**PHILLIP SECURITIES PTE LTD**
(INCORPORATED IN THE REPUBLIC OF SINGAPORE)
**STOCK & SHARE BROKERS**
MEMBER OF THE STOCK EXCHANGE OF SINGAPORE LTD

# *PHILLIP SECURITIES PTE LTD*

# *Mobile 2.0 API*

# *Program Design Specifications*

| For: | **Phillip Securities Pte Ltd** | Project Ref: | |
|---|---|---|---|
| Author: | | Doc Ref: | |
| Proj Mgr: | | Version: | |
| Date: | | Classification: | |
| To: | | Cc: | |

## Document Revision History

Document Title :

| Version | Revised by | Effective Date | Summary of Change | Reason for change |
|---------|-----------|----------------|-------------------|-------------------|
| 1.0 | | | Initial release | |
| 1.1 | | 27 Jul 2016 | Phase 4 API release | |
| 1.2 | | | Minor update on documents | |
| 1.3 | | | Minor update on news | |
| 1.4 | | | Minor update on couter info | |
| 1.5 | | | Add Pre-Login price, minor update on API. | |
| 1.6 | Tint | 19 Jun 2017 | Enhance 3 functions | |
| 1.7 | Robert | 4 Sept 2017 | Enhance 1 function and added 1 function | ITSR-175640 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Change Logs:**

1.7:
- 2.2.2.9 - 2FA-Info Updated function to include the rasflag and twofaRAS info.
- 2.2.2.12 Acknowledge RAS – Added new function to save the client RAS acknowledgement.

1.6:
- 2.2.4.11 UT Funds Details General Info (/ut/counter/generalinfo) - No interface change. Just enhance the function to return default object with empty string if no data.
- 2.2.13.6 CFD Positions List (/cfd/portfolio/positions) – Added tradable flag
- 2.2.13.8 UT Holdings (/ut/portfolio/holdings) – Added tradable flag

1.5:
- Add note about the param 'sorts' for function (/global/watchlist/{watchListID}/sort) .
- Add 3 new functions (/global/counter/prelogin, /st/counter/prelogin/worldindices, /st/counter/prelogin/indicescomponent/sgx/{indexCode}) for Prelogin pricelist.
- Update response format for Equities balance list (/global/portfolio/equitybalance)
- Add AlertType values & Definition for Price Alert update function (/global/alert/price/update)
- Add UT Basket get by group (/ut/trade/basket/getbygroup), get basket order add nav and salesCharge properties.
- Update description for param values that can be passed in rank option of (/ut/counter/top) to make more clear.
- Update Outstanding Position related functions. List function will return 'id' properties and details functions will accept 'id' as query.
- Stocks Transaction Hitory (/st/transactionhistory) added lastUpdated property
- CFD Transaction History (/cfd/transactionhistory) added lastUpdated and currencies properties.
- Add 2 new functions (/st/onlineforms/withdrawal/note, /cfd/onlineforms/withdrawal/note) to retrieve withdrawal note without validation.
- Add Touch ID Terms & Conditions function (/global/onefa/touchid/termcondition)
- General portfolio disclaimer function (/global/portfolio/disclaimer) now support for OnlineForms and OSPosition.
- Online Form history (/st/onlineforms/history) now return adminRemark and clientRemark instead of remarks.
- Add "typeIcon" property in Equities balance list (/global/portfolio/equitybalance).
- Add "withdrawalType" input parameter in (/cfd/onlineforms/withdrawal/note).
- Add "marginCallDays" property in Stocks Account Alert (/st/alert/account) and CFD Account Alert (/cfd/alert/account)
- Add "ocoNo" property in CFD order details (/cfd/order/{orderNo})
- Change parameter name from "Exchange" to "exchange" in (/global/counter/search)
- Add 2 properties, "cost" and "marketValue" in UT holdings (/ut/portfolio/holdings)

1.4:
- CFD counter detail function (cfd/counter/info) added 'fiftyTwoWkHigh',' fiftyTwoWkLow' and 'commission' properties.
- Counter info detail function for CFD (global/counter/info) added 'commission' property.
- Remove counter info functions (Global) for individual product as one common global function is enough.
- CFD order detail function (cfd/order/{orderNo}) added 'orderNo' property.
- Add passwordRequire and twoFARequire for every transaction related functions (trade, order status, online forms)
- Update client settings, add encryptedPIN parameter only for disable password confirmation

- Counter Price (global/counter/pricelist) added spread and spTickSize.

1.3:
- Fixed section number
- News list (/global/news/mynews, /st/news/headlines/{category}, /st/news/related, /st/news/prelogin, /ut/news/headlines/{category}) add 'count' parameter, by default is 30.
- Some of news list functions (/global/news/mynews, /st/news/headlines/{category}, /ut/news/headlines/{category}) add 'keyword' parameter for search.
- Stock Analytics related functions add 'lastUpdated' properties.

1.2:
- CFD trade validate (/cfd/trade/validate) update encryptedPIN to authToken
- Counter Top functions (/st/counter/top & /ut/counter/top) added counterID property
- Order Details functions (/st/order/{orderNo} & /cfd/order/{orderNo}) removed isWithdrawable and isAmendable properties
- Stocks currency converstion validate (/st/onlineforms/currencyconversion/validate) and submit (/st/onlineforms/currencyconversion/submit) added offsetSourceCurrency and offsetTargetCurrency parameters.
- Pre-session (/global/onefa/presession) now returning FAQ and AppStore link.

1.1:
- Presession function add touchIDEnabled flag, forgotPwd link and appStore Link
- Authenticate function add accountType, pwdChangeNotifyStatus and pwdChangeNotifyMsg
- Added Touch ID related function (authenticate, register, re-authenticate)
- Counter Info now available for individual products API (ut/counter/info, cfd/counter/info, st/counter/info).
- PMPChartPreAuth (/global/chart/globalchartpreauth) will return counter information for PMP request
- CFD Trade Info (/cfd/trade/info) adjustment for bidSize properties
- Added UT Basket Order Count (/ut/trade/basket/count)
- Order Status List functions added delayIndicator for ST and CFD
- CFD Order Details (/cfd/order/{orderNo}) removed uneccesary properties (ocoLimitPrice, ocoLimitQty, ocoStopSPrice, ocoStopSPriceTrigger, ocoStopLPrice, ocoStopQty). Added correspondOrderNo property.
- UT Order Details (/ut/order/{orderNo}) added qty, indicativeTransactionDate properties
- UT orderNo parameter updated to INT.
- Added My News related functions (My News, My News Settings, Update My News Setting)
- Alert related functions (Count, Price, Order, Account) updated timestamp parameters format
- Price alert related functions (List and Details) added delayIndicator properties
- Added Online Forms (ST, CFD) related functions
- Added Account Management related functions (Portfolio, Account Details, Holdings, Outstanding Position, Transaction History)
- Product Access function (/global/settings/productaccess) added name, searchEnabled and allSearchValue. Removed NFX product.
- Stock Analytics related functions moved from /global to /st

**Table of Contents**

# I.     Program Definition

## 1.    System Name

Pmobile 2.0 API – This API will be used from POEMS Mobile application Pmobile Android 2.0 and Pmobile iPhone 2.0.

## 2.    Program Description and the module in Design Specification this program is based on

2.1.    Authentication

Several APIs are available for POEMS 1FA login, change password and some 2FA features (device linkage, authenticate, send SMS OTP).

2.2.    Watchlist

Provide API funcitons to control/manage the client's multiproduct watchlist. (Add counters to the watchlist, remove counter from the watchlist, rename the watchlist name, move the counter from one to another, update the counter sequence).

2.3.    Counter

Those are the API releated with counter information and price. Get counter details, prices, top counters, indices, etc.

2.4.    Stock Analytics

Those are the API releated with stock analytics information.

2.5.    Chart

There's a function to get the authentication code to subscribe to global chart.

2.6.    Trade

API functions related with Trade, get Trade Info, validate, and submission.

2.7.    Order Status

Order status related functions, like today order, past order, amend order, withdraw order.

2.8.    Settings

There are several functions to retrieve the application settings/flag for specific version, account settings, notification settings and hotline numbers, etc.

## II.     Structure Design

### 1.     Block Chart or Flow Chart on top level structure of the program

2.    **Description of each module**

## 2.1.    Application Constants and Definitions

### 2.1.1.    Environment

| Environement | URL |
|---|---|
| Public Test | https://118.189.144.221/pmobile2 |

### 2.1.2.    Supported Products

| ProductKey | Name | Icon | Binary Flag | Watchlist Product ID |
|---|---|---|---|---|
| ST | Equities | EQ | 1 | 1 |
| CFD | CFD | CFD | 2 | 2 |
| CFDDMA | CFD DMA | CFD DMA | 4 | 3 |
| FT | Futures | FUT | 8 | 4 |
| FX | Reg Forex | REG FX | 16 | 5 |
| FXMN | Mini Forex | Mini FX | 32 | 5 |
| UT | Unit Trust | UT | 64 | 6 |
| NFX | FX Invest | NFX | 128 | 7 |

### 2.1.3.    Supported Modules

| Module Key | Parent | Sequence | Binary Flag |
|---|---|---|---|
| Watchlist | | 1 | 1 |
| Trade | | 2 | 2 |
| OrderStatus | | 3 | 4 |
| Alert | | 4 | 8 |
| TopMover | | 5 | 16 |
| News | | 6 | 32 |
| UTBasket | | 7 | 64 |
| Portfolio | | 8 | 128 |
| OSPayment | | 9 | 256 |
| OnlineForms | | 10 | 512 |
| TransactionHistory | | 11 | 1024 |
| FXInvest | | 12 | 2048 |
| Settings | | 13 | 4096 |
| Help | | 14 | 8192 |
| PriceAlert | Alert | 1 | 16384 |

| | | | |
|---|---|---|---|
| OrderAlert | Alert | 2 | 32768 |
| AccountAlert | Alert | 3 | 65536 |
| AnnouncementAlert | Alert | 4 | 131072 |

### 2.1.4.    Supported Applications

| Application | Version No | API Key |
|---|---|---|
| PMobile 2 Android | 2.0.0 | 3FA5B748-XXXX-XXXX-XXXX-8C93AC349312 |
| PMobile 2 iPhone | 2.0.0 | A4AB8B23-XXXX-XXXX-XXXX-9F78292E25CC |
| WeChat | 1.0.0 | CCFF15FF-XXXX-XXXX-XXXX-58DFB5EAD35E |

### 2.1.5.    Supported Languages

| ID | Language |
|---|---|
| 1 | EN (English) |
| 2 | CN |

### 2.1.6.    Return Code

| Code | Description |
|---|---|
| 1 | Success |
| -1 | Error / Request Failed |
| -42 | Session Expired |
| -333 | Confirmation / Warning |

## 2.2.   **Authentication**

## 1.   Presession

| URL | /global/onefa/presession | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Create presession | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
Presession {
    "msg": String,
    "code": int,
    "sessionId": String,
    "randomNo": String,
    "publicKey": String,
    "touchIDEnabled": Boolean,
    "urls":
    {
        "termsAndConditions": String,
        "accountOpening": String,
        "facebook": String,
        "twitter": String,
        "youtube": String,
        "forgotPwd": String,
        "appStore": String,
        "faq": String
    }
}
```

## 2.   Authenticate

| URL | /global/onefa/authenticate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Create presession | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |

| Produce | application/json |
|---|---|
| Result | ```<br>AccountSettings {<br>    "msg": String,<br>    "code": int,<br>    "pwdStatus": String,<br>    "accountActivatedFlag": String,<br>    "accountType": String,<br>    "pwdAttempts": int,<br>    "lastLoginTime": String,<br>    "pwdChangeNotifyStatus": int,<br>    "pwdChangeNotifyMsg": int,<br>    "twofa":<br>    {<br>        "status": boolean,<br>        "linkUsers": [<br>            {<br>                "nric": String,<br>                "nafUserName": String,<br>                "devices": [<br>                    {<br>                        "id": String,<br>                        "type": String,<br>                        "spid": String<br>                    }<br>                ]<br>            }<br>        ]<br>    }<br>}<br>``` |

## 3.      Authenticate Touch ID

| URL | /global/onefa/touchid | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Create presession | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | Encrypted TouchID token |
| Produce | application/json | | | |

| Result | `AccountSettings {` /* Will return exact information with normal login */<br>`    "msg": String,`<br>`    "code": int,`<br>`    "pwdStatus": String,`<br>`    "accountActivatedFlag": String,`<br>`    "accountType": String,`<br>`    "pwdAttempts": int,`<br>`    "lastLoginTime": String,`<br>`    "pwdChangeNotifyStatus": int,`<br>`    "pwdChangeNotifyMsg": int,`<br>`    "twofa":`<br>`    {`<br>`        "status": boolean,`<br>`        "linkUsers": [`<br>`            {`<br>`                "nric": String,`<br>`                "nafUserName": String,`<br>`                "devices": [`<br>`                    {`<br>`                        "id": String,`<br>`                        "type": String,`<br>`                        "spid": String`<br>`                    }`<br>`                ]`<br>`            }`<br>`        ]`<br>`    }`<br>`}` |
|--------|---|

## 4.    Register Touch ID

| URL | /global/onefa/touched/register | | | |
|-----|--------------------------------|---|---|---|
| Verb | POST | | | |
| Description | Create presession | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | Current password and touch ID token to encrypt with E2EE change password method |
| Produce | application/json | | | |
| Result | `{`<br>`    "msg": String,`<br>`    "code": int`<br>`}` | | | |

## 5.    Touch ID Terms & Condition

| URL | /global/onefa/touchid/termcondition | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get disclaimer by screen type | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| Produce | application/json | | | |
| Result | ```<br>{<br>    "msg": String,<br>    "code": int,<br>    "disclaimerContent": String<br>}<br>``` | | | |

## 6.     Touch ID Re-Authenticate

| URL | /global/onefa/reauthenticate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Create presession | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| Produce | application/json | | | |
| Result | ```<br>{<br>    "msg": String,<br>    "code": int<br>}<br>``` | | | |

## 7.     Change Password

| URL | /global/onefa/changepassword | | |
|---|---|---|---|
| Verb | POST | | |
| Description | change password | | |
| Parameters | deviceId | @Header | String |

| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| Produce | application/json | | | |
| Result | {<br>    "msg": String<br>    "code": int<br>} | | | |

## 8.      Logout

| URL | /global/onefa/logout | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | logout | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | {<br>    "msg": String<br>    "code": int<br>} | | | |

## 9.      2FA-Info

| URL | /global/twofa | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | retrieve 2FA-info | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |

| | osVersion | @Query | String | |
|---|---|---|---|---|
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | (see code below) | | | |

```
{
    "msg": String
    "code": int
    "status": boolean,
    "rasflag": boolean,
    "twofaRAS": [
        {
            "tittle": String,
            "description": String,
            "content": [
                {
                    "description": String,
                    "externallink": String,
                    "externallinkdisplay": String,
                    "type": String
                }
            ]
            "actions": [
                {
                    "value": String,
                    "text": String
                }
            ]
        }
    ]
    "linkUsers": [
        {
            "nric": String,
            "nafUserName": String,
            "devices": [
                {
                    "id": String,
                    "type": String,
                    "spid": String
                }
            ]
        }
    ]
}
```

## 10.    2FA-OutOfBound

| URL | /global/twofa/outofboundotp | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | send SMS OTP | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |

| | language | @Form | int | default: 1 |
|---|---|---|---|---|
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | nafUserName | @Header | String | |
| | twoFADeviceId | @Header | String | |
| | spid | @Header | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>    "msg": String<br>    "code": int<br>    "status": boolean,<br>    "linkUsers": [<br>        {<br>            "nric": String,<br>            "nafUserName": String,<br>            "devices": [<br>                {<br>                    "id": String,<br>                    "type": String,<br>                    "spid": String<br>                }<br>            ]<br>        }<br>    ]<br>}</pre> | | | |

## 11.    2FA-Authenticate

| URL | /global/twofa/authenticate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Authenticate 2FA | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | nafUserName | @Header | String | |
| | twoFADeviceId | @Header | String | |
| | spid | @Header | String | |
| | type | @Header | String | |
| | twoFAData | @Header | String | |
| | challenge | @Header | String | |

| Produce | application/json |
|---------|------------------|
| Result | ```<br>{<br>    "msg": String<br>    "code": int<br>}<br>``` |

## 12.    Acknowledge RAS

| URL | /global/twofa/acknowledgeras | | | |
|-----|------------------------------|---|---|---|
| Verb | POST | | | |
| Description | Save client 2FA Risk Awareness Statement (RAS) acknowledgement | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | acknowledge | @Form | int | default: 0 |
| Produce | application/json | | | |
| Result | ```<br>{<br>    "msg": String<br>    "code": int<br>}<br>``` | | | |

## 3.      **Watchlist**

### 3.1.     Pre-login

| URL | /global/watchlist/prelogin | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve Pre-login watch list | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| Produce | application/json | | | |
| Result | (see code below) | | | |

```
{
  "msg": String,
  "code": int,
  "name": String,
  "id": long,
  "counters": [
    {
      "name": String,
      "code": String,
      "index": int,
      "symbol": String,
      "market": String,
      "exchange": String,
      "exchangeDisplay": String,
      "globalChartExchange": String,
      "product": String,
      "pmpTopic": String,
      "counterID": String,
    }
  ]
}
```

### 3.2.     Names

| URL | /global/watchlist | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve watchlist data | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | Default: 1 |
| | accountNo | @Header | String | |

| | | | | |
|---|---|---|---|---|
| sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | {<br>    "msg": String,<br>    "code": int,<br>     [{<br>        "name": String,<br>        "id": int,<br>        "counterListURI": String<br>        "index": int<br>    }]<br>} | | | |

## 3.3.    Details

| | | | | |
|---|---|---|---|---|
| URL | /global/watchlist/{watchListID} | | | |
| Verb | GET | | | |
| Description | Retrieve watch list details by watch list ID | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "code": int,<br>  "id": long,<br>  "counters": [<br>    {<br>      "name": String,<br>      "code": String,<br>      "index": int,<br>      "symbol": String,<br>      "market": String,<br>      "exchange": String,<br>      "exchangeDisplay": String,<br>      "globalChartExchange": String,<br>      "product": String,<br>      "pmpTopic": String,<br>      "counterID": String,<br>      "delayIndicator": String<br>    }<br>  ]<br>} | | | |

## 3.4.    Add

| URL | /global/watchlist/{id}/add | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Add counter to watchlist | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Form | String | product/market/exchange/code |
| | symbol | @Form | String | |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
  "msg": String,
  "code": int,
  "id": long,
  "counters": [
    {
      "name": String,
      "code": String,
      "index": int,
      "symbol": String,
      "market": String,
      "exchange": String,
      "exchangeDisplay": String,
      "globalChartExchange": String,
      "product": String,
      "pmpTopic": String,
      "counterID": String,
    }
  ]
}
```

## 3.5.    Rename

| URL | /global/watchlist/{id}/rename | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Rename watchlist | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |

| | | | | |
|---|---|---|---|---|
| accountNo | @Header | String | |
| sessionId | @Header | String | |
| nameNew | @Form | String | |

| Produce | application/json |
|---|---|
| Result | <pre>{<br>    "msg": String,<br>    "code": int,<br>    "watchlistDataList": [<br>      {<br>          "counterlistURI": String,<br>          "index": int,<br>          "name": String,<br>          "watchlistID": long<br>      }<br>      ]<br>}</pre> |

## 3.6.    Remove

| URL | /global/watchlist/{id}/remove | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Remove counter from watchlist | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterIDs | @Form | String List | product/market/ exchange/code |
| Produce | application/json | | | |

| Result | ```
{
  "msg": String,
  "code": int,
  "id": long,
  "counters": [
    {
      "name": String,
      "code": String,
      "index": int,
      "symbol": String,
      "market": String,
      "exchange": String,
      "exchangeDisplay": String,
      "globalChartExchange": String,
      "product": String,
      "pmpTopic": String,
      "counterID": String,
    }
  ]
}
``` |
|---|---|

## 3.7.    Move

| URL | /global/watchlist/move | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Move counter to another watchlist | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | fromWatchlistID | @Form | int | |
| | toWatchlistID | @Form | int | |
| | counterIDs | @Form | String List | product/market/ exchange/code |
| Produce | application/json | | | |

| Result | ```
{
  "msg": String,
  "code": int,
  "moveCounters": [String],
  "id": long,
  "counters": [
    {
      "name": String,
      "code": String,
      "index": int,
      "symbol": String,
      "market": String,
      "exchange": String,
      "exchangeDisplay": String,
      "globalChartExchange": String,
      "product": String,
      "pmpTopic": String,
      "counterID": String,
    }
  ]
}
``` |
|---|---|

## 3.8.    Sort

| URL | /global/watchlist/{watchListID}/sort | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Sort watch list counter by counter ID | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | sorts | @Form | String [] | {"counterID/oldIndex/newIndex"} |
| | | | | |
| Produce | application/json | | | |

| Result | ``` |
|---|---|
| | `{` |
| | `  "msg": String,` |
| | `  "code": int,` |
| | `  "id": long,` |
| | `  "counters": [` |
| | `    {` |
| | `      "name": String,` |
| | `      "code": String,` |
| | `      "index": int,` |
| | `      "symbol": String,` |
| | `      "market": String,` |
| | `      "exchange": String,` |
| | `      "exchangeDisplay": String,` |
| | `      "globalChartExchange": String,` |
| | `      "product": String,` |
| | `      "pmpTopic": String,` |
| | `      "counterID": String,` |
| | `      "delayIndicator": String` |
| | `    }` |
| | `  ]` |
| | `}` |

***Note: No need to pass the param value for the counter at destination index. For example, to move the counterID "ST/SG/SGX/DBS.SG" from index 2 to new index 1, just simply pass sorts param as "ST/SG/SGX/DBS.SG/2/1" and no need to care about the current counter at index 1. The server side will handle it. Need to pass every user drag and drop action so that the server side can sort correctly.

## 3.9.    UpdateSequence

| URL | /global/watchlist/{watchListID}/updatesequence | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Sort watch list counter by counter ID | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | sequence | @Form | String | counterID, counterID |
| | | | | |
| Produce | application/json | | | |

| Result | ```
{
  "msg": String,
  "code": int,
  "id": long,
  "counters": [
    {
      "name": String,
      "code": String,
      "index": int,
      "symbol": String,
      "market": String,
      "exchange": String,
      "exchangeDisplay": String,
      "globalChartExchange": String,
      "product": String,
      "pmpTopic": String,
      "counterID": String,
      "delayIndicator": String
    }
  ]
}
``` |

***Note: Please pass all counter id list as comma separated sequence. E.g (sequence: ST/SG/SGX/ DBS.SG, ST/SI/SGX/IXP/N.SG)

## 4.     **Counter**

### 4.1.    Pre-login

For Pre-Login Price lists

| URL | /global/counter/prelogin | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve Pre-login lists | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| Produce | application/json | | | |
| Result | ```{    "msg": String,    "code": int,    "preloginList": [       {          "title": String, /*Indices, STI Component Stocks, FX/GOLD*/          "uri": String       }    ] }``` | | | |

### 4.2.    Pre-login World Indices

For Pre-Login World Indices Price

| URL | /st/counter/prelogin/worldindices | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve World Indices price information | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| Produce | application/json | | | |

| Result | ```
{
  "msg": String,
  "code": int,
  "columns": [
    {
      "title": String, /*Name, Last Trade, Change, Change (%)*/
      "property": String /*name, lastDone, change, changePercent*/
    }
  ],
  "counterData": [
    {
      "counterID": String,
      "name": String,
      "change": String,
      "changePercent": String,
      "lastDone": String
    }
  ]
}
``` |
|---|---|

## 4.3. Pre-login STI Component

For Pre-Login STI Price

| URL | /st/counter/prelogin/indexcomponent/sgx/{indexCode} | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve STI component stocks information | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | indexCode | @Path | String | STI |
| Produce | application/json | | | |
| Result | ```
{
  "msg": String,
  "code": int,
  "columns": [
    {
      "title": String, /*Name, Last Done, Change, Change (%), Volume*/
      "property": String /*name, lastDone, change, changePercent, volume*/
    }
  ],
  "counterData": [
    {
      "counterID": String,
      "name": String,
      "change": String,
      "changePercent": String,
      "volume": String,
      "lastDone": String
    }
  ]
}
``` | | | |

## 4.4.    Search Counter

| URL | /global/counter/search | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Search counter | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | productFlag | @Query | int | Default: 127 Product binary flag or Sum of Product binary flag |
| | module | @Query | int | Default: 0 TRADE: 1 |
| | market | @Query | String | |
| | exchange | @Query | String | |
| | keyword | @Query | String | |
| | count | @Query | int | Default: 10 |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
SearchResult {
    "msg": String,
    "code": int,
    "counterList":    [
       Counter {
          "name": String,
          "code": String,
          "index": int,
          "symble": String,
          "market": String,
          "exchange": String,
          "exchangeDisplay": String,
          "globalChartExchange": String,
          "product": String,
          "productIcon": String,
          "counterID": String
/* product/exchange/market/code */      }
       ]
}
```

\*\*\*  Need to have Search function in UT, CFD and FT/FX API. Those function must accept module (require if there's a control to be tradable or viewable), keyword and count. And must return the above Counter result except counterId, product and productIcon.

## 4.5.    Counter Prices

| URL | /global/counter/pricelist | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve price information | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | size | @Query | int | counter ids size |
| | counterIDs | @Query | String List | product/market/ exchange/code |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
    "msg": String,
    "code": int,
    "priceList":    [
      {
        "product": String,
        "productIcon": String,
        "counterName": int,
        "lastDone": String,
        "change": String,
        "changePercent": String,
        "bid": String,
        "ask": String,
        "bVolK": String,
        "sVolK": String,
        "volK": String,
        "open": String,
        "high": String,
        "low": String,
        "prevClose": String,
        "currency": String,
        "asset": String,
        "oneYearReturn": String,
        "threeYearReturn": String,
        "minInvestment": String,
        "subInvestment": String,
        "serviceCharge": String,
        "pmpTopic": String,
        "symbol":String,
        "spread": String,
        "spTickSize": String,
        "delayIndiciator":String ( "*" OR "")
      }
    ]
}
```

\*\*\*    Need to have Get Prices function in UT, CFD and FT/FX API. Those function must accept list of counters. And must return
Stocks/CFD    - counterName, lastdone, change, changePercent, bid, ask, bVolK, sVolK, volK, open, high, low, prevClose,symbol,delayIndiciator,product,productIcon.
UT    - counterName, lastDone, currency, assest, oneYearReturn, threeYearReturn, minInvestment, subInvestment, ,product,productIcon.
FUT/FX    - counterName, lastDone, change, changePercent, bid, ask, bVolK, sVolK, volK, open, high, low, prevClose,symbol,product,productIcon (**Prices for Futures don't have thousand separator (comma)**)

## 4.6.    Counter Info (short and details)

| URL | global/counter/info | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Sort watch list counter by counter ID | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | priceMode | @Query | int | default: 1 (1 – SHORT, 2 – DETAILS) |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| | |
|---|---|
| Result | ```json
{
    "msg": String,
    "code": int,
    "product": String,
    "productIcon": String,
    "counterName": String,
    "delayIndicator": String,
    "lastDone": String,
    "change": String,
    "changePercent": String,
    "bid": String,
    "ask": String,
    "bVolK": String,
    "sVolK": String,
    "volK": String, /* DETAIL ONLY */
    "open": String, /* DETAIL ONLY */
    "prevClose": String, /* DETAIL ONLY */
    "low": String,
    "high": String,
    "remark": String, /* ST DETAIL ONLY */
    "remarkDesc": String, /* ST DETAIL ONLY */
    "fiftyTwoWkHigh": String, /* ST/CFD DETAIL ONLY */
    "fiftyTwoWkLow": String, /* ST/CFD DETAIL ONLY */
    "cpf": boolean, /* ST DETAIL ONLY */
    "lastDoneDate": String, /* ST/UT */
    "cfdContractInfo": {  /* CFD DETAIL ONLY */
            "commission": String,
            "dayCommission": String,
            "marginRequirement": String,
            "tradeAllowed": String,
            "longFinanceChg": String,
            "shortFinanceChg": boolean,
            "mincommission": String,
            "note": String,
        },
    "pmpTopic": String
    }
  ]
}
``` |

***      UT, CFD and FT/FX API also should have similar function

        UT       - No bid, ask, high, low, volume

        CFD     - No lastdone, bVol, sVol for INDX

remarkDescURL to retrieve from Common Settings

## UT Counter Info (Short) (UT Service)

| | | | | |
|---|---|---|---|---|
| URL | ut/counter/info | | | |
| Verb | GET | | | |
| Description | Sort watch list counter by counter ID | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |

| | accountNo | @Header | String | |
|---|---|---|---|---|
| | sessionId | @Header | String | |
| | priceMode | @Query | int | default: 1<br>(1 − SHORT, 2 − SHORT) |
| | counterID | @Query | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>    "msg": String,<br>    "code": int,<br>    "product": String,<br>    "productIcon": String,<br>    "counterName": String,<br>    "lastDone": String,<br>    "change": String,<br>    "changePercent": String,<br>    "lastDoneDate": String<br>}</pre> | | | |

## CFD Counter Info (Short) (CFD Service)

| URL | cfd/counter/info | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Sort watch list counter by counter ID | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | priceMode | @Query | int | default: 1<br>(1 − SHORT, 2 − DETAILS) |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | ```<br>{<br>    "msg": String,<br>    "code": int,<br>    "product": String,<br>    "productIcon": String,<br>    "counterName": String,<br>    "delayIndicator": String,<br>    "lastDone": String,<br>    "change": String,<br>    "changePercent": String,<br>    "bid": String,<br>    "ask": String,<br>    "bVolK": String,<br>    "sVolK": String,<br>    "low": String,<br>    "high": String,<br>    "pmpTopic": String<br>}<br>``` |
|---|---|

## CFD Counter Info (Detail) (CFD Service)

| URL | cfd/counter/info | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Sort watch list counter by counter ID | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | priceMode | @Query | int | default: 1 (1 – SHORT, 2 – DETAILS) |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | ```json
{
    "msg": String,
    "code": int,
    "product": String,
    "productIcon": String,
    "counterName": String,
    "delayIndicator": String,
    "lastDone": String,
    "change": String,
    "changePercent": String,
    "bid": String,
    "ask": String,
    "bVolK": String,
    "sVolK": String,
    "volK": String, /* DETAIL ONLY */
    "open": String, /* DETAIL ONLY */
    "prevClose": String, /* DETAIL ONLY */
    "fiftyTwoWkHigh": String, /* DETAIL ONLY */
    "fiftyTwoWkLow": String, /* DETAIL ONLY */
    "low": String,
    "high": String,
    "cfdContractInfo": {  /* CFD DETAIL ONLY */
            "commission": String,
            "dayCommission": String,
            "marginRequirement": String,
            "tradeAllowed": String,
            "longFinanceChg": String,
            "shortFinanceChg": boolean,
            "mincommission": String,
            "note": String,
        },
    "pmpTopic": String
}
``` |
|---|---|

## Stock Counter Info (Short) (ST Service)

| URL | st/counter/info | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Sort watch list counter by counter ID | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | priceMode | @Query | int | default: 1 (1 – SHORT, 2 – DETAILS) |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | ``` { "msg": String, "code": int, "product": String, "productIcon": String, "counterName": String, "delayIndicator": String, "lastDone": String, "change": String, "changePercent": String, "bid": String, "ask": String, "bVolK": String, "sVolK": String, "low": String, "high": String, "lastDoneDate": String, "pmpTopic": String } ``` |
|---|---|

## Stock Counter Info (Detail) <mark>(ST Service)</mark>

| URL | st/counter/info | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Sort watch list counter by counter ID | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | priceMode | @Query | int | default: 1 (1 – SHORT, 2 – DETAILS) |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | ```json
{
    "msg": String,
    "code": int,
    "product": String,
    "productIcon": String,
    "counterName": String,
    "delayIndicator": String,
    "lastDone": String,
    "change": String,
    "changePercent": String,
    "bid": String,
    "ask": String,
    "bVolK": String,
    "sVolK": String,
    "volK": String,
    "open": String,
    "prevClose": String,
    "low": String,
    "high": String,
    "remark": String,
    "remarkDesc": String,
    "fiftyTwoWkHigh": String,
    "fiftyTwoWkLow": String,
    "cpf": boolean,
    "lastDoneDate": String,
    "pmpTopic": String
}
``` |
|---|---|

## 4.7.    Top Counters

For Stocks Supported Exchange

| URL | /st/counter/exchange | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve supported exchange | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |

| Result | ```
{
  "msg": String,
  "code": int,
  "markets": [
    {
      "exchange": String,
      "exchangeDisplay": String,
      "market": String
    }
  ]
}
``` |
|---|---|

## For Stocks Top Mover

| URL | /st/counter/top | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve the top counters for Stock | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | market | @Query | String | |
| | exchange | @Query | String | |
| | top | @Query | int | default: 30 |
| | type | @Query | int | (1: Volume, 2:Gainer, 3:Loser) |
| Produce | application/json | | | |

| Result | ```<br>{<br>  "msg": String,<br>  "code": int,<br>  "topCounters": [<br>    {<br>      "ask": String,<br>      "bVolK": String,<br>      "bid": String,<br>      "change": String,<br>      "changePercent": String,<br>      "counterName": String,<br>      "counterID": String,<br>      "delayIndiciator": String,<br>      "high": String,<br>      "lastDone": String,<br>      "low": String,<br>      "open": String,<br>      "prevClose": String,<br>      "product": String,<br>      "productIcon": String,<br>      "sVolK": String,<br>      "volK": String<br>    }<br>  ]<br>"pmpTopic": String<br>}<br>``` |

## For UT Top Mover

| URL | /ut/counter/top | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve the top counters for Stock | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | top | @Query | int | default: 30 |
| | rankType | @Query | int | default: 0 (0: TOP, 1:Worst) |
| | rankOption | @Query | int | default: 2 (1: weekly 2 : monthly 10: daily) |

| | | | | |
|---|---|---|---|---|
| assets | @Query | String [] | (All,<br>Alternative Investments,<br>Balanced,<br>Bond,<br>Cash & Equivalents,<br>Commodities,<br>Currencies,<br>Equities) |
| Produce | application/json | | | |
| Result | ```{<br>  "msg": String,<br>  "code": int,<br>  "utTopCounters": [<br>    {<br>      "bid": String,<br>      "change": String,<br>      "changePercent": String,<br>      "counterName": String,<br>      "counterID": String,<br>      "date": String,<br>      "oneYearReturn": String,<br>      "product": String,<br>      "productIcon": String,<br>      "returnPrice": String,<br>      "threeYearRetrun": String<br>    }<br>  ]<br>}``` | | | |

## UT Assets

| URL | /ut/counter /assets | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve assets to fill data for UT Top Mover "All Categories " dropdown | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | ```{<br>  "msg": String,<br>  "code": int,<br>  "utAssetlist": String[]<br>}``` | | | |

## 4.8.    Indices

| URL | /st/counter/indices | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve market indices price | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | market | @Query | String | |
| | exchange | @Query | String | |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
    "msg": String,
    "code": int,
    "topCounters":    [
        {
            "product": String,
            "productIcon": String,
            "counterName": int,
            "lastDone": String,
            "change": String,
            "changePercent": String,
            "bid": String,
            "ask": String,
            "bVolK": String,
            "sVolK": String,
            "volK": String,
            "open": String,
            "high": String,
            "low": String,
            "prevClose": String,

            "pmpTopic": String,
            "delayIndiciator": String,
            "symbol": String
        }
    ]
}
```

## 4.9.   Stocks Market Depth

| URL | /st/counter/marketdepth | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | To check market depth access right and retrieve data for SG / HK | | | |
| Parameters | deviceId | @Header | String | |

| | | | | |
|---|---|---|---|---|
| Apikey | @Header | String | |
| versionNo | @Header | String | |
| osVersion | @Query | String | |
| Language | @Query | int | default: 1 |
| accountNo | @Header | String | |
| sessionId | @Header | String | |
| counterID | @Query | String | |
| Produce | application/json | | | |
| Result | `{`<br>`  "msg": String,`<br>`  "code": Int,`<br>`  "pmpTopic": String,`<br>`  "marketDepth": /* Only when PMP Market Depth disabled */`<br>`  [{`<br>`     "buyVol" : String,`<br>`     "buy" : String,`<br>`     "sell" : String,`<br>`     "sellVol" : String`<br>`  }]`<br>`}` | | | |

## 4.10.  Stocks Time and Sales

| | | | | |
|---|---|---|---|---|
| URL | /st/counter/timesales | | | |
| Verb | GET | | | |
| Description | To retrieve time & sales data | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| | from | @Query | String | HH:mm |
| | to | @Query | String | HH:mm |
| | size | @Query | Int | Default: 100 |
| | page | @Query | Int | Default: 1 |
| Produce | application/json | | | |

| Result | ``` { "msg": String, "code": Int, "totalPage": Int, "timeSales": [{ "time" : String, "price" : String, "vol" : String }] } ``` |
|---|---|

## 4.11.   UT Funds Details General Info

| URL | /ut/counter/generalinfo | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | To retrieve Funds detail general info | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | <pre>{
    "msg": "success",
    "code": 1,
    "price4Week": {
        "high": "0.5039",
        "highDate": "06 Jan 2017",
        "low": "0.458",
        "lowDate": "03 Jan 2017"
    },
    "fundInfo": {
        "currency": "USD",
        "source": "2",
        "psplRisk": "High",
        "cpfRisk": "",
        "assetClass": "Commodities",
        "sector": "Gold & Precious Metals",
        "launchDate": "23 Oct 2006",
        "launchPrice": "1",
        "geography": "Global",
        "benchmarkIndex": "-1",
        "priceType": "Net Asset Value
",
        "priceMadeKnownOn": "T+2",
        "cutOffTime": "3:00PM Spore Time",
        "isRSP": false,
        "fundSrcDesc": "Cash",
        "objective": "The investment objective is to achieve
capital appreciation in the medium to long term by investing
in a portfolio of Sharia observant equity and equity-related
securities of companies engaged in activities related to gold,
silver, platinum or other precious metals or minerals. The
fund will invest globally."
    },
    "investmentObjective": "The investment objective is to
achieve capital appreciation in the medium to long term by
investing in a portfolio of Sharia observant equity and
equity-related securities of companies engaged in activities
related to gold, silver, platinum or other precious metals or
minerals. The fund will invest globally.",
    "investmentAmmount": [
        {
            "desc": "Minimum Investment Amount",
            "cash": "1000",
            "cpfoaia": "-",
            "cpfsaia": "-",
            "srsia": "-"
        },
        {
            "desc": "Minimum Subsequent Investment",
            "cash": "100",
            "cpfoaia": "-",
            "cpfsaia": "-",
            "srsia": "-"
        },
        {
            "desc": "Minimum Redemption Amount ($)/units",
            "cash": "1000 Unit(s)",
            "cpfoaia": "-",
            "cpfsaia": "-",
            "srsia": "-"
        },
        {
            "desc": "Minimum Required Holdings ($) / units",
            "cash": "1000",
            "cpfoaia": "-",
            "cpfsaia": "-",
            "srsia": "-"
        }
    ],
    "relevantCharges": [</pre> |
|--------|---|

## 4.12. UT Funds Details Documents

| URL | /ut/counter/documents | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | To retrieve Funds detail documentations | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "documents": [{<br>     "title" : String,<br>     "url" : String,<br>     "date" : String<br>  }]<br>}</pre> | | | |

## 4.13. UT Funds Details Manager Info

| URL | /ut/counter/managerinfo | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | To retrieve Funds manager info | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | ``` { "msg": String, "code": Int, "name": String, "logo": String, "address": String, "url": String, "about": String, "philosophy": String } ``` |
|---|---|

## 4.14.  UT Funds Details Performance Info

| URL | /ut/counter/performance | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | To retrieve Funds detail performance info | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |
| Result | ``` { "msg": String, "code": Int, "fundName": String, "performanceReturn": [{ "period" : String, "value" : String }], "annualizedReturn": [{ "period" : String, "value" : String }] } ``` | | | |

For comparison, call this function with target counterID

## 4.15.  UT Funds Details RSP Info

| URL | /ut/counter/rsp | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | To retrieve Funds detail rsp info | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |

| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "code": Int,<br>  "approved": Boolean,<br>  "approvedListURL": String, /* Only not Approved */<br>  "learnMoreURL": String, /* Only Approved */<br>  "monthlyRSP": [{ /* Only Approved */<br>    "desc" : String,<br>    "cash" : String,<br>    "cpfoaia" : String,<br>    "cpfsaia" : String,<br>    "srsia" : String<br>  }],<br>  "quarterlyRSP": [{ /* Only Approved */<br>    "desc" : String,<br>    "cash" : String,<br>    "cpfoaia" : String,<br>    "cpfsaia" : String,<br>    "srsia" : String<br>  }]<br>} | | | |

5.    **Stock Analytics**

## 5.1.    Stock Analytics Basic Stock Info

| URL | /st/stockanalytics/stockinfo | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve stock analytics basic stock info | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | ``` { |
|---|---|
|  | ```json
{
  "msg": String,
  "code": Int,
  "lastUpdated": String,
  "stockData": {
    "currencyCode" : String,
    "marketCapitalization" : String,
    "commonShareOutstanding" : String,
    "week52High" : String,
    "week52HighDate" : String,
    "week52Low" : String,
    "week52LowDate" : String,
    "week52Return" : String,
    "averageDailyVolume" : String,
    "beta" : String
  },
  "stockValuation": {
    "currencyCode" : String,
    "historicalPERatio" : String,
    "peRatio" : String,
    "pbv" : String,
    "bvps" : String,
    "epsttm" : String
  },
  "stockDividend": {
    "currencyCode" : String,
    "annualDivPerShare" : String,
    "divYieldTTM" : String,
    "divYieldAnnual" : String,
    "payoutRatio" : String,
    "growthRate3Year" : String
  },
  "stockMargin": {
    "grossMargin" : String,
    "operatingProfitMargin" : String,
    "netProfitMargin" : String
  },
  "financialStrength": {
    "currencyCode" : String,
    "currentRatio" : String,
    "quickRatio" : String,
    "longTermDebtEquity" : String,
    "totalDebtEquity" : String,
    "interestCoverageRatio" : String,
    "freeCashFlowToFirm" : String
  },
  "peerComparison": [{
    "industryPeer" : String,
    "roa" : String,
    "roe" : String,
    "pe" : String,
    "divYield" : String,
    "flagCurrentCompany" : Boolean
  }]
}
``` |

## 5.2.   Stock Analytics Financial Summary

| URL | /st/stockanalytics/financialsummary | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve stock analytics financial summary | | | |
| Parameters | deviceId | @Header | String | |
|  | Apikey | @Header | String | |

| | versionNo | @Header | String | |
|---|---|---|---|---|
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |
| Result | ```{
  "msg": String,
  "code": Int,
  "lastUpdated": String,
  "financialSummary": String,
  "annualFinancialStatement": [{
     "cssClass" : String,
     "description" : String,
     "values" : [ String ]
  }],
  "annualRatioAndOtherData": [{
     "cssClass" : String,
     "description" : String,
     "values" : [ String ]
  }],
  "quarterFinancialStatement": [{
     "cssClass" : String,
     "description" : String,
     "values" : [ String ]
  }],
  "quarterRatioAndOtherData": [{
     "cssClass" : String,
     "description" : String,
     "values" : [ String ]
  }]
}``` | | | |

## 5.3. Stock Analytics Business Summary

| URL | /st/stockanalytics/businesssummary | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | ```<br>{<br>  "msg": String,<br>  "code": Int,<br>  "businessSummary": String,<br>  "lastUpdated": String<br>}<br>``` |
|---|---|

## 5.4.    Stock Analytics Analyst Estimate

| URL | /st/stockanalytics/analystestimate | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |
| Result | ```<br>{<br>  "msg": String,<br>  "code": Int,<br>  "lastUpdated": String,<br>  "recommendations": [{<br>    "description" : String,<br>    "currentWeek" : String<br>  }],<br>  "targetPrice": {<br>    "phillipPotentialChange" : String,<br>    "phillipRecommendation" : String,<br>    "phillipTargetPrice" : String,<br>    "priceCurrency" : String,<br>    "reuterPotentialChange" : String,<br>    "reuterRecommendation" : String,<br>    "reuterTargetPrice" : String,<br>    "reuterLastTradedPrice" : String,<br>    "reuterLastTradedPriceDate" : String<br>  }<br>}<br>``` | | | |

## 5.5.    Stock Analytics Disclaimer

| URL | /st/stockanalytics/disclaimer | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve | | | |
| Parameters | deviceId | @Header | String | |

| | Apikey | @Header | String | |
|---|---|---|---|---|
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "code": Int,<br>  "disclaimer": String<br>} | | | |

## 6. **Chart**

### 6.1. PMPChartPreAuth

| URL | /global/chart/globalchartpreauth | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve global chart pre auth | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| | authCode | @Query | String | Default:" To pass value after called 1st time |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "authCode": String,<br>  "contractInfo": {<br>    "contractCode": String,<br>    "contractName": String,<br>    "exchangeCode": String,<br>    "marketCode": String,<br>    "serverHisDaily": String,<br>    "serverHisMinutely": String,<br>    "serverLiveMinutely": String,<br>    "serverHisDailyD": String,<br>    "serverHisMinutelyD": String,<br>    "serverLiveMinutelyD": String,<br>    "topicHisDaily": String,<br>    "topicHisMinutely": String,<br>    "topicLiveMinutely": String,<br>    "historyMinDate": String,<br>    "historyDayDate": String,<br>    "pmpPublishDate": String<br>  }<br>}</pre> | | | |

## 7.       **Trade**
### 7.1.    Stocks Trade Info

| URL | /st/trade/info | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve counter information for trade | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "counterID": String,<br>  "exchange": String,<br>  "exchangeDisplay": String,<br>  "market": String,<br>  "symbol": String,<br>  "companyName": String,<br>  "companyCode": String,<br>  "currency": String,<br>  "lastDone": Decimal,<br>  "expireDate": String,<br>  "securityType": String,<br>  "securitySubType": String,<br>  "lotSize": Int,<br>  "buyLotSize": Int,<br>  "sellLotSize": Int,<br>  "paymentMode": [ String ],<br>  "bidSize": Decimal,<br>  "upperLimit": Decimal,<br>  "lowerLimit": Decimal,<br>  "bidSizeItems": [<br>    {<br>      "min": Decimal,<br>      "max": Decimal,<br>      "val": Decimal<br>  }],<br>  "settlementCurrency": [ String ],<br>  "actions": [ String ] }</pre> | | | |

### 7.2.    Stocks Order Type Settings

| URL | /st/trade/settings |
|---|---|
| Verb | GET |

| Description | Retrieve advanced order type settings | | | |
|---|---|---|---|---|
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "markets": [{<br>    "market": String,<br>    "orderTypes": [{<br>      "name": String,<br>      "value": String,<br>      "gtd": Boolean<br>    }]<br>  }]<br>} | | | |

## 7.3.    Stocks Refresh Limit Balance

| URL | /st/trade/limitbalance | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve limit balance | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "code": Int,<br>  "buyLimit": String,<br>  "sellLimit": String,<br>  "availBal": String<br>} | | | |

## 7.4.    Stocks Validate Order

| URL | /st/trade/validate |
|---|---|

| Verb | POST | | | |
|---|---|---|---|---|
| Description | Validate stocks order | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | counterID | @Form | String | |
| | action | @Form | int | 1 – Buy,<br>2 – Sell,<br>5 – Short Sell |
| | orderType | @Form | Char | 2.     LO – Limit Order,<br>3.   SLO – Stop Limit,<br>LIT – Limit-if-Touch |
| | limitPrice | @Form | Decimal | |
| | triggerPrice | @Form | Decimal | |
| | quantity | @Form | Int | |
| | settlementCurrency | @Form | String | ISO Currency Code |
| | payment | @Form | int | 1 – CPF,<br>2 – SRS,<br>0 - Cash |
| | triggerPriceType | @Form | int | default: 0<br>2 – Last Done,<br>3 – Bid<br>1 – Ask |
| | validity | @Form | int | 0 – Day,<br>6 - GTD |
| | gtd | @Form | Date | yyyy-MM-dd |
| Produce | application/json | | | |
| Result | `{`<br>`  "msg": String,`<br>`  "code": Int,`<br>`  "passwordRequire": Boolean,`<br>`  "twoFARequire": Boolean,`<br>`  "noteTitle": String,`<br>`  "noteMsg": String,`<br>`  "authToken" : String`<br>`}` | | | |

## 7.5.    Stocks Submit Order

| URL | /st/trade/submit | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Submit stocks order | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | authToken | @Header | String | |
| | counterID | @Form | String | |
| | action | @Form | String | |
| | orderType | @Form | String | |
| | limitPrice | @Form | Decimal | |
| | stopPrice | @Form | Decimal | |
| | quantity | @Form | Int | |
| | settlementCurrency | @Form | String | |
| | payment | @Form | String | |
| | triggerPriceType | @Form | String | |
| | validity | @Form | String | |
| | gtd | @Form | String | yyyy-MM-dd |
| Produce | application/json | | | |
| Result | ```{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "orderDetailsURI": String<br>}``` | | | |

## 7.6.    CFD Trade Info

| URL | /cfd/trade/info | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve counter information for trade | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |

| | | | |
|---|---|---|---|
| osVersion | @Query | String | |
| Language | @Query | int | default: 1 |
| accountNo | @Header | String | |
| sessionId | @Header | String | |
| counterID | @Query | String | |

| Produce | application/json |
|---|---|
| Result | <pre>{
  "msg": String,
  "code": Int,
  "passwordRequire": Boolean,
  "twoFARequire": Boolean,
  "availCash": String,
  "creditLimit": String,
  "counterID": String,
  "exchange": String,
  "companyName": String,
  "companyCode": String,
  "currency": String,
  "bid": Decimal,
  "ask": Decimal,
  "lotSize": Int,
  "requireMargin": Decimal,
  "multiplier": Decimal,
  "decimalPosition": Int,
  "bidSize": [{
     "fromPrice": Decimal,
     "size": Decimal,
     "toPrice": Decimal
  }],
  "orderTypes": [{
     "duration": {
        "timeInForce": Int,
        "timeInForceDisplay": String,
        "validityDay": Int
     },
     "limitSpread": {
        "max": Int,
        "min": Int,
        "size": Int
     },
     "operator": [{
        "text": String,
        "value": Int
     }],
     "orderType": Int,
     "orderTypeDisplay": String,
     "trailingStep": {
        "max": Int,
        "min": Int,
        "size": Int
     },
     "triggerTypes": [{
        "text": String,
        "value": Int
     }]
  }],
  "actions": [{
     "text": String,
     "value": Int
  }]
}</pre> |

## 7.7.    CFD Refresh Limit Balance

| URL | /cfd/trade/limitbalance | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve available cash and credit limit | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | `{`<br>`  "msg": String,`<br>`  "code": Int,`<br>`  "availCash": String,`<br>`  "creditLimit": String`<br>`}` | | | |

## 7.8.    CFD Get Limit Order no

| URL | /cfd/trade/limitorder | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve limit order no | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "orders": [{<br>    "orderNo": String,<br>    "action": String,<br>    "companyName": String,<br>    "qty": String,<br>    "price": String<br>  }]<br>}</pre> |
|---|---|

## 7.9.    CFD Validate Order

| URL | /cfd/trade/validate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Validate CFD / DMA order | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | counterID | @Form | String | |
| | orderType | @Form | String | |
| | action | @Form | int | |
| | timeInForce | @Form | int | |
| | expireTime | @Form | String | yyyyMMdd |
| | limitPrice | @Form | Decimal | |
| | quantity | @Form | Int | |
| | ifDoneLimitOrderNo | @Form | String | |
| | ocoStopLimitPrice | @Form | Decimal | |
| | ocoStopLimitQuantity | @Form | int | |
| | stopPrice | @Form | Decimal | |
| | trailingStep | @Form | Decimal | |
| | limitSpread | @Form | Decimal | |
| | triggerPriceType | @Form | int | |
| | conditionOperator | @Form | int | |
| | conditionCompanyCode | @Form | String | |

| | conditionPrice | @Form | Decimal | |
|---|---|---|---|---|
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "authToken" : String<br>} | | | |

## Mobile 2.0 and CFD API Parameter Mapping

| Mobile 2.0 | CFD API | Type | Description | Market Order | Limit Order | Stop Limit Order | Trailing Stop Order | If Done Order | OCO Order | Contingency Order |
|---|---|---|---|---|---|---|---|---|---|---|
| accountNo | AccountNo | string | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| counterID | ExchangeCode | string | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Market | string | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | ContractType | string | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | CompanyCode | string | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| orderType | OrderType | int | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| action | Side | int | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| timeInForce | TimeInForce | int | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| expireTime | ExpireTime | string | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| limitPrice | Price | decimal | | Yes | Yes | Yes | | Yes | Yes | Yes |
| quantity | Quantity | int | | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| ifDoneLimitOrderNo | IfDoneLimitOrderNo | string | If Done order only | | | | | Yes | | |
| ocoStopLimitPrice | OCOStopLimitPrice | decimal | OCO order only | | | | | | Yes | |
| ocoStopLimitQuantity | OCOStopLimitQuantity | int | OCO order only | | | | | | Yes | |
| stopPrice | StopPrice | decimal | | | | Yes | | | Yes | |
| trailingStep | Step | decimal | Trailing stop order only | | | | Yes | | | |
| limitSpread | Spread | decimal | Trailing stop order only | | | | Yes | | | |
| triggerPriceType | TriggerType | int | | | | Yes | Yes | | Yes | Yes |

| conditionOperator | ConditionOperator | int | Contingency order only | | | | | | | Yes |
|---|---|---|---|---|---|---|---|---|---|---|
| conditionCompanyCode | ConditionCompanyCode | string | Contingency order only | | | | | | | Yes |
| conditionPrice | ConditionPrice | decimal | Contingency order only | | | | | | | Yes |
| N.A. | CurrencyCode | string | Default '' | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | TradingSession | int | Default '0' | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | SubmittedBy | string | Default accountNo | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

## 7.10.  CFD Submit Order

| URL | /cfd/trade/submit | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Submit CFD / DMA order | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | authToken | @Header | String | |
| | counterID | @Form | String | |
| | orderType | @Form | String | |
| | action | @Form | int | |
| | timeInForce | @Form | int | |
| | expireTime | @Form | String | yyyyMMdd |
| | limitPrice | @Form | Decimal | |
| | quantity | @Form | Int | |
| | ifDoneLimitOrderNo | @Form | String | |
| | ocoStopLimitPrice | @Form | Decimal | |
| | ocoStopLimitQuantity | @Form | int | |
| | stopPrice | @Form | Decimal | |

| | trailingStep | @Form | Decimal | |
|---|---|---|---|---|
| | limitSpread | @Form | Decimal | |
| | triggerPriceType | @Form | int | |
| | conditionOperator | @Form | int | |
| | conditionCompanyCode | @Form | String | |
| | conditionPrice | @Form | Decimal | |
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "orderDetailsURI": String<br>} | | | |

## 7.11.  UT Trade Info

| URL | /ut/trade/info | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve counter information for trade | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | ```json |
|---|---|
| | {<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "availableCash": String,<br>  "bidPrice": String,<br>  "dealingDate": String,<br>  "name": String,<br>  "counterID": String,<br>  "fundCode": String,<br>  "buyInfo": {  /* If fund cannot buy, will return null*/<br>    "fundSources": [{<br>        "text": String,<br>        "value": Int<br>    }],<br>    "minIniInvAmt": String,<br>    "minSubInvAmt": String,<br>    "paymentCurrencies": [{<br>        "text": String,<br>        "value": String<br>    }]<br>  },<br>  "sellInfoList": [{/* If fund cannot Sell, will return null. Multiple items when have multisource*/<br>    "availableUnit": String,<br>    "fundSource": {<br>      "text": String,<br>      "value": String<br>    },<br>    "minHoldingAmt": String,<br>    "minHoldingUnit": String,<br>    "minRedeemAmt": String,<br>    "minRedeemUnit": String,<br>    "noOfDecUnits": Int,<br>    "paymentCurrencies": [{<br>        "text": String,<br>        "value": String<br>    }]<br>  }],<br>  "switchInfoList": [{  /* If fund cannot Switch, will return null. Multiple items when have multisource */<br>    "availableUnit": String,<br>    "fundSource": {<br>      "text": String,<br>      "value": String<br>    },<br>    "minHoldingAmt": String,<br>    "minHoldingUnit": String,<br>    "minRedeemAmt": String,<br>    "minRedeemUnit": String,<br>    "noOfDecUnits": String,<br>    "paymentCurrencies": [{<br>        "text": String,<br>        "value": String<br>    }]<br>  }],<br>  "actions": [{<br>      "text": String,<br>      "value": String<br>  }]<br>} |

PDF documentation to retrieve from UT counter detail documentations.
Switch In  fund data retrieve from this function as well.

## 7.12.   UT Trade Search Switch In Fund

| URL | /ut/trade/switchincounter | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Search for switch in fund | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | keyword | @Query | String | |
| | fundSource | @Query | Int | |
| Produce | application/json | | | |
| Result | ```<br>{<br>  "msg": "Success",<br>  "code": "1",<br>  "counterList": [{<br>    "name": String,<br>    "code": String,<br>    "index": Int,<br>    "market": String,<br>    "exchange": String,<br>    "exchangeDisplay": String,<br>    "globalChartExchange": String,<br>    "product": String,<br>    "counterID": String,<br>    "productIcon": String<br>  }]<br>}<br>``` | | | |

## 7.13.   UT Validate Order

| URL | /ut/trade/validate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Validate UT trade | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | Language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Form | String | |

| | action | @Form | String | |
|---|---|---|---|---|
| | fundSource | @Form | String | |
| | paymentCurrency | @Form | String | |
| | invAmount | @Form | String | |
| | unit | @Form | String | |
| | switchInID | @Form | String | |
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "disclaimerURL": String,<br>  "termConditionURL": String,<br>  "declarationOptions": [{<br>    "allowTrade": Boolean,<br>    "title": String,<br>    "desc": String,<br>    "alertMsg": String<br>  }]<br>} | | | |

## 7.14.   UT Submit Order

| URL | /ut/trade/submit | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Submit UT trade | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | Language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | counterID | @Form | String | |
| | action | @Form | String | |
| | fundSource | @Form | String | |
| | paymentCurrency | @Form | String | |
| | invAmount | @Form | String | |
| | unit | @Form | String | |
| | switchInID | @Form | String | |
| | emailNotification | @From | Boolean | |

| | | | | |
|---|---|---|---|---|
| declaration | @Form | Boolean | |
| termCondition | @Form | Boolean | |

| Produce | application/json |
|---|---|
| Result | ```
{
   "msg": String,
   "code": Int,
   "passwordRequire": Boolean,
   "twoFARequire": Boolean,
   "orderDetailsURI": String
}
``` |

## 7.15.   UT Add to Basket Order

| URL | /ut/trade/basket/add | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Add to basket Order | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | Language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Form | String | |
| | fundSource | @Form | String | |
| | paymentCurrency | @Form | String | |
| | invAmount | @Form | String | |
| Produce | application/json | | | |
| Result | ```
{
   "msg": String,
   "code": Int
}
``` | | | |

## 7.16.   UT Get Basket Order

| URL | /ut/trade/basket/get | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve basket Order | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |

| Language | @Query | int | default: 1 |
| --- | --- | --- | --- |
| accountNo | @Header | String | |
| sessionId | @Header | String | |

| Produce | application/json |
| --- | --- |
| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "basketOrders": [{<br>     "counterID": String,<br>     "basketID": String,<br>     "fundName": String,<br>     "fundSource": String,<br>     "paymentCurrency": String,<br>     "invAmount": String,<br>     "salesCharge": String,<br>     "nav": String<br><br>  }]<br>}</pre> |

## 7.17.   UT Get Basket Order with grouping

| URL | /ut/trade/basket/getbygroup | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve basket Order | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "basketOrders": {<br>    String(currency): [{<br>      "counterID": String,<br>      "basketID": String,<br>      "fundName": String,<br>      "fundSource": String,<br>      "paymentCurrency": String,<br>      "invAmount": String,<br>      "salesCharge": String,<br>      "nav": String<br>    }]<br>  }<br>}</pre> | | | |

## 7.18.   UT Update Basket Order

| URL | /ut/trade/basket/update | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Update basket Order | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | Language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |

| updateEntry | @Form | String | JSON Format<br>[{<br>  "basketID":"2",<br>  "invAmount":"1000",<br>  "fundCode":"501303"<br>}] |
|---|---|---|---|
| Produce | application/json | | |
| Result | {<br>  "msg": String,<br>  "code": Int<br>} | | |

## 7.19.   UT Delete Basket Order

| URL | /ut/trade/basket/delete | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Update basket Order | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | Language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | basketIDs | @Form | String | With comma separator. Ex: 1,3,5 |
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "code": Int<br>} | | | |

## 7.20.   UT Validate Basket Order

| URL | /ut/trade/basket/validate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Validate UT trade | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | Language | @Form | int | default: 1 |
| | accountNo | @Header | String | |

| | | | | |
|---|---|---|---|---|
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | `{`<br>`  "msg": String,`<br>`  "code": Int,`<br>`  "passwordRequire": Boolean,`<br>`  "twoFARequire": Boolean,`<br>`  "disclaimerURL": String,`<br>`  "termConditionURL": String,`<br>`  "declarationOptions": [{`<br>`    "allowTrade": Boolean,`<br>`    "title": String,`<br>`    "desc": String,`<br>`    "alertMsg": String`<br>`  }]`<br>`}` | | | |

## 7.21. UT Submit Basket Order

| | | | | |
|---|---|---|---|---|
| URL | /ut/trade/basket/submit | | | |
| Verb | POST | | | |
| Description | Submit UT trade | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | Language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | emailNotification | @From | Boolean | |
| | declaration | @Form | Boolean | |
| | termCondition | @Form | Boolean | |
| Produce | application/json | | | |
| Result | `{`<br>`  "msg": String,`<br>`  "code": Int,`<br>`  "passwordRequire": Boolean,`<br>`  "twoFARequire": Boolean`<br>`}` | | | |

## 7.22. UT Basket Order Count

| | |
|---|---|
| URL | /ut/trade/basket/count |
| Verb | GET |
| Description | Submit UT trade |

| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | `{`<br>`  "msg": String,`<br>`  "code": Int,`<br>`  "count": Int`<br>`}` | | | |

## 7.23.   UT SalesCharge Buy

| URL | /ut/trade/salescharge/buy | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Submit UT trade | | | |
| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| | fundSource | @Query | String | |
| | invAmount | @Header | String | |
| Produce | application/json | | | |
| Result | `{`<br>`  "msg": String,`<br>`  "code": Int,`<br>`  "salesCharge": BigDecimal`<br>`}` | | | |

## 7.24.   UT SalesCharge SwitchIn

| URL | /ut/ trade/salescharge/switchin |
|---|---|
| Verb | GET |
| Description | Submit UT trade |

| Parameters | deviceId | @Header | String | |
| | Apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | Language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | sIFundCode | @Query | String | counterID |
| | sIFundSource | @Query | String | |
| | sOFundCode | @Query | String | counterID |
| | sOFundSource | @Query | String | |
| | sOUnit | @Header | String | |
| Produce | application/json | | | |
| Result | ```{
  "msg": String,
  "code": Int,
  "salesCharge": BigDecimal
}``` | | | |

## 8.       **Order Status**
## 8.1.    Today Order Status List

| URL | /global/order/today | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve today order data | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |

| Result | ```<br>{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "newOrderPMPTopic": String,<br>  "orders": [<br>      {<br>          "counterID": String,<br>          "name": String,<br>          "symbol": String,<br>          "product": String,<br>          "productIcon": String,<br>          "action": String,<br>          "status": String,<br>          "statusColor": String,<br>          "submittedPrice": String,<br>          "submittedQty": String,<br>          "submittedTime": String,<br>          "executedPrice": String,<br>          "executedQty": String,<br>          "updatedTime": String,<br>          "orderNo": String,<br>          "lotSize": String,<br>          "stopPrice": String,<br>          "stopLimitPrice": String,<br>          "trailingStop": String,<br>          "triggerType": String,<br>          "units": String,<br>          "investedAmmount": String,<br>          "nav": String,<br>          "netSalesCharge": String,<br>          "receivedTime": String,<br>          "executedTime": String,<br>          "ammendURI": String,<br>          "withdrawURI": String,<br>          "isTradeable": Boolean,<br>          "isInfoAvailable": Boolean,<br>          "orderDetailsURI": String,<br>          "orderPMPTopic": String<br>          "orderType" : String<br>          "orderStatusDesc":String<br>          "isWithdrawable":Boolean<br>          "cancelURI":String (UT only)<br>          "referenceNo":String<br>          "delayIndicator":String (ST,CFD)<br>      }<br>  ]<br>}<br>``` |
|--------|------|

ST/CFD: Front end application needs to subscribe two PMP topics (new order and update order). New order udpate then need to invoke this function to retrieve the latest order status. Application must handle for the update case.

Need to request ODS and FT/FX team to have the PMP order status for UT and FT/FX.

## 8.2.    Past Order Status List

| URL | /global/order/history/{pastOrderDate} | | | |
|-----|-------|---|---|---|
| Verb | GET | | | |
| Description | Retrieve past order data with date | | | |
| Parameters | deviceId | @Header | String | |

| | apikey | @Header | String | |
|---|---|---|---|---|
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | pastOrderDate | @Path | String | Format: yyyyMMdd |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
  "msg": String,
  "code": Int,
  "orders": [
    {
      "counterID": String,
      "name": String,
      "symbol": String,
      "product": String,
      "productIcon": String,
      "action": String,
      "status": String,
      "statusColor": String,
      "submittedPrice": String,
      "submittedQty": String,
      "submittedTime": String,
      "executedPrice": String,
      "executedQty": String,
      "updatedTime": String,
      "orderNo": String,
      "stopPrice": String,
      "stopLimitPrice": String,
      "trailingStop": String,
      "triggerType": String,
      "units": String,
      "investedAmmount": String,
      "nav": String,
      "netSalesCharge": String,
      "receivedTime": String,
      "executedTime": String,
      "isTradeable": Boolean,
      "isInfoAvailable": Boolean,
      "orderDetailsURI": String
      "orderType" : String
      "orderStatusDesc":String
      "cancelURI":String (UT only)
      "referenceNo":String
      "delayIndicator":String (ST,CFD)
    }
  ]
}
```

## 8.3.   Past Order Status Dates

| URL | /global/order/history/dates |
|---|---|
| Verb | GET |
| Description | Retrieve past order dates |
| Parameters | deviceId | @Header | String | |

| | apikey | @Header | String | |
|---|---|---|---|---|
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "dates": [<br>    {<br>        "display": String,<br>        "historyURI": String<br>    }<br>  ]<br>}</pre> | | | |

GTD for both ST and CFD. To have at least two options (GTD + yesterday date)


## 8.4.    Stocks Order Details

| URL | /st/order/{orderNo} | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve stocks order details | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | orderNo | @Path | String | |
| | counterID | @Query | String | |
| | isToday | @Query | boolean | default: true |
| Produce | application/json | | | |

| Result | ```
{
  "msg": String,
  "code": Int,
  "passwordRequire": Boolean,
  "twoFARequire": Boolean,
  "counterID": String,
  "name": String,
  "product": String,
  "productIcon": String,
  "action": String,
  "status": String,
  "statusDesc": String,
  "statusColor": String,
  "submittedPrice": String,
  "executedPrice": String,
  "submittedQty": String,
  "executedQty": String,
  "orderNo": String,
  "lotSize": int,
  "orderType": String,
  "stopPrice": String,
  "triggeredType": String,
  "validity": String,
  "gtd": String,
  "paymentMode": String,
  "settlementCurrency": String,
  "currency": String,
  "message": String,
  "amendURI": String,
  "withdrawURI": String
  "orderHistory": [
    {
      "message": String
      "price": String,
      "qty": String,
      "status": String,
      "statusDesc": String,

      "time": String,

    }
  ]
}
``` |
|---|---|

## 8.5.    Stocks Withdraw Order

| URL | /st/order/{orderNo}/withdraw | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Withdraw stocks order | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |

| orderNo | @Path | String | |
| counterID | @Form | String | |

| Produce | application/json |
| Result | ``` { "msg": String, "code": Int, "passwordRequire": Boolean, "twoFARequire": Boolean } ``` |

## 8.6.    Stocks Amend Order

| URL | /st/order/{orderNo}/amend |
|---|---|
| Verb | POST |
| Description | Amend stocks order |

| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | orderNo | @Path | String | |
| | amendQty | @Form | int | |
| | counterID | @Form | String | |

| Produce | application/json |
| Result | ``` { "msg": String, "code": Int, "passwordRequire": Boolean, "twoFARequire": Boolean } ``` |

## 8.7.    CFD Order Details

| URL | /cfd/order/{orderNo} |
|---|---|
| Verb | GET |
| Description | Retrieve CFD Order Details |

| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |

| | osVersion | @Query | String | |
|---|---|---|---|---|
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | orderNo | @Path | String | |
| | counterID | @Query | String | |
| | isToday | @Query | boolean | default: true |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "counterID": String,<br>  "name": String,<br>  "product": String,<br>  "productIcon": String,<br>  "action": String,<br>  "status": String,<br>  "statusDesc": String,<br>  "statusColor": String,<br>  "orderType": String,<br>  "orderNo": String,<br>  "currency": String,<br>  "stopPrice": String,<br>  "stopPriceTrigger": String,<br>  "trailingStep": String,<br>  "limitSpread": String,<br>  "contingencyCondition": String<br>  "ifDoneOrderNo": String,<br>  "tradeType": String,<br>  "settlementCurrency": String,<br>  "validity": String,<br>  "gtd": String,<br>  "message": String,<br>  "withdrawURI": String,<br>  "correspondOrderNo": String,<br>  "ocoNo": String,<br>  "orderHistory": [<br>      {<br>        "status": String,<br>        "qty": String,<br>        "price": String,<br>        "time": String,<br>        "message": String<br>      }<br>  ]<br>}</pre> | | | |

## 8.8.    CFD Withdraw Order

| URL | /cfd/order/{orderNo}/withdraw | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Withdraw CFD / DMA order | | | |
| Parameters | deviceId | @Header | String | |

| | apikey | @Header | String | |
|---|---|---|---|---|
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | orderNo | @Path | String | |
| | counterID | @Form | String | |
| Produce | application/json | | | |
| Result | ```<br>{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean<br>}<br>``` | | | |

## 8.9.    UT Order Details

| URL | /ut/order/{orderNo} | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve UT order details | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | orderNo | @Path | int | |
| | counterID | @Query | String | |
| Produce | application/json | | | |

| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean,<br>  "counterID": String,<br>  "name": String,<br>  "product": String,<br>  "productIcon": String,<br>  "action": String,<br>  "status": String,<br>  "statusDesc": String,<br>  "statusColor": String,<br>  "orderType": String,<br>  "orderNo": String,<br>  "fundSource": String,<br>  "currency": String,<br>  "paymentCurrency": String,<br>  "ammount": String,<br>  "nav": String,<br>  "transactionDate": String,<br>  "salesCharge": String,<br>  "message": String,<br>  "withdrawURI": String,<br>  "cancelURI": String,<br>  "qty": String,<br>  "indicativeTransactionDate": String,<br>  "orderHistory": [<br>    {<br>      "message": String<br>      "price": String,<br>      "qty": String,<br>      "status": String,<br>      "statusDesc": String,<br>      "time": String,<br>    }<br>  ]<br>}</pre> |
| --- | --- |

## 8.10.   UT Withdraw Order

| URL | /ut/order/{orderNo}/withdraw | | | |
| --- | --- | --- | --- | --- |
| Verb | POST | | | |
| Description | Withdraw UT order | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | orderNo | @Path | int | |
| | counterID | @Form | String | |

| Produce | application/json |
|---------|------------------|
| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean<br>}</pre> |

## 8.11.   UT Cancel Order

| URL | /ut/order/{orderNo}/cancel | | | |
|-----|------|------|------|------|
| Verb | POST | | | |
| Description | Cancel UT order | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | orderNo | @Path | int | |
| | counterID | @Form | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": Int,<br>  "passwordRequire": Boolean,<br>  "twoFARequire": Boolean<br>}</pre> | | | |

## 9.    **News**

### 9.1.    My News Settings

| URL | /global/news/settings | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get news settings | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
  "msg": String,
  "code": Int,
  "autoDetect": [{
     "title": String,
     "value": Int,
     "checked": Boolean
  }],
  "language": [{/*To confirm if this options still need*/
     "title": String,
     "value": Int,
     "checked": Boolean
  }],
  "asset": [{
     "title": String,
     "value": Int,
     "checked": Boolean
  }],
  "source": [{
     "title": String,
     "value": Int,
     "checked": Boolean
  }],
  "subject": [{
     "title": String,
     "value": Int,
     "checked": Boolean
  }],
  "industry": [{
     "title": String,
     "value": Int,
     "checked": Boolean
  }],
  "country": [{
     "title": String,
     "value": Int,
     "checked": Boolean
  }]
}
```

### 9.2.    Update My News Settings

| URL | /global/news/settings/update | | | |
|-----|------------------------------|---|---|---|
| Verb | POST | | | |
| Description | Update news settings | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | autoDetect | @Form | Int | |
| | language | @Form | String | Selected value with comma separator. Ex:EN,CN |
| | asset | @Form | String | Selected value with comma separator. Ex:ut,st,fut |
| | source | @Form | String | Selected value with comma separator. Ex:1,2,3,4 |
| | subject | @Form | String | Selected value with comma separator. Ex:all,marketoutlook |
| | industry | @Form | String | Selected value with comma separator. Ex:1,2,3,4 |
| | country | @Form | String | Selected value with comma separator. Ex:1,2,3,4 |
| Produce | application/json | | | |
| Result | `{`<br>`  "msg": String,`<br>`  "code": Int`<br>`}` | | | |

## 9.3.    My News

| URL | /global/news/mynews | | | |
|-----|---------------------|---|---|---|
| Verb | GET | | | |
| Description | Get my news list | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |

| | osVersion | @Query | String | |
|---|---|---|---|---|
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | count | @Query | Int | default: 30 |
| | keyword | @Query | String | Search keyword |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": int,<br>  "newsHeadline": [<br>    {<br>      "title": String,<br>      "description": String,<br>      "publishedTime": String,<br>      "source": String,<br>      "logoURL": String, /* Logo image URL */<br>      "contentURI": String, /* Content URI */<br>      "publishedDateTime": Long /* Timestamp, for sorting purposes */<br>    }<br>  ]<br>}</pre> | | | |

## 9.4.    News Category

| URL | /st/news/category | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get news category | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": int,<br>  "newsCategory": [<br>    {<br>      "code": String,<br>      "description": String,<br>      "headlineURI": String /* News headlines URI */<br>    }<br>  ]<br>}</pre> | | | |

## 9.5.    News Headlines

| URL | /st/news/headlines/{category} | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get news category | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | category | @Path | String | |
| | count | @Query | Int | default: 30 |
| | keyword | @Query | String | Search keyword |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
  "msg": String,
  "code": int,
  "newsHeadline": [
    {
      "title": String,
      "description": String,
      "publishedTime": String,
      "source": String,
      "logoURL": String, /* Logo image URL */
      "contentURI": String, /* Content URI */
      "publishedDateTime": Long /* Timestamp, for sorting purposes */
    }
  ]
}
```

## 9.6.    News Content

| URL | /st/news/content/{newsID} | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get news category | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |

| | | | | |
|---|---|---|---|---|
| sessionId | @Header | String | |
| newsID | @Path | String | |

| Produce | application/json |
|---|---|
| Result | <pre>{<br>  "msg": String,<br>  "code": int,<br>  "contentType": String,<br>  "date": String,<br>  "description": String,<br>  "id": null,<br>  "title": String,<br>  "content": String,<br>  "source": String,<br>  "logourl": String /* Logo image URL */<br>}</pre> |

## 9.7.    Related News

| URL | /st/news/related | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get news category | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | |
| | count | @Query | Int | default: 30 |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": int,<br>  "newsHeadline": [<br>    {<br>      "title": String,<br>      "description": String,<br>      "publishedTime": String,<br>      "source": String,<br>      "logoURL": String, /* Logo image URL */<br>      "contentURI": String, /* Content URI */<br>      "publishedDateTime": Long /* Timestamp, for sorting purposes */<br>    }<br>  ]<br>}</pre> | | | |

## 9.8.    News Prelogin

| URL | /st/news/prelogin | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get news category | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | count | @Query | Int | default: 30 |
| Produce | application/json | | | |
| Result | (see code below) | | | |

```
{
  "msg": String,
  "code": int,
  "newsHeadline": [
    {
      "title": String,
      "description": String,
      "publishedTime": String,
      "source": String,
      "logoURL": String, /* Logo image URL */
      "contentURI": String, /* Content URI */
      "publishedDateTime": Long /* Timestamp, for sorting purposes */
    }
  ]
}
```

## 9.9.    UT News Category

| URL | /ut/news/category | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get news category for UT | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |

| Result | ```<br>{<br>  "msg": String,<br>  "code": int,<br>  "newsCategory": [<br>    {<br>      "code": String,<br>      "description": String,<br>      "headlineURI": String /* News headlines URI */<br>    }<br>  ]<br>}<br>``` |
|---|---|

## 9.10.   UT News Headlines

| URL | /ut/news/headlines/{category} |
|---|---|
| Verb | GET |
| Description | Get news category for UT |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | category | @Path | String | |
| | count | @Query | Int | default: 30 |
| | keyword | @Query | String | Search keyword |
| Produce | application/json |
| Result | ```<br>{<br>  "msg": String,<br>  "code": int,<br>  "newsHeadline": [<br>    {<br>      "title": String,<br>      "description": String,<br>      "publishedTime": String,<br>      "source": String,<br>      "logoURL": String, /* Logo image URL */<br>      "contentURI": String, /* Content URI */<br>      "publishedDateTime": Long /* Timestamp, for sorting purposes */<br>    }<br>  ]<br>}<br>``` |

## 9.11.   UT News Content

| URL | /ut/news/content/{newsID} |
|---|---|
| Verb | GET |

| Description | Get news category for UT | | | |
|---|---|---|---|---|
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | newsID | @Path | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>  "msg": String,<br>  "code": int,<br>  "contentType": String,<br>  "date": String,<br>  "description": String,<br>  "id": null,<br>  "title": String,<br>  "content": String,<br>  "source": String,<br>  "logourl": String /* Logo image URL */<br>}</pre> | | | |

## 10.     **Alerts**

### 10.1.   Alert Count

| URL | /global/alert/count | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get alert unread count | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | priceAlertTimeStamp | @Query | String | yyyyMMddHHmmss(24 hours format) |
| | orderAlertTimeStamp | @Query | String | yyyyMMddHHmmss(24 hours format) |
| | accountAlertSTTimeStamp | @Query | String | yyyyMMddHHmmss(24 hours format) |
| | accountAlertCFDTimeStamp | @Query | String | yyyyMMddHHmmss(24 hours format) |
| | accountAlertUTTimeStamp | @Query | String | yyyyMMddHHmmss(24 hours format) |
| | accountAlertFTTimeStamp | @Query | String | yyyyMMddHHmmss(24 hours format) |
| | announcementTimeStamp | @Query | String | yyyyMMddHHmmss(24 hours format) |
| Produce | application/json | | | |
| Result | <pre>{<br>    "msg": String,<br>    "code": int,<br>    "price": int,<br>    "order": int,<br>    "account": int,<br>    "announcement": int<br>}</pre> | | | |

### 10.2.   Price Alert List

| URL | /global/alert/price | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get price alert list | | | |
| Parameters | deviceId | @Header | String | |

| | | | | |
|---|---|---|---|---|
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | priceAlertTimeStamp | @Query | String | yyyyMMddHHmmss( 24 hours format) |
| Produce | application/json | | | |
| Result | <pre>{<br>    "msg": String,<br>    "code": int,<br>    "timeStamp": String,<br>    "triggered": [{<br>      "counterID": String,<br>      "product": String,<br>      "productIcon": String,<br>      "counterName": String,<br>      "delayIndicator":String,<br>      "alerts": [{<br>        "alertID":Long,<br>        "alertField": String,<br>        "operator": String,<br>        "alertValue": String,<br>        "updatedTime": String,<br>        "highlight": Boolean,<br>        "latestValue": String<br>      }]<br>    }],<br>    "unTriggered": [{<br>      "counterID": String,<br>      "product": String,<br>      "productIcon": String,<br>      "counterName": String,<br>      "delayIndicator":String,<br>      "alerts": [{<br>        "alertID":Long,<br>        "alertField": String,<br>        "operator": String,<br>        "alertValue": String,<br>        "updatedTime": String,<br>        "highlight": Boolean,<br>        "latestValue": String<br>      }]<br>    }]<br>}</pre> | | | |

## 10.3.   Price Alert By Counter ID

| | | | | |
|---|---|---|---|---|
| URL | /global/alert/price/detail | | | |
| Verb | GET | | | |
| Description | Get price alert by counter ID | | | |
| Parameters | deviceId | @Header | String | |

| | apikey | @Header | String | |
|---|---|---|---|---|
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Query | String | Product/Market/ Exchange/ CounterCode |
| Produce | application/json | | | |
| Result | ```json<br>{<br>    "msg": String,<br>    "code": int,<br>    "counterID": String,<br>    "product": String,<br>    "productIcon": String,<br>    "counterName": String,<br>    "delayIndicator":String,<br>    "alerts": [{<br>      "alertID": String,<br>      "alertType": String,<br>      "alertValue": String<br>    }]<br>}``` | | | |

## 10.4.   Price Alert Update

| URL | /global/alert/price/update | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Update price alert rules | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | counterID | @Form | String | |

| | | | | |
|---|---|---|---|---|
| | rules | @Form | String | JSON format<br>[{<br>"alertID": String,<br>"alertType": String,<br>"alertValue": String,<br>"alertSwitch": String<br>}]<br><br>-If alertID is null and alertSwitch is true, this rules will be new.<br>-If alertSwitch is false the the rule will be removed. |
| Produce | application/json | | | |
| Result | {<br>    "msg": String,<br>    "code": int,<br>    "disclaimer": String,<br>    "alerts": [{<br>        "alertID": String,<br>        "alertField": String,<br>        "operator": String,<br>        "alertValue": String<br>    }]<br>} | | | |

## AlertType values & Definition

| Key | Description |
|---|---|
| last_done_down | less than last done value |
| last_done_up | greater than last done value |
| bid_price_down | less than bid price |
| bid_price_up | greater than bid price |
| ask_price_down | less than ask price |
| ask_price_up | greater than ask price |
| pct_change_down | less than change percentage value |
| pct_change_up | greater than change percentage value |
| trade_vol_up | greater than **volume(K)** value |

## 10.5.   Price Alert Delete

| | | | | |
|---|---|---|---|---|
| URL | /global/alert/price/delete | | | |
| Verb | POST | | | |
| Description | Delete price alert | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |

| | osVersion | @Form | String | |
|---|---|---|---|---|
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | alertIDs | @Form | String | [{ counterID: String, alertIDs: [{ alertID: String }] }] |
| Produce | application/json | | | |
| Result | { <br>     "msg": String, <br>     "code": int <br> } | | | |

## 10.6.   Order Alert List

| URL | /global/alert/order | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get order alert list | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | orderAlertTimeStamp | @Query | String | yyyyMMddHHmmss( 24 hours format) |
| Produce | application/json | | | |

| Result | ``` |
|--------|-----|
|  | { |
|  |     "msg": String, |
|  |     "code": int, |
|  |     "timeStamp":String, |
|  |     "orderAlerts": [{ |
|  |      "counterID": String, |
|  |      "product": String, |
|  |      "productIcon": String, |
|  |      "counterName": String, |
|  |      "orderNo": String, |
|  |      "refNo": String, |
|  |      "orderType": String, |
|  |      "orderStatus": String, |
|  |      "action": String, |
|  |      "price": String, |
|  |      "quantity": String, |
|  |      "execTime": String, |
|  |      "highlight": Boolean |
|  |     }] |
|  | } |

## 10.7. Pre-Login Announcement

| URL | /global/alert/prelogin/announcement | | | |
|-----|------|------|------|------|
| Verb | GET | | | |
| Description | Get announcement list | | | |
| Parameters | deviceId | @Header | String | |
|  | apikey | @Header | String | |
|  | versionNo | @Header | String | |
|  | osVersion | @Query | String | |
|  | count | @Query | int | default: 3 |
|  | language | @Query | int | default: 1 |
| Produce | application/json | | | |
| Result | ```{ "msg": String, "code": int, "timeStamp": String, "announcements": [{ "announcementID": String, "product": String, "title": String, "time": String, "highlight": Boolean }] }``` | | | |

Note: Able to retrieve from external file for downtime announcement

## 10.8. Pre-Login Announcement Detail

| URL | /global/alert/prelogin/announcement/{announcementID} |
|-----|------|
| Verb | GET |

| Description | Get announcement list | | | |
|---|---|---|---|---|
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | announcementID | @Path | int | |
| Produce | application/json | | | |
| Result | ```{     "msg": String,     "code": int,     "product": String,     "announcementID": String,     "title": String,     "time": String,     "content": String }``` | | | |

Note: Able to retrieve from external file for downtime announcement

## 10.9.  Announcement

| URL | /global/alert/announcement | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get announcement list | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | product | @Query | String | productkey |
| | announcementTimeStamp | @Query | String | format : yyyyMMddHHmmss |
| Produce | application/json | | | |

| Result | ```<br>{<br>    "msg": String,<br>    "code": int,<br>    "timeStamp": String,<br>    "announcements": [{<br>      "announcementID": String,<br>      "product": String,<br>      "title": String,<br>      "time": String,<br>      "highlight": Boolean<br>    }]<br>}<br>``` |
|---|---|

## 10.10. Announcement Detail

| URL | /global/alert/announcement/{announcementID} | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get announcement list | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | product | @Query | String | productkey |
| | announcementID | @Path | int | |
| Produce | application/json | | | |
| Result | ```<br>{<br>    "msg": String,<br>    "code": int,<br>    "product": String,<br>    "announcementID": String,<br>    "title": String,<br>    "time": String,<br>    "content": String<br>}<br>``` | | | |

## 10.11. Stocks Account Alert

| URL | /st/alert/account | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get Stocks account alert | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |

| | versionNo | @Header | String | |
|---|---|---|---|---|
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | accountAlertSTTimeStamp | @Header | Long | |
| Produce | application/json | | | |
| Result | <pre>{<br>    "msg": String,<br>    "code": int,<br>    "timeStamp": Long,<br>    "marginCallAmount": String,<br>    "marginCallDate": String,<br>    "marginCallDays": String,<br>    "ledgerDeficits": [{<br>      "currency": String,<br>       "deficit": String<br>    }],<br>    "ledgerDeficitDate": String<br>}</pre> | | | |

## 10.12. CFD Account Alert

| URL | /cfd/alert/account | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get CFD account alert | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | accountAlertCFDTimeStamp | @Header | Long | |
| Produce | application/json | | | |

| Result | ``` { "msg": String, "code": int, "timeStamp": Long, "marginCallAmount": String, "marginCallDate": String, "marginCallDays": String, "ledgerDeficits": [{ "currency": String, "deficit": String }], "ledgerDeficitDate": String } ``` |
|---|---|

## 10.13. UT Account Alert

| URL | /ut/alert/account | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get UT account alert | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | ``` { "msg": String, "code": int, "timeStamp": Long, "cashAmount": String, "cashDate": String, "cpfoaAmount": String, "cpfsaAmount": String, "srsAmount": String, "cpfDate": String } ``` | | | |

## 10.14. Alert Settings

| URL | /global/alert/settings | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get Alert Settings | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |

| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | notificationToken | @Header | String | |
| Produce | application/json | | | |
| Result | ```{
    "msg": String,
    "code": int,
    "alertSettings": [{
      "key": String,
      "display": String,
      "value": Boolean,
      "subSettings": [{ /*For order alert status settings */
        "key": String,
        "display": String,
        "value": Boolean
      }]
    }]
}``` | | | |

## 10.15. Alert Settings Update

| URL | /global/alert/settings/update | | | |
| --- | --- | --- | --- | --- |
| Verb | POST | | | |
| Description | Update Alert Settings | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | settingKey | @Form | String | Same as alert settings return properties<br><br>Setting keys(sorted by display order) are :<br>AllAlerts, 9001, 9100, 9108, 9101, 9102, 9103, 9104, 9105, 9109, 9106, 9107, 9110, 9201, 9202, 9203, 9301 |
| | settingValue | @Form | Boolean | |

| Produce | application/json |
|---|---|
| Result | ```<br>{<br>    "msg": String,<br>    "code": int<br>}<br>``` |

## 10.16. Check Notification Device

| URL | /global/alert/device | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Check notification token device | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | ```<br>{<br>    "msg": String,<br>    "code": int<br>}<br>``` | | | |

FE App must keep the account numbers that have been set.

## 10.17. Update Notification Device

| URL | /global/alert/device/update | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Update notification device | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | notificationToken | @Form | String | |
| Produce | application/json | | | |

| Result | `{`<br>    `"msg": String,`<br>    `"code": int`<br>`}` |
|---|---|

## 10.18. Update Notification Token

| URL | /global/alert/updatetoken | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Update Push Notification Alert Token | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | notificationToken | @Form | String | |
| Produce | application/json | | | |
| Result | `{`<br>    `"msg": String,`<br>    `"code": int`<br>`}` | | | |

11.     **Online Forms**

11.1.   Stocks Withdrawal Form Info.

| URL | /st/onlineforms/withdrawal | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get online withdrawal information | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | accountType | @Header | String | |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
    "msg": String,
    "code": int,
    "passwordRequire": Boolean,
    "twoFARequire": Boolean,
    "currencies": [ String ],
    "processDates": [ String ], /*yyyyMMdd*/
    "otherAccounts": [{
        "text": String, /* (RemisierCd) Ccode (SpelCd) */
        "acctNo": String,
        "spelCd": String,
        "remisierCd":String
    }],
    "rewardOptions": [{
        "text": String,
        "code": String,
        "amount": Decimal
    }],
    "withdrawalType": [{
        "text": String,
        "value": String, /*DEPOSIT_LOCAL_BANK / CHEQUE_DEPOSIT / ...*/
        "supportedCurrency": [ String ]
    }]
}
```

11.2.   Stocks Withdrawal Form Validate

| URL | /st/onlineforms/withdrawal/validate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Validate online withdrawal form | | | |
| Parameters | deviceId | @Header | String | |

| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | accountType | @Header | String | |
| | withdrawalType | @Form | String | |
| | amount | @Form | Decimal | |
| | currency | @Form | String | |
| | processDate | @Form | String | yyyyMMdd |
| | remarks | @Form | String | |
| | ttAcctNo | @Form | String | |
| | ttAcctName | @Form | String | |
| | ttBank | @Form | String | |
| | ttDetail | @Form | String | |
| | ttBranch | @Form | String | |
| | ttSwiftCd | @Form | String | |
| | ttInterBank | @Form | String | |
| | ttInterSwiftCd | @Form | String | |
| | taAcctNo | @Form | String | |
| | taSpelCd | @Form | String | |
| | taRemisierCd | @Form | String | |
| | taDetails | @Form | String | |
| | dcBank | @Form | String | |
| | dcAcctNo | @Form | String | |
| | rpCode | @Form | String | |
| | rpOthers | @Form | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>    "msg": String, /* If success, to return confirmation text  and note*/<br>    "code": int,<br>    "passwordRequire": Boolean,<br>    "twoFARequire": Boolean,<br>    "authToken": String<br>    "confirmMsg" : String<br>    "note" : String<br>}</pre> | | | |

## 11.3. Stocks Withdrawal Form Submit

| URL | /st/onlineforms/withdrawal/submit | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Submit online withdrawal form | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | authToken | @Header | String | |
| | accountType | @Header | String | |
| | withdrawalType | @Form | String | |
| | amount | @Form | Decimal | |
| | currency | @Form | String | |
| | processDate | @Form | String | yyyyMMdd |
| | remarks | @Form | String | |
| | ttAcctNo | @Form | String | |
| | ttBank | @Form | String | |
| | ttDetail | @Form | String | |
| | ttBranch | @Form | String | |
| | ttSwiftCd | @Form | String | |
| | ttInterBank | @Form | String | |
| | ttInterSwiftCd | @Form | String | |
| | taAcctNo | @Form | String | |
| | taSpelCd | @Form | String | |
| | taRemisierCd | @Form | String | |
| | taDetails | @Form | String | |
| | dcBank | @Form | String | |
| | dcAcctNo | @Form | String | |
| | rpCode | @Form | String | |
| | rpOthers | @Form | String | |
| Produce | application/json | | | |

| Result | ```
{
    "msg": String,
    "code": int,
    "passwordRequire": Boolean,
    "twoFARequire": Boolean
}
``` |
|---|---|

## 11.4.   Stocks Currency Conversion Form Info

| URL | /st/onlineforms/currencyconversion | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get currency conversion form information | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | accountType | @Header | String | M/V/C |
| Produce | application/json | | | |
| Result | ```
{
    "msg": String,
    "code": int,
    "passwordRequire": Boolean,
    "twoFARequire": Boolean,
    "optIn": Boolean, /* false to show Opt In Form*/
    "currencies": [ String ],
    "processDates": [ String ], /*yyyyMMdd*/
    "conversionType": [{
      "text": String,
      "value": String
    }]
}
``` | | | |

## 11.5.   Stocks Currency Conversion Form Validate

| URL | /st/onlineforms/currencyconversion/validate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Validate online currency conversion form | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |

| | accountNo | @Header | String | |
|---|---|---|---|---|
| | sessionId | @Header | String | |
| | accountType | @Header | String | M/V/C |
| | encryptedPIN | @Header | String | |
| | processDate | @Form | String | yyyyMMdd |
| | | | | |
| | conversionType | @Form | String | |
| | sourceCurrency | @Form | String | |
| | sourceAmount | @Form | String | |
| | targetCurrency | @Form | String | |
| | targetAmount | @Form | String | |
| | offsetSourceCurrency | @Form | String | |
| | offsetTargetCurrency | @Form | String | |
| | remarks | @Form | String | |
| Produce | application/json | | | |
| Result | {<br>    "msg": String,  /* If success, to return confirmation text */<br>    "code": int,<br>    "passwordRequire": Boolean,<br>    "twoFARequire": Boolean,<br>    "authToken": String,<br>    "confirmMessage": String<br><br>} | | | |

## 11.6.   Stocks Currency Conversion Form Submit

| URL | /st/onlineforms/currencyconversion/submit | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Submit online currency conversion form | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | accountType | @Header | String | M/V/C |
| | authToken | @Header | String | |
| | processDate | @Form | String | yyyyMMdd |

| | conversionType | @Form | String | |
|---|---|---|---|---|
| | sourceCurrency | @Form | String | |
| | sourceAmount | @Form | String | |
| | targetCurrency | @Form | String | |
| | targetAmount | @Form | String | |
| | offsetSourceCurrency | @Form | String | |
| | offsetTargetCurrency | @Form | String | |
| | remarks | @Form | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>    "msg": String,<br>    "code": int,<br>    "passwordRequire": Boolean,<br>    "twoFARequire": Boolean<br>}</pre> | | | |

## 11.7.   Stocks Online Form History

| URL | /st/onlineforms/history | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get Stocks Online Forms History | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | accountType | @Header | String | |
| | period | @Query | String | yyyyMM |
| Produce | application/json | | | |

| Result | ``` |
|---|---|
|  | {<br>    "msg": String,<br>    "code": int,<br>    "passwordRequire": Boolean,<br>    "twoFARequire": Boolean,<br>    "history": [{<br>        "description": String,<br>        "status": String,<br>        "formType": String, /* WITHDRAWAL/CURRENCY_CONVERSION*/<br>        "processNo": String,<br>        "time": String,<br>        "cancelable": Boolean,<br>        "adminRemark": String,<br>        "clientRemark": String,<br>    }]<br>} |

## 11.8.   Stocks Online Form Cancel

| URL | /st/onlineforms/cancel | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Cancel Stocks Online Forms | | | |
| Parameters | deviceId | @Header | String | |
|  | apikey | @Header | String | |
|  | versionNo | @Header | String | |
|  | osVersion | @Form | String | |
|  | language | @Form | int | default: 1 |
|  | accountNo | @Header | String | |
|  | sessionId | @Header | String | |
|  | accountType | @Header | String | |
|  | encryptedPIN | @Header | String | |
|  | wdProcessNos | @Form | String | With , separator |
|  | ccProcessNos | @Form | String | With , separator |
| Produce | application/json | | | |
| Result | {<br>    "msg": String,<br>    "code": int,<br>    "passwordRequire": Boolean,<br>    "twoFARequire": Boolean<br>} | | | |

## 11.9.   CFD Withdrawal Form Info

| URL | /cfd/onlineforms/withdrawal |
|---|---|
| Verb | GET |
| Description | Get online withdrawal information |

| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
    "msg": String,
    "code": int,
    "passwordRequire": Boolean,
    "twoFARequire": Boolean,
    "currencies": [ String ],
    "otherAccounts": [{
        "text": String, /*Ccode(SpelCd)*/
        "acctNo": String,
        "spelCd": String
    }],
    "withdrawalType": [{
        "text": String,
        "value": String
    }]
}
```

## 11.10. CFD Withdrawal Form Validate

| URL | /cfd/onlineforms/withdrawal/validate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Validate online withdrawal form | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | |
| | withdrawalType | @Form | String | |
| | amount | @Form | Decimal | |
| | currency | @Form | String | |
| | remarks | @Form | String | |
| | taAcctNo | @Form | String | |

| | | | | |
|---|---|---|---|---|
| | taSpelCd | @Form | String | |
| | taDetails | @Form | String | |
| | dcBank | @Form | String | |
| | dcAcctNo | @Form | String | |
| Produce | application/json | | | |
| Result | `{`<br>`    "msg": String,  /* If success, to return confirmation text */`<br>`    "code": int,`<br>`    "passwordRequire": Boolean,`<br>`    "twoFARequire": Boolean,`<br>`    "authToken": String,`<br>`    "confirmMessage": String,`<br>`    "note": String`<br>`}` | | | |

## 11.11.  CFD Withdrawal Form Submit

| | | | | |
|---|---|---|---|---|
| URL | /cfd/onlineforms/withdrawal/submit | | | |
| Verb | POST | | | |
| Description | submit online withdrawal form | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | authToken | @Header | String | |
| | withdrawalType | @Form | String | |
| | amount | @Form | Decimal | |
| | currency | @Form | String | |
| | remarks | @Form | String | |
| | taAcctNo | @Form | String | |
| | taSpelCd | @Form | String | |
| | taDetails | @Form | String | |
| | dcBank | @Form | String | |
| | dcAcctNo | @Form | String | |
| Produce | application/json | | | |

| Result | ```{     "msg": String,     "code": int,     "passwordRequire": Boolean,     "twoFARequire": Boolean }``` |
|---|---|

## 11.12. CFD Currency Conversion Form Info

| URL | /cfd/onlineforms/currencyconversion | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get currency conversion form information | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | ```{     "msg": String,     "code": int,     "passwordRequire": Boolean,     "twoFARequire": Boolean,     "currencies": [ String ],     "conversionType": [{        "text": String,         "value": String     }] }``` | | | |

## 11.13. CFD Currency Conversion Form Validate

| URL | /cfd/onlineforms/currencyconversion/validate | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Validate online currency conversion form | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |

| | | | | |
|---|---|---|---|---|
| | encryptedPIN | @Header | String | |
| | conversionType | @Form | String | |
| | sourceCurrency | @Form | String | |
| | sourceAmount | @Form | String | |
| | targetCurrency | @Form | String | |
| | targetAmount | @Form | String | |
| | remarks | @Form | String | |
| Produce | application/json | | | |
| Result | ```{
    "msg": String, /* If success, to return confirmation text */
    "code": int,
    "passwordRequire": Boolean,
    "twoFARequire": Boolean,
    "authToken": String,
    "confirmMessage": String
}``` | | | |

## 11.14. CFD Currency Conversion Form Submit

| | | | | |
|---|---|---|---|---|
| URL | /cfd/onlineforms/currencyconversion/submit | | | |
| Verb | POST | | | |
| Description | Submit online currency conversion form | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | authToken | @Header | String | |
| | conversionType | @Form | String | |
| | sourceCurrency | @Form | String | |
| | sourceAmount | @Form | String | |
| | targetCurrency | @Form | String | |
| | targetAmount | @Form | String | |
| | remarks | @Form | String | |
| Produce | application/json | | | |

| Result | ``` { "msg": String, "code": int, "passwordRequire": Boolean, "twoFARequire": Boolean } ``` |
|---|---|

## 11.15. CFD Online Form History

| URL | /cfd/onlineforms/history | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get CFD Online Forms History | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | period | @Query | String | yyyyMM |
| Produce | application/json | | | |
| Result | ``` { "msg": String, "code": int, "passwordRequire": Boolean, "twoFARequire": Boolean, "history": [{ "description": String, "status": String, "formType": String, /* 1/2 */ "processNo": String, "time": String, "cancelable": Boolean, "remarks": String }] } ``` | | | |

## 11.16. CFD Online Form Cancel

| URL | /cfd/onlineforms/cancel | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Cancel CFD Online Forms | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |

| | | | | |
|---|---|---|---|---|
| osVersion | @Form | String | |
| language | @Form | int | default: 1 |
| accountNo | @Header | String | |
| sessionId | @Header | String | |
| encryptedPIN | @Header | String | |
| wdProcessNos | @Form | String | With , separator |
| ccProcessNos | @Form | String | With , separator |

| Produce | application/json |
|---|---|
| Result | ```
{
    "msg": String,
    "code": int,
    "passwordRequire": Boolean,
    "twoFARequire": Boolean,
    "cancelList": [{
        "processNo": String,
        "onlineFormType": String
    }]
}
``` |

## 11.17. Stocks Withdrawal Form Note

| URL | /st/onlineforms/withdrawal/note |
|---|---|
| Verb | GET |
| Description | Get online withdrawal form note |

| Parameters | deviceId | @Header | String | |
|---|---|---|---|---|
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | withdrawalType | @ Query | String | |
| | currency | @ Query | String | |

| Produce | application/json |
|---|---|
| Result | ```
{
    "msg": String,
    "code": int,
    "note": String
}
``` |

## 11.18. CFD Withdrawal Form Note

| URL | /cfd/onlineforms/withdrawal/note |
|---|---|

| Verb | GET | | | |
|------|-----|---|---|---|
| Description | Get online withdrawal form note | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | withdrawalType | @ Query | String | |
| Produce | application/json | | | |
| Result | ```<br>{<br>    "msg": String,<br>    "code": int,<br>    "note": String<br>}<br>``` | | | |

## 12.     Outstanding Position

## 12.1.   Outstanding Position List

| URL | /global/osposition | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get Outstanding Position List | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | <pre>{
    "msg": String,
    "code": int,
    "osPosition": [{
        "groupHeader": String, /*Due: 1-Apr-2016*/
        "groupSummary": String, /*-263.00 (SGD Base)*/
        "groupSummaryColor": String, /*Red / Green*/
        "list": [{
            "counterID": String,
            "detailURI": String, /* ST (Contract, Contra) / UT (From You, UT
To You )*/
            "id": String,
            "product": String,
            "productIcon": String,
            "name": String,
            "amountDue": String, /* +1,909.00 USD */
            "amountDueColor": String /*Red / Green*/
        }]
    }]
}</pre> | | | |

## 12.2.   Stocks Outstanding Position Detail (Contract)

| URL | /st/osposition/contract | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get Stocks Outstanding Position Detail for contract | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |

| | accountNo | @Header | String | |
|---|---|---|---|---|
| | sessionId | @Header | String | |
| | accountType | @Query | String | |
| | id | @Query | String | |
| Produce | application/json | | | |
| Result | {<br>   "msg": String,<br>   "code": int,<br>   "counterID": String,<br>   "contractNo": String,<br>   "contractDate": String,<br>   "dueDate": String,<br>   "price": String,<br>   "quantity": String,<br>   "settlementAmount": String, /* 20,980.00 SGD */<br>   "paymentMode": String,<br>   "exchangeRate": String<br>} | | | |

## 12.3.  Stocks Outstanding Position Detail (Contra)

| URL | /st/osposition/contra | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get Stocks Outstanding Position Detail for contra | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | accountType | @Query | String | |
| | id | @Query | String | |
| Produce | application/json | | | |

| Result | ```
{
    "msg": String,
    "code": int,
    "counterID": String,
    "contraNo": String,
    "date": String,
    "dueDate": String,
    "exchangeRate": String,
    "paymentMode": String,
    "paymentDue": String,
    "paymentDueColor": String, /*Red / Green*/
    "contracts": [{
        "contractNo": String,
        "action": String, /* Buy / Sell */
        "contractDate": String, /* 10-Oct-2015 */
        "particulars": String,
        "amount": String, /* 20,980.00 SGD */
        "amountColor": String /*Red / Green*/
    }]
}
``` |
|---|---|

## 12.4.  UT Outstanding Position Detail (From You)

| URL | /ut/osposition/fromyou | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get UT Outstanding Payment Detail from you | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | id | @Query | String | |
| Produce | application/json | | | |

| Result | ``` |
|--------|-----|
|        | {<br>    "msg": String,<br>    "code": int,<br>    "counterID": String,<br>    "fundName": String,<br>    "transactionNo": String,<br>    "transactionDate": String, /* 10-Oct-2015 */<br>    "investmentType": String,<br>    "transactionType": String,<br>    "orderSource": String,<br>    "orderStatus": String,<br>    "fundSource": String,<br>    "currency": String,<br>    "noOfDays": String,<br>    "amount": String,<br>    "settlementDate": String, /* 10-Oct-2015 */<br>    "giro": String<br>} |

## 12.5. UT Outstanding Position Detail (To You)

| URL | /ut/osposition/toyou | | | |
|-----|------|---|---|---|
| Verb | GET | | | |
| Description | Get UT Outstanding Payment Detail from you | | | |
| Parameters | deviceId | @Header | String | |
|  | apikey | @Header | String | |
|  | versionNo | @Header | String | |
|  | osVersion | @Query | String | |
|  | language | @Query | int | default: 1 |
|  | accountNo | @Header | String | |
|  | sessionId | @Header | String | |
|  | id | @Query | String | |
| Produce | application/json | | | |
| Result | {<br>    "msg": String,<br>    "code": int,<br>    "counterID": String,<br>    "fundName": String,<br>    "transactionNo": String,<br>    "transactionDate": String, /* 10-Oct-2015 */<br>    "fundSouce": String,<br>    "currency": String,<br>    "amount": String,<br>    "dueDate": String, /* 10-Oct-2015 */<br>    "giro": String,<br>    "eps": String,<br>    "bank": String,<br>    "bankAccount": String<br>} | | | |

## 13.    **Portfolio**

### 13.1.   Equity Balance List

| URL | /global/portfolio/equitybalance | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get portfolio equity balance | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | ``` { "msg": String, "code": int, "clientName": String, "accountType": String, "total": String, /* SGD 100,000.00 */ "balanceInfo": [{ "type": String, /* ST, FT, CFD, UT */ "lastUpdated": String, /* 10-Oct-2015 5:00PM */ "balance": String, /* 100,000.00 */ "currency": String, /* SGD */ "typeIcon": String }] } ``` | | | |

### 13.2.   Stocks Account Details

| URL | /st/portfolio/accountdetails | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get stocks account details | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | accountType | @Header | String | |

| Produce | application/json |
|---------|------------------|
| Result | ```json
{
    "msg": String,
    "code": int,
    "lastUpdated": String, /* 10-Oct-2015 5:00PM */
    "details": [{
        "currency": String, /* SGD Base, SGD, etc*/
        "balanceAsYesterday": String, /* 100,000.00 or -100,000.00*/
        "fundReceivedToday": String,
        "openingBalanceToday": String,
        "itemsDueForSettlement": String,
        "availableBalance": String,
        "allItemsOutstanding": String,
        "netAmount": String,
        "totalAssetValue": String,
        /* Below for V & M account */
        "collateralValue": String,
        "marginCall": String,
        "marginRatio": String,
        "creditLimit": String,
        "purchaseA": String,
        "purchaseB": String,
        "purchaseC": String,
        /* Below for V account */
        "cashCall": String
    }]
}
``` |

## 13.3.  CFD Account Details

| URL | /cfd/portfolio/accountdetails | | | |
|-----|-------------------------------|---|---|---|
| Verb | GET | | | |
| Description | Get CFD account details | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |

| Result | ```{     "msg": String,     "code": int,     "lastUpdated": String, /* 10-Oct-2015 5:00PM */     "currency": String, /* SGD Base */     "ledgerBalance": String, /* 100,000.00 or -100,000.00*/     "unrealizedPL": String,     "equityBalance": String,     "availableCash": String,     "maintenanceMargin": String,     "marginUtilization": String, /* 26.23% */     "creditLeft": String,     "creditLimit": String }``` |
|---|---|

## 13.4.  UT Account Details

| URL | /ut/portfolio/accountdetails | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get UT account details | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | ```{     "msg": String,     "code": int,     "lastUpdated": String, /* 10-Oct-2015 5:00PM */     "details": [{         "currency": String, /* SGD Base, SGD, etc*/         "availableCash": String, /* 100,000.00 or -100,000.00*/         "totalCost": String,         "marketValue": String,         "unrealizedPL": String,         "gainLossPct": String /* 26.23% */     }] }``` | | | |

## 13.5.  Stocks Holdings (Unrealized Profit Loss)

| URL | /st/portfolio/holdings | | |
|---|---|---|---|
| Verb | GET | | |
| Description | Get Stocks holdings | | |
| Parameters | deviceId | @Header | String |

| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
    "msg": String,
    "code": int,
    "total": String,
    "currency": String, /* SGD Base */
    "lastUpdated": String,
    "holdings": [{
        "exchange": String, /* Exchange Grouping */
        "currencies": [{
            "currency": String, /* Traded Currency Grouping */
            "unrealizedPL": String,
            "list": [{
                "counterID": String,
                "name": String,
                "unrealizedPL": String,
                "qty": String,
                "mktValue": String,
                "aveCostPrice": String,
                "closingPrice": String,
                "tradedCurr": String,
                "suspendedQty": String,
                "totalCost": String
            }]
        }]
    }]
}
```

Note: Holdings Details data get from list. (All fields available)

## 13.6.   CFD Positions List

| URL | /cfd/portfolio/positions | | | |
|-----|------|------|------|------|
| Verb | GET | | | |
| Description | Get CFD positions list | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |

| Produce | application/json |
|---------|------------------|

| Result | <pre>{
    "msg": "Success",
    "code": 1,
    "total": "1,950,595.01",
    "currency": "SGD",
    "lastUpdated": "15-Jun-2017 04:03PM",
    "holdings": [
        {
            "product": "CFD",
            "productIcon": "CFD",
            "list": [
                {
                    "counterID": "CFD/HK/HKSE/0293.HK",
                    "product": "CFD",
                    "productIcon": "CFD",
                    "name": "CATHAY PAC AIRWY",
                    "unrealizedPL": "9,740",
                    "qty": "1,000",
                    "rolloverPrice": "2.62",
                    "entryPrice": "10.36",
                    "markToMarket": "12.36*",
                    "currency": "HKD",
                    "detailURI": "/cfd/portfolio/positions/
20170615/20170519C000075/001",
                    "subList": null,
                    "market": "HK",
                    "exchange": "HKSE",
                    "delayIndicator": "",
                    "tradable": true
                },
                {
                    "counterID": "CFD/HK/HKSE/0002.HK",
                    "product": "CFD",
                    "productIcon": "CFD",
                    "name": "CLP HOLDINGS LTD",
                    "unrealizedPL": "38,090",
                    "qty": "3,500",
                    "rolloverPrice": "72.2671",
                    "entryPrice": "83.1428",
                    "markToMarket": "83.15*",
                    "currency": "HKD",
                    "detailURI": "",
                    "subList": [
                        {
                            "counterID": "CFD/HK/HKSE/
0002.HK",
                            "detailURI": "/cfd/portfolio/
positions/20170615/20170519C000063/001",
                            "name": "CLP HOLDINGS LTD",
                            "unrealizedPL": "40,265",
                            "qty": "500",
                            "rolloverPrice": "2.62",
                            "entryPrice": "78.75",
                            "markToMarket": "83.15*",
                            "currency": "HKD",
                            "market": "HK",
                            "exchange": "HKSE",
                            "delayIndicator": "",
                            "tradable": true
                        }
                    ],
                    "market": "HK",
                    "exchange": "HKSE",
                    "delayIndicator": "",
                    "tradable": true
                }
            ]
        },
        {
            "product": "CFDDMA",</pre> |
| --- | --- |

## 13.7.   CFD Positions Details

| URL | /cfd/portfolio/positions/{tradeDate}/{orderNo}/{subOrderNo} | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get CFD position detail | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | tradeDate | @Path | String | |
| | orderNo | @Path | String | |
| | subOrderNo | @Path | String | |
| | counterID | @Query | String | |
| Produce | application/json | | | |
| Result | <pre>{<br>    "msg": String,<br>    "code": int,<br>    "lastUpdated": String,<br>    "counterID": String,<br>    "contractNo": String,<br>    "description": String,<br>    "action": String,<br>    "entryPrice": String,<br>    "qty": String,<br>    "currency": String,<br>    "rolloverPrice": String,<br>    "markToMarket": String,<br>    "maintenanceMargin": String,<br>    "unrealizedPL": String,<br>    "unrealizedFC": String,<br>    "tradedDate": String,<br>    "expiryDate": String<br>}</pre> | | | |

## 13.8.   UT Holdings

| URL | /ut/portfolio/holdings | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get UT Holdings | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |

| | | | | |
|---|---|---|---|---|
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |

| Result | {<br>    "msg": "success",<br>    "code": 1,<br>    "total": "1,692.46",<br>    "totalCost": "38,287.04",<br>    "totalMarketValue": "40,094.36",<br>    "currency": "SGD",<br>    "lastUpdated": "15-Jun-2017 04:16PM",<br>    "holdings": [<br>        {<br>            "currency": "SGD",<br>            "unrealizedPL": "2,764.59",<br>            "cost": "33,287.04",<br>            "marketValue": "36,051.63",<br>            "list": [<br>                {<br>                    "counterID": "UT/UT/UT/501010",<br>                    "name": "Aberdeen American Opportunities Fund",<br>                    "units": "1,987.5800",<br>                    "indicativeNAV": "1.2107",<br>                    "costPrice": "1.0062",<br>                    "currency": "SGD",<br>                    "cost": "2,000.00",<br>                    "marketValue": "2,406.36",<br>                    "fundCode": "501010",<br>                    "isinCode": "SG9999000376",<br>                    "unrealizedPL": "406.36",<br>                    "changePct": "20.32",<br>                    "symbol": "501010",<br>                    "fundSource": "Cash",<br>                    "market": "UT",<br>                    "exchange": "UT",<br>                    "delayIndicator": "",<br>                    ==**"tradable": true**==<br>                }<br>            ]<br>        },<br>        {<br>            "currency": "USD",<br>            "unrealizedPL": "-769.22",<br>            "cost": "3,669.72",<br>            "marketValue": "2,900.50",<br>            "list": [<br>                {<br>                    "counterID": "UT/UT/UT/518310",<br>                    "name": "Deutsche Noor Precious Metals Securities Fund Class A - USD",<br>                    "units": "5,817.2816",<br>                    "indicativeNAV": "0.4986",<br>                    "costPrice": "0.6308",<br>                    "currency": "USD",<br>                    "cost": "3,669.72",<br>                    "marketValue": "2,900.50",<br>                    "fundCode": "518310",<br>                    "isinCode": "IE00B1FQCN68",<br>                    "unrealizedPL": "-769.22",<br>                    "changePct": "-20.96",<br>                    "symbol": "518310",<br>                    "fundSource": "Cash",<br>                    "market": "UT",<br>                    "exchange": "UT",<br>                    "delayIndicator": "",<br>                    ==**"tradable": true**==<br>                }<br>            ]<br>        }<br>    ],<br>    "needDisclaimer": false,<br>    "disclaimers": null |
|---|---|

Note: Holdings Details data get from list. (All fields available)


## 13.9.  General Disclaimer (Portfolio, Account Detail, Holdings, etc)

| URL | /global/portfolio/disclaimer | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get disclaimer by screen type | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | product | @Query | String | |
| | disclaimerType | @Query | String | Posible value: Portfolio Holdings FXInvest OSPosition OnlineForms |
| Produce | application/json | | | |
| Result | ```{     "msg": String,     "code": int,     "disclaimerContent": String }``` | | | |

14.    **Transaction History**

14.1.    Stocks Transaction History List

| URL | /st/transactionhistory | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get Stocks Transaction History List | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | currency | @Query | String | |
| | month | @Query | String | YYYYMM |
| | accountType | @Query | String | |
| | pageSize | @Query | int | default: 50 |
| | pageIndex | @Query | Int | default: 1 |
| Produce | application/json | | | |
| Result | ```{     "msg": String,     "code": int,     "totalRow": int,     "lastUpdated": String,     "currencies": [ String ],     "transHistory": [{        "currency": String,        "date": String, /* 10-Oct-2015 */        "description": String,        "debit": String,        "credit": String,        "balance": String     }] }``` | | | |

Note: UT transaction history display same data as stocks
Currency grouping will be done at front end, as monthly transaction will have a lot of data so have to apply paging.

14.2.    CFD Transaction History List

| URL | /cfd/transactionhistory | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Get CFD Transaction History List | | | |
| Parameters | deviceId | @Header | String | |

| | | | | |
|---|---|---|---|---|
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | currency | @Query | String | |
| | month | @Query | String | YYYYMM |
| Produce | application/json | | | |
| Result | {<br>   "msg": String,<br>   "code": int,<br>   "currencies": [ String ],<br>   "lastUpdated": String,<br>   "transHistory": [{<br>      "date": String, /* 10-Oct-2015 */<br>      "currencies": [{<br>         "currency": String,<br>         "subtotal": String,<br>         "list": [{<br>            "description": String,<br>            "amount": String<br>         }]<br>      }]<br>   }]<br>} | | | |

## 15.    **Settings**

### 15.1.    Hotline

| URL | /global/settings/hotline | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve hotlines numbers | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| Produce | application/json | | | |
| Result | ```<br>{<br>  "msg": String,<br>  "code": Int,<br>  "stocks": String,<br>  "cfddma": String,<br>  "ftfx": String,<br>  "contactUsCategories": [<br>    {<br>      "text": String,<br>      "value": String<br>    }<br>  ]<br>}<br>``` | | | |

### 15.2.    Menu

| URL | /global/settings/menu | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve Menu Settings | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | module | @Query | String | |
| Produce | application/json | | | |

| Result | ```<br>{<br>  "msg": String,<br>  "code": Int,<br>  "Menu": [<br>    {<br>      "displayName": String,<br>      "id": String,<br>      "index": Int<br>    }<br>  ]<br>}<br>``` |
|---|---|

## 15.3.   Remisier

| URL | /global/settings/remisier | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve remisier info | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | ```<br>Remisier [{<br>    "type": String,  /* AE or TR*/<br>    "name": String,<br>    "code": String,<br>    "email": String,<br>    "officeNumber": String,<br>    "mobileNumber": String<br>}]<br>``` | | | |

## 15.4.   Product Access

| URL | /global/settings/productaccess | | | |
|---|---|---|---|---|
| Verb | GET | | | |
| Description | Retrieve product Access | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |

| | sessionId | @Header | String | |
|---|---|---|---|---|
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
  "msg": String,
  "code": int,
  "ST": {
    "access": Boolean,
    "binaryFlag": int,
    "icon": String,
    "name": String,
    "searchEnabled": Boolean
  },
  "CFD": {
    "access": Boolean,
    "binaryFlag": int,
    "icon": String,
    "name": String,
    "searchEnabled": Boolean
  },
  "CFDDMA": {
    "access": Boolean,
    "binaryFlag": int,
    "icon": String,
    "name": String,
    "searchEnabled": Boolean
  },
  "FT": {
    "access": Boolean,
    "binaryFlag": int,
    "icon": String,
    "name": String,
    "searchEnabled": Boolean
  },
  "FX": {
    "access": Boolean,
    "binaryFlag": int,
    "icon": String,
    "name": String,
    "searchEnabled": Boolean
  },
  "FXMN": {
    "access": Boolean,
    "binaryFlag": int,
    "icon": String,
    "name": String,
    "searchEnabled": Boolean
  },
  "UT": {
    "access": Boolean,
    "binaryFlag": int,
    "icon": String,
    "name": String,
    "searchEnabled": Boolean
  },
  "allSearchValue": int
}
```

## 15.5.  PMP Settings

| URL | /global/settings/pmp |
|---|---|
| Verb | GET |
| Description | Retrieve PMP Settings |

| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | (see below) | | | |

```
{
  "msg": String,
  "code": Int,
  "module": {
    "counterDetails": Boolean,
    "liveChart": Boolean,
    "marketDepth": Boolean,
    "timeSales": Boolean,
    "top30": Boolean,
    "watchlist": Boolean
  },
  "liveChart": { /*alternative URLs will only return when have multiple URLs*/
    "alternativeHistoricalURLs": [ String ],
    "alternativeLiveURLs": [ String ],
    "historicalURL": String,
    "liveURL": String,
    "topicURL": String
  },
  "enabledProducts": [
    {
      "markets": [
        { /*alternative URLs will only return when have multiple URLs*/
          "alternativeDelayedURLs": [ String ],
          "alternativeURLs": [ String ],
          "market": String,
          "primaryDelayedURL": String,
          "primaryURL": String
        }
      ], /*alternative URLs will only return when have multiple URLs*/
      "orderStatusAlternativeURL": [ String ],
      "orderStatusURL": String,
      "product": String
    }
  ]
}
```

## 15.6.   Retrieve Client Settings

| URL | /global/settings/account | | | |
| --- | --- | --- | --- | --- |
| Verb | GET | | | |
| Description | Retrieve user customized settings | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |

| | language | @Query | int | default: 1 |
|---|---|---|---|---|
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| Produce | application/json | | | |
| Result | ```<br>{<br>  "msg": String,<br>  "code": Int,<br>  "sessionExpire": {<br>    "text": String,<br>    "value": String<br>  },<br>  "passwordConfirmation": Boolean,<br>  "landingScreen": {<br>    "text": String,<br>    "value": String /* menu item's id*/<br>  },<br>  "defaultProduct": {<br>    "text": String,<br>    "value": String /* product key (ST,CFD,UT,FUT,FX) */<br>  },<br>  "language": {<br>    "text": String,<br>    "value": String /* language id (1: EN, 2: CN) */<br>  }<br>}<br>``` | | | |

Note:
Remember my Account, Theme, Font size, Short Cut will not keep on server
Touch ID configuration won't return from Server
Application must maintain supported language list on front end app, if server return un-supported language must set to default language which is EN.
If client's landing screen selected as last view page, front end app must keep the last view page on application. Landing Screen option can retrieve from settings/menu

## 15.7.   Update Client Settings

| URL | /global/settings/account/update | | | |
|---|---|---|---|---|
| Verb | POST | | | |
| Description | Update user customized settings | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | encryptedPIN | @Header | String | Only for disable passwordConfirmation |

| settingType | @Form | String | Possible value: sessionExpire landingScreen defaultProduct language passwordConfirmation |
| --- | --- | --- | --- |
| settingValue | @Form | String | |

| Produce | application/json |
| --- | --- |
| Result | ```<br>{<br>   "msg": String,<br>   "code": Int<br>}<br>``` |

## 15.8.   Settings Options

| URL | /global/settings/options/{settingType} | | | |
| --- | --- | --- | --- | --- |
| Verb | GET | | | |
| Description | Retrieve user customized settings options | | | |
| Parameters | deviceId | @Header | String | |
| | apikey | @Header | String | |
| | versionNo | @Header | String | |
| | osVersion | @Query | String | |
| | language | @Query | int | default: 1 |
| | accountNo | @Header | String | |
| | sessionId | @Header | String | |
| | settingType | @Path | String | Possible value: sessionExpire landingScreen defaultProduct language |
| Produce | application/json | | | |
| Result | ```<br>{<br>   "msg": String,<br>   "code": Int,<br>   "settingOptions": [{<br>     "text": String,<br>     "value": String<br>   }]<br>}<br>``` | | | |

## 15.9.   Contact Us

| URL | /global/settings/contactus | | | |
| --- | --- | --- | --- | --- |
| Verb | POST | | | |
| Description | To send contact us message | | | |
| Parameters | deviceId | @Header | String | |

| | apikey | @Header | String | |
|---|---|---|---|---|
| | versionNo | @Header | String | |
| | osVersion | @Form | String | |
| | language | @Form | int | default: 1 |
| | accountNo | @Header | String | Required for post-login |
| | sessionId | @Header | String | Required for post-login |
| | category | @Form | String | |
| | message | @Form | String | |
| | email | @Form | String | Client email address, required for pre-login |
| | name | @Form | String | Client name, required for pre-login |
| Produce | application/json | | | |
| Result | {<br>  "msg": String,<br>  "code": Int<br>} | | | |

## III.    Input/Output files used

1.    Input/Output file format design (with Samples attached)
2.    Database connections used

## IV.    Error Message/Warning Message List

## V.    Archival and Record Retention List[1]

| Type of Records Retained | Period of Retention (*from the time when the files are created or used by the application/ system) | Where Doc Retained (i) electronic (indicate system e.g. docuware / shared drive – indicate location) (ii) Warehouse (indicate service provider e.g. Crown) | Indexing (e.g. MM/YY, By client's name-Alphabetic order by surname) |
|---|---|---|---|
| | | | |
| | | | |

Note[1]:  Sample is given in Appendix 1.

# VI.    Program List

# VII.   Acceptance Form

| Project Name : | |
|---|---|
| Document Name : | |
| Company Name : | |
| Project Manager : | |
| Designation : | |
| Signature/Date : | |

# Appendix 1

| Type of Records Retained | Period of Retention (*from the time when the files are created or used by the application/ system) | Where Doc Retained (i) electronic (indicate system e.g. docuware / shared drive – indicate location) (ii) Warehouse (indicate service provider e.g. Crown) | Indexing (e.g. MM/YY, By system Module and sub-module name) |
|---|---|---|---|
| File lists/description of transaction related audit log: **File Name/Description 1** **File Name/Description 2** **...** **File Name/Description n** | 7 years | 1. Log files less than **X** year is stored in: ServerName\Path\ 2.Log files more than **X** year are stored in: XX[1] | System/Module/sub module/YYYYMMDD.log |
| File lists/description of Non-transaction audit logs: **File Name/Description 1** **File Name/Description 2** **...** **File Name/Description n** | 5 years | 1.Log files less than **X** year is stored in: ServerName\Path\ 2. Log files more than **X** years are stored in: XX[1] | Module/sub module / YYYYMMDD.log |
| File lists/description of Data file, report generated/used by the application/system: **File Name/Description 1** **File Name/Description 2** **...** **File Name/Description n** | 5 years | 1. Log files less than **X** year year are stored in ServerName\Path\ 2. Log files more than **X** year are stored in XX[1] | YYYYMMDD.log |

[1] Location example: CD, Avamar,  Log-Bk Server Avamar (Replicate to the DR Avamar),  Tape