API Documentation for Online Trade Inquiry Service

Version 1.7

<mark>May 2020</mark>



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Version	Date	Description	
1.5	4 th June 2019	Added Usage Guidelines	
1.6	29 th Nov 2019	Updated Interoperability Changes	
<mark>1.7</mark>	<mark>29th May 2020</mark>	Added filter for Clearing Member to view	
		trades/actions as a Trading Member	



1 Background

Currently trading system transfers online trades data to NSEIL Online Trade Inquiry System (NOTIS) server.

NOTIS client application residing at the members end sends periodical request to pull the data from the server. Maximum 'N' number of records (parameterized at server) are sent to the client application for each request. Currently trade data available on the NOTIS server is accessible only to the NOTIS client application.

It is proposed to expose API's to our esteemed empanelled members for trade & actions (any modifications performed on trade) inquiry for F&O segment.

This document covers the technical specifications for various operations involved at both NSEIL as well as Members end.

• Following operations aspects are covered in this document:

Sr. No.	Operation	Endpoints	Purpose
1	Login [Handshake]	/token	To authenticate the client
2		/inquiry-fo/trades-	To disseminate trades information
2	Trade Inquiry	inquiry	data/Client Modifications
			Approval/Rejection/Approve All
	Trade Actions	/inquiry-fo/actions-	Confirmation/SI Download/CP
3	Inquiry	inquiry	Modification

- Technical Specifications
- Log-in Work flow
- Message Structures



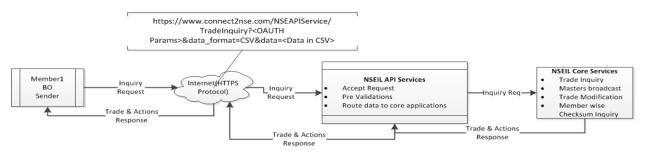
2 Data Flow Diagram

→ <u>API Registration</u>

- For API registration, user need to request the NSE team to add entry for them in database.
- The entry for user will be added from backend manually and no frontend will be provided for this purpose.
- Once entry is added the user will be provided with username & password to access the token API in order to get token.
- Once token is obtained user can access the Trade Inquiry API using below mentioned diagram.

→ API Call Work Flow

Member -> NSEIL





3 Technology Specification

- Communication Protocol: HTTPS over Leased line/Internet.
- Request/Response Exchange Format: JSON (JavaScript Object Notation).
- Data Format: CSV (Comma Separated Values).
- Security Framework: Security Framework should support OAuth 2.0 specifications.

4 API Registration

- Members need to register through Member Portal \rightarrow API Management.
- Member will need to provide information as described below:
 - Service \rightarrow Trade Inquiry Service
 - Email Id → Email Address where the API credentials would be sent
 - \circ IP Address \rightarrow IP Address from which the member will communicate with NSEIL API Service
- Once this information is provided, admin at NSEIL will verify & generate Consumer Key & Consumer Secret. These values will be emailed to MEMBER using registered email Id.
- Once MEMBER receives Consumer Key & Consumer Secret, they can start using API.



5 Log-In Workflow

- Login Handshake (MEMBER \rightarrow NSEIL)
- Requesting a "Token"

NOTE: When sending the token request, member should request the token from one platform and share the generated token across multiple platforms to avoid the 500 error code that occurs when more than one token has been generated for a consumer key/secret.

A consumer application needs to send a HTTPS **POST** request to the following URLs:

UAT: https://www.devconnect2nse.com/token

Production/LIVE: https://www.connect2nse.com/token

→ Sample Request POST /auth/token HTTP/1.1 Host: www.connect2nse.com Content-Type: application/x-www-form-urlencoded Authorization: Basic aGRmYzpoZGZjc2VjcmV0 nonce: MjAwMTIwMTcxNjEyMjE1OTE6ODk0MjY3

grant_type=client_credentials

➔ Request Structure

	API AUTHENTICATION REQUEST STRUCTURE (GET TOKEN)					
Sr.	Parameter					
No.	Name	Туре	Description	Sample Value		
			Will be of format: Basic <member_credentials> Where, member_credentials is a base64 encoding of the following data:</member_credentials>	Basic aGRmYzpoZGZjc2VjcmV0		
1	Authorization	String	cons_key:cons_secret			
			An N-once value, that uniquely identifies each request sent to server. Has to be a base64 encoding of the following data: ddMMyyyyHHmmssSSS:<6-digit random			
2	nonce	String	number>	MjAwMTIwMTcxNjEyMjE1OTE6		
3	grant_type	String	Value MUST be set to "client_credentials".	client_credentials		

6



➔ Sample Response

HTTP/1.1 200 OK Content-Type: application/json Pragma: no-cache{ "access_token": "ee1073de-45d0-4040-b9c2-eddfa80280c0", "token_type": "bearer", "expires_in": "3600", "scope": "api_scope" }

→ Response Structure

	API AUTHENTICATION RESPONSE STRUCTURE (GET TOKEN)				
Sr.	Parameter	Data			
No.	Name	Туре	Description	Sample Value	
			The access token issued by the		
1	access_token	String	authorization server.	eyJhbGciOiJSUzI1NiIsInR5cCI	
2	token_type	String	The type of the token issued	bearer	
			The lifetime in seconds of the access token. For example, the value "3600" denotes that the access token will expire in one hour from the time the		
3	expires_in	int	response was generated.	119	
			If identical to the scope requested by		
4	scope	String	the client otherwise, REQUIRED.	api_scope	

Note:

a. The Access token is to be reused to access the NSE API Data till it expires.

b. An access token expires after 'X' minutes of inactivity.



6 Request/Response Structure (JSON)

6.1 Trade Inquiry (ALL/TMTRADES Trades)

UAT: https://www.devconnect2nse.com/inquiry-fo/trades-inquiry

Production/LIVE: https://www.connect2nse.com/inquiry-fo/trades-inquiry

➔ Sample request call (ALL Trades)

POST /api/inquiry-fo/trades-inquiry HTTP/1.1 Host: www.connect2nse.com Authorization: Bearer 3f64e567-04f9-43b8-9d24-e99856b24151 nonce: MjAwMTIwMTcxNjEyMjE1OTE6ODk0MjY3

{

```
"version": "1.0",
"data": {
"msgld": "00240201310140000001",
"dataFormat": "CSV:CSV",
"tradesInquiry": "0,ALL,,"
}
```

}

Sample request call (TMTRADES Trades)

<u>NOTE</u>: This filter is only applicable to Clearing Members that want to view only the trades that they have performed as a Trading Member.

```
POST /api/inquiry-fo/trades-inquiry HTTP/1.1
Host: www.connect2nse.com
Authorization: Bearer 3f64e567-04f9-43b8-9d24-e99856b24151
nonce: MjAwMTIwMTcxNjEyMjE1OTE6ODk0MjY3
```

```
"version": "1.0",
"data": {
"msgld": "00240201310140000001",
"dataFormat": "CSV:CSV",
"tradesInquiry": "0,TMTRADES,,"
```



	Request Data Payload (JSON)					
Sr. No.	Parameter Name	Data Type	Description	Sample Value		
1	version	String	API version	1.0		
2	data.msgld	String	Unique request number for the each request <code><yyyymmdd><nnnnnn> • MEMBERCODE – Member code (Length : 5) • YYYYMMDD – Date format • nnnnnn – Sequence no. starting from one i.e. For first request of the day, it should be (0000001).</nnnnnn></yyyymmdd></code>	00240201310140000001		
2	data.dataformat	String	Request data format : Response data format	CSV:CSV		
3	data.tradesInquiry	CSV	Data Structure specified below	0,ALL,,		

<mark>}</mark>

}

	Trade Inquiry Request Packet Structure							
Field Name Description		Data Type	Size (in bytes)	Sample				
seqNo	Trade Sequence number till where server had already sent data information In the previous request. For first download request of the day, it should be 0.	long	8	0				
srchFilter	Search Filter	String	50	 ALL – All Trades TMTRADES – Clearing Member to view trades as a Trading Member (Only applicable to Clearing Members) 				
		String						
fill1	Filler	String	10					
fill2	Filler	String	10					



→ Sample Response → Control Record \rightarrow Record Separator \rightarrow Data Record(s) "status": "success", "messages": { "code": "01010000" }, "data": { "msgId": "00240201310140000001", "tradesInquiry": 3,20120420,,,827587,34827155,1,47964115,82609719241959,49102,800,26705 ,2,1300000001946000,9,36956,1,SG18,SBISG0000081,,2,6001,1260524280,1,,40005100100400 0,P,08081,IBULHSGFIN,,FUTSTK,1261785600,-1,XX,,,,,,,<mark>0</mark>827201,1,89638308,82609719248043,49440,2200,4440,1,1500000001376851,9,8255 ,1,ERROR,CITI00003543,,105,5445,1260523571,1,,400051001004012,P,08081,YESBANK, ,FUTSTK,1261837800,-1,XX,,,,,,<mark>0</mark>827587,1,37527876,82609719325776,47859,250,403185,1,1200000001362256,9,364 11,1,KSAM12,CITI00003543,,2,6001,1260524281,1,,400051001002012,P,08081,BAJFINANCE, ,FUTSTK,1264809600,-1,XX,,,,,,, } }

→ Response Structure

	Response Data Payload (JSON)					
Sr. No.	Parameter Name	Data Type	Description	Sample Value		
1	status	String	Response status	success/error		
2	messages.code	String	Refer Section "Message based response code".	01010000		
3	data.msgld	String	Unique request number sent in request.	00240201310140000001		



4	data.tradesInquiry	CSV	Data Structure specified below	Refer Sample Response.	

	Trade Inquiry Response Packet Structure						
Field Name	Description	Data Type	Size (in	Remarks			
			bytes)				
	Control Record						
		System	Size of				
		Info	(System Info	Structure			
		Response	Response	details give			
sysinfoResData	System Info Response Structure	Structure	Structure)	below			
			Size of				
		Response	Response	Structure			
		Data	Data	details give			
trdResData	Trades Response Data Structure	Structure	Structure	below			

→ System Info Response Structure

	System Info Response Structure							
Field Name	Description	Data Type	Size (in bytes)	Sample				
mktSts	Market Status Refer Section "Transcodes".	Short	2	2				
currTrdDate	Current Trade Date (YYYYMMDD)	long	8	20120420				
sfill1	Filler	String	10					
sfill2	Filler	String	10					

→ <u>Trade Response Data Structure</u>

Trades Response Data Structure							
Field Name	Description	Data Type	Size (in bytes)	Sample/Remarks			
	Max sequence number sent in						
maxSeqNo	response	long	8	827587			



noOfRec	Count of trades sent in the response	int	4	3
	Data Reco	r d s		
			Size of	
		Array Of	(Array Of	
		Trade	Trade	Structure details
tradesOutput	Array Of Trade Structure	Structure	Structure)	given below

		Arra	y Of Trad	e Structure	
Sr	Field	Description	Data	Size (ir	Sample
No.	Name		Туре	bytes)	
1	seqNo	Unique Sequence Number	long	8	827155
2		Market Type. Refer Section			
	mkt	"Transcodes"	String	1	1
3	trdNo	Trade Number	long	8	47964115
4	trdTm	Trade Time in Jiffy Format	long	8	82609719241959
5	tkn	Token	int	4	49102
6	trdQty	Trade Quantity	int	4	800
7	trdPrc	Trade Price in paise	int	4	26705
8		Buy Sell Flag. Refer Section			2
	bsFlg	"Transcodes"	String	1	
9	ordNo	Order Number	double	8	130000001946000
10	brnCd	Branch Code	int	4	9
11	usrld	User Id	int	4	36956
12		Client Type. Refer Section			1
	proCli	"Transcodes"	short	2	
13	cliActNo	Client account number	String	20	SG18
14	cpCd	Custodial participant Id	String	12	SBISG0000081
15	remarks	Remarks	String	25	
16		Activity Type. Refer Section			2
	actTyp	"Transcodes"	short	2	
17		Transaction Code. Refer			6001
	TCd	Section "Transcodes"	short	2	
18		Order Time in milliseconds			1260524280
	ordTm	from 1980	long	8	
19		Book Type. Refer Section			1
	booktype	"Transcodes"	short	2	
20	oppTmCd	Opposite Broker Id	String	1	
21	ctclId	CTCL code	double	8	400051001004000
22		Trade Status. Refer Section			
	status	"Transcodes"	String	1	P
23	TmCd	Member Code	String	5	08081
24	sym	Symbol	String	10	IBULHSGFIN
25	ser	Series	String	2	



26	inst	Instrument	String	6	FUTSTK
27	expDt	Expiry Date (in milliseconds			
		from 1980)	int	4	1261785600
28	strPrc	Strike Price in paise	int	4	-1
29	optType	Option Type for Option			XX
		Contract. Refer Section			
		"Transcodes"	String	2	
30	fill1	Filler	String	10	
31	fill2	Filler	String	10	
32	fill3	Filler	String	10	
33	fill4	Filler	String	10	
34	fill5	Filler	String	10	
35	fill6	Filler	String	10	
36	fill7	Filler	String	10	
37	fill8	Filler	String	10	

Note: Client modifications (Transaction Code: 5445) will be shown as part of the trade inquiry response.

6.2 Action Inquiry (Approval/Rejection/Approve ALL Response/CP Modification)

UAT: <u>https://www.devconnect2nse.com/inquiry-fo/actions-inquiry</u>

Production/LIVE: https://www.connect2nse.com/inquiry-fo/actions-inquiry

→ Sample request call (ALL Actions)

POST /api/inquiry-fo/actions-inquiry HTTP/1.1 Host: www.connect2nse.com Authorization: Bearer 3f64e567-04f9-43b8-9d24-e99856b24151 nonce: MjAwMTIwMTcxNjEyMjE1OTE6ODk0MjY3

```
{
    "version": "1.0",
    "data": {
        "msgld": "00240201310140000001",
        "dataFormat": "CSV:CSV",
        "actionsInquiry": "0,ALL,, "
    }
}
```



Sample request call (TMACTIONS Actions)

<u>NOTE</u>: This filter is only applicable to Clearing Members that want to view only the trades that they have performed as a Trading Member.

POST /api/inquiry-fo/actions-inquiry HTTP/1.1 Host: www.connect2nse.com Authorization: Bearer 3f64e567-04f9-43b8-9d24-e99856b24151 nonce: MjAwMTIwMTcxNjEyMjE1OTE6ODk0MjY3

```
"version": "1.0",
"data": {
    "msgld": "00240201310140000001",
    "dataFormat": "CSV:CSV",
    "actionsInquiry": "0,TMACTIONS,, "
}
```

→ Request Structure

	Request Data Payload (JSON)					
Sr. No.	Parameter Name	Data Type	Description	Sample Value		
1	version	String	API version	1.0		
2	data.msgld	String	Unique request number for the each request <code><yyyymmdd><nnnnnn> • MEMBERCODE – Member code (Length : 5) • YYYYMMDD – Date format • nnnnnn – Sequence no. starting from one i.e. For first request of the day, it should be (0000001).</nnnnnn></yyyymmdd></code>	00240201310140000001		
3	data.dataformat	String	Request data format : Response data format	CSV:CSV		
4	data.actionsInquiry	CSV	Data Structure specified below	Refer "Sample Request"		

Actions Download Request Packet Structure				
Field Name	Description	Data Type	Size (in bytes)	Remarks



seqNo	Action Sequence number till where server had already sent data information In the previous request. For first download request of the day, it should be 0.	long	8	0
srchFilter	Search Filter All (Default)	String	50	 ALL – All Actions TMACTIONS – Clearing Member to view actions as a Trading Member (Only applicable to Clearing Members)
fill1	Filler	String	10	
fill2	Filler	String	10	

Sample Response

```
{
    "status": "success",
    "messages": {
        "code": "01010000"
    },
        "data": {
        "msgld": "00240201310140000001",
        "actionsInquiry":
        "1,20191031,,,137850,3*0,137821,59262235,1257682190,7,06637*0,137822,59262235,1257682190,9,
        *0,137823,60101727,1257693376,4,ICICI0005075"
    }
}
```

➔ Response Structure

	Response Data Payload (JSON)					
Sr. No.	Parameter Name	Data Type	Description	Sample Value		
1	status	String	Response status	success/error		
2	messages.code	String	Refer Section "Message based response code".	01010000		
3	data.msgld	String	Unique request number sent in request.	00240201310140000001		



4	data.actionsInquiry	CSV	Data Structure specified below	Refer Samp
---	---------------------	-----	--------------------------------	------------

Actions Download Response Packet Structure						
Field Name	Description	Data Type	Size (in bytes)	Remarks		
	Control Rec	ord				
			Size of			
			(System			
		System Info	Info			
		Response	Response	Structure details give		
sysinfoResData	System Info Response Structure	Structure	Structure)	below		
			Size of			
		Response	Response			
		Data	Data	Structure details give		
actResData	Actions Response Data Structure	Structure	Structure	below		

→ System Info Response Structure

System Info Response Structure						
Field Name	Description	Data Type	Size (in bytes)	Sample		
	Market Status Refer Section "Transcodes".					
mktSts		Short	2	1		
currTrdDate	Current Trade Date (YYYYMMDD)	long	8	20191031		
sfill1	Filler	String	10			
sfill2	Filler	String	10			

→ Action Response Data Structure

Actions Response Data Structure					
Field Name	Description	Data	Size (in	Sample	
		Туре	bytes)		
maxSeqNo	Max sequence number sent in response	long	8	137850	
noOfRec	Count of actions sent in response	int	4	3	
	Data Records				
			Size of		
		Array Of	(Array Of		
		Actions	Actions	Structure details give	
actionsOutput	Array Of AppRejAction Structure	Structure	Structure)	below	



	AppRejAction Data Structure						
Field Name	Description	Data Type	Size (in bytes)	Sample			
errCd	Action Response error code	short	2	Refer Section "Async Response codes". 0			
seqNo	Trade Sequence number	int	4	Sequence number of the trade for which action is received 137821			
actTrdNo	Trade Number	long	8	59262235			
actDtTm	Action Date Time	int	4	Date time in milliseconds from 1980 1257682190			
actId	Action Id	short	2	Refer Section "Transcodes". 7			
cpCd	Custodial Participant Code	String	10	06637			

Workflow

- Trade/Action download works on sequence number basis present in individual trade/action response packet (*seqNo*).
- The sequence number signifies the sequence of events for a single trade/action lifecycle. Thus every event occurred with respect to a particular trade/action will have a new sequence No.
- On trades/actions download request, maximum trades/actions sequence no available should be sent. If there are no trades/actions present, it has to send the sequence as 0. API shall interpret the request, and will fetch "n" (Configurable) number of trades/actions, whose trades/actions sequence number is greater than that sent by client. The fetched trades will be sent back to client in response.
- The trades/actions received by client in response packet are to be stored at client end. On subsequent trades/actions download request, client has to again send the maximum trades/actions sequence no available with him.

7 Transcodes

7.1 Market Type

1	Normal
---	--------



2	Odd Lot
3	Spot
4	Auction
5	Call Auction 1
6	Call Auction 2

7.2 Market Status

1	Preopen shutdown
2	Normal Market Preopen ended
3	Open Msg
4	Close Msg
5	Closing Start
6	Closing End

7.3 Transaction Code

6001	Original Trade
5525	Trade Modification Approval
5565	Control Trade Modification
5520	Trade Cancellation Approval
5560	Control Trade Cancellation
5530	Trade Cancellation Rejection
5445	Trade modification (Client Modification)
5440	Trade Cancellation

7.4 Activity Type

2Original Trade7Trade Cancellation101Buy Participant modification102Sell Participant modification103Buy & Sell Participant modification104Quantity modification105Buy Account No. modification106Sell Account No. modification107Buy & Sell Account No.modification109Buy Trade Cancellation due to modification110Sell Participant Cancellation due to modification		
101Buy Participant modification102Sell Participant modification103Buy & Sell Participant modification104Quantity modification105Buy Account No. modification106Sell Account No. modification107Buy & Sell Account No.modification109Buy Trade Cancellation due to modification110Sell Participant Cancellation due to modification	2	Original Trade
102Sell Participant modification103Buy & Sell Participant modification104Quantity modification105Buy Account No. modification106Sell Account No. modification107Buy & Sell Account No.modification109Buy Trade Cancellation due to modification110Sell Participant Cancellation due to modification	7	Trade Cancellation
103Buy & Sell Participant modification104Quantity modification105Buy Account No. modification106Sell Account No. modification107Buy & Sell Account No.modification109Buy Trade Cancellation due to modification110Sell Participant Cancellation due to modification	101	Buy Participant modification
104Quantity modification105Buy Account No. modification106Sell Account No. modification107Buy & Sell Account No.modification109Buy Trade Cancellation due to modification110Sell Participant Cancellation due to modification	102	Sell Participant modification
105Buy Account No. modification106Sell Account No. modification107Buy & Sell Account No.modification109Buy Trade Cancellation due to modification110Sell Participant Cancellation due to modification	103	Buy & Sell Participant modification
106Sell Account No. modification107Buy & Sell Account No.modification109Buy Trade Cancellation due to modification110Sell Participant Cancellation due to modification	104	Quantity modification
107Buy & Sell Account No.modification109Buy Trade Cancellation due to modification110Sell Participant Cancellation due to modification	105	Buy Account No. modification
109Buy Trade Cancellation due to modification110Sell Participant Cancellation due to modification	106	Sell Account No. modification
110 Sell Participant Cancellation due to modification	107	Buy & Sell Account No.modification
	109	Buy Trade Cancellation due to modification
111 Buy & Sell Trade Cancellation due to modification	110	Sell Participant Cancellation due to modification
	111	Buy & Sell Trade Cancellation due to modification



7.5 Book Type

1	Regular Lot
2	Special Terms
3	Stop Loss / MIT
4	Negotiated Trade
5	Odd Lot
6	Spot
7	Auction
11	Call Auction 1
12	Call Auction 2

7.6 Client Type

1	Cli
2	Pro

7.7 Buy Sell Flag

•	0
1	BUY
2	SELL

7.8 Trade Status

Р	Pending
R	Reject
А	Approve

7.9 Option Type

CA	Call American
PA	Put American
CE	Call Europian
PE	Put Europian

7.10 Is Approval Flag

1	Approve
0	Reject



7.11 Action Id

2	Buy SI Generated
3	Sell SI Generated
4	AppRej Buy Approval
5	AppRej Sell Approval
6	Buy Side CP Modification (Old CP)
7	Sell Side CP Modification (Old CP)
8	Buy Side CP Modification (New CP)
9	Sell Side CP Modification (New CP)
14	AppRej Buy Rejected
15	AppRej Sell Rejected
16	Buy SI Cancelled
17	Sell SI Cancelled

8 **Response Codes**

There can be two types of response codes

- HTTP response codes
- Message based response codes
- Async response codes

8.1 HTTP response code

- HTTP responses shall be generated during login with success or failure status
- HTTP response shall also be generated in case of any authentication/input validation failure of the message
- HTTP response codes are as follows:



	н	ITTP Response Codes	
Sr. No.	Reason	Meaning	HTTP Response Codes
1	SUCCESS	Request was handled successfully	200
2	UNKNOWN_ERROR	Internal Server Error: Internal server error has occurred in our platform.	500
3	SVC_UNAVAILABLE	The server is currently unable to handle the request due to a temporary overloading or maintenance of the server.	503
4	METHOD_NOT_ALLOWED	Unsupported HTTP Method: A request was made for a resource using a request method not supported by that resource (e.g. using POST instead of GET).	405
5	BAD REQUEST	PARAMETER_ABSENT - There's a required parameter which is not present in the request.	400
6	BAD REQUEST	DATA_INVALID - The data is not in correct format and not recognized by our system.	400
7	BAD REQUEST	DATA_FORMAT_REJECTED - Unsupported Data format parameter value	400
8	UNAUTHORIZED: Failed to authenticate the request	CONSUMER_KEY_UNKNOWN - The provided Consumer Key (API key) is not registered in our system or service is not registered.	401
9	UNAUTHORIZED: Failed to authenticate the request	TOKEN_INVALID - The provided token is not registered in our system	401
10	UNAUTHORIZED: Failed to authenticate the request	UNAUTHORIZED: * Unauthorized requestor IP address. * API access disabled	401
11	TOKEN_EXPIRED	The TEMPORARY access token generated by the platform has expired and can no longer be used.	572
12	PERMISSION_DENIED	Subscriber has temporarily disallowed access to his private data.	403
13	REQUEST_NOT_FOUND	Registration request not found	570

8.2 Message based response code

- Message based response code shall be populated in the field "code" of the JSON response message
- It shall be of below format
 - First four characters (Field Identifier): refers to specific field or the entire message
 - Next characters (Validation code): refers to specific validation failure or success. Success code shall be populated only on successful acceptance of the message.



8.2.1 Field Identifier is as follows:

Sr.	Module	Field Name	Field
No.	would	Field Name	Identifier
1	Entire Message	NA	0101
2	Input Data Parameter	msgld	0102
3	Input Data Parameter	msgPrepDt	0105
4	Input Data Parameter	msgPrepTm	0106
5	Input Data Parameter	isApproval	0109
6	Input Data Parameter	seqNo	0107
7	Input Data Parameter	srchFilter	0108
8	Input Data Parameter	noOfRec	0110

8.2.2 Validation codes are as follows:

Sr. No.	Validation	Validation Type	Validation Code	Validation performed on Field
1	Submitted to server successfully	Message Level	0000	Entire Message
2	All HTTP status codes	HTTP error codes	HTTP Response codes. Refer section "HTTP Response Code".	Entire Message
3	Mismatch in control and data record	Message Level	0200	Entire Message
4	Minimum Required Length	Generic	0201	msgId
5	Maximum Required Length	Generic	0202	msgId
6	Mandatory field	Generic	0204	msgld, isApproval, noOfRec, seqNo, srchFilter, trdDate
7	Data Format like Msg Id / Date Format	Generic	0206	msgId, trdDate
8	Minimum allowed value	Generic	0207	seqNo, noOfRec
9	Maximum allowed value	Generic	0208	noOfRec
10	Invalid Value	Generic	0209	seqNo, isApproval, srchFilter, trdDate
11	System Error	Generic	0241	NA
12	Service Unavailable	Generic	0242	NA
13	Request Parsing Error : Invalid Request Structure	Generic	0243	NA



8.2.3 Sample example for success or failure code

• Example for Generic Error Code

Let's assume that msgld field holds value ABCD201340402132165, which turns out to be an error "Invalid Data Format". Error Code that will be generated is as shown below: Field Identifier: 0102 Validation Code: 0206

code = combination of "Field Identifier" and "Validation Code" = 01020206

• Example for Field Error Code

Let's assume that seqNo field holds value -1, which turns out to be an error "Minimum allowed value". Error Code that will be generated is as shown below: Field Identifier: 0107 Validation Code: 0207

code = combination of "Field Identifier" and "Validation Code" =01070207

• Example for Success code (Submitted to server successfully)

Let's assume that message for approval/rejection is successful, success code that will be generated is as shown below:

Field Identifier: 0101 (which is the identifier of the entire message) Validation Code: 0000

code = combination of "Field Identifier" and "Validation Code" =01010000

• Example for HTTP error code

Let's assume that the invalid request scenario due to BAD Request, error code that will be generated is as shown below:

Field Identifier: 0101 (which is the identifier of the entire message) Validation Code: 400

code = combination of "Field Identifier" and "Validation Code" =0101400



8.2.4 Async response code

Async response code shall be populated in the field "errCd" of the message

Error	Error Code
Success	0
System in wrong state	1
Invalid Contract	2
Invalid Participant	3
Trade not found	4
Trade already cancelled	5
System Error	6
Trade already approved	7
Trade already rejected	8
Outstanding alert	9
Invalid user	10
Invalid data	11
Clearing Member is in VC mode. Trade Approval/Rejection not allowed.	12
Clearing Member is Disabled. Trade Approval/Rejection not allowed.	13
Not Latest Trade	-12
Approve All request rejected-Invalid market status	-19
Invalid Seq No	-20
Invalid Clearing Member	-21
Invalid CP code	-22
Invalid buy/sell flag	-23
Invalid instrument	-24
Invalid symbol	-25
Invalid strike price	-26
Invalid expiry date	-27
Invalid option type	-28
Invalid trade quantity	-29
Invalid trade price	-30
Invalid order number	-31
Invalid trade number	-32
Invalid broker id	-33
Already submitted	-50
Already approved	-51
Already rejected	-52



9 Contingency

In case of any failure such as network, application, high bandwidth utilization at NSE or the MEMBER end, login workflow has to be re-initiated.

10 Usage Guidelines

- a) Members should limit requests to 30 seconds between each request.
- b) Members should send requests to the API between 8am 8pm.
- c) Failure to adhere to the above guidelines will result in removal of IP from whitelist which means that member will not be able to access the API until IP is re-added to the whitelist.