# MARKET FEED
# Capital Market (CM)
## (STOCK WISE)

**Version:** 1.5

**Date:** 10 August 2026

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## Revision History

| Name | Description | Date |
|---|---|---|
| Version 1.0 | New Specification Issued | 24 May 2013 |
| Version 1.1 | Addition of New fields (Total Buy Quantity, Total Sell Quantity) to the existing format. | 20 December 2013 |
| Version 1.2 | Change in regular/market lot field size from char [5] to char [6] in 2 structures 3.4 EOD – Master Addition/Modification/Deletion and 3.6 EOD – Corporate Action Update | 27 June 2018 |
| Version 1.3 | Migration from FTP to SFTP | 25 February 2019 |
| Version 1.4 | 1. Addition of Indicative Close Price in Normal Market Security Update Information<br>2. Addition of FAQ Section | 05 September 2024 |
| Version 1.5 | Removal of section 3.4 EOD – Master Addition /Modification /Deletion. | 10 August 2026 |



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# Market Feed – Stock Wise Feed (CM)

## 1 Introduction

NSE Data & Analytics Ltd. offers real-time data and historical data products from NSEIL to a diverse range of clients. This includes 5 real-time products and 2 historical data products:

**Real Time data products**

1. Real Time Data
2. Snapshot Data
3. Corporate Data
4. Analytical Products data
5. Indicative NAV Data

**Historical data products**

1. End of Day Data
2. Historical Data

The data products are provided through delivery modes mentioned below:

- **Real-time and Snapshot Data**:
  The information is transmitted as a packet broadcast, facilitating ongoing distribution through data feeds via point-to-point leased line and the snapshot data through SFTP protocol.

- **End-of-Day and Historical Data**:
  The data is delivered as downloadable files over the internet using the SFTP protocol and through cloud.

All these data categories are integrated within the Infofeed platform, ensuring comprehensive coverage and streamlined access.



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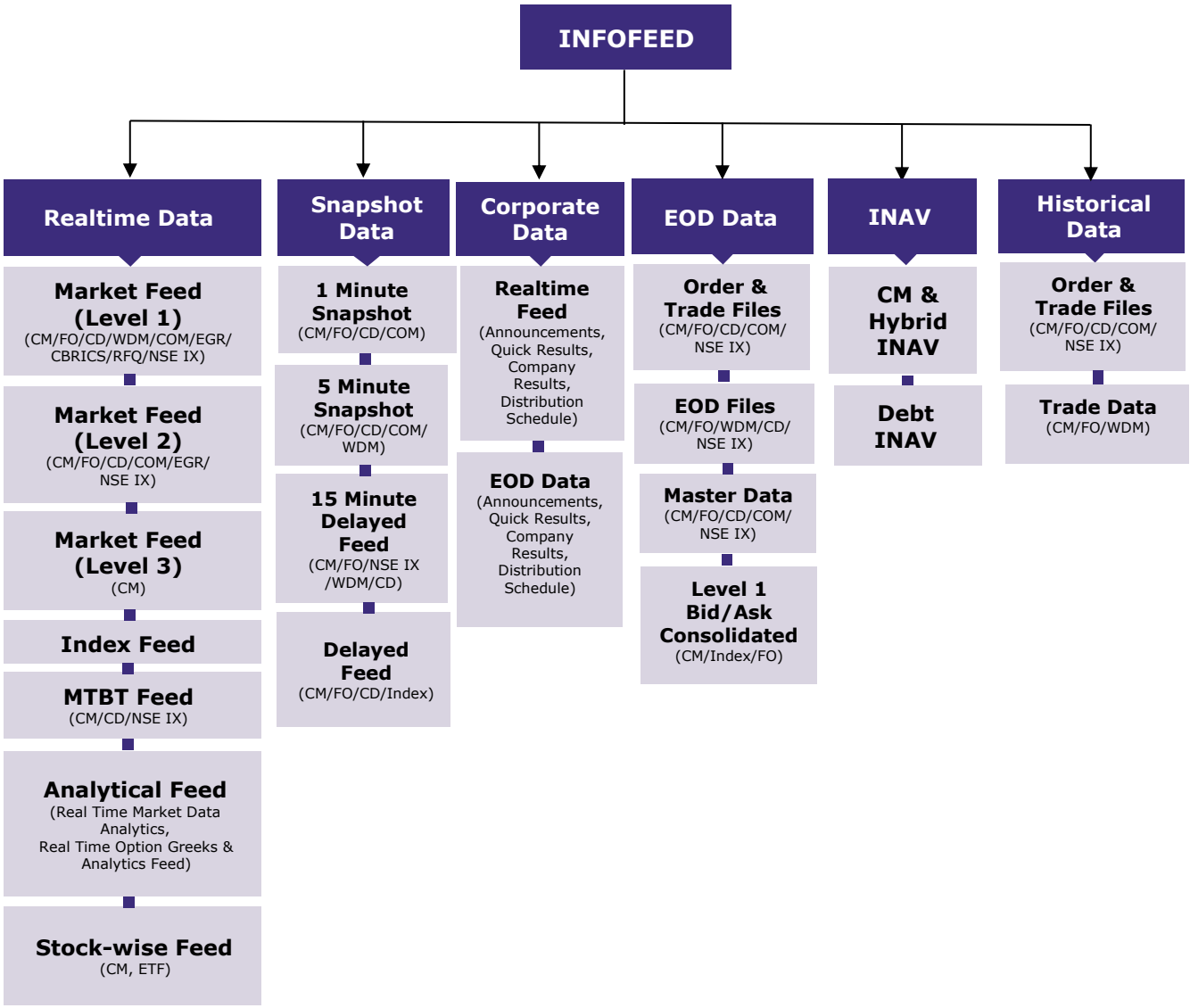



NSE Data & Analytics Ltd. (NDAL) provides a comprehensive suite of real-time and historical market data sourced from NSEIL, providing a wide range of products across the Capital Market (CM), Futures & Options (FO), Currency Derivatives (CD), Commodity Derivatives (COM), Electronic Gold Receipt (EGR) and NSE IX segments. These products deliver both high-frequency intraday information and structured end-of-day datasets to meet diverse client requirements.

This document describes the NSE Market Feed - Stock Wise Feed product. The product disseminates NSE market data in CSV format at predefined time intervals, providing stock-level market information for subscribed securities. Clients may subscribe to a single security or multiple securities and will receive market updates only for the selected securities as part of the feed.

To gain access to the application servers, clients are required to submit their server's public key and static public IP address. Once verified, credentials are issued and remain valid for the duration specified in the service agreement.

## 2 Connection Details

Clients shall connect to the NDAL application servers over the Internet using the SFTP protocol from their whitelisted public static IP addresses.

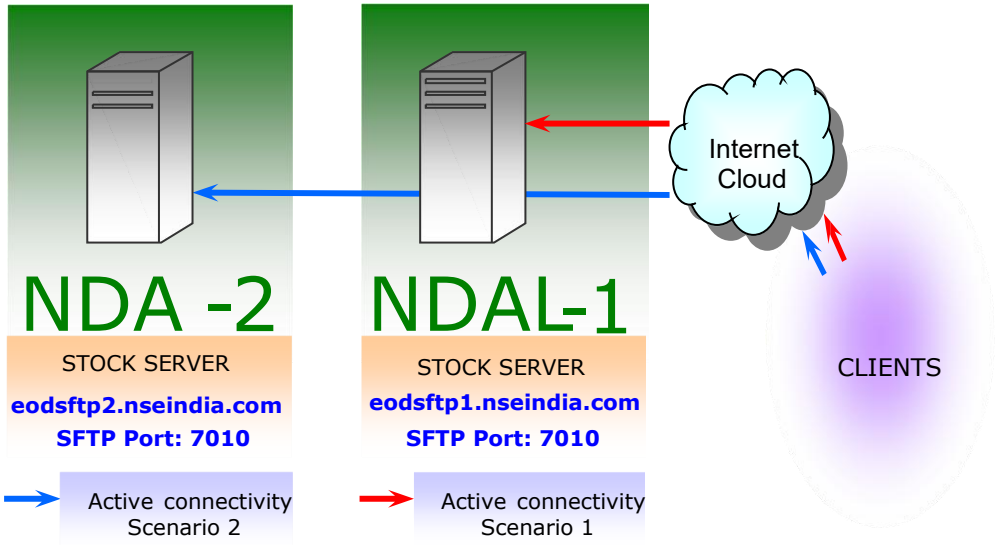
To ensure high availability and provide resilience against network or ISP-level failures, NDAL has deployed two production servers operating in an active-active configuration. Each server is accessible through its designated URL and port, as detailed in the deployment architecture section of this document.

Clients may adopt either of the following connectivity models:

- **Active-Active Connectivity:** Simultaneously establish connections to both production servers for enhanced availability and load distribution.
- **Failover Connectivity:** Connect to one server as the primary endpoint and automatically or manually switch to the alternate server in the event of primary server unavailability.

This architecture is designed to provide a highly available and resilient connectivity framework, ensuring uninterrupted access to data services and supporting business continuity requirements.

### 2.1 Structural Diagram



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## 2.2 SFTP Connection Details

| Segment | Server | URL | Port |
|---|---|---|---|
| CM | Primary | eodsftp1.nseindia.com | 7010 |
| | Secondary | eodsftp2.nseindia.com | 7010 |

## 2.3 Data Types

| Data Type | Size In Bytes |
|---|---|
| CHAR | 1 |
| SHORT | 2 |
| LONG | 4 |

Byte order - Little Endian
All structures are pragma pack 1.



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## 2.4 File Format

### 2.4.1 Subscription details

Clients would subscribe to security or multiple securities for which they would receive stock/ stocks specific market data.

### 2.4.2 Directory Path

The following directory path is used for CSV Files generated at specific interval during market hours.

| Directory Path | OUT/DDMMYYYY |
|---|---|

### 2.4.3 File Format

Stock wise feed would generate CSV Files at specific interval during market hours.

### 2.4.4 File Name

Stock wise feed would generate CSV file with following name.
UserId: UserId given to client

DDMMYYYY: Date on which file was generated Eg. 24052013
HHMMSS: Time at which file was generated Eg. 153000

**USERID_DDMMYYYY_HHMMSS.csv**

### 2.4.5 File Structure

Structure of file would be as follows

Code: Type of data. It could be CT, CN, PN, SN, CS, CU
Market information for each type of data structure for each type of code is mentioned in section 3. If multiple securities are subscribed, then there could be multiple records in a file.



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# 3 Sequenced Data Message

Data packets in the CSV could be of type BOD, Intraday or EOD. Detail information for each type of code with respective structure is as follows

## 3.1 BOD - Master Information

These packets are sent at the beginning of each trading day before market opens. This feed contains information about the subscribed securities valid for trading.

| Field Name | Data Type | Value | Brief Description |
|---|---|---|---|
| **INFO HEADER** | | | |
| Code | SHORT | 'CT' | |
| **INFO DATA** | | | |
| Token Number | CHAR [10] | Character | Token number of the security. This is unique for a particular symbol-series combination. |
| Symbol | CHAR [10] | Character | Exchange-assigned security code. |
| Series | CHAR [2] | Character | Exchange-defined trading category or series of a security. |
| ISIN | CHAR [12] | Character | An International Securities Identification Number (ISIN) uniquely identifies a security |
| Is Deleted | CHAR [1] | Character | 'Y' = Deleted<br>'N' = Not Deleted |
| Low Price Range | CHAR [10] | Character | Any order placed at a price lower than this value goes into a freeze and requires exchange action before the order gets confirmed. |
| High Price range | CHAR [10] | Character | Any order placed at a price higher than this value goes into a freeze and requires exchange action before the order gets confirmed. |
| Security Eligibility Per Market | ST_SECURITY_ELIGIBILITY_PER_MARKET[6] | Structure | Refer the table given below ST_SECURITY_ELIGIBILITY_PER_MARKET |



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## ST_SECURITY_ELIGIBILITY_PER_MARKET

| Field Name | Data Type | Value | Brief Description |
|---|---|---|---|
| **ST_SECURITY_ELIGIBILITY_PER_MARKET** | | | |
| Market Type | CHAR [1] | Character | 'N' = Normal<br>'O' = Odd Lot<br>'S' = Spot<br>'A' = Auction<br>'C' = Call Auction<br>'G' = Call Auction 2 |
| Eligibility | CHAR [1] | Character | '1' = Allowed to trade<br>'0' = Not allowed to trade |
| Security Status | CHAR [1] | Character | '1' = Open<br>'0' = Suspended |



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## 3.2 INTRADAY - Normal Market Security Update Information

NSE securities update information for pre-open and normal markets is sent through this Message.

| Field Name | Data Type | Value | Brief Description |
|---|---|---|---|
| **INFO HEADER** | | | |
| Code | SHORT | 'PN'<br>'CN' | 'PN' = Pre-open session updates<br>'CN' = Normal market Updates |
| **INFO DATA** | | | |
| Symbol | CHAR [10] | Character | Exchange-assigned security code. |
| Series | CHAR [2] | Character | Exchange-defined trading category or series of a security. |
| Market Type | CHAR [1] | Character | 'N' = Normal<br>'O' = Odd Lot<br>'S' = Spot<br>'A' = Auction |
| Timestamp | CHAR [11] | Character | No. of seconds from 01-01-1980 00:00:00 (DD-MM-YYYY HH:MM:SS) |
| Best Buy-Order price | CHAR [10] | Character | Best buy side's outstanding order price |
| Best Buy-Order Quantity | CHAR [12] | Character | Best buy side's outstanding order quantity |
| Best Sell-Order price | CHAR [10] | Character | Best Sell side's outstanding order price |
| Best Sell-Order quantity | CHAR [12] | Character | Best Sell side's outstanding order quantity |
| Last Traded Price (LTP) | CHAR [10] | Character | This represents the last traded price for security. In the absence of any trade during the day, the system will default to the previous day's last traded price; if unavailable, the base price is applied. |



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| | | | |
|---|---|---|---|
| Total Traded Quantity (TTQ) | CHAR [12] | Character | This field contains the total quantity of security traded on the current day. |
| Security Status | CHAR [1] | Character | 'S' = Suspended<br>' ' = Non-suspended |
| Opening Price | CHAR [10] | Character | Open price of the security for the day.<br>In pre-open session the indicative open price is sent if security is available in pre-open session. |
| High Price | CHAR [10] | Character | High price of security for the day |
| Low Price | CHAR [10] | Character | Low price of the security for the day |
| Close Price | CHAR [10] | Character | Close price of the security.<br>During the day previous day's close price is sent.<br>After market closes, current day's close price is calculated. |
| Average Trade Price | CHAR [10] | Character | Weighted average price of the security i.e. value / quantity |
| Total Buy Quantity | CHAR [12] | Character | Total number of outstanding orders available on buy side |
| Total Sell Quantity | CHAR [12] | Character | Total number of the outstanding orders available on sell side |
| Total Turnover | CHAR [25] | Character | Security traded value i.e. Average Trade Price * TTQ |
| Indicative Close Price | CHAR [10] | Character | This field contains indicative close price of security. It will be sent in last 30 minutes of normal session. Until then this will be sent as 0 |



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## 3.3 INTRADAY - Call Auction Market Security Update

### 3.3.1 Reserved Market (Call Auction 2)

Multiple sessions of call auction market can be held on a trading day.

The call auction session shall consist of

- Order collection period (Order entry, modification and cancellation is allowed)
- Order matching period.

The computation of Indicative Opening Price (IOP) and matching logic shall be same as pre-open session for Cash Market segment. In the call auction market, after the matching period is over, all the outstanding orders shall be cancelled.

This market consists of SME (Small & Medium Enterprise), IPO & Re-listed and illiquid securities.

For detailed explanation please refer to section Call Auction 2.

| Field Name | Data Type | Value | Brief Description |
|---|---|---|---|
| **INFO HEADER** | | | |
| Code | SHORT | 'SN' | |
| **INFO DATA** | | | |
| Symbol | CHAR [10] | Character | Exchange-assigned security code. |
| Series | CHAR [2] | Character | Exchange-defined trading category or series of a security. |
| Market Type | CHAR [1] | Character | 'G' = Call Auction 2 |
| Timestamp | CHAR [11] | Character | No. of seconds from 01-01-1980 00:00:00 (DD-MM-YYYY HH:MM:SS) |
| Best Buy-Order price | CHAR [10] | Character | Best buy side's outstanding order price |
| Best Buy-Order Quantity | CHAR [12] | Character | Best buy side's outstanding order quantity |
| Buy BBMM Order Exists | CHAR [1] | Character | Refer to section BBMM Flag |
| Best Sell-Order price | CHAR [10] | Character | Best Sell side's outstanding order price |
| Best Sell-Order quantity | CHAR [12] | Character | Best Sell side's outstanding order quantity |



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| | | | |
|---|---|---|---|
| Sell BBMM Order Exists | CHAR [1] | Character | Refer to section BBMM Flag |
| Last Traded Price (LTP) | CHAR [10] | Character | This represents the last traded price for security. In the absence of any trade during the day, the system will default on the previous day's last traded price; if unavailable, the base price is applied. |
| Total Traded Quantity (TTQ) | CHAR [12] | Character | This field contains the total quantity of a security traded on the current day |
| Indicative Traded Quantity | CHAR [12] | Character | During order collection period this field will contain Indicative Equilibrium Quantity |
| Security Status | CHAR [1] | Character | 'S' = Suspended<br>' ' = Non-suspended |
| Opening Price | CHAR [10] | Character | This field contains the indicative opening price (IOP) of a security for order collection period session and Final Open Price of security in matching period |
| High Price | CHAR [10] | Character | During the order collection period it will always be zero. Once matching starts it will be updated |
| Low Price | CHAR [10] | Character | During the order collection period it will always be zero. Once matching starts it will be updated |
| Close Price | CHAR [10] | Character | This field contains the closing price of a security |
| Average Trade Price | CHAR [10] | Character | Weighted average price of the security.<br>i.e. value / quantity<br>During the order collection period it will always be zero. Once matching starts it will contain the Average Trade Price |



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| | | | |
|---|---|---|---|
| First Open Price | CHAR [10] | Character | During first call auction order collection period this field will be zero<br>Once matching starts it will contain the First Trade Price. Once updated for all subsequent call auctions it will not change. This field may contain zero until the first trade happens |
| Total Buy Quantity | CHAR [12] | Character | This field contains the total quantity of buy orders in a security |
| Total Sell Quantity | CHAR [12] | Character | This field contains the total quantity of sell orders in a security |
| Total Turnover | CHAR [25] | Character | During the order collection period it will always be zero. Once matching starts it will be updated |



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## 3.4 EOD – Market Statistics (Bhavcopy)

The closing price of the subscribed securities are sent through these messages.

| Field Name | Data Type | Value | Brief Description |
|---|---|---|---|
| **INFO HEADER** | | | |
| Code | SHORT | 'CS' | |
| **INFO DATA** | | | |
| Symbol | CHAR [10] | Character | Exchange-assigned security code. |
| Series | CHAR [2] | Character | Exchange-defined trading category or series of a security. |
| Market Type | CHAR [1] | Character | 'N'=Normal<br>'O'=Odd Lot<br>'S'= Spot<br>'A'=Auction<br>'C'=Call Auction<br>'G'=Call Auction 2 |
| Trade High Price | CHAR [10] | Character | Security high price for the day |
| Trade Low Price | CHAR [10] | Character | Security low price for the day |
| Opening Price | CHAR [10] | Character | Security open price for the day |
| Closing Price | CHAR [10] | Character | Security close price for the day |
| Last Traded Price | CHAR [10] | Character | Security last traded price for the day |
| Previous Close Price | CHAR [10] | Character | Security previous day's close price |
| Total Traded Quantity | CHAR [12] | Character | Volume traded today for the security |
| Total Traded Value | CHAR [25] | Character | Total traded value for the security |



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## 3.5 EOD – Corporate Action Update

Corporate action on securities will be sent through this packet.

| Field Name | Data Type | Value | Brief Description |
|---|---|---|---|
| **INFO HEADER** | | | |
| Code | SHORT | 'CU' | |
| **INFO DATA** | | | |
| Symbol | CHAR [10] | Character | Exchange-assigned security code. |
| Series | CHAR [2] | Character | Exchange-defined trading category or series of a security. |
| Instrument Type | CHAR [1] | Character | '0' = Equities<br>'1' = Preference Shares<br>'2' = Debentures<br>'3' = Warrants<br>'4' = Miscellaneous<br>'5' = Others |
| Issue Capital | CHAR [12] | Character | Security Issue Capital |
| Face Value | CHAR [9] | Character | Security Face value |
| Market Lot | CHAR [6] | Character | Security market lot |
| Dividend/Interest Rate | CHAR [6] | Character | Dividend/Interest Rate |
| Record Date | CHAR [10] | Character | Format: YYYY-MM-DD |
| Book Closure Start Date | CHAR [10] | Character | Format: YYYY-MM-DD |
| Book Closure End Date | CHAR [10] | Character | Format: YYYY-MM-DD |
| Ex-Date | CHAR [10] | Character | Format: YYYY-MM-DD |
| No Delivery Start Date | CHAR [10] | Character | Format: YYYY-MM-DD |
| No Delivery End Date | CHAR [10] | Character | Format: YYYY-MM-DD |
| Dividend | CHAR [1] | Character | 'D' or Blank |
| Rights Flag | CHAR [1] | Character | 'R' or Blank |
| Bonus Flag | CHAR [1] | Character | 'B' or Blank |
| Interest Flag | CHAR [1] | Character | 'I' or Blank |
| AGM Flag | CHAR [1] | Character | 'A' or Blank |



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| | | | |
|---|---|---|---|
| EGM Flag | CHAR [1] | Character | 'E' or Blank |
| Others Flag | CHAR [1] | Character | 'O' or Blank |
| Corp Data Type | CHAR [1] | Character | 'B' = Book Closure<br>'R'= Record Date<br>'N'= None |
| Corp Action Description | CHAR [25] | Character | Corporate Action Description |



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# 4 Notes

## 4.1 Normal Market Session

All orders which are of regular lot size or multiples thereof are traded in the Normal Market. Normal market consists of various book types of wherein orders are segregated as Regular lot orders, Special Term orders, Negotiated Trade Orders and Stop Loss order depending on their order attributes.

## 4.2 Auction Market Session

In the Auction Market, auctions are initiated by the Exchange on behalf of trading members for settlement-related reasons. There are 3 participants in this market.

- Initiator - the party who initiates the auction process is called an initiator.
- Competitor - the party who enters orders on the same side as the initiator.
- Solicitor - the party who enters orders on the opposite side as of the initiator.

In the auction market the Open price and the Last Traded Price would be zero till the auction ends and the auction price is calculated by the system. Since Auction in any scrip is done at a fixed price the High Price, Low Price, Closing Price and Index values are zero for all scrips traded in the Auction Market.

## 4.3 Pre-Open Session

Pre-open session will be conducted for the Normal Market segment. The session will be conducted before the normal market start time. Exchange may decide to allow all or selective securities in pre-open session. During the Pre-open session, only order entry, orders modification and order cancellation will be allowed. Once the pre-open session ends, no order activity will be allowed and the final open price (i.e. equilibrium price based on accumulated buy and sell orders) will be computed. Pre-open orders will be matched at this final open price resulting in trade execution. Pre-open orders that could not participate in the pre-open matching for reasons such as a demand-supply gap, order prices worse than the equilibrium price etc. shall be carried forward to the normal market. The time priority of such orders shall be retained.

The NDAL – Stock-wise Feed product sends messages in the following sequence.

1. Pre-open session start (PO) – market type 'N'
2. Security Update Information (PN) – Indicative open price in open price field
3. Pre-open session end (PC) - market type 'N'
4. Security Update Information (PN) – Derived final open price in open price field and current security information
5. Security Update Information (CN) – With current security



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6. Normal Market Close (CC) - market type 'N'
7. Normal market Close (CC) - market type 'N'

## 4.4 Call Auction Session 2

IPO, Relisting, and illiquid securities call auction are done through this session. It is like the pre-open session. Multiple sessions of this can be held on a trading day. The market type for this session is 'G'. IPO/Relisted securities get transferred to normal market session after deriving the open.

The NDAL – Stock-wise Feed product sends messages in the following sequence in one call auction session.

1. Pre-open session start (PO) – market type 'G'
2. Call Auction Security Update Information (SN) – Indicative open price in open price field.
3. Pre-open session end (PC) - market type 'G'
4. Security Update Information (SN) – Derived final open price in open price field and current security information

## 4.5 Buy Back Flag & Market Maker (BBMM Flag)

In call auction sessions 1 & 2 the buy back and market maker orders are allowed. To identify the buy back or market maker orders BBMM flag is sent in SN messages. For the probable values of BBMM flag refer the table given below

1. BuyBBMMOrderExists: Buy Back or Market Maker order exists at buy side but not in top five price points.
2. SellBBMMOrderExists: Buy Back or Market Maker order exist at sell side but not in top five price points.
3. Sell BBMM Flag: Buy Back or Market Maker order at that price point.
4. Buy BBMM Flag: Buy Back or Market Maker order at that price point.

| Buy Back Order Exists | Market Maker Order Exists | BuyBBMMOrderExists/ SellBBMMOrderExists/ Sell BBMM Flag/ Buy BBMM Flag |
|---|---|---|
| No | No | '0' |
| Yes | No | '1' |
| No | Yes | '2' |
| Yes | Yes | '3' |

E.g. If Buy Back and Market Maker orders exist at particular price point then the above fields will contain '3'.



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# 5 SFTP Access, Setup and Usage

File transfer of Stock Wise data shall be performed over SFTP (Secure File Transfer Protocol) over the Internet.

## 5.1 Client Inputs and Prerequisites

The client shall provide the following details with NSE Data & Analytics Limited (NDAL):

- SSH RSA Public Key of the client system
- Static Public IP address for SFTP access

These details are mandatory for enabling secure access.

Only the public key (id_rsa.pub) shall be shared with NDAL after the successful generation of the key pair (public and private keys).

## 5.2 NDAL Deliverables

Upon successful processing, NDAL shall provide the following access details:

- SFTP server URL / host name
- SSH port number
- User ID (to be provisioned by NDAL)
- Remote directory path

## 5.3 General Guidelines

- File transfer shall be performed over a secure SFTP channel using SSH key-based authentication.
- Password-based authentication shall not be supported. Access shall be granted only upon successful registration of the client's SSH RSA public key with NDAL.
- Clients should ensure that the private key corresponding to the registered public key is securely stored and not shared.
- Clients are responsible for configuring their local systems and SFTP client tools for establishing the connection and downloading files.
- NDAL does not provide SFTP software or support for client-side configuration and setup.



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## 5.4 SFTP on Linux platform

The Open SSH suite, which comes pre-installed in most Linux distributions, can be used for transferring files securely using SFTP.

The SSH key-pair is generally generated in the ".ssh" directory in the user's home directory.

It is highly recommended that you consult your systems administrator to generate/locate the key-pair and set up SFTP for you.

Continue reading for information on how to generate the key-pair.

### 5.4.1 Generation of the SSH RSA key-pair on Linux

- Generate the new key-pair with following command:

```
ssh-keygen -t rsa -C "user@host"
```

You will receive the following prompt:

```
Generating public/private rsa key pair.
"Enter file in which to save the key".
```

Press Enter to continue with the defaults.

You will receive the following prompt:

```
Enter file in which to save the key
(/host/users/user/.ssh/id_rsa):
```

Press Enter to continue with the defaults.

- If a file already exists with the same name, then you will receive the following prompt:

```
/host/users/user/.ssh/id_rsa          already
exists.
Overwrite(y/n)?
```

Type "y" and press Enter to overwrite.

- You will be prompted to enter a passphrase as follows:

```
Enter passphrase (empty for no passphrase):
```

Press Enter to continue without a passphrase.

You will be prompted to re-enter the passphrase:

```
Enter same passphrase again:
```

Press Enter again to continue without a passphrase.

- After you enter a passphrase, you will be presented with the "Fingerprint" (or ID) of your SSH key.

It will look like this:



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```
Your identification has been saved in
/host/users/user/.ssh/id_rsa.
Your public key has been saved in
/host/users/user/.ssh/id_rsa.pub.
The key fingerprint is:
87:c4:85:90:91:16:39:de:c2:26:49:4a:b3:38:80:97
user@host
```

After generating public key, user needs to share the Public Key file in exchange for requesting the credentials.

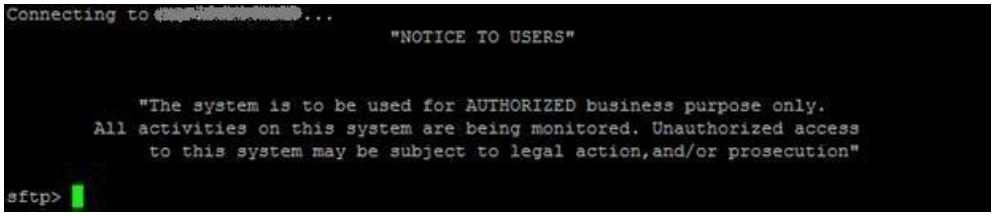
**NOTE:** In above steps the words "host" and "user" are used to represent the host name and username of the machine. This is used for demo purposes only. The same will differ as per your server and usernames.

### 5.4.2 SFTP Login

Login to the Exchange Server over SFTP using the following command:
`sftp -o PORT=6010 remote_user@remote_host`

Where remote_user is the User ID provided to you by the Exchange upon sharing your Public Key and remote_host is the Exchange Server IP/URL.

You should get the SFTP prompt as below, upon successful login:




### 5.4.3 Fetching files over SFTP

The SFTP "get" command may be used at the SFTP prompt for fetching the files while logged into the host over SFTP.

### 5.4.4 Ending the SFTP session

The SFTP "bye" command may be used for terminating the session.

### 5.4.5 SFTP commands help

Help may be obtained with SFTP commands by typing the "help" command at the SFTP prompt.

## 5.5. SFTP on Windows platform

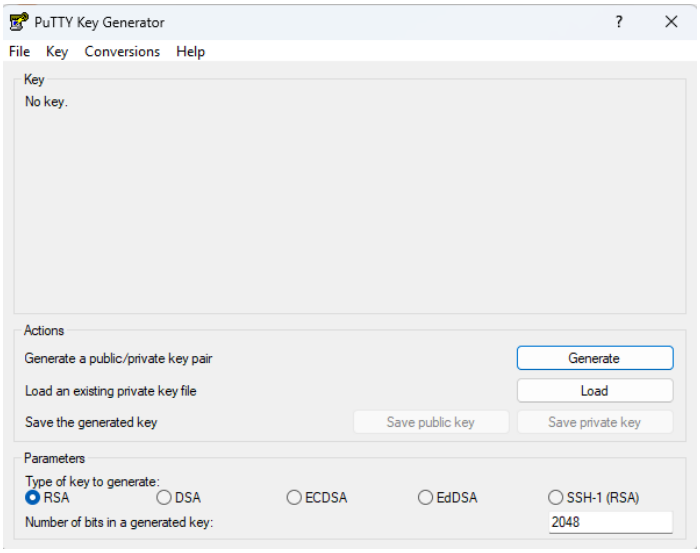
### 5.5.1. Generation of the SSH RSA key-pair on Windows

This guide explains how to generate the SSH RSA key-pair using the PuttyGen application.

Download the PuttyGen application (freely available on the Internet). Then follow these steps to generate the key-pair:

- Start the PuttyGen application.

You will be presented with a dialog as given below:




- Select "RSA" (corresponding to SSH-2 RSA) with a key size of 2048 bits or higher.
- Click Generate and move the mouse randomly within the window. PuTTYgen uses these movements to collect entropy (randomness), which is essential for secure key generation. The progress bar will advance as sufficient randomness is gathered.



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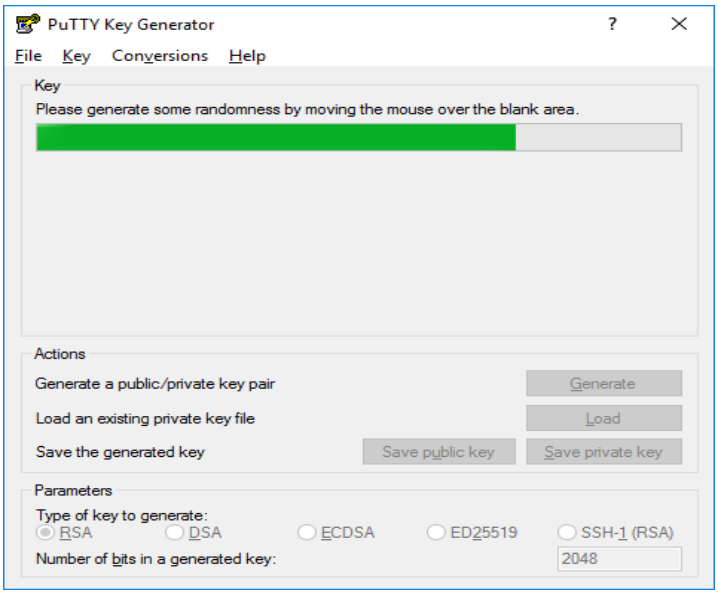
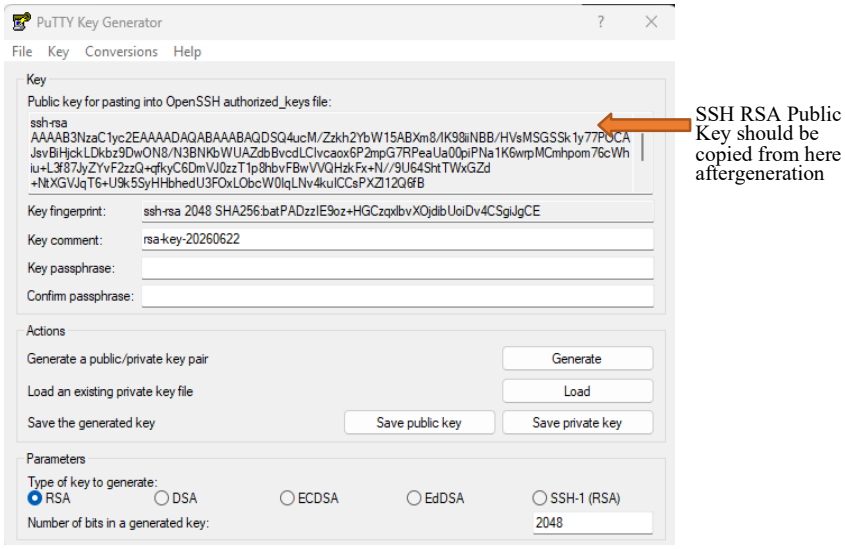



- The duration of this step may vary depending on the chosen key size. Once the progress bar is complete, PuTTYgen will begin the key generation process, which may take a few seconds to a few minutes.
- Upon completion, the generated public key will be displayed in the window.
- After generating the key, you will be shown the screen below.

  Keep the "Key passphrase" and "Confirm passphrase" as blank.




SSH RSA Public Key should be copied from here aftergeneration

- Create a blank file with the name "id_rsa.pub".
  This will be the public key file which will be populated with your Public Key and shared with the Exchange.

- Copy the public key content as presented on the screen (selected area in the screenshot) and paste into newly created public key file (id_rsa.pub) and save the file.

- Share this Public Key File (id_rsa.pub) with the Exchange when requesting SFTP credentials.

### 5.5.2. SFTP Client Software on Windows

There are multiple SFTP Client Programs (paid for and free) available for transferring files over SFTP.

One such software is WinSCP, available for free from the WinSCP website. This program is intuitive, user friendly and can be used in interactive mode (GUI) as well as from the command line (for automation/batch processing).
Information on using WinSCP can be found on the WinSCP website.

## 5.6 Further support

Apart from the above guide, many of the online resources can be referred to on the World Wide Web for more information on how to set up and use SFTP at the Client's site on various OS platforms.

**Note:** This "SFTP (Secure File Transfer) Access, Setup and Usage" section is intended as a guide used to understand and become familiarized with this transfer protocol.



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# 6 Annexure

## 6.1 Acronyms Used

| | |
|---|---|
| BOD | Begin Of Day Information |
| EOD | End Of Day Information |
| Online | Information Sent During Market Timing |
| CM | Cash Market |
| F&O/FAO | Future & Options Market |
| CD | Currency Derivatives Market |
| WDM | Wholesale & Debt Market |
| COM | Commodity Market |
| EGR | Electronic Gold Receipt |
| CBRICS | Corporate Bond Reporting and Integrated Clearing System |
| NSE IX | NSE International Exchange |
| MTBT | Multicast Tick By Tick |
| LTP | Last Traded Price |
| RFQ | Request for Quote |
| IOP | Indicative Opening Price |



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## 7 FAQs

1) For Sequenced Data Messages, why do fields contain data type as short, but contain value is specified as character?
   The data sent by the server consists of numeric values that represent the ASCII codes of the corresponding characters. At the client end, these ASCII values need to be converted into their respective character representations.

2) How do you differentiate between numeric and non-numeric values?
   Numeric values are always right-aligned, while non-numeric values are left-aligned. For instance, even though LTP has a datatype as character, it is distinguished by the alignment as numeric value is always right aligned.

3) Download of files through SFTP was working till last week, suddenly our connection to sftp is failing. How do we resolve it?
   If using SFTP on Windows, please ensure you are using the latest version of WinSCP or any other equivalent tool.

   If you are using SFTP programmatically or through an API, please ensure you **don't use the following cipher**:

   - diffie-hellman-group-exchange-sha1
   - diffie-hellman-group14-sha1
   - diffie-hellman-group1-sha1



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## 8 Support Information

| Name | Email | Contact Number |
|---|---|---|
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