
**China Stock Connect
Northbound Investor ID Model
File Transfer Connectivity Guide**

Version 1.0
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I. Document Control

i. Change History

Version Number	Issue Date	Author	Abstract
1.0	Mar 2023	HKEX	First Issue

ii. Document Cross-Referenced

Author	Abstract
HKEX	China Stock Connect Northbound Trading Investor ID Model System File Interface Specification
HKEX	ECP User Guide
HKEX	End-to-End Test User Guide for NB BCAN Migration to ECP
HKEX	HKEX Access Management Portal - Access Management User Guide

1. Overview

1.1. Background

This document serves as a technical reference guide for Northbound Investor ID Model interface files exchange through the “Electronic Communication Platform” (ECP) provided by HKEX.

The document covers the following areas:

- Operation of Northbound Trading Interface File Exchange;
- Access to ECP Web Interface and ECP SFTP Interface;
- Self-service provided on registration for ECP SFTP Interface access that includes public key and remote IP address maintenance;
- Connectivity details of Production and End-To-End Testing Environment of ECP for Northbound trading interface file exchange.

China Connect Exchange Participants (CCEPs) and Trade-Through Exchange Participants (TTEPs) should also refer to the [“China Stock Connect Northbound Trading Investor ID Model System File Interface Specification”](#) and [“ECP User Guide”](#) for preparation, submission and processing of relevant files needed to support trading under the Northbound Investor ID Model.

There are two channels to access ECP:

- ECP Web Interface via Internet; or
- ECP SFTP Interface via Securities and Derivatives Network (SDNet) or HKEX Service Network (HSN).

1.2. Functions of ECP Web Interface

The following functions are available in ECP Web Interface for ECP users:

- File Download.
- File Submission.
- Activity Enquiry.
- Self-Service SFTP Key Management:
 - Initial setup of Public Key.
 - Renewal of Public Key.
 - Registration of Remote IP Addresses.
- Acceptance of BCAN-CID Mapping File Client Consent¹.
- Registration for BCAN-CID Mapping File Encryption².

1.3. Functions of ECP SFTP Interface

ECP SFTP Interface provides SFTP facility for automation of the submission and download processes. The following functions are available:

- File Download.
- File Submission.
- Renewal of Public Key.

¹Applicable to Hong Kong Investor Identification Regime (HKIDR) only.

²Applicable to Hong Kong Investor Identification Regime (HKIDR) or Northbound Investor ID Model only.

2. Operation of Northbound Trading Interface File Exchange

For the Production environment, CCEPs/TTEPs should observe the service hours, file submission and distribution channel of each interface file as documented in the “China Stock Connect Northbound Trading Investor ID Model System File Interface Specification”.

For the End-to-End test environment, CCEPs/TTEPs should observe the service hours as documented in “End-to-End Test User Guide for NB BCAN Migration to ECP” which is inside the “E2E Test Package for NB BCAN Migration to ECP” obtained from “Download Corner” of ECP, file submission and distribution channel of each interface file as documented in the “China Stock Connect Northbound Trading Investor ID Model System File Interface Specification”.

3. ECP Web Interface

ECP Web Interface is accessible through the Internet.

The following browsers are supported to access the ECP:

#	Browsers	Version
1.	Chrome	88 +
2.	Edge	88 +

Please refer to Section 5.1 and “ECP User Guide” for the Production environment ECP Web Interface URL and login information.

Please refer to Section 6.1 for the End-to-End test environment ECP Web Interface URL and login information.

3.1. File Submission

To submit Northbound trading interface files, choose the appropriate submission file type at File Submission menu.

Only file submission types entitled to the user will be shown for selection at File Submission menu.

File Submission

[BCAN-CID Mapping File and Authorised TTEP Firm List for Northbound Trading](#)

Click “BCAN-CID Mapping File and Authorised TTEP Firm List for Northbound Trading” for submission of:

- BCAN-CID Mapping File for Northbound Trading (File ID: BCANMAPP)
- Authorised TTEP Firm List (File ID: BCANAUFM)

After the submission type is selected, user can choose to submit for the identity the user is authorized. User can select the corresponding identity in the Identity Code field if user is authorized to submit for more than one identity.

The following screen caputre takes the submission of a BCAN-CID Mapping File for Northbound Trading as an example.

File Submission

BCAN-CID Mapping File and Authorised TTEP Firm List for Northbound Trading

Identity ECP China Connect EP (CCEP) or Trade-through EP (TTEP)	Identity Code 20201
File BCANMAPP_20201_20230303.zip	
<input type="button" value="Submit"/>	<input type="button" value="Cancel"/>



Validation on file submission:

- The file submission date must be today and must be embedded in the file name.
- File name, extension and file submission time must conform to rules defined for the submission type.
- Identity Code embedded in the filename must be the same as the inputted Identity Code in the page.

- Must not exceed the file size limit. Please refer to Section 5.3 and Section 6.3 for the file size limit.
- Must not be a zero byte file.
- The compression method must be “STOR” and “DELFIAT” creating zip file. Advanced compression method e.g. “LZMA” is not supported.

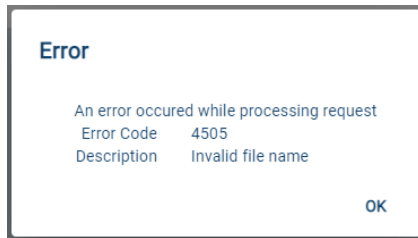
For a submission that is received by HKEX:

- A SHA-256 checksum of the file submitted will be displayed on screen upon submission.



For a submission that is rejected by HKEX:

- Rejection Code and Rejection Reason³ will be displayed on screen upon submission.



Submission result could also be enquired from the Activity Enquiry page.

Activity Enquiry

Activity: All | Status: All

From (HK Time): 2023-03-03 00:00 | To (HK Time): 2023-03-03 23:59

Search | Export

Time	Endpoint	Activity	Description	Status
2023-03-03 11:25	Web	Submission	Submit [BCANMAPP] File with Filename [BCANMAPP_20201_20230303.zip], checksum [999CE138A4387A7B65C6B403503ACA23B0FCFC517C4AE838C4741E286AE986A1]	Successful
2023-03-03 11:22	Web	Submission	Submit [BCANMAPP] File with Filename [BCANMAPP_20101_20230303.zip], rejection code [4505]	Failed

3.2. File Download

³ The list of rejection codes are described in Section 4.3 “Rejection Codes used when submitted file is rejected” of the “China Stock Connect Northbound Trading Investor ID Model System File Interface Specification”.

To download Northbound trading interface files distributed by HKEX, go to the Download Corner. Download Corner is the default page upon logging into ECP. By default, the page lists all available files. User can apply filter on the list of files displayed and the date range.

BCAN-CID Response File, Authorised TTEP Firm List Response File, BCAN-CID Validation Result File and BCAN Full Image File will be distributed by HKEX and available for download on the same date as that for file submission. They will be removed at 12:00am the next calendar day.

Download Corner

Filter: All

From (HK Time) 2023-02-24 To (HK Time) 2023-03-02 All time range

Search

Time	Subject	Last Available Date
2023-03-02 11:21	BCAN-CID Response File for Northbound Trading	2023-03-02
2023-03-02 11:09	Authorised TTEP Firm List Response File	2023-03-02
2023-03-02 08:55	Update of Sellable Positions for SZSE	2023-03-02
2023-03-02 08:21	Stock Code Mapping File for China Connect Securities	2023-03-02

Rows per page 10 1 - 4 of 4

3.3. Activity Enquiry

Activity Enquiry allows the user to query user activities performed in last 30 calendar days on ECP. By default, the page lists all activities of current day. The user can apply filter on activity types, activity status and date range.

Activity Enquiry

Activity: All Status: All

From (HK Time) 2023-03-03 00:00 To (HK Time) 2023-03-03 23:59

Search Export

Time	Endpoint	Activity	Description	Status
2023-03-03 11:25	Web	Submission	Submit [BCANMAPP] File with Filename [BCANMAPP_20201_20230303.zip], checksum [999CE138A4387A7B65C6B403503ACA23B0FCFC517C4AE838C4741E286AE986A1]	Successful
2023-03-03 11:22	Web	Submission	Submit [BCANMAPP] File with Filename [BCANMAPP_20101_20230303.zip], rejection code [4505]	Failed

The query result can also be exported in CSV format with file name in the format of: **ECP_Activity_<YYYYMMDDHHMMSS>.csv.**

3.4. SFTP Key Management

SFTP Key Management allows users to register and manage their Public Key and IP Address for accessing ECP SFTP Interface. The current SFTP Key / IP Address settings, if any, will be displayed and the user can choose to perform the following actions:

- Current Public Key Registration.
- Renew Public Key Registration.
- Set Remote IP Address.

SFTP Key Management

Public Key	Creation Date	Expiration Date	Fingerprint
IP Address			
Current Public Key Registration	Renew Public Key Registration	Set Remote IP Address	

3.4.1. Current Public Key Registration

This function allows users to register the initial public key. After the successful registration, the “Current Public Key” will be set up for accessing ECP SFTP service. The user can select the public key file to be uploaded. The expiration date will be automatically set as 2 years from the current date.

SFTP Key Management
Current Public Key Registration

Validations on public key file:

- File extension must be “.pub”.
- Filename must not exceed 128 characters and only contains alphanumeric character plus five other characters, which are '.' (dot), '-' (dash), '_' (underscore), ' ' (blank) and '@' (ampersand).
- The file must be in SSH2 Public Key File Format.
- Key length must be between 2048 bits and 4096 bits.
- Each public key should be saved in a separate file.

3.4.2. Renewal of Public Key Registration

This function is available only when there is a current public key set up. A user can upload another public key for renewal. If upload is successful, the uploaded key will be named as “Renewed Public Key”, where:

- “Renewed Public Key” expiration date = 2 years from current date.
- “Current Public Key” expiration date = its original expiration date or 2 weeks from current date, whichever is earlier.

After “Current Public Key” has expired, the public key will be removed and “Renewed Public Key” will become the new “Current Public Key”.

“Renewed Public Key” cannot be deleted. However, a user can upload a new one to overwrite the existing “Renewed Public Key”, and the expiration date will be renewed.

User can login SFTP facility using either “Current Public Key” or “Renewed Public Key” as long as they are not expired.

SFTP Key Management

Renew Public Key Registration

Validations on public key file:

- File extension must be “.pub”.
- Filename must not exceed 128 characters and only contains alphanumeric character plus five other characters, which are '.' (dot), '-' (dash), '_' (underscore), ' ' (blank) and '@' (ampersand).
- The file must be in SSH2 Public Key File Format.
- Key length must be between 2048 bits and 4096 bits.
- The key must be different from the existing public keys.
- Each public key should be saved in a separate file.

3.4.3. Set Remote IP Address

The Remote IP Addresses are the IP addresses of SFTP client workstations. User can register up to a maximum of four Remote IP Addresses for SFTP access.

For a successful SFTP connection, the Remote IP Addresses must be within the same subnet (first 3 octets) of Securities and Derivatives Network/2 (SDNet/2) or HKEX Service Network (HSN) where CCEPs/TTEPs' trading system connects to OCG-C/CCCG/.

SFTP Key Management

Set Remote IP Address

Validations on Remote IP Address submission:

- All input IP addresses must be in valid IPv4 Dotted-Decimal format without leading zero, such as 10.163.3.44.
- No duplicate IP Addresses found among the inputted IP Addresses.
- At least one IP Address must be inputted.

3.5. BCAN-CID Mapping File Encryption Password Register

By default without additional setup, CCEPs/TTEPs can submit the zip file of BCAN-CID Mapping File under HKIDR, BCAN-CID Mapping File and Authorised TTEP Firm List (if applicable) under Northbound Investor ID Model without encrypting with a password.

Optionally, all above files can be encrypted with a password. Prior to the submission of a password-encrypted zip files, CCEPs/TTEPs are required to register the password with HKEX at ECP Web Interface for use during decryption later.

File Encryption is setup per account. If file encryption is enabled, all above files must be submitted in AES 256-bit password-encrypted zip format using the same password set in here.

BCAN-CID Mapping File Encryption

If Encryption enable, BCAN-CID Mapping File MUST BE submitted in AES 256-bit encrypted zip using the same password set in here.

Enable File Encryption
Yes

Password Status
Assigned

Password
.....

Confirm Password
.....

Submit

Password Requirement:

- Minimum password length: 10 characters.
- Maximum password length: 128 characters.
- Password complexity: The password must contain a minimum of 1 uppercase letter, 1 lowercase letter, 1 number, and 1 symbol. All printable characters, except space, are accepted (i.e. ASCII code 0x21 to 0x7E). That includes upper & lower case letters, numbers (0-9), and symbols (@#\$%^&* etc.).
- Password history: 5 generations.

CCEPs/TTEPs are also advised to change the encryption password on a regular basis (e.g. every 3 months).

4. ECP SFTP Interface

ECP SFTP Interface is a SFTP facility that is only accessible from the Securities and Derivatives Network/2 (SDNet/2) or HKEX Service Network (HSN) which are used for connection to Orion Central Gateway – Securities Market (OCG-C)/China Connect Central Gateway (CCCG).

Please refer to Section 5.2 for the Production environment ECP SFTP Interface IP address and login information.

Please refer to Section 6.2 for the End-to-End test environment ECP SFTP Interface IP address and login information.

Concurrent login by the same login account is not allowed.

4.1. Technical Infrastructure

4.1.1. SFTP Standard

The SFTP facility uses industry standard SFTP and the following protocols are supported:

#	Protocol	RFC	Remarks
1.	SFTP	RFC 4251-4254	Secure Shell File Transfer Protocol
2.	SSH Public Key File Format	RFC4716	SSH2 Public Key File Format Fingerprint: MD5 message-digest

CCEPs/TTEPs are required to fully ensure that the SFTP client software⁴ installed in their SFTP client workstations for file submission adhere to the above standard.

4.1.2. Primary and Backup SFTP Facilities

In the production environment, there are two sets of SFTP facilities setup at HKEX's primary and secondary data centers respectively. Under normal condition, only SFTP facilities in the primary data center are in active mode. If a failure occurs in the primary data center, SFTP facilities in the secondary data center will be switched into active mode.

4.1.3. Recommendation of SDNet bandwidth

CCEPs/TTEPs can determine the bandwidth of the SDNet required for SFTP file upload/download by referring to the anticipated data volume.

For a 10 MB file, it will take approx. 1.5 minutes to upload to ECP over a 1 Mb SDNet line.

4.2. Secure Shell (SSH) Keys

The SFTP facility adopts Secure Shell (SSH) public-key authentication. CCEPs/TTEPs need to generate a pair of SSH private and public keys and register the said public keys through ECP Web Interface for each of the SFTP user accounts.

⁴ SFTP client software is any SFTP software run on SFTP industrial standard.

HKEX accepts RSA public keys of key length between 2048 bit and 4096 bits in SSH2 format. Each public key should be saved in a separate file with the file extension as “.pub”.

For example:

```

---- BEGIN SSH2 PUBLIC KEY ----
Comment: SSH KEY
AAAAB3NzaC1kc3MAAACBAPY8ZOHY2yFSJA6XYC9HRwNHxaehvx5wOJ0rzZdzoSOXxbET
W6ToHv8D1UJ/z+zHo9Fiko5XybZnDiABDhtblQ+Yp7StxyltHnXF1YLfKD1G4T6JYrdH
YI14Om1eg9e4NnCRleaQZPF3UGfZia6bXrGTQf3gJq2e7Yisk/gF+1VAAAAFQDb8D5c
vwHWTZDPfX0D2s9Rd7NBvQAAAIEA1N92+Bb7D4KLYk3IwRbXblwXdkPggA4pfdtW9vGf
J0/Rhd+NjB4eo1D+0dix6tXwYGN7PKS5R/FXPNwxHPapcj9uL1Jn2AWQ2dsknf+i/FAA
vioUPkmdMc0zuWoSOEsSNhVDtX3WdvVcGcBq9cetZrtOKWOocJmJ80qadxTRHtUAAACB
AN7CY+KKv1gHpRzFwdQm7HK9bb1LAo2KwaoXnadFgeptNBQeSXG1vO+JsvphVMBJc9HS
n24VYtYtsMu74qXviYjziVucWKjjKEb11juqnF0GD1B3VVmxHLMxnAz643WK42Z7dLM5
sY29ouezv4Xz2PuMch5VGPP+CDqzCM4loWgV
---- END SSH2 PUBLIC KEY ----

```

4.3. Folder Structure

After connecting to the SFTP facility, there are three boxes in the root level:

#	Box	Remarks
1.	download	For file distribution from HKEX to CCEPs/TTEPs It contains sub-folders which the user is entitled to download Within each sub-folder, only the user entitled files are listed and available to download
2.	submission	For file submission by CCEPs/TTEPs to HKEX. It contains sub-folders which the user is entitled to submit. User can upload their submission file into corresponding sub-folder
3.	key_management	User can upload their SFTP public key into publickey sub-folder for Public Key Renewal and download Public Key Expiry Warning File

Users are not allowed to perform any other file / directory operations other than those described above, including:

- Rename or delete any files.
- Create, rename or delete any folders.

List of sub-folders is described below:

#	Sub-Folders	Remarks
1.	/download/BCANMAPP	a. Distribution of BCAN-CID Response File for Northbound Trading (BCANRESP) b. Distribution of Authorised TTEP Firm List Response File (BCANAURP) c. Distribution of BCAN-CID Validation Result File (BCANRSLT) d. Distribution of BCAN Full Image File as accepted by ChinaClear (BCANFIMG).
2.	/submission/BCANMAPP	a. Submission of BCAN-CID Mapping File for Northbound Trading (BCANMAPP). b. Submission of Authorised TTEP Firm List (BCANAUFM)
3.	/key_management/publickey	a. Submission of SFTP public key for Public Key Renewal b. Download of Public Key Expiry Warning File

For files submission, CCEPs/TTEPs need to upload files to the submission box.

User accounts under the same CCEP/TTEP will share the same download box. Thus users can retrieve same set of files from the download box for files that are distributed by HKEX.

For submission box and key_management box, the files cannot be shared with other SFTP user accounts even if they belong to the same CCEP/TTEP.

4.4. File Submission

To submit a file, user uploads the submission file into `/submission/<sub-folder>` using their SFTP Client.

The submitted file is processed in background and not shown in the `/submission/<sub-folder>`. After the processing has completed, an Acknowledgment File (.rcvd) or a Rejection File (.rej) is generated.

Acceptance criteria of the submitted files:

- File name, extension and file submission time must conform to rules defined for the submission folder.
- Identity Code which is Firm ID embedded in the filename must be one of the identity codes entitled to the user.
- Must not exceed the file size limit. Please refer to Section 5.3 and Section 6.3 for the file size limit
- Must not be a zero byte file.
- The compression method must be "STOR" and "DELFIAT" when creating zip file. Advanced compression method e.g. "LZMA" is not supported.

Note:

- If the filename is longer than the system limit, i.e. 128 characters, the file will be rejected in SFTP level and no Rejection File will be generated.

4.4.1. Submission Accepted

For a submission that is accepted, an Acknowledgment File (file extension: .rcvd) containing the submission file checksum will be generated in the submission folder if the file was submitted through SFTP.

Please refer to Section 4.1 "Acknowledgment File" of the "China Stock Connect Northbound Trading Investor ID Model System File Interface Specification" for details.

4.4.2. Submission Rejected

For a submission that is rejected, a Rejection File (file extension: .rej) will be generated in the submission folder if the file was submitted through SFTP.

Please refer to Section 4.2 "Rejection File" of the "China Stock Connect Northbound Trading Investor ID Model System File Interface Specification" for details.

4.5. File Download

User can download files published by HKEX in `/download/<sub-folder>`. Only sub-folders or files that are granted access to the user will be available for download.

4.6. SFTP Key Renewal

CCEPs/TTEPs are advised to renew the public keys every two years. The public key should also be renewed immediately if the private keys are compromised.

Renewal of public key can be performed either via ECP Web Interface or SFTP facility.

Public key can be renewed by uploading new public key into SFTP folder **/key_management/publickey**. After the upload has completed, an Acknowledgement File (file extension: .rcvd) or Rejection File (file extension: .rej) is generated.

Note:

- Public Key Acknowledgement File and Rejection File are retained for a maximum of 24 hours and will be subsequently removed by system clean up.
- If filename is longer than the system limit, i.e. 128 characters, the file will be rejected in SFTP level and no Rejection File will be generated.
- SFTP public keys submitted through SFTP and Web Interface will be registered in the same way and the expiration date is the same.

Please refer to Section 3.4.2 “Renew Public Key Registration” for the details of public key renewal processing.

4.6.1. Public Key upload accepted

For a public key file upload that is accepted, a Public Key Acknowledgment File will be generated in the submission folder if the file was submitted through SFTP.

The filename is formatted as **<original file name>.<timestamp – HHMMSS>.<seq>.rcvd** in sub-folder **/key_management/publickey** where “.<seq>” is optional and appears only when file of same name are uploaded within same second and is accepted.

For example, if 3 files with same file name are uploaded within same second and accepted, then the Public Key Acknowledgment File will be named as:

1st file: <original file name>.<timestamp – HHMMSS>.rcvd

2nd file: <original file name>.<timestamp – HHMMSS>.1.rcvd

3rd file: <original file name>.<timestamp – HHMMSS>.2.rcvd

This Public Key Acknowledgment File only contains one line, which is the uploaded public key fingerprint (MD5 hash digits of public key) in the format of 16 octets printed as hexadecimal with lowercase letters and separated by colons, for example:

12:f8:7e:78:61:b4:bf:e2:de:24:15:96:4e:d4:72:53

4.6.2. Public Key upload rejected

For a public key file upload that is rejected, a Public Key Rejection File will be generated in the submission folder if the file was submitted through SFTP.

The filename is formatted as **<original file name>.<timestamp – HHMMSS>.<seq>.rej** in sub-folder **/key_management/publickey** where “.<seq>” is optional and appears only when file of same name are uploaded within same second and is rejected.

For example, if 3 files with same file name are uploaded within same second and rejected, the Public Key Rejection File will be named as:

1st file: <original file name>.<timestamp – HHMMSS>.rej

2nd file: <original file name>.<timestamp – HHMMSS>.1.rej

3rd file: <original file name>.<timestamp – HHMMSS>.2.rej

The Public Key Rejection File is a text file in window text file format (line ends with CR+LF) in the following format:

#	Field	Type	Size	Remarks
1.	Rejection Code	Numeric	5	Rejection code
2.	Rejection Reason	Alphanumeric	255	Rejection reason in English

The list of rejection code is the same as that described in Section 4.3 “Rejection Codes used when submitted file is rejected” of the “China Stock Connect Northbound Trading Investor ID Model System File Interface Specification”.

4.6.3. Public Key Expiry Warning

Public Key Expiry Warning File (“SSHKeyExpireWarning.txt”) will be shown in sub-folder **/key_management/publickey** if the public key is going to expire within 14 days (based on the time user login).

The warning file is a fixed width text file in window text file format (line ends with CR+LF) which includes the current key and renewed key (if available). For example:

Public Key	Creation Date	Expiration Date	Fingerprint
Current Public Key	2021-02-01	2021-07-15	90:4e:0d:c7:00:37:51:8d:56:5a:a2:d1:93:27:51:2c
Renewed Public Key	2021-07-01	2023-07-01	a2:d1:93:27:51:2c:4e:0d:c7:00:37:51:8d:56:5a:51

After the current public key has expired and has been removed from the system by housekeeping job, the warning file will not be shown in the folder in the next SFTP login.

5. Production Environment Connectivity Details

5.1. ECP Web Interface

ECP Web Interface URL: <https://ecp2.hkex.com.hk>

HKEX
香港交易所

WELCOME TO THE
ELECTRONIC
COMMUNICATION
PLATFORM (ECP)

Log on to the ECP through the following
Authentication Systems:

HKEX Access Management Portal

SFC WINGS ⁽¹⁾

(1) For SFC-licensed corporations and registered institutions

By logging into this website via HKEX Access Management Portal or the SFC's WINGS platform, you are deemed to have read and accepted the [Terms and Conditions for Electronic Communication Platform](#), and to have confirmed that the individual(s) whose personal data is disclosed in the use of this application consent to the processing of their personal data in accordance with the privacy policy statement as incorporated and supplemented in the Terms and Conditions.

Unauthorised access and use are prohibited. HKEX reserves the right to take actions against offenders.

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5.1.1. Login with HKEX Access Management Portal

ECP user can access ECP Web Interface through HKEX Access Management Portal authentication. Go to ECP Web Interface URL, click “HKEX Access Management Portal” button and it redirects the user to HKEX Access Management Portal login page to login with HKEX Access Management Portal account.

HKEX Access Management Portal has employed 2-Factor Authentication to enhance password security. Therefore it is required to enter: (1) the Login Password, and (2) One Time Password (OTP) received from email or mobile application “ForgeRock Authenticator”. For setup of HKEX Access Management Portal login accounts, please refer to [Access Management User Guide](#).

Remark:

- Login with “SFC WINGS” is not applicable for Northbound Investor ID Model. It could not be used to transfer Northbound Trading interface files.

5.2. ECP SFTP Interface

5.2.1. IP Address of SFTP Facilities

IP addresses of the Production ECP SFTP Interface are as follows:

Connection through OCG-C network interface

SFTP Facility at primary data center	SFTP Facility at secondary data center
10.1.93.131 Port 18801	10.2.93.131 Port 18801
10.1.93.132 Port 18801	10.2.93.132 Port 18801

Connection through CCCG network interface

SFTP Facility at primary data center	SFTP Facility at secondary data center
10.1.145.131 Port 18801	10.2.145.131 Port 18801
10.1.145.132 Port 18801	10.2.145.132 Port 18801

5.2.2. Registration of SFTP Access

In order to connect to Production SFTP facilities, CCEPs/TTEPs must:

- Install SDNet/2 circuit or HSN.
- Setup login account in HKEX Access Management Portal with SFTP access right.
- Register SFTP public key (Please refer to Section 3.4.1 “Current Public Key Registration”).
- Register SFTP remote IP Addresses (Please refer to Section 3.4.3 “Set Remote IP Address”).

Once CCEP/TTEP has the public key files and IP addresses of SFTP client workstation ready, they could self-register their SFTP access via SFTP Key Management at ECP Web Interface. Please refer to Section 3.4 “SFTP Key Management”.

5.2.3. Login SFTP facilities

After registering SFTP access, user can then use standard SFTP Client to login ECP SFTP Interface via SDNet with HKEX Access Management Portal Login ID and respective private key from one of the registered remote IP Addresses.

5.2.4. Logout

User can use standard Logout command to logout from SFTP facility.

5.3. File Size Limit

File Name	File ID	Max zip file size per submission
BCAN-CID Mapping File for Northbound Trading	BCANMAPP	700MB
Authorised TTEP Firm List	BCANAUFM	700MB

5.4. HKEX Access Management Portal Business Function Assignment

For CCEPs/TTEPs’ business user account that will be logging in with HKEX Access Management Portal to perform file exchange for Northbound Trading, it should be assigned the following Identity and Business Function(s) by their Delegated Administrator (DA).

Identity	Business Function
ECP China Connect EP (CCEP) or Trade-through EP (TTEP)	EU_ECPNBCAN

To use ECP SFTP Service, the additional business function “EU_ECPSFTP” is required.

Please refer to the “HKEX Access Management User Manual” on how to assign business function to users.

6. End-to-End Test Environment Connectivity Details

Below configuration setting is applicable for End-to-End (E2E) Test only.

6.1. ECP Web Interface

End-to-End ECP Web Interface URL: <https://ecp2.e2etest.hkex.com.hk>

6.1.1. Login with OTP-C E2E Test Portal

This is applicable only for EPs/CCEPs/TTEPs who have OTP-C E2E Test Portal account.

ECP user can access End-to-End ECP Web Interface with OTP-C E2E Test Portal authentication. Go to End-to-End ECP Web Interface URL, click “END-TO-END Test Portal” button and it redirects the user to Test Portal login page to login with Test Portal user ID and password.

Remark:

- Login with “SFC WINGS” is not applicable for Northbound Investor ID Model. It could not be used to transfer Northbound Trading interface files.

6.2. ECP SFTP Interface

6.2.1. IP Address of SFTP Facilities

IP addresses of End-to-End ECP SFTP Interface are as follows:

Connection through OCG-C network interface

End-to-End SFTP Test Facility

10.1.93.228 Port 18801

Connection through CCCG network interface

End-to-End SFTP Test Facility

10.1.145.228 Port 18801

6.2.2. Registration of SFTP Access

In order to connect to End-to-End test SFTP facility, CCEPs/TTEPs must:

- Install SDNet/2 Testing Line or Hosting Services Testing Network (HSTN).
- Register OTP-C E2E Test Portal user ID or had OTP-C E2E Test Portal user ID in place.
- Register SFTP public key (Please refer to Section 3.4.1 “Current Public Key Registration”).
- Register SFTP remote IP Addresses (Please refer to Section “3.4.3 Set Remote IP Address”).

Once CCEP/TTEP has the public key files and IP addresses of their SFTP client workstation ready, they could self-register their SFTP access via SFTP Key Management at End-to-End ECP Web Interface. Please refer to Section 3.4 “SFTP Key Management”.

6.2.3. Login SFTP Facilities

After registering SFTP access, user can then use standard SFTP Client to login End-to-End test ECP SFTP Interface via SDNet/2 Testing Line or HSTN with Test Portal user ID and respective private key from one of the registered remote IP Addresses.

6.2.4. Logout

User can use standard Logout command to logout from SFTP facility.

6.3. File Size Limit

File Name	File ID	Max zip file size per submission
BCAN-CID Mapping File for Northbound Trading	BCANMAPP	1MB
Authorised TTEP Firm List	BCANAUFM	1MB