

EDX 1.9.1 installation notes



Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

Puhelin
030 395 5000

Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi

FINGRID

Content

1. Introduction.....	4
2. Steps	4
2.1. Installation on Windows	4
2.2. ECP configuration	4
2.3. EDX configuration	5
2.4. EDX UI.....	9

Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

Puhelin
030 395 5000

Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi

FINGRID

Version history

Date	Version	Change
2.12.2021	0.1	First version

Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

Puhelin
030 395 5000

Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi

FINGRID

1. Introduction

These are fresh installation notes (taken from EDX Installation Guide v1.9.1.pdf) of EDX software on windows server and show one way to install EDX software on existing Java and ECP installation. Other words we're adding EDX functionalities on top of current ECP functionalities. EDX-Toolbox is just an add-on to the ECP endpoint enabling for example use of service(provider/consumer) concept
EDX 1.9.1 uses Java 11 so ECP has to be at least 4.8.x version

Download links: <https://www.entsoe.eu/data/edx/>

2. Steps

2.1. Installation on Windows

Run Installation as administrator

```
c:\install>java -jar edx-toolbox-1.9.1.1046.jar_
```

if the installation fails to start(errors about the JRE_HOME , try to remove it if possible: only JAVA_HOME is used by EDX or ECP)

Choose new EDX Toolbox installation

Choose whether to install it as a service or not

Choose if you like the service to start automatically on server startup

Choose if you like use default passwords or generated ones

see more on EDX Installation Guide v1.9.1.pdf page 65

2.2. ECP configuration

add following lines into [ECP installation folder] ecp.properties file

```
ecp.endpoint.amqpApiEnabled = true  
ecp.endpoint.sendHandler[0].beanName=amqpApiSendHandler  
ecp.endpoint.sendHandler[0].typeName=*  
ecp.networks = DefaultNetwork
```

```
ecp.endpoint.amqpApiEnabled = true
```

```
ecp.endpoint.sendHandler[0].beanName=amqpApiSendHandler
```

Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

Puhelin
030 395 5000

Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi

FINGRID

`ecp.endpoint.sendHandler[0].typeName=*`

`ecp.networks = DefaultNetwork`

2.3. EDX configuration

Open the [installation folder] `edx.properties` file and modify as following

```
# EDX Toolbox configuration
## Toolbox code ( ECP endpoint code assigned to this Toolbox)
edx.toolbox.code=CHANGE-ME-TOOLBOX-CODE

## Service catalogue ECP code
edx.serviceCatalogue.code=CHANGE-ME-SC-CODE

# Unique identification of toolbox within cluster
# Must be defined in HA deployment different on each node
edx.toolbox.node.id=edx-01
```

change the `edx.toolbox.code` to the EIC-V code assigned to you (same as in ECP endpoint)

change `edx.serviceCatalogue.code` to Fingrid's service catalogue code

in production it is 44V00000000024K and in the test it is 44V00000000023M

for example

```
# EDX Toolbox configuration
## Toolbox code ( ECP endpoint code assigned to this Toolbox)
edx.toolbox.code=44V0000000000672

## Service catalogue ECP code
edx.serviceCatalogue.code=44V00000000024K

# Unique identification of toolbox within cluster
# Must be defined in HA deployment different on each node
edx.toolbox.node.id=edx-01
```

change the `internalBroker.keystore.authAlias=edx_module_auth` into

`internalBroker.keystore.authAlias=ecp_module_auth`

change the `internalBroker.amqp.port=5672` into

Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

Puhelin
030 395 5000

Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi

FINGRID

internalBroker.amqp.port=6672

change the

```
edx.broker.url=amqps://${internalBroker.amqp.host:127.0.0.1}:${internalBroker.amqp.port:5672}
```

into

```
edx.broker.url=amqps://${internalBroker.amqp.host:127.0.0.1}:${internalBroker.amqp.port:6672}
```

change the ecpBroker.keystore.authAlias=edx_module_auth into

```
ecpBroker.keystore.authAlias=ecp_module_auth
```

change the ecpBroker.auth.user=toolbox into

```
ecpBroker.auth.user=endpoint
```

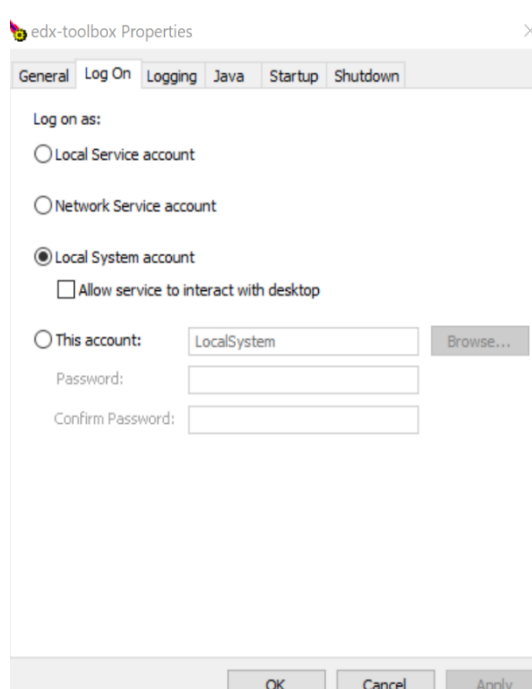
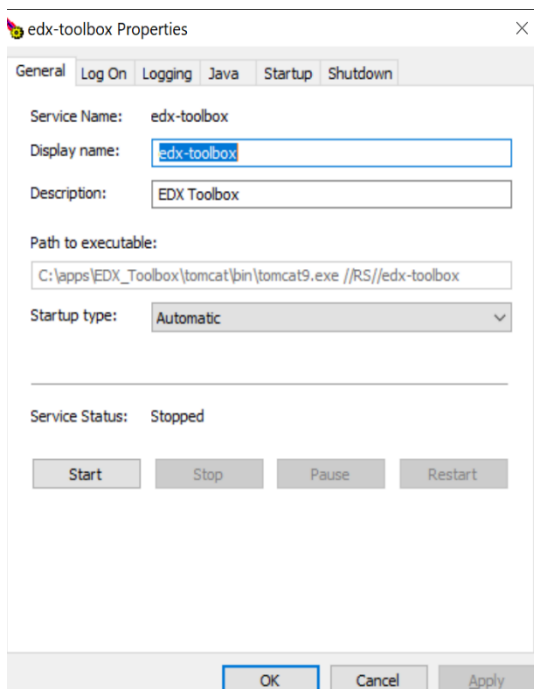
Copy the [ECP installation folder] authKeystore.jks and keystore.jks into

[EDX toolbox installation folder] with the same name.

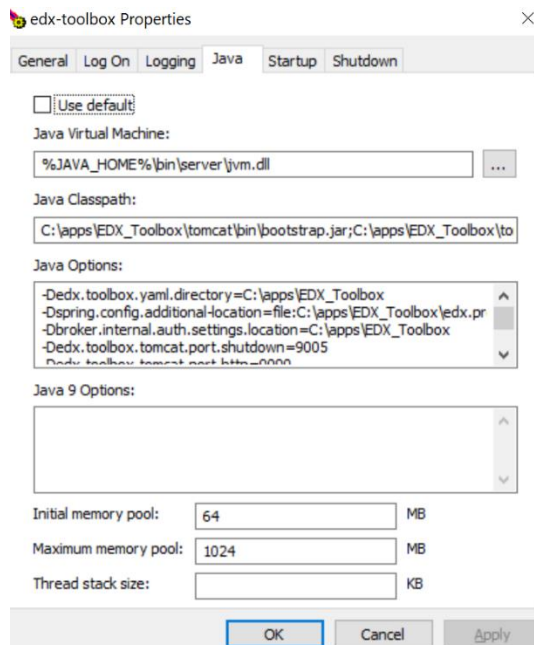
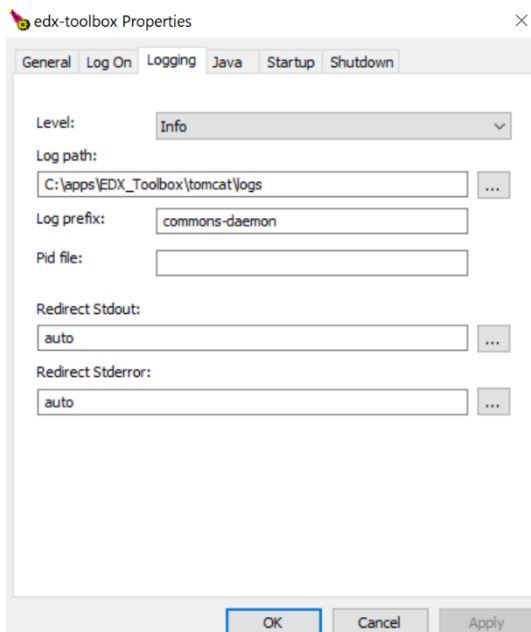
If you chose to run EDX as a service , open the service settings with

```
[EDX toolbox installation folder]\tomacat\bin tomcat9w.exe //ES//edx-toolbox command
```

see if the setting are accordingly and modify port configurations



FINGRID



Java classpath

C:\apps\EDX_Toolbox\tomcat\bin\bootstrap.jar;C:\apps\EDX_Toolbox\tomcat\bin\tomcat-juli.jar

Java Options (note the port change)

- Dedx.toolbox.yaml.directory=C:\apps\EDX_Toolbox
- Dspring.config.additional-location=file:C:\apps\EDX_Toolbox\edx.properties,file:C:\apps\EDX_Toolbox\edx-users.properties
- Dbroker.internal.auth.settings.location=C:\apps\EDX_Toolbox
- Dedx.toolbox.tomcat.port.shutdown=9005
- Dedx.toolbox.tomcat.port.http=9090
- Dedx.toolbox.tomcat.port.ajp=9009
- Dedx.toolbox.tomcat.port.ajp.redirect=9443
- Dedx.toolbox.tomcat.port.http.redirect=9443
- Dcom.sun.management.config.file=C:\apps\EDX_Toolbox\jmxremote.properties
- Dfile.encoding=UTF8

Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

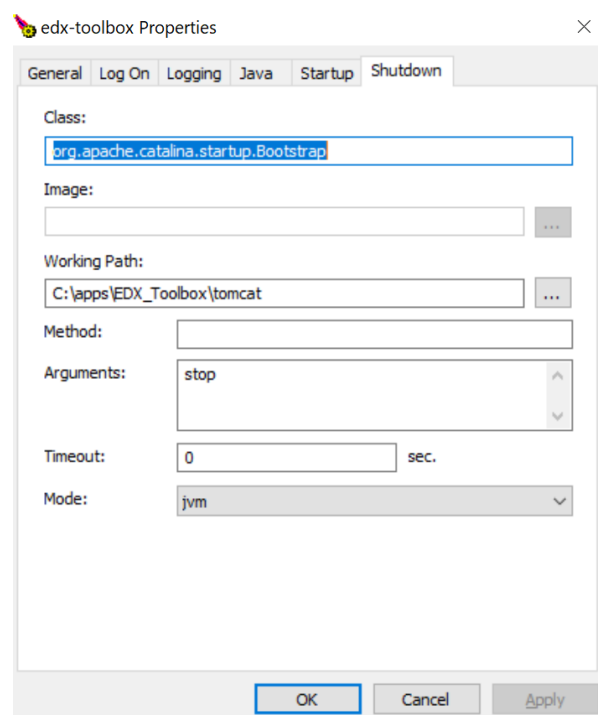
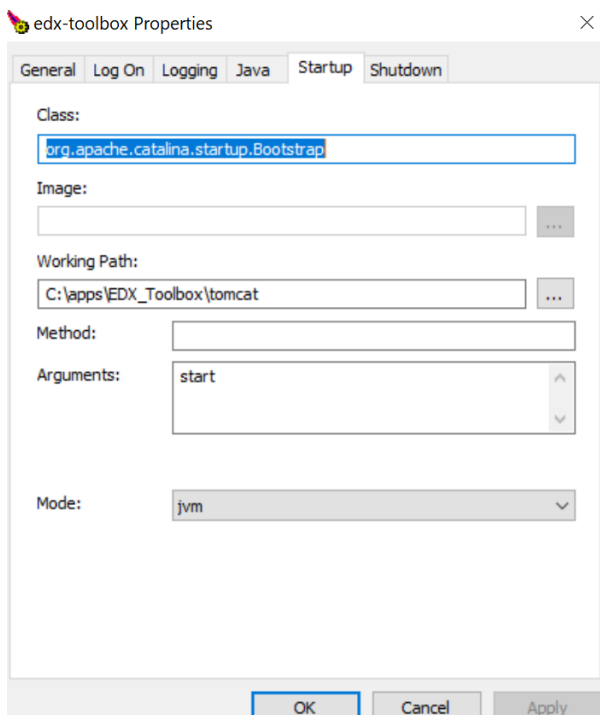
Puhelin
030 395 5000

Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi

FINGRID

- Dedx.password.location=C:\apps\EDX_Toolbox\edx-password.properties
- Djasypt.encryptor.algorithm=PBEWITHHMACSHA512ANDAES_256
- XX:+HeapDumpOnOutOfMemoryError
- Dcatalina.home=C:\apps\EDX_Toolbox\tomcat
- Dcatalina.base=C:\apps\EDX_Toolbox\tomcat
- Dignore.endorsed.dirs=C:\apps\EDX_Toolbox\tomcat\endorsed
- Djava.io.tmpdir=C:\apps\EDX_Toolbox\tomcat\temp
- Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager
- Djava.util.logging.config.file=C:\apps\EDX_Toolbox\tomcat\conf\logging.properties



if you have chosen to use startup.bat script you have to do some port modifications on

[EDX installation folder] tomcat\bin\setenv.bat file

this is crucial since ECP is already using the same ports as EDX default installation suggest

Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

Puhelin
030 395 5000



Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi

FINGRID

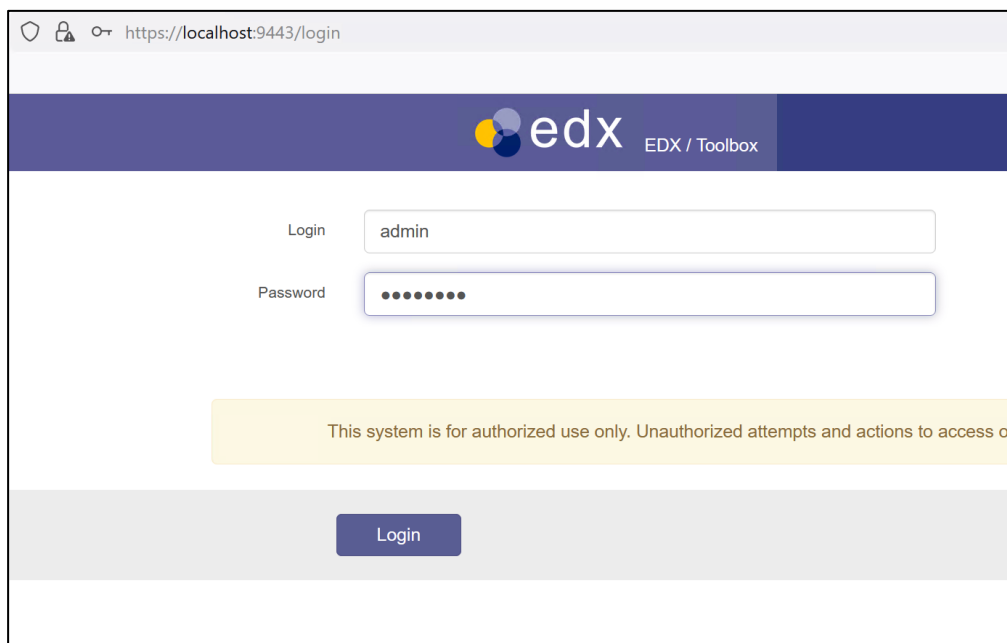
2.4. EDX UI

now you can restart ECP (if it was running) and start the EDX-Toolbox

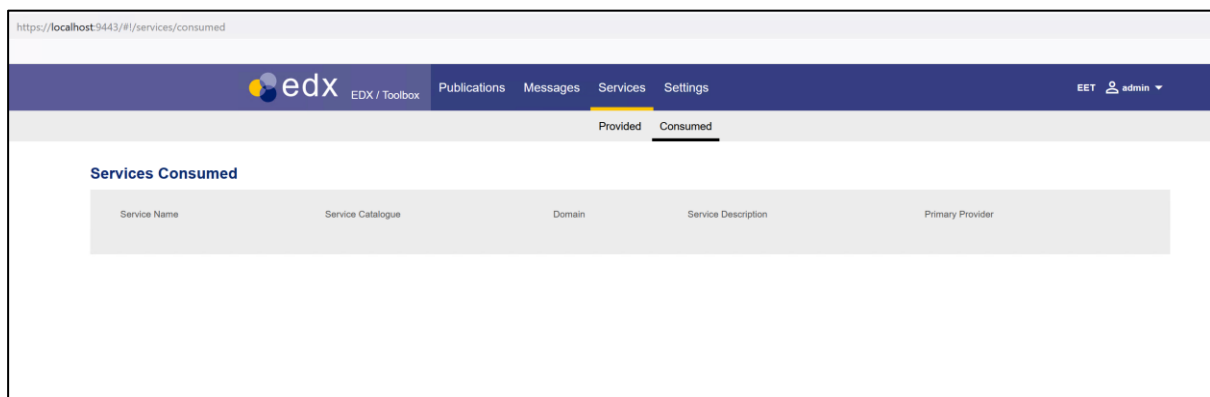
Name	Description	Status	Startup Type	Log
 ecp-endpoint	ECP Endpoint	Running	Automatic	Loc
 edx-toolbox	EDX Toolbox		Automatic	Loc

once both are running EDX UI should appear on <https://localhost:9443/>

this can take about a minute to start, you can tail [EDX installation folder] \tomcat\logs\edx-toolbox-log file to spot any errors



if the services -> consumed tab is empty



it means Fingrid have to add this toolbox to the service catalogue and EDX-Toolbox isn't able to send nor receive messages

Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

Puhelin
030 395 5000

Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi

FINGRID

Inform about the new EDX-Toolbox to ecp.support@fingrid.fi

For integration purposes EDX offers following APIs, see EDX User Guide v1.9.1.pdf, chapter 5 Integration Channels for more

- AMQP (Advanced Message Queue Protocol)
- FSSF (File System Shared Folders)
- FTP (File Transfer Protocol)
- Kafka
- Webservice (on as default) <https://localhost:9443/ws/madesInWSInterface.wsdl>

If your ECP/EDX installation is meant for Nordic communication, you have to open outbound traffic from your endpoint to the receiving TSO's ECP broker

Nordic ECP Brokers

NEM-TEST Broker URLs

=====

<amqps://ecp4.statnett.no:5671>

<amqps://iecp.preprod.energinet.dk:5671>

<amqps://ecp-test.fingrid.fi:5671>

<amqps://ecp4-test.svk.se:5671>

NEM-PRODUCTION Broker URLs

=====

<amqps://ecp4prod.statnett.no:5671>

<amqps://iecp.prod.energinet.dk:5671>

<amqps://ecp.fingrid.fi:5671>

<amqps://ecp4.svk.se:5671>

Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

Puhelin
030 395 5000

Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi

FINGRID

Fingrid Oyj

Katuosoite
Läkkisepäntie 21
00620 Helsinki

Postiosoite
PL 530
00101 Helsinki

Puhelin
030 395 5000

Faksi
030 395 5196

Y-tunnus 1072894-3, ALV rek.
etunimi.sukunimi@fingrid.fi
www.fingrid.fi