

Windows UDP SERVER

User Manual

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National Stock Exchange of India Ltd

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Revision History		
Version	Page No	Description
1.1		Removal of new market data broadcast reference

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ABOUT THIS GUIDE

PURPOSE OF THIS GUIDE

This document explains the functionality available in the Windows UDP Server application and serves as guideline to users for using the application.

WHO SHOULD READ THIS GUIDE

This guide is useful for anyone who is going to configure and use the Windows UDP Server application.

ABBREVIATIONS AND ACRONYMS

Acronym & Abbreviations	Full Form
UDP	User Datagram Protocol
CM	Capital Market
FO	Futures and Options
CD	Currency Derivatives
COM	Commodity market
SLBM	Security Lending and Borrowing Market
IP	Internet Protocol
NIC	Network Interface Card
LAN	Local Area Network

HOW TO GET IN TOUCH

The following sections provide information on how to obtain support for the documentation and the software.

DOCUMENTATION SUPPORT

NSE welcomes your comments and suggestions on the quality and usefulness of this document. For any questions, comments, or suggestions on the documentation, you can contact us at:

National Stock Exchange of India Limited,
Exchange Plaza,
Block G,
Bandra-Kurla Complex, Bandra (East),
Mumbai - 400 051
Helpdesk No. 18002660053

CUSTOMER SUPPORT

If you have any problems, questions, comments, or suggestions regarding, Windows UDP Server, contact us at the address mentioned above. While contacting customer support, have the following information ready:

Your name, E-mail address, phone number, and fax number

- The type of hardware, including the server configuration and network hardware if available
- The version of Windows UDP Server application.
- The name and version of the operating system
- The exact message that appeared when the problem occurred or any other error messages that appeared on your screen.
- A description of how you tried to solve the problem

INTRODUCTION

Windows UDP Server is exchange provided application which enables users to receive broadcast data from exchange and sends **this broadcast data to user's internal network**. It can handle broadcast data for all the markets (i.e. CM, FO, CD, SLBM and COM).

Windows UDP Server provides below mentioned enhanced features

1. Easy to configure broadcast parameters.
2. Receive and Send statistics.
3. Connection status for each configuration.
4. No limit on configuration addition
5. Broadcast configuration will be automatically started on Windows UDP application startup provided all given broadcast parameters are correct.
6. Appropriate error handling for incorrect input in configuration
7. Low latency for broadcast packet processing
8. Supported to both 32bit as well as 64bit operating system.

HARDWARE REQUIREMENT

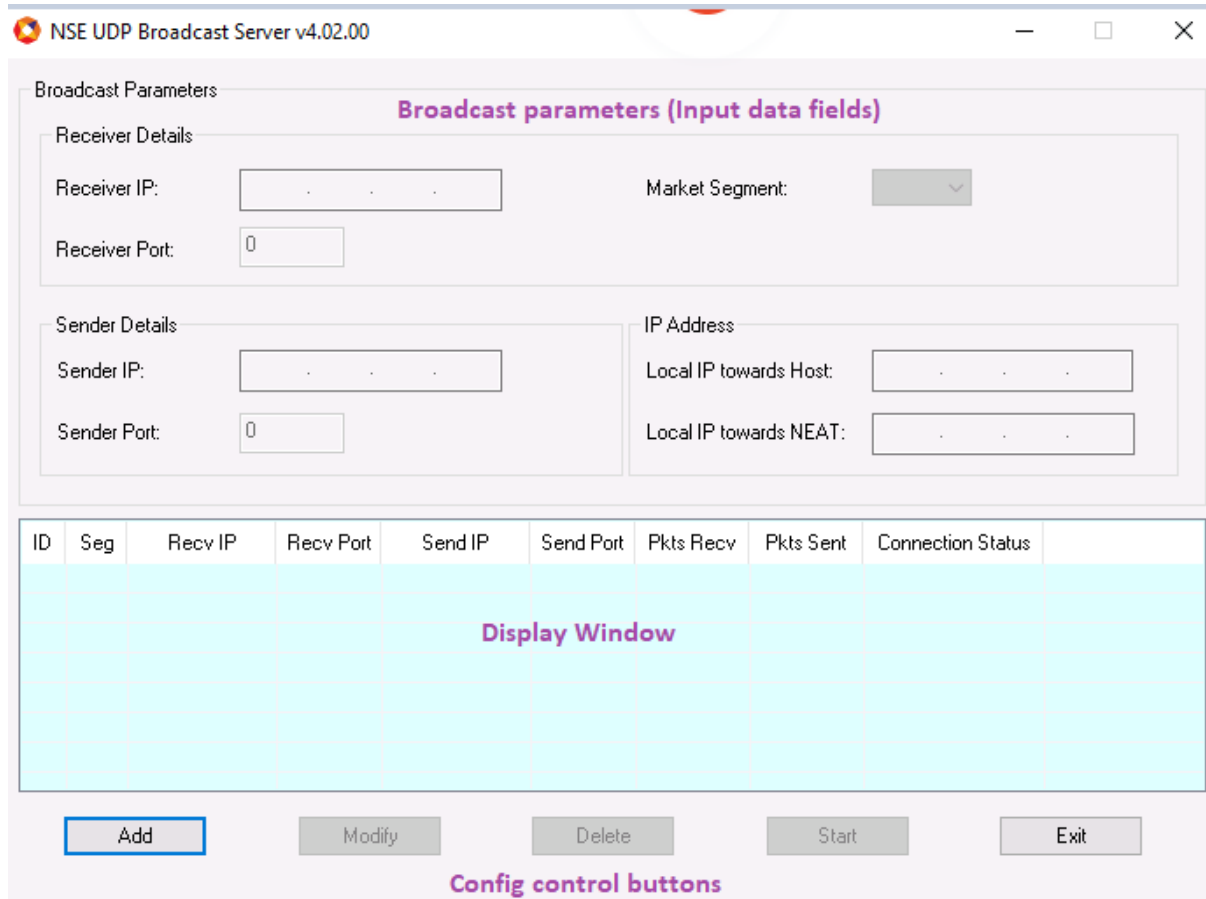
Recommended PC configuration

- Intel Pentium 4 CPU 1.5 GHz or above
- Operating System - Windows 10 and Above
- RAM - Minimum 1 GB
- Disk Space - Minimum 1 GB
- 2 x 100 Mbps Ethernet interface

GETTING STARTED

LAUNCH WINDOWS UDP SERVER

To launch Windows UDP Server, user can double click on “UDPSERVER_vX.XX.XX.exe” executable. The following screen will be displayed.



Broadcast Parameters (Input data fields)

Receiver Details

Receiver IP:

Receiver Port:

Market Segment:

Sender Details

Sender IP:

Sender Port:

IP Address

Local IP towards Host:

Local IP towards NEAT:

ID	Seg	Recv IP	Recv Port	Send IP	Send Port	Pkts Recv	Pkts Sent	Connection Status

Config control buttons

Add Modify Delete Start Exit

Windows UDP Server screen is mainly divided into 3 different sections

- Broadcast Parameters (Input data fields)
- Display Window
- Config control buttons

Broadcast parameters sections is mainly used to enter parameters value for configuration. Display window will display added configuration details along with receive and send data statistics. And config control buttons provide facility to user to configure and start broadcast configuration instance.

CONFIGURATION SETUP

User has to do configuration settings before start of the application. User has to enter below details for new configuration. All below mentioned broadcast parameter details are mandatory.

Broadcast Parameter	Description
Market Segment	Market Segment CM/FO/CD/SLBM/COM
Receiver IP address	Exchange provided broadcast multicast IP address
Receiver Port	Exchange provided broadcast multicast port
Sender IP address	Local multicast IP address
Sender Port	Local multicast port
Local IP address towards HOST	IP address of the NIC card configured toward Exchange connectivity
Local IP address towards NEAT	IP address of the NIC card configured toward local LAN

ADD NEW CONFIGURATION

To add new configuration, user needs to follow below steps

1. Click on “Add” button.
2. Enter corresponding broadcast parameter configuration details.
3. Click on “Save” button.
4. New configuration detail will be added on Display Window with the connection status as “Not Running”.

VIEW ALL CONFIGURATIONS

User can view all successfully added configurations in Display Window. All the configurations are displayed in list format. User then can select configuration for further operation i.e. Modify or Delete or Start.

NSE UDP Broadcast Server v4.02.00

Broadcast Parameters

Receiver Details

Receiver IP:

Receiver Port:

Market Segment:

Sender Details

Sender IP:

Sender Port:

IP Address

Local IP towards Host:

Local IP towards NEAT:

ID	Seg	Recv IP	Recv Port	Send IP	Send Port	Pkts Recv	Pkts Sent	Connection Status
1	CM	239.50.50.12	10182	234.1.2.3	6789	0	0	Not Running
2	FO	239.50.50.22	10822	239.1.2.4	6790	0	0	Not Running
3	CD	239.50.50.72	10872	239.1.2.5	6791	0	0	Not Running

MODIFY CONFIGURATION

To modify already added configuration, user needs to follow below steps

1. Select configuration to be modified from display window.
2. Check connection status of selected configuration. It should be "Not Running".
3. If corresponding connection status is "Running" or "Connected" then user needs to click on "Stop" button to stop UDP broadcast configuration.
4. Click on "Modify" button.
5. Modify the desired broadcast parameters.
6. Click on "Save" button.
7. Modified broadcast configuration details will be updated in Display window.

DELETE CONFIGURATION

To delete already added configuration, user needs to follow below steps

1. Select configuration to be deleted from display window.
2. Check connection status of selected configuration. It should be "Not Running".
3. If corresponding connection status is "Running" or "Connected" then user needs to click on "Stop" button to stop UDP broadcast configuration.
4. Click on "Delete" button.
5. Application will ask confirmation for configuration deletion.

6. After user's confirmation, broadcast configuration will be deleted from Display window.

START/STOP UDP SERVER

To start the broadcast configuration, first user needs to select desired configuration and then click on "Start" button. After successful start of broadcast configuration, corresponding connection status is changed to "Connected" or "Running".

To stop the broadcast configuration, first user needs to select desired configuration and then click on "Stop" button. After successful stop of broadcast configuration, corresponding connection status is changed to "Stopped".

Following connection status will be displayed in different cases:


Connection Status	Description
Not Running	Selected broadcast has not started
Connected	Selected broadcast is connected and ready to receive broadcast from NSE
Running	Selected broadcast is running successful – Receive and sent packet count will be updated
Receive Connect Error	If there is any error in receiving broadcast It may also occur when Local IP towards host is improper
Send Connect Error	If there is any error in sending broadcast It may also occur when Local IP towards Neat is improper
Stopped	Selected broadcast has been stopped after start

Broadcast configuration can be automatically started on Windows UDP Server application start-up only if

- Connection status of configuration was "Running" when Windows UDP Server application was terminated/closed.
- Connection status of configuration was "Connected" when Windows UDP Server application was terminated/closed.

STATISTICS

User can view received and sent statistics against each configuration in Display Window. Statistics will be updated only if connection status of broadcast configuration is running state.


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Broadcast Parameters

Receiver Details

Receiver IP: 239 . 50 . 50 . 12

Market Segment: CM

Receiver Port: 10812

Sender Details

Sender IP: 234 . 4 . 4 . 4

IP Address

Local IP towards Host: 172 . 20 . 135 . 24

Sender Port: 9472

Local IP towards NEAT: 172 . 20 . 135 . 24

ID	Seg	Recv IP	Recv Port	Send IP	Send Port	Pkts Recv	Pkts Sent	Connection Status
4	FO	239.50.50.22	10822	234.4.4.4	9471	2879	2879	Running
5	CM	239.50.50.12	10812	234.4.4.4	9472	82	82	Running
6	CD	239.50.50.72	10872	234.4.4.4	9473	0	0	Not Running
7	CO	239.50.50.51	18051	234.4.4.4	9474	0	0	Not Running

Add
Modfy
Delete
Stop
Exit