EMFIP

ECP & Web services

Reliable Sustainable Connected

Machine to Machine communication channels

Machine to machine communication channels:

- FTPS: secure File Transfer Protocol
- ECP: Energy Communication Protocol
- Web services

Protocols and APIs to transfer files between computers.

Focus on **ECP** and **Web Services**

ECP purpose

ECP
Message
Sender
Recipient
ECP delivers messages from sender to recipient
User
Business Application
User
Business Application

ECP International Standard

ECP = implementation of MADES

MADES (MArket Data Exchange Standard)

- international standard
- communication platform for TSOs
- reliably and securely exchange documents.

CIM IEC 62325-503 Technical Specification

"Framework for energy market communications – Market data exchanges guidelines for the IEC 62325-351 European Style Market profile''

ECP for Data Providers

ECP for Data Providers that want to implement MADES:

- *free* to use
- *turnkey solution*

ECP for TSOs

- **Security** – Only recipient of the message is capable of reading the message content. The sender of any message can be unambiguously verified.
- **Reliability** – The message delivery is guaranteed.
- **Integration** – The ECP functionality for sending and receiving messages can be integrated with wide variety of technologies.
- **Transparency** – Any message transported by ECP can be tracked down to gather trustworthy information about the state of delivery and traversal path.
- **Portability** – The ECP can be installed on most of widely used operation systems and work with large variety of database servers.

ECP/MADES components

An Endpoint has to be deployed in you IT infrastructure

ECP/MADES disctributed network

ECP/MADES messages flow

ECP and the Tranparency Platform

Data Providers may use ECP for:

- Sending data to ENTSO-E TP
- Receiving Acknowledgement Documents
- Receiving Notification of missing data
  (Problem Statement Document / “escalation messages”)

Configuration Screen

Endpoint: V-code

More information

ECP installation package and documentation:
Available at: **http://ecp.unicornsystems.eu/**

ECP EMFIP Integration Guide
Available on ENTSO-E website
https://www.entsoe.eu/fileadmin/user_upload/_library/resources/Transparency/EMFIP%20ECP%20Integration%20guide%20v1.11.pdf

Email: **ecpsupport@entsoe.zendesk.com**

Web services International Standard

Transparency Platform Web services

Framework for energy market communications
Utilization of web services for electronic data interchanges on the European energy market for electricity

- applying the Basic Webservice Pattern implementation profile from IEC 61968-100.

- International standard IEC/TS 62325-504
- (IEC Target Date 2014/09/15)

Web services for Data Providers

Data Providers may use Web Services for following:

- **Sending data** to ENTSO-E Transparency Platform
- **Receiving Acknowledgement** Documents
- **Receiving Notification** of missing data in form of Problem statement document
- **Listing** and **requesting** submitted messages
- **Retrieving data** (also for Public Users)

Web services in TP

Basic Webservice Pattern implementation profile from IEC 61968-100. **Synchronous Request/Reply.**

Web services Security

Security

- Only TP is capable of reading the message content.
- The sender of any message is be unambiguously verified.
- The message content cannot be modified during transfer.

This is achieved with

- **X509** certificates.
- Digital signatures.

Configuration Screen

More information

IEC/TS 62325-504 document will be available from IEC
Target release date is 2014/09/15

Web services Integration Guide
Available on ENTSO-E website
https://www.entsoe.eu/fileadmin/user_upload/_library/resources/Transparency/EMFIP%20Web%20Services%20Integration%20guide%20v1.11.pdf

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