



Cboe Europe

Secure Web API

Version 1.23

14 April 2021

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1 Introduction

1.1 Overview

The Cboe Europe (Cboe) Secure Web API allows client applications to view and update Cboe data using the HTTPS protocol over the Internet. For example, if a Participant sponsors other Participants, they can use the Cboe Web Portal to manage these relationships. The API exposes functionality in a programmatic way allowing Participants to write programs to automate such tasks. You could, for example, use the Cboe API to limit the max share size allowed on all FIX sessions used by a particular Sponsored Participant.

1.2 Requirements

Secure services:

- A Cboe API Developer Key
- A Cboe Participant Password
- Ability to send HTTPS requests and receive HTTPS responses over the Internet

1.3 Access

The API is accessed via a URL using the HTTPS protocol. The API is served from the `api.batstrading.co.uk` domain.

<https://api.batstrading.co.uk/service/>

Where `service` is the path to a particular service you want to reach. The available services are detailed later in this document. More services will be added over time.

Access to the production environment is also available through private connectivity using the `api.int.batstrading.co.uk` domain.

<https://api.int.batstrading.co.uk/service/>

Access to our UAT environment is through the `api.certification.batstrading.co.uk` domain.

<https://api.certification.batstrading.co.uk/service/>

1.4 Authentication

The Secure Web API uses HTTP Basic Auth over SSL to authenticate your login credentials. You use your Cboe API Developer Key as your username and your usual, self-created password, as your password. If you already have an API Key for the Cboe Public Web API, you can use this same key. Contact the Trade Desk to receive your API Key. Never share your password with anyone. Cboe Associates will never ask you for your password.

1.5 Testing

In order to facilitate testing of the API, Cboe provides the following two Python files. They are provided on an as-is basis and no guarantee as to their suitability for use in a production environment is made.

- [General base API class](#)
- [API test script](#)

1.6 Throttling

Cboe Europe will throttle any requests that it considers in any way detrimental to the continued operation of the participant portal and API. Throttling conditions may vary depending on IP address, user and the requested URL and/or API command. A throttled response can be recognized by its HTTP status code (429). Requests to API endpoints that are throttled will receive a response containing a JSON error message that is guaranteed to be in the same format as other messages returned by the called API.

2 Request Structure

Requests that retrieve data without making any modifications can be made using an HTTP GET. Requests that modify data use HTTP POST and submit data in the POST body using the “application/x-www-form-urlencoded” encoding.

Each service may have several commands available. Each command may have unique parameter requirements and so are specified per service and command.

Example Request

For example, one of the services exposed via the API is the Port Controls: Risk Management service. One of the commands available in this service is “viewClient”. Since this command does not modify anything, you would use a GET.

Service URL: https://api.batstrading.co.uk/bxe/account/port_controls/
Method: GET
Required request parameters:
 command: “viewClient”
 client: “ABCD”

Since this example is a GET, the API request could be made using this URL:

https://api.batstrading.co.uk/bxe/account/port_controls/?command=viewClient&client=ABCD

3 Response Structure

The response will be in JSON format unless an individual specification indicates otherwise. For responses in JSON format, there are some key-value pairs that you can always expect while other keys will optionally exist. In the table below, the optional fields are shown in *italic*.

Additional key-value pairs and data items could be added. You should develop your application in such a way that it will not break if new items are added in the response. Do not rely on key position when parsing the response.

Field	Description
<i>code</i>	Request result code. <ul style="list-style-type: none">• 200 series = Success.• Non 200 series = Failure. See 'msg' value for details. The request may have been partially successful.
<i>Ttl</i>	"Time to Live" The response you received is cached for the TTL period (expressed in milliseconds). This means it would be useless to resend this same request within the TTL period.
<i>Msg</i>	A string description of the success or failure. Usually only present when code is not 200.
<i>Data</i>	A list of data items. The exact format is specific to the command requested.
<i>Data_ts</i>	Timestamp when the returned data was created. Format is 'YYYY-MM-DD HH:MM:SS'.

Example Response Structure

```
{
  "code": "200",
  "data": [{"Color": "green", "Size": 12}, {"Color": "blue", "Size": 9}],
  "data_ts": "2009-10-05 13:27:08"
}
```

4 Services

4.1 Risk Management Port Controls

BXE Service URL

https://api.batstrading.co.uk/bxe/account/port_controls/

CXE Service URL

https://api.batstrading.co.uk/cxe/account/port_controls/

DXE Service URL

https://api.batstrading.co.uk/dxe/account/port_controls/

TRF Service URL

https://api.batstrading.co.uk/trf/account/port_controls/

CEDX Service URL

https://api.batstrading.co.uk/cedx/account/port_controls/

Description

Used by a Participant to monitor and limit activity related to their trading identifiers.

Specification Document

[Port Controls Risk Management Secure Web API](#)

4.2 Risk Management Gateway

CEDX Service URL

https://api.batstrading.co.uk/cedx/account/risk_manager/

Description

Used by a Participant to manage the risk of over-execution.

Specification Document

[Risk Management Gateway Secure Web API](#)

4.3 Liquidity Provider

BXE Service URL

https://api.batstrading.co.uk/bxe/account/market_maker/

CXE Service URL

https://api.batstrading.co.uk/cxe/account/market_maker/

DXE Service URL

https://api.batstrading.co.uk/dxe/account/market_maker/

CEDX Service URL

https://api.batstrading.co.uk/cedx/account/market_maker/

Description

Used by a liquidity provider to manage the symbols, bank codes and ports for which they intend to provide liquidity under the terms of the Cboe Liquidity Provider Programs.

Specification Document

[Liquidity Provider API](#)

4.4 Ports Information

BXE Service URL

https://api.batstrading.co.uk/bxe/account/ports_info/

CXE Service URL

https://api.batstrading.co.uk/cxe/account/ports_info/

DXE Service URL

https://api.batstrading.co.uk/dxe/account/ports_info/

CEDX Service URL

https://api.batstrading.co.uk/cedx/account/ports_info/

Description

Used by a Participant to retrieve information pertaining to their logical ports.

Specification Document

[Ports Information API](#)

4.5 MiFID II Identifier Management

BXE and CXE Service URL

https://api.batstrading.co.uk/account/identifiers_management/UK/equities

DXE Service URL

https://api.batstrading.co.uk/account/identifiers_management/NL/equities/

CEDX Service URL

https://api.batstrading.co.uk/account/identifiers_management/NL/derivatives/

Description

Used by Participants to submit short codes and associated long code identifiers to Cboe Europe.

Specification Document

[MiFID II Identifier Management Information API](#)

4.6 Transaction Reporting Reconciliation API

Service URL

https://api.batstrading.co.uk/account/transaction_reporting/

Description

This API provides insight into transaction reporting reconciliation issues for Participants that use the Regulatory Transaction Reporting Service.

Specification Document

[Regulatory Transaction Reporting Service Description](#)

5 Support

Please e-mail questions or comments regarding this specification to tradedeskeurope@cboe.com.

Revision History

Protocol Version	Date	Description
1.0	12/02/2010	Release 1.0 distributed.
1.1	19/03/2010	Added Firm Analysis
1.2	24/03/2010	Moved individual services into their own documents
1.3	30/06/2010	Firm Analysis → Market Analytics
1.4	29/08/2011	Added Liquidity Provider API
1.5	08/06/2012	Updated branding
1.6	18/09/2012	Added multi-market service URLs and handle Sponsored Access → Risk Management
1.7	22/01/2013	Updated link
1.8	16/10/2013	Add TRF Port Controls Service URL and BCN Reporting API
1.9	09/04/2014	Detailed access via private connectivity
1.10	03/04/2015	Added Ports Information API
1.11	01/06/2015	BCN API to be discontinued
1.12	25/09/2015	BCN API removed
1.13	19/01/2016	Reworded 'Secret' to 'Participant password' for clarity
1.14	19/02/2016	Updated for new branding.
1.15	25/02/2016	Added Identifier Management specification.
1.16	05/07/2017	Clarify POST request submission method.
1.17	31/10/2018	Removed Market Analytics Service API section.
1.19	31/05/2019	Add DXE environment.
1.20	31/10/2019	Fix link to identifier management API.
1.21	15/11/2019	Add information about throttling.
1.22	06/11/2020	Add Transaction Reporting Reconciliation API.
1.23	14/04/2021	Add CEDX environment.