

ETS API LIGHT DOCUMENTATION

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Market Data Dept.

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1. Introduction.

This document is drafted and designed solely for the benefit of entities interested in implementing and integrating the ETS API as part of their trading activities under a Trading Membership on EPEX SPOT SE or as part of another contractual licensing to be installed with EPEXSPOT SE.

2. Target Audience.

This document is addressed to developers developing applications for the Public API messaging interface of ETS.

3. Purpose.

The purpose of this document is to describe superficially the expected architecture layout and the application using the API Public message interface of ETS.

4. Architecture.

Customer applications access the Open Access API via a web service that runs on the EPEX network. The following figure shows one or more Open Access servers running on the EPEX network and the client applications using HTTPS web transport protocol to connect to the Open Access Server.

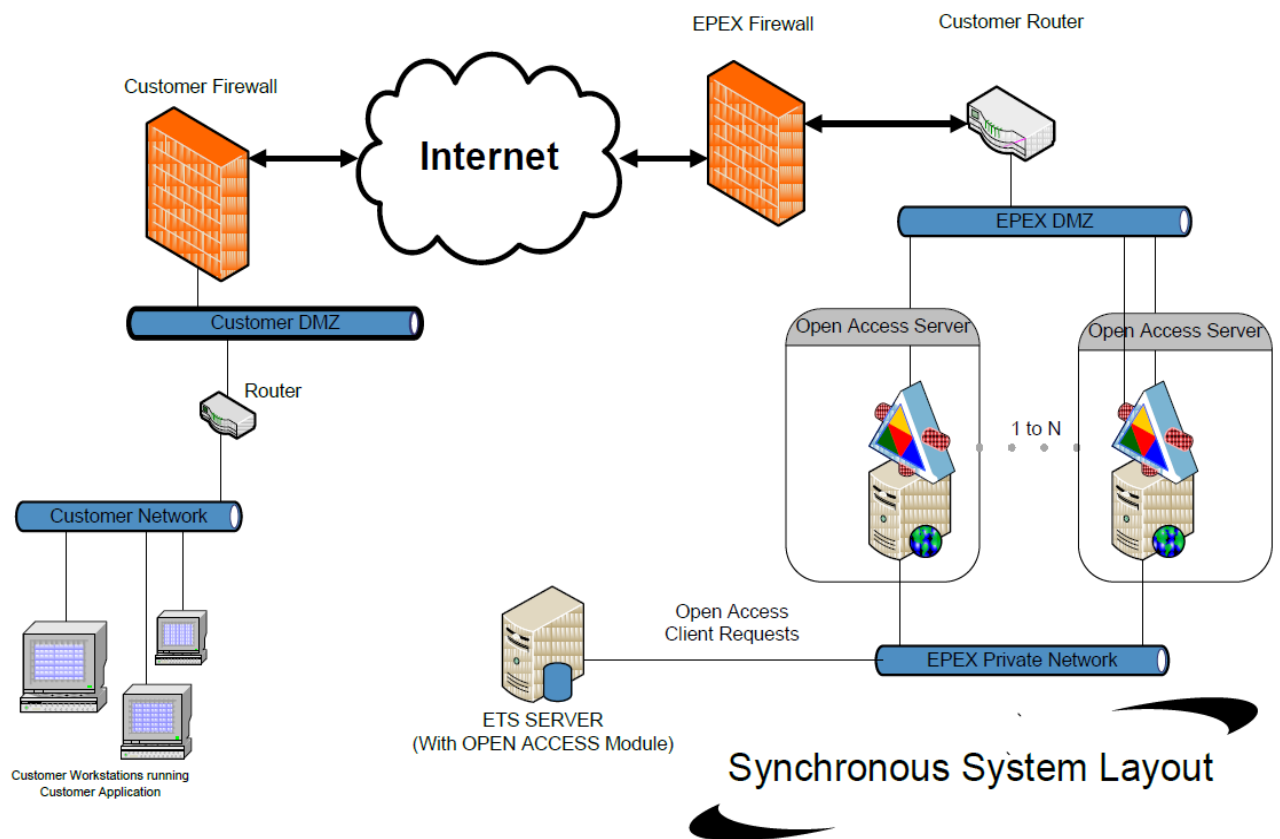


Figure 1: Synchronous System Layout

5. Security.

Both authentication and encryption are required for all communications between the Customer Application and Open Access Server. HTTPS connections are used for all the SOAP requests. This requires both client and server side certificates which will be provided by EPEX SPOT SE upon clearance of all legal pre-requisites.

6. Message Structure.

Since the HTTPS protocol is used along with client certificates, all login information is secure and encrypted. Using HTTPS, Client Applications running on customer workstations will send an Establish Connection-type method and present a user login name and password.

SOAP (Simple Object Access Protocol) provides a means for systems to package and exchange messages encoded in XML.

A Smalltalk is displayed for its English-like readability:

"create an instance of the client"

```
client := OpenAccessOpenAccessPortWsdIClient new.
```

"Services invocation"

"log on and header set for calls"

"First Login and get the session token needed for later calls"

```
args := Array with: ('John Doe') with: ('my.secret.password').
```

```
establishConnection := client executeSelector: #'EstablishConnection' args: args.
```

"the establishSession response instance contains the session token we need so we ask for it and remember it in a variable"

```
sessionToken := establishConnection sessionToken.
```

"further requests will need to set up the required Soap headers. We set it up for synchronous communication"

```
asyncHeader := AsynchronousResponseHeader new  
              asynchronousResponse: (false);  
              responseToken: ("");  
              yourself.
```

"set up the SessionToken and the AsynchronousResponseHeader both headers are required "
(client headerFor: #'AsynchronousResponseHeader')
value: (asyncHeader).
client requestHeaderAt: #'AsynchronousResponseHeader' put: (client headerAt:
#'AsynchronousResponseHeader' ifAbsent:[nil]).

(client headerFor: #'SessionToken') value: (sessionToken).
client requestHeaderAt: #'SessionToken' put: (client headerAt: #'SessionToken' ifAbsent:[nil]).

"Services invocation"

" Now the client is set up we can invoke service methods"

args := Array new.

result := client executeSelector: #'RetrieveTradableAreaSets' args: args.

"the result is an instance of the complex type RetrieveTradeableAreaSetsAcknowledgement

It will contain the areaSetNames instance variable which is an array of strings"

7. Contact Details.

For any outstanding questions please reach out to EPEX SPOT SE Market Data Departments:

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8. Disclaimer.

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