



Member FAQ's on "Extranet API"

Version 3.0

February 2023

Disclaimer:

"This document/FAQ summarizes the queries relating to flexing the Operating ranges for Options contract in Equity Derivatives and Currency Derivatives Segment as well as for securities in the Securities Lending and Borrowing Markets (SLBM) in a concise manner for the Member's ease of understanding. The information and/ or content (collectively 'Information') provided herein is general information only and NSE has issued detailed circulars to that effect from time to time, as referred herein. While reasonable care has been exercised to ensure that the Information is adequate and reliable, no representation is made by NSE as to its accuracy or completeness and NSE, its affiliates and subsidiaries accept no liability of whatsoever nature for any direct or consequential loss, including without limitation any loss of profits, arising from reliance on this Information. The readers are expected to undertake their own diligence and are advised not to solely rely on this document. Any such reliance shall be at the reader's own risk. Nothing stated herein shall bind NSE, in any manner whatsoever."

Background

Exchange currently provides Extranet facility to members to access common and member specific data via Lease Lines (IP address for IP enabled users) and internet users (<ftp://ftp.connect2nse.com>) using member specific login or guest login credentials. Apart from the above, access is also available via Extranet folder in Member Portal

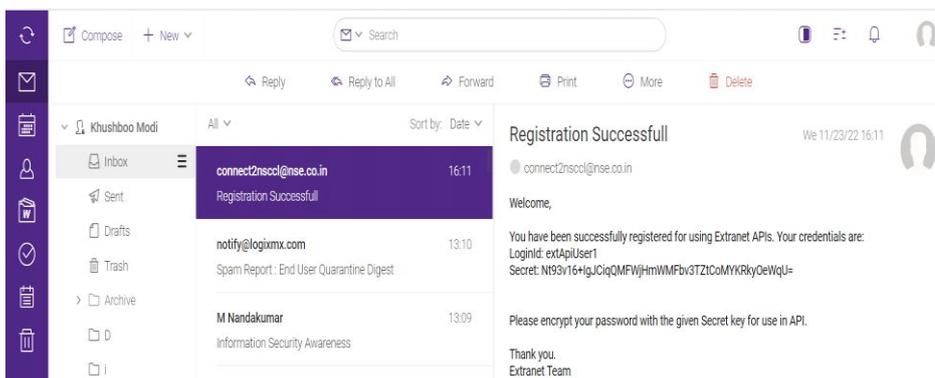
Important Note: Members may please note that access to Extranet for internet users via Internet FTP (<ftp://ftp.connect2nse.com>) and usage of Guest login credentials (for lease line and internet ftp) is planned to be discontinued. Please note that access of Extranet folders via Member Portal shall continue to be available.

Frequently Asked Questions (FAQs)

NON-TECHNICAL QUERY:

1. What is the process of Registering for Extranet API?
In order to register for Extranet API kindly refer to the Extranet API - Member Registration Help file for UAT as attached in the below circular link.:
<https://archives.nseindia.com/content/circulars/MSD55065.zip>
2. What is Secret Key?
The secret key is auto generated by the system post successful registration and the user will receive the secret key along with the user id and password on the email id used during the registration process of Extranet API.
3. Where to use the Secret Key received during registration process?
Secret Key is to be used to encrypt the password. The encrypted password should be send as part of the request while calling Login API

Example of such email is as below



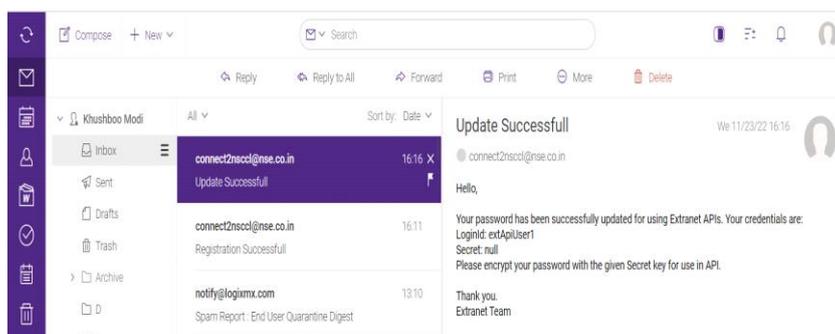
4. How can I get the password?
Member would need to set the password to use the Extranet-API while registering through member portal. Password need to be encrypted with the secret key received on the registered email-id post successful registration.
5. How to change the password which is set during registration?

Member may change the password using the Edit Profile menu in Member Portal. Member needs to enter the new Password and Confirm Password and clicking on Submit button on the Edit Profile page.

If password is reset then an email will go to the user intimating that the password has been reset.

Below is the screenshot of the Change Password screen and the email sent to the user post password being reset.

The image shows two web forms. The top form is titled 'Edit Profile' and contains four input fields: 'Member Code' (08081), 'Login ID' (extApiUser1), 'Member's Email Id*' (sringe@nseit.com), and 'Member's Mobile No.*' (9894561230). Below these is a 'Key' field with the value 'AS(DJ_9812I@_ASDHHbsd723rbndv7uib345n' and a green 'Submit' button. The bottom form is titled 'Change Password' and has two password input fields: 'Password*' and 'Confirm Password*', both with toggle icons, and a green 'Submit' button.



6. **What if I get “User is Disabled” error while trying to Login into the Member Portal for registering?**



In case of Sub user the member has to contact the Admin user and provide Login ID for the Admin to enable the sub user.

The Admin user will then login to the Member Portal with the member code, user id and password and follow below process:

Go to the menu 'User Management' and click on sub-menu 'Modify User'. On clicking the sub-menu a screen would open displaying a list of all the users created by the Admin user as below:

User Id	Member Code	User Type	User Status	Modify User	Change Password	Delete	Assigned Roles
extApplUser1	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
Rushi	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
PRADEEP	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
SubUser00081	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
TEST00081	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
27BKINST	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
Test123	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
Rushi00081	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
apilUser00081	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
Yash00081	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
Testing	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
Test12345	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
BALKRISHNA	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
Demo	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles
extApplUser2	00081	Sub User	Active	Edit	Change Password	Delete	Assign Roles

In case of a user being disabled the value in the column User Status would appear as Enable and admin user will have to click 'Enable' in order to enable the particular user.

In case of Admin user being disabled, members are requested to send a mail to msm@nse.co.in along with the details of admin user id which they need to reset.

7. What if the user does not receive the mail after successful registration?
Member/Vendor need to check if the email id provided by them in the registration screen is correct or not.
In case the email id provided during registration is correct and yet the member/vendor has not received the mail, then they need to contact the Help desk team at msm@nse.co.in.
8. What are the necessary details to be provided by members/vendors while reporting an UAT issue for quick resolution?
 - Member /Vendor code & Name
 - Login user credential
 - The application member/vendor is using to execute the APIs
 - The request and response body of the API executed
 - Date and time of observation
 - Details of error /observation
 - Screenshots of error/observation
 - Export of the request for the error/observation
9. Members should send requests to the Extranet API during which period for UAT and LIVE?
For Live: Members should send requests to the API between **7 AM to 6 AM** next day.
For UAT: Members should send requests to the API between 9 AM to 6 PM same day.
Note: - Extranet API services shall not be available between **6 AM to 7 AM** due to maintenance activity.

10. What are the exceptions when the extranet is not available?

The below are the exception scenarios when extranet won't be available over the weekend. Else there is no down time on weekend:

- Monthly Mock/DR45 activity
- Planned Release if any
- Server patching

All planned downtimes will be communicated to members via relevant circulars from time to time.

11. What is the time zone followed for downloading the files on extranet?

The system follows UTC (Universal Time Coordinated) format for downloading the files on extranet.

12. Is there any role-based access provided to users for accessing common and member specific files?

The admin user of the member can provide controlled access to its sub users for specific segments / services (Segments -CM, CD, FO, DEBT, CO, SLB and Services- Extranet-Common). The procedure for the same is provided in circular number [MSD55542](#) dated February 08, 2023.

13. Are the files available in UAT and LIVE same?

No. of files available in UAT and Live may vary from time to time.

Currently the below are the sample files Member specific and common files which are being made available for date 13-Jan-2023 on UAT Extranet server to facilitate testing:

Segment	File Description	Type	File Nomenclature	Member Extranet Path	New Files
CD	Final Trade Log File	Member Specific	FINAL_X_DDMMYYYY_TMCODE.txt.gz	/cdsftp/X<Member Code>folder	/cdsftp/X<MEMCD>/Onlinebackup/FINAL_X_13012023_<MEMCD>.txt.gz
CM	Final Trade Report	Member Specific	DDMMYYYY_TMCODE.txt.gz	/<Member Code>folder	/<MEMCD>/Onlinebackup/13012023_<MEMCD>.txt.gz
CO	Final Trade Log File	Member Specific	O_DDMMYYYY_TMCODE.txt.gz	/comtftp/O<Member Code>folder	/comtftp/O<MEMCD>/Onlinebackup/O_13012023_<MEMCD>.txt.gz
FO	Trade log	Member Specific	DDMMYYYY_TMCODE.txt.gz	/faoftp/F<Member Code>folder	/faoftp/F<MEMCD>/Onlinebackup/13012023_<MEMCD>.txt.gz
CD	Contract Files	Common	cd_contract.gz	/cdsftp/cdscommon	Latest Files kept
CM	Security File	Common	security.gz	/common/NTNEAT	Latest Files kept
CO	Contract and	Common	co_contract.gz	/comtftp/comtcommon	Latest Files kept

	Spd Contra ct Files				
FO	Contra ct file	Com mon	contract.gz	/faoftp/faocomm on	Latest Files kept
SLB	Contra ct File	Com mon	security_slb.gz	/slbftp/slbcomm on/NTNEAT	Latest Files kept
SLB	Partici pant File	Com mon	participant_slb.gz	/slbftp/slbcomm on/NTNEAT	Latest Files kept

Note : These are sample files format may or may not match with the file format which are applicable in Live and hence members are requested not to match the file format.

In case members wish to check the file format, a parallel live access for API is available where the same can be checked. Circular link for the parallel live is provided below – <https://archives.nseindia.com/content/circulars/MSD55065.zip>

14. At a time how many parallel login are allowed for a single Extranet API?
Only one concurrent user is allowed to login for a single API user i.e the latest token will only be considered valid.

TECHNICAL QUERY:

15. What is the password encryption algorithm used? /What is the Algorithm for password encryption? What is the mode for encryption? / What is the key size?

Algorithm: AES-256-ECB.

Key Size: 256Bit

Mode: ECB.

16. While placing an API request for Extranet what if the user is not getting any response?
Check if the input parameter provided in the request is as per the format/order provided in the API document for that specific request. Please refer the Extranet API or help document for more details.

17. While placing the Login API request, user gets error code as 701 i.e. Invalid Member Code, Login ID or Password.

Check if you as a member are registered on the Member Portal.

Check if the parameters passed (Member code, Login id and password) are correct. Ensure that the password being entered is not the secret key but the encrypted password using the secret key.

18. While placing the Login API request, user gets error code as 605.

Check if the user has entered the secret key in the password parameter instead of the password. The password is to be encrypted with AES256 encryption using the secret key received during API registration.

The process for password encryption is mentioned in the Extranet Registration Help document towards the end of the document i.e. point no 8 and 9.

e.g.

Request

```
{"memberCode": "11086", "password": "NTk1oUwNKdxGfNhAlKsbhjlqDXG/pFyPI2fcwr7uBgE=", "loginId": "ltmapi"}
```

Object:

Response Object :

```
{  
  "token": null,  
  "memberCode": "11086",  
  "loginId": "ltmapi",  
  "code": [  
    "605"  
  ],  
  "status": "error",  
  "timestamp": "2022-12-07T11:33:48.602+00:00"  
}
```

19. What if I get error code 803 error while calling an API?

Response code "803" clearly specifies invalid token/ token expired. The user has to regenerate the token and try again as the token is valid for 1 hour only. User can always generate a new token any number of times he wants by executing the Login API.

Error code 803 (Invalid token) also occurs if the user regenerates a new token but uses previous/old token instead.

If user is using Postman client, please refer the below steps on using the token.

Authorization Tab -> Select Bearer Token -> Paste the token in token tab.

20. How to encrypt the raw password with the key received/generated after successful registration?

To encrypt the password use the code mentioned in the help document. Code is available in JAVA and .net.

21. What if I am getting error code 702 in response?

Error code 702 clearly specifies that USER IS DISABLED. It usually occurs after 5 unsuccessful login attempts.

Members need to follow the steps provided in question number 5 to reset the password through Extranet API registration module on member portal.

Vendors need to send the request to enable the user to the mail id: msm@nse.co.in with the details provided in Question no 8.

22. What is the expiry time of the login token?

Token expiration is currently set to 1 hour.

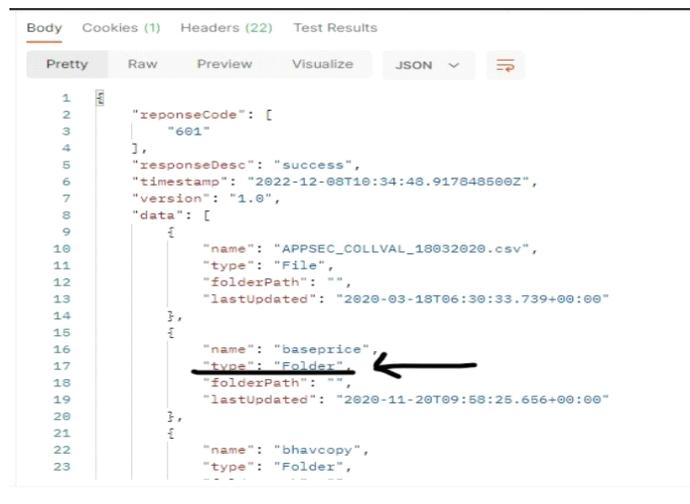
23. What if my data in response is empty even after successful execution of the API and getting response code 601 i.e., successful response?

If the response code is 601 and the still the response data is empty usually means that there is basically no file present at that folder path and the folder is empty.

24. Member faces error code 712 while executing Login API.

Response code 712 clearly specifies 'Folder not found'. User needs to check the base folder i.e., instead of "/common" provide "/" only and look for the folders available to navigate in the response received.

Example:



```
Body Cookies (1) Headers (22) Test Results
Pretty Raw Preview Visualize JSON
1 [{"responseCode": [
2   "601"
3 ]},
4 {"responseDesc": "success",
5  "timestamp": "2022-12-08T10:34:48.917848500Z",
6  "version": "1.0",
7  "data": [
8    {
9      "name": "APPSEC_COLLVAL_18032020.csv",
10     "type": "File",
11     "folderPath": "",
12     "lastUpdated": "2020-03-18T06:30:33.739+00:00"
13   },
14   {
15     "name": "baseprice",
16     "type": "Folder",
17     "folderPath": "",
18     "lastUpdated": "2020-11-20T09:58:25.656+00:00"
19   },
20   {
21     "name": "bhavcopy",
22     "type": "Folder",
23     "folderPath": ""
24   }
25 ]
26 }]
```

25. What if I am getting response code 920?
Response code 920 specifies 'Invalid version number of the API'. Example using 1 instead of 1.0 etc Kindly check the version number in the URL. Refer the help document on how to provide the version.
26. Receiving response code 703 in log out API.
Response code 703 specifies 'Invalid member Code' or login ID. It corresponds only to log out API. Check if the member code and log in ID provided is correct and you are passing them correctly in the body.
27. What if I am receiving response code 704.
Response code 704 specifies 'Member is not eligible for a particular segment'. It usually means that the Member's Folder is not present or a particular segment folder is not available for the Member. Please reach out to the help desk team to if your folder is unavailable and make sure you are accessing the correct segment.
28. Receiving Response code 706.
Response code 706 usually means that the user is providing Invalid parameters/Body consisting Segment, Member code, date, filename and folder Path etc. It's basically Invalid body been provided for the execution of the API.Refer the help document and API specification document on how to provide correct body to execute the API.
29. Are the parameters to be provided in the API case sensitive?
Yes the parameters to be provided in the API are case sensitive. Providing non case sensitive parameter name would usually return response codes 710, 711, 712, 714 and 714. Member should ensure the Parameters provided are correct. Kindly refer the help document and API specification document on how to provide correct parameter
30. Receiving response code 921.
If the user receives response code 921, which means 'Invalid syntax' which means member has provided a syntactical error while executing the API as it corresponds to Invalid syntax. Syntactical error usually occurs in the API URL and its Parameters.

31. Receiving Response code 923.
It is a child code to 921. which means Invalid URL. Please make sure there is now syntactical error and the URL is correct.
32. Receiving Response code 925.
Response code 925 generally states that the Authentication server is not working properly or is down. The user will not be able to log in/ log out during this period. User can try execution after some time or reach out to the help desk team.
33. How to provide the token in the API?
The token needs to be provided as a header in the API named "Authorization: Bearer +Token".
34. How are the API endpoints to be used?
The API end points are to be executed in applications like Postman etc. and are not web addresses.
The members are not to use these end points as web address and execute them on websites like Google Chrome, Firefox, or Safari. These are API end points and not any website.
35. While executing download API member is getting status code as 401.
Status code 401 means Unauthorized Token. Member has to provide "/" (front slash) instead of "\" (back slash) in the folder path parameter.
36. What is the password encryption code for Python?
Kindly find below the password encryption code in Python.

```
import base64
from cryptography.hazmat.primitives.ciphers import Cipher, algorithms, modes
from cryptography.hazmat.primitives import padding
from cryptography.hazmat.backends import default_backend
from django.utils.encoding import force_bytes, force_str

SECRET_KEY = "w0IWvhldP5BOQohbJqp9pNHUMiIU+Cc/4gSs06mRIU="
value = force_bytes("abcd@1234")

backend = default_backend()

key= force_bytes(base64.urlsafe_b64decode(SECRET_KEY))
print(key)

class Crypto:

    def __init__(self):
        self.encryptor = Cipher(algorithms.AES(key), modes.ECB(), backend).encryptor()
        self.decryptor = Cipher(algorithms.AES(key), modes.ECB(), backend).decryptor()

    def encrypt(self):
        padder = padding.PKCS7(algorithms.AES(key).block_size).padder()
        padded_data = padder.update(value) + padder.finalize()
```

```

    encrypted_text = self.encryptor.update(padded_data) + self.encryptor.finalize()
    return encrypted_text

def decrypt(self, value):
    padder = padding.PKCS7(algorithms.AES(key).block_size).unpadder()
    decrypted_data = self.decryptor.update(value)
    unpadded = padder.update(decrypted_data) + padder.finalize()
    return unpadded

if __name__ == '__main__':
    print ('>>>>>>>>>>>>>>>')
    crypto = Crypto()
    text = force_str(base64.urlsafe_b64encode(crypto.encrypt()))
    print(text)
    print('<<<<<<<<<<<<<<<<<<')
    text = force_str(crypto.decrypt(base64.urlsafe_b64decode(text)))
    print(text)

    text =
    force_str(crypto.decrypt(base64.urlsafe_b64decode("LvRHkSW+8OIMyk51T87KDQ==")))
    print(text)

```

37. While executing the Download API member is getting error code as 715.
Member has to navigate through the folders available by providing only "/" in the listing APIs and provide that only in the download API. i.e. the folders/files which are available
38. On executing Download API member is getting error code as 710.
The error code 710 means Date Invalid, thus member has to pass the date parameter in the format DD-MM-YYYY.
39. In case if the environment is not available what message will the system respond to the user?
The user will get the response message as "502 -Bad Gateway" whenever the environment is not available.
40. How many times can we generate the token?
There is no threshold limit for generating the token, but the latest token will only be considered valid.

41. While executing the Member API user is getting error code as 720?

Response code 720 specifies that the user/sub-user has not been provided access to that particular segment. To resolve this issue please log-in to member portal from admin id and provide access of that segment to the particular sub-user.

42. While executing the Common API user is getting error code as 721?

Response code 720 specifies that the user/sub-user has not been provided access to the common service. To resolve this issue please log-in to member portal from admin id and provide access of the common service to the particular sub-user.

43. What are the API End points with samples to view and download common and member specific files ?

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=

Segment wise Sample illustration are provided below:

Seg	File Type	File Description	File Nomenclature	Extranet API Folder	Path Used for VIEWING the File	Path Used for Downloading the specific File
CM	Common File	Security File	security.gz	/ntneat	/common/content/1.0? segment=CM&folderPath=/ntneat	/common/content/1.0? segment=CM&folderPath=/ntneat&filename=security.gz
FO	Common File	Contract file	contract.gz	/	/common/content/1.0? segment=FO&folderPath=/	/common/content/1.0? segment=FO&folderPath=/&filename=contract.gz
CD	Common File	Contract Files	cd_contract.gz	/	/common/content/1.0? segment=CD&folderPath=/	/common/content/1.0? segment=CD&folderPath=/&filename=cd_contract.gz
CO	Common File	Contract Files	co_contract.gz	/	/common/content/1.0? segment=CO&folderPath=/	/common/content/1.0? segment=CO&folderPath=/&filename=co_contract.gz
SLB	Common File	Contract File	security_slb.gz	/NTNEAT	/common/content/1.0? segment=SLB&folderPath=/NTNEAT	/common/content/1.0? segment=SLB&folderPath=/NTNEAT&filename=security_slb.gz
SLB	Member Specific File	SLB Limit Report	SLBM_UL_TM CODE_DDMYYYY1.csv.gz	/Reports/Order_Reports	/member/file/download/1.0? segment=SLB&folderPath=/Reports/Order_Reports	/member/file/download/1.0? segment=SLB&folderPath=/Reports/Order_Reports&filename=SLBM_UL_TM CODE_DDMYYYY1.csv.gz
CM	Member Specific File	Final Trade Report	DDMMYYYY_TMCODE.txt.gz	/	/member/file/download/1.0? segment=CM&folderPath=/	/member/file/download/1.0? segment=CM&folderPath=/&filename=DDMMYYYY_TMCODE.txt.gz
FO	Member Specific File	Trade log	DDMMYYYY_TMCODE.txt.gz	/	/member/file/download/1.0? segment=FO&folderPath=/	/member/file/download/1.0? segment=FO&folderPath=/&filename=DDMMYYYY_TMCODE.txt.gz
CD	Member Specific File	Final Trade Log File	FINAL_X_D DMMYYYY_TMCODE.txt	/	/member/file/download/1.0? segment=CD&folderPath=/	/member/file/download/1.0? segment=CD&folderPath=/&filename=FINAL_X_D DMMYYYY_TMCODE.txt
CO	Member Specific File	Final Trade Log File	O_D DMMYYYY_TMCODE.txt	/	/member/file/download/1.0? segment=CO&folderPath=/	/member/file/download/1.0? segment=CO&folderPath=/&filename=O_D DMMYYYY_TMCODE.txt

Note : Where 1.0 in the above illustration is the Extranet API version number is provided, which may change from time to time

*****END*****