



US

Secure Web API

Version 1.9.2

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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/  
EDGX Options Exchange  
https://api.batstrading.com/exo/service/  
C2 Exchange  
https://api.batstrading.com/ctwo/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.
<i>data</i>	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
<i>clearing</i>	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
<i>allowIso</i>	0=restrict, 1=allow
<i>allowPremarket</i>	0=restrict, 1=allow
<i>allowShortSales</i>	0=restrict, 1=allow
<i>blockNewOrders</i>	0=do not block, 1=block
<i>cancelOpenOrders</i>	0=do not cancel, 1=cancel
<i>advPercent</i>	Percent of ADV for Single Order ADV Checks. An integer from 1 to 100.
<i>advMinThreshold</i>	Enable when ADV Exceeds (shares), i.e. the Minimum Threshold for Single Order ADV Checks. An integer greater than 0.
<i>maxNotionalValue</i>	0=use default max notional
<i>maxShareSize</i>	0=use default max size
<i>executionCollar1</i>	Fat Finger % Tier 1 (< \$1)** An integer from 1 to 75.
<i>executionCollar2</i>	Fat Finger % Tier 2 (>= \$1 and < \$10)** An integer from 1 to 50.
<i>executionCollar3</i>	Fat Finger % Tier 3 (>= \$10 and < \$50)** An integer from 1 to 20.
<i>executionCollar4</i>	Fat Finger % Tier 4 (>= \$50 and < \$100)** An integer from 1 to 20.
<i>executionCollar5</i>	Fat Finger % Tier 5 (>= \$100 and < \$500)** An integer from 1 to 20.
<i>executionCollar6</i>	Fat Finger % Tier 6 (>= \$500)** An integer from 1 to 20.
<i>executionCollarDollar1</i>	Fat Finger Dollar Tier 1 (< \$1)**
<i>executionCollarDollar2</i>	Fat Finger Dollar Tier 2 (>= \$1 and < \$10)**
<i>executionCollarDollar3</i>	Fat Finger Dollar Tier 3 (>= \$10 and < \$50)**
<i>executionCollarDollar4</i>	Fat Finger Dollar Tier 4 (>= \$50 and < \$100)**
<i>executionCollarDollar5</i>	Fat Finger Dollar Tier 5 (>= \$100 and < \$500)**

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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
<i>clearing</i>	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
<i>clearing</i>	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 Bats 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
<i>clearing</i>	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
<i>clearing</i>	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
<i>clearing</i>	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 Bats trading system. Perhaps they will be known in the future. ", "data": {"knownCount": 4, "unknownCount": 1, "unknown": ["F000"], "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
<i>clearing</i>	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": "BATS" },  
    { "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"}
```

4.2.5 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.

Example Request

```
?command=uploadRegisteredSymbols&identifier=BATS&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 Liquidity Management Provider Registration Service

Service URL

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

4.3.1 viewIdentifiers

View all available clearing firm identifiers.

Parameter	Description
command	viewIdentifiers

Example Response

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

4.3.2 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": "",  
}
```

4.3.3 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.

4.3.4 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"}
```

4.3.5 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=BATS&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","BATS","0001","bz1bats","","BATS"
"BOE","127.0.0.1","127.0.0.2","10101","BATS","0002","bz2bats","","BATS"
"BOE","127.0.0.1","127.0.0.2","10102","BATS","0003","bz3bats","","BATS"

"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","BATS","0004","BATS","DEV","","BATS"
"FIX","127.0.0.1","127.0.0.2","10104","BATS","0005","BATS","DEV","","BATS"
"FIX","127.0.0.1","127.0.0.2","10105","BATS","0006","BATS","DEV","","BATS"
"FIX","127.0.0.1","127.0.0.2","10106","BATS","0007","BATS","DEV","","BATS"
"FIX","127.0.0.1","127.0.0.2","10107","BATS","0008","BATS","DEV","","BATS"

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


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```
"Type", "Primary IP (SECAUCUS)", "Secondary IP (CHICAGO)", "Port", "Username", "Password", "Trading Group"
"Pitch", "127.0.0.1", "127.0.0.2", "10504", "BATS", "test", ""
"Pitch", "127.0.0.1", "127.0.0.2", "10507", "BATS", "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", "BATS", "0023", "s1bats", ""
"Spin", "mcp_ss_01", "127.0.0.1", "127.0.0.2", "18998", "BATS", "0024", "s2bats", ""
"Spin", "mcp_ss_01", "127.0.0.1", "127.0.0.2", "18998", "BATS", "0025", "s3bats", ""
```

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

```
"BATS Trading, Inc., FIX, IP Port","10103","10104","10105","10106","10107"
"Authentication","","","",""
"Sender Comp Id","BATS","BATS","BATS","BATS","BATS"
"Sender Sub Id","0004","0005","0006","0007","0008"
"Target Comp Id","BATS","BATS","BATS","BATS","BATS"
"Target Sub Id","DEV","DEV","DEV","DEV","DEV"
"Attributes","","","",""
"Allowed Clearing MPID(s)","BATS","BATS","BATS","BATS","BATS"
"Default Clearing MPID","","","",""
"Bill To","","","",""
"Allow Test Symbols Only","No","No","No","No","No"
"Allow Pre-market","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes"
"Allow Post-market","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes"
"Allow Short Sales","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes"
"Allow ISO","BATS: Yes","BATS: No","BATS: No","BATS: Yes","BATS: Yes"
"Allow Directed ISO","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes"
"Default Routing Instruction","R (Route)","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","BATS: 25000","BATS: 25000","BATS: 25000","BATS: 25000","BATS: 25000"
"Maximum Order Dollar Value","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Port Order Rate Threshold","BATS: ","BATS: ","BATS: ","BATS: ","BATS: "
"Default 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"
"Cancel on Disconnect","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"
```

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"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", "BATS: 70", "BATS: 70", "BATS: 70", "BATS: 70", "BATS: 70"
"Fat Finger % - Limit Price >= \$1 and < \$10", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger % - Limit Price >= \$10 and < \$50", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger % - Limit Price >= \$50 and < \$100", "BATS: 18", "BATS: 18", "BATS: 18", "BATS: 18", "BATS: 18"
"Fat Finger % - Limit Price >= \$100 and < \$500", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger % - Limit Price >= \$500", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger CENTS - Limit Price < \$1", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger CENTS - Limit Price >= \$1 and < \$10", "BATS: 100", "BATS: 100", "BATS: 100", "BATS: 100", "BATS: 100"
"Fat Finger CENTS - Limit Price >= \$10 and < \$50", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger CENTS - Limit Price >= \$50 and < \$100", "BATS: 200", "BATS: 200", "BATS: 200", "BATS: 200", "BATS: 200"
"Fat Finger CENTS - Limit Price >= \$100 and < \$500", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: 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", "BATS: ", "BATS: ", "BATS: ", "BATS: ", "BATS: "
"Gross Daily Risk Market Order Notional Cutoff", "BATS: ", "BATS: ", "BATS: ", "BATS: ", "BATS: "
"Net Daily Risk Limit Order Notional Cutoff", "BATS: ", "BATS: ", "BATS: ", "BATS: ", "BATS: "
"Net Daily Risk Market Order Notional Cutoff", "BATS: ", "BATS: ", "BATS: ", "BATS: ", "BATS: "
"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", "BATS: 4", "BATS: 4", "BATS: 4", "BATS: 4", "BATS: 4"
"Duplicative Order Count", "BATS: 10", "BATS: 10", "BATS: 10", "BATS: 10", "BATS: 10"
"Duplicative Order Action", "BATS: Off", "BATS: Off", "BATS: Off", "BATS: Off", "BATS: Off"
"Trading Group", "", "", "", "", ""

"BATS Trading, Inc., BOE, IP Port", "10100", "10101", "10102"
"Authentication", "", "", ""
"Username", "BATS", "BATS", "BATS"
"Sender Sub Id", "0001", "0002", "0003"
"Password", "bz1bats", "bz2bats", "bz3bats"
"Attributes", "", "", ""
"Allowed Clearing MPID(s)", "BATS", "BATS", "BATS"
"Default Clearing MPID", "CFAA", "CFAA", "CFAA"
"Bill To", "", "", ""
"Allow Test Symbols Only", "No", "No", "No"
"Allow Pre-market", "BATS: Yes", "BATS: Yes", "BATS: Yes"

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"Allow Post-market","BATS: Yes","BATS: Yes","BATS: Yes"
"Allow Short Sales","BATS: Yes","BATS: Yes","BATS: Yes"
"Allow ISO","BATS: Yes","BATS: Yes","BATS: Yes"
"Allow Directed ISO","BATS: Yes","BATS: Yes","BATS: 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","BATS: 25000","BATS: 25000","BATS: 25000"
"Maximum Order Dollar Value","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Port Order Rate Threshold","BATS: ","BATS: ","BATS: "
"Default Price Sliding","Display price sliding","Display price sliding","Display price sliding"
"Default Pricing Sliding (Hidden Order Override)","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","BATS: 70","BATS: 70","BATS: 70"
"Fat Finger % - Limit Price >= \$1 and < \$10","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$10 and < \$50","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$50 and < \$100","BATS: 18","BATS: 18","BATS: 18"
"Fat Finger % - Limit Price >= \$100 and < \$500","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$500","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price < \$1","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$1 and < \$10","BATS: 100","BATS: 100","BATS: 100"
"Fat Finger CENTS - Limit Price >= \$10 and < \$50","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$50 and < \$100","BATS: 200","BATS: 200","BATS: 200"
"Fat Finger CENTS - Limit Price >= \$100 and < \$500","BATS: None","BATS: None","BATS: 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","BATS: ","BATS: ","BATS: "
"Gross Daily Risk Market Order Notional Cutoff","BATS: ","BATS: ","BATS: "
"Net Daily Risk Limit Order Notional Cutoff","BATS: ","BATS: ","BATS: "
"Net Daily Risk Market Order Notional Cutoff","BATS: ","BATS: ","BATS: "
"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","BATS: 4","BATS: 4","BATS: 4"
"Duplicative Order Count","BATS: 10","BATS: 10","BATS: 10"
"Duplicative Order Action","BATS: Off","BATS: Off","BATS: 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

```
<bats>
<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>
</bats>
```

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  
"statusCode": "200"}
```

```
CORP"},
```


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.

5.1 Port Controls

Service URL

BZX Options Exchange

https://api.batstrading.com/opt/account/port_controls/

EDGX Options Exchange

https://api.batstrading.com/exo/account/port_controls/

C2 Exchange

https://api.batstrading.com/ctwo/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 Bats Firm ID
<i>clearing</i>	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
<i>allowIso</i>	0=restrict, 1=allow
<i>blockNewOrders</i>	0=do not block, 1=block
<i>cancelOpenOrders</i>	0=do not cancel, 1=cancel
<i>maxNotionalValue</i>	0=use default max notional
<i>maxContractSize</i>	0=use default max size
<i>executionCollar1</i>	Fat Finger % Tier 1 (< \$1)** An integer from 1 to 75.
<i>executionCollar2</i>	Fat Finger % Tier 2 (>= \$1 and < \$10)** An integer from 1 to 50.
<i>executionCollar3</i>	Fat Finger % Tier 3 (>= \$10 and < \$50)** An integer from 1 to 20.
<i>executionCollar4</i>	Fat Finger % Tier 4 (>= \$50 and < \$100)** An integer from 1 to 20.
<i>executionCollar5</i>	Fat Finger % Tier 5 (>= \$100 and < \$500)** An integer from 1 to 20.
<i>executionCollar6</i>	Fat Finger % Tier 6 (>= \$500)** An integer from 1 to 20.
<i>executionCollarDollar1</i>	Fat Finger Dollar Tier 1 (< \$1)**
<i>executionCollarDollar2</i>	Fat Finger Dollar Tier 2 (>= \$1 and < \$10)**
<i>executionCollarDollar3</i>	Fat Finger Dollar Tier 3 (>= \$10 and < \$50)**
<i>executionCollarDollar4</i>	Fat Finger Dollar Tier 4 (>= \$50 and < \$100)**
<i>executionCollarDollar5</i>	Fat Finger Dollar Tier 5 (>= \$100 and < \$500)**
<i>dailyLimitCutoff</i>	Gross Daily Limit Order Notional Cutoff Value (\$) ** An integer between 1 and 1,000,000,000.
<i>dailyLimitWarnPct</i>	Gross Daily Limit Order Warning Percentage ** An integer between 1 and 100.
<i>dailyLimitNetCutoff</i>	Net Daily Limit Order Notional Cutoff Value (\$) ** An integer between 1 and 1,000,000,000.
<i>dailyLimitNetWarnPct</i>	Net Daily Limit Order Warning Percentage ** An integer between 1 and 100.

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<i>dailyMktCutoff</i>	Gross Daily Market Order Notional Cutoff (\$) ** An integer between 1 and 1,000,000,000.
<i>dailyMktWarnPct</i>	Gross Daily Market Order Warning Percentage ** An integer between 1 and 100.
<i>dailyMktNetCutoff</i>	Net Daily Market Order Notional Cutoff (\$) ** An integer between 1 and 1,000,000,000.
<i>dailyMktNetWarnPct</i>	Net Daily Market Order Warning Percentage ** An integer between 1 and 100.
<i>dailyLimitEmails</i>	A CSV formatted list of email addresses that will receive a notification when an Aggregated Credit Limit Warning Percent threshold is breached.
<i>dupOrderAction</i>	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)
<i>dupOrderCount</i>	Order Count Threshold
<i>dupOrderSeconds</i>	Time Threshold in seconds
<i>clearing</i>	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/

EDGX Options Exchange

https://api.batstrading.com/exo/account/optmarket_maker/

C2 Exchange

https://api.batstrading.com/ctwo/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",  
      "put_call_flag": "P",  
      "underlying": "A"},  
    { "strike_price": 10.000,  
      "bats_symbol": "000111",  
      "expiration_date": "3006-01-01",  
      "osi_symbol": "A",  
      "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: <code>bats</code> , <code>underlying</code> , <code>osi</code>
mode [OPTIONAL]	Valid values are: <code>replace</code> (default), <code>add</code> , <code>remove</code>
exclude_sdo [OPTIONAL] <i>(BZX and EDGX Only)</i>	Exclude options with a non-standard deliverable. Valid values are 1=enable, 0=disable (default).
exclude_close_only [OPTIONAL] <i>(BZX and EDGX Only)</i>	Exclude options marked as closing-only. Valid values are 1=enable, 0=disable (default).
expire_period [OPTIONAL] <i>(BZX and EDGX Only)</i>	Limit registration to series with an expiration date that falls within the selected period (in days). Note that, if <code>auto_reg_underlying</code> is enabled, the series set will be recalculated each morning.
auto_reg_underlying [OPTIONAL] <i>(BZX and EDGX Only)</i>	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": []  
}
```

5.3 Risk Management Service

Service URL

BZX Options Exchange

https://api.batstrading.com/opt/account/risk_manager/

EDGX Options Exchange

https://api.batstrading.com/exo/account/risk_manager/

C2 Exchange

https://api.batstrading.com/ctwo/account/risk_manager/

5.3.1 viewExecutingFirms

View available executing firm ID's.

Parameter	Description
command	viewExecutingFirms

Example Response

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

5.3.2 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": "BATS"
    },
    {
      "firm_level_limit": "F",
      "limit_value": 1000000,
      "millis": 1000,
      "limit_type": "rate_ntnl",
      "risk_root": "QQQ",
      "executing_firm_id": "BATS"
    },
    {
      "firm_level_limit": "F",
      "limit_value": 1000000,
      "millis": 1000,
      "limit_type": "rate_ntnl",
      "risk_root": "QQQ",
      "executing_firm_id": "BATS"
    },
    {
      "firm_level_limit": "F",
      "limit_value": 1000000,
      "millis": 1000,
      "limit_type": "rate_ntnl",
      "risk_root": "QQQ",
      "executing_firm_id": "BATS"
    }
  ]
}
```

5.3.3 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=BATS:rate_ntnl:QQQ:1000000:1000:F,BATS:rate_ntnl:QQQ:1000000:1000:F,BATS:rate_ntnl:QQQ:1000000:1000:F,BATS:rate_ntnl:QQQ:1000000:1000:F
```

Example Response

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

5.3.4 clearRules

Remove all currently-stored rules.

Parameter	Description
command	clearRules
identifier	The Executing Firm ID to clear, or a11 to clear rules for all firms.

Example Response

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

5.4 Ports Information Service

Service URL

BZX Options Exchange

https://api.batstrading.com/opt/account/ports_info/

EDGX Options Exchange

https://api.batstrading.com/exo/account/ports_info/

C2 Exchange

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

5.4.1 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 MPIIDs"
"BOE","127.0.0.1","127.0.0.2","10100","BATS","0001","bz1bats","","BATS"
"BOE","127.0.0.1","127.0.0.2","10101","BATS","0002","bz2bats","","BATS"
"BOE","127.0.0.1","127.0.0.2","10102","BATS","0003","bz3bats","","BATS"

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

"Type","Primary IP (SECAUCUS)","Secondary IP (CHICAGO)","Port","SenderCompId","SenderSubId","TargetCompId","TargetSubId","Trading Group"
"ODrop","127.0.0.1","127.0.0.2","10200","BATS","0009","BATS","DEV","",""
"ODrop","127.0.0.1","127.0.0.2","10201","BATS","0010","BATS","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","BATS","0023","s1bats","",""
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","BATS","0024","s2bats","",""
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","BATS","0025","s3bats","",""
```

5.4.2 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

```

"BATS Trading, Inc., FIX, IP Port","10103","10104","10105","10106","10107"
"Authentication","","","","",""
"Sender Comp Id","BATS","BATS","BATS","BATS","BATS"
"Sender Sub Id","0004","0005","0006","0007","0008"
"Target Comp Id","BATS","BATS","BATS","BATS","BATS"
"Target Sub Id","DEV","DEV","DEV","DEV","DEV"
"Attributes","","","","",""
"Allowed Executing Firm Id(s)","BATS","BATS","BATS","BATS","BATS"
"Default Executing Firm Id","BATS","BATS","BATS","BATS","BATS"
"Bill To","","","","",""
"Allow Test Symbols Only","No","No","No","No","No"
"Allow Queuing on Halts","No","No","No","No","No"
"Allow ISO","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes"
"Allow Directed ISO","BATS: Yes","BATS: Yes","BATS: Yes","BATS: Yes","BATS: 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","BATS: 25000","BATS: 25000","BATS: 25000","BATS: 25000","BATS: 25000"
"Maximum Order Dollar Value","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Port Order Rate Threshold","BATS: ","BATS: ","BATS: ","BATS: ","BATS: "
"Default 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","BATS: None","BATS: 10","BATS: 10","BATS: 10","BATS: 10"

```

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"Fat Finger % - Limit Price >= \$1 and < \$10","BATS: None","BATS: 10","BATS: 10","BATS: 10","BATS: 10"
"Fat Finger % - Limit Price >= \$10 and < \$50","BATS: None","BATS: 10","BATS: 10","BATS: 10","BATS: 10"
"Fat Finger % - Limit Price >= \$50 and < \$100","BATS: None","BATS: 10","BATS: 10","BATS: 10","BATS: 10"
"Fat Finger % - Limit Price >= \$100 and < \$500","BATS: None","BATS: 10","BATS: 10","BATS: 10","BATS: 10"
"Fat Finger % - Limit Price >= \$500","BATS: None","BATS: 10","BATS: 10","BATS: 10","BATS: 10"
"Fat Finger CENTS - Limit Price < \$1","BATS: None","BATS: None","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$1 and < \$10","BATS: None","BATS: None","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$10 and < \$50","BATS: None","BATS: None","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$50 and < \$100","BATS: None","BATS: None","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$100 and < \$500","BATS: None","BATS: None","BATS: None","BATS: None","BATS: 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","BATS: ","BATS: ","BATS: ","BATS: ","BATS: "
"Gross Daily Risk Market Order Notional Cutoff","BATS: ","BATS: ","BATS: ","BATS: ","BATS: "
"Net Daily Risk Limit Order Notional Cutoff","BATS: ","BATS: ","BATS: ","BATS: ","BATS: "
"Net Daily Risk Market Order Notional Cutoff","BATS: ","BATS: ","BATS: ","BATS: ","BATS: "
"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"
"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"
"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","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Duplicative Order Count","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Duplicative Order Action","BATS: Off","BATS: Off","BATS: Off","BATS: Off","BATS: Off"
"Trading Group","","","","",""
"BATS Trading, Inc., BOE, IP Port","10100","10101","10102"
"Authentication","","",""
"Username","BATS","BATS","BATS"
"Sender Sub Id","0001","0002","0003"
"Password","bo1bats","bo2bats","bo3bats"
"Attributes","","",""
"Allowed Executing Firm Id(s)","BATS","BATS","BATS"
"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","BATS: Yes","BATS: Yes","BATS: Yes"
"Allow Directed ISO","BATS: Yes","BATS: Yes","BATS: 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","BATS: 25000","BATS: 25000","BATS: 25000"

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"Maximum Order Dollar Value","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Port Order Rate Threshold","BATS: Unlimited","BATS: Unlimited","BATS: 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","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$1 and < \$10","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$10 and < \$50","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$50 and < \$100","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$100 and < \$500","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$500","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price < \$1","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$1 and < \$10","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$10 and < \$50","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$50 and < \$100","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$100 and < \$500","BATS: None","BATS: None","BATS: 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","BATS: ","BATS: ","BATS: "
"Gross Daily Risk Market Order Notional Cutoff","BATS: ","BATS: ","BATS: "
"Net Daily Risk Limit Order Notional Cutoff","BATS: ","BATS: ","BATS: "
"Net Daily Risk Market Order Notional Cutoff","BATS: ","BATS: ","BATS: "
"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","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Duplicative Order Count","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Duplicative Order Action","BATS: Off","BATS: Off","BATS: Off"
"Trading Group","","",""

6 Equities and Options Support

Please e-mail questions or comments regarding this specification to tradedesk@bats.com.

7 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.

7.1 Risk Management Service

Service URL

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

7.1.1 viewExecutingFirms

View available executing firm ID's.

Parameter	Description
command	viewExecutingFirms

Example Response

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

7.1.2 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"
    }
  ]
}
```

7.1.3 clearRules

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

Parameter	Description
command	clearRules
identifier	The Executing Firm ID to clear, or <code>all</code> to clear rules for all firms.

Example Response

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

7.1.4 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
  }
}
```

7.2 Ports Information Service

Service URL

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

7.2.1 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","BATS","0001","bz1bats","","BATS"
"BOE","127.0.0.1","127.0.0.2","10101","BATS","0002","bz2bats","","BATS"
"BOE","127.0.0.1","127.0.0.2","10102","BATS","0003","bz3bats","","BATS"

"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","BATS","0004","BATS","DEV","","BATS"
"FIX","127.0.0.1","127.0.0.2","10104","BATS","0005","BATS","DEV","","BATS"
"FIX","127.0.0.1","127.0.0.2","10105","BATS","0006","BATS","DEV","","BATS"
"FIX","127.0.0.1","127.0.0.2","10106","BATS","0007","BATS","DEV","","BATS"
"FIX","127.0.0.1","127.0.0.2","10107","BATS","0008","BATS","DEV","","BATS"

"Type","Primary IP (SECAUCUS)","Secondary IP (CHICAGO)","Port","SenderCompId","SenderSubId","TargetCompId","TargetSubId","Trading Group"
"ODrop","127.0.0.1","127.0.0.2","10200","BATS","0009","BATS","DEV",""
"ODrop","127.0.0.1","127.0.0.2","10201","BATS","0010","BATS","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","BATS","0023","s1bats",""
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","BATS","0024","s2bats",""
"Spin","mcp_ss_01","127.0.0.1","127.0.0.2","18998","BATS","0025","s3bats",""
```


7.2.2 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

The following example is based on another platform and currently does not reflect available port attributes for CFE.

```
"CBOE Holdings, Inc., FIX, IP Port", "10103", "10104", "10105", "10106", "10107"
"Authentication", "", "", "", "", ""
"Sender Comp Id", "BATS", "BATS", "BATS", "BATS", "BATS"
"Sender Sub Id", "0004", "0005", "0006", "0007", "0008"
"Target Comp Id", "BATS", "BATS", "BATS", "BATS", "BATS"
"Target Sub Id", "DEV", "DEV", "DEV", "DEV", "DEV"
"Attributes", "", "", "", "", ""
"Allowed Executing Firm Id(s)", "BATS", "BATS", "BATS", "BATS", "BATS"
"Default Executing Firm Id", "BATS", "BATS", "BATS", "BATS", "BATS"
"Bill To", "", "", "", "", ""
"Allow Test Symbols Only", "No", "No", "No", "No", "No"
"Allow Queuing on Halts", "No", "No", "No", "No", "No"
"Allow ISO", "BATS: Yes", "BATS: Yes", "BATS: Yes", "BATS: Yes", "BATS: Yes"
"Allow Directed ISO", "BATS: Yes", "BATS: Yes", "BATS: Yes", "BATS: Yes", "BATS: 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", "BATS: 25000", "BATS: 25000", "BATS: 25000", "BATS: 25000", "BATS: 25000"
"Maximum Order Dollar Value", "BATS: Unlimited", "BATS: Unlimited", "BATS: Unlimited", "BATS: Unlimited", "BATS: Unlimited"
"Port Order Rate Threshold", "BATS: ", "BATS: ", "BATS: ", "BATS: ", "BATS: "
"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"
```

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"Send Fix tag 47 (capacity)", "No", "No", "No", "No", "No"
"Microsecond Timestamp Granularity", "No", "No", "No", "No", "No"
"Fat Finger % - Limit Price < \$1", "BATS: None", "BATS: 10", "BATS: 10", "BATS: 10", "BATS: 10"
"Fat Finger % - Limit Price >= \$1 and < \$10", "BATS: None", "BATS: 10", "BATS: 10", "BATS: 10", "BATS: 10"
"Fat Finger % - Limit Price >= \$10 and < \$50", "BATS: None", "BATS: 10", "BATS: 10", "BATS: 10", "BATS: 10"
"Fat Finger % - Limit Price >= \$50 and < \$100", "BATS: None", "BATS: 10", "BATS: 10", "BATS: 10", "BATS: 10"
"Fat Finger % - Limit Price >= \$100 and < \$500", "BATS: None", "BATS: 10", "BATS: 10", "BATS: 10", "BATS: 10"
"Fat Finger % - Limit Price >= \$500", "BATS: None", "BATS: 10", "BATS: 10", "BATS: 10", "BATS: 10"
"Fat Finger CENTS - Limit Price < \$1", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger CENTS - Limit Price >= \$1 and < \$10", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger CENTS - Limit Price >= \$10 and < \$50", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger CENTS - Limit Price >= \$50 and < \$100", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: None"
"Fat Finger CENTS - Limit Price >= \$100 and < \$500", "BATS: None", "BATS: None", "BATS: None", "BATS: None", "BATS: 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", "BATS: ", "BATS: ", "BATS: ", "BATS: ", "BATS: "
"Gross Daily Risk Market Order Notional Cutoff", "BATS: ", "BATS: ", "BATS: ", "BATS: ", "BATS: "
"Net Daily Risk Limit Order Notional Cutoff", "BATS: ", "BATS: ", "BATS: ", "BATS: ", "BATS: "
"Net Daily Risk Market Order Notional Cutoff", "BATS: ", "BATS: ", "BATS: ", "BATS: ", "BATS: "
"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"
"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", "BATS: Unlimited", "BATS: Unlimited", "BATS: Unlimited", "BATS: Unlimited", "BATS: Unlimited"
"Duplicative Order Count", "BATS: Unlimited", "BATS: Unlimited", "BATS: Unlimited", "BATS: Unlimited", "BATS: Unlimited"
"Duplicative Order Action", "BATS: Off", "BATS: Off", "BATS: Off", "BATS: Off", "BATS: Off"
"Trading Group", "", "", "", "", ""

"BATS Trading, Inc., BOE, IP Port", "10100", "10101", "10102"
"Authentication", "", "", ""
"Username", "BATS", "BATS", "BATS"
"Sender Sub Id", "0001", "0002", "0003"
"Password", "bo1bats", "bo2bats", "bo3bats"
"Attributes", "", "", ""
"Allowed Executing Firm Id(s)", "BATS", "BATS", "BATS"
"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", "BATS: Yes", "BATS: Yes", "BATS: Yes"
"Allow Directed ISO", "BATS: Yes", "BATS: Yes", "BATS: Yes"

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"Default Routing Instruction","RND (Route, No Reroute, Parallel-D)","RND (Route, No Reroute, Parallel-D)","RND (Route, No Reroute, Parallel-D)"
"Maximum Order Size","BATS: 25000","BATS: 25000","BATS: 25000"
"Maximum Order Dollar Value","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Port Order Rate Threshold","BATS: Unlimited","BATS: Unlimited","BATS: 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","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$1 and < \$10","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$10 and < \$50","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$50 and < \$100","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$100 and < \$500","BATS: None","BATS: None","BATS: None"
"Fat Finger % - Limit Price >= \$500","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price < \$1","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$1 and < \$10","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$10 and < \$50","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$50 and < \$100","BATS: None","BATS: None","BATS: None"
"Fat Finger CENTS - Limit Price >= \$100 and < \$500","BATS: None","BATS: None","BATS: 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","BATS: ","BATS: ","BATS: "
"Gross Daily Risk Market Order Notional Cutoff","BATS: ","BATS: ","BATS: "
"Net Daily Risk Limit Order Notional Cutoff","BATS: ","BATS: ","BATS: "
"Net Daily Risk Market Order Notional Cutoff","BATS: ","BATS: ","BATS: "
"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","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Duplicative Order Count","BATS: Unlimited","BATS: Unlimited","BATS: Unlimited"
"Duplicative Order Action","BATS: Off","BATS: Off","BATS: Off"
"Trading Group","","",""

8 CFE Support

Please e-mail 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 <i>executionCollar</i> , <i>dailyLimitCutoff</i> , <i>dailyLimitNetCutoff</i> , <i>dailyMktCutoff</i> , and <i>dailyMktNetCutoff</i> parameters to <i>setClient</i> command
1.3.1	11/01/12	Field order correction in <i>uploadRules</i> definition for Risk Management Services (Options).
1.3.2	12/28/12	Correction to command description in <i>ClearAllSeries</i> command.
1.3.3	03/28/13	Added parameter to exclude Mini Options symbols from Options Market Maker Registration <i>storeSeriesList</i> command. Added confirmation of Max Quote value in Equities Market Maker Registration <i>viewRegisteredSymbols</i> command.
1.3.4	05/10/13	Minor clarifications and corrections made to Options <i>storeSeriesList</i> and <i>viewSeriesStatus</i> commands.
1.3.5	10/3/13	Added parameter to exclude Jumbo Options symbols from Options Market Maker Registration <i>storeSeriesList</i> command.
1.3.6	12/03/13	Added <i>viewActiveRegisteredSymbols</i> 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 <i>uploadRegisteredSymbols</i> example response.
1.3.9	02/06/15	Updated <i>setClient</i> 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.

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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 <code>osi_root</code> value to <code>risk_root</code> .