



TECHNICAL DOCUMENT

POST TRADE DATA TECHNICAL SPECIFICATION

(CORPORATE BONDS SETTLEMENT DATA)

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CORPORATE BONDS SETTLEMENT POST TRADE DATA

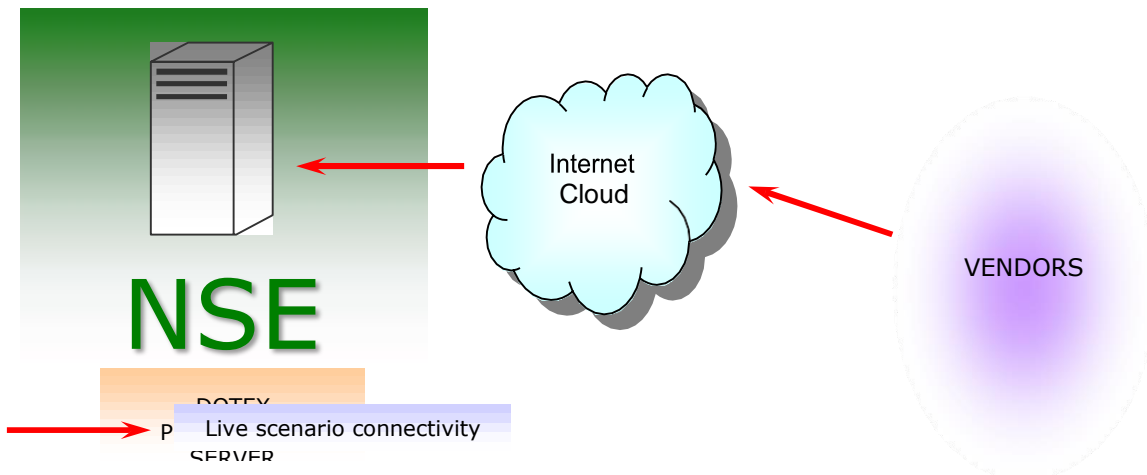
1. INTRODUCTION

The NSE Data & Analytics Ltd. (100% subsidiary of NSE) is the sole distributor of the various types of data such as real-time trade data, end of day data, corporate announcements, historical trade and order data etc. reported at NSE. In order to expand current product offerings and to facilitate the market participants, NSE Data & Analytics Ltd has introduced a new product 'Post Trade Data'. The product provides information such as commercial paper settlement data, certificate of deposit settlement data etc. on an end of day basis. The clients connect to the NSE Data FS server that contains the EOD data files, through Internet and FTP to the server with a valid user name and password. The user name and password authentication provides the secured login to the server. There are number of files are populated on the server throughout the day. A detailed description of the product is mentioned below in the specifications.

2. CONNECTION DETAILS

All vendors need to connect internet and FTP to the NSE Data FS server with an IP address <59.160.38.110>. The FTP connection requires a User Name and Password for logging in and that is provided by NSE Data & Analytics Ltd after the vendors subscribes for it.

Structural Diagram



3. PRODUCT DETAILS

Post Trade Data is a data service which contains all the post trade data files of the capital markets, futures & options markets, Index Segment and Corporate Bonds settlement data which gives wide information about the markets.

This product eases the downloading of multiple files, by using it all the files specified in the configuration file will get downloaded at one go.

It also maintains repository directories which will store all the downloaded data in date-wise directories.

The product also features a data archival facility, which will help you in managing archival directories at your end. (Refer Configuration section for details)

This list of the generated files on the NSE Data FS along with their scheduled time of availability is listed below.

4. LIST OF FILES

The list of the files provided as Post Trade Data in WDM Segment is given below –

File Type	Segment	File Nomenclature	No of Files	Time (Approx)	Day
Commercial Paper Settlement Data	CB	CP_SettlementOrderReport_ddmmyyyy.csv	1	10:46:00 AM	Next day
Certificate of Deposit Settlement Data	CB	CD_SettlementOrderReport_ddmmyyyy.csv	1	10:46:00 AM	Next day
Un-Listed Bonds Settled by Non-Mandatory entities	CB	cbm_unlist_non_man_ddmmyyyy.csv.gz	1	10:46:00 AM	Next day
Un-Listed Bonds Settled by Mandatory entities	CB	cbm_unlist_man_ddmmyyyy.csv.gz	1	10:46:00 AM	Next day
Listed Bonds Settled by Non-Mandatory entities	CB	cbm_list_non_man_ddmmyyyy.csv.gz	1	10:46:00 AM	Next day
List of Failed Trades	CB	cbm_fail_ddmmyyyy.csv.gz	1	10:46:00 AM	Next day
Listed Bonds Settled by Mandatory entities	CB	cbm_list_man_ddmmyyyy.csv.gz	1	10:46:00 AM	Next day

5. DIRECTORY STRUCTURE

The contents of the distributed directory are mentioned below.

Directory Name: autoFTP

Directory Contents:

FILE NAME	DESCRIPTION
autoFTP_APP.CFG	IP and download directory details of the FTP server
fetchFiles.sh	FTP script
manage_archival_dirs.sh	Script for handling daily archival directories
.wgetrc	Stores Client's user ID and Password provided by NSE Data & Analytics
FILES_LIST.CFG	Nomenclature details of files to be downloaded

6. INSTALLATION & CONFIGURATION DETAILS

6.1.1 Installation Details

1. Keep the distributed **autoFTP** directory in the desired path of your file system.
2. Install **wget** tool on your linux system.
3. Open the hidden file "**.wgetrc**" (Using vi **.wgetrc**)
4. Edit the **user** and **password** field with provided username and password
File should look like this after editing,
user=provided_user_name
password=provided_password
5. Now move the file to the root folder of your linux file system.
(Using cp **.wgetrc** ~)

6.1.2 CONFIGURATION DETAILS

There are two configuration files present in the distributed directory

1. autoFTP_APP.CFG
It should contain connection details to FTP server and other details briefly explained later.
2. FILES_LIST.CFG
It should contain the list of keywords (file nomenclature) of files which specifies the type of file that will be downloaded, brief details are described later

Edit both the provided configuration files as per the below details

6.1.3 CONFIGURATION DETAILS FOR autoFTP_APP.CFG

This configuration file stores the technical details required by the FTP script.

If any of the required information is not set, then FTP script will stop its execution and throw appropriate error.

Below is the description of configuration fields:

FIELDS	DESCRIPTION
FTP_SERVER_IP	Remote FTP Server IP
LOCAL_FOLDER	Path for local download directory
ARCH_DIR_LIMIT	Limit value for archival directories

Format

FIELD_1=VALUE_1
FIELD_2=VALUE_2

.

Note: Each field detail should be written on a new line.

Sample of autoFTP.CFG

FTP_SERVER_IP=172.20.6.98
LOCAL_FOLDER=Downloads
ARCH_DIR_LIMIT=5

6.1.4 CONFIGURATION DETAILS FOR FILES_LIST.CFG

This configuration file stores the nomenclature of files to be downloaded by the FTP script.

If file is empty no file will be downloaded.

Note: Each nomenclature detail should be written on a new line.

Nomenclature of post trade data files to be specified into the config file is as follows

File Type	Config File Name
Commercial Paper Settlement Data	CP_SettlementOrderReport
Certificate of Deposit Settlement Data	CD_SettlementOrderReport
Un-Listed Bonds Settled by Non-Mandatory entities	cbm_unlist_non_man
Un-Listed Bonds Settled by Mandatory entities	cbm_unlist_man
Listed Bonds Settled by Non-Mandatory entities	cbm_list_non_man
List of Failed Trades	cbm_fail
Listed Bonds Settled by Mandatory entities	cbm_list_man

Format

Nomenclature_file_type1
Nomenclature_file_type2

Nomenclature_file_type3

.
. .
.

Sample of FILES_LIST.CFG

CP_SettlementOrderReport
CD_SettlementOrderReport
cbm_unlist_non_man
cbm_unlist_man
cbm_list_non_man
cbm_fail
cbm_list_man

6.1.5 CONFIGURATION DETAILS FOR DATA ARCHIVAL FEATURE

For using this feature you will have to set the "ARCH_DIR_LIMIT" value in the autoFTP_APP.CFG file to the desired number of days for which you want to retain the date-wise directories. Any directory older than that value set will get deleted from the file system.

For eg:

If you have set the ARCH_DIR_LIMIT value in autoFTP_APP.CFG to 10, Viz. ARCH_DIR_LIMIT=10, then till 10 days under your local download directory (mentioned in the "LOCAL_FOLDER" of the autoFTP_APP.CFG) date-wise folder will get created each day which will contain all the files downloaded for that day.

No deletion of directories will happen until 10 days

On the 11th day, when you will run the fetchFiles.sh script for the first time, a new directory will get created which will store the 11th day files and the oldest directory will get deleted.

Note: For switching off this feature assign a very high value to the "ARCH_DIR_LIMIT" field (Value should be greater than the total number of archived directories present in the LOCAL_FOLDER)

7. DOWNLOADING FILES

For downloading files use the following steps

Pre-requisites:

Make sure details are filled in the configuration files.

- A. autoFTP_APP.CFG
- B. FILES_LIST.CFG

Using the FTP script to download files

- A. Navigate to autoFTP directory
- B. Execute "fetchFiles.sh" script by typing the script name and pressing enter.
- C. Wait for complete execution of the script.
- D. If "**Downloaded all the files successfully!!**" message occurs, then all the files are downloaded successfully, check your local download directory.

- E. If **“File is missing error”** occurs, then try again later. This error will usually occur if any requested file is unavailable in the remote repository directory.

Using the FTP script to download archived data

- A. Navigate to autoFTP directory
- B. Execute **“fetchFiles.sh 1”** script by typing the script name and pressing enter.
- C. Wait for complete execution of the script.
- D. If **“Downloaded all the files successfully!!”** message occurs, then all the files are downloaded successfully, check your local download directory.
- E. If **“File file_name not yet available,”** occurs, then try again later. This error will usually occur if any requested file is unavailable in the remote repository directory.

Note: All the downloaded archived files would be compressed and packed using “tgz” i.e. (tar + gz).

To extract the files use the following command on your Linux terminal.

tar -xzf filename.tgz

8. DATA DETAILS

8.1 CORPORATE BONDS POST TRADE FILES

8.1.1 Un-Listed Bonds Settled by Non-Mandatory entities

Nomenclature: cbm_unlist_non_man_ddmmyyyy.csv.gz

Field Names
ISIN
Description
Trade Date
Quantity
Nominal Value
Weighted Average Price
Weighted Average Yield

8.1.2 Un-Listed Bonds Settled by Mandatory entities

Nomenclature: cbm_unlist_man_ddmmyyyy.csv.gz

Field Names
ISIN
Description
Trade Date
Quantity
Nominal Value
Weighted Average Price
Weighted Average Yield

8.1.3 Listed Bonds Settled by Non-Mandatory entities

Nomenclature: cbm_list_non_man_ddmmyyyy.csv.gz

Field Names
ISIN
Description
Trade Date
Quantity
Nominal Value
Weighted Average Price
Weighted Average Yield

8.1.4 Listed Bonds Settled by Mandatory entities

Nomenclature: cbm_list_man_ddmmyyyy.csv.gz

Field Names
ISIN
Description
Trade Date
Quantity
Nominal Value
Weighted Average Price
Weighted Average Yield

8.1.5 List of Failed Trades

Nomenclature: cbm_fail_ddmmyyyy.csv.gz

Field Names
ISIN
Description
Trade Date
Quantity
Nominal Value
Weighted Average Price
Weighted Average Yield

8.1.6 Certificate of Deposit Settlement Data

Nomenclature: CD_SettlementOrderReport_ddmmyyyy.csv

Field Names
ISIN
Descriptor
Trade Date
Quantity
Nominal Value
Weighted Average Price (Rs.)
Weighted Average Yield (%)

8.1.7 Commercial Paper Settlement Data

Nomenclature: CP_SettlementOrderReport_ddmmyyyy.csv

Field Names
ISIN
Descriptor
Trade Date
Quantity
Nominal Value
Weighted Average Price (Rs.)
Weighted Average Yield (%)

9. CONTACT INFO

Following are the contact details for business assistance:

Name	Email Address	Contact Numbers
NSE Data & Analytics Ltd	marketdata@nse.co.in	91-22-26598385

For technical assistance email us on iisl_it@nse.co.in.