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epexspot

FAQ – Public Message Interface (API)

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1. Introduction

1.1 Audience

This document is intended for API customers (members and Market Data Customers) who will use ETS API.

1.2 Purpose

The purpose of this document is to answer Frequently Asked Questions concerning the ETS API Public message interface. This document can be used by API users in order to resolve potential problems when using the ETS API Public message interface.
It complements the "**02-ETS API Client Application Design Guide**" document in the API package.

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2. Questions/Answers

2.1 Functional questions

2.1.1 EstablishConnection / Login

Q: Can I use my ETS client user/password couple with the API?
A1: No, you need to have a new user/login couple which will only work with the API client

Q: Connection is possible, but I'm not able to login (EstablishConnection) to the ETS server via my API client. Why?
A1: Verify the API user and password. Try to send an EstablishConnection using a standard tool like SOAP UI (please use the SOAP UI document in the API package to see how to upload your API certificate before trying to send the request).

Q: Can we share the ETS API user amongst different applications (concurrent logins)?
A1: Yes, it is possible but not recommended. This will not be maintained in the long run.

2.1.2 Passwords

Q: What is the maximum number of characters for an API User Password?
A1: Not more than 25.

2.1.3 Market Results / Trade Report

Q: Is there a way to get the ETS API pushing/broadcasting market results?
A1: No, the ETS API only enable to poll/send requests. You need to setup a market results retrieval loop in your application. Please check the ***Terms Of Reference*** document that your application must comply with.

Q: Is the results data file from the API the same as the results file downloaded currently?
A1: Please note that as of ETS API 3.3.2 there are 2 kinds to market results (basically the historical market results at portfolio/area level and a new Trade Report at the trade level). The responses content is described in the ***ETS Client and ETS API - Market Results Description*** document contained in the API implementation package.

2.1.4 Auction Characteristics

Q: Do changes of price limits in ETS concern the API?
A1: Changes of Pmin/Pmax values can be done in ETS by Market Operation. In order to send orders via the API the changed price limits must be taken into account.
A2: The *RetrieveAreaInformation* API method enables you to retrieve this data.

2.1.5 Order Management

Q: Will it still be possible to edit and/or cancel Orders put through the EPEX Client?
A1: Yes, if the API user has the correct rights, this will be possible. Please refer to the ***ETS API Client Application Design Guide*** **"ETS API Overview"** section for more details.

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2.1.6 Functional error messages

Q: What should I do when receiving the error {"ErrorId":"OA 012","ErrorText":"Trading System did not answer within: 5 Seconds"} after having sent an order submission.

1. **What does this mean and whether the orders were submitted successfully?**

   Please check Terms of Reference *Order Inquiry Request* section explaining how to handle this error.
   - Basically, this message is just there to indicate there is delay in the sending of the response from the ETS back-end server to ETS API server. It is not a "real" failure of the request. It means the outcome is uncertain.
   - Your application must check whether the request was properly executed or not. Your API application must wait for a few more seconds and check the orders by using the retrieve order request that corresponds to your order type (e.g. linear, block).

2. **Whether the timeout of 5 seconds can be controlled by the client application?**
   - No, it is not possible to control or customize this 5 second timeout from the client application. This timeout is configured on the ETS API server side.

2.2 Technical questions

2.2.1 Environments

Q: Where can I get all the environment details to connect with my API application?
A: Please check the “ETS API Environments Details” document in the API package.

Q: How many ETS API environments are available on EPEX SPOT side?
A: 3 environments are available: 2 test environments and 1 production environment.

Q: What test data shall we expect to use in test environment? Is it an exact copy of the live/production data?
A1: Data you submit : we don’t have any expectations but in order to be tested correctly the data that should be used should look like the one you use in production.
A2: Our test environments are setup as production.

2.2.2 Certificates

Q: Can I use several Clients with one and the same certificate CSR file?
A1: Yes, this is possible.

Q: Security: which versions of the TLS protocol is supported?
TLS v1.0 and 1.1 are still supported, but we recommended to use TLS v1.2.

Q: How can we create .p12 certificate?
A: Please see in “**ETS API Certificates**” document

Q: How many CSR are necessary?
A1: Two, one for Test and one for Production environment once the conformance tests were successful.

Q: How can we verify that our CSR is valid?
A1: Following software can be used: http://certlogik.com/decoder/

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Q: How can we manage HTTPS connections?
A:

1) Be sure to obtain your certificate from your Exchange
2) Set the security protocol to TLSv1.2

Example (C# code)

```
// Set security protocol to TLS v1.2
System.Net.ServicePointManager.SecurityProtocol =
System.Net.SecurityProtocolType.Tls12;
```

3) TLSv1.2 Configure your connection's security mode

Example (C# code)

```
// Set security mode
((BasicHttpBinding)oaClient.Endpoint.Binding).Security.Mode =
BasicHttpSecurityMode.Transport;
((BasicHttpBinding)oaClient.Endpoint.Binding).Security.Transport.ClientCredentialT
ype = HttpClientCredentialType.Certificate;

// PKCS12, contains public and private keys
string clientCertFile = "/path/to/the/p12/certificate";

// Needed when using PKCS12 file to allow certificate export (C# related)
X509KeyStorageFlags flags = X509KeyStorageFlags.Exportable;
// Set client certificate with password
oaClient.ClientCredentials.ClientCertificate.Certificate = new
System.Security.Cryptography.X509Certificates.X509Certificate2(clientCertFile, "",
flags);
```

Q: we could not establish a connection to your system via Browser. We get the following error: SSL_ERROR_NO_CYPHER_OVERLAP?
A1: Please ensure that you have been able to install the root certificate as explained in the Certificate document.
A2: Please double check the list of cipher suites we support (listed in the Certificates document of the API package).

A3: Please check how to know which cipher suite is being used (explained in the answer to the next question) within your configuration by your app during the TLS connection handshake phase (the client sends the preferred list of cipher suite and in return our API server sends back its chosen one to establish the communication).
A4: We suggest as well that you do a test with SOAP UI (after having imported your certificate/keyStore), potentially from an external network (e.g. your private home network over the Internet) and try an EstablishConnection with your API user/password using our sample requests in the API package.

Q: We get an error in our Integrated Development Environment (e.g. Visual studio)**: SSL_ERROR_NO_CYPHER_OVERLAP. What should we do?**
A: Please check with your certificate/network team if they know how to configure the SSL settings so that a supported cipher suite is chosen on your side.
Check the Cipher suite combinations on the machine from which you operate your application:

- At a command prompt, enter **gpedit.msc**
- Expand Computer Configuration, Administrative Templates, Network, and then click SSL Configuration Settings.
- Under SSL Configuration Settings, click the SSL Cipher Suite Order setting

https://docs.microsoft.com/en-us/windows/win32/secauthn/prioritizing-schannel-cipher-suites

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Q: I do not get enough details in my error message. How can I increase my TLS debug level and get a better diagnosis?

A: When diagnosing TLS-related issues, there are several helpful system properties like javax.net.debug:

- Adding -Djavax.net.debug=ssl,handshake in the java script will enable debug logging during the ssl handshake

2.2.3 Connection to the API Server

Q: Why am I not able to connect to the API Server?
A1: Verify if the firewall allows network traffic on the port used.
Otherwise check the IP-address (URL) and the port used to connect to the API server.
A2: Verify if the used certificate is correct
A3: Double check Certificate validity
A4: Double check with your Exchange Market Operations that is environment is up and running.

Q: Can a VPN tunnel be used to connect to the ETS API Server?
A1: No, VPN cannot be used.

Q: What is the recommended duration of time-out?
A1: The duration recommended by our system provider is 60 seconds. Please Refer to the section ***Timeouts and recovery procedure*** in the ***02-ETS API Client Application Design Guide***.

2.2.4 Technical Error messages

Q: In which situation does a client application receive the error "Transport error: 503 Error: Service Unavailable" from ETS API?

A: If client application received the 503 error, it means that:

- The ETS API server is busy and is unable to process the requests for the time being

  The Client application must retry to send the API request after few minutes (for ex: 5 minutes after the reception of error).

Q: When submitting orders via the ETS API, we currently receive an error message "OA 120 - Used deprecated Choice". What does it mean?

A: The API request that were sent to ETS API has been processed successfully but ETS API warn the user about the usage of deprecated tags in the API request.
For backward compatibility reasons these deprecated tags are still supported in highest versions of ETS API. It is always recommended not to use deprecated tags because these tags may decommission in future. Instead of using the deprecated tags, please use the recommended alternative tags.
Please refer the API package dedicated document for more details on the deprecated tags.

2.2.5 WSDL

Q: How can we retrieve the WSDL file from the web browser if we receive a "Secure connection error" (Firefox)
A1: The manner to resolve this issue is to import the signed certificate provided to you to your Web Browser (Firefox in our case below).

1) Firefox preference -> Tools -> Options

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2) Click on “Advanced” button
3) Select the “Encryption” tab
4) Check the checkbox “Use TLS v1.2” (if not already checked)
5) Click on “View Certificates” button
6) Click on “Import” button
7) Navigate to the CA certificate (.p12) and import it

Q: Are really all tags in the WSDL, indicated as optional?
A1: In the WSDL documentation, there are some errors regarding the tags indicated as optional. Few tags are indicated as optional even when they are mandatory:

Method **CancelBlockOrder/**tag timeIntervals
➔ tag is deprecated, and can be replaced by tags **deliveryDay** or **deliveryDays**

Method **EnterHourlyOrder/**tag periodTimeInterval
➔ method is deprecated, so no change is expected

Method **RetrieveBlockOrder**/tag timeInterval
➔ tag is deprecated, and can be replaced by tags **deliveryDay** or **deliveryDays**

Method **RetrieveSmartBlockOrder/**tag timeInterval
➔ tag is deprecated, and can be replaced by tags **deliveryDay** or **deliveryDays**

2.2.6 Handling DST changes

Q: How are the time periods for Summer Days / Winter Days / DST?
A1: The following format is indicated for deprecated methods:
If the tag PERIODTIMEINTERVAL is used, the list of values is different according if we are in summer, winter, DST23 or DST25:
Summer day: from 22h (day 1) to 22h (day 2)
Winter day: from 23h (day 1) to 23h (day 2)
DST short: from 23h (day 1) to 22h (day 2)
DST long: from 22h (day 1) to 23h (day 2)
Each date has the format YYYY_MM_DDTHH:MI:SS

A2: the following format is given for new methods:
If the tag PERIOD is used, the period ID is given with a number from 1 to X.
X = 24 for a normal day with 24 periods, or 23 for DST 23 or 25 for DST 25
X = 96 for a normal day with 96 periods (15min auction), or 92 for DST 23 or 100 for DST 25
…
In this case, the date has always same format (YYYY-MM-DD), and only the number of periods will indicate if there is 23, 24 or 25 hours
DST 23 – Summer: Only 23 periods are valid. Period #24 is invalid.
Please consult the Sample files provided in the API package.

DST 25 – Winter: 25 periods are possible for this long day:
- period 4 corresponds to 02X-03X,
- period 25 corresponds to 23-00

Please consult the Sample files provided in the API package.

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Q: How is the DST handled by EPEX: will the time be delivered in UTC? Which meaning do the Period Ids of block orders have?
A1: There are different possibilities to handle the selection of the correct date(s):
- Delivery day(s): delivery date (or range of dates) with format = YYY-MM-DD. This is used only once by request. DST 23/25 are considered by the period tag.
- DateTime range (PeriodTimeInterval tag), with format = 2019-07-01T22:00:00 (deprecated methods). This is used as many times as there are periods concerned by the request (normally 24 or 23/25 with DST).

PeriodID tag should not be used (do not mix it with Period tag)
Description: The time range indicates the hourly interval in (GMT)
Several DST sessions will be planned by Market operator

A2: the use of tags related to date and time is as following:

Concerned methods:

- EnterBlockOrderBatch
  - ➔ Choice between a date (API schema 2.10 or higher) or a datetime (API schema 2.10)
  - ➔ Choice between a period ID (API schema 2.10 or higher) or a time interval (API schema 2.10)
- RetrieveBlockOrders / RetrieveSmartBlockOrders / CancelBlockOrder
  - ➔ Choice between a date (API schema 2.10 or higher), a range of dates (WSDL 1.9 or more) or a time interval (API schema 2.10)
- RetrieveMarketResultsFor
  - ➔ Choice between a date (API schema 2.10 or higher) or a datetime (API schema 2.10)

2.3 Procedural questions

Q: How do I obtain my login/password for an API user?
A1: Please contact EPEX SPOT Market Operations.

Q: My client certificate has been generated, but I'm still not able to connect to the API server.
A1: The client certificate should be signed by EPEX SPOT. Please contact EPEX SPOT Market Operation to launch the signature process.

Q: How can I access the API documentation package?
A1: Please contact EPEX SPOT Market Operations.

Q: Can we have an IT interlocutor with whom our IT Team can directly communicate?
A1: Please contact your Exchange Market Operations, they are the first level of support for all API topics; however in case of particular technical difficulties, you will be in direct contact with our IT staff.

Q: Is there already a Test Service from the Exchange and corresponding Test Users?
A1: Yes, a test service already exists but please contact EPEX SPOT Market Operations, they are first level of support for all API topics; however, in case of particular difficulties, you will be in direct contact with appropriate person.

Q: In case we encounter technical issues or have technical questions, shall we email your team, or can we have a direct IT contact.
A1: You should contact EPEX market operations at powerspot@epexspot.com

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