



IBM Architecture Room LIVE! Installation

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Chapter 1. Installing IBM Architecture Room LIVE!

IBM Architecture Room LIVE! supports installation with and without Internet connectivity (offline). IBM Architecture Room LIVE! provides installation scripts which can be used for installation and deployment of the web server. These are Node JS scripts and work on both Windows and Linux. The following sections cover the different procedures for each of the scenarios.

To update an existing version of the application, go directly to Chapter 2, “Updating IBM Architecture Room LIVE!,” on page 13.

IBM Architecture Room LIVE! system requirements

Your environment must meet or have these prerequisites, operating systems, and other software versions for installing and running IBM Architecture Room LIVE!

Prerequisites

- Mongo database version 4.0.1
- Node JS version 8.11.3
- PM2 version 3.2.2
- Ensure Java version 8 or later is installed on the server where the licensing agent server is running.
- Before you start the license server agent, ensure that Rational Common Licensing server is configured with the IBM Architecture Room LIVE! license features.

Note: Microsoft Visual C++ Redistributable Package is available by default, but you might have to reinstall it, if you find any errors related to this package while installing IBM Architecture Room LIVE!

Operating systems

The following operating systems are supported by the IBM Architecture Room LIVE! Server:

- Red Hat Enterprise Linux (RHEL) Server x86-64 version 6.8.x, 7.x, or later
- Windows Server 2016 (all editions) 64-bit
- Windows Server 2012 Standard Edition 64-bit
- Windows Server 2012 R2 Standard Edition 64-bit
- Windows Server 2012 Datacenter Edition 64-bit
- Windows Server 2012 R2 Datacenter Edition 64-bit
- Windows Server 2008 R2 Enterprise Edition 64-bit
- Windows Server 2008 R2 Standard Edition 64-bit
- Windows 10 64-bit
- Windows 7 64-bit

Browser support

The IBM Architecture Room LIVE! Web application works best with the recent versions of three web browsers. Use the following versions of these web browsers:

- Chrome version 67 or later
- Firefox version 57 or later
- Safari

Screen resolution

The display of IBM Architecture Room LIVE! on your monitor depends on the monitor, screen resolution, and browser zoom settings. The recommended screen resolution for a sharp quality display is 1920 x 1080 pixels. If your screen resolution is not in accordance with the required specification, then during login, you are prompted to check your resolution. If your screen resolution is low, then you can adjust the zoom level of your browser by using the Ctrl and + keys or Ctrl and - keys for optimal visual experience.

About the installation scripts

Use the **node** command for running the IBM Architecture Room LIVE! installation and deployment scripts.

List of installation scripts

The following table summarizes the scripts that are used, what the scripts do, and what they assume from the environment:

preinstall-dr.js	Downloads the Mongo database and the PM2 process management application from the internet. The license agreements of these applications prevent us from bundling them with IBM Architecture Room LIVE!. This script must be run on a computer with internet access.
install-dr.js	Installs the Mongo database and the PM2 process management application. Run this script on the computer where you want to install the IBM Architecture Room LIVE! web server. No internet access is required.
deploy-dr.js	Starts the Mongo database and launches the IBM Architecture Room LIVE! web server. Run this script on the same computer where the install-dr.js script was run.

Note: On Linux, the Mongo database is not downloaded and installed automatically by the scripts. For this reason, the best way to install Mongo on Linux is to use the package management system that is provided by each Linux distribution. See Mongo documentation for more information.

Installing on Windows with Internet

When you have Internet access, installing IBM Architecture Room LIVE! on Windows is a quick procedure.

Procedure

1. Extract the file IBM_Architecture_Room_LIVE_<version>_setup.zip to an empty folder <live-install-folder>. For example, the name of the ZIP file might be IBM_Architecture_Room_LIVE_V9.7_setup.zip.

Note: The built-in "Extract All..." utility in Windows has a limitation on the length of the path names of the extracted files. You can reduce the risk of running into this limitation by extracting the compressed file into a folder where the full path name is short. If this doesn't help, use a better extraction utility, such as 7-zip.

2. Install Node JS. You must have the administrative access on the machine to perform the installation.
 - a. Double-click <live-install-folder>\server-sw\win32_x86_x64\node-v8.11.3-x64.msi.
 - b. Accept the default installation options. The Windows installer automatically updates the PATH variable. Before you proceed, test that the node command is available from the command prompt by typing the following command:

```
node --version
```

The version of Node JS should be printed.

Note: If you do not have administrative access to your machine, then you may get errors when running the installation and deployment scripts. To get the administrative rights, right-click Command Prompt program in the **Start** menu and select Run as administrator.

3. Open a new command prompt in the administrative mode and go to <live-install-folder>\DR_Install folder. Run the following command:

```
node preinstall-dr.js
```

The **preinstall-dr.js** script downloads the Mongo database and the PM2 process management application from the Internet. The downloaded applications are placed in the following path: <live-install-folder>\DR_Install\downloaded.

The next script to run is **install-dr.js** which installs the Mongo database and the PM2 process management application. The installation is controlled by the settings in the file <live-install-folder>\DR_Install\dr-config.json. Review these settings and update them if needed before running the script. Settings marked with the *// user option comment* are those that you may want to change before installing.

4. Perform the installation by running the following command:

```
node install-dr.js
```

The installation of the IBM Architecture Room LIVE! web server is now complete, and it is ready to be deployed. The deployment settings are found in <live-install-folder>\DR_Install\dr-config.json and you can customize the settings as described earlier.

5. Stop the **MongoDB service** in Windows Services, and change its **Startup Type** to Manual. This step is important for the deploy script to create the data folder in the path specified in the dr-config.json file.
6. Configuring license server.

Prerequisites:

- Ensure Java version 8 or later is installed on the server where the licensing agent server is running.
- Before you start the license server agent, ensure that Rational Common Licensing server is configured with the IBM Architecture Room LIVE! license features.

- a. **Start the licensing agent on Windows:** Run the following command:

```
java -cp . -jar DRLiveLicenseAgent.jar [server_port@license_server_host_address] [agent_port]
```

For example: `java -cp . -jar DRLiveLicenseAgent.jar 27000@1.2.3.4 6666`, where 27000 is the license server port number, 1.2.3.4 is the host address, and 6666 is the license agent port number.

- b. **Configure IBM Architecture Room LIVE!**

- 1) Update `licenseAgentURL` value in the `<live-install-folder>\user_config.js` file to include the license server agent details. For example: `licenseAgentURL: http://localhost:6666`
- 2) Restart IBM Architecture Room LIVE!

Note: If licensing is not configured, then IBM Architecture Room LIVE! will run on trial license mode for 60 days by default. Trial license will expire after 60 days, and users are warned about the same from two-weeks before the trial license expiration date and are reminded to configure the product license. To use the product after the trial license expires, you must activate a valid IBM Architecture Room LIVE! license.

7. Deploy the server by running the following command:

```
node deploy-dr.js
```

This script starts up the Mongo database (unless it is already running). It then starts the IBM Architecture Room LIVE! web server by using the PM2 process management application. The settings for how to deploy the server are stored in the PM2 configuration file `<live-install-folder>\DR_Install\pm2.config.js`. You can edit this file as needed.

The deployment script finishes by printing the URL of the IBM Architecture Room LIVE! Web server. Test whether the installation and deployment was successful by opening the URL in a web browser. For example, the default settings in `pm2.config.js` yields the following URL:

`https://localhost/index.html`

If the web server uses a self-signed certificate (by default it does), you need to ignore the browser security warning. After that, you should see the IBM Architecture Room LIVE! application:



Installing on Windows without Internet

Installing on Windows without Internet involves a few manual steps in the procedure.

Procedure

1. Download the IBM_Architecture_Room_LIVE_<version>_setup.zip file in a system that has Internet access.
2. Extract the file IBM_Architecture_Room_LIVE_<version>_setup.zip to an empty folder <live-install-folder>. For example, the name of the ZIP file might be IBM_Architecture_Room_LIVE_V9.7_setup.zip.

Note: The built-in "Extract All..." utility in Windows has a limitation on the length of the path names of the extracted files. You can reduce the risk of running into this limitation by extracting the compressed file into a folder where the full path name is short. If this doesn't help, use a better extraction utility, such as 7-zip.

3. Install Node JS. You must have the administrative access on the machine to perform the installation.
 - a. Double-click <live-install-folder>\server-sw\win32_x86_x64\node-v8.11.3-x64.msi.
 - b. Accept the default installation options. The Windows installer automatically updates the PATH variable. Before you proceed, test that the node command is available from the command prompt by typing the following command:

```
node --version
```

The version of Node JS should be printed.

Note: If you do not have administrative access to your machine, then you may get errors when running the installation and deployment scripts. To get the administrative rights, right-click Command Prompt program in the **Start** menu and select Run as administrator.

4. Open a new command prompt in the administrative mode and go to <live-install-folder>\DR_Install folder. Run the following command:

```
node preinstall-dr.js
```

The **preinstall-dr.js** script downloads the Mongo database and the PM2 process management application from the Internet. The downloaded applications are placed in the following path: <live-install-folder>\DR_Install\downloaded.

5. Go to the machine that does not have access to internet, where you want to install the IBM Architecture Room LIVE! web server, and copy the <live-install-folder> to the installation machine. Continue to run the remaining steps on that machine. As a prerequisite, you must have installed Node JS on that machine (see step 3).

The next script to run is **install-dr.js** which installs the Mongo database and the PM2 process management application. The installation is controlled by the settings in the file <live-install-folder>\DR_Install\dr-config.json. Review these settings and update them if needed before running the script. Settings marked with the *// user option comment* are those that you may want to change before installing.

6. Perform the installation by running the following command:

```
node install-dr.js
```

The installation of the IBM Architecture Room LIVE! web server is now complete, and it is ready to be deployed. The deployment settings are found in <live-install-folder>\DR_Install\dr-config.json and you can customize the settings as described earlier.

7. Stop the **MongoDB service** in Windows Services, and change its **Startup Type** to Manual. This step is important for the deploy script to create the data folder in the path specified in the dr-config.json file.
8. Configuring license server.

Prerequisites:

- Ensure Java version 8 or later is installed on the server where the licensing agent server is running.
- Before you start the license server agent, ensure that Rational Common Licensing server is configured with the IBM Architecture Room LIVE! license features.

- a. **Start the licensing agent on Windows:** Run the following command:

```
java -cp . -jar DRLiveLicenseAgent.jar [server_port@license_server_host_address] [agent_port]
```

For example: `java -cp . -jar DRLiveLicenseAgent.jar 27000@1.2.3.4 6666`, where 27000 is the license server port number, 1.2.3.4 is the host address, and 6666 is the license agent port number.

- b. **Configure IBM Architecture Room LIVE!**

- 1) Update `licenseAgentURL` value in the <live-install-folder>\user_config.js file to include the license server agent details. For example: `licenseAgentURL: http://localhost:6666`
- 2) Restart IBM Architecture Room LIVE!

Note: If licensing is not configured, then IBM Architecture Room LIVE! will run on trial license mode for 60 days by default. Trial license will expire after 60 days, and users are warned about the same from two-weeks before the trial license expiration date and are reminded to configure the product license. To use the product after the trial license expires, you must activate a valid IBM Architecture Room LIVE! license.

9. Deploy the server by running the following command:

```
node deploy-dr.js
```

This script starts up the Mongo database (unless it is already running). It then starts the IBM Architecture Room LIVE! web server by using the PM2 process management application. The settings for how to deploy the server are stored in the PM2 configuration file <live-install-folder>\DR_Install\pm2.config.js. You can edit this file as needed.

The deployment script finishes by printing the URL of the IBM Architecture Room LIVE! web server. Test whether the installation and deployment was successful by opening the URL in a web browser. For example, the default settings in `pm2.config.js` yields the following URL:

```
https://localhost/index.html
```

If the web server uses a self-signed certificate (by default it does), you need to ignore the browser security warning. After that, you should see the IBM Architecture Room LIVE! application:



Installing on Linux with Internet

Use the following steps to install IBM Architecture Room LIVE! on a Linux machine that has the Internet access.

Procedure

1. Extract the file `IBM_Architecture_Room_LIVE_<version>_setup.zip` to an empty folder `<live-install-folder>`. For example, the name of the ZIP file might be `IBM_Architecture_Room_LIVE_V9.7_setup.zip`.
2. Download Mongo DB and install in the system. See the Mongo documentation for more information.
3. Install Node JS. You must have the administrative access on the machine to perform the installation.
 - a. Run the following command in a shell:

```
tar -Jxf <dr-install-folder>/server-sw/linux_x86_x64/node-v8.11.3-linux-x64.tar.xz
```

Note: You must manually update the `PATH` variable so that it contains the `bin` folder of the Node JS installation.

Before you proceed, ensure that the `node` command is available from the command line:

```
node --version
```

The version of Node JS should be printed.

Note: If you do not have root access to your machine, then you may get errors when you run the installation and deployment scripts.

4. Go to `<live-install-folder>/DR_Install` folder and run the following command:

```
sudo node preinstall-dr.js
```

The `preinstall-dr.js` script downloads the PM2 process management application from the Internet. The downloaded applications are placed in the following path: `<live-install-folder>/DR_Install/downloaded`.

The next script to run is `install-dr.js` which installs the PM2 process management application. The installation is controlled by the settings in the file `<live-install-folder>/DR_Install/dr-config.json`. Review these settings and update them if needed before running the script. Settings marked with the *// user option* comment are those that you might want to change before installing. You must pay attention to the setting in the `mongo-linux-install-folder` and ensure that it is set to the path where `bin/mongod` is located.

Review and update the installation settings by directly editing the `dr-config.json` file as needed.

5. Perform the installation by running the following command:

```
sudo node install-dr.js
```

The installation of the IBM Architecture Room LIVE! web server is now complete, and it is ready to be deployed. Once again, the deployment settings are found in `<live-install-folder>/DR_Install/dr-config.json` and you can customize the settings as needed.

6. Configuring license server.

Prerequisites:

- Ensure Java version 8 or later is installed on the server where the licensing agent server is running.
- Before you start the license server agent, ensure that Rational Common Licensing server is configured with the IBM Architecture Room LIVE! license features.

- a. **Start the licensing agent on Linux:** Run the following command:

```
java -Djava.library.path="." -jar DRLiveLicenseAgent.jar [server_port@license_server_host_addr]
```

For example: `java -Djava.library.path="." -jar DRLiveLicenseAgent.jar 27000@1.2.3.4 6666`, where 27000 is the license server port number, 1.2.3.4 is the host address, and 6666 is the license agent port number.

- b. **Configure IBM Architecture Room LIVE!**

- 1) Update `licenseAgentURL` value in the `<live-install-folder>/user_config.js` file to include the license server agent details. For example: `licenseAgentURL: http://localhost:6666`
- 2) Restart IBM Architecture Room LIVE!

Note: If licensing is not configured, then IBM Architecture Room LIVE! will run on trial license mode for 60 days by default. Trial license will expire after 60 days, and users are warned about the same from two-weeks before the trial license expiration date and are reminded to configure the product license. To use the product after the trial license expires, you must activate a valid IBM Architecture Room LIVE! license.

7. Deploy the server by running the following command:

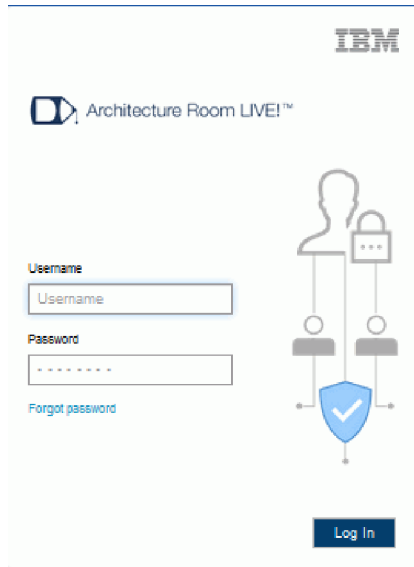
```
sudo node deploy-dr.js
```

The deployment script starts up the Mongo database (unless it is already running). It then starts the IBM Architecture Room LIVE! web server by using the PM2 process management application. The settings for how to deploy the server are stored in the PM2 configuration file `<live-install-folder>/DR_Install/pm2.config.js`. You can edit this file as needed.

The deployment script finishes by printing the URL of the IBM Architecture Room LIVE! web server. Test whether the installation and deployment was

successful by opening the URL in a web browser. For example, the default settings in the `pm2.config.js` file yield the following URL:
`https://localhost/index.html`

If the web server uses a self-signed certificate (by default it does), you need to ignore the browser security warning. After that, you should see the IBM Architecture Room LIVE! application:



Installing on Linux without Internet

Use the following steps to install IBM Architecture Room LIVE! on a Linux machine that does not have Internet access.

Procedure

1. Download the `IBM_Architecture_Room_LIVE_<version>_setup.zip` file in a system that has Internet access.
2. Extract the file `IBM_Architecture_Room_LIVE_<version>_setup.zip` to an empty folder `<live-install-folder>`. For example, the name of the ZIP file might be `IBM_Architecture_Room_LIVE_V9.7_setup.zip`.
3. Install Node JS. You must have the administrative access on the machine to perform the installation.
 - a. Run the following command in a shell:

```
tar -Jxf <dr-install-folder>/server-sw/linux_x86_x64/node-v8.11.3-linux-x64.tar.xz
```

Note: You must manually update the `PATH` variable so that it contains the `bin` folder of the Node JS installation.

Before you proceed, ensure that the `node` command is available from the command line:

```
node --version
```

The version of Node JS should be printed.

Note: If you do not have root access to your machine, then you may get errors when you run the installation and deployment scripts.

4. Go to <live-install-folder>/DR_Install folder and run the following command:

```
sudo node preinstall-dr.js
```

The preinstall-dr.js script downloads the PM2 process management application from the Internet. The downloaded applications are placed in the following path: <live-install-folder>/DR_Install/downloaded.

5. Go to the machine that has no Internet access, where you want to install the IBM Architecture Room LIVE! web server, and copy the <live-install-folder> to the installation machine. Continue to run the remaining steps on that machine. As a prerequisite, you must have installed Node JS on that machine (see step 3).
6. Download Mongo DB and install in the system. See the Mongo documentation for more information.

The next script to run is install-dr.js which installs the PM2 process management application. The installation is controlled by the settings in the file <live-install-folder>/DR_Install/dr-config.json. Review these settings and update them if needed before running the script. Settings marked with the *// user option* comment are those that you might want to change before installing. You must pay attention to the setting in the mongo-linux-install-folder and ensure that it is set to the path where bin/mongod is located.

Review and update the installation settings by directly editing the dr-config.json file as needed.

7. Perform the installation by running the following command:

```
sudo node install-dr.js
```

The installation of the IBM Architecture Room LIVE! web server is now complete, and it is ready to be deployed. Once again, the deployment settings are found in <live-install-folder>/DR_Install/dr-config.json and you can customize the settings as needed.

8. Configuring license server.

Prerequisites:

- Ensure Java version 8 or later is installed on the server where the licensing agent server is running.
- Before you start the license server agent, ensure that Rational Common Licensing server is configured with the IBM Architecture Room LIVE! license features.

- a. **Start the licensing agent on Linux:** Run the following command:

```
java -Djava.library.path="." -jar DRLiveLicenseAgent.jar [server_port@license_server_host_address]
```

For example: `java -Djava.library.path="." -jar DRLiveLicenseAgent.jar 27000@1.2.3.4 6666`, where 27000 is the license server port number, 1.2.3.4 is the host address, and 6666 is the license agent port number.

- b. **Configure IBM Architecture Room LIVE!**

- 1) Update licenseAgentURL value in the <live-install-folder>/user_config.js file to include the license server agent details. For example: licenseAgentURL: `http://localhost:6666`
- 2) Restart IBM Architecture Room LIVE!

Note: If licensing is not configured, then IBM Architecture Room LIVE! will run on trial license mode for 60 days by default. Trial license will

expire after 60 days, and users are warned about the same from two-weeks before the trial license expiration date and are reminded to configure the product license. To use the product after the trial license expires, you must activate a valid IBM Architecture Room LIVE! license.

9. Deploy the server by running the following command:

```
sudo node deploy-dr.js
```

The deployment script starts up the Mongo database (unless it is already running). It then starts the IBM Architecture Room LIVE! web server by using the PM2 process management application. The settings for how to deploy the server are stored in the PM2 configuration file <live-install-folder>/DR_Install/pm2.config.js. You can edit this file as needed.

The deployment script finishes by printing the URL of the IBM Architecture Room LIVE! web server. Test whether the installation and deployment was successful by opening the URL in a web browser. For example, the default settings in the pm2.config.js file yield the following URL:

<https://localhost/index.html>

If the web server uses a self-signed certificate (by default it does), you need to ignore the browser security warning. After that, you should see the IBM Architecture Room LIVE! application:



Chapter 2. Updating IBM Architecture Room LIVE!

To update an existing IBM Architecture Room LIVE! installation to the latest version, perform the following steps:

Procedure

Note: When you plan to install in a new location or overwriting an existing version, ensure that you take a copy of the <live-install-folder>\DR_Install\dr-config.json file, lib_server\config folder that contains the license keys and the certificates, and <live-install-folder>\user_config.js file, so that you can reuse the configuration in the new installation.

1. Extract the file IBM_Architecture_Room_LIVE_<version>_setup.zip to an empty folder <live-install-folder>. For example, the name of the ZIP file might be IBM_Architecture_Room_LIVE_V9.7_setup.zip.

Note:

- The built-in "Extract All..." utility in Windows has a limitation on the length of the path names of the extracted files. You can reduce the risk of running into this limitation by extracting the compressed file into a folder where the full path name is short. If this doesn't help, use a better extraction utility, such as 7-zip.
 - Make sure to extract the files into an empty folder. Do not overwrite an existing IBM Architecture Room LIVE! installation, especially when the application is running.
 - Since this is an update to an existing IBM Architecture Room LIVE! installation, Node JS from the previous installation must be available. If not, perform step 2 in the Installation on Windows with internet access to install Node JS.
2. If you want to delete the old installation folder, you need to perform this step to ensure that there is no process running, which can prevent the folder from being deleted.
 - a. Open an administrative command shell and run the following command:

```
pm2 kill
```

Note: Sometimes, running the `pm2 kill` command stops the Mongo database.
 - b. If you find Mongo server still running after the previous step, then enter the Mongo shell by running the following command: <mongo-install>\bin\mongo, where <mongo-install> is specified either by mongo-win-install-folder or mongo-linux-install-folder in the file <live-install-folder>\DR_Install\dr-config.json.
 - c. Run the following commands in the Mongo shell for stopping the Mongo database:

```
use admin
db.shutdownServer()
```
 - d. Ensure that the version of Node JS is the same in the new version of the application that you are updating to. Go to a command prompt and run the following command:

```
node --version
```

Compare the output of this command with the version of Node JS that is in the new installation. On Windows, the Node JS installer is located in <live-install-folder>\server-sw\win32_x86_x64\, and on Linux, it is located in <dr-install-folder>/server-sw/linux_x86_x64/. If the version is not the same, you should uninstall Node JS (using the normal procedure for uninstalling installed programs) and then install the new Node JS version.

- e. Copy the following files from the old installation or from the backup location to the new installation folder:
 - dr-config.json file from the old installation (<live-install-folder>\DR_Install\) to the new installation (<live-install-folder-new>\DR_Install\)
 - config folder from (<live-install-folder>\lib_server\) to (<live-install-folder-new>\lib_server\)
 - user_config.js file from (<live-install-folder>\) to (<live-install-folder-new>\)

- f. Open an administrative command shell and navigate to cd <live-install-folder>\DR_Install\, and run the following command:
node deploy-dr.js

- g. You can delete the old install folder (<live-install-folder>) at this point. The deployment script first stops the currently running IBM Architecture Room LIVE! web server. However, it does not stop the PM2 daemon process or the Mongo database. That is the reason you need to perform step 2 if you want to avoid lingering processes that prevent the old installation folder from being deleted.

The deployment script then starts the new version of the server. The version of Node JS, Mongo, and PM2 remains the same.

Chapter 3. Uninstalling IBM Architecture Room LIVE!

There is no script for uninstalling the IBM Architecture Room LIVE! web server, so you need to perform the following steps manually (from an administrative command prompt):

Procedure

Run the following commands from the command prompt:

1. `pm2 delete ArchitectureRoomLive`
Stops the IBM Architecture Room LIVE! web server and deletes it from PM2 list of managed processes.
2. `pm2 kill`
Stops the PM2 daemon process.
3. `npm uninstall -g pm2`
Uninstalls PM2. If it is still available in the PATH after this command, you must manually remove the PM2 files. Use `where pm2` (Windows) or `which pm2` (Linux) to find out where it is located.
4. Enter the Mongo shell by running `<mongo-install>\bin\mongo`, where `<mongo-install>` is specified either by `mongo-win-install-folder` or `mongo-linux-install-folder` in the file `<live-install-folder>\DR_Install\dr-config.json` folder.
Run the following commands in the Mongo shell for stopping the Mongo database:

```
use admin
db.shutdownServer()
```
5. On Windows, you can uninstall Mongo using the following command:
`msiexec /uninstall <live-install-folder>\DR_Install\downloaded\mongo-win.msi`

On Linux, the commands for uninstalling Mongo depend on your Linux distribution; see the Mongo documentation.
6. Now you can remove the IBM Architecture Room LIVE! server by deleting the `<live-install-folder>` folder.

Chapter 4. Advanced configurations

User can customize the following configurations by editing the dr-config.json file that is available in the <live-install-folder>\DR_Install folder.

- Mongo installation folder can be updated as follows: mongo_win_install_folder OR mongo_linux_install_folder as needed based on the operating system.
- Mongo data folder can be updated as follows: mongo_win_data_folder OR mongo_linux_data_folder as needed based on the operating system.

Log files

You can view the log messages of the IBM Architecture Room LIVE! web server and the Mongo database in their respective log files.

- By default, the output printed by the IBM Architecture Room LIVE! web server is directed to the file <live-install-folder>\DR_Install\live-out.log and the error messages are printed to the file <live-install-folder>\DR_Install\live-err.log. You can use different log files by editing the properties out_file and error_file in <live-install-folder>\DR_Install\pm2.config.js.
- Log messages are also produced by the Mongo database. By default, these messages are printed to <live-install-folder>\DR_Install\mongodb.log. You can use a different log file by editing the property mongo-log-file in <live-install-folder>\DR_Install\dr-config.json.

SSL Certification

The IBM Architecture Room LIVE! web server uses HTTPS, and you need to decide which SSL certificate it should use. You can choose one of the following two options.

Certificate configuration

- Use your own SSL certificate. This is the recommended approach for a IBM Architecture Room LIVE! installation that is intended for a production environment. The connection to the server will be secure and users will not get any warnings from the browser.

In some instances, you might have to extract the .crt and .key files from the .pfx file, so that the certificate and the decrypted key files are available separately in a plain text format. For more information, see “Extracting the certificate and keys from a .pfx file” on page 18.
- Use a self-signed SSL certificate. You can use this approach if you don’t yet have your own SSL certificate to use. However, in this case users will get warnings from the web browser about the use of a self-signed certificate as the server will not be considered secure.

The IBM Architecture Room LIVE! installation contains a self-signed certificate in <live-install-folder>\lib_server\config. Replace this certificate drlive.crt and drlive.key files with your own self-signed certificate and key. The web server will use that certificate by default.

Port configuration

By default, IBM Architecture Room LIVE! uses the port 443. To change the default port, update the SSL port parameter **sslPort:<portnumber>** in the `<live-install-folder>\user_config.js` file.

Extracting the certificate and keys from a .pfx file

The .pfx file, which is in a PKCS#12 format, contains the SSL certificate (public keys) and the corresponding private keys. Sometimes, you might have to import the certificate and private keys separately in an unencrypted plain text format to use it on another system. This topic provides instructions on how to convert the .pfx file to .crt and .key files.

Extract .crt and .key files from .pfx file

PREREQUISITE: Ensure OpenSSL is installed in the server that contains the SSL certificate.

1. Start OpenSSL from the `OpenSSL\bin` folder.
2. Open the command prompt and go to the folder that contains your .pfx file.
3. Run the following command to extract the private key:
`openssl pkcs12 -in [yourfile.pfx] -nocerts -out [drlive.key]`

You will be prompted to type the import password. Type the password that you used to protect your keypair when you created the .pfx file. You will be prompted again to provide a new password to protect the .key file that you are creating. Store the password to your key file in a secure place to avoid misuse.

4. Run the following command to extract the certificate:
`openssl pkcs12 -in [yourfile.pfx] -clcerts -nokeys -out [drlive.crt]`
5. Run the following command to decrypt the private key:
`openssl rsa -in [drlive.key] -out [drlive-decrypted.key]`

Type the password that you created to protect the private key file in the previous step.

The .crt file and the decrypted and encrypted .key files are available in the path, where you started OpenSSL.

Convert .pfx file to .pem format

There might be instances where you might have to convert the .pfx file to .pem format. Run the following command to convert to PEM format.

```
openssl rsa -in [keyfile-encrypted.key] -outform PEM -out [keyfile-encrypted-pem.key]
```

Note: Ensure that the name of the certificate file is `drlive.crt` and the private key file is named `drlive.key`. The renamed `drlive.crt` and `drlive.key` files must be placed in the `<live-install-folder>\lib_server\config` folder.