US

Secure Web API

Version 1.10.1

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Contents

1 Introduction

1.1 Overview

The Secure Web API allows client applications to view and update data using the HTTPS protocol over the Internet. For example, a customer can use the Customer Web Portal to implement risk management at the client level. The API exposes this same functionality in a programmatic way allowing customers to write programs to automate these tasks. You could, for example, use the API to limit the max share size allowed on all orders for a particular client.

This API is available for use on all US platforms that use the Cboe technology platform.

1.2 Requirements

Secure services:

- An API Developer Key
- An API Developer Secret (Customer Portal 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.com domain.

```
BYX Exchange
https://api.batstrading.com/byx/service/
BZX Exchange
https://api.batstrading.com/bzx/service/
EDGX Exchange
https://api.batstrading.com/edgx/service/
EDGA Exchange
https://api.batstrading.com/edga/service/
BZX Options Exchange
https://api.batstrading.com/opt/service/
Cboe Options Exchange
https://api.batstrading.com/cone/service/
C2 Options Exchange
https://api.batstrading.com/ctwo/service/
EDGX Options Exchange
https://api.batstrading.com/exo/service/
Cboe Futures Exchange
https://api.batstrading.com/cfe/service/
```

Where ***service*** is the path to a particular service you want to reach. The available services are detailed later in this document.

1.3.1 Obtaining a Developer Key and Secret

Contact the Cboe or CFE Trade Desk to receive your API Developer Key. The API Developer Secret is the Customer Web Portal password associated with the account. Never share your Secret with anyone. CBOE employees will never ask you for your Secret.

2 Request Structure

Requests that retrieve data without making any modifications can be made using an HTTP GET. Requests that are expected to modify data must use an HTTP POST. Each service may have several commands available. Each command may have unique parameter requirements and so are specified per service and command. ***You need to submit your key and secret on every request.***

Example Request

For example, one of the services exposed via the API is the Port Control service. One of the commands available in this service is "viewClient". Since this command does not modify anything, you could use a GET.

```
BZX Service URL: https://api.batstrading.com/bzx/account/port_controls/
Method: GET
Required request parameters:
          key: "dtiyt6VkQ1e3sFNgvuCaiA"
          secret: "MyPassword"
          command: "viewClient"
          client: "ABCD"
```

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

```
https://api.batstrading.com/bzx/account/port_controls/?key=dtiyt6VkQ1e3sFNgvuCaiA&secret=MyPassword&command=viewClient&client=ABCD
```

3 Response Structure

The response will be 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
code	Request result code. 200 series = Success. Non 200 series = Failure. See 'msg' value for details. The request may have been partially successful.
msg	A string description of the success or failure. Usually only populated when code is not 200.
data	A list of data items. The exact format is specific to the command requested.

Example Response Structure

```
{
  "code":"200",
   "msg": "",
  "data":[{"Color":"green","Size":12},{"Color":"blue","Size":9}]
}
```

4 US Equities Services

Services available through the US Secure Web API for the BYX, BZX, EDGA, and EDGX Equities Exchanges operated by Cboe.

Name	Section	Path	Description
Port Controls	4.1	/account/port_controls/	Used by Customers and Service Bureaus to manage their ports and default port settings.
Market Maker	4.2	/account/market_maker/	Used by Registered Market Makers to register symbols for automated quotation.
Liquidity Management Provider	4.3	/account/liquidity_management_provider/	Used to register as a Liquidity Management Provider for a list of symbols.
Ports Info	4.4	/account/ports_info/	Ports information service.
Symbol Data	4.5	/account/symbol_data/	Near-real-time top of book data for reference use or distribution.
Book Data	4.6	/account/book/	Near-real-time depth of book data for reference use or distribution.

4.1 Port Controls Service

Service URL

```
BYX Exchange
https://api.batstrading.com/byx/account/port_controls/

BZX Exchange
https://api.batstrading.com/bzx/account/port_controls/

EDGX Exchange
https://api.batstrading.com/edgx/account/port_controls/

EDGA Exchange
https://api.batstrading.com/edga/account/port_controls/
```

4.1.1 viewClients

Use this command to retrieve a list of your configured clients and their associated clearing identifier.

Parameter	Description
command	**viewClients**

Example Response


```
{‘code’: ‘200’, ‘msg’: ‘’,
 ‘data’: [{
       'display': ‘FIRM/MMMM: Your Firm (direct using MMMM)',
       'client': 'FIRM', ‘firm_name': ‘Your Firm', 'clearing': 'MMMM',
   }, [{
       'display': 'SPON/MMMM: Sponsored Firm (sponsored using MMMM)',
       'client': 'SPON', 'firm_name': 'Sponsored Firm', 'clearing': 'MMMM',
   }]}
```


4.1.2 viewClient

Use this command to retrieve current default settings for all of your firm’s ports. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**viewClient**
client	Customer or Service Bureau’s Cboe Firm ID
clearing	The MPID used in the relationship (required when multiple MPIDs are in use)

**Optional parameters in italic.*

Example Response


```
{"code":"200", "data":[ {"allowShortSales":"0", "maxShareSize":999999,
"maxNotionalValue":0, "allowPostmarket":"0", "allowIso":"1",
"blockNewOrders":"0", "allowPremarket":"0", ”executionCollar1”:”50”,
“executionCollar2”:”25”, “executionCollar3”:”15”,
“executionCollar4”:”10”, “executionCollar5”:”10”,
”dailyLimitCutoff”:”100000000”, ”dailyLimitNetCutoff”:”100000000”,
“dailyMktCutoff”:”100000000”, “dailyMktNetCutoff”:”100000000”,
“dupOrderAction”:”R”, “dupOrderCount”:”1000”, “dupOrderSeconds”:”5”} ]}
```

4.1.3 setClient

Use this command to update default settings for all of your firm's ports. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**setClient**
client	Customer or Service Bureau's Cboe Firm ID
allowIso	0=restrict, 1=allow
allowPremarket	0=restrict, 1=allow
allowShortSales	0=restrict, 1=allow
blockNewOrders	0=do not block, 1=block
cancelOpenOrders	0=do not cancel, 1=cancel
advPercent	Percent of ADV for Single Order ADV Checks. An integer from 1 to 100.
advMinThreshold	Enable when ADV Exceeds (shares), i.e. the Minimum Threshold for Single Order ADV Checks. An integer greater than 0.
maxNotionalValue	0=use default max notional
maxShareSize	0=use default max size
executionCollar1	Fat Finger % Tier 1 (< $1)** An integer from 1 to 75.
executionCollar2	Fat Finger % Tier 2 (>= $1 and < $10)** An integer from 1 to 50.
executionCollar3	Fat Finger % Tier 3 (>= $10 and < $50)** An integer from 1 to 20.
executionCollar4	Fat Finger % Tier 4 (>= $50 and < $100)** An integer from 1 to 20.
executionCollar5	Fat Finger % Tier 5 (>= $100 and < $500)** An integer from 1 to 20.
executionCollar6	Fat Finger % Tier 6 (>= $500)** An integer from 1 to 20.
executionCollarDollar1	Fat Finger Dollar Tier 1 (< $1)**
executionCollarDollar2	Fat Finger Dollar Tier 2 (>= $1 and < $10)**
executionCollarDollar3	Fat Finger Dollar Tier 3 (>= $10 and < $50)**
executionCollarDollar4	Fat Finger Dollar Tier 4 (>= $50 and < $100)**
executionCollarDollar5	Fat Finger Dollar Tier 5 (>= $100 and < $500)**

dailyLimitCutoff	Gross Daily Limit Order Notional Cutoff Value ($)** An integer between 1 and 1,000,000,000.
dailyLimitWarnPct	Gross Daily Limit Order Warning Percentage** An integer between 1 and 100.
dailyLimitNetCutoff	Net Daily Limit Order Notional Cutoff Value ($)** An integer between 1 and 1,000,000,000.
dailyLimitNetWarnPct	Net Daily Limit Order Warning Percentage** An integer between 1 and 100.
dailyMktCutoff	Gross Daily Market Order Notional Cutoff ($)** An integer between 1 and 1,000,000,000.
dailyMktWarnPct	Gross Daily Market Order Warning Percentage** An integer between 1 and 100.
dailyMktNetCutoff	Net Daily Market Order Notional Cutoff ($)** An integer between 1 and 1,000,000,000.
dailyMktNetWarnPct	Net Daily Market Order Warning Percentage** An integer between 1 and 100.
dailyLimitEmails	A CSV formatted list of email addresses that will receive a notification when an Aggregated Credit Limit Warning Percent threshold is breached.
dupOrderAction	Action When Duplicative Orders are Encountered: O=Off (no action), R=Reject Orders, D=Disable Port Note the key for duplicative order checks are: Clearing MPID, Symbol, Price, Size and Side (i.e. Buy or not)
dupOrderCount	Order Count Threshold
dupOrderSeconds	Time Threshold in seconds
clearing	The MPID used in the relationship (required when multiple MPIDs are in use)

**Optional parameters in italic. Note that at least one of the optional parameters must be specified. You may supply one or multiple optional parameters in a single request.*
*** Refer to the Cboe Web Portal Port Controls Specification for more information on this parameter.*

Example Response

```
{"code":"200", "msg":""}
```

4.1.4 viewEasy

Use this command to view the Easy to Borrow list for your firm. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**viewEasy**
Client	Customer or Service Bureau's Cboe Firm ID
clearing	The MPID used in the relationship (required when multiple MPIDs are in use)

**Optional parameters in italic.*

Example Response

```
{"code":"200", "msg":"", "data": {"known": ["symbol1", "symbol2",
"symbol3"], "unknown": [],"knownCount": 3, "unknownCount": 0}}
```

4.1.5 uploadEasy

Use this command to change the Easy to Borrow list for your firm. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**uploadEasy**
Client	Customer or Service Bureau's Cboe Firm ID
symbols	Comma separated list of Cboe symbol names
clearing	The MPID used in the relationship (required when multiple MPIDs are in use)

**Optional parameters in italic.*

Example Response

```
{"code":"200", "msg": "5 valid symbols were applied. Of these, 1 are not
known to the Cboe trading system. Perhaps they will be known in the
future. ", "data": {"knownCount": 4, "unknownCount": 1, "unknown":
["FOOO"], "invalidCount": 0, "invalid": []}}
```

4.1.6 removeEasy

Use this command to remove the Easy to Borrow list for your firm. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**removeEasy**
Client	Customer or Service Bureau's Cboe Firm ID
clearing	The MPID used in the relationship (required when multiple MPIDs are in use)

**Optional parameters in italic.*

Example Response


```
{"code":"200", "msg": ""}
```


4.1.7 viewRestricted

Use this command to view the Restricted Symbols list for your firm. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**viewRestricted**
Client	Customer or Service Bureau's Cboe Firm ID
clearing	The MPID used in the relationship (required when multiple MPIDs are in use)

**Optional parameters in italic.*

Example Response


```
{"code":"200", "msg":"", "data": {"known": ["symbol1", "symbol2", "symbol3" ], "unknown": [],"knownCount": 3, "unknownCount": 0}}
```

4.1.8 uploadRestricted

Use this command to change the Restricted Symbols list for your firm. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**uploadRestricted**
client	Customer or Service Bureau’s Cboe Firm ID
symbols	Comma separated list of Cboe symbol names
clearing	The MPID used in the relationship (required when multiple MPIDs are in use)

**Optional parameters in italic.*

Example Response

```
{"code":"200", "msg": "5 valid symbols were applied. Of these, 1 are not
known to the Cboe trading system. Perhaps they will be known in the
future. ", "data": {"knownCount": 4, "unknownCount": 1, "unknown":
["FOOO"], "invalidCount": 0, "invalid": []}}
```

4.1.9 removeRestricted

Use this command to remove the Restricted Symbols list for your firm. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**removeRestricted**
client	Customer or Service Bureau’s Cboe Firm ID
clearing	The MPID used in the relationship (required when multiple MPIDs are in use)

**Optional parameters in italic.*

Example Response

```
{"code":"200", "msg": ""}
```

4.2 Market Maker Registration Service

Service URL

```
BYX Exchange
https://api.batstrading.com/byx/account/market_maker/

BZX Exchange
https://api.batstrading.com/bzx/account/market_maker/

EDGX Exchange
https://api.batstrading.com/edgx/account/market_maker/

EDGA Exchange
https://api.batstrading.com/edga/account/market_maker/
```

4.2.1 viewIdentifiers

View all available clearing firm identifiers.

Parameter	Description
command	**viewIdentifiers**

Example Response


```
{"code":"200",
 "data":[
     {"identifier":"CBOE"},
     {"identifier":"MMQA"},
     {"identifier":"MMQB"}
 ],
"msg":"","}
```

4.2.2 viewRegisteredSymbols

View symbols registered for both the current trading session and the next trading session.

Parameter	Description
command	**viewRegisteredSymbols**
identifier	The clearing firm identifier to view

Example Response

```
{"code":"200",
 "data":{
     "current":["ZVZZT"],
     "next":["ZVZZT"]
 }
 "msg":"",
}
```

4.2.3 viewActiveRegisteredSymbols

View active symbols registered for both the current trading session and the next trading session.

Parameter	Description
command	**viewActiveRegisteredSymbols**
identifier	The clearing firm identifier to view

Example Response

```
{"code":"200",
 "data":{
     "current":["ZVZZT"],
     "next":["ZVZZT"]
 }
 "msg":"",
}
```

Note that the “current” and “next” lists represent registered symbols in an active state at the time the command is run.

4.2.4 clearRegisteredSymbols

Remove all currently-registered symbols.

Parameter	Description
command	**clearRegisteredSymbols**
identifier	The clearing firm identifier to clear

Example Response

```
{"code":"200", "msg":"INFO: Successfully removed all symbols"}
```

4.3 Liquidity Management Provider Registration Service (BZX Only)

4.3.1 uploadRegisteredSymbols

Register a new set of symbols for automated quoting.

Parameter	Description
command	**uploadRegisteredSymbols**
identifier	The clearing firm identifier to clear
add	Comma-separated list of symbols to register for the next trading session.
remove	Comma-separated list of symbols to remove for the next trading session.

Service URL

```
BZX Exchange
https://api.batstrading.com/bzx/account/liquidity_management_provider/
```

Example Request

```
?command=uploadRegisteredSymbols&identifier=CBOE&add=ZVZZT,ZBZX,ZTEST
```

Example Response


```
{"code":"200"
 "msg":"List updated. Registration in the securities referenced in your update will be effective on January 12, 2016",
 "data":{
     "inactiveCount":0,
     "duplicateCount":0,
     "activeCount":3,
     "removeCount":0,
     "unknownList":[],
     "addCount":3,
     "failedMinimumRegistration":[]
 }
}
```


4.3.2 viewIdentifiers

View all available clearing firm identifiers.

Parameter	Description
command	**viewIdentifiers**

Example Response

```
{"code":"200",
 "data":[
     {"identifier":"CBOE"},
     {"identifier":"MMQA"},
     {"identifier":"MMQB"}
 ],
"msg":"","}
```

4.3.3 viewRegisteredSymbols

View LMP symbols registered for both the current trading session and the next trading session.

Parameter	Description
command	**viewRegisteredSymbols**
identifier	The clearing firm identifier to view

Example Response

```
{"code":"200",
 "data":{
     "current":["ZVZZT"],
     "next":["ZVZZT"]
 }
 "msg":"",
}
```

4.3.4 viewActiveRegisteredSymbols

View active LMP symbols registered for both the current trading session and the next trading session.

Parameter	Description
command	**viewActiveRegisteredSymbols**
identifier	The clearing firm identifier to view

Example Response

```
{"code":"200",
 "data":{
```



```
      "current":["ZVZZT"],
      "next":["ZVZZT"]
  }
  "msg":"",
 }
```


Note that the “current” and “next” lists represent registered symbols in an active state at the time the command is run.

4.3.5 clearRegisteredSymbols

Remove all currently-registered LMP symbols.

Parameter	Description
command	**clearRegisteredSymbols**
identifier	The clearing firm identifier to clear

Example Response


```
{"code":"200", "msg":"INFO: Successfully removed all symbols"}
```


4.3.6 uploadRegisteredSymbols

Register a new set of symbols for the LMP program.

Parameter	Description
command	**uploadRegisteredSymbols**
identifier	The clearing firm identifier to clear
add	Comma-separated list of symbols to register for the next trading session.
remove	Comma-separated list of symbols to remove for the next trading session.

Example Request

```
?command=uploadRegisteredSymbols&identifier=CBOE&add=ZVZZT,ZBZX,ZTEST
```

Example Response


```
{"code":"200"
 "msg":"List updated. Registration in the securities referenced in your
update will be effective on January 12, 2016",
 "data":{
     "inactiveCount":0,
     "duplicateCount":0,
     "activeCount":3,
     "removeCount":0,
     "unknownList":[],
     "addCount":3,
     "failedMinimumRegistration":[]
 }
}
```

4.4 Ports Information Service

Service URL

BYX Exchange
https://api.batstrading.com/byx/account/ports_info/

BZX Exchange
https://api.batstrading.com/bzx/account/ports_info/

EDGX Exchange
https://api.batstrading.com/edgx/account/ports_info/

EDGA Exchange
https://api.batstrading.com/edga/account/ports_info/

4.4.1 viewPortConnections

Use this command to retrieve CSV formatted data of your ports and their associated connection information. The data will reflect the same information presented in the 'View Port Connection Info' available under the More Options link in the Customer Web Portal Ports Dashboard and is subject to change. Each port type will have its own header row and a blank line will be inserted between port types.

Parameter	Description
command	**viewPortConnections**

Example Response

```
"Type","Primary IP (SECAUCUS)","Secondary IP (CHICAGO)","Port","Username","Session Sub Id","Password","Trading Group","Allowed MPIDs"
"BOE","127.0.0.1","127.0.0.2","10100","CBOE","0001","bz1cboe","","CBOE"
"BOE","127.0.0.1","127.0.0.2","10101","CBOE","0002","bz2cboe","","CBOE"
"BOE","127.0.0.1","127.0.0.2","10102","CBOE","0003","bz3cboe","","CBOE"

"Type","Primary IP (SECAUCUS)","Secondary IP (CHICAGO)","Port","SenderCompId","SenderSubId","TargetCompId","TargetSubId","Trading Group","Allowed MPIDs"
"FIX","127.0.0.1","127.0.0.2","10103","CBOE","0004","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10104","CBOE","0005","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10105","CBOE","0006","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10106","CBOE","0007","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10107","CBOE","0008","CBOE","DEV","","CBOE"

"Type","Primary IP (SECAUCUS)","Secondary IP (CHICAGO)","Port","SenderCompId","SenderSubId","TargetCompId","TargetSubId","Trading Group"
"ODrop","127.0.0.1","127.0.0.2","10200","CBOE","0009","CBOE","DEV",""
"ODrop","127.0.0.1","127.0.0.2","10201","CBOE","0010","CBOE","DEV",""
```



```
"Type","Primary                IP                (SECAUCUS)","Secondary                IP
(CHICAGO)","Port","Username","Password","Trading Group"
"Pitch","127.0.0.1","127.0.0.2","10504","CBOE","test",""
"Pitch","127.0.0.1","127.0.0.2","10507","CBOE","test",""

"Type","Unit","Primary             IP              (SECAUCUS)","Secondary             IP
(CHICAGO)","Port","Username","Session Sub Id","Password","Trading Group"
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","CBOE","0023","s1cboe",""
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","CBOE","0024","s2cboe",""
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","CBOE","0025","s3cboe",""
```

4.4.2 viewPortAttributes

Use this command to retrieve CSV formatted data of your order handler ports and their associated attribute information. The data will reflect the same information presented in the 'View Port Attributes Info' available under the More Options link in the Customer Web Portal Ports Dashboard and is subject to change. Each port type will have its own header row and a blank line will be inserted between port types. The attribute label is given in the leftmost column, with the right-side columns showing the setting for each port (IP Port values given in the header row). The firm name will also be presented in the header row along with the port type.

Parameter	Description
command	**viewPortAttributes**

Example Response

```
"CBOE Trading, Inc., FIX, IP Port","10103","10104","10105","10106","10107"
"Authentication","","","","",""
"Sender Comp Id","CBOE","CBOE","CBOE","CBOE","CBOE"
"Sender Sub Id","0004","0005","0006","0007","0008"
"Target Comp Id","CBOE","CBOE","CBOE","CBOE","CBOE"
"Target Sub Id","DEV","DEV","DEV","DEV","DEV"
"Attributes","","","","",""
"Allowed Clearing MPID(s)","CBOE","CBOE","CBOE","CBOE","CBOE"
"Default Clearing MPID","","","","",""
"Bill To","","","","",""
"Allow Test Symbols Only","No","No","No","No","No"
"Allow Pre-market","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Allow Post-market","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Allow Short Sales","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Allow ISO","CBOE: Yes","CBOE: No","CBOE: No","CBOE: Yes","CBOE: Yes"
"Allow Directed ISO","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Default Routing Instruction","R (Route)","RND (Route, No Reroute, Parallel-D)","RND (Route,
No Reroute, Parallel-D)","RND (Route, No Reroute, Parallel-D)","RND (Route, No Reroute,
Parallel-D)"
"Default Exec. Instruction","None","None","None","None","None"
"Maximum Order Size","CBOE: 25000","CBOE: 25000","CBOE: 25000","CBOE: 25000","CBOE: 25000"
"Maximum Order Dollar Value","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited","CBOE:
Unlimited","CBOE: Unlimited"
"Port Order Rate Threshold","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: "
"Default Price Sliding","Display price sliding","Display price sliding","Display price
sliding","Display price sliding","Display price sliding"
"Default Pricing Sliding (Hidden Order Override)","Use displayed setting","Use displayed
setting","Use displayed setting","Use displayed setting","Use displayed setting"
"Cancel on Disconnect","Cancel Continuous Book Orders Only","Cancel Continuous Book Orders
Only","Cancel Continuous Book Orders Only","Cancel Continuous Book Orders Only","Cancel
Continuous Book Orders Only"
"Send Trade Breaks","None","None","None","None","None"
"Default MTP Value","None","None","None","None","None"
"Report MTP Fields","No","No","No","No","No"
"Allow MTP Decrement Override","No","No","No","No","Yes"
"Allow Sponsored Participant MTP Control","No","No","No","No","No"
"Concatenate CompId and SubId","No","No","No","No","No"
"Cancel on Reject","No","No","No","No","No"
"Report Working Price","Yes","Yes","Yes","Yes","No"
"Unique Wash Execution IDs","No","No","No","No","No"
"Opt-out of PITCH Obfuscation","No","No","No","No","No"
"Enable State Change Tracking","No","No","No","No","No"
```



```
"Send 2nd Liquidity Character","No","No","No","No","No"
"Decrement Remainder Only","No","No","No","No","No"
"Restate on Reload","Yes","Yes","Yes","Yes","Yes"
"Send Fix tag 40 (order type)","No","No","No","No","No"
"Send Fix tag 47 (capacity)","No","No","No","No","No"
"Microsecond Timestamp Granularity","No","No","No","No","No"
"Fat Finger % - Limit Price < $1","CBOE: 70","CBOE: 70","CBOE: 70","CBOE: 70","CBOE: 70"
"Fat Finger % - Limit Price >= $1 and < $10","CBOE: None","CBOE: None","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $10 and < $50","CBOE: None","CBOE: None","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $50 and < $100","CBOE: 18","CBOE: 18","CBOE: 18","CBOE: 18","CBOE: 18"
"Fat Finger % - Limit Price >= $100 and < $500","CBOE: None","CBOE: None","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $500","CBOE: None","CBOE: None","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price < $1","CBOE: None","CBOE: None","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $1 and < $10","CBOE: 100","CBOE: 100","CBOE: 100","CBOE: 100","CBOE: 100"
"Fat Finger CENTS - Limit Price >= $10 and < $50","CBOE: None","CBOE: None","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $50 and < $100","CBOE: 200","CBOE: 200","CBOE: 200","CBOE: 200","CBOE: 200"
"Fat Finger CENTS - Limit Price >= $100 and < $500","CBOE: None","CBOE: None","CBOE: None","CBOE: None","CBOE: None"
"Reject Orders on DROP Port Disconnect","No","No","No","No","No"
"Reject Orders on DROP Port Timeout (sec)","30","30","30","30","30"
"Cancel Open Orders on DROP Port Disconnect","No","No","No","No","No"
"Gross Daily Risk Limit Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: "
"Gross Daily Risk Market Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: "
"Net Daily Risk Limit Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: "
"Net Daily Risk Market Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: "
"Send Fix tag 9303 (routing instruction)","No","No","No","No","No"
"Default Attributed Quote","Never","Never","Never","Never","Never"
"Crossed Market Reject/Cancel","No","No","No","No","No"
"Send Peg Restatements","No Peg restatements","No Peg restatements","No Peg restatements","No Peg restatements","No Peg restatements"
"Enable FIX V2 (routing_v2)","No","No","No","No","No"
"Route Instruction","Routable","Routable","Routable","Routable","Routable"
"Route Strategy","ROUT","ROUT","ROUT","ROUT","ROUT"
"Route Delivery","Route to Improve - ParD","Route to Improve - ParD","Route to Improve - ParD","Route to Improve - ParD","Route to Improve - ParD"
"Session Close Handling","Send Cancels","Send Cancels","Send Cancels","Send Cancels","Send Cancels"
"Default ExtendedExecInst","None","None","None","None","None"
"Cancel on Halt","Cancel None","Cancel None","Cancel None","Cancel None","Cancel None"
"Order Persistence on ME Disconnect","Yes","Yes","Yes","Yes","Yes"
"Duplicative Order Seconds","CBOE: 4","CBOE: 4","CBOE: 4","CBOE: 4","CBOE: 4"
"Duplicative Order Count","CBOE: 10","CBOE: 10","CBOE: 10","CBOE: 10","CBOE: 10"
"Duplicative Order Action","CBOE: Off","CBOE: Off","CBOE: Off","CBOE: Off","CBOE: Off"
"Trading Group","","","","",""

"CBOE Trading, Inc., BOE, IP Port","10100","10101","10102"
"Authentication","","",""
"Username","CBOE","CBOE","CBOE"
"Sender Sub Id","0001","0002","0003"
"Password","bz1cboe","bz2cboe","bz3cboe"
"Attributes","","",""
"Allowed Clearing MPID(s)","CBOE","CBOE","CBOE"
"Default Clearing MPID","CFAA","CFAA","CFAA"
"Bill To","","",""
"Allow Test Symbols Only","No","No","No"
"Allow Pre-market","CBOE: Yes","CBOE: Yes","CBOE: Yes"
```

```
"Allow Post-market","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Allow Short Sales","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Allow ISO","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Allow Directed ISO","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Default Routing Instruction","RND (Route, No Reroute, Parallel-D)","RND (Route, No Reroute,
Parallel-D)","RND (Route, No Reroute, Parallel-D)"
"Default Exec. Instruction","None","None","None"
"Maximum Order Size","CBOE: 25000","CBOE: 25000","CBOE: 25000"
"Maximum Order Dollar Value","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited"
"Port Order Rate Threshold","CBOE: ","CBOE: ","CBOE: "
"Default Price Sliding","Display price sliding","Display price sliding","Display price
sliding"
"Default Pricing Sliding (Hidden Order Override)","Use displayed setting","Use displayed
setting","Use displayed setting"
"Cancel on Disconnect","Cancel Continuous Book Orders Only","Cancel Continuous Book Orders
Only","Cancel Continuous Book Orders Only"
"Send Trade Breaks","None","None","None"
"Default MTP Value","None","None","None"
"Allow MTP Decrement Override","No","No","No"
"Allow Sponsored Participant MTP Control","No","No","No"
"Cancel on Reject","No","No","No"
"Opt-out of PITCH Obfuscation","No","No","No"
"Decrement Remainder Only","No","No","No"
"Fat Finger % - Limit Price < $1","CBOE: 70","CBOE: 70","CBOE: 70"
"Fat Finger % - Limit Price >= $1 and < $10","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $10 and < $50","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $50 and < $100","CBOE: 18","CBOE: 18","CBOE: 18"
"Fat Finger % - Limit Price >= $100 and < $500","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $500","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price < $1","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $1 and < $10","CBOE: 100","CBOE: 100","CBOE: 100"
"Fat Finger CENTS - Limit Price >= $10 and < $50","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $50 and < $100","CBOE: 200","CBOE: 200","CBOE: 200"
"Fat Finger CENTS - Limit Price >= $100 and < $500","CBOE: None","CBOE: None","CBOE: None"
"Reject Orders on DROP Port Disconnect","No","No","No"
"Reject Orders on DROP Port Timeout (sec)","30","30","30"
"Cancel Open Orders on DROP Port Disconnect","No","No","No"
"Gross Daily Risk Limit Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: "
"Gross Daily Risk Market Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: "
"Net Daily Risk Limit Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: "
"Net Daily Risk Market Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: "
"Default Attributed Quote","Never","Never","Never"
"Crossed Market Reject/Cancel","No","No","No"
"Send Peg Restatements","No Peg restatements","No Peg restatements","No Peg restatements"
"Route Instruction","Routable","Routable","Routable"
"Route Strategy","ROUT","ROUT","ROUT"
"Route Delivery","Route to Improve - ParD","Route to Improve - ParD","Route to Improve -
ParD"
"Default ExtendedExecInst","None","None","None"
"Cancel on Halt","Cancel None","Cancel None","Cancel None"
"Order Persistence on ME Disconnect","Yes","Yes","Yes"
"Duplicative Order Seconds","CBOE: 4","CBOE: 4","CBOE: 4"
"Duplicative Order Count","CBOE: 10","CBOE: 10","CBOE: 10"
"Duplicative Order Action","CBOE: Off","CBOE: Off","CBOE: Off"
"Trading Group","","",""
```

4.5 Symbol Data

Service URL

BYX Exchange
https://api.batstrading.com/byx/account/symbol_data/

BZX Exchange
https://api.batstrading.com/bzx/account/symbol_data/

EDGX Exchange
https://api.batstrading.com/edgx/account/symbol_data/

EDGA Exchange
https://api.batstrading.com/edga/account/symbol_data/

Use this API to retrieve current top-of-book symbol data for all US equity symbols on the selected exchange. The data will be returned in an XML format.

API requests for symbol data should be sent not more than once per 30-second period. More frequent requests will not provide more frequent updates.

Example Response


```
<cboe>
<stats vol="12345" orders="23456"/>
<symbols timestamp="2015-09-08 09:30:00" count="1111">
<symbol name="FOO" vol="11111" asksz="0" askpx="0.0" bidsz="0" bidpx="0.0" last="142.85" matched="123" routed="234"/>
<symbol name="BAR" vol="22222" asksz="0" askpx="0.0" bidsz="0" bidpx="0.0" last="29.95" matched="234" routed="345"/>
</symbols>
</cboe>
```

4.6 EDGX/BZX Top-of-Book (REST/JSON)

Service URL

```
EDGX Exchange
https://api.batstrading.com/edgx/account/top/

BZX Exchange
https://api.batstrading.com/bzx/account/top/
```

Use this API to retrieve current top-of-book symbol data for all equity symbols. The data will be returned in a JSON format.

API requests for symbol data should be sent not more than once per second. More frequent requests will not provide more frequent updates.

Example Response

```
{
    "updateTime":"2017-08-30T17:10:18-04:00",
    "data":[{
        "volume":960681,
        "bidPrice":0.0,
        "name":"SPY",
        "lastPrice":245.96,
        "askSize":0,
        "bidSize":0,
        "askPrice":0.0,
        "routed":400,
        "matched":960281}]
}
```

4.7 Book Data

Service URL

```
BYX Exchange
https://api.batstrading.com/byx/account/book/<symbol>/data/

BZX Exchange
https://api.batstrading.com/bzx/account/book/<symbol>/data/

EDGX Exchange
https://api.batstrading.com/edgx/account/book/<symbol>/data/

EDGA Exchange
https://api.batstrading.com/edga/account/book/<symbol>/data/
```

View current depth-of-book data for the selected symbol on the selected exchange.

API requests for book data should be sent not more than once per 5-second period. More frequent requests will not provide more frequent data updates.

Example Response


```
{"status":"200:                                                                   ",
 "reload":5000,
 "success":true,
 "statusText":"",
 "data":{
    "trades_count":10,
    "asks_count":0,
    "asks":[],
    "timestamp":"14:39:01",
    "symbol":"FOOA",
    "trades":[
        ["15:59:59",300,"4.59"],
        ["15:59:59",200,"4.60"],
        ["15:59:59",100,"4.59"],
        ["15:59:58",100,"4.61"],
        ["15:59:56",300,"4.62"],
        ["15:59:56",20,"4.61"],
        ["15:59:56",18,"4.62"],
        ["15:59:55",235,"4.62"],
        ["15:59:55",94,"4.61"],
        ["15:59:55",6,"4.61"]
],
"bids":[],
"orders":123,
"volume":23456,
"bids_count":0,
"hrname":"",
"tick_type":"",
"company":"FOO                                                   CORP"},
"statusCode":"200"}
```

5 US Options Services

Services available through the Secure Web API for BZX, EDGX and C2 Options Exchanges.

Name	Section	Path	Description
Port Controls	5.1	/account/port_controls/	Used by Customers and Service Bureaus to manage their ports and default port settings.
Market Maker	5.2	/account/optmarket_maker/	Used by Registered Market Makers to register symbols for automated quotation.
Risk Management	5.3	/account/risk_manager/	Used by Options Customers to manage the risk of over-execution.
Ports Information Service	5.4	/account/ports_info/	Used by Options Customers to receive configuration information about their ports.
Clearing Edit Service	5.5	/account/clearing_edits/	Used by Options Customers to make post-trade corrections to their options executions

5.1 Port Controls

Service URL

```
BZX Options Exchange
https://api.batstrading.com/opt/account/port_controls/

Cboe Options Exchange (Certification support available Q1, 2019)
https://api.batstrading.com/cone/account/port_controls/

C2 Options Exchange
https://api.batstrading.com/ctwo/account/port_controls/

EDGX Options Exchange
https://api.batstrading.com/exo/account/port_controls/
```

5.1.1 viewClient

Use this command to retrieve current default settings for all of your firm's ports. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**viewClient**
client	Customer or Service Bureau's Cboe Firm ID
clearing	The Executing Firm ID (EFID) used in the relationship (required when multiple EFIDs are in use)

**Optional parameters in italic.*

Example Response


```
{"code":"200", "data":[ {"maxContractSize":999999, "maxNotionalValue":0,
"allowIso":"1", "blockNewOrders":"0", ”executionCollar1”:”50”,
“executionCollar2”:”25”, “executionCollar3”:”15”,
“executionCollar4”:”10”, “executionCollar5”:”10”,
“”dailyLimitCutoff”:”100000000”, ”dailyLimitNetCutoff”:”100000000”,
“dailyMktCutoff”:”100000000”, “dailyMktNetCutoff”:”100000000”,
“dupOrderAction”:”R”, “dupOrderCount”:”1000”, “dupOrderSeconds”:”5”} ]}
```


5.1.2 setClient

Use this command to update settings for all of your firm’s ports. Customers and Service Bureaus must specify their four character Cboe Firm ID.

Parameter	Description
command	**setClient**
client	Customer or Service Bureau’s Cboe Firm ID
allowIso	0=restrict, 1=allow
blockNewOrders	0=do not block, 1=block
cancelOpenOrders	0=do not cancel, 1=cancel
maxNotionalValue	0=use default max notional
maxContractSize	0=use default max size
executionCollar1	Fat Finger % Tier 1 (< $1)** An integer from 1 to 75.
executionCollar2	Fat Finger % Tier 2 (>= $1 and < $10)** An integer from 1 to 50.
executionCollar3	Fat Finger % Tier 3 (>= $10 and < $50)** An integer from 1 to 20.
executionCollar4	Fat Finger % Tier 4 (>= $50 and < $100)** An integer from 1 to 20.
executionCollar5	Fat Finger % Tier 5 (>= $100 and < $500)** An integer from 1 to 20.
executionCollar6	Fat Finger % Tier 6 (>= $500)** An integer from 1 to 20.
executionCollarDollar1	Fat Finger Dollar Tier 1 (< $1)**
executionCollarDollar2	Fat Finger Dollar Tier 2 (>= $1 and < $10)**
executionCollarDollar3	Fat Finger Dollar Tier 3 (>= $10 and < $50)**

executionCollarDollar4	Fat Finger Dollar Tier 4 (>= $50 and < $100)**
executionCollarDollar5	Fat Finger Dollar Tier 5 (>= $100 and < $500)**
dailyLimitCutoff	Gross Daily Limit Order Notional Cutoff Value ($)** An integer between 1 and 1,000,000,000.
dailyLimitWarnPct	Gross Daily Limit Order Warning Percentage** An integer between 1 and 100.
dailyLimitNetCutoff	Net Daily Limit Order Notional Cutoff Value ($)** An integer between 1 and 1,000,000,000.
dailyLimitNetWarnPct	Net Daily Limit Order Warning Percentage** An integer between 1 and 100.
dailyMktCutoff	Gross Daily Market Order Notional Cutoff ($)** An integer between 1 and 1,000,000,000.
dailyMktWarnPct	Gross Daily Market Order Warning Percentage** An integer between 1 and 100.
dailyMktNetCutoff	Net Daily Market Order Notional Cutoff ($)** An integer between 1 and 1,000,000,000.
dailyMktNetWarnPct	Net Daily Market Order Warning Percentage** An integer between 1 and 100.
dailyLimitEmails	A CSV formatted list of email addresses that will receive a notification when an Aggregated Credit Limit Warning Percent threshold is breached.
dupOrderAction	Action When Duplicative Orders are Encountered: O=Off (no action), R=Reject Orders, D=Disable Port Note the key for duplicative order checks are: Clearing EFID, Symbol, Price, Size and Side (i.e. Buy or not)
dupOrderCount	Order Count Threshold
dupOrderSeconds	Time Threshold in seconds
clearing	The EFID used in the relationship (required when multiple EFIDs are in use)

**Optional parameters in italic. Note that at least one of the optional parameters must be specified. You may supply one or multiple optional parameters in a single request.*
*** Refer to the [Web Portal Port Controls Specification]() for more information on this parameter.*

Example Response

```
{"code":"200", "msg":""}
```

5.2 Market Maker Registration Service

Service URL

```
BZX Options Exchange
https://api.batstrading.com/opt/account/optmarket_maker/

Cboe Options Exchange (Certification support available Q1, 2019)
https://api.batstrading.com/cone/account/optmarket_maker/

C2 Options Exchange
https://api.batstrading.com/ctwo/account/optmarket_maker/

EDGX Options Exchange
https://api.batstrading.com/exo/account/optmarket_maker/
```

5.2.1 viewSeriesStatus

View status information on all currently-registered series.

Parameter	Description
command	**viewSeriesStatus**
identifier	Market marker ID
tradingDay (OPTIONAL)	View series status for current trading day or next trading day. Valid values are `today` or `next_trading_day`. Defaults to `today` if not supplied.

Example Response


```
{"msg":"",
 "code":"200",
 "data":{
     "underlying":{
         "MMQA":{
             "count":8,
             "regType":0,
             "underlying":"P",
             "period":"0",
             "excludeSdo":"0"}
      },
 "upload_list":{"MMQA":"2012-06-29                    13:30:09.212097"},
 "series_count":                                            {"MMQA":"8"}
 }
}
```

5.2.2 viewRegisteredSeries

View series registered for both the current trading session and the next trading session.

Parameter	Description
command	**viewRegisteredSeries**
identifier	Market Maker ID
dt (OPTIONAL)	View series registered for the selected date, in YYYY-MM-DD format. Defaults to current date if not supplied.

Example Response


```
{"msg":"",
 "code":"200",
 "data":[
    {"strike_price":10.000,
     "bats_symbol":"000333",
     "expiration_date":"3006-01-01",
     "osi_symbol":"A                                  060101P00010000",
     "put_call_flag":"P",
     "underlying":"A"},

    {"strike_price":10.000,
     "bats_symbol":"000111",
     "expiration_date":"3006-01-01",
     "osi_symbol":"A                                  060101C00010000",
     "put_call_flag":"C",
     "underlying":"A"}
 ]
}
```

5.2.3 storeSeriesList

Upload a series definition in a selected symbology format.

Parameter	Description
command	**storeSeriesList**
identifier	Market Maker ID
series	Comma-delimited list of symbols to add in the specified symbology format
symbology	Valid values are: `bats`, `underlying`, `osi`
mode [OPTIONAL]	Valid values are: `replace` (default), `add`, `remove`
exclude_sdo [OPTIONAL] *(BZX and EDGX Only)*	Exclude options with a non-standard deliverable. Valid values are 1=enable, 0=disable (default).
exclude_close_only [OPTIONAL] *(BZX and EDGX Only)*	Exclude options marked as closing-only. Valid values are 1=enable, 0=disable (default).
expire_period [OPTIONAL] *(BZX and EDGX Only)*	Limit registration to series with an expiration date that falls within the selected period (in days). Note that, if auto_reg_underlying is enabled, the series set will be recalculated each morning.
auto_reg_underlying [OPTIONAL] *(BZX and EDGX Only)*	Stay registered in all underlying symbols automatically. Valid values are 1=enable, 0=disable.

Example Response

```
{
 "msg":"Series  list  updated:  Expired  0  series,  Added  32  series",
 "code":"200",
 "data":{
        "upload_list":{"MMQA":"2012-06-30             15:08:54.685734"},
        "state":1,
        "series_count":{"MMQA":"2"},
        "underlying":{"MMQA":[{
            "count":2,
            "regType":0,
            "underlying":"A",
            "period":"0",
            "excludeSdo":"0"}]
           }
        }
}
```

5.2.4 clearAllSeries

Remove all currently-registered series.

Parameter	Description
command	**clearAllSeries**
identifier	Market Maker ID

Example Response


```
{"msg":"All series expired","code":"200","data":[]}
```


5.2.5 removeSymbol

Remove all registered series for a specific underlying symbol.

Parameter	Description
command	**removeSymbol**
identifier	Market Maker ID
symbol	Underlying symbol to remove

Example Response


```
{"msg":"Underlying symbol list updated: Added 0 underlying symbols,
expired 1 underlying symbols",
 "code":"200",
 "data":[]
}
```

5.4 Risk Management Service

Service URL

```
BZX Options Exchange
https://api.batstrading.com/opt/account/risk_manager/

Cboe Options Exchange (Certification support available Q1, 2019)
https://api.batstrading.com/cone/account/risk_manager/

C2 Options Exchange
https://api.batstrading.com/ctwo/account/risk_manager/

EDGX Options Exchange
https://api.batstrading.com/exo/account/risk_manager/
```

5.4.1 viewExecutingFirms

View available executing firm ID's.

Parameter	Description
command	**viewExecutingFirms**

Example Response


```
{"msg":"Success",
 "code":"200",
 "data":[{"executingFirmId":"CBOE"}]
}
```

5.4.2 viewRules

View all rules stored for an individual trading session.

Parameter	Description
command	**viewRules**
identifier	Executing Firm ID
tradingDay (OPTIONAL)	Pass `today` to view rules for the current trading date. Defaults to next trading date.

Example Response


```
{
    "msg":"",
    "code":"200",
    "data":[
       {"firm_level_limit":"F",
        "limit_value":1000000,
        "millis":1000,
        "limit_type":"rate_ntnl",
        "risk_root":"QQQ",
        "executing_firm_id":"CBOE”},
       {"firm_level_limit":"F",
        "limit_value":1000000,
        "millis":1000,
        "limit_type":"rate_ntnl",
        "risk_root":"QQQ",
        "executing_firm_id":"CBOE"},
       {"firm_level_limit":"F",
        "limit_value":1000000,
        "millis":1000,
        "limit_type":"rate_ntnl",
        "risk_root":"QQQ",
        "executing_firm_id":"CBOE"},
       {"firm_level_limit":"F",
        "limit_value":1000000,
        "millis":1000,
        "limit_type":"rate_ntnl",
        "risk_root":"QQQ",
        "executing_firm_id":"CBOE"}
    ]
   }
```

5.4.3 uploadRules

Upload a rule set for the next trading session.

Parameter	Description
command	**uploadRules**
identifier	Executing Firm ID
rules	Comma-delimited list of rules to add

Rule Format:

Colon-separated list of values as follows:

```
firm_id:limit_type:risk_root:limit_value:millis:firm_level_limit
```

Example Request

```
rules=CBOE:rate_ntnl:QQQ:1000000:1000:F,CBOE:rate_ntnl:QQQ:100000
0:1000:F,CBOE:rate_ntnl:QQQ:1000000:1000:F,CBOE:rate_ntnl:QQQ:100
0000:1000:F
```

Example Response

```
{
  "msg":"Rules updated",
  "code":"200",
  "data":{
          "duplicateCount":0,
          "removeCount":4,
          "processedCount":4,
          "unknownList":[],
          "spacesCount":0,
          "addCount":4}
}
```

5.4.4 clearRules

Remove all currently-stored rules.

Parameter	Description
command	**clearRules**
identifier	The Executing Firm ID to clear, or `all` to clear rules for all firms.

Example Response


```
{"msg":"","code":"200","data":[]}
```


5.5 Ports Information Service

Service URL

```
BZX Options Exchange
https://api.batstrading.com/opt/account/ports_info/

Cboe Options Exchange (Certification support available Q1, 2019)
https://api.batstrading.com/cone/account/ports_info/

C2 Exchange
https://api.batstrading.com/ctwo/account/ports_info/

EDGX Options Exchange
https://api.batstrading.com/exo/account/ports_info/
```

5.5.1 viewPortConnections

Use this command to retrieve CSV formatted data of your ports and their associated connection information. The data will reflect the same information presented in the 'View Port Connection Info' available under the More Options link in the Customer Web Portal Ports Dashboard and is subject to change. Each port type will have its own header row and a blank line will be inserted between port types.

Parameter	Description
command	**viewPortConnections**

Example Response

```
"Type","Primary IP (SECAUCUS)","Secondary IP (CHICAGO)","Port","Username","Session
Sub Id","Password","Trading Group","Allowed MPIDs"
"BOE","127.0.0.1","127.0.0.2","10100","CBOE","0001","bz1cboe","","CBOE"
"BOE","127.0.0.1","127.0.0.2","10101","CBOE","0002","bz2cboe","","CBOE"
"BOE","127.0.0.1","127.0.0.2","10102","CBOE","0003","bz3cboe","","CBOE"

"Type","Primary               IP              (SECAUCUS)","Secondary              IP
(CHICAGO)","Port","SenderCompId","SenderSubId","TargetCompId","TargetSubId","Trading
Group","Allowed MPIDs"
"FIX","127.0.0.1","127.0.0.2","10103","CBOE","0004","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10104","CBOE","0005","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10105","CBOE","0006","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10106","CBOE","0007","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10107","CBOE","0008","CBOE","DEV","","CBOE"

"Type","Primary               IP              (SECAUCUS)","Secondary              IP
(CHICAGO)","Port","SenderCompId","SenderSubId","TargetCompId","TargetSubId","Trading
Group"
"ODrop","127.0.0.1","127.0.0.2","10200","CBOE","0009","CBOE","DEV",""
"ODrop","127.0.0.1","127.0.0.2","10201","CBOE","0010","CBOE","DEV",""

"Type","Unit","Primary            IP            (SECAUCUS)","Secondary            IP
(CHICAGO)","Port","Username","Session Sub Id","Password","Trading Group"
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","CBOE","0023","s1cboe",""
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","CBOE","0024","s2cboe",""
"Spin","mcp_ss_01","127.0.0.","127.0.0.2","18998","CBOE","0025","s3cboe",""
```

5.5.2 viewPortAttributes

Use this command to retrieve CSV formatted data of your order handler ports and their associated attribute information. The data will reflect the same information presented in the 'View Port Attributes Info' available under the More Options link in the Customer Web Portal Ports Dashboard and is subject to change. Each port type will have its own header row and a blank line will be inserted between port types. The attribute label is given in the leftmost column, with the right-side columns showing the setting for each port (IP Port values given in the header row). The firm name will also be presented in the header row along with the port type.

Parameter	Description
command	**viewPortAttributes**

Example Response

```
"CBOE Trading, Inc., FIX, IP Port","10103","10104","10105","10106","10107"
"Authentication","","","","",""
"Sender Comp Id","CBOE","CBOE","CBOE","CBOE","CBOE"
"Sender Sub Id","0004","0005","0006","0007","0008"
"Target Comp Id","CBOE","CBOE","CBOE","CBOE","CBOE"
"Target Sub Id","DEV","DEV","DEV","DEV","DEV"
"Attributes","","","","",""
"Allowed Executing Firm Id(s)","CBOE","CBOE","CBOE","CBOE","CBOE"
```

```
"Default Executing Firm Id","CBOE”,"CBOE”,"CBOE”,"CBOE”,"CBOE”
"Bill To","","","","",""
"Allow Test Symbols Only","No","No","No","No","No"
"Allow Queuing on Halts","No","No","No","No","No"
"Allow ISO","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Allow Directed ISO","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Default Routing Instruction","RND (Route, No Reroute, Parallel-D)","RND (Route, No Reroute,
Parallel-D)","RND (Route, No Reroute, Parallel-D)","RND (Route, No Reroute, Parallel-
D)","RND (Route, No Reroute, Parallel-D)"
"Maximum Order Size","CBOE: 25000","CBOE: 25000","CBOE: 25000","CBOE: 25000","CBOE: 25000"
"Maximum Order Dollar Value","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited","CBOE:
Unlimited","CBOE: Unlimited"
"Port Order Rate Threshold","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: "
"Default Price Sliding","Display price sliding","Display price sliding","Display price
sliding","Display price sliding","Display price sliding"
"Cancel on Disconnect","Yes","Yes","Yes","Yes","Yes"
"Send Trade Breaks","None","None","None","None","None"
"Default MTP Value","None","None","None","None","None"
"Report MTP Fields","No","No","No","No","No"
"Allow MTP Decrement Override","No","No","No","No","No"
"Allow Sponsored Participant MTP Control","No","No","No","No","No"
"Concatenate CompId and SubId","No","No","No","No","No"
"Cancel on Reject","No","No","No","No","No"
"Report Working Price","No","No","No","No","No"
"Unique Wash Execution IDs","No","No","No","No","No"
"Enable State Change Tracking","No","No","No","No","No"
"Send 2nd Liquidity Character","No","No","No","No","No"
"Decrement Remainder Only","No","No","No","No","No"
"Restate on Reload","No","No","No","No","No"
"Send Fix tag 40 (order type)","No","No","No","No","No"
"Send Fix tag 47 (capacity)","No","No","No","No","No"
"Microsecond Timestamp Granularity","No","No","No","No","No"
"Fat Finger % - Limit Price < $1","CBOE: None","CBOE: 10","CBOE: 10","CBOE: 10","CBOE: 10"
"Fat Finger % - Limit Price >= $1 and < $10","CBOE: None","CBOE: 10","CBOE: 10","CBOE:
10","CBOE: 10"
"Fat Finger % - Limit Price >= $10 and < $50","CBOE: None","CBOE: 10","CBOE: 10","CBOE:
10","CBOE: 10"
"Fat Finger % - Limit Price >= $50 and < $100","CBOE: None","CBOE: 10","CBOE: 10","CBOE:
10","CBOE: 10"
"Fat Finger % - Limit Price >= $100 and < $500","CBOE: None","CBOE: 10","CBOE: 10","CBOE:
10","CBOE: 10"
"Fat Finger % - Limit Price >= $500","CBOE: None","CBOE: 10","CBOE: 10","CBOE: 10","CBOE:
10"
"Fat Finger CENTS - Limit Price < $1","CBOE: None","CBOE: None","CBOE: None","CBOE:
None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $1 and < $10","CBOE: None","CBOE: None","CBOE:
None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $10 and < $50","CBOE: None","CBOE: None","CBOE:
None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $50 and < $100","CBOE: None","CBOE: None","CBOE:
None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $100 and < $500","CBOE: None","CBOE: None","CBOE:
None","CBOE: None","CBOE: None"
"Reject Orders on DROP Port Disconnect","No","No","No","No","No"
"Reject Orders on DROP Port Timeout (sec)","30","30","30","30","30"
"Cancel Open Orders on DROP Port Disconnect","No","No","No","No","No"
"Gross Daily Risk Limit Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE:
"
"Gross Daily Risk Market Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE:
"
"Net Daily Risk Limit Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: "
"Net Daily Risk Market Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: "
"Send Fix tag 9303 (routing instruction)","No","No","No","No","No"
"Send Contra Capacity","No","No","No","No","No"
"Default Attributed Quote","Never","Never","Never","Never","Never"
"Crossed Market Reject/Cancel","No","No","No","No","No"
```

```
"Send Peg Restatements","No Peg restatements","No Peg restatements","No Peg restatements","No Peg restatements","No Peg restatements"
"Enable FIX V2 (routing_v2)","No","No","No","No","No"
"Route Instruction","Routable","Routable","Routable","Routable","Routable"
"Route Strategy","ROUT","ROUT","ROUT","ROUT","ROUT"
"Route Delivery","Route to Improve - ParD","Route to Improve - ParD","Route to Improve - ParD","Route to Improve - ParD","Route to Improve - ParD"
"Session Close Handling","Send Cancels","Send Cancels","Send Cancels","Send Cancels","Send Cancels"
"Order Persistence on ME Disconnect","Yes","Yes","Yes","Yes","Yes"
"Duplicative Order Seconds","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited"
"Duplicative Order Count","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited"
"Duplicative Order Action","CBOE: Off","CBOE: Off","CBOE: Off","CBOE: Off","CBOE: Off"
"Trading Group","","","","",""

"CBOE Trading, Inc., BOE, IP Port","10100","10101","10102"
"Authentication","","",""
"Username","CBOE”,"CBOE”,"CBOE”
"Sender Sub Id","0001","0002","0003"
"Password","bo1cboe","bo2cboe","bo3cboe"
"Attributes","","",""
"Allowed Executing Firm Id(s)","CBOE”,"CBOE”,"CBOE”
"Default Executing Firm Id","","",""
"Bill To","","",""
"Allow Bulk Updates","Yes","Yes","Yes"
"Allow Test Symbols Only","No","No","No"
"Allow Queuing on Halts","No","No","No"
"Allow ISO","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Allow Directed ISO","CBOE: Yes","CBOE: Yes","CBOE: Yes"
"Default Routing Instruction","RND (Route, No Reroute, Parallel-D)","RND (Route, No Reroute, Parallel-D)","RND (Route, No Reroute, Parallel-D)"
"Maximum Order Size","CBOE: 25000","CBOE: 25000","CBOE: 25000"
"Maximum Order Dollar Value","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited"
"Port Order Rate Threshold","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited"
"Default Price Sliding","Display price sliding","Display price sliding","Display price sliding"
"Cancel on Disconnect","Yes","Yes","Yes"
"Send Trade Breaks","None","None","None"
"Default MTP Value","None","None","None"
"Allow MTP Decrement Override","No","No","No"
"Allow Sponsored Participant MTP Control","No","No","No"
"Cancel on Reject","No","No","No"
"Decrement Remainder Only","No","No","No"
"Fat Finger % - Limit Price < $1","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $1 and < $10","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $10 and < $50","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $50 and < $100","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $100 and < $500","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger % - Limit Price >= $500","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price < $1","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $1 and < $10","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $10 and < $50","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $50 and < $100","CBOE: None","CBOE: None","CBOE: None"
"Fat Finger CENTS - Limit Price >= $100 and < $500","CBOE: None","CBOE: None","CBOE: None"
"Reject Orders on DROP Port Disconnect","No","No","No"
"Reject Orders on DROP Port Timeout (sec)","30","30","30"
"Cancel Open Orders on DROP Port Disconnect","No","No","No"
"Gross Daily Risk Limit Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: "
"Gross Daily Risk Market Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: "
"Net Daily Risk Limit Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: "
"Net Daily Risk Market Order Notional Cutoff","CBOE: ","CBOE: ","CBOE: "
"Default Attributed Quote","Never","Never","Never"
"Crossed Market Reject/Cancel","No","No","No"
"Send Peg Restatements","No Peg restatements","No Peg restatements","No Peg restatements"
"Route Instruction","Routable","Routable","Routable"
```

```
"Route Strategy","ROUT","ROUT","ROUT"
"Route Delivery","Route to Improve - ParD","Route to Improve - ParD","Route to Improve -
ParD"
"Order Persistence on ME Disconnect","Yes","Yes","Yes"
"Duplicative Order Seconds","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited"
"Duplicative Order Count","CBOE: Unlimited","CBOE: Unlimited","CBOE: Unlimited"
"Duplicative Order Action","CBOE: Off","CBOE: Off","CBOE: Off"
"Trading Group","","",""
```

5.6 Clearing Edit Service

In preparation for the C1 Migration to Bats Technology, Feature Pack 3, the Clearing Edit Service, will be added to the BZX Options, C2 Options, and EDGX Options markets. **The Clearing Edit Service will be added to the C1 Options Exchange effective with the migration to Bats Technology**.

Service URL

```
BZX Options Exchange
https://api.batstrading.com/opt/account/clearing_edits/

Cboe Options Exchange
https://api.batstrading.com/cone/account/clearing_edits/

C2 Options Exchange
https://api.batstrading.com/ctwo/account/clearing_edits/

EDGX Options Exchange
https://api.batstrading.com/exo/account/clearing_edits/
```

5.6.1 viewTrades

Use this command to retrieve trade details. The response will provide the order_id, exec_id, and item to help identify which executed trades to modify when using the addToQueue command. Note that even though an executed trade may show in the response, it may not be available for modification. For example, if a trade has been modified but not submitted to the OCC, the trade will not be eligible for modification until the OCC submission has been completed.

Parameter	Description
command	**viewTrades**
capacity [OPTIONAL]	The capacity for the order. C = Customer F = Firm M = Market Maker U = Professional Customer N = Away Market Maker B = Broker-Dealer

	J = Joint Back Office L = Non-TPH Affiliate (C1 and C2 only) D = Non-TPH Broker-Dealer (FLEX only) (C1 only)
order_id [OPTIONAL]	Cboe-created order id.
cl_order_id [OPTIONAL]	Firm-created order id.
cmta [OPTIONAL]	
clearing_firm [OPTIONAL]	The EFID used in the relationship. Referred to as Broker Id in GUI.
osi_root [OPTIONAL]	
call_put_fl [OPTIONAL]	Valid options are `C` and `P`.
exec_id [OPTIONAL]	Cboe-created execution id.
account [OPTIONAL]	
open_close [OPTIONAL]	Valid options are `O` and `C`.
clearing_account [OPTIONAL]	Referred to as Sub Account in GUI.
side [OPTIONAL]	Valid options are `B` and `S`.
status [OPTIONAL]	Valid options are empty string (default), `pending` and `modified`
strike_price [OPTIONAL]	
price [OPTIONAL]	

Example Response


```
{"code":"200",
 "data":[
  {"cmta":"111",   "call_put_flag":"Call",   "executing_firm_id":"CBOE",
"size":"10",       "capacity":"Customer",        "ts":"09:30:01.02021",
"expire_date":"3006-01-01",                "cl_order_id":"AAAAAAAAAAAAA",
"sub_account":"",   "revision":0,"status":"",   "strike_price":"10.0000",
"order_id":"123456789012",      "price":"0.6000",      "account":"AAAA",
"firm_sub_id":"0003",        "firm_id":"CBOE",        "position":"Open",
"osi_root":"A",  "exec_id":"01XX00001",  "routing_broker":"",  "item":"",
"mod_contact_id":0,"side":"Buy",         "clearing_opt_data":        ""}
],
 "msg":""
}
```


5.6.2 viewEdits

Use this command to retrieve trades that have already been edited and recleared via the OCC.

Parameter	Description
command	**viewEdits**

Example Response


```
{"code":"200",
 "data":[
  {"status": "modified", "orig_position": "O", "changed": ["cmta", "position", "capacity", "account", "sub_account", "executing_firm_id", "size"], "strike_price": "10.0000", "order_id": "A827YN002VVU", "price": "0.4500", "exec_id": "RAAS00002", "cmta": "111", "firm_id": "CBOE", "mod_contact_id": 1, "account": "AAAAAAAA", "orig_sub_account": "<span class="blank">[blank]</span>", "osi_root": "A", "orig_capacity": "U", "executing_firm_id": "TEST", "call_put_flag": "Call", "size": "1", "on_behalf_of": "CBOE", "cl_order_id": "961544200", "capacity": "C", "symbol_id": "000111", "orig_cmta": "330", "orig_account": "0330CS4Q", "sub_account": "BBBB", "item": "2", "orig_executing_firm_id": "CBOE", "contact_name": "readonly readonly", "expire_date": "3006-01-01", "orig_size": "2", "position": "C", "transact_time": "09:30:00.13903", "side": "Sell", "clearing_opt_data": "", "revision": 1}],
 "msg":""
}
```


5.6.3 addToQueue

Use this command to submit changes to your trades. The command does not submit revisions to the OCC for reclearing, but adds them to the queue. The body of the request must be JSON format.

The Cboe `order_id` and `exec_id` are always required when submitting an addToQueue command. The remaining fields must be included as parts of the object; however, each fields can be submitted as an empty stringwith the following exceptions:

- If editing an execution that has already been modified, the item information must be provided. The item can be obtained using the viewTrades command
- `firm_id`, `firm_sub_id`, and `routing_broker` must be provided in the object if editing the `clearing_firm` on a trade

Parameter	Description
command	**addToQueue**
ids	JSON-formatted list of objects. Each object must contain `order_id`, `exec_id`, `item`, `firm_id`, `firm_sub_id`, and `routing_broker` keys to identify the order(s) to be modified.

data	JSON-formatted object. The keys for the objects are numbers indexed by zero. The values are objects that contain the following keys: `position`, `cmta`, `capacity`, `account`, `sub_account`, `clearing_firm`, `clearing_opt_data`, and `qty`

Ids Format:

Colon-separated list of values as follows:

```
{
 "data": {
  "0": {
    "position": "C",
    "cmta": "111",
    "capacity": "C",
    "account": "AAAA",
    "sub_account": "",
    "clearing_firm": "CBOE",
    "clearing_opt_data": "",
    "qty": "10",
   }
 }
}
```

Data Format:

Colon-separated list of values as follows:

```
{
 "data": {
  "0": {
    "position": "C",
    "cmta": "111",
    "capacity": "C",
    "account": "AAAA",
    "sub_account": "",
    "clearing_firm": "CBOE",
    "qty": "10",
```

```
    }
  }
}
```


Example Request (Changing a Single Trade)


```
{
 "id": [
  {
   "order_id": "AAAAAAAAAAAAAA",
   "exec_id": "01XX00001",
   "item": "",
   "firm_id": "CBOE",
   "firm_sub_id": "0002",
   "routing_broker": "CBOE"
  }
 ],
 "data": {
  "0": {
    "position": "C",
    "cmta": "111",
    "capacity": "C",
    "account": "AAAA",
    "sub_account": "",
    "clearing_firm": "CBOE",
    "clearing_opt_data": "",
    "qty": "10",
   }
 }
}
```

Example Request (Changing Multiple Trades)

When changing multiple ececutions, the “data” key must contain a single key. Multiple trades cannot be split with a single command.


```
{
 "id": [
  {
   "order_id": "AAAAAAAAAAAAA",
   "exec_id": "01XX00001",
   "item": "",
   "firm_id": "CBOE",
   "firm_sub_id": "0002",
   "routing_broker": "CBOE"
  }, {
   "order_id": "BBBBBBBBBBBB",
   "exec_id": "02XX00001",
   "item": "",
   "firm_id": "CBOE",
   "firm_sub_id": "0002",
   "routing_broker": "CBOE"
  }
 ],
 "data": {
  "0": {
    "position": "C",
    "cmta": "111",
    "capacity": "C",
    "account": "AAAA",
    "sub_account": "",
    "clearing_firm": "CBOE",
    "clearing_opt_data": "",
    "qty": "10",
   }
 }
}
```

Example Request (Splitting an Execution)

Only one trade may be split at a time, and as a result, you must submit a single identifier in the “id” fields. The number of keys in the data object should match the number of times the trade was split. Data keys should be numbered, beginning with the first key equal to ‘0’, followed by ‘1’, etc.

The value of each key in the data object is a JSON-formatted object that contains all the keys described in the Parameter/Description table. The sum of the qty fields must equal the size of the trade being split. For example, if you are splitting an execution that was for ten contracts into two, five-lot trades, adding the qty fields of the two key/value objects in the data object will equal 10, the original quantity.

It is possible that one of the value objects will be the same as the original trade. For example, if you are splitting a trade for ten contracts into two, five-lot executions, and there are no changes to one of these five-lot trades, one of the two key/value pairs in the data object will have updates, while the other key/value pair will remain unchanged.

```
{
 "id": [
  {
   "order_id": "AAAAAAAAAAAAA",
   "exec_id": "01XX00001",
   "item": "",
   "firm_id": "CBOE",
   "firm_sub_id": "0002",
   "routing_broker": "CBOE"
  }
 ],
 "data": {
  "0": {
    "position": "C",
    "cmta": "111",
    "capacity": "C",
    "account": "AAAA",
    "sub_account": "",
    "clearing_firm": "CBOE",
```



```
    "clearing_opt_data": "",
    "qty": "2",
   }
 },
  "1": {
    "position": "O",
    "cmta": "222",
    "capacity": "U",
    "account": "BBBB",
    "sub_account": "",
    "clearing_firm": "CBOE",
    "clearing_opt_data": "",
    "qty": "8",
   }
 }
}
```


Example Response


```
{"code":"200",
 "msg":"Execution attribute changes queued"}
```


Reject Messaging

If an addToQueue command fails, the response will be an HTTP 500 status code with text indicating the reason for failure. Possible failure messages can included, but are not limited to the following:

- Invalid capacity type has been selected
- Invalid Broker Id has been selected
- If you have multiple orders to edit you can not split the orders
- An unknown error occurred

5.6.4 submitToOcc

Use this command to submit all queued trade modifications to the OCC for reclearing.

Parameter	Description
Command	**submitToOcc**

Example Response


```
{"code":"200",
 "msg":"1 out of 1 executions successfully modified by Example User at FIRM"
}
```

6 US Futures Services

Services available through the US Secure Web API for CBOE Futures Exchange (CFE).

Name	Section	Path	Description
Risk Management	7.1	/account/risk_manager/	Used by CFE TPHs and Clearing Firms to manage the risk of over-execution.
Ports Information Service	7.2	/account/ports_info/	Used by CFE TPHs to receive configuration information about their ports.

6.1 Risk Management Service

Service URL

```
CFE
https://api.batstrading.com/cfe/account/risk_manager/
```

6.1.1 viewExecutingFirms

View available executing firm ID's.

Parameter	Description
command	**viewExecutingFirms**

Example Response


```
{"msg":"Success",
 "code":"200",
 "data":[{"executingFirmId":"CBOE"}]
}
```

6.1.2 viewRules

View all rules stored for an individual trading date.

Parameter	Description
command	**viewRules**
identifier	Executing Firm ID
tradingDay (OPTIONAL)	Pass `today` to view rules for the current trading date. Defaults to next trading date.

Example Response


```
{
    "msg":"",
    "code":"200",
    "data":[
       {"limit_value":500,
        "limit_type":"rate_vol",
        "product_root":"VX",
        "executing_firm_id":"CBOE”},
       {"limit_value":1000,
        "limit_type":"max_size",
        "product_root":"VX",
        "executing_firm_id":"CBOE"}
    ]
   }
```


6.1.3 clearRules

Remove all currently-stored rules. **TPH only.**

Parameter	Description
command	**clearRules**
identifier	The Executing Firm ID to clear, or `all` to clear rules for all firms.

Example Response


```
{"msg":"","code":"200","data":[]}
```

6.1.4 uploadRules

Expire all existing rules and upload a new rule set for the next trading date.

Parameter	Description
Command	**uploadRules**
Rules	Comma-delimited list of rules to add.

Rule Format:

Colon-separated list of values as follows:

```
firm_id:limit_type:product_root:limit_value
```

Where a rule should be applied to multiple executing firm IDs, the value passed for the 'identifier' parameter should include a pipe-delimited list of identifiers (**clearing firms only**).

Example Request (single EFID)

```
rules=CBOE:rate_vol:VX:1000,CBOE:max_size:VX:10000
```

Example Request (multiple EFIDs)

```
rules=CBOE|CTWO|CONE:rate_vol:VX:1000,CBOE|CTWO|CONE:max_size:VX:
10000
```

Example Response


```
{
  "msg":"Rules updated",
  "code":"200",
  "data":{
          "duplicateCount":0,
          "removeCount":4,
          "processedCount":4,
          "unknownList":[],
          "spacesCount":0,
          "addCount":4}
}
```


6.2 Ports Information Service

Service URL

CFE
https://api.batstrading.com/cfe/account/ports_info/

6.2.1 viewPortConnections

Use this command to retrieve CSV formatted data of your ports and their associated connection information. The data will reflect the same information presented in the 'View Port Connection Info' available under the More Options link in the Customer Web Portal Ports Dashboard and is subject to change. Each port type will have its own header row and a blank line will be inserted between port types.

Parameter	Description
Command	**viewPortConnections**

Example Response

```
"Type","Primary IP (SECAUCUS)","Secondary IP (CHICAGO)","Port","Username","Session
Sub Id","Password","Trading Group","Allowed EFIDs"
"BOE","127.0.0.1","127.0.0.2","10100","CBOE","0001","bz1cboe","","CBOE"
"BOE","127.0.0.1","127.0.0.2","10101","CBOE","0002","bz2cboe","","CBOE"
"BOE","127.0.0.1","127.0.0.2","10102","CBOE","0003","bz3cboe","","CBOE"

"Type","Primary IP (SECAUCUS)","Secondary IP
(CHICAGO)","Port","SenderCompId","SenderSubId","TargetCompId","TargetSubId","Trading
Group","Allowed EFIDs"
"FIX","127.0.0.1","127.0.0.2","10103","CBOE","0004","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10104","CBOE","0005","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10105","CBOE","0006","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10106","CBOE","0007","CBOE","DEV","","CBOE"
"FIX","127.0.0.1","127.0.0.2","10107","CBOE","0008","CBOE","DEV","","CBOE"

"Type","Primary IP (SECAUCUS)","Secondary IP
(CHICAGO)","Port","SenderCompId","SenderSubId","TargetCompId","TargetSubId","Trading
Group"
"ODrop","127.0.0.1","127.0.0.2","10200","CBOE","0009","CBOE","DEV",""
"ODrop","127.0.0.1","127.0.0.2","10201","CBOE","0010","CBOE","DEV",""

"Type","Unit","Primary IP (SECAUCUS)","Secondary IP
(CHICAGO)","Port","Username","Session Sub Id","Password","Trading Group"
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","CBOE","0023","s1cboe",""
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","CBOE","0024","s2cboe",""
"Spin","mcp_ss_01","127.0.0.","127.0.0.2","18998","CBOE","0025","s3cboe",""
```

6.2.2 viewPortAttributes

Use this command to retrieve CSV formatted data of your order handler ports and their associated attribute information. The data will reflect the same information presented in the 'View Port Attributes Info' available under the More Options link in the Customer Web Portal Ports Dashboard and is subject to change. Each port type will have its own header row and a blank line will be inserted between port types. The attribute label is given in the leftmost column, with the right-side columns showing the setting for each port (IP Port values given in the header row). The firm name will also be presented in the header row along with the port type.

Parameter	Description
Command	**viewPortAttributes**

Example Response

```
"Cboe Trading, Inc. (Z), FIX, IP Port","10810","10811","10812","10813","10814","10815","10816","10817","10818","10819","10824"

"Authentication","","","","","","","","","","",""

"Sender Comp Id","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE"

"Sender Sub Id","0011","0012","0013","0014","0015","0016","0017","0018","0019","0020","0025"

"Target Comp Id","CFE","CFE","CFE","CFE","CFE","CFE","CFE","CFE","CFE","CFE","CFE"

"Target Sub Id","PROD","PROD","PROD","PROD","PROD","PROD","PROD","PROD","PROD","PROD","PROD"

"Attributes","","","","","","","","","","",""

"Allowed Executing Firm Id(s)","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE"

"Default Executing Firm Id","","","","","","","","","","",""

"Bill To","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge"

"Allow Test Symbols Only","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes"

"Port Order Rate Threshold","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000"

"Symbol Order Rate Threshold","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000"

"Test Symbol Order Rate Threshold","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: 0","CBOE: "

"Cancel on Disconnect","Day - Cancel Only Day Orders","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","None - Disabled","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","None - Disabled","None - Disabled"

"Send Trade Breaks","All Breaks","Today Only","None","None","None","All Breaks","None","None","None","All Breaks","Today Only"
```

```
"Default MTP Value","None","None","None","None","None","None","None","None","None","None","None"

"Report MTP Fields","No","No","No","No","No","No","No","No","No","No","No"

"Concatenate CompId and SubId","No","No","No","No","No","No","No","No","No","No","No"

"Cancel on Reject","No","No","No","No","No","No","No","No","No","No","No"

"Unique Wash Execution IDs","No","No","No","No","No","No","No","No","No","No","No"

"Send 2nd Liquidity Character","No","No","No","No","No","No","No","No","No","No","No"

"Send Fix tag 40 (order type)","No","No","No","No","No","No","No","No","No","No","No"

"Send Fix tag 47 (capacity)","No","No","No","No","No","No","No","No","No","No","No"

"Microsecond Timestamp Granularity","No","No","No","No","No","No","No","No","No","No","No"

"Reject Orders on DROP Port Disconnect","No","No","No","No","No","No","No","No","No","No","No"

"Reject Orders on DROP Port Timeout (sec)","30","30","30","30","30","30","30","30","30","30","30"

"Cancel Open Orders on DROP Port Disconnect","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders"

"Cancel Orders on ME Disconnect","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","None - Disabled","All - Cancel Day, GTC, and GTD Orders","Day - Cancel Only Day Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","None - Disabled"

"Carried Order Restatements","Yes","Yes","Yes","Yes","Yes","Yes","Yes","Yes","Yes","Yes","Yes"

"Trading Group","","","ordgen_weekend_1","ordgen_weekend_2","","","","","","","Canary GTC Session"


"Cboe Trading, Inc. (Z), BOE, IP Port","10800","10801","10802","10803","10804","10805","10806","10807","10808","10809","10823"

"Authentication","","","","","","","","","","",""

"Username","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE"

"Sender Sub Id","0001","0002","0003","0004","0005","0006","0007","0008","0009","0010","0024"

"Password","bf1cboe","bf2cboe","bf3cboe","bf4cboe","bf5cboe","bf6cboe","bf7cboe","bf8cboe","bf9cboe","bf10cboe","bf11cboe"

"Attributes","","","","","","","","","","",""

"Allowed Executing Firm Id(s)","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE","CBOE"

"Default Executing Firm Id","","","","","","","","","","",""

"Bill To","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge","No Charge"

"Allow Test Symbols Only","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes","CBOE: Yes"

"Port Order Rate Threshold","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000"
```

```
"Symbol Order Rate Threshold","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000","CBOE: 3000"

"Test Symbol Order Rate Threshold","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: ","CBOE: "

"Cancel on Disconnect","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","Day - Cancel Only Day Orders","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","All - Cancel Day, GTC and GTD Orders","None - Disabled","None - Disabled"

"Send Trade Breaks","None","None","None","None","None","None","Today Only","None","None","None","None"

"Default MTP Value","None","None","None","None","None","None","None","None","None","None","None"

"Cancel on Reject","No","No","No","No","No","No","No","No","No","No","No"

"Reject Orders on DROP Port Disconnect","No","No","No","No","No","No","No","No","No","No","No"

"Reject Orders on DROP Port Timeout (sec)","30","30","30","30","30","30","30","30","30","30","30"

"Cancel Open Orders on DROP Port Disconnect","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders"

"Cancel Orders on ME Disconnect","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","Day - Cancel Only Day Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","All - Cancel Day, GTC, and GTD Orders","None - Disabled"

"Carried Order Restatements","Yes","Yes","Yes","Yes","Yes","Yes","Yes","Yes","Yes","Yes","Yes"

"Trading Group","","","","","","","","","","","Canary GTC Session"
```

7 Support

Please email all Equities-related or Options-related questions or comments regarding this specification to tradedesk@cboe.com.

Please e-mail all Futures-related questions or comments regarding this specification to cfetradedesk@cboe.com.

Revision History

Document Version	Date	Description
1.0.0	12/14/09	Release 1.0.0 distributed.
1.0.1	04/15/10	Noted support only for BZX Exchange at this time.
1.1.0	04/05/11	Added support for BYX Exchange.
1.2.0	07/09/12	Added Options US Services section. Added Market Maker Registration Services (Equities and Options). Added Risk Management Services (Options).
1.3.0	10/12/12	Added Port Controls Services (Equities and Options). Noted Sponsored Access Service is now considered deprecated in favor of the new Port Controls Service. Added *executionCollar*, *dailyLimitCutoff*, *dailyLimitNetCutoff*, *dailyMktCutoff*, and *dailyMktNetCutoff* parameters to setClient command
1.3.1	11/01/12	Field order correction in uploadRules definition for Risk Management Services (Options).
1.3.2	12/28/12	Correction to command description in ClearAllSeries command.
1.3.3	03/28/13	Added parameter to exclude Mini Options symbols from Options Market Maker Registration storeSeriesList command. Added confirmation of Max Quote value in Equities Market Maker Registration viewRegisteredSymbols command.
1.3.4	05/10/13	Minor clarifications and corrections made to Options storeSeriesList and viewSeriesStatus commands.
1.3.5	10/3/13	Added parameter to exclude Jumbo Options symbols from Options Market Maker Registration storeSeriesList command.
1.3.6	12/03/13	Added viewActiveRegisteredSymbols command and removed references to Max Quote in Equities Market Maker Registration section.
1.3.7	10/20/14	Added the new EDGX and EDGA service links for API functionality. Available effective 01/12/15.
1.3.8	01/12/15	Updated uploadRegisteredSymbols example response.
1.3.9	02/06/15	Updated setClient command for Equities and Options Port Controls and Sponsored Access sections to reflect changes to Fat Finger Protection. Removed references to 1/12/15 effective date.

1.3.10	02/20/15	Updated setClient command for Equities and Options Port Controls and Sponsored Access sections to reflect addition of duplicative order controls added effective 2/20/15.
1.3.11	03/16/15	Added viewClients command for Equities and Options Port Controls sections. Available effective 3/27/15.
1.3.12	03/23/15	Corrected broken links to deprecated US Equities/Options Sponsored Access Specification.
1.4.0	04/02/15	Added Ports Information Service with viewPortConnections and viewPortAttributes commands. Available effective 4/6/15.
1.4.1	04/08/15	Corrected URL in Options Ports Information Service section (5.5). Corrected example response for Options viewPortAttributes section (5.5.2).
1.4.2	04/21/15	Update name change for Bats Options Exchange to BZX Options Exchange.
1.4.3	07/27/15	Included support for EDGX Options Exchange
1.5.0	08/06/15	Removed references to deprecated Sponsored Access service. Added Single Order ADV Check section.
1.6.0	09/08/15	Added symbol data and book data services.
1.7.0	02/19/16	Bats branding/logo changes.
1.7.1	05/06/16	Added Warning Percentage Features for Aggregated Credit Limit Risk Checks
1.7.2	05/18/16	Added support for Liquidity Management Provider registration.
1.8.0	05/01/17	Added support for CFE.
1.8.1	05/22/17	Removed references to deprecated call_put_flag and front_trail_flag fields from Options Risk Management Service section (5.3).
1.8.2	09/01/17	Added support for C2's transition onto the Bats Technology platform.
1.9.0	09/06/17	Added EDGX/BZX Top-of-Book API
1.9.1	10/17/17	Cboe branding/logo changes.
1.9.2	05/23/18	Changed `osi_root` value to `risk_root`.
1.10.0	11/16/18	Added Clearing Edit Service Support. Added support for Cboe Options Exchange.
1.10.1	11/27/18	Added detail that the Clearing Edit Service will be available in Feature Pack 3, in preparation for C1 Migration.