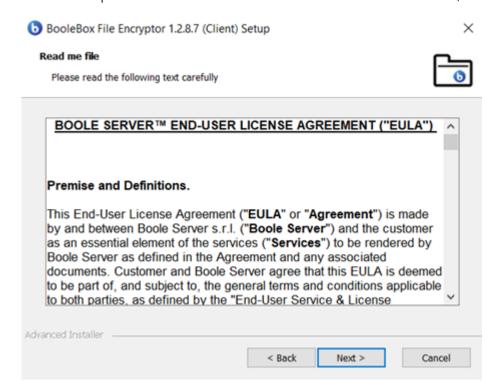
To complete the installation of File Encryptor Client component:

- Select a file and click on the right button of your mouse or TouchPad.
- Select the item OPEN WITH > FILE ENCRYPTOR CLIENT.
- Select the DONWLOAD FILE ENCRYPTOR CLIENT item.
- In the SETUP WIZARD screen, click on NEXT.





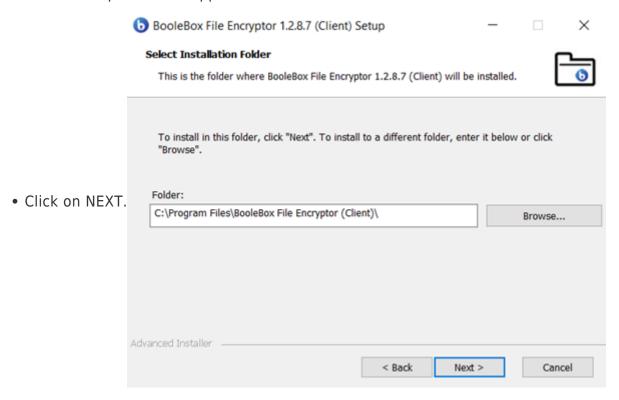
• In the acceptance screen of the service terms and conditions, click on NEXT.



• In the SELECT INSTALLATION FOLDER screen, click on BROWSE if you want to change the

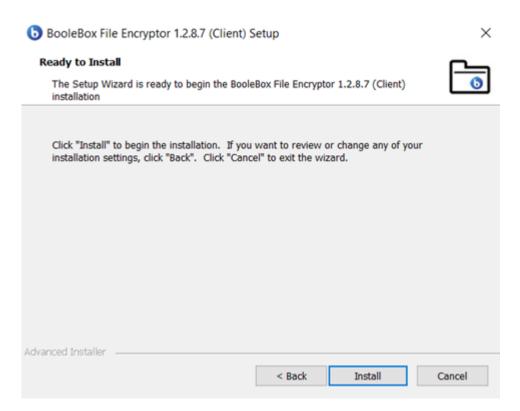


installation path of the application.



• On the installation start screen, click on INSTALL.





• Click on FINISH to complete the installation of the File Encryptor Client application.



7.2 Outlook Encryptor installation

Outlook Encryptor installation procedure, i.e. the component allowing to send encrypted e-mails directly from Outlook mail client.

To complete the installation of Outlook Encryptor component:

- Download from the DOWNLOAD section if boolebox.it the Outlook Encryptor application and open it.
- In the SETUP WIZARD screen, click on NEXT.



• In the acceptance screen of the service terms and conditions, click on I ACCEPT THE



TERMS IN THE LICENSE AGREEMENT item.

Click on NEXT.



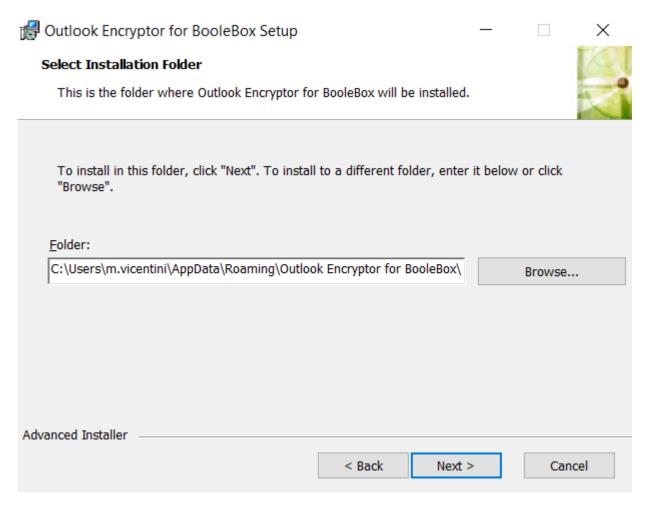
End-User License Agreement

Please read the following license agreement carefully



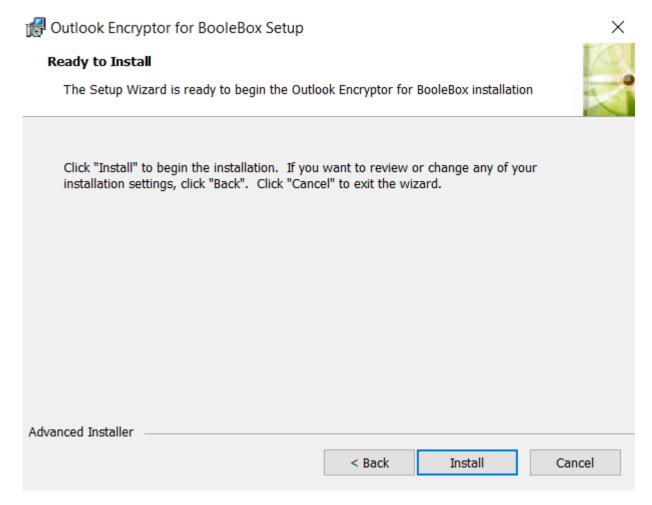
- BOOLE SERVER™ END-USER LICENSE AGREEMENT ("EULA") Premise and Definitions. This End-User License Agreement ("EULA" or "Agreement") is made by and between Boole Server s.r.l. ("Boole Server") and the customer as an essential element of the services ("Services") to be rendered by Boole Server as defined in the Agreement and any associated documents. Customer and Boole Server agree that this EULA is ... I accept the terms in the License Agreement I do not accept the terms in the License Agreement Advanced Installer < Back Next > Cancel
- In the SELECT INSTALLATION FOLDER screen, click on BROWSE if you want to change the installation path of the application.
- Click on NEXT.





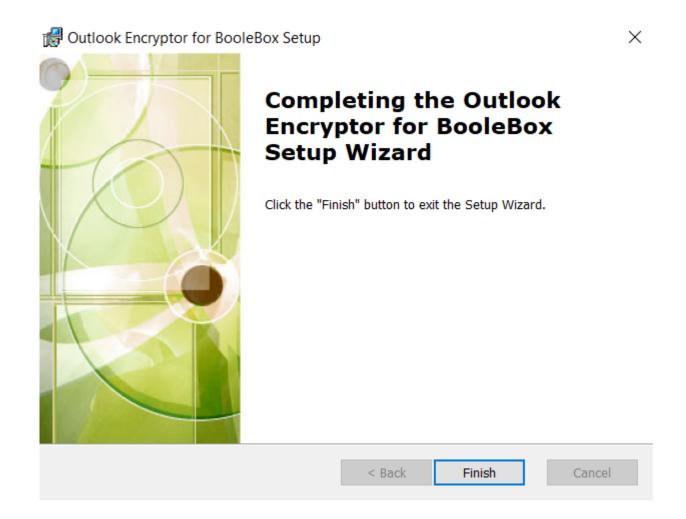
• On the installation start screen, click on INSTALL.





• Click on FINISH to complete the installation of the Outlook Encryptor application.





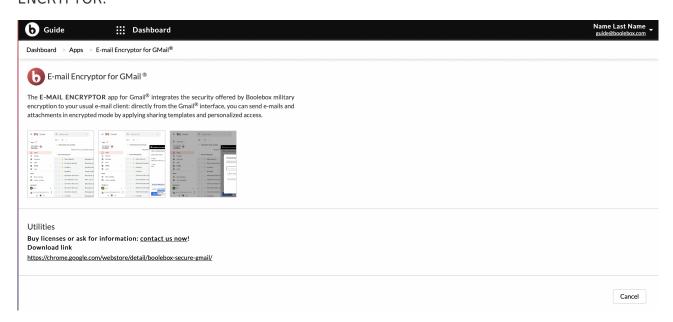


7.3 Gmail Encryptor installation

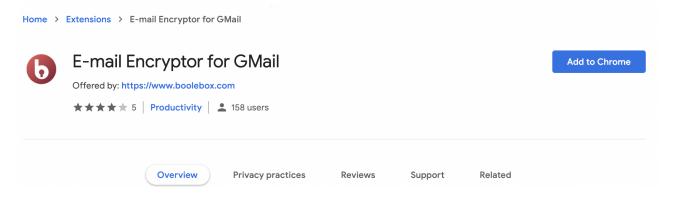
Gmail Encryptor installation procedure, i.e. the component allowing to send encrypted e-mails directly from Gmail mail client.

To complete the Gmail Encryptor component installation:

 Visit the DOWNLOAD section of boolebox.com and click on DONWLOAD GMAIL ENCRYPTOR.



• In the BOOLEBOX SECURE GMAIL window, click on ADD TO CHROME.





- In the window that is going to pop up on your screen, click on ADD EXTENSION.
- The item will now display the indication REMOVE FROM GOOGLE CHROME.



8 Platform update

In case of new updates, with the exception of the components with automatic update, you will receive a communication from the technical support team, which will provide you with the setup file to be used respecting the steps listed in this section. Before updating any component of BooleBox On-Premises platform, it is necessary to backup or snapshot the Database and the Storage and note all the configurations (ports, IP addresses, etc.) indicated in BooleBox On-Premises CONTROL PANEL.

Note: for the update of the third-party software Office Online Editor and MySQL, please refer to the suppliers' websites: https://www.microsoft.com/en-us, https://www.mysql.com/uk/.

8.1 Server components update

Boolebox Updater is a software solution dedicated to On-Premises Boolebox instances with the following tasks:

- Keep a list of machines or nodes on which BooleBox server components are installed;
- Keep the list of BooleBox components installed on the different nodes updated and check their update status;
- Check for new updates (only with default repository managed by Boole Server);
- Update one or more components on multiple nodes at the same time.

Note: before proceeding with the component update, it is always strongly recommended to back up the database and create an updated snapshot of all nodes.

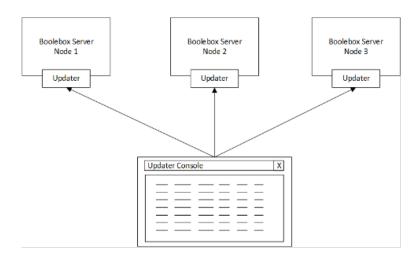


8.1.1 Update with BooleBox Updater

Boolebox Updater is the component that allows the guided update of the following platform components: Boolebox Webapp, Document Service, Storage Service, NodeJS, SignalR, Server Service and AD Service.

Boolebox Updater consists of:

- **Boolebox Updater Console (or** *Console***)**: a desktop application that allows you to perform the following tasks:
 - keep track of the nodes of a Boolebox configuration
 - keep track of the version of the server components installed on the different nodes
 - check for updates for each Boolebox server component
 - allows you to download updates and install them on the nodes
- Boolebox Updater Service (or Updater): a Windows service that must be installed on each node and performs the following tasks:
 - provide information to the console about the server components installed on the node and the version
 - backup and install updates when requested by the console





8.1.1.1 Updater Service installation

Note: it is advisable to install the service on each node before installing and configuring the Console.

Note: 20 GB of free space is required for successful installation and running of the Updater service.

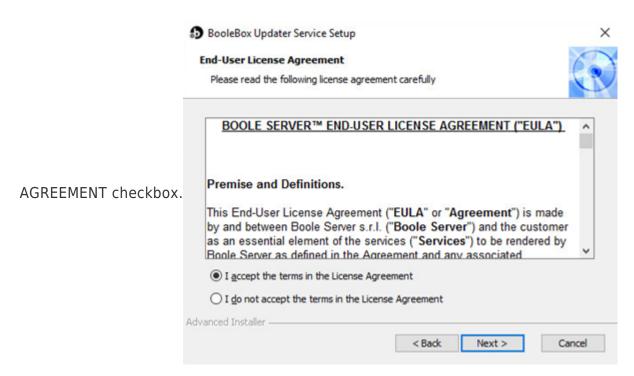
Note: the service requires the TCP $\!\!\!/$ 2452 port to be opened in order to communicate correctly with the console

• In the welcome screen relating to the installation of the UPDATER component, click on NEXT.

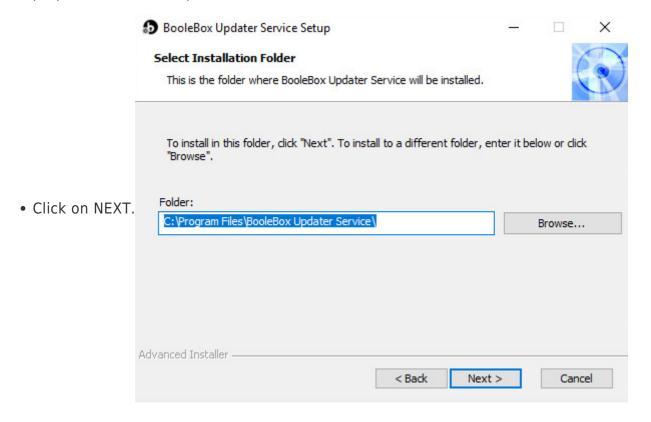


• In the End-User License Agreement window, click on I ACCEPT THE TERMS IN THE LICENSE

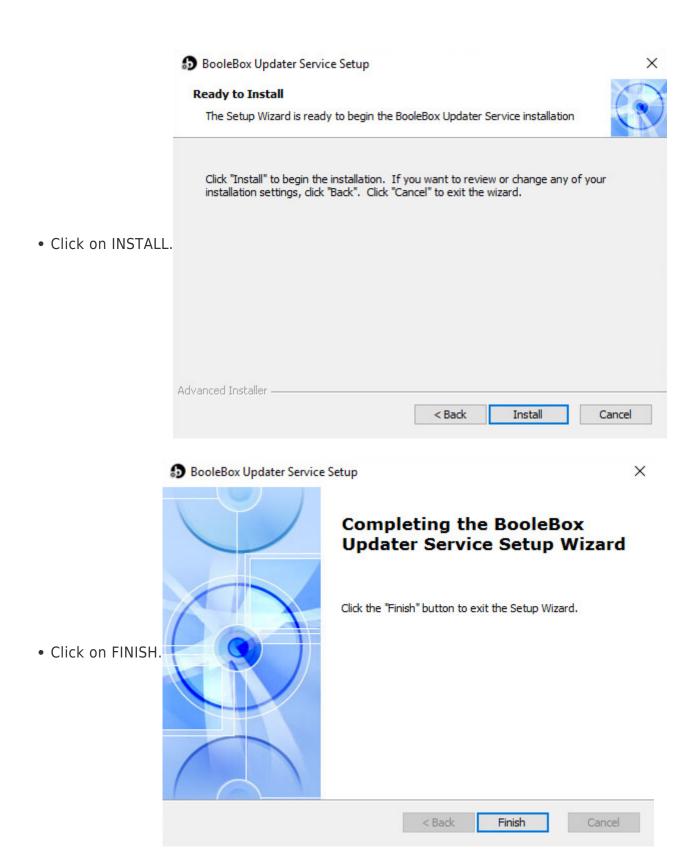




• In the SELECT INSTALLATION FOLDER window, click on BROWSE if you want to change the proposed installation path.









8.1.1.2 Updater Console installation

Note: You must have 10 GB of free space for the Console to install and run successfully.

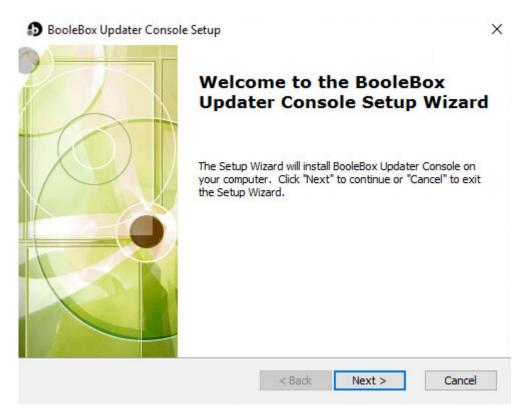
Note: the Console can be installed on any node or on an external machine as long as it is able to reach all BooleBox nodes via the TCP / 2452 protocol.

Note: The Console requires administrative rights to run once installed

Note: it is strongly recommended to install the updater service on the different nodes and then perform the installation and configuration of the Console

• In the welcome screen relating to the installation of the console executable, press NEXT.





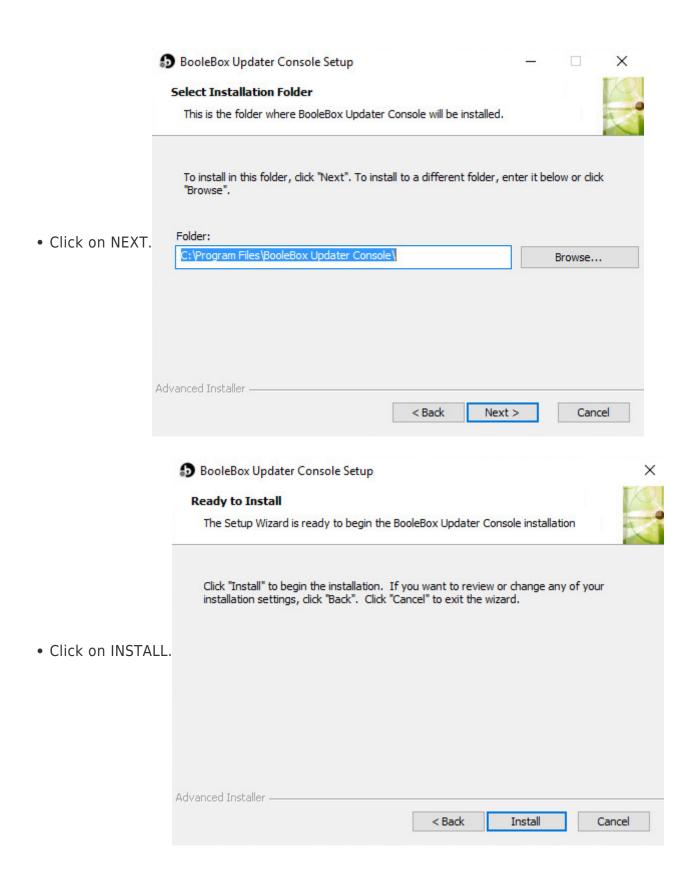
• In the END-USER LICENSE AGREEMENT, select the I ACCEPT THE TERMS IN THE LICENSE AGREEMENT checkbox.



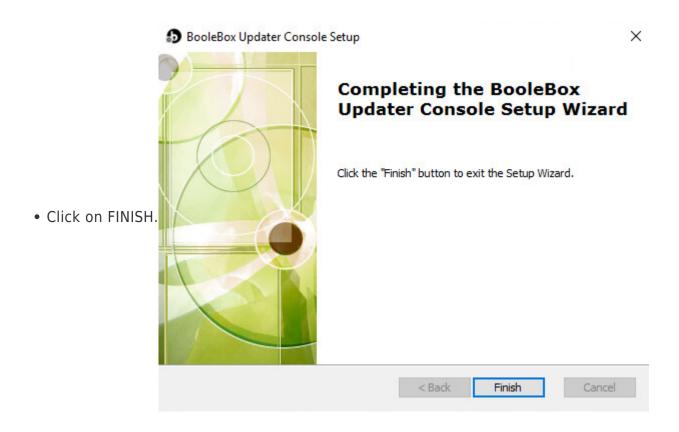


• In the SELECT INSTALLATION FOLDER window, click on BROWSE if you want to change the proposed installation path.









8.1.1.3 Boolebox Updater Console

Before proceeding with the configuration of the Console, make sure you have installed the Updater on all the nodes of the Boolebox infrastructure.

Verify that the console is communicating with all Updaters on TCP/2452 port.

8.1.1.3.1 Updates Repository

It is a folder or a network location (http / shared folder) containing the installation packages of the Boolebox server components.

Through the repository, the Console is able to retrieve and send the installation packages to



the individual Updater.

There are two types of repositories:

- cloud managed by Boole Server in which boole server technicians will put the packages released by the company, the cloud repository is available at the following link https://bbonprem.booleserver.com/updater
- local at the customer for on-prem solutions which can be of two types:
 - published on internal server over HTTPS
 - published on a network folder
 - in a local folder on the server / pc where the console is installed
 The format of the address of the local repository must be
 \servername\networkshare or https://internalserveraddress.

In the case of a repository managed by Boole Server, no additional operations are required; in the case of a repository at the customer's, the following actions must be performed:

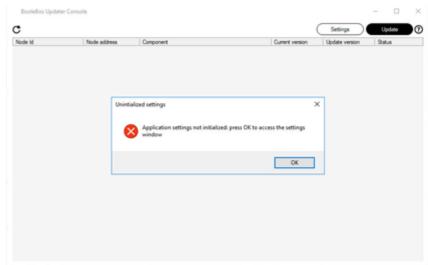
- Download the component packages to be updated. There are two files to download for each component: the package zip file and the package signature txt file
- Remove the old versions of the components to be installed
- Copy the newly downloaded packages to your chosen repository
- Download the update index (updates.txt) from the Boole Server site and copy it to the repository
- Contact Boole Server support for more information on how to download the necessary files

Note: on first use, all components (both the zip and txt file) available at the Boole Server online repository including the index must be downloaded.

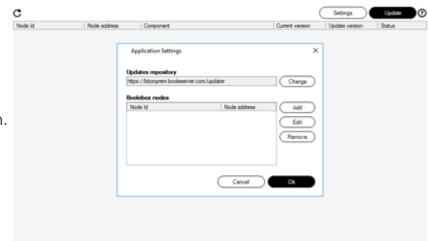
8.1.1.3.2 Application configuration

At the first start, the screen will appear where the lack of configuration is notified.





By clicking on OK the Settings



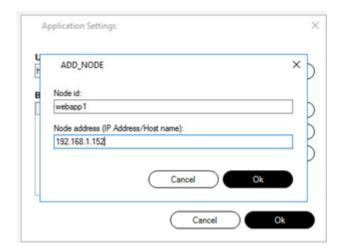
section will automatically open.

If you intend to use the Boole Server repository you will not need to make any changes in the updates repository field. Otherwise, if you want to use your own repository, you will need to click on CHANGE and enter the address of the local repository as per the Update Repository guide.

At this point all the nodes of the Boolebox infrastructure must be entered. By clicking on ADD the following screen will appear where you can enter:

- Node id: the unique identifier of the node
- Node address: the ip address or hostname of the node

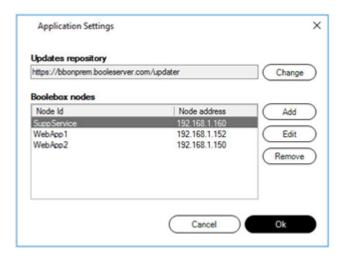




Note: it is not possible to add nodes with the same identifier or ip address or add a node not reachable from the console. The updater service must be installed and running on each node before starting the Console configuration.

When you have finished entering all the nodes present in the Boolebox infrastructure, click OK.

Below is an example of the compiled node table:

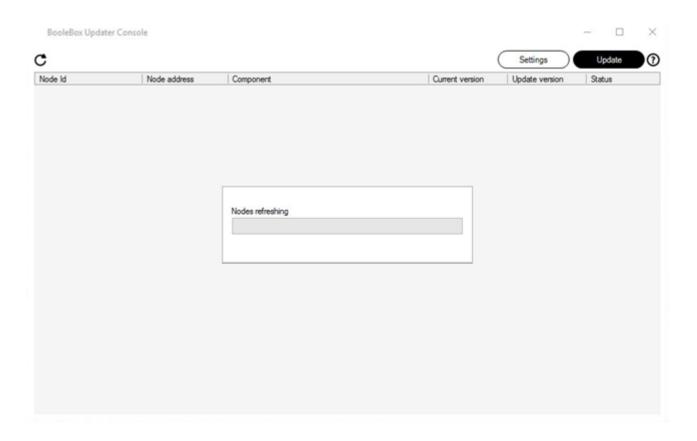


The Edit button only allows you to change the Node Id of a particular node, if you also want to change the IP address you must necessarily delete the node and re-

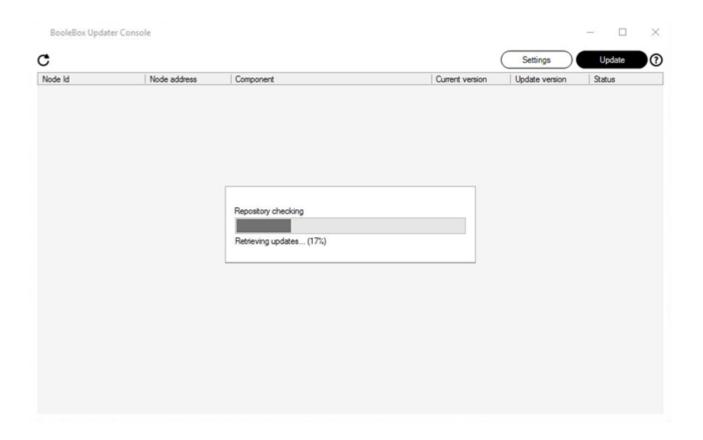


enter it.

Following each modification and confirmation of the settings, a check of the nodes inserted is automatically carried out and then the repository is checked.







At the end of the check we will find ourselves in the main console screen. The main window shows:

- The REFRESH button / icon through which you can request the update of information regarding the server components installed on the different nodes;
- The SETTINGS button through which you can access the application configuration;
- The UPDATE menu that allows you to perform updates.

The main element of the screen is the components table which contains the following information:

- The node id
- The ip address / hostname of the node
- The name of the component
- The current version of the component
- The version of the update available



- The current state of the component
- The allowed states are: Updated, Update required, Error and Critical.

States that will be explained in detail later in the section *Management of the different statuses*.

Node ld	Node address	Component	Current version	Update version	Status
Supp Service	192.168.1.160	UpdaterService	1.0.0.76		Updated
Supp Service	192.168.1.160	SignalR	1.5.0.0	1.7.0.0	Update required
Supp Service	192.168.1.160	NodeJs	1.1.2.0	1.1.3.0	Update required
Supp Service	192,168.1.160	DocumentManager	1.2.3.0	1.2.4.1	Update required
Supp Service	192.168.1.160	StorageService	1.1.7.0	1.1.7.1	Update required
Supp Service	192.168.1.160	ActiveDirectoryService	1.2.0.0	1.2.0.1	Update required
Supp Service	192.168.1.160	ServerService	1.2.0.0	1.2.1.0	Update required
WebApp1	192,168.1.152	UpdaterService	1.0.0.76		Updated
WebApp1	192.168.1.152	WebApplication	4213	4232	Update required
WebApp1	192.168.1.152	ServerService	1.2.0.0	1.2.1.0	Update required
WebApp2	192.168.1.150	UpdaterService	1.0.0.76		Updated
WebApp2	192.168.1.150	WebApplication	4.2.1.3	4232	Update required
WebApp2	192.168.1.150	ServerService	1.1.1.0	1.2.1.0	Update required

8.1.1.3.3 Components and nodes refresh

If the availability of a new release is announced by Boole Server, the administrator can relaunch the Console to carry out the updates.

Depending on the type of repository, any preparatory activities for the update may be necessary:

Boole Server repository: no user activity is required local repository – the user will need to update their local repository by following the instructions in the Update Repository guide

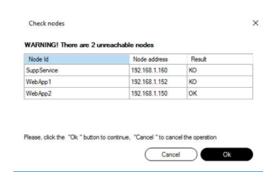
By pressing the REFRESH button/icon, the application updates the information regarding the



server components installed on the different nodes. During the operation, a waiting panel is shown with a progress-bar whose progress corresponds to the number of interrogated nodes.

At the end of the operation, if it was not possible to query one or more nodes, a summary window will be shown showing the nodes without feedback.

By pressing OK it is possible to return to the main screen.



Note: The application allows you to continue even though a node is not reachable, this node will not be updated until the reachability problem is resolved.

At this point you can proceed with the Performing updates procedure.

8.1.1.3.4 Updates execution

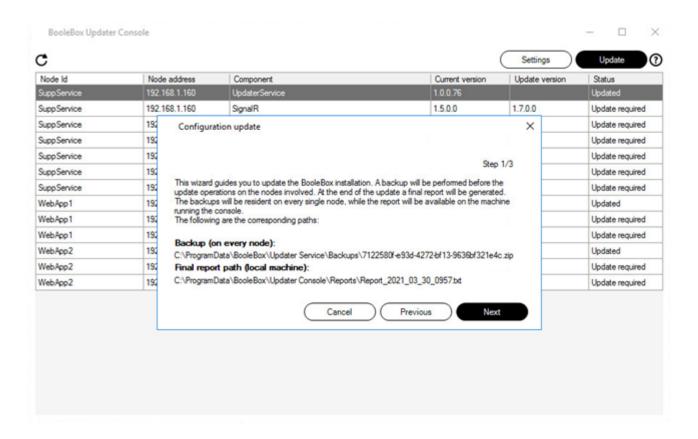
Note: before proceeding with the component update, it is always strongly recommended to back up the database and create an updated snapshot of all nodes.

It will be possible to make the update request by clicking on the UPDATE button from the main screen. If one or more nodes are not reachable, the previous figure will be shown, by clicking on OK it will be possible to continue updating the remaining nodes.

ATTENTION: The update will obviously not be possible if all the nodes in the configuration are not reachable. It will not be possible even if the update includes both the WebApplication and other components and all the WebApplications are among the unreachable nodes.

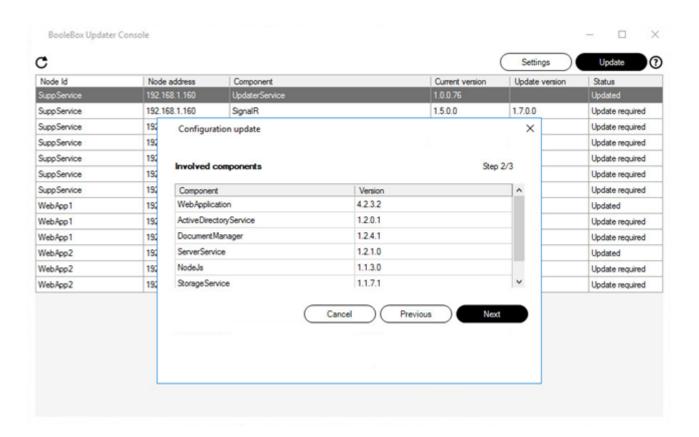


The next screen will indicate the general information about the update such as the path of the backups and the path of the final report that will be generated at the end of the backup procedure. Click on NEXT to proceed to the list of components that will be updated.



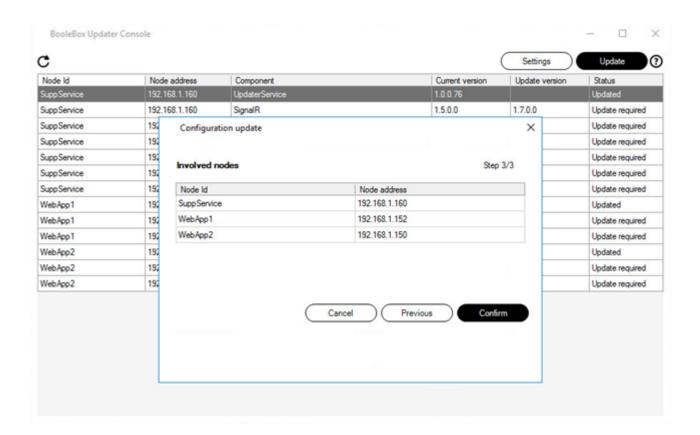
Click on NEXT to view the list of nodes interested in the update.





Click on CONFIRM to start the update.

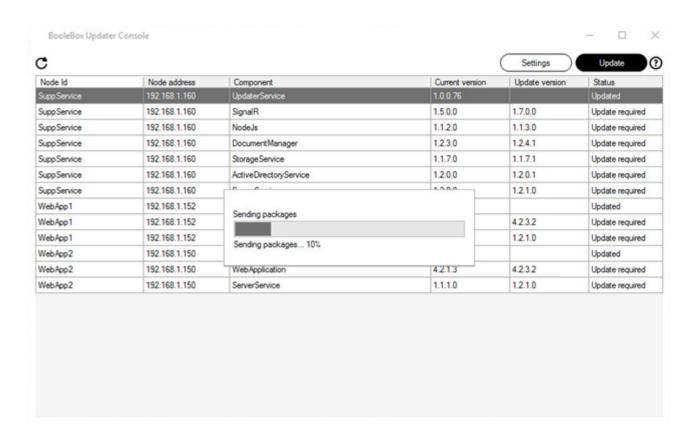




Note: if both the updater service and other components are present in the updates available, two updates must be performed in succession as the updater service cannot be updated together with other components.

At the first request, the service will be updated on all nodes of the configuration while at the second request the remaining components will be updated.





At the end of the update procedure, the summary table will appear showing the update result for each node and related component.

Result that could be:

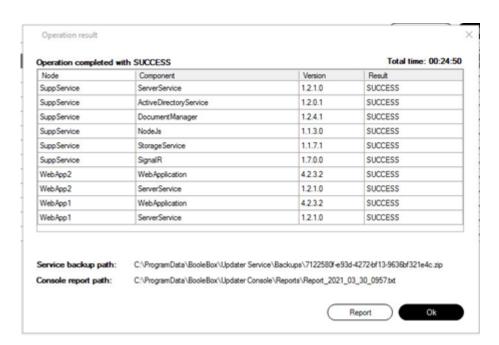
SUCCESS: update successful

ERROR: indicates that there was an error in the update and an automatic rollback was made only for that node / component.

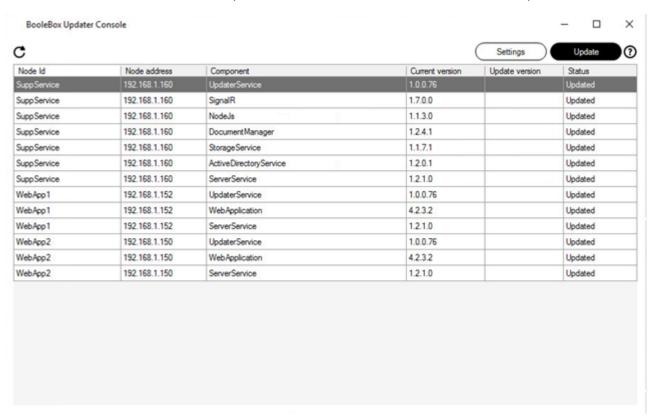
CRITICAL: A critical error has occurred.

Click OK to return to the main screen.





The main screen will have the updated status for all nodes and their components.





8.1.1.3.5 Statuses managing

SUCCESS/UPDATED

In the case of SUCCESS no further operation is required as all components have been successfully updated.

UPDATE REQUIRED

The node/component must be updated to the version indicated in the Update version column.

ERROR

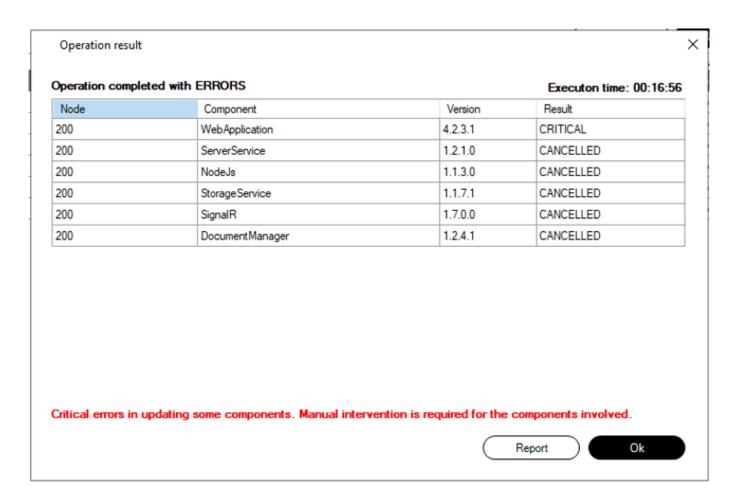
If the ERROR was generated by a failed update of the Web Application, all updates relating to the remaining components are canceled. At this point, it will be mandatory to restore the database backup made by the user before starting the update procedure. (Except in the event that another web application has already been successfully updated in the same update process).

It is recommended to restart the node and try the update again. If the error recurs, it is advisable to retrieve the log as specified in the LOG section and contact support during assistance hours.



If the ERROR was generated by another component, it is advisable to restart the node and try the update again. If the error recurs, it is advisable to retrieve the log as specified in the LOG section.

CRITICAL



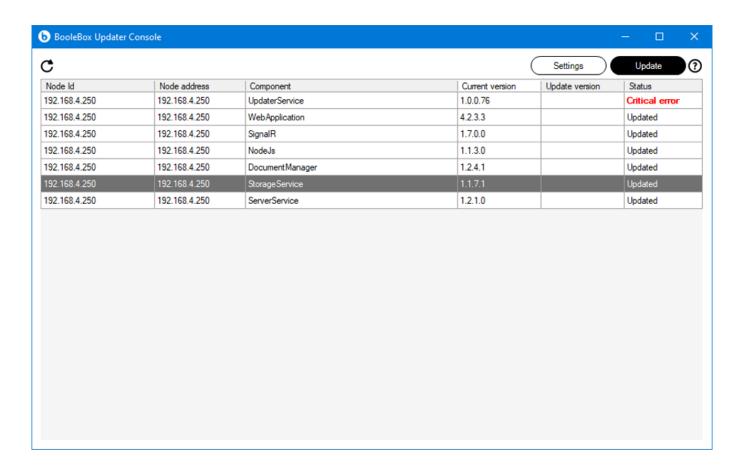


A CRITICAL error is generated when both the update and the automatic backup restore have failed for a component.

In this case, the component remains in an indefinite state and manual intervention by the user is required to solve the problem.

It is recommended that you restore the full server from snapshots and contact boolebox support during support hours.

The "critical error" status is also reported in the main application window in the list of components / nodes:



By double clicking on the line relating to the error, a window will appear showing the cause of the error.



Critical error				
Component update failed and a problem occurred during automatic restore of the previous version:				
Error during file extraction from component archive: Access to the path 'C:\Program Files\BooleBox on-premises\AWSSDK.dll' is denied.				
Manual intervention is required to update or restore the component and to remove the error status. We recommend that you fix the problem and then manually remove the error status.				
If you remove the error status, you will no longer be able to read the error details. Do you want to remove the error status from the component now?				
Cancel Remove the alert				

In the main window, the critical state remains until the user expressly requests to remove it. To remove the "critical" status, simply press the "Remove the alert" button on the previous screen.

The actions to be implemented in the event of a critical error are:

WebApp case

Retrieving the logs from the node affected by the error
Snapshot restore of affected server / node
Restore the database
Contact Boole Server support providing the logs retrieved previously case other components

Retrieving the logs from the node affected by the error
Snapshot restore of affected server / node
Contact Boole Server support providing the logs retrieved previously
LOG



The default path of the Boolebox Updater Service logs on all nodes is:

% programdata% BooleBoxUpdater ServiceLogs

The default path for the Boolebox Updater Console logs and reports is:

% programdata% BooleBoxUpdater ConsoleLogs

% programdata% BooleBoxUpdater ConsoleReports

The last log generated by the Updater can be identified by the following file name BooleBoxUpdaterGuest-XXXX-XX-XX.txt where with XXXX-XX-XX is indicated the date of the update attempt.

The last report generated by the Console can be identified by the following file name Report_ XXXX-XX_XXXX.txt where with XXXX-XX_XXXX is indicated the date and time of the update attempt.



8.2 Additional server components update

Update procedure of additional server components, useful for exploiting all the functionalities provided by BooleBox platform.

8.2.1 BooleBox AD Service

To perform the BooleBox AD Service update procedure:

- Open the IIS service.
- Select the BooleBox AD Service site.
- Open the Bindings and note the parameters related to the certificate used.
- Open the Windows CONTROL PANEL and uninstall BooleBox AD Service.
- Install the new version of AD Service by following the steps listed in the AD SERVICE INSTALLATION section.
- After completing the installation procedure, open again the IIS service and add the Binding on the chosen port by selecting the appropriate certificate.
- Make an IIS reset by running iisreset.exe from Windows Powershell.

8.2.2 BooleBox AD Sync

To perform the AD Sync update procedure:

- Open the Windows CONTROL PANEL and uninstall BooleBox AD Sync.
- Install the new version of AD Sync by following the steps listed in the BOOLEBOX AD SYNC INSTALLATION section.



8.2.3 File Encryptor Server

To perform the File Encryptor Server update procedure:

- Open the Windows CONTROL PANEL and uninstall BooleBox File Encryptor Server.
- Install the new version of File Encryptor Server by following the steps listed in the BOOLEBOX FILE ENCRYPTOR SERVER INSTALLATION section.



8.3 Additional client components update

Update procedure of additional client components, useful for exploiting all the functionalities provided by BooleBox platform.

8.3.1 File Encryptor Client

To perform the File Encryptor Client update procedure:

- At the opening of the application, it will check for an updated version of the File Encryptor Client component.
- Follow the installation procedure of the updated executable automatically proposed after login.

8.3.2 Smart Secure Sync

To perform the Smart Secure Sync update procedure:

- At the opening of the application, it will check for an updated version of the Smart Secure Sync component.
- Follow the installation procedure of the updated executable automatically proposed after login.

8.3.3 Outlook Encryptor

To perform the Outlook Encryptor update procedure:



- Open the Windows CONTROL PANEL and uninstall BooleBox Outlook Encryptor.
- Install the new version of Outlook Encryptor by following the steps listed in the BOOLEBOX OUTLOOK ENCRYPTOR INSTALLATION section.

8.3.4 Gmail Encryptor

The Gmail Encryptor component, proposed and distributed through the Google Chrome store, will be automatically updated by it: the new features and/or graphic improvements will therefore be available in real time.



9 Installation - troubleshooting

Welcome to the INSTALLATION TROUBLESHOOTING section of BooleBox guide. In this section you will find useful indications aimed at solving typical problems that may arise during BooleBox On-Premises installation phases. The section puts at your disposal both a paragraph which groups together the error situations common to the installation procedures of all the components described in this guide and some paragraphs dedicated to the peculiar error situations of each component.

9.1 Common errors

BooleBox is a solution consisting of numerous components, many of which can present common problems during installation, such as:

- **UNSUPPORTED OPERATING SYSTEM:** BooleBox On-Premises installation must be carried out on a machine configured in accordance with the installation prerequisites described in the INSTALLATION PREREQUISITES section of this guide. In the event that the installation procedure does not come to an end due to an error relating to a version of the operating system, please check that this is among those supported for the installation of BooleBox platform.
- USERS WITHOUT ADMINISTRATIVE PRIVILEGES: in the event that the installation procedure does not come to an end due to an error relating to the users or the privileges necessary for the installation, please verify that the user designed for the installation has the rights to install the software on the server(s) dedicated to the installation of the specific server or client component. For any information regarding the rights necessary for the user designated to the installation, check the USERS AND INSTALLATION PRIVILEGES section of this guide.
- **INSUFFICIENT SPACE ON DISK:** in the event that the installation procedure of any component fails to complete due to a disk space error, please verify that the storage



space available on the server(s) dedicated to the installation of the specific server or client component is sufficient, as indicated in the INSTALLATION PREREQUISITES section of this guide.



9.2 BooleBox On-Premises installation – troubleshooting

In order to proceed correctly with the installation of BooleBox On-Premises, it is necessary that the .NET components indicated in the INSTALLATION PREREQUISITES section have been installed on the server(s) dedicated to the installation of BooleBox On-Premises. In the event that the BooleBox On-Premises installation procedure does not come to an end due to an error relating to the absence of one of the .NET components, check that all the components necessary for the correct installation of BooleBox On-Premises have been installed, as indicated in the INSTALLATION PREREQUISITES section of this guide.

For error situations common to all components, see the COMMON ERRORS paragraph of this section.



9.3 MySQL DB installation – troubleshooting

To proceed with the correct installation of MySQL database, it is necessary to have installed the Visual C++ 2013 Redistributable component. In the event that the MySQL database installation procedure does not come to an end due to the absence of Visual C ++ 2013 Redistributable component, please proceed with the installation of the required component as indicated in the INSTALLATION PREREQUISITES section of this guide.

For error situations common to all components, see the COMMON ERRORS paragraph of this section.



9.4 Outlook Encryptor installation - troubleshooting

If the installation procedure of the Outlook Encryptor component is not successful, check that the version of Microsoft Office installed is among those supported for the installation of the component, as described in the INSTALLATION PREREQUISITES section of this guide.

For error situations common to all components, see the COMMON ERRORS paragraph of this section.



9.5 Office Online installation – troubleshooting

For issues concerning the installation of the Office Online Server platform, please refer to the Microsoft official installation page..