FastConnectTrading API Specs

V 2.3

Menu

Document History

Date	Changed by	Description	Version
22/10/2020		Created	1.0
04/07/2022		Add streaming OrderMatchEvent	2.0
08/09/2022		Add API getOTP	2.1
09/05/2023		Update 4.7 Order Type	2.2
25/05/2023		Update API newOrder and API verifyCode, Modify Order, Cancel Order	2.2
07/06/2023		Add API Orderbook, API derNewOrder, derModifyOrder, derCancelOrder and Update OrderError	2.3

1 Description

FastConnect TradingAPI is an API service used to make an order to the trading system. It provides a set of APIs to achieve this goal.

FastConnectTrading API includes:

- FCTradingAPI: an API to interact with trading system.
- FCTAPI Order Streaming: a TCP stream to return order result to client

All will be hosted in SSI side.

2 Integration process

- Register api service on iBoard
- Get the key to intergration

3 Environment information:

Service Name	Env Name	Host	Port	Requires VPN
FCTradingAPI	Prod	https://fc-tradeapi.ssi.com.vn		No
FCTAPI Order Streaming	Prod	https://fc-tradehub.ssi.com.vn		No

4 Key Credential

Configuration info to integrate with FCTradingAPI

- ConsumerID: Identify your account.
- ConsumerSecrect: access key server
- PrivateKey: Used create digital signatuer by RSA algorithm

5 TradingAPI

5.1 Config request

Method	Content	
Post	Header (Authorization, Content-Type)	Body (json)
Get	Header (Authorization)	Params

5.2 GetOTP

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/GetOTP
- Method: POST
- Uses: get OTP when User use 2FA: SMS/ Email/ SmartOTP

5.2.1 GetOTP Request

Name of Element	Type	Required	Description	Valid Value or Format
consumerID	string	Yes	ConsumerID in the connection information	
consumerSecret	string	Yes	ConsumerSecret in the connection information	

5.2.2 GetOTP Response

Name of Element	Type	Description	Valid Value or Format
message	String		Success or Error msg
Status	String		- 200 if Success - 404 Not Found

Example:

getOTP Request	Response success

{
"consumerID": "968d7b5940f5437583021aea2b038f35",
"consumerSecret": "11ab3fc6af954c59ba646fac016f30cb"
}
	{
	message: "Success",
	status: 200
	}

Case getOTP has error

getOTP Request	Response fail

{
"consumerID": "968d7b5940f5437583021aea2b038f351",
"consumerSecret": "11ab3fc6af954c59ba646fac016f30cb"
}
	{
	"message": "ConsumerID is invalid",
	"status": 400
	}

5.3 VerifyCode

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/verifyCode
- Method: POST
- Uses: verify OTP when User use 2FA: SMS/ Email/ SmartOTP and PIN when User use PIN

5.3.1 VerifyCode Request

Name of Element	Type	Required	Description	Valid Value or Format
code	string	Yes	If User use 2FA -> fill SMS/ Email/ SmartOTP If User use PIN -> fill PIN	

5.3.2 VerifyCode Response

Name of Element	Type	Description	Valid Value or Format
message	String		Success or Error msg
Status	String		- 200 if Success - 404 Not Found

<u>Example:</u>

verifyCode Request	Response success

{
 	
"code": "123456"
 	
}
	{
	"eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9.ewogICJhdWQiOiAiO"
	
	}

Case verifyCode has error

verifyCode Request	Response fail

{
 	
"code": "123456789"
 	
}
	{
	
	Internal Server Error
	}

5.4 AccessToken

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/AccessToken
- Method: Post
- Uses: get token to use for other apis

5.4.1 AccessToken Request

Name of Element	Type	Required	Description	Valid Value or Format
consumerID	string	Yes	ConsumerID in the connection information	
consumerSecret	string	Yes	ConsumerSecret in the connection information	
twoFactorType	string	Yes	Authentication type of account, support type = 0 (PIN), type = 1 (OTP)	
code	string	Yes	Authentication code for trading api	
isSave	boolean	Yes	Save twoFactorCode for trading api	Include: true, fasle

5.4.2 AccessToken Response

Name of Element	Type	Description	Valid Value or Format
data	String	Include AccessToken	
message	String		Success or Error msg
Status	String		- 200 if Success - 404 Not Found

<u>Example:</u>

AccessToken Request	Response success

{
 	
  consumerID:
"38f5fdfa56b44d5ab8b95895eb588e99",
  consumerSecret:
"6d61bffefc6540fc837c71afd2ca4bcf",
  twoFactorType: 0,
  code: "123456789",
  isSave: false
}
	{
	  message: "Success",
	  status: 200,
	  data: {
	    "accessToken":
	"eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ”
	
	}

Case AccessToken has error

2FA Access Token Request	Response fail

{
 	
 consumerID: "38f5fdfa56b44d5ab8b95895eb588e99",
 consumerSecret: "6d61bffefc6540fc837c71afd2ca4bcf",
 twoFactorType: 0,
 code: "123456789",
 isSave: true
 }
	{
	
	 message: "Key does not exist.",
	 status: 400,
	 data: null
	 }

5.5 New Order

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/NewOrder
- Method: Post
- Header: X-Singature (Use PrivateKey to sign data request sent to server with RSA algothrim use SHA-256 hash function)
- Uses: Create order

5.5.1 NewOrder Request

Name of Element	Type	Required	Description	Valid Value or Format
instrumentID	String	Yes	Instrument ID	
market	String	Yes		- VN: stock market - VNFE: derivatives market
buySell	String	Yes		- B: Buy - S: Sell
orderType	String	Yes		- LO - ATO - ATC - MP - MTL - MOK - MAK - PLO
channelID	String	Yes		TA
price	Number	Yes	If ordertype is LO, price must be > 0. If ordertype <> LO, price = 0	
quantity	Number	Yes		
account	String	Yes		

requestID	String	Yes	Unique string of number in a day with max length is 8	01234567
stopOrder	String	Yes	Only for: market = VNFE	- True: For conditional order - False: for normal order
stopPrice	Number	Yes	Default stopprice = 0 If stoporder = True, stopprice >0	
stopType	String	Yes	If stoporder = True, stopType in value list	- D: Down - U: Up - V: Trailling Up - E: Trailing Down - O: OCO - B: BullBear
stopStep	Number	Yes	Default stopstep = 0 If stoporder = True, stopstep >=0	
lossStep	Number	Yes	Default losstep = 0 If stoporder = True and stopstyle = B, lossstep >0	
profitStep	Number	Yes	Default losstep = 0 If stoporder = True and stopstyle = B, profitstep >0	
code	String	No	Trading code: PIN, OTP If api AccessToken input: isSave = false, code is required	
deviceID	string	No	Information about the device that is placing the command	
userAgent	string	No	User Agent	

5.5.2 NewOrder Response

Name of Element	Type	Description	Valid Value or Format
data		The original request input	
message	String		Success Or Error msg

status	String		- 200 if Success - 400 if Failed

<u>Example</u>

NewOrder request	Response success

{
instrumentID: "SSI",
market: "VN",
buySell: "B",
orderType: "LO",
channelID: "IW",
price: 21000,
quantity: 300,
account: "0901351",
stopOrder: false,
stopPrice: 0,
stopType: "string",
stopStep: 0,
lossStep: 0,
profitStep: 0
requestID: "1678195",
code: “123456789”,
deviceID: "MAC Address",
userAgent: “FCTrading”
 	
}
	{
	message: "Success",
	status: 200,
	data: {
	requestID: "1678195",
	requestData:
	{
	instrumentID: "SSI",
	market: "VN",
	buySell: "B",
	orderType: "LO",
	channelID: "IW",
	price: 21000,
	quantity: 300,
	account: "0901351",
	stopOrder: false,
	stopPrice: 0,
	stopType: "string",
	stopStep: 0,
	lossStep: 0,
	profitStep: 0
	}
	}
	}

Case newOrder has error

NewOrder Request	Response fail

{
instrumentID: "SSI",
market: "VN",
buySell: "B",
orderType: "ATO",
channelID: "IW",
price: 21000,
quantity: 300,
account: "0901351",
stopOrder: false,
stopPrice: 0,
stopType: "string",
stopStep: 0,
lossStep: 0,
profitStep: 0
	{
	message: "Price is null or equal zero when order is market order",
	status: 400,
	data: null
	}

requestID: "1678195", code: “123456789”, deviceID: "MAC Address", userAgent: “FCTrading” }	

5.6 Modify Order

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/ModifyOrder
- Method: Post
- Header: X-Singature (Use PrivateKey to sign data request sent to server with RSA algothrim use SHA-256 hash function)
- Uses: Modify order

5.6.1 ModifyOrder Request

Name of Element	Type	Required	Description	Valid Value or Format
orderID	String	Yes	ID of the order to modify	
price	Number	Yes	New price if the price is changed. Otherwise, price of original order	
quantity	Number	Yes	New quantity if the quantity is changed. Otherwise, quantity of the original order	
account	String	Yes	Account of the original order	
instrumentID	String	Yes	Symbol of the original order	
marketID	String	Yes	MarketID of the original order	- VN: stock market - VNFE: derivatives market
buySell	String	Yes	Side of the original order	- B: Buy - S: Sell
requestID	String	Yes	Unique string of number in a day with max length of 8	
orderType	String	Yes	Order Type of the original order	- LO - ATO - ATC - MP - MTL - MOK - MAK - PLO

code	String	No	Trading code: PIN, OTP If api AccessToken input: isSave = false, code is required	
deviceID	string	No	Information about the device that is placing the command	
userAgent	string	No	User Agent	

5.6.2 ModifyOrder Response

Name of Element	Type	Description	Valid Value or Format
data	String	Original request	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed

Example:

Modify Request	Response success

{
requestID: "93235974",
orderID: "12658867",
price: 1410,
quantity: 2,
account: "0901358",
instrumentID: "VN30F2106",
marketID: "VNFE",
buySell: "B",
orderType: "LO"
code:"123456789",
deviceID: "MAC Address",
userAgent: "FCTrading"
}
	{
	message: "Success",
	status: 200,
	data: {
	requestID: "93235974",
	requestData: {
	orderID: "12658867",
	price: 1410,
	quantity: 2,
	account: "0901358",
	instrumentID: "VN30F2106",
	marketID: "VNFE",
	buySell: "B",
	orderType: "LO"
	}
	}
	}

Case modifyOrder has error

ModifyOrder Request	Response fail
{ requestID: "93235971", orderID: "", price: 1410,	{ data: null, message: "'Order ID' must not be empty ", status: 400

quantity: 2, account: "0901358", instrumentID: "VN30F2106", marketID: "VNFE", buySell: "B", orderType: "LO" code:"123456789", deviceID: "MAC Address", userAgent: "FCTrading" }	}

5.7 Cancel Order

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/CancelOrder
- Method: Post
- Header: X-Singature (Use PrivateKey to sign data request sent to server with RSA algothrim use SHA-256 hash function)
- Uses: Cancel order

5.7.1 CancelOrder Request

Name of Element	Type	Required	Description	Valid Value or Format
orderID	String	Yes		
account	String	Yes		
marketID	String	Yes		- VN: stock market - VNFE: derivatives market
instrumentID	String	Yes		
buySell	String	Yes		- B: Buy - S: Sell
requestID	String	Yes	Unique string of number in a day with max length is 8	123445678
code	String	No	Trading code: PIN, OTP If api AccessToken input: isSave = false, code is required	
deviceID	string	No	Information about the device that is placing the command	
userAgent	string	No	User Agent	

5.7.2 CancelOrderResponse

Name of Element	Type	Description	Valid Value or Format
data	String	Unique string of number in a day with max length is 8	12345678
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed

<u>Example:</u>

Cancel Request	Response success

{
orderID: "12658867",
account: "0901358",
marketID: "VNFE",
instrumentID: "VN30F2106",
buySell: "B",
requestID: "52513603"
code:”123456789”,
deviceID: "MAC Address",
userAgent: “FCTrading”
}
	{
	message: "Success",
	status: 200,
	data: {
	requestID: "52513603",
	requestData: {
	orderID: "12658867",
	account: "0901358",
	marketID: "VNFE",
	instrumentID: "VN30F2106",
	buySell: "B",
	requestID: "52513603"
	}
	}
	}

Case cancelOrder has error

CancelOrder Request	Response fail

{
orderID: " ",
account: "0901358",
marketID: "VNFE",
instrumentID: "VN30F2106",
buySell: "B",
requestID: "52513603"
code:”123456789”,
deviceID: "MAC Address",
userAgent: “FCTrading”
}
	{
	message: "’Order ID' must not be empty.",
	status: 400,
	data: null
	}

5.8 DerNewOrder

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/derNewOrder
- Method: POST

- Uses: Create order derivatives

5.8.1 DerNewOrder Request

Name of Element	Type	Required	Description	Valid Value or Format
instrumentID	String	Yes	Instrument ID	
market	String	Yes		VNFE: derivatives market
buySell	String	Yes		- B: Buy - S: Sell
orderType	String	Yes		- LO - ATO - ATC - MTL - MOK - MAK
channelID	String	Yes		TA
price	Number	Yes	If ordertype is LO, price must be > 0. If ordertype <> LO, price = 0	
quantity	Number	Yes		
account	String	Yes		
requestID	String	Yes	Unique string of number in a day with max length is 8	01234567
stopOrder	String	Yes	Only for: market = VNFE	- True: For conditional order - False: for normal order
stopPrice	Number	Yes	Default stopprice = 0 If stoporder = True, stopprice >0	
stopType	String	Yes	If stoporder = True, stopType in value list	- D: Down - U: Up - V: Trailling Up - E: Trailing Down - O: OCO - B: BullBear
stopStep	Number	Yes	Default stopstep = 0 If stoporder = True, stopstep >=0	

lossStep	Number	Yes	Default losstep = 0 If stoporder = True and stopstyle = B, lossstep >0	
profitStep	Number	Yes	Default losstep = 0 If stoporder = True and stopstyle = B, profitstep >0	
code	String	No	Trading code: PIN, OTP If api AccessToken input: isSave = false, code is required	
deviceID	string	No	Information about the device that is placing the command	
userAgent	string	No	User Agent	

5.8.2 DerNewOrder Response

Name of Element	Type	Description	Valid Value or Format
data		The original request input	
message	String		Success Or Error msg
status	String		- 200 if Success - 400 if Failed

Example

DerNewOrder request	Response success

{
instrumentID: "VN30F2306",
market: "VNFE",
buySell: "B",
orderType: "LO",
channelID: "TA",
price: 1200,
quantity: 10,
account: "1184418",
stopOrder: false,
stopPrice: 0,
stopType: "string",
stopStep: 0,
lossStep: 0,
profitStep: 0
requestID: "1678198",
	{
	"message": "Success",
	"status": 200,
	"data": {
	"requestID": "3407154",
	"requestData": {
	"instrumentID": "VN30F2306",
	"market": "VNFE",
	"buySell": "B",
	"orderType": "LO",
	"channelID": "TA",
	"price": 1200,
	"quantity": 100,
	"account": "1184418",
	"stopOrder": false,
	"stopPrice": 0,

code: “123456789”, deviceID: "MAC Address", userAgent: “FCTrading” }	"stopType": "", "stopStep": 0, "lossStep": 0, "profitStep": 0 } } }

Case derNewOrder has error

DerNewOrder Request	Response fail

{
instrumentID: "VN30F2306",
market: "VNFE",
buySell: "B",
orderType: "MTL",
channelID: "TA",
price: 1200,
quantity: 10,
account: "1184418",
stopOrder: false,
stopPrice: 0,
stopType: "string",
stopStep: 0,
lossStep: 0,
profitStep: 0
requestID: "1678198",
code: “123456789”,
deviceID: "MAC Address",
userAgent: “FCTrading”
 	
}
	{
	message: "Price is null or equal zero when order is market order",
	status: 400,
	data: null
	}

5.9 DerModifyOrder

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/derModifyOrder
- Method: Post
- Header: X-Singature (Use PrivateKey to sign data request sent to server with RSA algothrim use SHA-256 hash function)
- Uses: Modify order derivatives

5.9.1 DerModifyOrder Request

Name of Element	Type	Required	Description	Valid Value or Format
orderID	String	Yes	ID of the order to modify	
price	Number	Yes	New price if the price is changed. Otherwise, price of original order	

quantity	Number	Yes	New quantity if the quantity is changed. Otherwise, quantity of the original order	
account	String	Yes	Account of the original order	
instrumentID	String	Yes	Symbol of the original order	
marketID	String	Yes	MarketID of the original order	VNFE: derivatives market
buySell	String	Yes	Side of the original order	- B: Buy - S: Sell
requestID	String	Yes	Unique string of number in a day with max length of 8	
orderType	String	Yes	Order Type of the original order	- LO - ATO - ATC - MTL - MOK - MAK
code	String	No	Trading code: PIN, OTP If api AccessToken input: isSave = false, code is required	
deviceID	string	No	Information about the device that is placing the command	
userAgent	string	No	User Agent	

5.9.2 DerModifyOrder Response

Name of Element	Type	Description	Valid Value or Format
data	String	Original request	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed

<u>Example:</u>

Modify Request	Response success

{
requestID: "93235974",
orderID: "12658867",
price: 1410,
	{
	message: "Success",
	status: 200,
	data: {

quantity: 3,
account: "1184418",
instrumentID: "VN30F2306",
marketID: "VNFE",
buySell: "B",
orderType: "LO"
code:”123456789”,
deviceID: "MAC Address",
userAgent: “FCTrading”
}
	requestID: "93235974",
	requestData: {
	orderID: "12658867",
	price: 1410,
	quantity: 3,
	account: "1184418",
	instrumentID: "VN30F2306",
	marketID: "VNFE",
	buySell: "B",
	orderType: "LO"
	}
	}
	}

Case derModifyOrder has error

DerModifyOrder Request	Response fail

{
requestID: "93235974",
orderID: "",
price: 1410,
quantity: 3,
account: "1184418",
instrumentID: "VN30F2306",
marketID: "VNFE",
buySell: "B",
orderType: "LO"
code:”123456789”,
deviceID: "MAC Address",
userAgent: “FCTrading”
}
	{
	data: null,
	message: "’Order ID’ must not be empty ",
	status: 400
	}

5.10 DerCancelOrder

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/derCancelOrder
- Method: Post
- Header: X-Singature (Use PrivateKey to sign data request sent to server with RSA algothrim use SHA-256 hash function)
- Uses: Cancel order derivatives

5.10.1 CancelOrder Request

Name of Element	Type	Required	Description	Valid Value or Format
orderID	String	Yes		
account	String	Yes		
marketID	String	Yes		VNFE: derivatives market

instrumentID	String	Yes		
buySell	String	Yes		- B: Buy - S: Sell
requestID	String	Yes	Unique string of number in a day with max length is 8	123445678
code	String	No	Trading code: PIN, OTP If api AccessToken input: isSave = false, code is required	
deviceID	string	No	Information about the device that is placing the command	
userAgent	string	No	User Agent	

5.10.2 DerCancelOrderResponse

Name of Element	Type	Description	Valid Value or Format
data	String	Unique string of number in a day with max length is 8	12345678
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed

<u>Example:</u>

Cancel Request	Response success

{
orderID: "12658867",
account: "1184418",
marketID: "VNFE",
instrumentID: "VN30F2306",
buySell: "B",
requestID: "52513603"
code:"123456789",
deviceID: "MAC Address",
userAgent: "FCTrading"
}
	{
	message: "Success",
	status: 200,
	data: {
	requestID: "52513603",
	requestData: {
	orderID: "12658867",
	account: "1184418",
	marketID: "VNFE",
	instrumentID: "VN30F2106",
	buySell: "B",
	requestID: "52513603"
	}
	}
	}

Case derCancelOrder has error

DerCancelOrder Request	Response fail

{
orderID: "",
account: "1184418",
marketID: "VNFE",
instrumentID: "VN30F2306",
buySell: "B",
requestID: "52513603"
code:"123456789",
deviceID: "MAC Address",
userAgent: "FCTrading"
}
	{
	message: "'Order ID' must not be empty.",
	status: 400,
	data: null
	}

5.11 Order History

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/orderHistory
- Method: Get
- Uses: query order

5.11.1 OrderHistory Request

Name of Element	Type	Required	Description	Valid Value or Format
account	String	Yes	AccountNo Stock market or Derivatives market	
startDate	Date	Yes	Start date of search	DD/MM/YYYY
endDate	Date	Yes	End date of search	DD/MM/YYYY

5.11.2 OrderHistory Response

Name of Element	Type	Description	Valid Value or Format
data	String	Order list of account in search time	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed

Example:

OrderHistory Request	Response success

{
account: "0901358",
startDate: "18/11/2020",
endDate: "18/11/2020"
}
	{
	message: "Success",
	status: 200,
	data: {
	orderHistories: [

	{
	uniqueID: null,
	orderID: "12626539",
	buySell: "B",
	price: 800.0,
	quantity: 10,
	filledQty: 0,
	orderStatus: "RJ",
	marketID: "VNFE",
	inputTime: "1603157594668",
	modifiedTime: "1603157594668",
	instrumentID: "VN30F2012",
	orderType: "LO",
	cancelQty: 0,
	avgPrice: 0.0,
	isForcesell: null,
	isShortsell: null
	}
	],
	account: "0901358"
	}
	}

Case orderHistory has error

OrderHistory Request	Response fail

{
account: "0901358",
startDate: “”,
endDate: “18/11/2020”
}
	{
	message: "'Start Date' must not be empty; StartDate is required.",
	status: 400,
	data: null
	}

5.12 Stock Position

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/stockPosition
- Method: Get
- Uses: Get portfolio information of accounts stock

5.12.1 StockPosition Request

Name of Element	Type	Required	Description	Valid Value or Format
account	String	Yes	AccountNo Stock market	

5.12.2 StockPosition Response

Name of Element	Type	Description	Valid Value or Format
data	String	porfolio of account include: - account	

		- stockPositions - totalMarketValue	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed
account	String		
Detail of data			
totalMarketValue	number	= sum (maketprice * onhand) of all instrumentid	
stockPositions		Porfolio of account	
marketID	String		
instrumentID	String		
onHand	number	Total quantity of securities	
block	number	Quantity of blockaded securities	
bonus	number		
buyT0		Intraday bought	
buyT1	number	Quantity securities bought matched of day T-1	
buyT2	number	Quantity securities bought matched of day T-2	
sellT0	number	Intraday sold	
sellT1	number	Quantity securities sold matched of day T-1	
sellT2	number	Quantity securities sold matched of day T-2	
avgPrice	number	Average matched price	
mortgage	number	Quantity of mortgage securities	
holdForTrade	number	Securities awaiting fo trade	
marketPrice	number	Market price of securities	

Example:

StockDeposition Request	Response success

{
account: "0901351",
}
	{
	message: "Success",
	status: 200,
	data: {
	account": "0901351,
	totalMarketValue: 0,
	stockPositions: [
	{
	marketID: "VN",
	instrumentID: "SSI",
	onHand: 50300,
	block: 0,
	bonus: 7425,
	buyT0: 0,
	buyT1: 0,
	buyT2: 0,
	sellT0: 0,
	sellT1: 0,
	sellT2: 0,
	avgPrice: 18505,
	mortgage: 0,
	sellableQty: 50300,
	holdForTrade: 0,
	marketPrice: 0
	}
	]
	}
	}

Case stockPosition has error

StockDeposition Request	Response fail

{
account: "0901352"
}
	{
	message: "Account is not exist.",
	status: 400,
	data: null
	}

5.13 Derivatives Position

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/derivPosition
- Method: Get
- Uses: Get portfolio information of derivative accounts stock

5.13.1 DerPosition Request

Name of Element	Type	Required	Description	Valid Value or Format
account	String	Yes	AccountNo Derivatives market	

querySummary	Boolean	Yes	Default is true (net position)	

5.13.2 DerPosition Response

Name of Element	Type	Description	Valid Value or Format
data	String	porfolio of account include: - openPositions - closePositions - account	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed
Detail of data			
account	String		
openPosition		Open position	
closePosition		Close position	
Detail of position			
marketID	String		
instrumentID	String		
longQty	number	Long position	
shortQty	number	Short position	
net	number	Net position	
bidAvgPrice	number	Average bid price	
askAvgPrice	number	Average ask price	
tradePrice	number	Trade price	
marketPrice	number	Maket price	
floatingPL	number	Temporarily calculated profit and loss	
tradingPL	number	Calculated profit and loss	

Example:

DerPosition Request	Response success
{	{

account: "0901358",
querySummary: true
}
	message: "Success",
	status: 200,
	data: {
	account: "0901358",
	openPosition: [
	{
	marketID: "VNFE",
	instrumentID: "VN30F2106",
	longQty: 8,
	shortQty: 0,
	net: 8,
	bidAvgPrice: 0,
	askAvgPrice: 0,
	tradePrice: 1452.7,
	marketPrice: 1452.7,
	floatingPL: 0,
	tradingPL: 0
	}],
	closePosition: [ ]
	}
	}

Case derPosition has error

DerPosition Request	Response fail

{
account: "",
querySummary: true
}
	{
	message: "'Account' must not be empty ",
	status: 400,
	data: null
	}

5.14 Max Buy Quantity

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/maxBuyQty
- Method: Get
- Uses: Get max buy quantity of account

5.14.1 MaxBuyQty Request

Name of Element	Type	Required	Description	Valid Value or Format
account	String	Yes	AccountNo Stock market or Derivatives market	
instrumentID	String	Yes		
price	Number	Yes		

5.14.2 MaxBuyQty Response

Name of Element	Type	Description	Valid Value or Format
data	String	List of data includes: - account - maxbuyqty - marginratio - purchasingpower	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed

Example:

MaxBuyQty Request	Response success

{
account: "0041691",
instrumentD: “SSI”,
price:17
}
	{
	message: "Success",
	status: 200,
	data: {
	account: "0041691",
	maxBuyQty: 8241440,
	marginRatio: "50%",
	purchasingPower: 99292902171
	}
	}

Case maxBuyQty has error

MaxBuyQty Request	Response fail

{
account: "0041695",
querySummary: true
}
	{
	message: "Account is not exist.",
	status: 400,
	data: null
	}

5.15 Max Sell Quantity

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/maxSellQty
- Method: Get
- Uses: Get max sell quantity of account

5.15.1 MaxSellQty Request

Name of Element	Type	Required	Description	Valid Value or Format

account	String	Yes	AccountNo Stock market or Derivatives market	
instrumentID	String	Yes		

5.15.2 MaxSellQty Response

Name of Element	Type	Description	Valid Value or Format
data	String	List of data includes: - account - maxsellqty	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed

Example:

MaxSellQty Request	Response success

{
account: "0041691",
intrumentID: “SSI”
}
	{
	"message": "Success",
	"status": 200,
	"data": {
	"account": "0041691",
	"maxSellQty": 2000
	}
	}

Case maxSellQty has error

MaxSellQty Request	Response fail

{
account: "0041695",
intrumentID: “SSI”
}
	{
	message: "Account is not exist.",
	status: 400,
	data: null
	}

5.16 Account Balance

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/cashAcctBal
- Method: Get
- Uses: Get account balance information

5.16.1 AccountBalance Request

Name of Element	Type	Required	Description	Valid Value or Format
account	String	Yes	AccountNo Stock market or Derivatives market	

5.16.2 AccountBalance Response

Name of Element	Type	Description	Valid Value or Format
data	String	Information of account balance	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed
Detail of data			
account	String		
cashbal	number	Total cash balance	
cashonhold	number	Total cash on hold	
secureamount	number	Secure amount intraday	
withdrawable	number	Withdrawable money	
receivingcasht1	number	Receiving amount T+1	
receivingcasht2	number	Receiving amount T+2	
matchedbuyvolume	number	Matched buy volume	
matchedsellvolume	number	Matched sell volume	
unmatchedbuyvolume	number	Unmatched buy volume	
unmatchedsellvolume	number	Unmatched sell volume	
paidcasht1	number	Paid cash T+1	
paidcasht2	number	Paid cash T+2	
Cia	number	cash in advance	
debt	number	Total debt	
purchasingpower	number	Purchasing power	
totalasset	number	Total asset (not debt reduction)	

Example:

AccountBalance Request	Response success

{
account: "0901351",
}
	{
	message: "Success",
	status: 200,
	data: {
	account: "0901351",
	cashBal: 7459369481,
	cashOnHold: 0,
	secureAmount: 0,
	withdrawable: 7459367581,
	receivingCashT1: 0,
	receivingCashT2: 0,
	matchedBuyVolume: 0,
	matchedSellVolume: 0,
	debt: 1900,
	unMatchedBuyVolume: 0,
	unMatchedSellVolume: 864619337,
	paidCashT1: 0,
	paidCashT2: 0,
	cia: 0,
	purchasingPower: 7459367581,
	totalAssets: 9726161481
	}
	}

Case AccountBalance has error

AccountBalance Request	Response fail

{
account: "0901357",
}
	{
	message: "Account is not exist.",
	status: 400,
	data: null
	}

5.17 Purchasing power Margin of Account

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/ppmmraccount
- Method: Get
- Uses: Get purchasing power margin of Account

5.17.1 ppmmrAccount Request

Name of Element	Type	Required	Description	Valid Value or Format
account	String	Yes	AccountNo Stock market	

5.17.2 ppmmrAccount Response

Name of Element	Type	Description	Valid Value or Format
data	String	Information of account ppmmr	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed
Detail of data			
collateralAsset	number	Total collateral Asset	
callLMW	number	Maintenance margin ratio	
liability	number	Total debt	
eeOrigin	number		
forceLMV	number		
equity	number	Net LMV	
ee	number		
callMargin	number	Call Margin	
cashBalance	number	Cash Balance	
purchasingPower	number	Purchasing Power	
callForcesell	number	Call Forcesell	
lmv	number	Stock Market Value (margin)	
marginCall	number	Call Amount	
withdrawal	number	Withdrawal	
collateralA	number		
action	string	Action call margin	
marginRation	number	Margin Ratio	
debt	number	Debt	
accruedInterest	number	Accrued Interest	
holdRight	number	Right subcription	
preLoan	number	Pre Debt	
fees	number	Fees	
buyUnmatch	number	Unmatched buy volume	
ap	number	Matched buy volume	

apT1	number	Receiving amount T+1	
sellUnmatch	number	Unmatched sell volume	
cia	number	cash in advance	
ar	number	Matched sell volume	
arT1	number	Paid cash T+1	
ppCredit	number		
creditLimit	number		
totalAssets	number		
MarginCallMVSold	number	Call LMV Sold	
lmvNonMarginable	number	Stock Market Value	
eeCredit	number		
totalEquity	number		
eE90	number		
eE80	number		
eE70	number		
eE60	number		
eE50	number		

Example:

ppmmrAccount Request	Response success

{
account: "0901356",
}
	{
	message: "Success",
	status: 200,
	data: {
	collateralAsset: 8404515731,
	callLMW: 0,
	liability: 1900,
	eeOrigin: 7459367581,
	forceLMV: 0,
	equity: 8404513831,
	ee: 7459367581,
	callMargin: 0,
	cashBalance: 7459369481,
	purchasingPower: 7459367581,
	callForcesell: 0,
	lmv: 945146250,
	marginCall: 0,
	withdrawal: 7459367581,

	collateralA: 0, action: "", marginRatio: 1, debt: 0, accruedInterest: 0, holdRight: 0, preLoan: 0, fees: 1900, buyUnmatch: 0, ap: 0, apT1: 0, sellUnmatch: 0, cia: 0, ar: 0, arT1: 0, ppCredit: 7459367581, creditLimit: 0, totalAssets: 9615302981, marginCallLMVSold: 0, lmvNonMarginable: 1210787250, eeCredit: 7459367581, totalEquity: 9615301081, eE90: 8288186201, eE80: 9324209476, eE70: 10656239401, eE60: 12432279302, eE50: 14918735162 } }

Case ppmmrAccount has error

ppmmrAccount Request	Response fail

{
account: "0901357",
}
	{
	message: "Account is not exist”,
	status: 400,
	data: null
	}

5.18 Derivartives Account Balance

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/derivAcctBal
- Method: Get
- Uses: Get purchasing power margin of Account

5.18.1 DerAccountBalance Request

Name of Element	Type	Required	Description	Valid Value or Format
account	String	Yes	AccountNo Derivatives market	

5.18.2 DerAccountBalance Response

Name of Element	Type	Description	Valid Value or Format
data	String	Information of account balance	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed
Detail of data			
account	String	accountid	
accountbalance	number	total cash balance	
fee	number	Fee	
commission	number	Commission	
interest	number	Interest	
Loan	number	Loan	
deliveryamount	number	Delivery amount	
floatingpl	number	Temporarily calculated profit and loss	
totalpl	number	Total profit and loss	
marginable	number	Money can deposit in SSI	
depositable	number	Money can deposit in VND	
rccall	number		
withdrawable	number	Withdrawable amount	
noncashdrawablerccall	number	Stock value can be withdrawn	
internalassets		Includes: - Cash - Validnoncash - totalvalue: - maxvalidnoncash - cashwithdrawable - Ee	
exchangeassets		Includes: - Cash - Validnoncash - totalvalue: - maxvalidnoncash - cashwithdrawable	

		- Ee	
internalmargin		Includes: - initialmargin - deliverymargin - marginreq - accountratio - usedlimitwarninglevel1 - usedlimitwarninglevel2 - usedlimitwarninglevel3 - margincall	
exchangemargin		Includes: - marginreq - accountratio - usedlimitwarninglevel1 - usedlimitwarninglevel2 - usedlimitwarninglevel3 - margincall	

<u>Example:</u>

DerAccountBalance Request	Response success

{
account: "0901358",
}
	{
	message: "Success",
	status: 200,
	data: {
	account: "0901358",
	accountBalance: 11166309263,
	fee: 0,
	commission: 0,
	interest: 1514965,
	loan: 0,
	deliveryAmount: 0,
	floatingPL: 0,
	totalPL: 0,
	marginable: 0,
	depositable: 1148597520,
	rcCall: 0,
	withdrawable: 10912447363,
	nonCashDrawableRCCall: 0,
	internalAssets: {
	cash: 1165730020,
	validNonCash: 0,
	totalValue: 11166309263,
	maxValidNonCash: 0,
	cashWithdrawable: 1148597520,
	ee: 8197059272
	},

	exchangeAssets: {
	cash: 10000579243,
	validNonCash: 0,
	totalValue: 10000579243,
	maxValidNonCash: 0,
	cashWithdrawable: 9763849843,
	ee: 7322887382
	},
	internalMargin: {
	initialMargin: 172660800,
	deliveryMargin: 0,
	marginReq: 172660800,
	accountRatio: 1.5462656096416592,
	usedLimitWarningLevel1: 75,
	usedLimitWarningLevel2: 85,
	usedLimitWarningLevel3: 90,
	marginCall: 0
	},
	exchangeMargin: {
	marginReq: 172660800,
	accountRatio: 1.7265079932330476,
	usedLimitWarningLevel1: 75,
	usedLimitWarningLevel2: 85,
	usedLimitWarningLevel3: 90,
	marginCall: 0
	}
	}
	}

Case DerAccountBalance has error

DerAccountBalance Request	Response fail

{
account: "0901357",
}
	{
	message: "Account is not exist”,
	status: 400,
	data: null
	}

5.19 OrderBook

- Url: https://fc-tradeapi.ssi.com.vn/api/v2/Trading/orderBook
- Method: Get
- Uses: returns intraday order history

5.19.1 OrderHistory Request

Name of Element	Type	Required	Description	Valid Value or Format
account	String	Yes	AccountNo Stock market or Derivatives market	

5.19.2 OrderHistory Response

Name of Element	Type	Description	Valid Value or Format
data	String	Order list of account in search time	
message	String		Success or Error msg
Status	String		- 200 if Success - 400 if Failed

<u>Example:</u>

orderBook Request	Response success

{
account: "1184418"
}
	{
	"message": "Success",
	"status": 200,
	"data": {
	"account": "1184418",
	"orders": [
	{
	"uniqueID": "73885549",
	"orderID": "T202306146w273885549",
	"buySell": "B",
	"price": 1000,
	"quantity": 100,
	"filledQty": 0,
	"orderStatus": "RJ",
	"marketID": "VNFE",
	"inputTime": "1686730747945",
	"modifiedTime": "1686730747945",
	"instrumentID": "VN30F2306",
	"orderType": "LO",
	"cancelQty": 0,
	"avgPrice": 0,
	"isForcesell": "F",
	"isShortsell": "F",
	"rejectReason": "Invalid market status"
	}
	]
	}
	}

Case orderBook has error

orderBook Request	Response fail

{
account: "118441"
}
	{
	"message": "Account is not exist.",
	"status": 400,
	"data": null

	}

6 TAPI Streaming

6.1 Order Streaming

Streaming is available at https://fc-tradehub.ssi.com.vn

Order Streaming

To use the order stream, the client needs to init the stream and then bind to subcribe the update

- Initstream:

```
client.initStream({
   url: config.stream_url,
   consumer_id: config. ConsumerID,
   consumer_secret: config. ConsumerSecret,
   notify_id:   0

});
```

  Note: when server disconnected: notify_id = 0 return data from the start day, notify_id = -1 return data fromreconnected, notify_id = n return data from n
- Bind to subcribe:
  - Bind a callback function to: event onNewOrder:

```
 client.bind(client.events.onOrderUpdate, function (e,data) {
   console.log(e + ": ");
   console.log(JSON.stringify(data));

});
```

  - Bind a callback function to event onOrderError::

```
client.bind(client.events.onOrderError, function (e, data) {
 console.log(e + ": ");
   console.log(JSON.stringify(data));
});
```

6.1.1 Order Event Response

Name of Element	Type	Description	Valid Value or Format
type	string	Type of event	
uniqueID	String		
prefix	String		
ipAddress	String	To detect the request from client to TAPI	
notifyID	String	The serial number of msg	

orderID	String		
instrumentID	String	Stock symbol	
buySell	String		- B: Buy - S: Sell
orderType	String		- LO - ATO - ATC - MP - MTL - MOK - MAK - PLO
price	Number		
quantity	Number		
marketID	String		- VN: stock market - VNFE: derivatives market
origRequestID	String		
account	String		
cancelQty	Number	Total quantity was cancelled	
osqty	Number	Total quantity was not matched	
filledQty	Number	Total quantity was matched	
avgPrice	Number		
channel	String		
inputTime	String		Unixtime
modifiedTime	String		Unixtime
isForceSell	Boolean		
isShortSell	Boolean		
orderStatus	String		- WA: WaitingApproval - RS: ReadyToSendExchange - SD: SentToExchange - QU: QueueInExchange - FF: FullyFilled - PF: PartiallyFilled - FFPC: FullyFilledPartiallyCancelled - WM: WaitingModify

			- WC: WaitingCancel - CL: Cancelled - RJ: Rejected - EX: Expired - SOR: StopOrderReady - SOS: StopOrderSent - IAV: PresessionOrder - SOI: PresessionstopOrder
origOrderID	String	The order id of the parent conditional order	
rejectReason	String		
stopOrder	String	Defined order type is Stop order	Include: true, false
stopType	String	If stopOrder = True, stopType in value list	- D: Down - U: Up - V: Trailling Up - E: Trailing Down - O: OCO - B: BullBear
stopStep	Number		
stopPrice	Number		
profitPrice	Number		

<u>Example:</u>

New order

New Order Input	Streaming Output

{
requestID: "30304045",
instrumentID: "VN30F2106",
market: "VNFE",
buySell: "B",
orderType: "LO",
channelID: "WT",
price: 1410,
quantity: 10,
account: "0901358",
stopOrder: false,
stopPrice: 800,
stopType: "D",
stopStep: 0.5,
lossStep: 0,
profitStep: 0,
code:”123456789”
	{
	"type":"orderEvent",
	"data": {
	"orderID":"12663204",
	"notifyID":10,
	“instrumentID":"VN30F2106",
	"uniqueID":"30304045",
	"buySell":"B",
	“orderType":"LO",
	"ipAddress":"192.168.202.36",
	"price":1410,"prefix":"2mw",
	"quantity":10,
	"marketID":"VNFE",
	"origOrderId":"",
	"account":"0901358",
	"cancelQty":0,"osQty":10,
	"filledQty":0,

}	"avgPrice":0, "channel":"TA", "inputTime":"1606277281849", "modifiedTime":"1606277281850", "isForceSell":"F", "isShortSell":"F", "orderStatus":"RS", "rejectReason":"", "origRequestID":"30304045", "stopOrder":false, "stopPrice":0, "stopType":"", "stopStep":0, "profitPrice":0 } }

Case newOrder has error:

{"type":"orderError","data":{"message":"Price 1,600.00 exceeds ceiling price 808.50!","notifyID":15455,"data":null,"errorCode":"ERR500","uniqueID":"02365132","connectionID":"","ipAddress":"192.168.202.87","prefix":"23o"}}

Modify Order

Modify Input	Streaming Output

{
requestID: "31618366",
orderID: "12663204",
price: 1410,
quantity: 2,
account: "0901358",
instrumentID: "VN30F2106",
marketID: "VNFE",
buySell: "B",
orderType: "LO"
code: “123456789”
}
	{
	"type":"orderEvent",
	"data": {
	"orderID":"12663204",
	"notifyID":11,
	"instrumentID":"VN30F2106",
	"uniqueID":"31618366",
	"buySell":"B",
	"orderType":"LO",
	"ipAddress":"192.168.202.36",
	"price":1410,
	"prefix":"2mw",
	"quantity":2,
	"marketID":"VNFE",
	"origOrderId":"",
	"account":"0901358",
	"cancelQty":0,
	"osQty":2,
	"filledQty":0,
	"avgPrice":0,
	"channel":"TA",
	"inputTime":"1606277281849",
	"modifiedTime":"1606277330852",
	"isForceSell":"F",
	"isShortSell":"F",
	"orderStatus":"RS",

	"rejectReason":"", "origRequestID":"30304045", "stopOrder": false, "stopPrice":0, "stopType":"", "stopStep":0, "profitPrice":0 } }

Case modifyOrder has error:

{"type":"orderError","data":{"message":"Price 1,000.00 exceeds ceiling price 808.50!","notifyID":15460,"data":null,"errorCode":"ERR500","uniqueID":"65896571","connectionID":"","ipAddress":"192.168.202.87","prefix":"23o"}}

Cancel Order

Cancel Input	Streaming Output

{
requestID: "59028516",
orderID: "12663204",
account: "0901358",
marketID: "VNFE",
instrumentID: "VN30F2106",
buySell: "B",
requestID: "59028516"
code: “123456789”
}
	{
	"type":"orderEvent",
	"data": {
	"orderID":"12663204",
	"notifyID":12,
	"instrumentID":"VN30F2106",
	"uniqueID":"59028516",
	"buySell":"B",
	"orderType":"LO",
	"ipAddress":"192.168.202.36",
	"price":1410
	,"prefix":"2mw",
	"quantity":2,
	"marketID":"VNFE",
	"origOrderId":"",
	"account":"0901358",
	"cancelQty":2,
	"osQty":0,
	"filledQty":0,
	"avgPrice":0,
	"channel":"TA",
	"inputTime":"1606277281849",
	"modifiedTime":"1606277330861",
	"isForceSell":"F",
	"isShortSell":"F",
	"orderStatus":"CL",
	"rejectReason":"",
	"origRequestID":"30304045",
	"stopOrder": false,
	"stopPrice":0,
	"stopType":"",
	"stopStep":0,
	"profitPrice":0

	} }

Case cancel has error:

{"type":"orderError","data":{"message":"Invalid Order Transition Error!","notifyID":15468,"data":null,"errorCode":"ERR500","uniqueID":"25162310",ipAddress":"192.168.202.87","prefix":"23o"}}

6.1.2 Order Error

Name of Element	**Type**	**Description**	**Valid Value or Format**
type	string	type of event	orderError
data		Information of order	
Detail of data			
uniqueid	String	Original request ID	
ipaddress	String	To detect the request from client to TAPI	
notifyID	String	The serial number of msg	
errorCode	String	Mã code lỗi trả ra	
message	String	Thông tin lệnh lỗi	
orderID	String	Số hiệu lệnh	
instrumentID	String	Mã CK	
buySell	String	Chiều mua/ bán	B: Buy S: Sell
prefix	String		
orderType	String	Loại lệnh	- LO - ATO - ATC - MP - MTL - MOK - MAK - PLO
price	Number	Giá	
quantity	Number	Khối lượng	
marketID	String	Sàn	VN VNFE
origOrderID	String		

account	String	Số tài khoản	
channel	String	Kênh	
inputTime	String	Thời gian nhận	
modifiedTime	String	Thời gian sửa lệnh	
isForceSell	Boolean	Luôn = F	
isShortSell	Boolean	Luôn = F	
origRequestID	String		
stopOrder	String	True hoặc False	
stopPrice	number		
stopType	String	Nếu là true thì điền 1 trong list	- D: Down - U: Up - V: Trailling Up - E: Trailing Down - B: BullBear - O: OCO
stopStep	number		
profitPrice	number		
modifiable	String		
note	String	Ghi chú	

Example:

{ "type": "orderError", "data": { "message": "This channel has been block; disallow to place order ", "notifyID": 0, "errorCode": "ORD015", "uniqueID": "6163422", "orderID": "T20230504w3806163422", "instrumentID": "SSI", "ipAddress": "10.255.241.47", "buySell": "B", "prefix": "w38", "orderType": "LO", "price": 19600, "quantity": 200, "marketID": "VN", "origOrderId": "T20230504w3806163422", "account": "0322206", "channel": "TA", "inputTime": "1683165600160", "modifiedTime": "1683165600161", "isForceSell": "F", "isShortSell": "F", "origRequestID": "6163422", "stopOrder": false, "stopPrice": 0, "stopType": "", "stopStep": 0, "profitPrice": 0, "modifiable": false, "note": "" } }

6.1.3 Order Match Event

Name of Element	Type	Description	Valid Value or Format
type	string	type of event	
data		Information of matched order	
Detail of data			
orderID	String	order ID	
instrumentID	String	Stock symbol	

ipAddress	String	To detect the request from client to TAPI	
uniqueID		Original request ID	
notifyid	String	The serial number of msg	
buySell	String		- B: Buy - S: Sell
matchPrice	Number		
matchQty	Number		
prefix	String		
account	String		
matchTime	String		

<u>Example:</u>

orderMatchEvent:

{"type":"orderMatchEvent","data":{"orderID":"16201867","notifyID":101180,"instrumentID":"BVS","uniqueID":"24194396","buySell":"B","matchPrice":1000,"ipAddress":"10.48.41.16","matchQty":100,"prefix":"t4c","account":"1184411","matchTime":"1656665019000"}}

6.2 Porfolio Streaming

To use the porfolio stream, the client needs to init the stream and then bind to subcribe the update

```
client.bind(client.events.onClientPortfolioEvent,function(e,data){
   Process data...
   console.log(e + ": ");
   console.log(JSON.stringify(data));
})
```

Porfolio Event Response

Name of Element	Type	Description	Valid Value or Format
type	String	Type of event	
uniqueid	String		
connectionid	String		
ipaddress	String	To detect the request from client to TAPI	
notifyid	String	Id of message	
account		accountid	

marketid	String		VNFE
instrumentid	String	Stock symbol	
longqty	number	Long position	
shortqty	number	Short position	
Net	number	Net position	
bidavgprice	number	Average bid price	
askavgprice	number	Average ask price	
tradeprice	number	Trade price	
marketprice	number	Maket price	
floatingpl	number	Temporarily calculated profit and loss	
tradingpl	number	Calculated profit and loss	
marketid	String		
instrumentid	String	Stock symbol	
longqty	number	Long position	
shortqty	number	Short position	
Net	number	Net position	
bidavgprice	number	Average bid price	
askavgprice	number	Average ask price	
tradeprice	number	Trade price	
marketprice	number	Maket price	
floatingpl	number	Temporarily calculated profit and loss	
tradingpl	number	Calculated profit and loss	

Example:

{"type":"clientPortfolioEvent","data":{"account":"0901358","notifyID":27,"data":null,"clientPortfoliosOpen":[{"martketID":"VNFE","instrumentID":"VN30F2106","longQty":9,"shortQty":0,"net":9,"bidAvgPrice":1402.4000244140625,"askAvgPrice":0,"tradePrice":0,"marketPrice":873,"floatingPL":-476460000,"tradingPL":0},{"martketID":"VNFE","instrumentID":"VN30F2107","longQty":2,"shortQty":0,"net":2,"bidAvgPrice":830,"askAvgPrice":0,"tradePrice":0,"marketPrice":830,"floatingPL":0,"tradingPL":0}],"uniqueID":null,"clientPortfoliosClose":null,"connectionID":"","ipAddress":null,"prefix":null}}

7 Appendix

7.1 Error Code

№.	ErrorCode	Message	Message (VIE)	Case
1.	ERR001	Invalid login ID or password	Wrong login information	Login
2.	ERR001	Invalid login ID or password	Wrong login information	Login
3.	ORD001	Security ticker does not exist.	The stock code does not exist	Set, Cancel, Edit commands
4.	ORD002	Price is under floor level	The price is outside the floor ceiling. The price is less than the floor price	Set, Edit commands
5.	ORD003	Price exceeds ceiling level.	The price is outside the floor ceiling. Price exceeds the ceiling price	Set, Edit commands
6.	ORD004	Invalid Price Unit (Spread)	Wrong price step	Set, Edit commands
7.	ORD005	Invalid trading lot/block	Wrong batch of transactions	Set, Edit commands
8.	ORD006	Invalid parameters	Lack of command information	Set, Cancel, Edit commands
9.	ORD007	Quantity exceeds the allowance	Volume exceeding the allowed stock balance traded by the account	Set, Edit commands
10.	ORD008	Total quantity exceeds limit	Volumes exceeding the volume allowed to trade	Set, Edit commands
11.	ORD008	Not enough purchasing power	Insufficient purchasing power	Set, Edit commands
12.	ORD009	Already exist B/S order of same stock	This code cannot be placed due to the existence of a Sell/Buy order with an unediable code.	Place a command
13.	ORD016	<orderType> is not allowed in this session	Command <orderType> not set in current session	Set, Cancel, Edit commands
14.	ORD017	This stock is suspended or terminated	Stock code suspended from trading	Place a command
15.	ORD011	Cannot be amended in this session	Order not to be cancelled	Cancel, Edit command

16.	ORD012	This order cannot be modified	Orders cannot be cancelled or edited	Cancel, Edit command
17.	ORD013	Order Is Null Error!	Command number does not exist	Cancel, Edit command
18.	ORD014	Price and Quantity have no changes	Prices and volumes unchanged	Edit command
19.	ORD018	Odd lot is not allowed	Do not place odd lot commands	Place a command
20.	ERR002	Duplicate Login Session error	Wrong session	
21.	ORD015	This channel has been blocked; disallow to place order	Ordering is not supported on the current channel	Place a command
22.	ORD010	Invalid Order Type	The type of command that does not allow execution	Cancel, Edit commands
23.	400	BadRequest		Transmission of missing information required when placing, canceling, correcting commands (catching errors at api, depending on the case will pay specific errors)
24.	401	Unauthorized		An error occurred in relation to access
25.	500	InternalServerError		Server error
26.	ORD027	Client cannot execute this order	The account is not allowed to make this order	
27.	ORD026	Client status not allowed to trade	The account is not allowed to trade	
28.	ORD023	System receive duplicated price	Duplicate bid price	
29.	ORD025	The trading account not opened yet	Uns opened trading account	
30.	ORD031	Reduce qty more than outstanding qty	The set volume must be less than the remaining volume	
31.	ORD034	Exceed foreign room	Excess foreign room	

32.	ORD036	Not enough current room	Insufficient room ordering	
33.	ORD037	Exceed stock room	Excess room	
34.	ORD038	Stock out of margin room	Excess room	
35.	ORD039	DR > BFDL and insufficient Room		
36.	ORD040	Not enough bal	Insufficient balance	
37.	204	No such client information		
38.	429	API calls quota exceeded! maximum admitted x per y.		

7.2 Order Status

№.	Status Code	Status Name	Status Name (VIE)
1.	Wa	Waiting Approval	Chờ duyệt
2.	Rs	Ready to Send Exch	Chờ gửi lên sàn
3.	Sd	Sent to Exch	Đang gửi lên sàn
4.	Qu	Queue in Exch	Chờ khớp tại sàn
5.	Ff	Fully Filled	Khớp toàn phần
6.	Pf	Partially Filled	Khớp một phần
7.	FFPC	Fully Filled Partially Cancelled	Khớp 1 phần hủy phần còn lại
8.	Wm	Waiting Modify	Chờ sửa
9.	WC	Waiting Cancel	Chờ hủy
10.	Cl	Cancelled	Đã hủy
11.	Rj	Rejected	Từ chối
12.	Ex	Expired	Hết hiệu lực
13.	Sor	Stop Order Ready	Chờ kích hoạt
14.	Sos	Stop Order Sent	Đã kích hoạt
15.	IAV	Pre-Session Order	Lệnh trước phiên
16.	Soi	Pre-Session Stop Order	Lệnh ĐK trước phiên

7.3 Channel

№.	Channel Code	Name	Name (VIE)
1.	WT	Web Trading	Web Trading
2.	Ma	Mobile	Mobile
3.	Br	Broker	Broker
4.	IW	iBoard Web	iBoard Web
5.	IM	iBoard Mobile	iBoard Mobile
6.	I'm not going	TradeAPI	TradeAPI
7.	VT	ProTrading	ProTrading

7.4 Order Type

№.	OrderType	Name	Name (VIE)
1.	LO	Limit Order	LO
2.	ATO	At The Opening	ATO
3.	ATC	At The Closing	ATC
4.	MP	Market Order (HOSE)	MP
5.	MTL	Market Order	MTL
6.	MOK	Match Or Kill	MOK
7.	MAK	Match And Kill	MAK
8.	PLO	Plo	PLO
9.	GTD	Good Till Date	GTD