data virtuality
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Adaptation of the Data Virtuality Server to HTTPS

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In this short how-to, we will explain how to enable HTTPS for the Data Virtuality Server.

These changes are performed on the built-in web server, but they will also enable other components to use HTTPS as well: Download page, Data Virtuality Web, REST API, Monitoring page, and Data Virtuality Admin.

1 Prerequisite

- Writing access to the Data Virtuality folder of your server to make the changes.

2 Objectives

- Use of self-signed certificate;
- Redirection of HTTP requests to the HTTPS port.

3 Steps

1. Stop the Data Virtuality Server.
2. Create the self-signed certificate:
    a. Adapt and run the following command:

```
../dvserver/JDK/bin/keytool -genkey -alias jboss -keyalg RSA -keystore ..
/dvserver/standalone/configuration/https.keystore
```

    b. Set a password when prompted by the system (for the purposes of this test, it will be `jboss7`).
3. Adapt the `dvserver-standalone.xml` file:
    a. Go to the `../dvserver/standalone/configuration` folder and open the file;
    b. Search for `urn:jboss:domain:web:1.1` inside;
    c. Remove the following line: `<connector name="http" protocol="HTTP/1.1" scheme="http" socket-binding="http" redirect-port="8443"/>`;
    d. Add these lines instead:

```
<connector name="http" protocol="HTTP/1.1" scheme="http" socket-binding="htt
p" redirect-port="8443"/> <connector name="https" protocol="HTTP/1.1" scheme
="https" socket-binding="https" secure="true">    <ssl name="https" password
="jboss7" certificate-key-file="../standalone/configuration/https.keystore"/
></connector>
```

4. Adapt the landing page of the Data Virtuality Server:
    a. Open the `../dvserver/standalone/deployments/ROOT.war/WEB-INF/web.xml` file;
    b. Add the following lines inside the <security-constraint> container:

```
<user-data-constraint>
    <transport-guarantee >CONFIDENTIAL</transport-guarantee >
</user-data-constraint>
```

5. Adapt the Data Virtuality Server REST API:
    a. Copy `../dvserver/standalone/deployments/rest-<YourVersion>.war` to a dummy folder;
    b. Unpack the file using the following command:

```
jar -xvf rest-<YourVersion>.war
```

    c. Edit the WEB-INF/web.xml file by adding this part inside the <security-constraint> container:

```
<user-data-constraint>
    <transport-guarantee >CONFIDENTIAL</transport-guarantee >
</user-data-constraint>
```

    d. Pack the files in the dummy folder using the following command:

```
jar -cvf rest-<YourVersion>.war
```

    e. Replace the `../dvserver/standalone/deployments/rest-<YourVersion>.war` file with the one from the dummy folder.
6. Start the Data Virtuality Server.