

# **TECHNICAL DOCUMENT**

2 MINUTES SNAPSHOT DATA

FUTURE & OPTIONS MARKET

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## FUTURE & OPTIONS MARKET 2 MINUTES SNAPSHOT DATA (STANDARD PRODUCT)

### 1. INTRODUCTION

DotEx International Ltd. disseminates NSEIL's real time broadcast data to various information agencies. It provides the 3 different types of data to vendors, i.e. Real Time Data, Snapshot Data and End of Day Data. The real time data is a packet broadcast available in TCP/IP packet format, where as the delayed data and End of day data is available in the form of files.

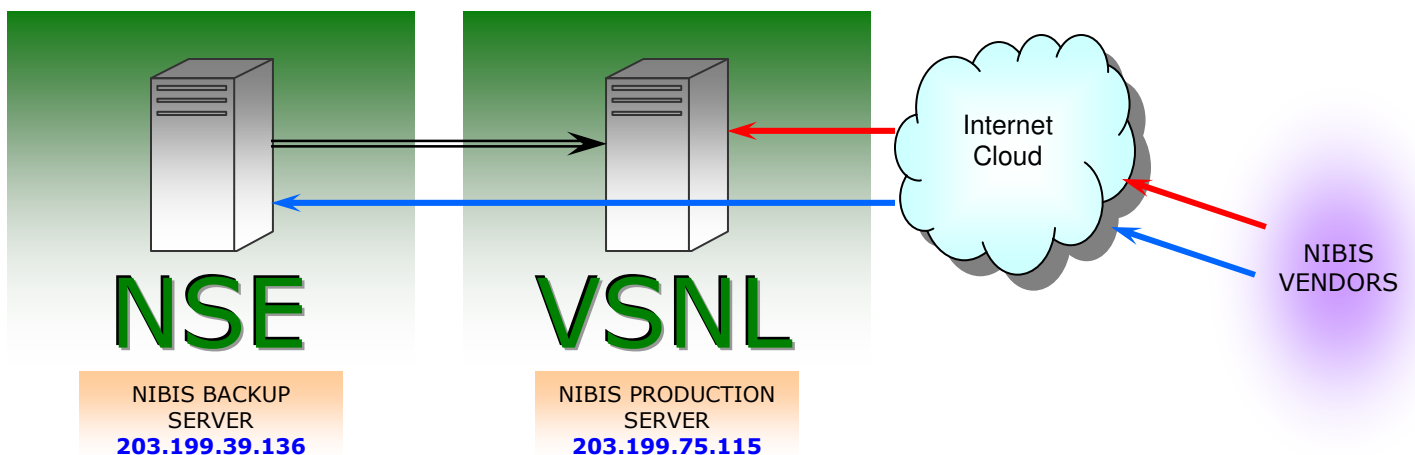
The Nibis server that caters the NIBIS vendors is available through internet. All Nibis vendors connect the server through internet and use FTP protocol to download the files. The files on this server are generated on regular 2 minutes interval basis. The vendors are provided with a User ID and password that is enabled for the agreement period.

### 2. CONNECTION DETAILS

The vendors connect the NIBIS server through Internet using FTP protocol. The production server IP address is 203.199.75.115 while the backup server IP address id 203.199.39.136.

DotEx also provides a backup setup of delayed data service. The backup server is always in disabled mode and it is enabled only in case of any hardware / other problem in production server. The backup server is located in NSE premises at BKC while Production server is located at VSNL, Prabhadevi. The files are initially generated on backup server and then instantaneously replicated on Nibis Production server.

#### Structural Diagram





### 3. DATA DETAILS

The Future & Options Market (F&O) data files are generated in binary format at a regular interval of 2 minutes. These are \*.Sec, and \*. Ind. The other data files generate on server are \*.dat and \*.txt. These entire files have categorised into different categories according to their data contents i.e. Market Information Files, Security Information Files, and Bhavcopy Information Files.

#### MARKET INFORMATION

The Market information data files are generated in /FAO02/DATA/"<Month>DDYYYY" folder on the server. i.e. \*.Sec and \*. Ind.

The \*.Sec (Where "\*" stands for a numeric number) files contains market statistics and order information of the F&O contracts that are being traded in last 2 minutes along with their open, high, low and close price. The file contains a single record for every contract that is traded during that file interval. These files are generated during normal trading period i.e. 10:00 hrs. To 15:30 hrs. These files are generated in incremental count number on a trading day starting from 1.Sec.

The \*.ind (Where "\*" stands for a numeric number) files contains the details of open interest information of contracts that are traded during 2 minutes. These files are generated at regular interval of 2 minutes. These files are generated during normal trading period i.e. 10:00 hrs to 15:30 hrs.

#### CONTRACT INFORMATION

The securities.dat file is the master file that contains the updated information of all contracts traded on the Exchange. The vendors need to download this file and decode it to resolve the "token number" of required contract. The Token number of each contract is unique.

#### BHAVCOPY INFORMATION

The bhavcopy information file is generated at around 17:30 hrs in /FAO02/bhavcopy folder on each trading day. The file name is FAOMKTSTATYYYYMMDD.TXT. This file contains the End of the Day values of the contracts that are traded on that trading day.

#### **4. DATA STRUCTURE DETAILS**

##### **MARKET INFORMATION**

**FILE PATH - /FAO02/DATA/"<MONTH>DDYYYY"**  
**FILE NAME - \*.Sec**

##### **HEADER**

Transaction Code	Short 2 Bytes
Timestamp	Long 4 Bytes
Message Length	Short 2 Bytes
Filler	Char 1 Byte

**Total 9 Bytes**

##### **DATA**

<b>Security Token</b>	<b>Long 4 Bytes</b>
Instrument Name	Char 6 Bytes
Symbol	Char 10 Bytes
Expiry Date	Char 11 Bytes
Strike Price	Char 10 Bytes
Option Type	Char 2 Bytes
Market Type	Char 1 Byte
Best Buy Price	Char 10 Bytes
Best Buy Quantity	Char 12 Bytes
Best Sell Price	Char 10 Bytes
Best Sell Quantity	Char 12 Bytes
Last Traded Price	Char 10 Bytes
Total Traded Quantity	Char 12 Bytes
Average Traded Price	Char 10 Bytes
Security Status	Char 1 Byte
Open Price	Char 10 Bytes
High Price	Char 10 Bytes
Low Price	Char 10 Bytes
Close Price	Char 10 Bytes

**Total 161 Bytes**

##### **TRAILER**

Checksum	Short 2 Bytes
Filler	Char 1 Byte

**Total 3 Bytes**

##### **OPEN INTEREST INFORMATION**

**FILE PATH - / FAO02/DATA/"<MONTH>DDYYYY"**

**FILE NAME - \*.Ind**

**HEADER**

Transaction Code	Short 2 Bytes
Timestamp	Long 4 Bytes
Message Length	Short 2 Bytes
Filler	Char 1 Byte

**Total 9 Bytes**

**DATA**

<b>Security Token</b>	<b>Long 4 Bytes</b>
Instrument Name	Char 6 Bytes
Symbol	Char 10 Bytes
Expiry Date	Char 11 Bytes
Strike Price	Char 10 Bytes
Option Type	Char 2 Bytes
Open Interest	Char 10 Bytes
Market Type	Char 1 Byte

**Total 54 Bytes**

**TRAILER**

Checksum	Short 2 Bytes
Filler	Char 1 Byte

**Total 3 Bytes**

**CONTRACT INFORMATION**

**FILE PATH - / FAO02/SECURITY/"<MONTH>DDYYYY"**

**FILE NAME - \*.Dat**

**HEADER**

Transaction Code	Short 2 Bytes
Timestamp	Long 4 Bytes
Message Length	Short 2 Bytes

**Total 8 Bytes**

**DATA**

<b>Security Token</b>	<b>Long 4 Bytes</b>
Instrument Name	Char 6 Bytes
Symbol	Char 10 Bytes
Series	Char 2 Bytes
Option Type	Char 2 Bytes

Expiry Date	Long	4 Bytes
Strike Price	Long	4 Bytes
Issue Start Date	Long	4 Bytes
Issue Maturity Date	Long	4 Bytes
Board Lot Quantity	Long	4 Bytes
Tick Size	Long	4 Bytes
Security Name	Char	25 Bytes
Record Date	Long	4 Bytes
Ex Date	Long	4 Bytes
No Delivery Start Date	Long	4 Bytes
No Delivery End Date	Long	4 Bytes
Book Closure Start Date	Long	4 Bytes
Book Closure End Date	Long	4 Bytes
Remarks	Char	25 Bytes
Filler	Char	2 Bytes

**Total 124 Bytes**

**TRAILER**

No data in trailer

**Total 0 Bytes**

**BHAVCOPY INFORMATION**

**FILE PATH - / FAO02/DATA/"<MONTH>DDYYYY"**

**FILE NAME - \*.Sec**

**HEADER**

No data in header.

**Total 0 Bytes**

**DATA**

Instrument Name	Char	6 Bytes
Symbol	Char	10 Bytes
Expiry Date	Char	11 Bytes
Strike Price	Char	10 Bytes
Option Type	Char	2 Bytes
Market Type	Char	1 Byte
Open Price	Char	10 Bytes
Trade High Price	Char	10 Bytes
Trade Low Price	Char	10 Bytes
Close Price	Char	10 Bytes
Last Traded Price	Char	10 Bytes
Previous Close Price	Char	10 Bytes
Settlement Price	Char	10 Bytes

Total Traded Quantity	Char	12 Bytes
Total Traded Value	Char	25 Bytes
Current Open Interest	Char	10 Bytes
Change In Open Interest	Char	10 Bytes

**Total 167 Bytes**

**TRAILER**

No data in trailer

**Total 0 Bytes**

**5. LIST OF TRANSCODES**

<b>DETAILS</b>	<b>TRANSCODE NUMBER</b>
Market Information	1
Open Interest Information	2
Contract Information	3

## **6. CONTACT INFO**

Following are the contact details for business assistance:

<b>Name</b>	<b>Email Address</b>	<b>Contact Numbers</b>
Mr. Ved Malla	vmalla@nse.co.in	91-22-26598385
Ms. Prachee Chavan	pracheec@nse.co.in	91-22-26598385
Mr. Pankaj Agarwal	pagarwal@nse.co.in	91-22-26598385

You can also email us on **dotex@nse.co.in**

For technical assistance email us on **infofeed\_support@nse.co.in**.

## **7. NOTE**

The token number, Symbol, Instrument name, Expiry date & Strike price uniquely identify each security. The vendor shall be provided with a binary file (securities.dat) giving the combinations of all securities listed on the Exchange. Any further additions, modifications and deletions shall be sent to the vendors as part of the feed.

All securities added to the Exchange's database will be updated in the file securities.dat. Vendors are requested to please update their databases as per details in these files.

All securities added to the Exchange's database should be updated to the vendors through the online feed (for online vendors) or through CSV files placed on the FTP server. The vendors should update their databases using this information.

EOD market statistics data file is a text file generated with Faomktstatsyyyymmdd.Txt naming convention that contains the end of day correction data that is available at 17:30 Hrs. on each trading day.

The time stamp is the number of seconds elapsed from midnight Jan 1, 1970. While decoding the date field add **315532800** to it before formatting the field into desired format. The date fields that needed to add this number are Expiry Date, Issue Start Date, Issue Maturity Date, Record Date, Ex Date, No Delivery Start Date, No Delivery End Date, Book Closure Start Date, and Book Closure End Date.

Do not add this number to time stamp field in the header.