



# EEX USER GUIDE – MEMBER SECTION TECHNICAL SETUPS

Customer Care 01.12.2023

Ref. 1.0

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## 2. Overview

The ownership of the technical access to the Member Section has shifted to each exchange participant individually. This user guide is intended to provide you with an overview of the order process for technical infrastructure within the Member Section.

With the extension of the Member Portal platform functionalities to all current and future EEX members, and the migration of Central Coordinator ownership, the clients can now order their own ETI sessions and setup their CRE and CUE for short codes upload, which is now a prerequisite for the EEX Admission.

Please be aware, that the T7 system contains a PRODUCTION and SIMULATION environment. Concerning the admission, the features are required to be set up in T7 PRODUCTION. For testing purposes, the setups can be done in T7 SIMULATION at your own convenience.

For the setups described in this user guide, all clients must first register a Central Coordinator who will receive an access to the Member Section portal:

- Via **A01 form** for prospects (the access will be granted as soon as the member ID in the format of XXXEX) is created by ECC. Your appointed Central Coordinator will receive the logins in due time.
- Via CC form for existing members, if not already created.

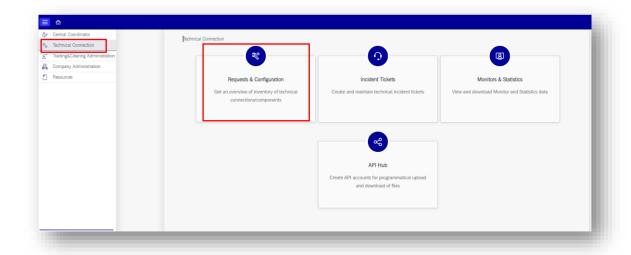
## 3. T7 GUI

The following chapter describes the process in setting up the T7 Trader/Admin/Clearer GUI in Member Portal. This must be executed to provide the access to frontends via public internet (outside a Leased Line). Using the public internet, the connection is encrypted through the keypair.

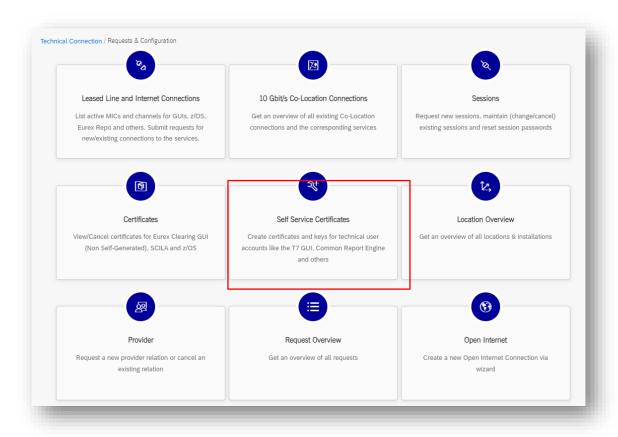
## 3.1 Setup

Log into the Member Portal. On the main page, please go to:

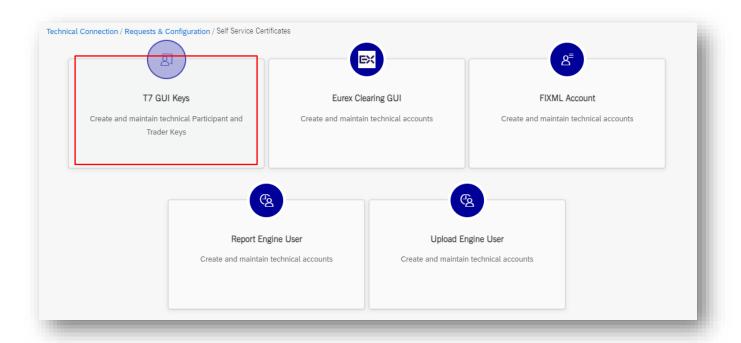
- > Technical Connection
- > Request & Configuration



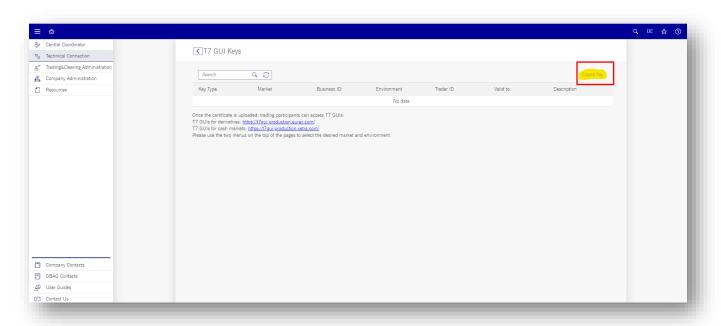
#### > Self Service Certificates



## > T7 GUI Keys



## Click on "Create Key".



Please fill in the desired Key information:

Key Type: Participant Key (one keypair for all users) or Trader Key (keypiar for a

specific T7 ID)

• Market: EEX Futures

• Environment: Production or Simulation

Business ID: Your Member ID (e.g., ABCEX)

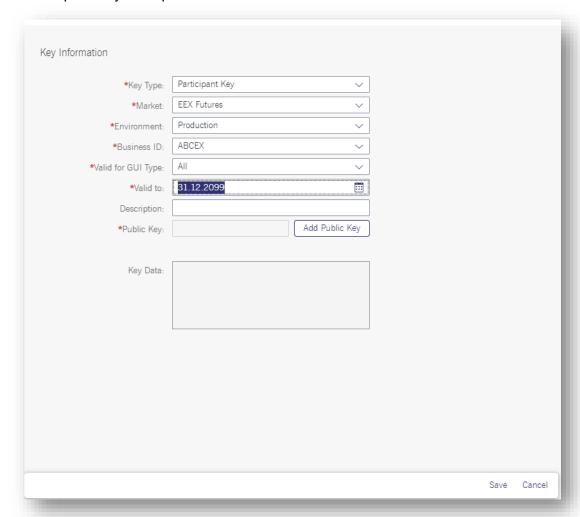
Valid for GUI Type: A//

• **Trader ID:** TRD001 (please type in your respective T7 ID)

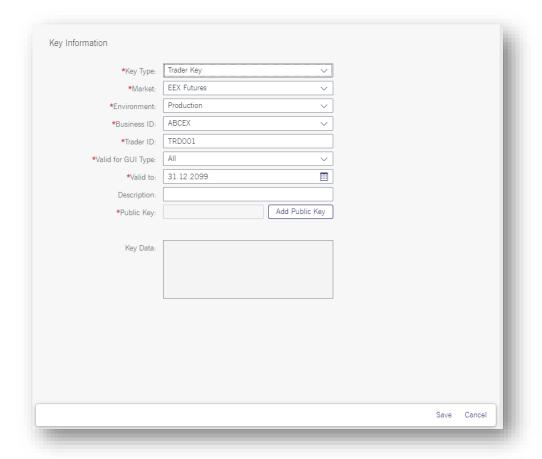
• **Valid to:** 31.12.2099 (or any date you want the certificate to expire)

• **Description**: choose your description (not mandatory)

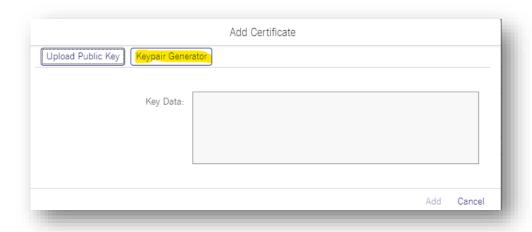
- As for the initial setup happening for the technical admission, we recommend creating a participant key first.
- Participant Key example:



## > Trader Key example:



Clicking on "Add Public Key" will take you to a window where you can also call up a Keypair Generator.

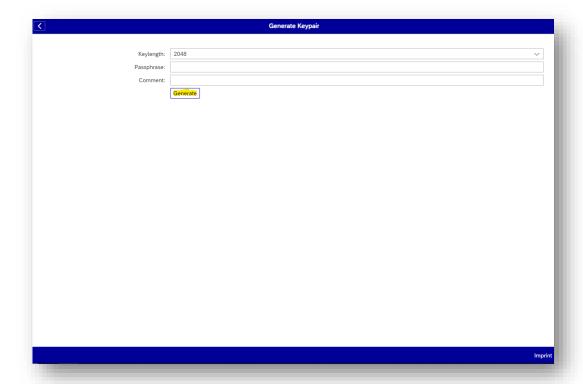


- The **Keypair Generator** opens in a new tab.
- ➤ Please note that it is mandatory to add a passphrase and that this passphrase should not contain special characters that are language-specific (*like ö, ä, ü*) or blank spaces.

• **Key length:** 2048 (is default value and sufficient), 3072, 4096

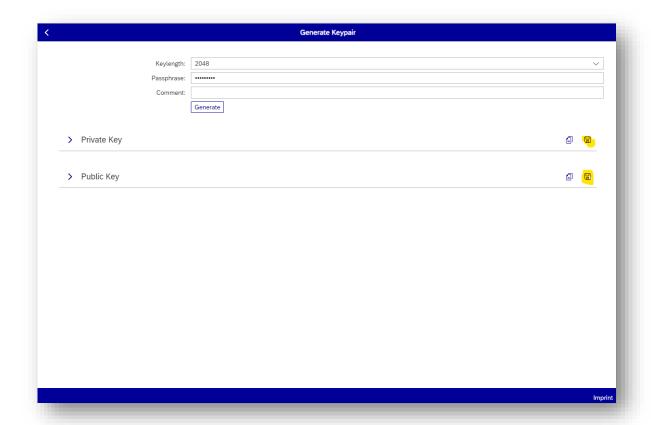
• Passphrase: Choose your passphrase

• Comment: choose your comment (no special characters)

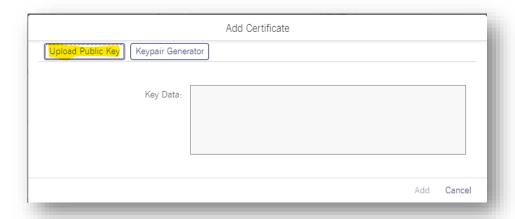


After generating, save both keys to your device, as they are needed by the person who want to connect to T7 GUI.

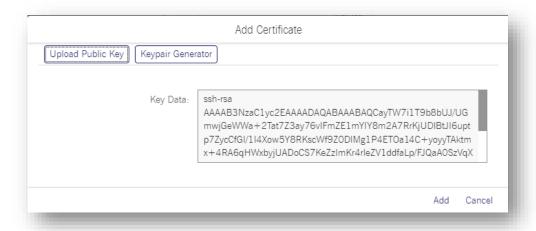
>



Return to the Member Portal tab and click on "Upload Public Key" and then search for the publickey.pub file that has been saved on the device.

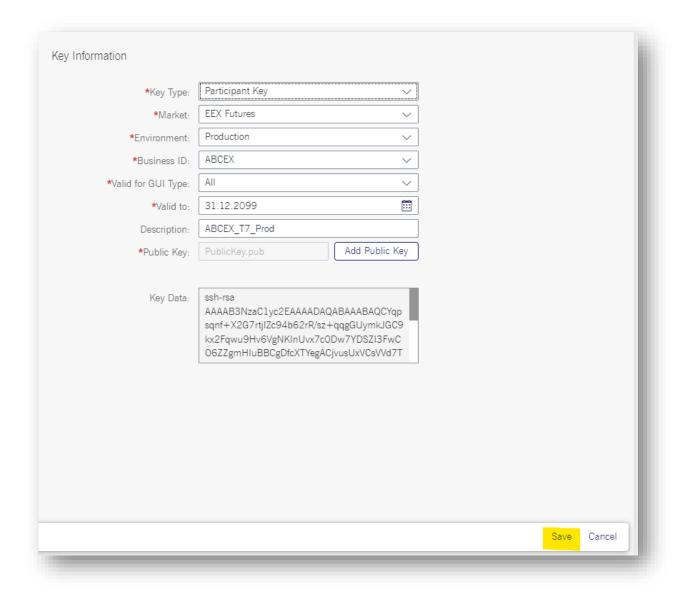


The data is then imported into the window. Click "Add".

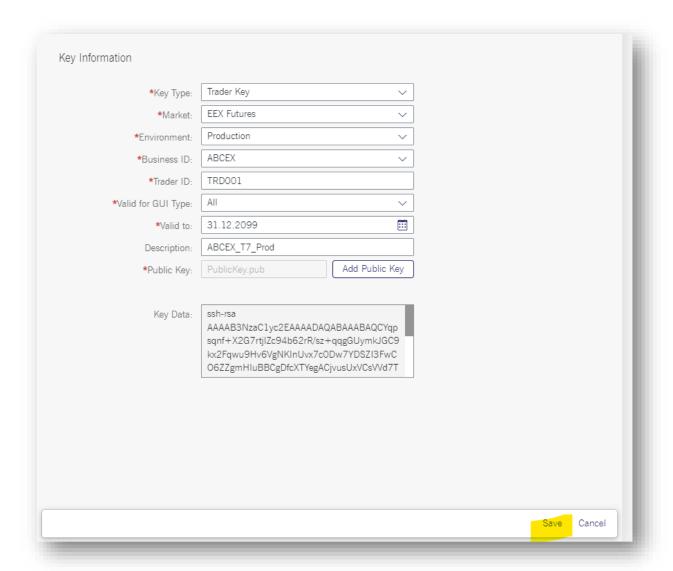


Click on "Save" to finish the setup.

## Participant Key example:



### > Trader Key example:



### **ACTIVATION:**

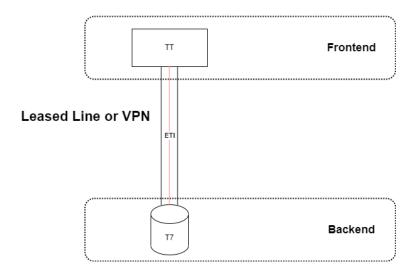
➤ This process takes one overnight batch to be reflected. Please inform European Energy Exchange at T+1, once the T7 GUI Key is in place. European Energy Exchange will share the User IDs for ordered trading account(s).

# 4. ETI session (Enhanced Trading Interface)

As for connecting external trading frontends, like Trayport or Trading Technology, an ETI session must be in place to realize the order routing.

#### 4.1 Process introduction

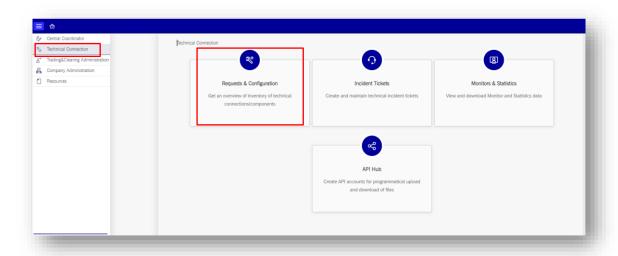
- → ETI sessions are used to realize Order Routing
- → Order Routing must be secluded from the public internet. Therefore, these are established within Leased Lines (LLs) or VPNs that connect the Backend EEX Futures (T7) to an external system.
- → Members can have their own LLs or VPNs or can use the infrastructure of third parties (service providers).
- → The credentials for an ETI sessions are Session ID and Password. The following example connects the T7 system to the frontend Trading Technologies (TT).



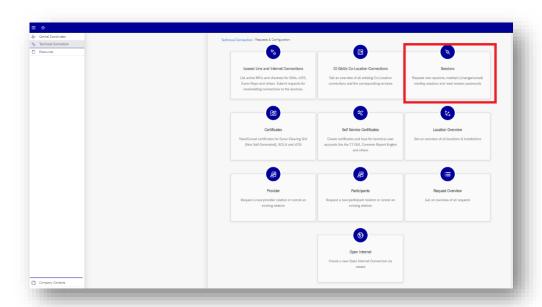
## 4.2 Setup

The steps to request an ETI for Trayport or TT Screen are described below. Although the principle can also be applied to 3<sup>rd</sup> party vendors, this documentation shall encompass the usage of licenses provided by EEX.

- > Technical Connection
- > Request & Configuration



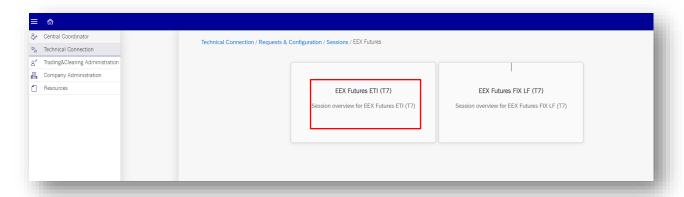
### > Sessions



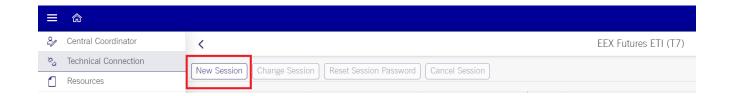
#### > EEX Futures

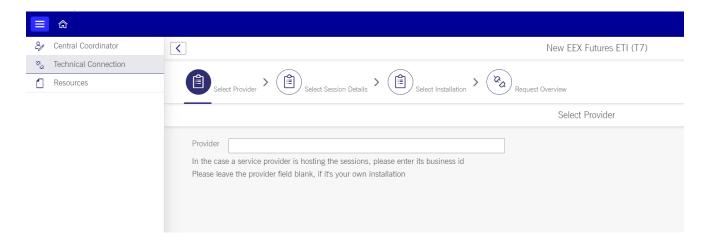


## EEX Futures ETI (T7)

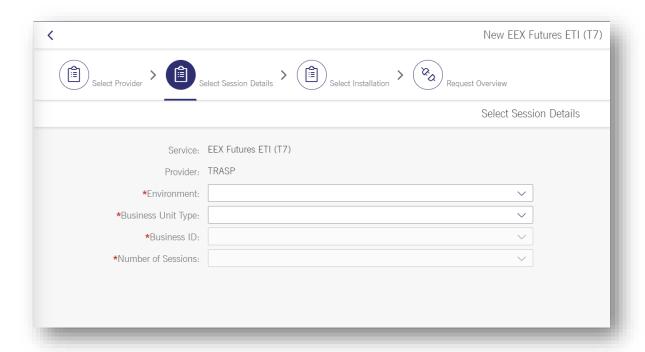


- > Overview of all **existing sessions** will appear. For new clients, this page will be empty.
- > Click on "New Session".



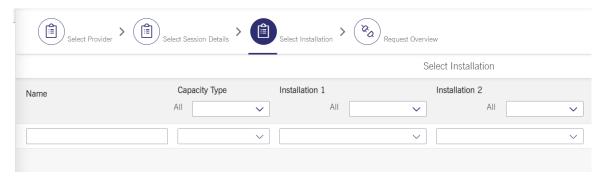


- If own infrastructure is used, please leave this field empty.
- ➤ If a Service Provider's infrastructure will be used, enter the provider's Service Provider ID.
  Frequently used Service Providers and their IDs:
  - Trayport (+EEX Joule Direct Screen): TRASP
  - > Trading Technologies: TRTSP
- Click on "Next".



- > Choose environment:
- Simulation (can be requested for testing prior to admission) OR
- **Production** (required for admission)
- Business Unit: Trading
- ➤ Business ID: **Member ID** provided by ECC/EEX (e.g. ABCEX).
- > Number of sessions: 1 session is sufficient.
- Click "Next".

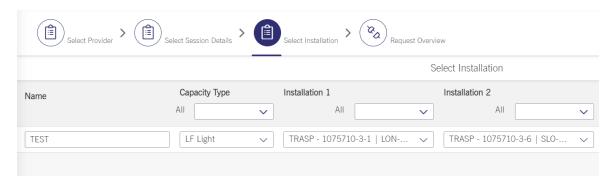
With the above, an ETI session will be created that is allocated on the service provider's connection. Since the ETI connection starts at the backend system, the desired end point shall be configured. The following example showcases the end points for Trayport. If an external frontend that is provided by a 3<sup>rd</sup> party shall be configured, please inquire the endpoints/sub installations at the respective vendor.



Enter a name (arbitrary, to be defined by client). e.g.:

**Trayport**: TP\_ETI\_PROD\_"your Member ID" **TT**: TT\_ETI\_PROD\_"your Member ID"

- Choose the Capacity Type. For Basic front-end connectivity, LF light sessions (up to 50 transactions per second) are sufficient.
- Choose Installation from drop down list:



Since Trayport and TT are commonly used service providers that are also licensed by EEX, the required installations will be shown below:

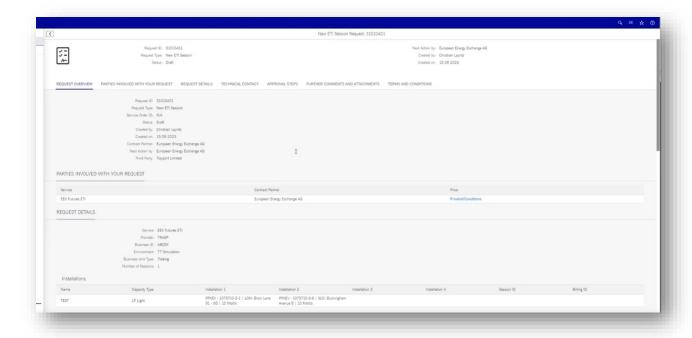
### TRASP:

- Installation 1: TRASP 1075710-3-1 | LON- Brick Lane 91-95 | 10 Mbit/s
- Installation 2: TRASP 1075710-3-6 | SLO- Buckingham Avenue 8 | 10 Mbit/s

#### TRTSP:

- Installation 1: TRTSP 1060630-6-5 | FRA- Kuppstr. 121-127 | 10 Mbit/s
- Installation 2: TRTSP 1060630-1-5 | LON- Hanbury St 11, Old Truman Brewery | 10 Mbit/s
- Click on "Next".

- → Member Portal creates a summary of the request:
  - Click on "Add to Request Overview for Approval".
  - > The created request will open as follows:

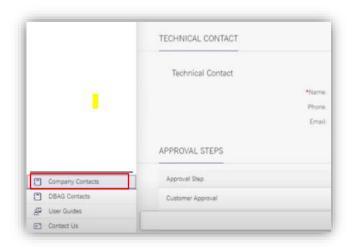


To approve the request, a **Technical Contact** must be selected (if contact is existing, click on the prompt and select the account):



**IMPORTANT:** For new clients, the table for the Technical Contacts can still be empty:

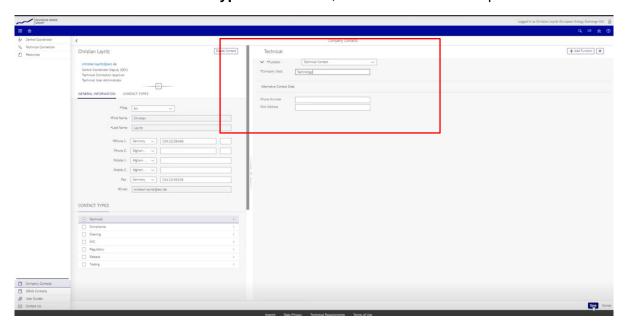
Click on Company Contact (bottom left).



Select a person in the list.



➤ Tick "*Technical*" in **Contact types**. Afterwards, an additional window opens:



- > Function: Technical Contact.
- Company Dept.: e.g. Back Office.
- Click "Save".

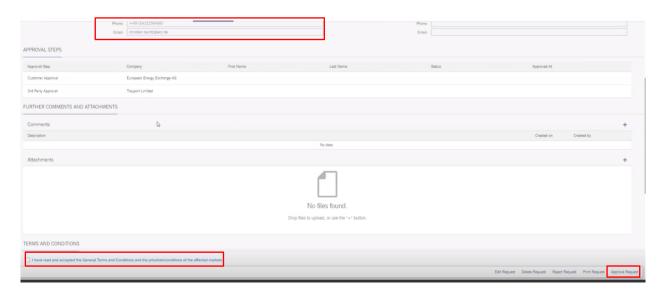
# After creating the contact, we go back to our draft request. To find the created request, the path is as follows:

- > Technical Connection > Request & Configuration > Request Overview
- > Find the Request > Click on the arrow to open the draft request
  - → Each new request has a Request ID



The newly added Technical Contact can be selected, now.

- > Tick "Accept terms and conditions" on the bottom.
- Click "Approve Request".



**IMPORTANT:** Save the session ID and password by clicking on "Display Session Passwords for printing" and create a **PDF-file**.

- The PDF file must be sent to European Energy Exchange for technical setup processing.
- Furthermore, the **other stakeholders** of this connection must be informed as well. Please **send an e-mail** containing the Request ID to the corresponding third-party provider (Trayport: support@trayport.com, TT: onboarding@trade.tt).

The session is not active at this point, yet. It must be approved by several parties:

- > 3<sup>rd</sup> Party Approval: Service provider, here Trayport, OR any owner of the infrastructure
- > European Energy Exchange Approval
- > Customer Approval

APPROVAL STEPS	
Approval Step	Company
Customer Approval	
3rd Party Approval	Trayport Limited
Coop Exchange Approval	European Energy Exchange AG

### **ACTIVATION:**

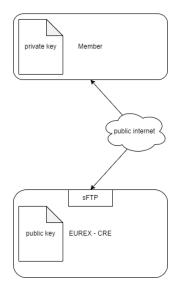
- Once the session has been ordered via Member Section, the activation will happen after one overnight batch.
- ➤ Once the PDF-file containing session ID and password has been received, EEX will finalize the technical setup and send the User IDs for ordered trading account(s) in the following days.
- When creating an ETI session for SIMULATION please be aware, that overnight batches are not executed every day. Please lookup the SIMULATION calendar provided by EUREX for further information.

# 5. Common Report Engine

#### 5.1 Process Introduction

The Common Report Engine (CRE) allows a centralized provision of reports and non-transactional files from multiple exchange markets. The service is provided as a SSH File Transfer Protocol (SFTP) server and allows participants to easily retrieve all their reports and non-transactional files from a single source.

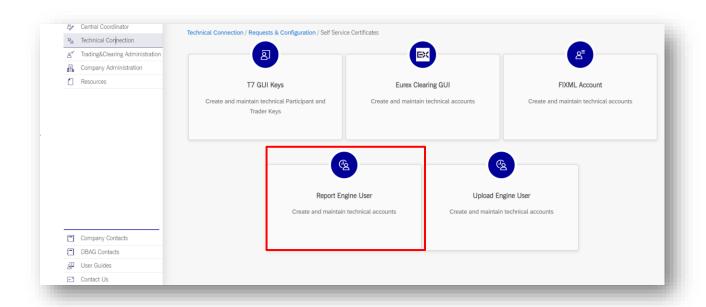
Participants can automate the download and upload of data files via SFTP. EEX members are expected to upload short codes and algo-IDs related to MiFID/MiFIR.



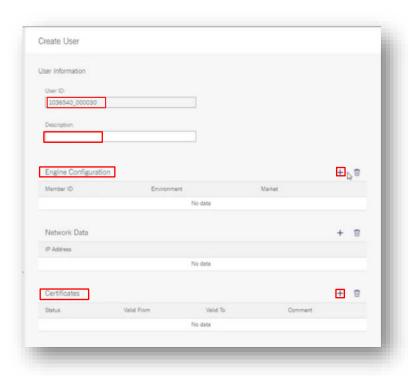
- → Common Report Engine is a service used to download reports
- → Connects via public internet
- → Is based on the sFTP (secured File Transfer Protocol)
  - → Uses a keypair (public/private) for authentication and encryption
- → User ID
- > EEX has the **public key** of the **member's CRE account** for authentication and encryption.
- > The member has the **private key and the passphrase** for authenticating the access and decrypting the files.
- → Detailed EUREX documentation Common\_Report\_and\_Upload\_Engine\_User\_Guide\_202303.pdf (eurex.com)

## 5.2 Setup

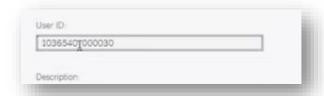
Go to **Member Section platform** > Technical Connection > Request & Configuration > Self Service Certificates > **Report Engine User**:



## > Click on Create User



The User ID will be created automatically.



- Description (to be defined by client)
- ➤ Engine configuration several ID possible > click on + for adding:

o Member ID: ABCEX

o Environment: Simulation/Production

o Market: EUREX

- Network Data (not needed)
- Certificates to generate Public and Private Key –

Alternatively, "pUTTY" can be used for certificate creation. However, to provide clients with a simple and streamlined solution, within the Member Section a website-based tool is offered as well. Click on "Generate Certificate". A new browser tab opens:

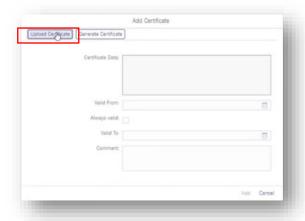
- ➤ Select a password (passphrase) The password must be kept safely and it cannot be changed afterwards.
- Click "Generate"



Private and Public Key will be generated – both files must be saved.



➤ Go back to Member Section > Add Certificate > Upload Certificate



→ Upload the **Public Key file.** 



- Choose validity date "always valid" or set a date of expiration.
- Click on "Add".
- Click on "Save".

#### **ACTIVATION:** First report can be gathered at T+2

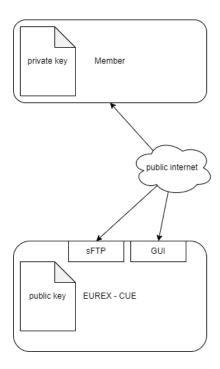
2 business days are required before the new data will be available on CRE, the activation needs:

- One overnight batch to be activated.
- Another overnight batch to capture activity of client and generate report on the day after that.
- Please proceed with the Chapter 7 in this document to connect the server.

# 6. Common Upload Engine

#### 6.1 Process Introduction

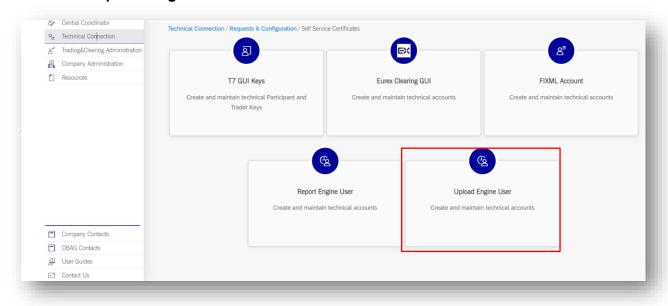
The Common Upload Engine (CUE) is a separate part of the CRE which allows admitted participants of the DBAG Group the upload of participant data to dedicated services provided by DBAG Group. Participants can automate the download and upload of data files via SFTP. To upload short codes and algos for REMIT and MIFID/MIFIR purposes is a prerequisite for admission at EEX.



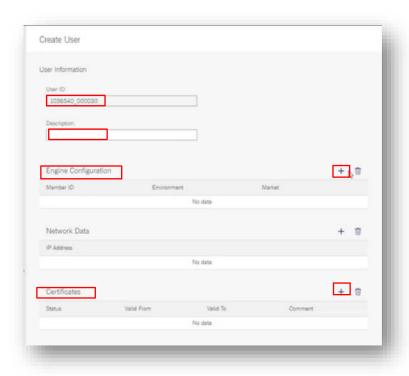
- → Common Upload Engine is a service used to upload short codes and algo IDs
- → Most conveniently, it is operated through the Short Code/Algo ID GUI in Member Section
- → Alternatively, it can be connected via public internet based on the sFTP (secured File Transfer Protocol) server
  - → Uses a keypair (public/private) for authentication and encryption
- → User ID

## 6.2 Setup

Go to **Member Section platform** > Technical Connection > Request & Configuration > Self Service Certificates > **Upload Engine User:** 



Click on Create User.



The User ID will be created automatically.



- Add a description (to be defined by client).
- ➤ Engine configuration several IDs possible > click on + for adding:

Member ID: ABCEX

Environment: Simulation/Production

o Market: MIFID

- Network Data (not needed)
- Certificates to generate Public and Private Key –> Same certificate as CRE can be used (visual steps are detailed above, in CRE part)
  - → Upload Public Key.
- Choose validity date "always valid" or set a date
- Click "Add"
- Click "Save"

ACTIVATION: One overnight batch to be activated. First report can be uploaded at T+1.

Please proceed with the Chapter 8 to connect the server.

# 7. Connecting to sFTP and operating the CRE

This chapter revolves around the technical integration and general usage of the CRE.

#### 7.1 Process Introduction

The following documentation is suited for system developers, system and security administrators who are responsible for setting up the sFTP connectivity.

There is an in-depth documentation provided by EUREX concerning the technical integration, connectivity, and tool-handling. Please refer to this link. Starting on **page 18** within the document, the mentioned document explains in detail on how to establish a connection and download reports. Main steps are developed below.

Participants may use an SFTP client of their choice to access the CRE and/or CUE server to upload files or download their reports. Usage of WinSCP to connect to the CRE and/or CUE is not limited but recommended (WinSCP Windows Secure Copy a free and open-source SFTP and FTP client for Windows, is easy to manage).

<u>IMPORTANT:</u> Please be informed that we do not deliver any end user support for other SFTP applications.

## 7.2 Using WinSCP to connect to the CRE and/or CUE

The following information is required to log into the servers:

- > User ID which has been generated by successfully setting up a new user in the Member Section
- > The private ssh key fitting to the public key uploaded in the Member Section
- ➤ The IP address of the CRE and/or CUE → Always Internet. For details on which Instance to use, please refer to this link, page 18

The IP's used for access to the CRE are shown in the following table:

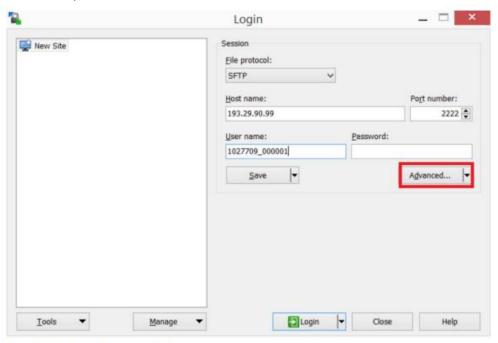
CRE infrastructure IP addresses					
	Leased line		Internet	Port	
	Α	В		Public	Private
Instance 1	Instance 1 193.29.90.67	193.29.90.99	193.29.90.132	2221	2222
Instance 2				2231	2232

The IP's used for access to the CUE are shown in the following table:

CUE infrastructure IP addresses					
	Leased line		Internet	Port	
	Α	В	Internet	Port	
Instance 1	193.29.90.70	193.29.90.102	t.b.a.	2251	
Instance 2	193.29.90.88	193.29.90.119	193.29.90.158	2261	

For algo and short codes uploads, select Instance 2.

The steps to successfully login to the CRE with WinSCP are shown below (same steps apply to CUE with correspondent data):



CRE Instance 1 - "private" folder)

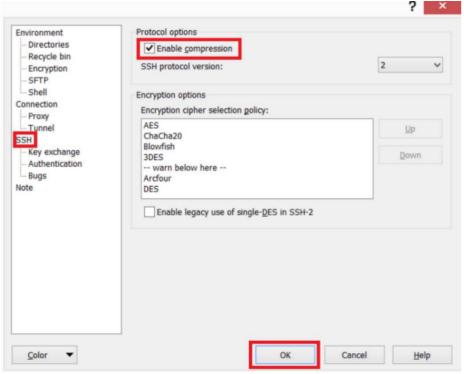


Figure 17:Enable compression for SSH transfer

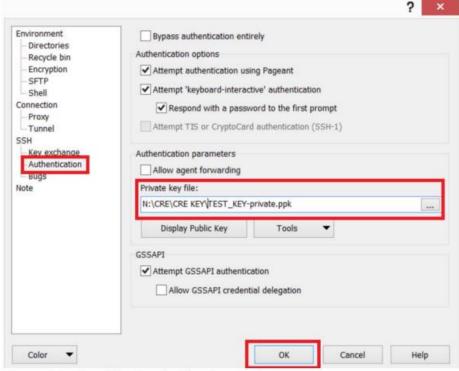


Figure 18: Location of the private key file to be entered.

When clicking on Private key file, the <u>passphrase</u> will be requested to convert the Key file into another format.

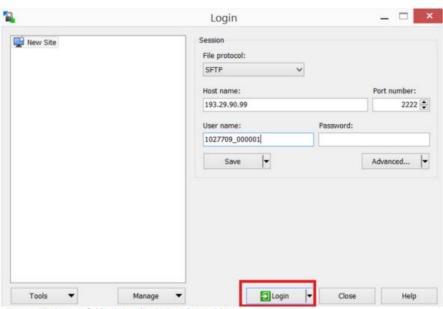


Figure 19: Successful login to the CRE with WinSCP

After clicking on Login, the passphrase will be requested.

## 7.3 Directory, reports and reference data on CRE

As for the **reference data and report IDs**, EUREX provides a documentation as well. The following link will lead to the resource.

The **directory** of the CRE has the following structure (Please mind the case sensitivity):

//abcex/P/eurex/20231004/

- abcex Member ID
- ➤ P Environment (P Production, S Simulation)
- eurex Market
- > 20231004 Date (YYYYMMDD)

Within the directory mentioned above, the reports themselves are named according to a certain **naming convention**. Please review the following example:

#### 90RPTTR162ABCEX20231004XEEE.XML

- > 90 Environment (90 Production, 95 Simulation)
- RPT fixed value
- > TR162 Report ID
- ABCEX Member ID
- 20231004 Date (YYYYMMDD)
- XEEE EUREX MIC code (XEEE = EEX)

#### Frequently used reports:

- > TA113 GTS Series Reference Data // Complex and Flexible Instrument Definition
- > TD955 Liquidity Provider Measurement
- > TD956 Permanent Market Making Measurement
- > TD957 Advanced Market Making Measurement
- > TE540 Daily Order Maintenance
- > TE550 Open Order Detail
- > TE810 Daily Trade Confirmation
- > TR100 Order to Trade Ratio Report
- TR102 Excessive System Usage Report
- > TR902 Daily Order and Quote Transactions

To facilitate the short code and algoID upload, which is explained in the following chapter, the CRE provides certain reports that indicate **the status and possible errors during the upload**. Please find the relevant reports below:

- TR160 Identifier Mapping Error
- > TR161 Identifier Mapping Status
- > TR162 Algo HFT Error
- > TR163 Algo HFT Status

If faced with an upload error, a specific code will be stated as <errDescription> in the reports TR160 and TR162. Besides that, the report will also specify the row where the error has been located in. Please find a table below with the relevant error codes:

errDescription	Description
1	Client long value is missing
2	Duplicate record in database
3	PNAL. Pending allocations. Client long value has not been provided for Short Code ID
4	AGGR. Aggregated order. Client long value is neither a National ID or LEI nor an ALGO ID, but the respective Short Code ID stands for several clients
5	Duplicate record submitted on the same business date
6	Invalid Short Code ID
7	ParticipantID not assigned
8	MIC not assigned
9	Invalid uploadFile format
10	Invalid value in the field Participant ID
11	Invalid value in field MIC
12	Invalid value in field Status Indicator
13	Invalid value in field Valid from date
14	Invalid value in field Classification rule
15	Invalid value in field National ID Country Code
16	Invalid value in field National ID Priority
17	Invalid value in field Client long value
18	Invalid LEI format for Client long value
19	Invalid combination. Classification Rule is empty; the Client long value can be only PNAL, AGGR, NORE
98	Complete uploadFile rejected
99	Other errors

# 8. Connecting CUE and upload procedure

Finalizing the MiFID/MiFIR related aspects of the admission, the CUE must be set up to provide client ID short codes and algoIDs.

#### 8.1 Process Introduction

The setup process of the CUE works like the CRE. Thus, please refer to the Chapter 7.2 Using Win-SCP to connect to the CRE and/or CUE in this document.

Starting at the 4<sup>th</sup> of December '23, Member Section provides a new GUI, where Short Codes and Algo IDs can be uploaded in the Member Section. This serves as a manual alternative with no integrational effort in comparison to the automatablem but more complex sFTP infrastructure.

Principally, there is a .csv-file that must be populated with the required data. In turn, the mentioned file is uploaded into a certain directory of the sFTP. The following sub-chapter will explain the general approach for the sFTP.

## 8.2 Uploading via sFTP

Facilitating the first steps, EUREX provides a **template file** for client ID short codes and algoIDs (also provided to EEX clients by Customer Care team). On the following **website**, under *Client & Member Reference Data*, there is the tab "Client & Member Reference Data". Please expand it and download the respective CUE sample files.

CAUTION: Please modify these files exclusively via a text editor (like notepad, editor or notepad++). Spreadsheet editors, like MS Excel tend to add certain information and spaces that could lead to failures!

Further information regarding the **structure of those files** can be reviewed in the documentation provided by EUREX. Please review the following document on page 21 and page 45.

After entering the data within the file, it must be named according to a **certain naming convention**. Please review the following example:

#### 88EXTALGO1ABCEX20231004XEEE.csv

- ➤ 88 Environment (88 Production, 89 Simulation)
- EXTALGO1 type of ID (EXTALGO1 algoID, EXTREFDA client ID short code)
- > ABCEX member ID
- 20231004 Date of upload (YYYYMMDD)
- > XEEE EUREX MIC code (XEEE = EEX)

After this has been done, the file is uploaded to the **following directory** (Please mind the case sensitivity).

//abcex/P/mifid/UPLOAD/

- abcex Member ID
- ➤ P Environment (P Production, S Simulation)
- > mifid Service, fixed value
- UPLOAD fixed value

A few minutes later, a subfolder is created automatically to fetch the uploaded file.

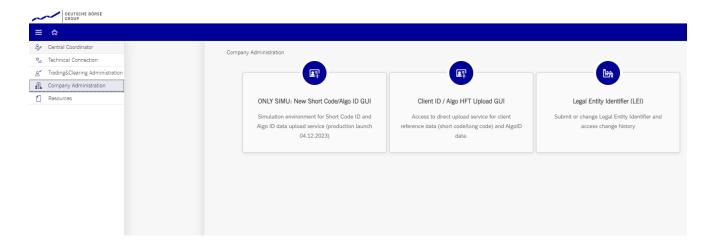
After an overnight batch, the mappings within the files are carried over in the system. In **Chapter 7.3** there is a description of reports that indicate the status and possible errors while uploading.

## 8.3 New Short Code and Algo ID GUI

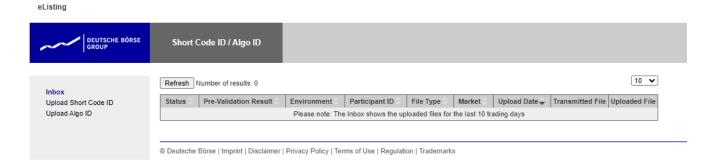
As a more convenient and easier to use alternative, we provide a new GUI for uploading Short Codes and Algo IDs. This functionality is accessed through the Member Portal. Please following the steps below:

When logged in the Member Section, please go to:

➤ Company Administration → New Short Code/Algo ID GUI



Click on the link to be reverted to the landing page in a new tab.



Here, the inbox is found where former uploads are presented.

➤ To upload Short Codes or Algo IDs, please click on the respective link. The following steps are similar in either procedure.



Choose the environment (PROD or SIMU), the market (XEEE) and your participant ID (Member ID). After that, please choose the file from your device and click on "Upload".

The uploaded file undergoes an immediate pre-validation. The result can be checked in the inbox on the landing page. While uploading, the naming convention mentioned before is applied automatically as well, which means that it does not need to be performed manually.

**ACTIVATION:** The applied change takes effect after one overnight batch.

## 9. Useful Links and Contacts

#### **Member Section:**

- Member Section platform
- Further information on Member Section can be found in the Member Section User Guide within your admission package.

#### CRE/CUE:

- You can use the Key generator to create a Keypair and also save it. Please be aware that you
  must enter a passphrase for the key pair (acts as password for the server).
- Further information regarding the CRE/CUE can be found here, under Supporting Documents.

#### Contacts:

- For access and documentation related questions, contact EXG\_Membership membership@eex.com
- For technical questions, contact EXG\_Technology at technology@eex.com