API Specifications

Extranet

Document Version 1.4

API Version 1.0

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National Stock Exchange of India Ltd
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File Transfer APIs:

The base URL for the Extranet APIs would be as below
UAT: https://www.devconnect2nse.com/extranet-api/
Production: https://www.connect2nse.com/extranet-api/

Following are the API endpoints:

Sr.no	Method	API EndPoint	Remarks
1	POST	/login/{version}	To login: e.g. /login/1.0
2	POST	/logout/{version}	To logout: e.g. /logout/1.0
3	GET	/member/content/{version}? segment=& folderPath=	To get List of Folders and files: /member/content/1.0? segment=& folderPath=
4	GET	/common/content/{version}? segment=&folderPath=	To get common folder and file list : /common/content/1.0? segment=& folderPath=
5	GET	/member/file/download/{version}? segment=&folderPath=&date=&filename=	To Download File : e.g. /member/file/download/1.0? segment=&folderPath=&date=&filename=
6	GET	/common/file/download/{version}? segment=&folderPath=&date=&filename=	To Download common file : e.g. /common/file/download/1.0? segment=&folderPath=&date=&filename=

Login
This API validates the user credentials. On successful login, a unique token will be provided per request and session will be established with user's system. In subsequent API calls, this token should be passed in HTTP header "Authorization".

For Password:
- The password needs to be sent in a hash string
- The password needs to be sent in encrypted format using AES256. The encryption private key will be generated on user registration
- After 5 invalid attempts with wrong password, the user will not be allowed to generate the token by calling the API. User need to update the password from Member portal – "Extranet API Registration" screen

For Token:
- Login session validity will be for 60 mins.
- After every 60 mins the token will expire and the approach is that of single token and not refresh token.

Method	API EndPoint	Header	Content-Type
POST	/login/{version}		application/json

Request Object values

Sr. No.	Field Description	Field Name	Data Type	Description	Expected Values & Validations	Optional /Mandatory
1	Member Code	memberCode	Char(5)	Member Code		**M**
2	Login Id	loginId	Char(16)	Login ID		**M**
3	Password	password	Char(50)	Password should encrypted with AES256 encryption using the secret key received during API registration		**M**

Request Object Structure (JSON)

```
{
"memberCode":"06000",
"loginId":"ApiUser06000",
"password":"0CxUgThnqlK6gaKU2HnL2A=="
}
```

Password in example is encrypted text

Response JSON values

Sr. No.	Field Description	Field Name	Data Type	Description
1	Member Code	memberCode	Char(5)	Member Code
2	Response Code	responseCode	Char(3)	Response Code
3	Login Id	loginId	Char(16)	Login ID
4	Token	token	String	Unique Token
5	Status	status	String	Request Status

Response Object Structure (JSON)

```
{
        "memberCode":"09100",
        "responseCode":["601"],
        "loginId":"ApiUser09100",
        "token":"eyJhbGciOiJSUzI1NiJ9.eyJzdWIiOiIwOTEwMCIsImlzcyI6IkFwaVVzZXIwOTEwMCIsImV4cCI6
MTYzMjIwNzYyOCwiaWF0IjoxNjMyMjA0MDI4LCJqdGkiOiJhNWI0YjZiZi1lZTQwLTQ4NzItOGM4ZC0x
NjE5ZjA2Nzk2NTEifQ.gGmBfpIbtP59X6gK28z4l6llOkFgOBOIGjAX-WhjkY5DPJRxHJWTc-
TOcDyPjLGAvnHNIvh-SZRRawkxFSNgYw",
        "status":"success"
}
```

Logout

This API closes the current session and gets the user logged off.

Method	API EndPoint	Header	Content-Type
POST	/logout/{version}	Session Token	application/json

Request JSON values

Sr. No.	Field Description	Field Name	Data Type	Description
1	Member Code	memberCode	Char(5)	Member Code
2	Login Id	loginId	Char(16)	Login ID

Request Object Structure (JSON)

```
{
"memberCode":"06000",
"loginId":"ApiUser06000"
}
```

Response JSON values

Sr. No.	Field Description	Field Name	Data Type	Description
1	Response Code	responseCode	Char(3)	Response Code
2	Status	status	String	Request Status

Response Object Structure (JSON)

```
{
      "responseCode":["601"],
      "status":"success"
}
```

Get Member Files/Folders

This API will give the list of member Folders and Files present in the folder path provided as per single level directory.

Method	API EndPoint	Header	Content-Type
GET	/member/content/{version}	Session Token	

Request Object values

Sr. No.	Field Description	Field Name	Data Type	Description	Expected Values & Validations	Optional/ Mandatory
1	Segment	segment	String	Segment for which folder and file is to be accessed.	CM FO CD CO SLB MFSS DEBT WDM	M
2	Folder Path	folderPath	String	Folder Path for which list of Folders and files are Requested.	/	M/O

`/member/content/1.0?segment=CM&folderPath=/Downloads`

Response Object values

Sr. No.	Field Description	Field Name	Data Type	Description	Expected Values & Validations
1	Timestamp	timestamp	TimeStamp	Timestamp of response	
2	Version No	versionNo	String	API Version	
3	Response Code	responseCode	String	Application Processing status code	
4	Response Description	reponseDesc	String	Application Processing status description	
5	Data	data	Array	List of data values of type 'content list'	

Content List

Sr. No.	Field Description	Field Name	Data Type	Description	Expected Values & Validations
1	Path	folderPath	String	Path where the folder is placed	
2	Name	name	String	Name of file or folder	
3	Type	type	String	Identifier of whether the content is a file or folder	Folder or File
4	Last Updated	lastUpdated	Timestamp	Last updated time stamp of the file	

```
{
        "timestamp" : "2022-10-07T07:18:20Z",
        "versionNo" : "1.0",
        "responseCode" : ["601"],
        "responseDesc" : "Success",
        "data": [
                {
                 "folderPath": "/",
                 "name": "new Folder"
                 "type": "Folder",
                 "lastUpdated": "2022-10-07T07:18:20Z"
                },
                {
                 "folderPath": "/",
                 "name": "test.txt"
                 "type": "File",
                 "lastUpdated": "2022-10-07T07:18:20Z"
                }
            ]
}
```

Download File

This API will allow users to download member files for the selected segments. This API can be invoked either by using the exact file name or by using the date for downloading all the files under a given folder.

When downloading multiple files under a single folder the format of the files would be gzip.

Method	API EndPoint	Header	Content-Type
GET	/member/file/download/{version}	Session Token	

Request Object values

Sr. No.	Field Description	Field Name	Data Type	Description	Expected Values & Validations	Optional/ Mandatory
1	Segment	segment	String	Segment for which folder and file is to be accessed	CM FO CD CO SLB MFSS DEBT WDM	M
2	Folder Path	folderPath	String	Folder path from where file needs to be download		M
3	Date	date	String	Date for which the files in the particular folder needs to be downloaded	DD-MM-YYYY	O
4	File Name	filename	String	Name of the file which is to be downloaded		O

/member/file/download/1.0?segment=CM&folderPath=/Downloads&filename=text.txt

/member/file/download/1.0?segment=CM&folderPath=/Downloads&date=01-01-2022

Response Object values

Multipart File

Complete data stream of the file contents.

Get Common Files/Folders

This API will give the list of common Folders and Files present in the folder path provided as per

single level directory.

Method	API EndPoint	Header	Content-Type
GET	/common/content/{version}	Session Token	

Request Object values

Sr. No.	Field Description	Field Name	Data Type	Description	Expected Values & Validations	Optional/Mandatory
1	Segment	segment	String	Segment for which folder and file is to be accessed	CM FO CD CO SLB MFSS DEBT WDM	M
2	Folder Path	folderPath	String	Folder Path for which list of Folders are Requested		M

/common/content/1.0?segment=CM&folderPath=/Downloads

Response Object values

Sr. No.	Field Description	Field Name	Data Type	Description	Expected Values & Validations
1	Timestamp	timestamp	Timestamp	Timestamp of response	
2	Version No	versionNo	String	API Version	
3	Response Code	responseCode	String	Application Processing status code	
4	Response Description	reponseDesc	String	Application Processing status description	
5	Data	data	Array	List of data values of type 'common content list'	

Common Content List

Sr. No.	Field Description	Field Name	Data Type	Description	Expected Values & Validations
1	Path	folderPath	String	Path where the folder is placed	
2	Name	name	String	Name of file or folder	
3	Type	type	String	Identifier of whether the content is a file or folder	Folder or File
4	Last Updated	lastUpdated	Timestamp	Last updated time stamp of the file	

```
{
        "timestamp" : "2022-10-07T07:18:20Z",
        "versionNo" : "1.0",
        "responseCode" : ["601"],
        "responseDesc" : "Success",
        "data": [
                {
                  "folderPath": "/",
                  "name": "new Folder"
                  "type": "Folder",
                  "lastUpdated ": "2022-10-07T07:18:20Z"
                },
                {
                  "folderPath": "/",
                  "name": "test.txt"
                  "type": "File",
                  "lastUpdated ": "2022-10-07T07:18:20Z"
                }
            ]
```

Download Common File

This API will allow users to download common files for the selected segments. This API can be

invoked either by using the exact file name or by using the date for downloading all the files under a

given folder.

When downloading multiple files under a single folder the format of the files would be gzip.

Method	API EndPoint	Header	Content-Type
GET	/common/file/download/{version}	Session Token	

Request Object values

Sr. No.	Field Description	Field Name	Data Type	Description	Expected Values & Validations	Optional/ Mandatory
1	Segment	segment	String	Segment for which folder and file is to be accessed	CM FO CD CO SLB MFSS DEBT WDM	**M**
2	Folder Path	folderPath	String	Folder path from where file needs to be download		M
3	Date	date	String	Date for which the files in the particular folder needs to be downloaded	DD-MM-YYYY	**O**

4	File Name	filename	String	Name of the file which is to be downloaded		O

/common/file/download/1.0?segment=CM&folderPath=/Downloads&filename=text.txt

/common/file/download/1.0?segment=CM&folderPath=/Downloads&date=01-01-2022

Response Object value

Multipart File

Complete data stream of the file contents

Response Codes

Status Codes

Codes	Description
200	Successful response body. Complete data stream of the file contents.
400	Bad request
401	Unauthorised Token
403	Forbidden if the user does not have permission.
404	File not found
405	Method not found
500	Internal Server Error

Validation Error Codes and Description

Validations Error Codes	Validation Messages	Description
601	Success	When the API is a Success
605	Something went wrong	It's a technical error
606	Method unknown	Invalid HTTP (POST,GET) method
607	Concurrent User limit exceeded	Multiple API requests triggered together and the API call limit exceeded
701	Invalid member code or login id or password	For Log In API
702	User is disabled	User is disabled
703	Invalid member code or login id	For Log Out API
704	Member not Eligible	Member not eligible to access the Segment
706	Invalid request	Request made for any API is invalid
709	Invalid File	For file upload API – invalid file format
710	Date invalid	For file download API
711	Segment invalid	For upload API and download/content list API
712	Folder path invalid	For upload API and download/content list API
713	Filename invalid	For file upload/download API
714	File not Found	File not Found
715	Folder not Found	Folder not Found
802	Invalid token	For all APIs
803	Authentication token expired	For all APIs
917	Not valid record	Blank or null values not allowed
920	Invalid version no	For all APIs
921	Invalid syntax	Internal error
923	Invalid URL	URL name is incorrect
924	Invalid content type	Invalid request body data type
925	Authentication server down	Authentication server down
956	Password attempt Limit Exceeded	Multiple attempts made with incorrect password
959	API call not allowed	User not allowed to access the API

Version History

Version History		
Version	**Release date**	**Change Description**
1.0	12/09/2022	Base version
1.1	14/10/2022	• Section for Login – The login session validity changed from 30 min to 60 mins • Section Assumptions – The point related to API Key has been removed • For Login API – In the Request Object value and Response Object value table, the parameters have been updated along with the values in Request Object Structure (JSON) and Response Object Structure (JSON) tables. • For Logout API - In the Request Object value and Response Object value table, the parameters have been updated along with the values in Request Object Structure (JSON) and Response Object Structure (JSON) tables. • Get Member Files/Folders and Get Common Files/Folders – In the Content List and Common Content list parameters have been updated respectively.
1.2	15/11/2022	• Section File Transfer APIs updated - Base URL added • Section for Validation Error Codes and Description added
1.3	30/11/2022	• Section for validation Error Codes and Description - Description for validation codes 711, 712 and 713 updated • Version number updated in remarks and example • Timestamp attribute renamed to 'Last updated' in API for 'Get member list' and 'Get common list' • Error codes updated • Login API password details updated
1.4	22/12/2022	• Section File Transfer APIs – Production URL added • Section File Transfer APIs – Updated for Folder Path parameter for all APIs except Login and Logout. • Section Get Member Files/Folders – Example provided for Request Object Value updated for parameter Folder Path • Section Get Common Files/Folders – Example provided for Request Object Value updated for parameter Folder Path • Section Download File – Parameter for Date updated as DD-MM-YYYY under Request Object Value and in the example • Section Download Common File - Parameter for Date updated as DD-MM-YYYY under Request Object Value and in the example