

Protocol for WEB API

Offer for Sale System

Version 1.3.0

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National Stock Exchange of India
Ltd Exchange Plaza, Plot No. C/1, G
Block, Bandra-Kurla Complex,
Bandra (E), Mumbai - 400 051.

Change History

Changes in Version 1.2

- Added GET/messaging/message-stream API to facilitate market open/close and order related message via server push mechanism.

Changes in Version 1.2.1

- Added “apiEchoBack” field in Order place/modify/cancel APIs request and response body.

Changes in Version 1.2.2

- Removed “ordertype” field from all order related APIs request and response body.
- Removed “ordertype” field from order bulk upload format.
- Added “Closed” to existing possible “orderStatus” field values in Order query APIs.
- Changed expected “orderStatus” of Carry Forward Modify API.
- Changed expected “orderStatus” of Carry Forward Eligible Bids.
- Added “operationUser” and “operationTimestamp” fields to response fields of Query APIs.

Changes in Version 1.2.3

- Added order in failure response body of Order place, modification, cancel and Carry Forward Modify APIs.
- Added “type” field in getMessage and message-stream APIs
- Added “messages” in invalidOrder and invalidOrderById APIs

Changes in Version 1.2.4

- MarketByPrice will be pushed from exchange end in GET/messaging/message-stream API.
- “isCpOrder”, “isCpApproved” and “cpErrorCode” fields added in all order query API response.
- “password” field maximum length set to 30 characters in POST/auth/token.

Changes in Version 1.2.5

- The field “apiEchoBack” added in order query APIs.
- Added optional request parameter for “apiEchoBack” in DELETE /order API
- Added “apiEchoBack” in PUT /order/carryForward API

Changes in Version 1.2.6 □ New API POST /auth/refreshToken to facilitate session extend requests.

Changes in Version 1.2.7

- Update list of error codes (present in zip file).

Changes in Version 1.2.8

- Length of Response parameter “accessToken” updated /auth/token and /auth/refreshToken.
- Length of Response parameters “orderStatus” and “operationType” updated for all order related APIs. □ Value of “operationType” updated for /order/carryForward API.

Changes in Version 1.2.9

- Added Order details in Order related messages in query/getMessages and /messaging/message-stream APIs.

Changes in Version 1.3.0

- Added newly introduced Employee series (ES) changes.

Preface

Purpose

This document describes the protocol to be used for Web Frontend to communicate with the Offer for Sale (OFS) System and thus serves as a development guide.

Target Audience

The document is written for system designers and programmers of user organizations and third party software developers who are responsible for the development of software to interact with the OFS System of the National Stock Exchange.

Introduction

This document describes the Web API's to programmatically access and exchange data with NSE OFS system.

General Instructions

1. Following headers need to be provided in all API calls
 - **Content-Type:** Header value should be “application/json”
 - **Authorization:** Header value should be the token value received in successful login response. The string “Bearer” must be appended as a prefix to the access token and sent as the Authorization header. This header is not required in case of login API (/api/auth/token).
2. Request parameters in the URL's must be encoded using percentage encoding.
(Refer http://www.w3schools.com/tags/ref_urlencode.asp for details)
3. All request and response messages are in JSON (Javascript Object Notation) format.
(Refer <http://www.json.org/> for details).
4. All API calls are encrypted over HTTPS for secure communication.
5. Some of the key specifications related to JSON and standards followed for the API's are as follows
 - JSON is built on 2 structures. Map containing key value pairs and an ordered list of values.
 - A value could be boolean (true / false), number, decimal, String or a structure (List or Object).
 - Object or key value pair structure consists of keys which are strings and values of any of the above types. E.g. {“name”:“Amit”, “age”:25} □ List contains list of values. E.g. [“Amit”, “Ajay”, “Vikas”] □ A Boolean has only 2 values true or false.
 - String values are enclosed in single quote or double quotes. e.g. “name”, “Amit”, “Pending”
 - Numbers and decimals are represented without any thousand - separator character. Decimal indicator is dot (“.”)
 - All datetimes are represented as strings and in Indian standard time. Date times are formatted as “yyyy-MM-dd'T'HH:mm:ss.SSS'Z” except for epoch timestamp.

Table of Contents

POST/auth/token	9
Request JSON	9
Response JSON	9
POST/auth/refreshToken	10
Request Header	10
Response JSON	10
POST/order	11
Request JSON	11
Response JSON	12
PUT/order	15
Request JSON	15
Response JSON	16
DELETE /order	19
Request JSON	19
Response JSON	20
POST/order/batch	22
Request File Format	22
Response JSON	23
POST/order/carryForward/batch	23
Request File Format	24
Response JSON	24
PUT /order/carryForward	25
Request JSON	25
Response JSON	26
GET/query/orders	28
Response JSON	28
GET/query/carryForward/eligibleBids	30
Response JSON	31
GET/query/orderById	33
Request JSON	33
Response JSON	33

NSEIL – Offer for Sale System	WEB API Protocol
GET/query/invalidOrders	35
Response JSON	36
Messages	37
GET/query/invalidOrderById	38
Request JSON	38
Response JSON	39
GET/query/batches	41
Response JSON - BatchDetails	41
GET/query/batchById	42
Request Parameter	42
Response JSON	42
GET/query/activeSecurities	43
Response JSON	43
SecuritySetupConfiguration	44
GET/query/marketByPrice	47
Request Parameter	47
Response JSON	47
GET/query/getMessages	48
Request Parameter	48
Response JSON – List of Objects	48
GET /messaging/message-stream	49
Request Parameter	49
Response JSON – List of Objects	50

APIs

Summary

API	Description
POST/auth/token	This API validates the credentials of the user and returns an access token if the credentials are valid.
POST/auth/refreshToken	This API allows the user to extend current valid session.
POST/order	This API allows user to place a bid in OFS system
PUT /order	This API allows user to modify a bid in OFS system
DELETE /order	This API allows user to cancel a bid entered in system
POST/order/batch	This API allows user to upload multiple bids to OFS system
GET/query/carryForward/eligibleBids	This API allows user to list all eligible carry forward orders of the user.
POST/order/carryForward/batch	This API allows user to bulk modify carry forwarded bids in the system.
PUT/order/carryForward	This API allows user to modify a carryforward bid in OFS system
GET/query/orders	This API allows user to list all RMS approved bids placed by him in the system.
GET/query/orderById	This API allows user to search RMS approved order by order number
GET/query/invalidOrders	This API allows user to list all invalid bids placed by him in the system.
GET/query/invalidOrderById	This API allows user to list a failed order details of a file upload by batch Id of the file
GET/query/batches	This API allows user to list details all batch uploads performed by user.
GET/query/batchById	This API allows user to list details regarding a file upload performed by batch Id.
GET/query/activeSecurities	This API allows user to list all active securities in the system.
GET/query/marketByPrice	This API provides top five orders by price for particular symbol and Series.
GET/query/getMessages	This API provides all broadcast and user specific messages.
GET/messaging/message-stream	This API provides all broadcast and user specific messages via server push mechanism.

POST/auth/token

This API validates the credentials of the user and returns an access token if the credentials are valid. The returned token must be sent in the authorization header with each and every subsequent API calls. Along with the token, it will also return timestamps of token issue and token expiration. After token expiration, the client will need to call this API again to issue a new token. Any API call made using an expired token will be considered unauthorized. In case the client wants to extend the current valid session POST/auth/refreshToken API can be invoked.

Method	POST
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	JSON
Response	JSON

Request JSON

Field	Type	Description
memberId	String(10)	Member Id to which user belongs
userName	String(5)	Login Id
password	String(30)	Password

Sample Request

```
{
  "memberId": "TestM",
  "username": "0123",
  "password": "jeyvbj235@eh"
}
```

Response JSON

Field	Type	Description
accessToken	String(1500)	Access Token. This token must be sent in the authorization header with each and every subsequent API calls (As per the general guidelines)
issuedAt	Long	Timestamp at which the access token was issued by the system. (number of milliseconds since January 1, 1970, 00:00:00 GMT)
expiresAt	Long	Timestamp at which the access token will expire. API client will need to maintain this time stamp. After expiration time, client will need to request for a new token by executing the /get-token API again. (number of milliseconds since January 1, 1970, 00:00:00 GMT)
messages	List of String	Error message if case of incorrect details

Sample Response - Success

```
{
  "accessToken":
  "eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIyNjEiLCJpVFAiOiIzMDE3MTgiLCJlbHRlbnB0cyI6MCwi
  a
  XNWYWxpZCI6dHJlZSwiaWF0IjoxNTU2MjU3ODM1LCJleHAiOjE1NTYyNTg3MzV9.",
  "issuedAt": 999999999,
  "expiresAt":
  999999999, "messages": []
}
```

Sample Response - Failed

```
{
  "accessToken": null,
  "messages": [
    "Invalid Credentials!"],
  "expiresAt": null,
  "issuedAt": null
}
```

POST/auth/refreshToken

This API validates the current session of the client and issues a new token with new expiry. The returned token must be sent in the authorization header with each and every subsequent API calls. Along with the token, it will also return timestamps of token issue and token expiration. A new token is issued only if this API is invoked within the defined refresh window i.e. last 2 minutes before expiry. If this API is invoked before the refresh window, the API call will fail with HTTP status 400 – Bad Request.

Method	POST
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	JSON
Response	JSON

Request Header

Header	Type	Value
Authorization		Access Token for current session.

Response JSON

Field	Type	Description
accessToken	String(1500)	Access Token. This token must be sent in the authorization header with each and every subsequent API calls (As per the general guidelines)
issuedAt	Long	Timestamp at which the access token was issued by the system. (number of milliseconds since January 1, 1970, 00:00:00 GMT)

expiresAt	Long	Timestamp at which the access token will expire. API client will need to maintain this time stamp. After expiration time, client will need to request for a new token by executing the /get-token API again. (number of milliseconds since January 1, 1970, 00:00:00 GMT)
messages	List of String	Error message if case of incorrect details

Sample Response - Success

```
{
  "accessToken":
"eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIyNjEiLCJpVFAiOiIzMDE3MTgiLCJlbHRlbXB0cyI6MCwiaXNwYXpZCI6dHJlZSwiaWF0IjoxNTU2MjU3ODM1LCJleHAiOiJlNTYyNTg3MzV9.",
  "issuedAt": 9999999999,
  "expiresAt":
9999999999, "messages": []
}
```

Sample Response - Failed

```
{
  "accessToken": null,
  "messages": null,
  "expiresAt": null,
  "issuedAt": null
}
```

POST/order

This API allows user to place an order in OFS system. The system accepts the order requests from the users and acknowledgement is sent in API response. Success response does not imply that the order has been confirmed.

Method	POST
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	JSON
Response	JSON

Request JSON

Field	Type	Description
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	This field should contain the Client ID/Account Number. In case of PRO orders, this field should contain trading member id.

participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not. In case of institutional bids, this field should always be false. In case of Employee bids, this field should always be true.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2 In case if Market orders this field should be blank.
apiEchoBack	Integer	Non mandatory. This field can be used for echo back by the client for sequencing purposes.

Sample Request

```
{
  "clientId": "TESTM",
  "clientType": "PRO",
  "marginType": "0",
  "participantId": " TESTM",
  "price": 600,
  "quantity": 10,
  "series": "IS",
  "symbol": "HDFC",
  "isMarketOrder": false,
  "apiEchoBack": 2
}
```

Response JSON

Field	Type	Description
messages	List of Objects	List of messages. See structure below. In case of success this object will be null.
order	Object	Object containing the order details. See structure below. In case of failure this object will be null.

Messages

Field	Type	Description
errorKey	String(75)	Error key value
errorCode	Integer	Error code
errorText	String(300)	Error message
reasonCode	Integer	Error reason code

Order

Field	Type	Description
orderId	String(16)	Order Number for the order placed
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	Client ID/Account Number. In case of PRO orders, this field will contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2 In case if Market orders this field will have cut-off price.
value	BigDecimal	Total Order value (Price * Quantity)
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not.
orderStatus	String(30)	Status of the Order in success scenario: Requested Blank –in case of validation errors
branchId	Integer	Branch to which user id belongs
placedDate	String	The date and time at which order was placed. Eg: 2019-03-29T08:35:53.340+0000
placedBy	Integer	User Id from which order was requested
tradingMemberId	String(5)	Trading Member to which User Id belongs
modifiedDate	String	The date and time at which order was modified. Eg: 2019-03-29T08:35:53.340+0000

modifiedBy	Integer	User Id from which order was modified
deletedDate	String	The date and time at which order was cancelled. Eg: 2019-03-29T08:35:53.340+0000
deletedBy	Integer	User Id from which order was cancelled
batchId	String(22)	Batch ID of the file, if the order entry was through file upload.
batchSerialNo	Integer	Serial number of the record inside the file uploaded.
operationType	String(20)	Operation type of the record uploaded 'place' – Order entry
apiEchoBack	Integer	This field will return the value received during order request

Sample Response - Success

```
{
  "messages": [],
  "order": {
    "orderId": "2019032900000014",
    "tradingMemberId": "TESTM",
    "branchId": 1,
    "symbol": "LIC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "marginType": "0",
    "quantity": 10,
    "price": 600,
    "value": 6000,
    "isMarketOrder": false,
    "orderStatus": "Requested",
    "placedBy": 1111,
    "placedDate": "2019-03-29T08:55:49.120+0000",
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": null,
    "deletedDate": null,
    "batchId": null,
    "batchSerialNo": null,
    "operationType": "place",
    "apiEchoBack": 2
  }
}
```

Sample Response - Failed

```

{
  "messages": [
    {
      "errorKey": "ERR_PRICE_EXCEEDS_DAY_MIN_MAX",
      "errorCode": 16284,
      "errorText": "The order price is out of the day's price range",
      "reasonCode": 16
    }
  ],
  "order": {
    "orderId": null,
    "tradingMemberId": "TESTM",
    "branchId": 1,
    "symbol": "LIC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "marginType": "0",
    "quantity": 10,
    "price": 6000,
    "value": 60000,
    "orderStatus": null,
    "placedBy": 111,
    "placedDate": null,
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": null,
    "deletedDate": null,
    "batchId": null,
    "batchSerialNo": null,
    "isMarketOrder": false,
    "operationType": "place",
    "apiEchoBack": 2
  }
}

```

PUT/order

This API allows user to modify a bid in OFS system. The user can modify the quantity, price and other attributes of an order by specifying the order number of the order to be modified. Success response does not imply that the order modification request has been confirmed.

Method	PUT
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	JSON
Response	JSON

Request JSON

Field	Type	Description
orderId	String(16)	Order number of Order to be modified
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)

clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	This field should contain the Client ID/Account Number. In case of PRO orders, this field should contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not. In case of institutional bids, this field should always be false. In case of Employee bids, this field should always be true.
quantity	Long	Quantity for which order is to be modified.
price	BigDecimal	Price at which order is to be modified. Format: integer = Max 6 fraction = Max 2 In case if Market orders this field should be blank.
apiEchoBack	Integer	Non mandatory. This field can be used for echo back by the client for sequencing purposes.

Sample Request

```
{
  "orderId": "2019032900000014",
  "clientId": "TESTM",
  "clientType": "PRO",
  "marginType": "0",
  "participantId": "TESTM",
  "price": 600,
  "quantity": 10,
  "series": "IS",
  "symbol": "HDFC",
  "isMarketOrder": "false",
  "apiEchoBack": 2
}
```

Response JSON

Field	Type	Description
messages	List of Objects	List of messages. See structure below. In case of success this object will be null.
order	Object	Object containing the order details. See structure below. In case of failure this object will be null.

Messages

Field	Type	Description
errorKey	String(75)	Error key value
errorCode	Integer	Error code
errorText	String(300)	Error message
reasonCode	Integer	Error category code

Order

Field	Type	Description
orderId	String(16)	Order Number for the order placed
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	Client ID/Account Number.
		In case of PRO orders, this field will contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2 In case if Market orders this field will have cut-off price.
value	BigDecimal	Total Order value (Price * Quantity)
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not.
orderStatus	String(30)	Status of the Order in success scenario: Modify Requested Blank –in case of validation errors
branchId	Integer	Branch to which user id belongs
placedDate	String	The date and time at which order was placed. Eg: 2019-03-29T08:35:53.340+0000
placedBy	Integer	User Id from which order was requested
tradingMemberId	String(5)	Trading Member to which User Id belongs
modifiedDate	String	The date and time at which order was modified. Eg: 2019-03-29T08:35:53.340+0000

modifiedBy	Integer	User Id from which order was modified
deletedDate	String	The date and time at which order was cancelled. Eg: 2019-03-29T08:35:53.340+0000
deletedBy	Integer	User Id from which order was cancelled
batchId	String(22)	Batch ID of the file, if the order request was through file upload.
batchSerialNo	Integer	Serial number of the record inside the file uploaded.
operationType	String(20)	Operation type of the record uploaded 'modify' – Order modification
apiEchoBack	Integer	This field will return the value received during order modify request.

Sample Response - Success

```
{
  "messages": [],
  "order": {
    "orderId": "20190328000000003",
    "tradingMemberId": "TESTM",
    "branchId": 1,
    "symbol": "LIC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "marginType": "0",
    "quantity": 10,
    "price": 650,
    "value": 6500,
    "isMarketOrder": false
    "orderStatus": "Modify Requested",
    "placedBy": 111,
    "placedDate": "2019-03-28T13:07:39.075+0000",
    "modifiedBy": 111,
    "modifiedDate": "2019-03-29T09:03:47.161+0000",
    "deletedBy": null,
    "deletedDate": null,
    "batchId": null,
    "batchSerialNo": null,
    "operationType": "modify",
    "apiEchoBack": 2
  }
}
```

Sample Response - Failed

```

{
  "messages": [
    {
      "errorKey": "ERR_OM_MOD_CXL_ON_UNAPPROVED",
      "errorCode": 18011,
      "errorText": "This order is not approved, hence cannot be
modified/cancelled",
      "reasonCode": 16
    }
  ],
  "order": {
    "orderId": "2019032800000003",
    "tradingMemberId": "TESTM",
    "branchId": 1,
    "symbol": "LIC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "marginType": "0",
    "quantity": 10,
    "price": 650,
    "value": null,
    "orderStatus": null,
    "placedBy": null,
    "placedDate": null,
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": null,
    "deletedDate": null,
    "batchId": null,
    "batchSerialNo": null,
    "isMarketOrder": false,
    "operationType": "modify",
    "apiEchoBack": 2
  }
}

```

DELETE /order

This API allows user to cancel a bid entered in system. The user can cancel order entered by him by specifying the Order number. Success response does not imply that the order cancellation request has been confirmed.

Method	DELETE
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	Request Parameters
Response	JSON

Request JSON

Field	Type	Description
orderId	String(16)	Order number of Order to be cancelled

apiEchoBack	Integer	Non mandatory. This field can be used for echo back by the client for sequencing purposes.
-------------	---------	--

Sample URL with Request Parameters

```
<baseUrl>/order?orderId=2019032800000006&apiEchoBack=140
```

Response JSON

Field	Type	Description
messages	List of Objects	List of messages. See structure below. In case of success this object will be null.
order	Object	Object containing the order details. See structure below. In case of failure this object will be null.

Messages

Field	Type	Description
errorKey	String(75)	Error key value
errorCode	Integer	Error code
errorText	String(300)	Error message
reasonCode	Integer	Error category code

Order

Field	Type	Description
orderId	String(16)	Order Number for the order placed
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	Client ID/Account Number. In case of PRO orders, this field will contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2 In case if Market orders this field will have cut-off price.

value	BigDecimal	Total Order value (Price * Quantity)
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not. In case of institutional bids, this field should always be false. In case of Employee bids, this field should always be true.
orderStatus	String(30)	Status of the Order in success scenario: Cancel Requested Blank –in case of validation errors
branchId	Integer	Branch to which user id belongs
placedDate	String	The date and time at which order was placed. Eg: 2019-03-29T08:35:53.340+0000
placedBy	Integer	User Id from which order was requested
tradingMemberId	String(5)	Trading Member to which User Id belongs
modifiedDate	String	The date and time at which order was modified. Eg: 2019-03-29T08:35:53.340+0000
modifiedBy	Integer	User Id from which order was modified
deletedDate	String	The date and time at which order was cancelled. Eg: 2019-03-29T08:35:53.340+0000
deletedBy	Integer	User Id from which order was cancelled
batchId	String(22)	Batch ID of the file, if the order entry was through file upload.
batchSerialNo	Integer	Serial number of the record inside the file uploaded.
operationType	String(20)	Operation type of the record uploaded 'cancel' – Order cancellation
apiEchoBack	Integer	This field will return the value received during order cancel request

Sample Response - Success

```
{
  "messages": [],
  "order": {
    "orderId": "20190328000000006",
    "tradingMemberId": "TESTM",
    "branchId": 1,
    "symbol": "HDFC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "marginType": "1",
    "quantity": 5,
    "price": 750,
    "value": 3750,
    "orderStatus": "Cancel Requested",
    "placedBy": 111,
    "placedDate": "2019-03-28T13:07:39.136+0000",
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": 111,
    "deletedDate": "2019-03-29T09:14:27.370+0000",
    "batchId": null,
    "batchSerialNo": null,
    "isMarketOrder": false,
    "operationType": "cancel",
    "apiEchoBack": 140
  }
}
```

Sample Response – Failed

```

{
  "messages": [
    {
      "errorKey": "ERR_OM_MOD_CXL_ON_UNAPPROVED",
      "errorCode": 18011,
      "errorText": "This order is not approved, hence cannot be
modified/cancelled",
      "reasonCode": 16
    }
  ],
  "order": {
    "orderId": "20190328000000006",
    "tradingMemberId": null,
    "branchId": null,
    "symbol": null,
    "series": null,
    "clientType": null,
    "clientId": null,
    "participantId": null,
    "marginType": null,
    "quantity": null,
    "price": null,
    "value": null,
    "orderStatus": null,
    "placedBy": null,
    "placedDate": null,
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": null,
    "deletedDate": null,
    "batchId": null,
    "batchSerialNo": null,
    "isMarketOrder": false,
    "operationType": "cancel",
    "apiEchoBack": 140
  }
}

```

POST/order/batch

This API allows user to upload multiple bids to OFS system.

Method	POST
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	Multipart Form Data
Response	JSON

Request File Format

Field	Type	Description
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI

clientId	String(10)	This field should contain the Client ID/Account Number. In case of PRO orders, this field should contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2 In case of Market orders this field should be "MKT"
operationType	String(2)	This field denoted the operation to be performed: 'E' – Place Order 'M' - Modify Order 'C' - Cancel Order
orderId	String(16)	Order number of the bid. In case of order entry, this field should be blank

Response JSON

Field	Type	Description
messages	List of Objects	List of messages. See structure below
batchId	String(22)	Batch ID for the file uploaded

Messages

Field	Type	Description
errorKey	String	Error key value
errorCode	Integer	Error code
errorText	String	Error message
reasonCode	Integer	Error category code

Sample Response

```
{
  "messages": null,
  "batchId": "BATCH_000001"
}
```

Sample Response - Failed

```
{
  "messages": [
    {
      "errorKey": "ERR_OM_FILE_DATA_INVALID",

```

```

        "errorCode": 18024,
        "errorText": "Invalid Data!HDFC, IS,, 8, TESTM, 1, 1, 10, 550, E, ",
        "reasonCode": 1
    }
],
"batchId": null
}

```

POST/order/carryForward/batch

This API allows user to bulk modify carry forwarded bids in the system.

Method	POST
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	Multipart Form Data
Response	JSON

Request File Format

Field	Type	Description
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	This field should contain the Client ID/Account Number. In case of PRO orders, this field should contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is to be modified.
price	BigDecimal	Price at which order is to be modified Format: integer = Max 6 fraction = Max 2
operationType	String(2)	This field denoted the operation to be performed: 'CF' – Carry forward
orderId	String(16)	Order number of the bid.

Response JSON

Field	Type	Description
messages	List of Objects	List of messages. See structure below
batchId	String(22)	Batch ID for the file uploaded

Messages

Field	Type	Description
errorKey	String	Error key value
errorCode	Integer	Error code
errorText	String	Error message
reasonCode	Integer	Error category code

Sample Response

```
{
  "messages": null,
  "batchId": "BATCH_CF_000002"
}
```

Sample Response - Failed

```
{
  "messages": [
    {
      "errorKey": "ERR_OM_FILE_DATA_INVALID",
      "errorCode": 18024,
      "errorText": "Invalid Data!HDFC, IS,, 8, TESTM, 1, 1, 10, 550, CF, ",
      "reasonCode": 1
    }
  ],
  "batchId": null }

```

PUT /order/carryForward

This API allows user to modify a carry forwarded bid in OFS system

Method	PUT
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	JSON
Response	JSON

Request JSON

Field	Type	Description
orderId	String(16)	Order number of Order to be modified
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	This field should contain the Client ID/Account Number. In case of PRO orders, this field should contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.

marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is to be modified.
price	BigDecimal	Price at which order is to be modified. Format: integer = Max 6 fraction = Max 2
apiEchoBack	Integer	Non mandatory. This field can be used for echo back by the client for sequencing purposes.

Sample Request

```
{
  "orderId": "2019032900000014",
  "clientId": "TESTM",
  "clientType": "PRO",
    "marginType": "0",
  "participantId": "TESTM",
    "price": 600,
    "quantity": 10,
    "series": "IS",
    "symbol": "HDFC",
    "apiEchoBack": 2
}
```

Response JSON

Field	Type	Description
messages	List of Objects	List of messages. See structure below
order	Object	Object containing the order details. See structure below

Messages

Field	Type	Description
errorKey	String(75)	Error key value
errorCode	Integer	Error code
errorText	String(300)	Error message
reasonCode	Integer	Error category code

Order

Field	Type	Description
orderId	String(16)	Order Number for the order placed
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	Client ID/Account Number. In case of PRO orders, this field will contain trading member id.

participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2
value	BigDecimal	Total Order value (Price * Quantity)
orderStatus	String(30)	Status of the Order in success scenario: Carry Forward Requested Blank –in case of validation errors
branchId	Integer	Branch to which user id belongs
placedDate	String	The date and time at which order was placed. Eg: 2019-03-29T08:35:53.340+0000
placedBy	Integer	User Id from which order was requested
tradingMemberId	String(5)	Trading Member to which User Id belongs
modifiedDate	String	The date and time at which order was modified. Eg: 2019-03-29T08:35:53.340+0000
modifiedBy	Integer	User Id from which order was modified
deletedDate	String	The date and time at which order was cancelled. Eg: 2019-03-29T08:35:53.340+0000
deletedBy	Integer	User Id from which order was cancelled
batchId	String(22)	Batch ID of the file, if the order entry was through file upload.
batchSerialNo	Integer	Serial number of the record inside the file uploaded.
operationType	String(20)	Operation type of the record uploaded 'carry_forward' – Carry Forward
apiEchoBack	Integer	This field will return the value received during order CF request

Sample Response

```
{
  "messages": [],
  "order": {
    "orderId": "2019032800000003",
    "tradingMemberId": "TESTM",
    "branchId": 1,
    "symbol": "LIC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "marginType": "0",
    "quantity": 10,
    "price": 650,
    "value": 6500,
    "orderStatus": "Carry Forward Requested",
    "placedBy": 111,
    "placedDate": "2019-03-28T13:07:39.075+0000",
    "modifiedBy": 111,
    "modifiedDate": "2019-03-29T09:03:47.161+0000",
    "deletedBy": null,
    "deletedDate": null,
    "batchId": null,
    "batchSerialNo": null,
    "messages": null,
    "operationType": "carry_forward",
    "apiEchoBack": 2
  }
}
```

Sample Response - Failed

```
{
  "messages": [
    {
      "errorKey": "ERR_OM_MOD_CXL_ON_UNAPPROVED",
      "errorCode": 18011,
      "errorText": "This order is not approved, hence cannot be
modified/cancelled",
      "reasonCode": 16
    }
  ],
  "order": {
    "orderId": "2019032800000003",
    "tradingMemberId": null,
    "branchId": null,
    "symbol": "LIC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "marginType": "1",
    "quantity": 10,
    "price": 650,
    "value": null,
    "orderStatus": null,
    "placedBy": null,
    "placedDate": null,
    "modifiedBy": null,
  }
}
```

```

"modifiedDate": null,
"deletedBy": null,
"deletedDate": null,
"batchId": null,
"batchSerialNo": null,
"isMarketOrder": false,
"operationType": "carry_forward",
"apiEchoBack": 2
} }

```

GET/query/orders

This API allows user to list all RMS approved bids placed by him in the system.

Method	GET
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	
Response	JSON

Response JSON

Field	Type	Description
orderId	String(16)	Order Number for the order placed
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	Client ID/Account Number. In case of PRO orders, this field will contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.

marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2
value	BigDecimal	Total Order value (Price * Quantity)
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not. In case of institutional bids, this field should always be false. In case of Employee bids, this field should always be true.
orderStatus	String(30)	Status of the Order: Confirmed/Closed

branchId	Integer	Branch to which user id belongs
placedDate	String	The date and time at which order was placed. Eg: 2019-03-29T08:35:53.340+0000
placedBy	Integer	User Id from which order was requested
tradingMemberId	String(5)	Trading Member to which User Id belongs
modifiedDate	String	The date and time at which order was modified. Eg: 2019-03-29T08:35:53.340+0000
modifiedBy	Integer	User Id from which order was modified
deletedDate	String	The date and time at which order was cancelled. Eg: 2019-03-29T08:35:53.340+0000
deletedBy	Integer	User Id from which order was cancelled
batchId	String(22)	Batch ID of the file, if the order entry was through file upload.
batchSerialNo	Integer	Serial number of the record inside the file uploaded.
operationUser	Integer	User Id from which latest operation was requested
operationTimestamp	String	The date and time at which last operation was requested. Eg: 2019-03-29T08:35:53.340+0000
operationType	String(20)	Operation type of the record uploaded 'place' – Order entry 'modify' – Order modification 'cancel' – Order cancellation
isCpOrder	Boolean	This field will return true when the order placed is Client order where Custodian Confirmation is required.
isCpApproved	Boolean	This field denotes if the Custodian Confirmation is done.
cpErrorCode	Integer	0 – Confirmation Pending 100/200 - Confirmed
apiEchoBack	Integer	This field will return the value received during the last successful order (place/mod/cxl/CF) request

Sample Response

```
[
  {
    "orderId": "2019110600000069",
    "tradingMemberId": "TESTM",

    "branchId": 1,
    "symbol": "LIC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "batchId": null,
    "marginType": "0",
    "quantity": 10,
    "price": 600,
    "value": 6000,
    "orderStatus": "Confirmed",
    "rmsStatus": "A",
    "placedBy": 111,
    "placedDate": "2019-03-29T08:55:49.120+0000",
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": null,
    "deletedDate": null,
    "batchSerialNo": null,
    "messages": null,
    "operationUser": 261,
    "operationTimestamp": 1573021771814,
    "isMarketOrder": false,
    "isCpOrder": false,
    "isCpApproved": false,
    "cpErrorCode": 0,
    "apiEchoBack": 2
  }
]
```

GET/query/carryForward/eligibleBids

This API allows user to list all eligible carry forward orders of the user. This API must be accessed at T+1 day of an OFS.

Method	GET
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	
Response	JSON – List of Objects

Sample URL

```
<baseURL>/carryForward/eligibleBids
```

Response JSON

Field	Type	Description
orderId	String(16)	Order Number for the order placed
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	Client ID/Account Number. In case of PRO orders, this field will contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2
value	BigDecimal	Total Order value (Price * Quantity)
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not. In case of institutional bids, this field should always be false.
orderStatus	String(30)	Status of the Order: Carry Forward Eligible
branchId	Integer	Branch to which user id belongs
placedDate	String	The date and time at which order was placed. Eg: 2019-03-29T08:35:53.340+0000
placedBy	Integer	User Id from which order was requested
tradingMemberId	String(5)	Trading Member to which User Id belongs
modifiedDate	String	The date and time at which order was modified. Eg: 2019-03-29T08:35:53.340+0000
modifiedBy	Integer	User Id from which order was modified
deletedDate	String	The date and time at which order was cancelled. Eg: 2019-03-29T08:35:53.340+0000
deletedBy	Integer	User Id from which order was cancelled

batchId	String(22)	Batch ID of the file, if the order entry was through file upload.
batchSerialNo	Integer	Serial number of the record inside the file uploaded.
operationUser	Integer	User Id from which latest operation was requested
operationTimestamp	String	The date and time at which last operation was requested. Eg: 2019-03-29T08:35:53.340+0000
operationType	String(20)	Operation type of the record uploaded 'place' – Order entry 'modify' – Order modification 'cancel' – Order cancellation
isCpOrder	Boolean	This field will return true when the order placed is Client order where Custodian Confirmation is required.
isCpApproved	Boolean	This field denotes if the Custodian Confirmation is done.
cpErrorCode	Integer	0 – Confirmation Pending 100/200 - Confirmed
apiEchoBack	Integer	This field will return the value received during the last successful order (place/mod) request

Sample Response

```
[
  {
    "orderId": "20190401000000001",
    "tradingMemberId": "TESTM",
    "branchId": 1,
    "symbol": "LIC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "marginType": "1",
    "quantity": 5,
    "price": 600,
    "value": 9350,
    "orderStatus": "Carry Forward Eligible",
    "rmsStatus": "A",
    "placedBy": 111,
    "placedDate": "2019-04-01T06:23:15.728+0000",
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": null,
    "deletedDate": null,
    "batchId": null,
    "batchSerialNo": null,
    "messages": null,
  }
]
```

```

    "operationType": "place",
    "operationUser": 111,
    "isCpOrder": false,
    "isCpApproved": false,
    "cpErrorCode": 0,
    "apiEchoBack": 2
  }
]

```

GET/query/orderById

This API allows user to search RMS approved order by order number

Method	GET
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	Request Parameters
Response	JSON

Request JSON

Field	Type	Description
orderId	String(16)	Order Number of Carry forward bid

Sample URL with Path Parameters

```
<baseURL>/query/orderById?orderId=2019040100000001
```

Response JSON

Field	Type	Description
orderId	String(16)	Order Number for the order placed
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	Client ID/Account Number. In case of PRO orders, this field will contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format:

		integer = Max 6 fraction = Max 2
value	BigDecimal	Total Order value (Price * Quantity)
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not. In case of institutional bids, this field should always be false. In case of Employee bids, this field should always be true.
orderStatus	String(30)	Status of the Order: Confirmed/Closed
branchId	Integer	Branch to which user id belongs
placedDate	String	The date and time at which order was placed. Eg: 2019-03-29T08:35:53.340+0000
placedBy	Integer	User Id from which order was requested
tradingMemberId	String(5)	Trading Member to which User Id belongs
modifiedDate	String	The date and time at which order was modified. Eg: 2019-03-29T08:35:53.340+0000
modifiedBy	Integer	User Id from which order was modified
deletedDate	String	The date and time at which order was cancelled. Eg: 2019-03-29T08:35:53.340+0000
deletedBy	Integer	User Id from which order was cancelled
batchId	String(22)	Batch ID of the file, if the order entry was through file upload.
batchSerialNo	Integer	Serial number of the record inside the file uploaded.
operationUser	Integer	User Id from which latest operation was requested
operationTimestamp	String	The date and time at which last operation was requested. Eg: 2019-03-29T08:35:53.340+0000
operationType	String(20)	Operation type of the record uploaded 'place' – Order entry 'modify' – Order modification 'cancel' – Order cancellation

isCpOrder	Boolean	This field will return true when the order placed is Client order where Custodian Confirmation is required.
isCpApproved	Boolean	This field denotes if the Custodian Confirmation is done.
cpErrorCode	Integer	0 – Confirmation Pending 100/200 - Confirmed
apiEchoBack	Integer	This field will return the value received during the last successful order (place/mod/cxl/CF) request

Sample Response

```
[
  {
    "orderId": "2019110600000069",
    "tradingMemberId": "TESTM",

    "branchId": 1,
    "symbol": "LIC",
    "series": "IS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "batchId": null,
    "marginType": "0",
    "quantity": 10,
    "price": 600,
    "value": 6000,
    "orderStatus": "Confirmed",
    "rmsStatus": "A",
    "placedBy": 111,
    "placedDate": "2019-03-29T08:55:49.120+0000",
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": null,
    "deletedDate": null,
    "batchSerialNo": null,
    "messages": null,
    "operationUser": 261,
    "operationTimestamp": 1573021771814,
    "isMarketOrder": false,
    "isCpOrder": false,
    "isCpApproved": false,
    "cpErrorCode": 0,
    "apiEchoBack": 2
  }
]
```

GET/query/invalidOrders

This API allows user to list all invalid orders placed by him in the system. Invalid Orders are orders entered by user but failed due to validations at trading end and RMS end.

Method	GET
---------------	-----

Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	
Response	JSON

Response JSON

Field	Type	Description
orderId	String(16)	Order Number for the order placed
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	Client ID/Account Number. In case of PRO orders, this field will contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2
value	BigDecimal	Total Order value (Price * Quantity)
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not. In case of institutional bids, this field should always be false. In case of Employee bids, this field should always be true.
orderStatus	String(30)	Status of the Order: Rejected – in case of RMS rejections Blank is case of validation errors.
branchId	Integer	Branch to which user id belongs
placedDate	String	The date and time at which order was placed. Eg: 2019-03-29T08:35:53.340+0000
placedBy	Integer	User Id from which order was requested
tradingMemberId	String(5)	Trading Member to which User Id belongs
modifiedDate	String	The date and time at which order was modified. Eg: 2019-03-29T08:35:53.340+0000
modifiedBy	Integer	User Id from which order was modified

deletedDate	String	The date and time at which order was cancelled. Eg: 2019-03-29T08:35:53.340+0000
deletedBy	Integer	User Id from which order was cancelled
batchId	String(22)	Batch ID of the file, if the order entry was through file upload.
batchSerialNo	Integer	Serial number of the record inside the file uploaded.
messages	List of Objects	List of messages. See structure below.
operationUser	Integer	User Id from which latest operation was requested
operationTimestamp	String	The date and time at which last operation was requested. Eg: 2019-03-29T08:35:53.340+0000
operationType	String(20)	Operation type of the record uploaded 'place' – Order entry 'modify' – Order modification 'cancel' – Order cancellation
isCpOrder	Boolean	This field will return true when the order placed is Client order where Custodian Confirmation is required.
isCpApproved	Boolean	This field denotes if the Custodian Confirmation is done.
cpErrorCode	Integer	0 – Confirmation Pending 100/200 - Confirmed
apiEchoBack	Integer	This field will return the value received during the failed order (place/mod/cxl/CF) request

Messages

Field	Type	Description
errorKey	String(75)	Error key value
errorCode	Integer	Error code
errorText	String(300)	Error message
reasonCode	Integer	Error reason code

Sample Response

```
[
  {
    "orderId": "2019110500000068",
    "tradingMemberId": null,
    "branchId": null,
    "symbol": "BOI",
    "series": "RS",
```

```

"clientType": "PRO",
"clientId": "TESTM",
"participantId": "TESTM",
"batchId": null,
"marginType": "1",
"quantity": 10,
"price": 600.0,
"value": null,
"orderStatus": null,
"rmsStatus": null,
"placedBy": null,
"placedDate": null,
"modifiedBy": null,
"modifiedDate": null,
"deletedBy": null,
"deletedDate": null,
"batchSerialNo": null,
"messages": [
  {
    "errorKey": "ERR_SECURITY_NOT_AVAILABLE",
    "errorCode": 16035,
    "errorText": "Security is unavailable for trading at this time.
Please try later",
    "reasonCode": 5
  }
],
"operationUser": 111,
"operationTimestamp": 1573021513447,
"isMarketOrder": false,
"isCpOrder": false,
"isCpApproved": false,
"cpErrorCode": 0,
"apiEchoBack": 2
}
]
    
```

GET/query/invalidOrderById

This API allows user to list a failed order details of a file upload by batch Id of the file

Method	GET
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	Request Parameters
Response	JSON

Request JSON

Field	Type	Description
batchId	String(22)	Batch Number for file uploaded

Sample URL with Path Parameters

```

<baseURL>/query/orderById?batchId=BATCH_000001
    
```

Response JSON

Field	Type	Description
orderId	String(16)	Order Number for the order placed
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
clientType	String(3)	Proprietary – PRO , Client - CLI
clientId	String(10)	Client ID/Account Number. In case of PRO orders, this field will contain trading member id.
participantId	String(12)	Custodian Participant Number. In case of PRO orders, this field should contain trading member id.
marginType	String(1)	Margin Type of the order placed. For 100% Margin - 1 For 0% Margin - 0.
quantity	Long	Quantity for which order is placed.
price	BigDecimal	Price at which order is placed. Format: integer = Max 6 fraction = Max 2
value	BigDecimal	Total Order value (Price * Quantity)
isMarketOrder	Boolean	This field denotes if the order entered is a Market order or not. In case of institutional bids, this field should always be false. In case of Employee bids, this field should always be true.
orderStatus	String(30)	Status of the Order: Rejected – in case of RMS rejections Blank is case of validation errors.
branchId	Integer	Branch to which user id belongs
placedDate	String	The date and time at which order was placed. Eg: 2019-03-29T08:35:53.340+0000
placedBy	Integer	User Id from which order was requested
tradingMemberId	String(5)	Trading Member to which User Id belongs
modifiedDate	String	The date and time at which order was modified. Eg: 2019-03-29T08:35:53.340+0000
modifiedBy	Integer	User Id from which order was modified
deletedDate	String	The date and time at which order was cancelled. Eg: 2019-03-29T08:35:53.340+0000
deletedBy	Integer	User Id from which order was cancelled

batchId	String(22)	Batch ID of the file, if the order entry was through file upload.
batchSerialNo	Integer	Serial number of the record inside the file uploaded.
operationUser	Integer	User Id from which latest operation was requested
operationTimestamp	String	The date and time at which last operation was requested. Eg: 2019-03-29T08:35:53.340+0000
operationType	String(20)	Operation type of the record uploaded 'place' – Order entry 'modify' – Order modification 'cancel' – Order cancellation
isCpOrder	Boolean	This field will return true when the order placed is Client order where Custodian Confirmation is required.
isCpApproved	Boolean	This field denotes if the Custodian Confirmation is done.
cpErrorCode	Integer	0 – Confirmation Pending 100/200 - Confirmed
apiEchoBack	Integer	This field will return the value received during the failed order (place/mod/cxl/CF) request

Sample Response

```
[
  {
    "orderId": "2019110500000068",
    "tradingMemberId": null,
    "branchId": null,
    "symbol": "BOI",
    "series": "RS",
    "clientType": "PRO",
    "clientId": "TESTM",
    "participantId": "TESTM",
    "batchId": null,
    "marginType": "1",
    "quantity": 10,
    "price": 600.0,
    "value": null,
    "orderStatus": null,
    "rmsStatus": null,
    "placedBy": null,
    "placedDate": null,
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": null,
    "deletedDate": null,
    "batchSerialNo": null,
    "messages": [
      {
        "errorKey": "ERR_SECURITY_NOT_AVAILABLE",
        "errorCode": 16035,
        "errorText": "Security is unavailable for trading at this time.
Please try later",
        "reasonCode": 5
      }
    ],
    "operationUser": 111,
    "operationTimestamp": 1573021513447,
    "isMarketOrder": false,
    "isCpOrder": false,
    "isCpApproved": false,
    "cpErrorCode": 0,
    "apiEchoBack": 2
  }
]
```

GET/query/batches

This API allows user to list details all batch uploads performed by user.

Method	GET
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	
Response	JSON

Response JSON - BatchDetails

Field	Type	Description
-------	------	-------------

batchId	String(22)	Batch Number for the file uploaded
fileName	String	Name of the file uploaded
numberOfRecords	Long	Number of records present in the file.
successRecords	Long	Number of records uploaded successfully
errorRecords	Long	Number of records failed to upload
status		Current status of the file upload:
	String(12)	'Pending' – File upload in pending 'Processing' – File upload is under process 'Complete' – File uploaded successfully 'Error' – File upload failed
statusDate	Date	Upload status as on date
createdBy	Integer	User id from which file was uploaded
createDate	Date	Date of file upload

Sample Response

```
[
  {
    "batchId": "BATCH_000001",
    "fileName": "Bulkupload.csv",
    "numberOfRecords": 297,
    "successRecords": 10,
    "errorRecords": 0,
    "status": "Error",
    "statusDate": "2019-04-01T11:25:27.446+0530",
    "createdBy": 111,
    "createDate": "2019-03-28T18:37:39.050+0530"
  },
  {
    "batchId": "BATCH_000002",
    "fileName": "BulkuploadMed.csv",
    "numberOfRecords": 97,
    "successRecords": 0,
    "errorRecords": 97,
    "status": "Complete",
    "statusDate": "2019-03-29T11:51:47.098+0530",
    "createdBy": 111,
    "createDate": "2019-03-29T11:51:44.919+0530"
  }
]
```

GET/query/batchById

This API allows user to list details regarding a file upload performed.

Method	GET
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	Request Parameter
Response	JSON

Request Parameter

Field	Type	Description
batchId	String(22)	Batch Number for file uploaded

Sample Request with Request Parameters

```
<baseUrl>/query/batchOrderById?batchId=BATCH_000001
```

Response JSON

Field	Type	Description
batchId	String(22)	Batch Number for the file uploaded
fileName	String	Name of the file uploaded
numberOfRecords	Long	Number of records present in the file.
successRecords	Long	Number of records uploaded successfully
errorRecords	Long	Number of records failed to upload
status	String(12)	Current status of the file upload: ‘Pending’ – File upload in pending ‘Processing’ – File upload is under process ‘Complete’ – File uploaded successfully ‘Error’ – File upload failed
statusDate	Date	Upload status as on date
createdBy	Integer	User id from which file was uploaded
createDate	Date	Date of file upload

Sample Response

```
[
  {
    "batchId": "BATCH_000001",
    "fileName": "Bulkupload.csv",
    "numberOfRecords": 297,
    "successRecords": 10,
    "errorRecords": 0,
    "status": "Error",
    "statusDate": "2019-04-01T11:25:27.446+0530",
    "createdBy": 111,
    "createDate": "2019-03-28T18:37:39.050+0530"
  },
  {
    "batchId": "BATCH_000002",
    "fileName": "BulkuploadMed.csv",
    "numberOfRecords": 97,
    "successRecords": 0,
    "errorRecords": 97,
  }
]
```

```

    "status": "Complete",
    "statusCode": "2019-03-29T11:51:47.098+0530",
    "createdBy": 111,
    "createDate": "2019-03-29T11:51:44.919+0530"
  }
]

```

GET/query/activeSecurities

This API allows user to list all active securities in the system.

Method	GET
Production URL	https://eofs.nseindia.com/api/⟨⟨API⟩⟩
Test URL	https://www.eofsuat.com/api/⟨⟨API⟩⟩
Request	
Response	JSON

Sample Request

```
⟨baseURL⟩/query/activeSecurities
```

Response JSON

Field	Type	Description
symbol	String(10)	Symbol
securityName	String(25)	Security Name
isinCode	String(12)	ISIN code for the security
faceValue	Integer(9)	Face value of share
tickSize	BigDecimal	Minimum price movement for the security. Eg: 0.005
regularLotSize	Integer	Quantity must be a multiple of regular lot size of the order.
minimumPercentageDay	BigDecimal	Min allowed price for this security for particular session will be calculated using this value
maximumPercentageDay	BigDecimal	Max allowed price for this security for particular session will be calculated using this value.
configurations	List of SecuritySetupConfiguration	Refer Model below for details

SecuritySetupConfiguration

Field	Type	Description
symbol	String(10)	Symbol
series	String(2)	Series (IS/RS/ES)
issueSize	Integer	Issue size for the series

basePrice	BigDecimal	Base price for the day
openOnDate	Date	Date for which security is available for trading.
mktOpenTime	String	Market open time Eg: 09:00
mktCloseTime	String	Market Close time Eg: 15:30
mktModCxlOpenTime	String	Modification allowed start time
mktModCxlCloseTime	String	Modification allowed end time
isNewOrderAllowed	Boolean	Flag denotes if Order Entry is allowed for the day.
isModificationAllowed	Boolean	Flag denotes if Order Modification is allowed for the day.
isCancellationAllowed	Boolean	Flag denotes if Order Cancellation is allowed for the day.
qtyModAllowed	String	Field denotes Type of Order Quantity modification allowed for the day. Upward/Downward/ Both/ Not Allowed
priceModAllowed	String	Field denotes Type of Order Price modification allowed for the day. Upward/Downward/ Both/ Not Allowed
isAccountNoModAllowed	Boolean	Flag denotes if Account number modification is allowed for the day.
isCpCodeModAllowed	Boolean	Flag denotes if Participant code modification is allowed for the day.
orderValueUpperLimit	Long	Maximum order value allowed for the series for the day.

Sample Response

```
[
  {
    "symbol": "ABC1004",
    "securityName": "abc",
    "isinCode": "IN1111111111",
    "faceValue": 10,
    "tickSize": 0.05,
    "regularLotSize": 1,
    "minimumPercentageDay": 0,
    "maximumPercentageDay": 99.99,
    "configuration": {
      "symbol": "ABC1004",
      "series": "IS",
      "issueSize": 1000,
      "basePrice": 100,
      "openOnDate": "2019-04-11T00:00:00.000+0530",
      "mktOpenTime": "09:30",
      "mktModCxlCloseTime": "21:00",
      "mktModCxlOpenTime": "09:30",
      "mktCloseTime": "21:30",
      "qtyModAllowed": "Upward",
      "priceModAllowed": "Upward",
      "orderValueUpperLimit": 0,
      "modificationAllowed": false,
      "accountNoModAllowed": false,
      "cancellationAllowed": false,
      "cpCodeModAllowed": false,
      "newOrderAllowed": false
    }
  },
  {
    "symbol": "ABC1004",
    "securityName": "abc",
    "isinCode": "IN1111111111",
    "faceValue": 10,
    "tickSize": 0.05,
    "regularLotSize": 1,
    "minimumPercentageDay": 0,
    "maximumPercentageDay": 99.99,
    "configuration": {
      "symbol": "ABC1004",
      "series": "RS",
      "issueSize": 1000,
      "basePrice": 100,
      "openOnDate": "2019-04-11T00:00:00.000+0530",
      "mktOpenTime": "09:30",
      "mktModCxlCloseTime": "21:00",
      "mktModCxlOpenTime": "09:30",
      "mktCloseTime": "21:30",
      "qtyModAllowed": "Both",
      "priceModAllowed": "Both",
      "orderValueUpperLimit": 200000,
      "modificationAllowed": false,
      "accountNoModAllowed": false,
      "cancellationAllowed": false,
      "cpCodeModAllowed": false,
      "newOrderAllowed": false
    }
  }
]
```

```

    }
  }
]

```

GET/query/marketByPrice

This API provides top five orders by price for particular symbol and Series.

Method	GET
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	Request Parameters
Response	JSON

Request Parameter

Field	Type	Description
symbol	String(10)	Symbol
series	String(2)	Series

Sample Request with Request Parameters

```
<baseURL>/query/marketByPrice?symbol=HDFC&series=IS
```

Response JSON

Field	Type	Description
symbol	String(10)	Symbol
series	String(2)	Series
price	BigDecimal	Price at which order is placed
quantity	Long	Quantity for which order is placed
numberOfOrders	Short	Number of orders placed at the Price.

Sample Response

```

[
  {
    "symbol": "HDFC",
    "series": "IS",
    "price": 720,
    "quantity": 5,
    "numberOfOrders": 1
  },
  {
    "symbol": "HDFC",
    "series": "IS",
    "price": 714,
    "quantity": 5,
    "numberOfOrders": 1
  },
  {
    "symbol": "HDFC",
    "series": "IS",
    "price": 702,

```

```

    "quantity": 5,          "numberOfOrders": 1
  },
  {
    "symbol": "HDFC",
    "series": "IS",
    "price": 701,
    "quantity": 5,          "numberOfOrders": 1
  }
]

```

GET/query/getMessages

This API provides all broadcast (Market Open, Close and exchange broadcast messages) and user specific (Order related messages) messages.

Method	GET
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	Request Parameters
Response	JSON

Request Parameter

Field	Type	Description
startTime	Timestamp	Time of last received message in the format “yyyy-MM-dd HH:mm:ss” Eg: 2019-04-24%2012:45:00

Sample Request with Request Parameters

```
<baseUrl>/query/getMessages?startTime=2019-04-24%2012:45:00
```

Response JSON – List of Objects

Field	Type	Description
userId	Integer	Login Id of the user. This will be empty if the message is a broadcast message.
tradingMemberId	String	Trading Member for the user
messageText	String	Broadcast or Order Response message
data	JSON Object	This will contain the json data associated with this message. Currently, this field will be present only for the message type ORDER. Structure is same as Order response in other APIs.
createDate	Date	Date of creation of message in EPOCH
type	String	This field denotes the type of the message. Below are the values that can be present in this field: ORDER, BULK, MKT_OPEN, MKT_CLOSE, EXCHANGE, AUTH

Sample Response

```
[
  {
    "userId": null,
    "tradingMemberId": null,
    "messageText": "14:33:17 Market has opened for 26 Apr 2019.",
    "data": null,
    "type": "MKT_OPEN",
    "createDate": 1556269397595
  },
  {
    "userId": null,
    "tradingMemberId": null,
    "messageText": "14:34:00 Market has closed.",
    "data": null,
    "type": "MKT_CLOSE",
    "createDate": 1556269440167  },

```

```

{
  "userId": 00000,
  "tradingMemberId": "TESTM",
  "messageText": "11:10:33 ORDER 2021012200000001 BUY 1 OFSTEST IS at
Rs. 6000 DAY TESTM CLI PLACE REJECTED.Collateral limits expired on
RMS.",
  "data" : {
    "orderId": "2021012200000001",
    "tradingMemberId": "TESTM",
    "symbol": "TESTSAIL",
    "series": "RS",
    "clientType": "CLI",
    "clientId": "TESTC",
    "participantId": "TESTM",
    "batchId": null,
    "marginType": "1",
    "orderType": "0",
    "quantity": 1,
    "price": 6000.0,
    "value": 6000.0,
    "orderStatus": "Rejected",
    "placedBy": 00000,
    "placedDate": "2021-01-22T11:10:33.466+0530",
    "modifiedBy": null,
    "modifiedDate": null,
    "deletedBy": null,
    "deletedDate": null,
    "apiEchoBack": 31620,
    "messages": [
      {
        "errorKey": "ERR_RMS_COLLATERAL_EXP",
        "errorCode": 18030,
        "errorText": "Collateral limits expired on
RMS.",
        "reasonCode": 6
      }
    ],
    "isMarketOrder": true,
  },
  "type": "ORDER",
  "createDate": 1611300984066,
}
]

```

GET /messaging/message-stream

This API provides all broadcast (Market Open, Close and exchange broadcast messages) and user specific (Order related messages) messages. This is a reactive API endpoint which will push messages to the API client wherever there is an event to be published by the OFS system (e.g. Market open, Market close, MBP, etc.). Other user specific messages will also be pushed to the client here (e.g. Order confirmation, Order rejection, etc.).

Method	GET
Production URL	https://eofs.nseindia.com/api/<<API>>
Test URL	https://www.eofsuat.com/api/<<API>>
Request	Request Parameters
Response	JSON

Request Parameter

Field	Type	Description
startTime	Long	This is an optional parameter.
		If this parameter is not sent, OFS system will start sending the messages from the beginning of the day. If the client sends this parameter, the system will start streaming the messages after the given time stamp. (number of milliseconds since January 1, 1970, 00:00:00 GMT)

Sample Request with Request Parameters

```
<baseUrl>/messaging/message-stream?startTime=1580813000000
```

Response JSON – List of Objects

Field	Type	Description
userId	Integer	Login Id of the user. This will be empty if the message is a broadcast message.
tradingMemberId	String	Trading Member for the user
messageText	String	Broadcast message or Order Response message
data	JSON Object	This will contain the json data associated with this message. Currently, this field will be present only for the message type MBP and ORDER.
createDate	Date	Date of creation of message in EPOCH
type	String	This field denotes the type of the message. Below are the values that can be present in this field: <ul style="list-style-type: none"> • ORDER • BULK • MKT_OPEN • MKT_CLOSE • EXCHANGE • AUTH • HEARTBEAT • MBP

JSON format for MBP data

Field	Type	Description
symbol	String(10)	Symbol for which the MBP broadcast is being sent.
series	String(2)	Series (IS/RS/ES) for which the MBP broadcast is being sent.
mbp	JSON Array	This will contain the array of MBP data.

JSON format for nested MBP JSON Array

Field	Type	Description
symbol	String(10)	Symbol for which the MBP broadcast is being sent.
series	String(2)	Series (IS/RS/ES) for which the MBP broadcast is being sent.
price	BigDecimal	Price
quantity	Long	Total volume at this price point
numberOfOrders	Long	Total number of order at this price point

Sample Response

```

data:{"userId":261,"tradingMemberId":"00008","messageText":"16:29:14 USER
261 SIGNED IN","type":"AUTH","createDate":1580813954459}
data:{"messageText":"16:29:55 Market has opened for 04
Feb 2020.","type":"MKT_OPEN","createDate":1580813995936}

data:{"messageText":"MBP","data":{"symbol":"HDFC","series":"IS","mbp":[{"sym
bol":"HDFC","series":"IS","price":"990.0","quantity":6,"numberOfOrders":2},{
"symbol":"HDFC","series":"IS","price":"660.0","quantity":5,"numberOfOrders":
1},{"symbol":"HDFC","series":"IS","price":"650.0","quantity":5,"numberOfOrde
rs":1}]},"type":"MBP","createDate":1580814068035}

data:{"messageText":"MBP","data":{"symbol":"ABC1004","series":"IS","mbp":[]
,"type":"MBP","createDate":1580814082035}

data:{"messageText":"MBP","data":{"symbol":"ABC1004","series":"RS","mbp":[{"
symbol":"ABC1004","series":"RS","price":"ATO","quantity":10,"numberOfOrders"
:2},{"symbol":"ABC1004","series":"RS","price":"150.0","quantity":5,"numberOf
Orders":1}]},"type":"MBP","createDate":1580814082048}
data:{"userId":261,"tradingMemberId":"00008","messageText":"16:32:48
ORDER 2020020400000008 BUY 5 HDFC IS at Rs. 650 DAY 00008 PRO PLACE
REQUESTED. ","type":"ORDER","createDate":1580814168270}
data:{"userId":261,"tradingMemberId":"00008","messageText":"16:32:48
ORDER 2020020400000008 BUY 5 HDFC IS at Rs. 650 DAY 00008 PRO PLACE
APPROVED. ","type":"ORDER","createDate":1580814168727}

data:{"messageText":"MBP","data":{"symbol":"HDFC","series":"IS","mbp":[{"sym
bol":"HDFC","series":"IS","price":"990.0","quantity":6,"numberOfOrders":2},{
"symbol":"HDFC","series":"IS","price":"660.0","quantity":5,"numberOfOrders":
1},{"symbol":"HDFC","series":"IS","price":"650.0","quantity":10,"numberOfOrd
ers":2}]},"type":"MBP","createDate":1580814169033}

data:{"messageText":"HEARTBEAT","type":"HEARTBEAT","createDate":158081420861
0}

```

Sample Code Snippet

The below sample code snippet demonstrates how client can consume this API endpoint and subscribe to the message stream via server push mechanism using spring web-flux in java.

```
private void createMessageStream(String token) {
    // Create the API endpoint URI
    String streamUri = "/api/messaging/message-stream";
    // Create a reactive web client instance for consuming the message stream
    API
    Flux<String> messageStream = webClient.get()
        .uri(streamUri)
        .header(HttpHeaders.AUTHORIZATION,
"Bearer " + token)
        .accept(MediaType.TEXT_EVENT_STREAM)
        .retrieve()
        .bodyToFlux(String.class);

    Disposable subscription =
        messageStream.subscribe( message ->
            this.processMessageStream(message)
            , error -> this.reconnectMessageStream()
            , () -> this.reconnectMessageStream());
}

/**
 * Receives and processes incoming messages from the stream
 * @param message
 */
private void processMessageStream(String message) {
    // TODO Code for processing messages here.
}

/**
 * This method can be used to reconnects the message stream in case of
server disconnection
 */
private void reconnectMessageStream() {
    // TODO Code for reconnection here.
}
```