Computer to Computer Link (CTCL)

Table of Content

CHAPTER 1 ..... **4**

EMPANELMENT OF ISVS 4

1.1 Empanelment of ISVs *4*

1.2 Criteria for Empanelment as an ISV *4*

1.3 Documentation for ISV Application *4*

1.4 Procedure of ISV Empanelment *4*

1.5 Other terms and conditions *4*

1.6 Documentation for approval of New/additional CTCL/IBT/WT/ ATF software/strategy(ies) by Empanelled ISV *5*

1.7 Charges for ISV Empanelment *5*

CHAPTER 2 ..... **6**

COMPUTER-TO-COMPUTER LINK (CTCL) FACILITY 6

2.1 CTCL software *7*

2.2 Conditions to be met by Member for providing Internet Based Trading Service *7*

2.3 Trading using Wireless Technology *9*

2.4 Additional Requirements for Internet Based Trading (IBT) and Wireless Trading / Securities trading using Wireless Technology (WT/STWT) *10*

CHAPTER 3 ..... **12**

CTCL / IBT / WT FACILITY FOR MEMBERS FROM EMPANELLED ISVS 12

3.1 Documentation for CTCL / IBT /WT Procurement from Empanelled ISV *12*

3.2 Periodic System Audit & CSCR Audit of CTCL / IBT / WT systems *13*

3.3 Charges for Using CTCL / IBT / WT Facility Procured from Empanelled ISV *13*

CHAPTER 4 ..... **15**

IN-HOUSE DEVELOPMENT OF CTCL / IBT / WT SOFTWARE BY OBTAINING API FROM EXCHANGE OR FROM EMPANELLED VENDOR 15

4.1 Documentation for In-House CTCL/IBT/WT Software Application by Member *15*

4.2 Approval to Member *15*

4.3 Charges for In-House Development of CTCL/IBT/WT Software: *16*

4.4 Periodic System Audit & CSCR Audit of CTCL / IBT / WT systems *16*

CHAPTER 5 ..... **18**

ALGORITHMIC TRADING FACILITY (ATF) 18

5.1 Algorithmic Trading Facility (ATF) *18*

5.2 Documentation by Member for Algo through Empanelled ISV *18*

5.3 Documentation by Member for In-House Algo Software *18*

5.4 Charges for In-house development of Algo Software *19*

5.5 Approval to member for Algo Facility *19*

5.6 Modifications in Approved Algo Software *20*

5.7 Periodic System Audit & CSCR Audit of Algo system *20*

5.8 Conditions for use of Algo system *20*

CHAPTER 6 ..... **25**

CTCL TERMINAL DETAILS (15 DIGITS) 25

6.1 CTCL Terminal Info *25*

6.2 Display of Brokerage statutory Regulatory Levies *26*

6.3 Display of Last Trading Day on CTCL front-end and Back-office system 26
6.4 Implementation of Two Factor Authentication 27

CHAPTER 7 28

ACTIVATION / DEACTIVATION OF CTCL FACILITY ON USER ID 28
7.1 Enablement / Disablement of CTCL/IBT/WT/ATF facility on User ID(s) through eUIMS Portal. 28
7.2 Documentation for Discontinuation of CTCL / IBT / WT / ATF Software 29

CHAPTER 8 30

TESTING OF SOFTWARE 30
8.1 Documentation 30
8.2 Testing of CTCL Software 30
8.3 Mock Trading Participation / Simulated Trading Environment 30
8.4 Segregation of Test / Mock and Production environment 31
8.5 System Audit 31
8.6 Demonstration 32
8.7 Penalty for the Malfunctioning of software 32
8.8 Test Market of availability 32

CHAPTER 9 34

EMPANELMENT OF APPLICATION SERVICE PROVIDER (ASP) 34
9.1 Empanelment of ASP 34
9.2 Criteria for Empanelment as an ASP 34
9.3 Documentation for ASP Application 34
9.4 Procedure of ASP Empanelment 34
9.5 Other Terms and Conditions 35
9.6 Charges for ASP Empanelment 35
9.7 Periodic System Audit 36

CHAPTER 10 36

TICK BY TICK TRADING MARKET DATA (MARKETXSTREAM) 36
10.1 Application for MarketXstream API 37
10.2 Enable MarketXstream for live trading 37
10.3 Other Terms and Conditions 37

CHAPTER 11 38

APPLICATION FOR CTCL / IBT / WT SERVICES THROUGH ASP 38
11.1 Documentation for CTCL / IBT /WT services from Empanelled ASP 38
11.2 Documentation for Enablement / Disablement of CTCL/IBT/WT facility. 38

CHAPTER 12 39

DIRECT MARKET ACCESS (DMA) FACILITY 39

APPENDIX 40

ANNEXURES 53

GLOSSARY 171

REFERENCE - LIST OF CIRCULARS: 172

CHAPTER 1
Empanelment of ISVs

1.1 Empanelment of ISVs

1.1.1 The Exchange empanels eligible software vendors for providing approved CTCL / IBT / WT / ATF software to the Members of Exchange. Exchange supports FIX protocol and native (Non-FIX) API to connect to the Exchange Trading Platform.

1.2 Criteria for Empanelment as an ISV

1.2.1 The software vendors desirous of being empanelled with the Exchange as an Independent Software Vendor (ISV) for CTCL / IBT / WT / ATF would be required to meet the criteria as prescribed in **Annexure 1**.

1.3 Documentation for ISV Application

1.3.1 ISVs seeking empanelment with Exchange shall submit the application, undertaking and other documents as per the checklist given in **Part A – Appendix.**

1.4 Procedure of ISV Empanelment

1.4.1 On receipt of the above duly completed documents and applicable charges, the Exchange will verify the eligibility of the applicant and on meeting requirements of the Exchange / regulatory body(ies), the Exchange will share the required API with ISV.

1.4.2 The ISVs shall ensure that the software developed by them meets the bare minimum requirements/checklist outlined in **Annexure 6** (Reference points while developing Software). On completion of development of CTCL/IBT/WT / ATF software, the ISV shall test the software on the test environment provided by the Exchange. ISV may request Exchange through authorised email ID for credentials to access Test Environment. After successful completion of testing on the Exchange test environment, the ISV shall request for an appointment to demonstrate the software to the Exchange.

1.4.3 On being satisfied with demonstration of the software and compliance with Exchange / regulatory body(ies) minimum requirements, the ISV may be empanelled with the Exchange. The Exchange shall specify the software in respect of which such empanelment is given.

1.4.4 In case of version change or customization of the specified software, the ISV shall apply to the Exchange in defined format along with details of changes in the software. The Exchange may approve such application/software after satisfying itself through a demonstration or otherwise as may be specified. Only after approval from the Exchange, ISV shall release the modified software to the Members of the Exchange.

1.5 Other terms and conditions

1.5.1 ISVs empanelled for CTCL solutions would not be required to pay additional charges at the time of empanelment for IBT / WT or ATF and vice versa.

1.5.2 The Exchange at its discretion may impose additional conditions as it deems fit for the continuous empanelment of ISV from time to time. In the event the empanelled ISVs fails to comply with the conditions so imposed, the Exchange reserves the right to cancel their empanelment.

1.5.3 Without prejudice to above, the Exchange reserves the right to cancel or modify the empanelment/approval if the need so arises at its sole discretion.

1.6 Documentation for approval of New/additional CTCL/IBT/WT/ ATF software/strategy(ies) by Empanelled ISV

1.6.1 Empanelled ISV seeking approval for additional CTCL/IBT/WT/ ATF software/strategy(ies) shall submit necessary documents to Exchange as per **Part A – Appendix**

1.6.2 The empanelled ISV will have to test the CTCL/IBT/WT/ ATF software/strategy(ies) for additional software / strategy(ies) on the test environment provided by the Exchange. ISV may request Exchange through authorised email ID for credentials to access Test Environment. After successful completion of testing on the Exchange test environment, the ISV shall request for an appointment to demonstrate the CTCL/IBT/WT/ ATF software/strategy(ies)to the Exchange.

On being satisfied that empanelled ISV meets the requirement which may be stipulated from time to time by Exchange / regulatory body, the Exchange shall approve the CTCL/IBT/WT/ ATF software/strategy(ies)

1.7 Charges for ISV Empanelment

1.7.1 The charges as mentioned below shall be payable by ISVs

Category	Charges (Non-refundable) plus applicable taxes
Software Vendors who are applying for empanelment for providing CTCL / IBT / WT / ATF solutions using FIX or Non FIX API provided by the Exchange.	INR.10,00,000/- as one-time charges and INR 2,50,000/- as annual charges.

1.7.2 The ISVs shall pay the annual charges for the first year in advance along with the application. The annual fee shall be calculated on a pro-rata basis from the date of receipt of the ISV's application till the ensuing March 31st for the first year. Any excess amount paid for the first year (on pro-rata basis) shall be adjusted towards annual fees for the next financial year. The annual fee shall be payable in by 30th day of April each year. Interest @ 15% p.a. shall be levied on late payment of the annual fees. Any ISV who wish to discontinue as Empanelled ISV need to inform the Exchange before 10th day of April.

CHAPTER 2
Computer-to-Computer Link (CTCL) facility

The Exchange provides a trading front end 'TWS (Trader Workstation) for trading to members. The Exchange also allowed Members to use their own software to connect and transact with the Exchange. This facility is called Computer-to-Computer Link (CTCL) facility and is available only to trading members of the Exchange

Members can use their own software customized to meet their specialized needs like provision of on-line trade analysis, risk management tools, integration of back-office operations etc. A member using CTCL can have complete control on the trading operations and provide an effective and efficient service to all its local and remote clients.

Exchange allows Members to use trading services offered by empanelled Application Service Providers (which may inter-alia include providing / maintaining software / hardware / other infrastructure etc.) for providing CTCL Trading / Internet Based Trading (IBT) / Wireless Trading (WT) services to members of the Exchange. Exchange empanelled Application Service Provider (ASP) has setup infrastructure with the exchange for providing CTCL/IBT/WT services to members of the Exchange.

2.1 CTCL software

Member may procure the CTCL software from the exchange empanelled software vendor or may develop the software in-house or may develop through non-empanelled vendors. It may be noted that members are fully responsible to implement the solution at their end. The exchange shall not be liable for any loss, damage or other costs arising in any way out of the failure of the system.

2.2 Conditions to be met by Member for providing Internet Based Trading Service

Internet Based trading can take place through order routing systems, which will route client orders, to exchange trading systems, for execution of trades on the existing stock exchanges. SEBI Registered Brokers can introduce the service after obtaining permission from respective Stock Exchanges.

Members seeking permission for offering Internet Based Trading are required to ensure minimum conditions specified by SEBI's in its circular. The some of the conditions to be met are:

2.2.1 Networth Requirement

Member must have a minimum net worth of rupees fifty lacs if the broker is providing the Internet based facility on his own. However, if some brokers collectively approach a service provider for providing the internet trading facility, networth criteria as stipulated by the stock exchange will apply. The networth computation shall be as per methodology prescribed by the Exchange/SEBI from time to time.

2.2.2 **Operational and System Requirements**

Operational Integrity: The system used by the broker has provision for security, reliability and confidentiality of data through use of encryption technology. (Basic minimum security standards are specified in following paras). Member must also ensure that records maintained in electronic form are not susceptible to manipulation.

System Capacity: Member maintain adequate backup systems and data storage capacity. The Stock Exchange must also ensure that the brokers have adequate system capacity for handling data transfer, and arranged for alternative means of communications in case of Internet link failure.

Minimum Qualified Personnel**:** The employees working on Internet based trading are required to have minimum educational qualification of graduate and have NCFM or equivalent certification.

2.2.3 **Risk Management**

Member must have a system-based control on the trading limits of clients, and exposures taken by clients. Member must set pre-defined limits on the exposure and turnover of each client.

Member systems should be capable of assessing the risk of the client as soon as the order comes in. The client should be informed of acceptance/rejection of the order within a reasonable period. In case system based control rejects an order because of client having exceeded limits etc., the broker system may have a review and release facility to allow the order to pass through.

Reports on margin requirements, payment and delivery obligations, etc. should be informed to the client through the system.

2.2.4 **Cross Trades**

As in the case of existing system, Member using Internet based systems for routing client orders will not be allowed to cross trades of their clients with each other. All orders must be offered to the market for matching.

The other criteria's mentioned deal with Network Security Protocols and Interface standards, Network Security, Standards of Web Interface Protocols and System operations.

In addition to the requirements mentioned above, all existing obligations of the Trading Member as per current regulations will continue without changes.

2.3 Trading using Wireless Technology

2.3.1 Members seeking permission for offering Wireless Trading / Security Trading using wireless Technology (STWT) are required to ensure compliance with the minimum conditions specified in the Exchange and SEBI circular and as amended/updated from time to time

2.3.2 Only SEBI registered brokers who have been granted permission by the Exchange for providing Internet Based Trading shall be eligible to provide securities trading using Wireless Technology.

2.3.3 All relevant requirements applicable to internet based trading shall also be applicable to securities trading using wireless technology.

2.3.4 Securities Trading using Wireless technology shall include devices such as mobile phone, laptop with data card, etc, that use Internet Protocol (IP).

2.3.5 In addition, Member of the exchange shall ensure complies with the following:

2.3.5.1 There shall be secure access, encryption and security of communication for internet based trading and securities trading using wireless technology. DOT policy and regulation shall govern the level of encryption.

2.3.5.2 Adequate measures should be taken for user identification, authentication and access control using means such as user-id, passwords, smart cards, biometric devices or other reliable means, to prevent misuse of facility by unauthorized persons.

2.3.5.3 Unique identification number as given in case of internet based trading shall be made applicable for securities trading using wireless technology.

2.3.5.4 In case of failure of the wireless network, alternative means of communication for placing orders should be available.

2.3.5.5 Additional provisions specifying possible risks, responsibilities and liabilities associated with securities trading using wireless technology should be incorporated in the Trading Member-Client agreement as an addendum or by bringing to the notice of clients, who are desirous of availing such facility, and taking their concurrence on the same.

2.3.5.6 As it may not be possible to give detailed information to the investor on a hand held device e.g. mobile phones, it may be ensured by Trading Member that minimum information may be given with addresses of the Internet web site/web page where detailed information would be available.

2.3.5.7 Order confirmation should be provided to the user on submitting the order. Order modification / cancellation facilities should also be provided. Trade confirmation should be provided to the user, along with history of trades for the day.

2.3.5.8 Session login details should not be stored on the devices used for internet based trading and securities trading using wireless technology.

2.3.5.9 Network security protocols and interface standards should be as per prevalent industry standards and sound audit trails should be available for all transactions conducted using wireless devices.

2.3.5.10 Member server routing orders to the exchange trading system shall be located in India.

2.3.5.11 Member shall arrange for periodic systems audits of their systems to ensure that requirements specified in the circulars are being met.

2.4 Additional Requirements for Internet Based Trading (IBT) and Wireless Trading / Securities trading using Wireless Technology (WT/STWT)

2.4.1 Members shall comply with following

2.4.2 The Member shall capture the IP (Internet Protocol) address (from where the orders are originating), for all IBT/ STWT orders.

2.4.3 The Member system should have built-in high system availability to address any single point failure.

2.4.4 There should be secure end-to-end encryption for all data transmission between the client and the broker through a Secure Standardized Protocol. A procedure of mutual authentication between the client and the broker server should be implemented.

2.4.5 The Member system should have adequate safety features to ensure it is not susceptible to internal/ external attacks

2.4.6 In case of failure of IBT/ STWT, the alternate channel of communication shall have adequate capabilities for client identification and authentication.

2.4.7 Two-factor authentication for login session may be implemented for all orders emanating using Internet Protocol. Public Key Infrastructure (PKI) based implementation using digital signatures, supported by one of the agencies certified by the government of India, is advisable. Further the two factors in the Two-factor authentication framework should not be same.

2.4.8 In case of no activity by the client, the system should provide for automatic trading session logout.

2.4.9 Further to the above, the following practice is advisable –

The back-up and restore systems implemented by the Member should be adequate to deliver sustained performance and high availability. The broker system should have on-site as well as remote site back-up capabilities

CHAPTER 3
CTCL / IBT / WT Facility for Members from Empanelled ISVs

3.1 Documentation for CTCL / IBT /WT Procurement from Empanelled ISV

3.1.1 The list of Exchange empanelled ISVs for CTCL / IBT / WT is available on Exchange website **www.mcxindia.com** under Technology Section.

3.1.2 Members desirous of applying CTCL / IBT /WT facility procured from Empanelled ISV, are requested to login to CTCL web portal using existing MCX Integrated portal :– https://integrated.mcxindia.com/. Members are requested to us the existing login ID and Password of MCX Member Profile Interface (MMPI) portal.

The 'CTCL Web Portal - Help File' is available on SFTP in the 'Online Portal Help Files' folder, on the path: https://sftp.mcxindia.com/Common/.

3.1.3 Members shall seek approval of the Exchange by submitting required documents as detailed below:-

Type of Software	Required Documents
CTCL	**Part B of Appendix**
IBT / WT	**Part C of Appendix**
Version change of CTCL/IBT/WT	**Part D of Appendix**

Please note that for each type of software separate application should be submitted.

3.1.4 Members desirous of applying CTCL / IBT /WT facility procured from Empanelled ISV are required to submit CTCL/IBT/WT/ATF Undertaking Annexure 13 (one time) and same is required to be submitted in physical form to the Exchange within 10 days of approval, to the below mentioned address:

CTCL Department
Multi Commodity Exchange of India Ltd.
Exchange Square, Suren Road, Chakala,
Andheri (East), Mumbai – 400093, India

3.1.5 The member will have to test the CTCL/IBT/WT software on the test environment provided by the Exchange. For this purpose, Exchange shall provide Test Environment & Simulation Environment credentials and parameters on authorized Email id. . The member should ensure that the software procured by them meets the bare minimum requirements/Checklist outlined in Annexure 14. Member is required to sign and provide the checklist as confirmation of necessary testing.

3.1.6 As part of testing process, Members are also required to participate in mock / simulated trading environment provided by the Exchange.

3.1.7 The software and system proposed for CTCL by the member shall be duly certified by a system auditor. Members applying for IBT / WT shall submit the System Audit Report and Certificate as specified in table below which are required to be submitted by the member.

Type of Software	Audit Report	Auditor Certificate
CTCL	-	Annexure 28
IBT / WT	Annexure 27	Annexure 28
Version change / Additional IBT/WT Product	-	Annexure 28

3.1.8 On being satisfied with documentation of the proposed software and compliance with Exchange / regulatory body(ies) minimum requirements, the Exchange shall approve the said software to use.

3.1.9 The above procedure will be applicable for first time approval to member and for Vendor change for their respective CTCL/IBT/WT facility. Members already approved by the Exchange for respective CTCL facility will not be required to submit system audit report/certificate while applying for additional User Id for using same software.

3.1.10 For change of version in the existing approved CTCL/IBT/WT software, member has to submit the documents mentioned in **Part D of Appendix.**

3.2 Periodic System Audit & CSCR Audit of CTCL / IBT / WT systems

Members using CTCL / IBT / WT facility shall ensure that the periodic audit report is submitted as may be specified by the Exchange from time to time and covers compliance of all requirements mentioned by SEBI and Exchange in the in the Master Circular-Member Technology Compliance

3.3 Charges for Using CTCL / IBT / WT Facility Procured from Empanelled ISV

No charges are payable by Members to the Exchange for procuring approved CTCL / IBT / WT software from empanelled ISVs.

3.4 Implementation of Two Factor Authentication

Member availing CTCL facility from vendor are required to refer Section 6.4 of Chapter 6 related to CTCL Compliance

3.5 Display of Brokerage statutory Regulatory Levies

Member availing CTCL facility from vendor are required to refer Section 6.2 of Chapter 6 related to CTCL Compliance

3.6 Display of Last Trading Day on CTCL front-end and Back-office system

Member availing CTCL facility from vendor are required to refer Section 6.3 of Chapter 6 related to CTCL Compliance

CHAPTER 4

In-House Development of CTCL / IBT / WT Software by obtaining API from Exchange or from empanelled vendor

4.1 Documentation for In-House CTCL/IBT/WT Software Application by Member

4.1.1 Member desirous of applying for CTCL facility that is Computer to Computer Link (CTCL) / Internet Based Trading (IBT) / Wireless Trading (WT) software developed In-house or through Non-Empanelled Vendor using Non-FIX / FIX API provided by the Exchange

OR

4.1.2 CTCL / IBT / WT software developed In-house using API provided by the Empanelled Vendor are now required to submit Annexure 22 over email and thereafter member can login to CTCL Web Portal using existing MCX Integrated portal – https://integrated.mcxindia.com/ and submit the application through CTCL web portal.

4.1.3 Members are requested to use the existing login ID and password of MCX Member Profile Interface (MMPI) Portal

4.1.4 Members desirous of applying CTCL / IBT /WT facility are required to submit CTCL/IBT/WT/ATF Undertaking Annexure 13 (one time) and same is required to be submitted in physical form to the Exchange within 10 days of approval, to the below mentioned address:

CTCL Department
Multi Commodity Exchange of India Ltd.
Exchange Square, Suren Road, Chakala,
Andheri (East), Mumbai – 400093, India

4.1.5 Application should be digitally signed and submitted along with other documents as mentioned below:

Type of Software	Required Documents
CTCL	**Part E of Appendix**
IBT / WT	**Part F of Appendix & Part G of Appendix**

4.2 Approval to Member

4.2.1 Members shall be fully responsible for the development and testing of software. They shall make the CTCL/IBT/WT set up ready at their offices/branch offices which includes software, hardware and network.

The member will have to test the CTCL/IBT/WT software on the test environment provided by the Exchange. For this purpose, Exchange shall provide Test Environment & Simulation Environment credentials and parameters on authorized Email id. The member should ensure that the software developed meets the bare minimum

requirements/checklist outlined in Annexure 14**.** Member is required to sign and provide the checklist as confirmation of necessary testing.

4.2.2 As a part of testing process, Members are also required to participate in mock / simulated trading environment provided by the Exchange.

4.2.3 The software and system proposed for CTCL by the member shall be duly certified by a system auditor. Member applying for IBT/WT shall submit the System Audit Report and Certificate as specified in table below which are required to be submitted by the member.

Type of Software	Audit Report	Auditor Certificate
CTCL	-	Annexure 28
IBT / WT	Annexure 27	Annexure 28

4.2.4 In case of version in the existing approved CTCL/IBT/WT software, member has to submit the documents mentioned in **Part D of Appendix**

4.3 Charges for In-House Development of CTCL/IBT/WT Software:

4.3.1 The charges as mentioned below shall be payable by member:

Category	Charges (Non-refundable) plus applicable taxes
Members who are applying for developing in-house CTCL / IBT / WT solutions using Non- FIX API and/or FIX API provided by the Exchange.	Rs. 1,50,000/- as one-time Charges and Rs. 50,000/- as annual charges.

4.3.2 The members shall pay the annual charges for the first year in advance along with the application. The annual charges shall be calculated on a pro-rata basis from the date of receipt of the member's application till the ensuing March 31st for the first year. Any excess amount paid for the first year (on pro-rata basis) shall be adjusted towards annual charges for the next financial year. The annual charges shall be payable in by 30th April each year. Interest @15% p.a. shall be levied on late payment of the annual fees. Any Member who wishes to discontinue in-house facility should inform to the Exchange before 10th day of April.

4.4 Periodic System Audit & CSCR Audit of CTCL / IBT / WT systems

Members using CTCL / IBT / WT facility shall ensure that the periodic audit report is submitted as may be specified by the Exchange from time to time and covers compliance of all requirements mentioned by SEBI and Exchange in the Master Circular-Technology Compliance.

4.5 Implementation of Two Factor Authentication

Member are required to refer Section 6.4 of Chapter 6 related to CTCL Compliance

4.6 Display of Brokerage statutory Regulatory Levies

Member are required to refer Section 6.2 of Chapter 6 related to CTCL Compliance

4.7 Display of Last Trading Day on CTCL front-end and Back-office system

Member are required to refer Section 6.3 of Chapter 6 related to CTCL Compliance

CHAPTER 5
Algorithmic Trading Facility (ATF)

5.1 Algorithmic Trading Facility (ATF)

5.1.1 The Exchange allows Algorithmic (Algo) Trading for placing orders on the trading system of the Exchange subject to the terms and conditions mentioned in this chapter. Algorithmic Trading (hereinafter referred to as "Algo") means "Any order that is generated using automated execution logic." Or mean any software or program facility by the use of which, upon the fulfillment of certain specified parameters, without the necessity of manual entry of orders, buy/sell orders are automatically generated and entered by the software/ program facility through CTCL software into the Trading System of MCX.

5.2 Documentation by Member for Algo through Empanelled ISV

5.2.1 The list of Exchange empanelled ISVs for ATF Strategy is available on Exchange website **www.mcxindia.com** under Technology Section.

5.2.2 Members desirous of using 'Approved Strategy' of empanelled ISV shall apply to Exchange through CTCL Web Portal using existing MCX Integrated portal – https://integrated.mcxindia.com/.

5.2.3 Members are requested to use the existing login ID and password of MCX Member Profile Interface (MMPI) Portal

5.2.4 Application should be digitally signed and submitted along with other documents as mentioned in **Part I of Appendix**.

5.2.5 Annexure 13 – CTCL/IBT/WT/ATF Undertaking (one time) is required to be submitted in physical form to the Exchange within 10 days of approval, to the below mentioned address:

CTCL Department
Multi Commodity Exchange of India Ltd.
Exchange Square, Suren Road, Chakala,
Andheri (East), Mumbai – 400093, India

5.3 Documentation by Member for In-House Algo Software

5.3.1 Member desirous of developing In-House Algo software using Non FIX API / FIX API provided by the Exchange or procuring/developing CTCL/IBT/WT software from non-empanelled vendors are requested to first submit Anneuxre 2 over email and thereafter can login to CTCL Web Portal using existing MCX Integrated portal – https://integrated.mcxindia.com/.

5.3.2 Members are requested to use the existing login ID and password of MCX Member Profile Interface (MMPI) Portal

5.3.3 Application should be digitally signed and submitted along with other documents as mentioned in **Part J of Appendix.**

5.3.4 Members desirous of applying CTCL / IBT /WT facility procured from Empanelled ISV are required to submit CTCL/IBT/WT/ATF Undertaking Annexure 20 (one time) and same is required to be submitted in physical form to the Exchange within 10 days of approval, to the below mentioned address:

CTCL Department
Multi Commodity Exchange of India Ltd.
Exchange Square, Suren Road, Chakala,
Andheri (East), Mumbai – 400093, India

5.4 Charges for In-house development of Algo Software

5.4.1 The charges as mentioned below shall be payable by member:

Category	Charges (Non-refundable) plus applicable taxes
Members who are applying for developing in-house ATF solutions using Non FIX API and/or FIX API provided by the Exchange.	Rs. 1,50,000/- as one-time Charges and Rs. 50,000/- as annual charges.

5.4.2 Members who already have Application Programming Interface (API) provided by Exchange for In-House CTCL development can use the same API for developing Algo without additional charges, after submitting the documents mentioned above.

5.4.3 The members shall pay the annual charges for the first year in advance along with the application. The annual charges shall be calculated on a pro-rata basis from the date of receipt of the member's application till the ensuing March 31st for the first year. Any excess amount paid for the first year (on pro-rata basis) shall be adjusted towards annual charges for the next financial year. The annual charges shall be payable in by 30th April each year. Interest @15% p.a. shall be levied on late payment of the annual fees. Any Member who wishes to discontinue in-house facility should inform to the Exchange before 10th day of April.

5.5 Approval to member for Algo Facility

5.5.1 The member will have to test the Algo software on the test environment provided by the Exchange. For this purpose a User Id on the test environment should be requested from the Exchange via authorised email id**.** The member should ensure that the software developed meets the bare minimum requirements/checklist outlined in **Annexure 14.** Member is required to sign and provide the checklist as confirmation of necessary testing.

5.5.2 As a part of testing process, Members are also required to participate in mock / simulated trading environment provided by the Exchange.

5.5.3 The software and system proposed for Algo by the member shall be duly certified by a system auditor (Annexure 28) which is required to be submitted by the member.

5.5.4 Exchange may require the demonstration of the Algo software developed In-house before granting an approval. Member shall arrange to provide demonstration of the Algo software developed In-house, after taking an appointment. During the demonstration, the Exchange may check for conformance with such parameters as it may deem relevant including those laid by Exchange / any other regulatory body(ies). After successful demonstration of the software and on being satisfied with the documents submitted by the member, Exchange may grant permission to Member for the usage of Algo facility.

5.5.5 Further, it is mandatory for members to participate in periodic Mock Trading sessions conducted by Exchange using all User Ids approved for Algo trading, irrespective of the algorithm having undergone change or not. In case the member fails to participate in such mock trading sessions, the Exchange shall call for reasons for non-participation and if the reason is found to be unsatisfactory, the Exchange shall suspend the proprietary trading rights of the member for a minimum period of one trading day.

5.5.6 After obtaining approval to use Algo, the members shall install the Algo Software as approved by Exchange only at the location approved by the Exchange and after ensuring that all the requirements stipulated by the Exchange / regulatory body(ies) in this regard have been complied with.

5.6 Modifications in Approved Algo Software

5.6.1 In case of version change in the existing approved CTCL/IBT/WT software, member has to submit the documents mentioned in **Part D of Appendix**

5.7 Periodic System Audit & CSCR Audit of Algo system

Members using ATF/Algo facility shall ensure that the periodic audit report is submitted as may be specified by the Exchange from time to time and covers compliance of all requirements mentioned by SEBI and Exchange in the Master Circular-Technology Compliance

5.8 Conditions for use of Algo system

5.8.1 Members may use Algo subject to the following and other conditions as may be specified by the Exchange / Regulatory body(ies) from time to time.

5.8.1.1 Member shall use Algo facility only with the prior permission of the Exchange and only at the location approved by the Exchange.

5.8.1.2 All algo orders shall be placed through the specified CTCL id allotted and approved by the Exchange and not to place any algo order from any other User Id.

5.8.1.3 Clear classification of algo orders by identification flag as specified by the Exchange is used in their algo orders as specified in Chapter 5.

5.8.1.4 Orders of their clients are routed through member server only and client orders are not placed directly to the Exchange system.

5.8.1.5 The strategies which are approved by the Exchange for placing algo orders are only used and Members should not send any algo order which is not conducive to efficient price discovery or fair play.

5.8.1.6 IOC (Immediate or Cancel) algo order shall not be placed from ATF software.

5.8.1.7 Market orders shall not be allowed to be placed using ATF and only Limit Order will be allowed to place using ATF.

5.8.1.8 Members who are using ATF software are required to incorporate at least following order level risk controls at the individual order level and client level in their ATF software before releasing the algo order to the trading system of the exchange:

5.8.1.8.1 Daily Price Range (DPR) check or Daily Price Limit: - The price quoted in the order shall not violate the DPR limit or Daily Price limit as defined in the contract specification or any other limit specified by the Exchange from time to time.

5.8.1.8.2 Maximum Order Size: - The quantity quoted in the order shall not violate the maximum order size limit as defined in the contract specification from time to time.

5.8.1.8.3 Position Limit: - The quantity quoted in the order shall not violate the position limits of the client/member level as defined in the respective commodity contract specification/specified by the Exchange / regulatory body(ies) from time to time.

5.8.1.8.4 Market Price Protection: - All algo orders released to the Exchange trading system should have price limit which is pre-set percentage of LTP within the daily price limit or any other price limit as may be defined by the Exchange from time to time.

5.8.1.8.5 Algo Identifier: All algo orders shall be tagged with a unique identifier (strategy ID) provided by the Exchange and the Member shall keep all data / trigger points and logs of all trading activities to facilitate the audit trail.

5.8.1.8.6 Automated Execution Check: An algo shall account for all executed, unexecuted and unconfirmed orders placed by it before releasing any further order/s. Further, Members shall have a real-time monitoring system to identify dysfunctional algo. The algo system shall have pre-defined parameters for automatic stoppage in the event of algo execution leading to a loop or runaway situation.

5.8.1.8.7 Order Value Check: Algo orders shall not be released in breach of the 'value per order' as defined by the Exchange.

5.8.1.8.8 Cumulative Open Order Value Check: The individual client level cumulative open order value check as may be prescribed by the member for the clients and Algo orders shall not be released in breach of the same. Cumulative open order value for a client is the total value of its unexecuted orders released from the member's system.

5.8.1.9 Members have to put in place real-time monitoring system to identify algorithms that may not behave as expected and take measures to impede any possible instances of order flooding by ATF software. Further, Members shall inform to the Exchange of any such incidents on immediate basis.

5.8.1.10 ATF software should have control feature to restrict the Algo order place a limit on the numbers of orders per second from a particular CTCL ID/ATS User-ID not exceeding one hundred and twenty (120) orders per second or any number as prescribed by Exchange from time to time and there will be economic disincentives for number of Algo orders exceeding 120 orders per second (as mentioned below). Compliance with the limit of 120 OPS set by a particular CTCL ID/ATS User-ID shall be measured over a rolling period of five seconds (i.e., 5X orders for 0th – 5th second, 5X orders for 1st-6th second, 5X orders for 2nd to 7th second and so on).

5.8.1.11 ATF software should have control feature to restrict the Algo orders from a particular CTCL ID / ATS User Id not exceeding 120 orders per second.

Orders per rolling period of five seconds	**Economic Disincentive**
601–750	Rs.10 per instance
751–1250	Rs.10 per instance
1251 & Above	Rs.10 per instance

5.8.1.12 The Exchange has introduced below mentioned additional are over and above Order-per-second (point no.1 above) for the repeat offenders

No. of days Member levied charges	Total Charges
> 3 days during the calendar month	Twice the applicable charges from 4th instance to 7th instance (i.e., 100% Additional charges)
> 7 days during the calendar month	Four time the applicable charges from 8h instance onwards till end of calendar month (i.e., 300% Additional charges)
> 30 days during the Quarter (Jan. to March, April to June & so on)	Additional charges equivalent to the Total charges levied during the quarter (i.e., 100% Additional charges for the quarter)

Note: The above structure of additional economic disincentive for Algo orders is subject to revision in future, based on actual data/details of number of instances of OPS exceeding specified limit or regulatory direction. Members are requested to refer the relevant circular(s) issued by the Exchange from time to time for penalty structure.

5.8.1.13 Members shall ensure that their algo orders should be routed through Members Servers located in India and through the specified CTCL IDs/ ATS User IDs approved by the Exchange for algo trading. Further, ATF software / IDs shall not have any interlink with any system or ID located / linked outside India.

5.8.1.14 Members to ensure that their ATF system should have control features to ensure that the sufficient deposits / funds are available for margin/ settlement obligations, in respect of the trades effected through algo facility, whether on own account or client's account and that algorithmic trading does not result in shortages in margin deposit or settlement obligation.

5.8.1.15 Members to ensure that their trades routed through algo shall not be in the nature of abnormal/ manipulative trades and should facilitate orderly trading and integrity of the commodity market.

5.8.1.16 Since, Member's ATF strategy should not take away liquidity from the market but it should induct liquidity into the market, Members are required to provide write up in their strategy document explaining how the strategy will induct the liquidity into the Market and also to submit write-up on procedures and arrangements which are in place to safeguard algorithms from misuse or unauthorised access.

5.8.1.17 Details of algo strategies should be made available to the Exchange wherever required for the purpose of inquiry, surveillance, investigation etc.

5.8.1.18 Members shall have proper procedures and arrangements to safeguard algorithms from misuse or unauthorised access and to ensure that access shall be given only to authorised persons.

5.8.1.19 Members shall maintain logs of all trading activities to facilitate audit trail for minimum 3 years and should provide such logs to the Exchange / appointed auditors during inspection / audits.

5.8.1.20 Members shall maintain record of control parameters, orders, trades and data points emanating from trades executed through algorithmic trading for minimum 3 years and should provide these information / data to the Exchange / appointed auditors during inspection / audits.

5.8.1.21 Members may please note that they should not use Algorithmic trading without prior written permission of the Exchange. Prior permission of the Exchange should also be obtained for any changes in the approved ATF software / strategy(ies).

5.8.1.22 Members availing ATF facility are required to undertake System Audit of their software and submit compliance letter (Annexure-41) to the Exchange every half yearly as specified in the Master Circular-Technology Compliance Further, Exchange reserves right to conduct System Audit by the Exchange officials or appointed auditors whenever required with or without prior intimation.

5.8.1.23 In addition to the above, the members shall execute, sign agreements or undertakings as may be prescribed or required by the Exchange / regulatory body(ies) from time to time.

5.8.1.24 Algo software should have facility to generate / restrict orders for contracts / commodities specified by the Exchange from time-to-time. Exchange reserves right to withdraw or modify ATF for all / any commodity, generally or specifically for any Member or User ID of any Member. Further, Exchange may disable Member's terminal who are not complying the algorithmic trading guidelines of the Exchange.

5.8.2 Member who provides services relating to algorithmic trading shall not:

5.8.2.1 Directly or indirectly make any reference to the past or expected future return/performance of the algorithm; and/or

5.8.2.2 directly or indirectly associate with any platform providing any reference to the past or expected future return/performance of the algorithm.

CHAPTER 6
CTCL Terminal Details (15 Digits)

6.1 CTCL Terminal Info

6.1.1 CTCL Terminal Info (15 Digits)

Members using CTCL facility are required to provide CTCL terminal details (15 digits) information as per the format prescribe by Exchange. Members are required to populate the 15 digit CTCL terminal details in the order structure for every order emanating from CTCL terminal. Exchange may take disciplinary action / levy penalty on Members who are not complying the requirement of CTCL Terminal info as required by the Exchange.

6.1.2 Identification of 1-12 digits

For orders generated from CTCL terminals 1-12 digits should be as follows:

CTCL terminal	• First six digits should be Pin code of the CTCL terminal location. • Digits 7 to 9 should be Branch ID of the CTCL terminal location. • Digits 10 to 12 should be Running serial number of trading terminal Id, under the CTCL Id within the branch.
IBT Terminal	111111111111
Wireless Trading Terminal	333333333333

6.1.3 Identification of 13th digit

13th digit would indicate whether the order is generated through program trading software or not, It sholud be:

0 - if order is not generated through program trading (Algo) software,

1 - if order is generated through program trading (Algo) software,

6.1.4 Identification of 14-15 digit

Digits 14-15 should be valid Vendor Code / In-House CTCL code for member as provided by the Exchange.

6.2 Display of Brokerage statutory Regulatory Levies

6.2.1 Exchanges has decided to issue guidelines for display of brokerage, statutory & regulatory levies to be charged by Members.

6.2.2 Exchange has been receiving complaints from various investors alleging that the members are levying brokerage and other charges more than what has been mutually agreed and specified in the tariff sheet. Hence, members are advised to ensure that the client has not been charged more than the agreed rates and is within the maximum prescribed limits. Further, members shall ensure that statutory and regulatory levies recovered from the client are only at actuals paid/payable.

6.2.3 Further, to bring more transparency to investors on the brokerage and other charges being levied by the members, it has been decided in consultation with SEBI and other Stock Exchanges, that the details of the brokerage and charges applicable for the order to be placed shall be prominently displayed on the "Order placement window/screen" under the separate tab called "Charges" on their Internet Based Trading (IBT) / Wireless Trading (WT) applications.

6.3 Display of Last Trading Day on CTCL front-end and Back-office system

6.3.1 Exchange has decided to issue guidelines for display of Last Trading Day on CTCL Front-end and Back-office system.

6.3.2 As per the current process, the Exchange provides scrip master (MCXScrip.bcp) on daily basis on the Member's SFTP.

In the MCXScrip.bcp, the Exchange publish **Original Expiry Date** and Last Trading Date for each derivative contract, which are same at the time of launch of the contract. If a holiday is consequently declared, which falls on the last trading day of a derivative contract, the Exchange publishes the revised Last Trading Date in MCX Scrip master (MCXScrip.bcp). Member, CTCL vendors and Back-office vendors may note that 'Original Expiry Date' field remains unchanged. Accordingly, the MCXscrip.bcp file generated for subsequent business days holds the revised 'Last Trading Date' until the expiry of the contract.

Market participants upload MCX Scrip Master on daily basis in their CTCL application, Internet based application, Mobile Application and also in the back-office software applications, to display the Expiry Date / Last Trading Day to the end client on trading platform and in communications / files from the Back-office system.

It has come to the notice of the Exchange / SEBI that only few Members / CTCL vendors and Back-office vendors are correctly mapping/displaying the Last Trading Date on its

CTCL Front-end exposed to the end clients and the contract note generated from back office system, as applicable. As per the above directions and with an objective that the end clients are having the correct visibility of the revised Last Trading Date at all point in time, Members, CTCL vendors and the Back-office vendors are directed to display the 'Last Trading Date' on applicable screens (where Expiry Date is displayed) on their CTCL application, Internet based application, Mobile Application and the contract note published by the Members to its constituents.

6.3.3 Members using CTCL software / Back office procured from empaneled vendors are also directed to co-ordinate with respective vendor and update their system to comply with the above requirement.

6.3.4 Members / CTCL / Back-office vendors connecting through Open interface (API) may refer to Instrument Master (file name: MCXScrip.bcp) column number 20 i.e. Last trading Date in terms of seconds from 01-01-1970 00:00:00 hrs as provided by the Exchange.

6.3.5 Member /CTCL/Back-office vendors may also refer file format Mcx_ProductMaster.csv column number 24 i.e Product End Date Time and advised to take a note of the above and implement the directions of the circular.

6.4 Implementation of Two Factor Authentication

6.4.1 Members were required to mandatorily implement two-factor authentication on application offered by Members to customers through Internet Based Trading (IBT) and Wireless Technology (WT).

6.4.2 In addition to user ID, Members shall preferably use biometric authentication as one of the authentication factors, along with any one of the below-mentioned factors:

a. Knowledge factor (something only the user knows): - for e.g., Password, PIN.
b. Possession factor (something only the user has): - for e.g., OTP, security token, authenticator apps on smartphones etc. In case of OTP, the same should be sent to clients through both email and SMS on their registered email ID and Mobile number.

6.4.3 In cases, where biometric authentication is not possible, Members shall use both the aforementioned factors (Knowledge factor and Possession factor), in addition to the user ID, for 2-factor authentication (2FA). It is to be noted that the abovementioned authentication shall be implemented on every login session by the client to IBT and WT

CHAPTER 7
Activation / Deactivation of CTCL facility on User ID

7.1 Enablement / Disablement of CTCL/IBT/WT/ATF facility on User ID(s) through eUIMS Portal.

7.1.1 Members desirous of enabling/disabling CTCL facility - Computer to Computer Link (CTCL) / Internet Based Trading (IBT) / Wireless Trading (WT) / Algorithmic Trading Facility (ATF) software procured from Independent software Vendor (ISV) or Application Services Provider(ASP) or In-house software developed are now required to seek approval by submitting application through eUIMS -Electronic User ID Management System.

7.1.2 Below is the high-level steps to enable CTCL / IBT / WT / ATF facility on User ID:

a. Members are requested to use the existing login ID and Password to login - https://eUIMS.mcxindia.com portal.
b. Existing approved software details from CTCL online portal will reflect in the eUIMS portal for selection to enable/disable the same on User ID.
c. Members are required to submit/upload the online application and supporting documents with valid digital signature.
d. Help file “Help File - CTCL facility Enablement & disablement through eUIMS” is available on SFTP: https://sftp.mcxindia.com/Common/ in the folder – ‘Online Portal Help Files.

7.1.3 Documentation for enablement of CTCL/IBT/WT/ATF facility on User ID(s) :

Particulars	**Annexure #**
Application Form for Inhouse developed Software	• Online submission
Application Form for Software procured from ISV	• Online submission • Annexure 11
Application Form for Software procured from ASP	• Online submission

7.1.4 Documentation for disablement of CTCL/IBT/WT/ATF facility on User ID(s) for software procured from ISV & In-house & ASP:

Particulars	Annexure #
Application for Deactivation of facility	Online submission

7.2 Documentation for Discontinuation of CTCL / IBT / WT / ATF Software

Members who wish discontinue usage of CTCL / IBT / WT / ATF Software are required to submit **Annexure 43** on email ctcl@mcxindia.com.

Members are required to note that once software / strategy is discontinued, Members are required to follow entire approval process for software, as applicable.

CHAPTER 8
Testing of software

For the purpose of this chapter and approval process for change/modification in software version, CTCL/IBT/WT/ATF facility is hereinafter referred as 'CTCL Software'.

The approval process for change in software version will be applicable to members applying for CTCL facility of empanelled ISVs software and / or In-house developed software. The process to be followed in case of changes in software version (impacting major functionalities or risk management system) is summarized in the below:-

Particulars	Testing of Software	Mock/Simulated Trading Environment Participation	Audit Report	Audit Certificate	Demo
Version change for software procured from ISV	Yes	Yes	No	Yes	No
Version change for software developed In-house	Yes	Yes	No	Yes	Only in-case of ATF

8.1 Documentation

Member is required to submit the Application form through CTCL Online Portal in case of change in the version of approved CTCL software impacting major functionalities or risk management system.

With regard to changes / updates to stock broker's trading software that intend to modify the 'look and feel' and do not affect the risk management system of the stock broker or the connectivity of the trading software with stock exchange's trading system, it is clarified member can submit the 'no change letter' i.e. Annexure 21 and applicable documents.

8.2 Testing of CTCL Software

Exchange provides simulated test environment and facilities to the market participants / software vendors to test new software or existing software that have undergone change. The member / software vendor shall test the software on the test environment provided by the Exchange before putting into use and testing is mandatory. The member should ensure that the software meets the minimum requirements outlined in Annexure 14.

The Exchange provides Application Programming Interface (API) specifications to connect to the trading system for development of software for using CTCL facility to the Members (developing software in-house) and empanelled vendors.

8.3 Mock Trading Participation / Simulated Trading Environment

Exchange organizes mock trading sessions in a close-to-real trading environment on regular basis, atleast once in a calendar month for a minimum period of 2 hours, to facilitate testing of new software or existing software that has undergone change.

As a part of testing process, Members are required to participate for the minimum period of 1 hour in mock / simulated trading environment provided by the Exchange to test their software for any change.

Members may also note that it will be mandatory for members to participate in periodic mock trading sessions conducted by the Exchange using all approved Strategies for Algo trading on an ongoing basis, irrespective of the algorithm having undergone change or not. The details of such participation have to be covered in the periodic system audit report. In case the member fails to participate in such mock trading sessions, the Exchange shall call for reasons for non-participation and if the reason is found to be unsatisfactory, the Exchange may suspend the proprietary trading rights of the member for a minimum period of one trading day.

8.4 Segregation of Test / Mock and Production environment

Members are advised to keep Development, testing, and production environments separate to reduce the risks of unauthorized access or changes to the production environment. Members should use their test environment while connecting to the Exchange for testing or participating in mock trading.

Member should ensure to restore their trading system to “Production State” at the end of testing Session so as to ensure integrity of trading system.

8.5 System Audit

Trading members seeking approval for modified CTCL software shall be required to engage system auditor(s) to examine reports of tests performed in test environment, participation in mock/simulated trading environment and to certify that the tests were satisfactorily undertaken. Trading members are required to submit the original copy of the certificate of the system audit conducted of their software & system to the Exchange. Members should ensure that the audit certificate submitted by them is strictly in accordance with the formats specified that is System Audit Certificate (Annexure 28) and System Audit Report (Annexure 27). Any deviation in the format of the certificate and report may lead to rejection of submission. The system audit certificate and System Audit Report should be on the letter head of the system auditor. It may be noted that all the pages of the System audit certificate and System Audit Report should be duly stamped and signed by the system auditor. The System Audit Certificate and System Audit Report must contain the name and registration number of system auditor along with their stamp, place and date at the end of report. The system auditor should categorically certify about the absence of conflict of interest as given in System Audit Report/Certificate format.

The system audit to be conducted by a system auditor who possess at least one of the following certifications:

- CISA (Certified Information System Auditors) from ISACA

- DISA (Post Qualification Certification in Information Systems Audit) from Institute of Chartered Accountants of India (ICAI)
- CISM (Certified Information Securities Manager) from ISACA
- CISSP (Certified Information Systems Security Professional) from International
- Information Systems Security Certification Consortium, commonly known as (ISC)

The system audit charges shall be negotiated and paid directly by the member to the system auditor.

8.6 Demonstration

The Exchange may require the demonstration of the ATF software in case of software developed In-house before granting an approval. Member shall arrange to provide demonstration of the software for new version or version change after taking a prior appointment from Exchange team. After successful demonstration and on being satisfied with the documents submitted by the member, the Exchange may grant permission to Member for the usage of 'ATF facility'.

8.7 Penalty for the Malfunctioning of software

The Exchange will examine the cases of malfunctioning of CTCL Software used by trading members and apply deterrent penalties in form of fines or suspension on the trading member for software malfunctions in accordance with Rules, Bye-Laws and Business Rules of the Exchange.

Members may implement suitable measures like obtaining insurance cover or adding suitable clauses in their agreement with the software vendors to meet probable losses or to minimize risk in event(s) of software malfunction.

8.8 Test Market of availability

8.8.1 The test / simulated environment is available for all Trading members, Empaneled vendors, and Application Service Providers for testing the software.

8.8.2 The test / simulated environment shall be available from 10:00 AM to 9:00 PM during the week on trading days to test the software.

8.8.3 The Exchange will generate liquidity in the test / simulated environment for selected commodity contracts to provide live like trading experience to members. This would be done by tool trade generated from 04:00 PM to 8:00 PM.

8.8.4 The Exchange will also be updating live environment Scrip master file on fortnightly basis on test/simulated environment and would be provided on request.

8.8.5 Members are provided multicast of tick by tick and trading market data in the test / simulated environment as provided in live trading environment.

8.8.6 Members are required to use the existing connectivity for test / simulated environment (over the internet / leased line established by Member for test environment).

8.8.7 Test market environment shall be available to Empaneled vendors and Application Service Providers for testing the software.

8.8.8 To facilitate testing of new software or existing software that has undergone any change of functionality, the Exchange would also be conducting monthly mock trading session for Members testing.

8.8.9 Members shall be allowed to connect to test / simulated environment using a dedicated leased line or through VPN (Virtual private network).

8.8.10 The Exchange shall endeavor to provide the test / simulated environment on best efforts basis.

8.8.11 The Exchange shall promptly address any defects/problems in the test / simulated environment related systems as reported to it but does not warrant that the environment shall be uninterrupted or error free.

8.8.12 Members developing in-house CTCL applications can write to ctcl@mcxindia.com for availing Test/Simulated Environment facility or for any technical queries.

8.8.13 Please contact MCX customer support team (on Call 022 – 6649 4040 / Email - customersupport@mcxindia.com) any assistance.

8.8.14 Connectivity Details – Test / Simulation Environment , please refer Circular no.: MCX/CTCL/381/2021 dated June 29, 2021.

CHAPTER 9
Empanelment of Application Service Provider (ASP)

9.1 Empanelment of ASP

9.1.1 Exchange allows Members to use trading services offered by empanelled Application Service Providers (which may inter-alia include providing / maintaining software / hardware / other infrastructure etc.) for providing CTCL Trading / IBT / WT services to members of the Exchange. Empanelment of ASP software solution and CTCL solution are separate and vendors are required to apply separately for empanelment for the same. However, vendors empanelled for CTCL solution would not be required to pay additional one-time non-refundable fees at the time of ASP empanelment.

9.2 Criteria for Empanelment as an ASP

9.2.1 The software vendors desirous of being empanelled with the Exchange as an Application Service Providers (ASP) would be required to meet the criteria prescribed in **Annexure 1**.

9.3 Documentation for ASP Application

9.3.1 ASPs seeking empanelment with Exchange shall submit the application, undertaking and other documents as per the checklist given in **Part K of Appendix**.

9.4 Procedure of ASP Empanelment

9.4.1 On receipt of the above duly completed documents and the applicable fees and on the ASP meeting requirements of the Exchange / regulatory body(ies), the Exchange will share the API with ASP.

9.4.2 ASP shall be fully responsible for the development and testing of ASP Software Solution. They shall make the software solution set up ready at which includes software, hardware and network.

9.4.3 ASP will have to test the software on the test environment provided by the Exchange. For this purpose a User Id on the test environment should be requested from the CTCL department of the Exchange**.** The ASP should ensure that the software developed meets the bare minimum requirements/checklist outlined in **Annexure 6.** ASP is required to sign and provide the checklist as confirmation of necessary testing.

9.4.4 As a part of testing process, ASP is also required to participate in mock / simulated trading environment provided by the Exchange.

9.4.5 The software and system proposed by the ASP shall be duly certified by a system auditor in format specified by the Exchange.

9.4.6 Exchange may require the demonstration of ASP software solution before granting an approval. ASP shall arrange to provide demonstration of software, after taking an appointment. After successful demonstration of the software and on being satisfied with the documents submitted by the ASP, Exchange may grant permission to ASP for providing ASP services to Members of the Exchange. The Exchange shall specify the software in respect of which such empanelment is given.

9.4.7 In case of version change or customization of the specified software, the ASP shall apply to the Exchange for its approval, participate in mock / simulated trading environment and submit audit certificate. The Exchange may approve such application after satisfying itself through a demonstration or otherwise as may be specified.

9.5 Other Terms and Conditions

9.5.1 ASPs empanelled for CTCL solutions would not be required to pay additional charges at the time of empanelment for IBT and WT and vice versa.

9.5.2 The Exchange at its discretion may impose additional conditions as it deems fit for the continuous empanelment of ASP from time to time. In the event the empanelled ASP fails to comply with the conditions so imposed, the Exchange reserves the right to cancel the empanelment.

9.5.3 Without prejudice to above, the Exchange reserves the right to cancel or modify the empanelment/approval if the need so arises at its sole discretion.

9.6 Charges for ASP Empanelment

9.6.1 The charges as mentioned below shall be payable by ASPs

Category	**One -time Charges (Non-refundable)**	**Annual Charges (Non-refundable)**
	Plus applicable taxes	
Application Service Provider providing CTCL trading / IBT / WT services	INR. 10,00,000/- at the time of application	INR. 2,50,000 on financial year basis.

9.6.2 The ASP shall pay the annual charges for the first year in advance along with the application. The annual fee shall be calculated on a pro-rata basis from the date of receipt of the ASP's application till the ensuing March 31st for the first year. Any excess amount paid for the first year (on pro-rata basis) shall be adjusted towards annual fees for the next financial year. The annual fee shall be payable in by 30th day of April each year. Interest @ 15% p.a. shall be levied on late payment of the annual fees. Any ASP who wish to discontinue as Empanelled ASP need to inform the Exchange before 10th day of April.

9.7 Periodic System Audit

9.7.1 ASP vendor shall ensure that the periodic audit report is submitted on annual basis as detailed in the Master Circular-Technology Compliance

CHAPTER 10

Tick by Tick Trading Market Data (MarketXstream)

As part of our constant endeavor to provide value to market participants, the Exchange has decided to provide Tick by Tick Trading Market Data (MarketXstream) to the members as per MarketXstream API. Members are requested to note that Tick by Tick Trading Market Data shall be provided in multiple streams having data of different class of commodities.

10.1 Application for *MarketXstream* API

10.1.1 Members of the Exchange or Empanelled ISVs (CTCL Vendors) desirous of developing software to use MarketXstream can apply for MarketXstream API as per format given in Part L of Appendix.. The Exchange shall share MarketXstream API after receiving request as per prescribed format.

10.1.2 The member is required to test the software in Exchange test environment. Members who have developed in-house software for using Tick by Tick Trading Market Data are required to provide demonstration of their software and take approval from the Exchange before using it. CTCL Empanelled Vendors who have developed software for Tick by Tick Trading Market Data are required to provide demonstration of their software and take approval from the Exchange before providing their Tick by Tick Trading Market Data software to members of the Exchange.

10.2 Enable *MarketXstream* for live trading

10.2.1 To enable Tick by Tick Trading Market Data (MarketXstream) for live trading using the approved software, members are required to apply to the Exchange in the format enclosed as **Annexure 31**. Upon receipt of application Exchange shall enable the required Tick by Tick Data Stream based on bandwidth availability of the leased line and will provide the requisite parameters for receiving Tick by Tick Trading Market Data (MarketXstream).

10.3 Other Terms and Conditions

10.3.1 The Tick by Tick Trading Market Data will be provided to members on a dedicated point to point leased line with bandwidth of 2 Mbps or above. Members may please note that order routing will not be allowed on the Leased Lines enabled for Tick by Tick Trading Market Data. Members should monitor the link utilization and may opt for separate leased line for different data stream.

10.3.2 The software developed by the Trading Members using the MarketXstream API shall be used by the Trading Members exclusively for their own activities and for the activities of their clients on MCX platform only. Trading Members shall not use the MarketXstream API received from the Exchange for any other purposes.

CHAPTER 11
Application for CTCL / IBT / WT Services through ASP

Members desirous of availing the CTCL/IBT/WT services of empanelled ASP shall apply to the Exchange.

11.1 Documentation for CTCL / IBT /WT services from Empanelled ASP

11.1.1 Exchange empanelled Application Service Provider (ASP) has setup infrastructure with the exchange for providing CTCL/IBT/WT services to members of the Exchange. The list of empanelled Asp vendors is provided on the exchange website https://www.mcxindia.com under Technology & Services section.

11.1.2 Members desirous of availing the CTCL/IBT/WT services of empanelled ASP shall apply to the Exchange along with the documents as per formats specified in **Part M of Appendix**

11.1.3 Members availing the services of the empanelled ASP shall ensure the compliance as may be required by the Exchange and Regulatory Authorities from time to time.

11.1.4 Members desirous of using CTCL/IBT/WT services provided by exchange empanelled ASPs may do so solely at their own discretion and responsibility.

11.2 Documentation for **Enablement / Disablement of CTCL/IBT/WT facility.**

Documentation for availing existing approved CTCL / IBT / WT facility on ~~additional~~ User ID refer to **Chapter 6**.

CHAPTER 12
Direct Market Access (DMA) facility

SEBI has issued circular no. SEBI/HO/MRD/MRD-PoD-1/P/CIR/2023/68 dated May 10, 2023 regarding “Direct Market Access (DMA) to SEBI registered Foreign Portfolio Investors (FPIs) for participating in Exchange Traded Commodity Derivatives (ETCDs)”.

Direct Market Access (DMA) is a facility, which allows brokers to offer clients direct access to the exchange trading system through the broker’s infrastructure without manual intervention by the broker. Some of the advantages offered by DMA are direct control of clients over orders, faster execution of client orders, reduced risk of errors associated with manual order entry, greater transparency, increased liquidity, lower impact costs for large orders, better audit trails and better use of hedging and arbitrage opportunities through the use of decision support tools / algorithms for trading.

The said SEBI circular is available on exchange circular section on the website.

A separate circular will be issued containing detailed modalities on the same.

APPENDIX
Checklist for Documentation

Table of Content

Part A: Checklist for Application for Empanelment & Approval by ISV for CTCL/IBT/WT/ATF solutions

A vendor seeking empanelment with Exchange as an ISV shall provide the following documents to the Exchange on Email ID ctcl@mcxindia.com::

Sr. No.	Particulars	Format
1.	Criteria for Empanelment as an ISV	Annexure 1
2.	Application for Empanelment as ISV	Annexure 2
3.	Undertaking to be given by ISV - One time only	Annexure 3
4.	Personal Guarantee Letter	Annexure 4
5.	Certified true copy of board resolution	Annexure 12
6.	Guidelines for Undertaking	Annexure 5
7.	Checklist for software development	Annexure 6
8.	Application for approval CTCL/IBT/WT/ATF Software (New/Addition)	Annexure 7
9.	**Algorithmic Trading (Algo) Strategy Write-up** (Should cover note on Liquidity Infusion and controls built-in in the software to comply Exchange / SEBI guidelines)	--
10.	**CTCL/IBT/WT Product Write-Up (Features)**	--

Table of Content

Part B: Checklist for CTCL Facility from Empanelled ISV

A member seeking permission for CTCL facility shall submit documents through online CTCL Web portal to the Exchange:

Sr. No.	Particulars	Format
1.	**Application for availing CTCL facility**	Generate & submit online
2.	**Network Diagram** (Details of connectivity of CTCL server at member's office with MCX Central server in diagram to be provided by Member.)	Submit online
3.	**CTCL/IBT/ATF/WT Undertaking** (Required for first application only)	Annexure 13
4.	**Guidelines for Undertaking**	Annexure 5
5.	**Certified true copy of board resolution** (If the member is company. Required only once)	Annexure 12
9.	**System Audit Certificate**	Annexure 28

Table of Content

Part C: Checklist for IBT / WT Facility from Empanelled ISV

A member seeking permission for IBT/WT facility shall submit documents through online CTCL Web portal to the Exchange:

Sr. No.	Particulars	Format
1.	**Application Form for availing Internet Based Trading (IBT) and or Wireless Trading (WT) Facility**	Generate & submit online
2.	**CTCL/IBT/ATF/WT Undertaking** (Required for first application only)	Annexure 13
3	**Guidelines for Undertaking**	Annexure 5
4	**Certified true copy of board resolution** (If the member is company. Required only once)	Annexure 12
5	**Network Diagram** (Details of connectivity of IBT / WT server with MCX Central server and distribution Connectivity in diagram to be provided by Member.	Submit online
6	**Annexure signed by vendor and countersigned by member.** (Not required if applying for additional User Id for using same IBT / WT software)	Annexure 16
7	**Contingency Plan**	Annexure 17
8	**Secured Socket Layer Certificate (SSL)** (Secured socket level security for server access through Internet to be provided by Member)	Submit online
9	**Print Screen of URL (home Page) or Login Screen** (URL / login screen which is created and shall be accessed by users over Internet / wireless for the purpose of trading, to be provided by the Member. (Not required if applying for additional User Id for using same IBT / WT software))	Submit online
10	**System Audit Certificate**	Annexure 28
11	**System Audit Report**	Annexure 27
12	**Net Worth certificate (In case of IBT)**	-
13	**Screenshot of 2FA. Display of Brokerage, Statutory & Regulatory Levies, and display of last trading day**	Submit online

Table of Content

Part D: Checklist for Version change of Existing approved Software from Empanelled ISV and In-house

A member seeking permission for Version change of existing approved software shall submit documents through online CTCL Web portal to the Exchange:

Sr. No.	Particulars	Format
1.	**Application Form modification in approved CTCL software**	Generate and submit online
2.	**System Audit Certificate**	Annexure 28
3.	**Product /Strategy Write-Up (Features)**	Submit Online
4.	**Screenshot of 2FA. Display of Brokerage, Statutory & Regulatory Levies, and display of last trading day**	Submit online

Table of Content

Part E: Checklist for CTCL for In-House Software Development Application by Member

A member seeking permission for In-House software development or procurement / development of software from non – empanelled vendor shall submit the following documents to the Exchange through online CTCL Web portal to the Exchange:

Sr. No.	Particulars	Format
1.	**Form for creation of in-house CTCL Software in CTCL online portal**	Annexure 22
2.	**Application form for In-House CTCL / IBT/WT software**	Generate & submit online
3.	**Network Diagram** (Details of connectivity of CTCL server at member's office with MCX Central server in diagram to be provided by Member.)	Submit online
4.	**Software development team details / Non-empanelled vendor details**	Submit online
5.	**CTCL/IBT/ATF/WT Undertaking** (Required only once)	Annexure 20
6.	**Guidelines for Undertaking**	Annexure 5
7.	**Certified true copy of board resolution** (If the member is company. Required only once)	Annexure 12
8.	**Checklist for software testing**	Annexure 14
9.	**Product write-up** (on Members letterhead with Authorised Signatory signature and company stamp)	Submit online
10.	**System Audit Certificate**	Annexure 28

Table of Content

Part F: Checklist for Internet Based Trading (IBT)/Wireless Trading (WT) for In-house software development by Member

A member seeking permission for In-House IBT/WT software development submit documents through online CTCL Web portal to the Exchange:

Sr. No.	Particulars	Format
1.	**Form for creation of in-house IBT & WT Software in CTCL online portal**	Annexure 22
2.	**Application form for In-House CTCL / IBT/WT software**	Generate & submit online
3.	**Network Diagram** (Details of connectivity of CTCL server at member's office with MCX Central server in diagram to be provided by Member.)	Submit online
4.	**Software development team details / Non-empanelled vendor details**	Submit online
5.	**CTCL/IBT/ATF/WT Undertaking** (Required only once)	Annexure 20
6.	**Guidelines for Undertaking**	Annexure 5
7.	**Certified true copy of board resolution** (If the member is company. Required only once)	Annexure 12
8.	**Checklist for software testing**	Annexure 14
9.	**Product write-up** (On Members letterhead with Authorised Signatory signature and company stamp)	Submit online
10.	**Contingency Plan**	Annexure 17
11.	**Secured Socket Layer Certificate (SSL)** (Secured socket level security for server access through Internet to be provided by Member)	Submit online
12.	**Print Screen of URL (home Page) or Login Screen** (URL / login screen which is created and shall be accessed by users over Internet / wireless for the purpose of trading, to be provided by the Member. (Not required if applying for additional User Id for using same IBT / WT software) and required domain name in address bar of URL along with software name & version number on the login page)	Submit online
9.	**System Audit Certificate**	Annexure 28

10.	**System Audit Report**	Annexure 27
11.	**Screenshot of 2FA. Display of Brokerage, Statutory & Regulatory Levies, and display of last trading day**	----

Table of Content

Part G: Checklist for In-House Internet Based Trading (IBT) & Wireless Trading (WT) Software Development Application by Member using API of Empanelled CTCL Vendor

A member seeking permission for In-House IBT/WT software development using API of the empanelled CTCL Vendor shall submit documents through online CTCL Web portal to the Exchange:

Sr. No.	Particulars	Format
1.	**Form for creation of in-house IBT & WT Software in CTCL online portal**	Annexure 22
2.	**Application form for In-House IBT/WT software using API of empanelled CTCL Vendor**	Generate & submit online
3.	**CTCL/IBT/ATF/WT Undertaking** (Required only once)	Annexure 20
4.	**Guidelines for Undertaking**	Annexure 5
5.	**Certified true copy of board resolution** (If the member is company. Required only once)	Annexure 12
6.	**Letter from Empanelled CTCL Vendor**	Annexure 18
7.	**Software development team details / Non-empanelled vendor details**	Submit Online
8.	**Network Diagram**	Submit Online
9.	**Contingency Plan**	Annexure 17
10.	**Product write-up** (On Members letterhead with Authorised Signatory signature and company stamp)	Submit Online
11.	**Print Screen of URL (home Page)** (URL / login screen which is created and shall be accessed by users over Internet / wireless for the purpose of trading, to be provided by the Member. (Not required if applying for additional User Id for using same IBT / WT software) and required domain name in address bar of URL along with software name & version number on the login page)	Submit Online
12.	**Secured Socket Layer Certificate (SSL) in case of IBT** (Secured socket level security for server access through Internet to be provided by Member)	Submit Online
12.	**System Audit Certificate**	Annexure 28
13.	**System Audit Report**	Annexure 27
14.	**Screenshot of 2FA. Display of Brokerage, Statutory & Regulatory Levies, and display of last trading day**	----

Table of Content

Part I: Checklist for Algorithmic Trading (Algo) Facility from Empanelled ISV

A member seeking permission for Algo shall submit below documents through online CTCL Web portal to the Exchange:

Sr. No.	Particulars	Format
1.	**Form for creation of in-house ATF facility in CTCL online portal**	Annexure 22
2.	**Application Form for use of Algorithmic Trading (Algo) Facility**	Generate & submit online
3.	**Trading member's Undertaking for use of Algorithmic Trading Facility from Empanelled ISV**	Annexure 13
4.	**Guidelines for Undertaking**	Annexure 5
5.	**Network Diagram** (Provide network diagram for use of Algo through CTCL facility)	Submit online
6.	**Strategy Write-up in case of In-house developed** (Should cover note on Liquidity Infusion and controls built-in in the software to comply Exchange / SEBI guidelines)	Submit online
7.	**Software development team details in case of In-house facility**	Submit online
8.	**In case of In-house software development by non empanelled vendor Member need to submit Vendor Profile**	Submit online
9.	**System Audit Certificate**	Annexure 28
10.	**Compliance letter from Member**	Annexure 41
11.	**Base Minimum Capital requirement for Algo approval** (Master Circular – Membership, Circular no.: MCX/MEM/324/2016 dated September 29, 2016)	

Table of Content

Part J: Checklist for Algorithmic Trading (Algo) Facility developed In-house

Sr. No.	Particulars	Format
1.	**Form for creation of in-house ATF facility in CTCL online portal**	Annexure 22
2.	**Application Form for use of Algorithmic Trading (Algo) Facility**	Generate & submit online
3.	**Trading member's Undertaking for use of Algorithmic Trading Facility for In-house software development**	Annexure 20
4.	**Guidelines for Undertaking**	Annexure 5
5.	**Network Diagram** (Provide network diagram for use of Algo through CTCL facility)	Submit online
6.	**Strategy Write-up in case of In-house developed** (Should cover note on Liquidity Infusion and controls built-in in the software to comply Exchange / SEBI guidelines)	Submit online
7.	**Software development team details in case of In-house facility**	Submit online
8.	**In case of In-house software development by non empanelled vendor Member need to submit Vendor Profile**	Submit online
9.	**System Audit Certificate**	Annexure 28
10.	**Compliance letter from Member**	Annexure 41
11.	**Base Minimum Capital requirement for Algo approval** (Master Circular – Membership, Circular no.: MCX/MEM/324/2016 dated September 29, 2016)	

Table of Content

Part K: Checklist for Application for Empanelment of ASP for CTCL/IBT/WT solutions

A vendor seeking empanelment with Exchange as an ASP shall provide the following to the Exchange:

Sr. No.	Particulars	Format
1.	**Criteria for Empanelment as an ASP**	Annexure 1
2.	**Application for Empanelment as ASP**	Annexure 19
3.	**Undertaking to be given by ASP - One time only**	Annexure 36
4.	**Personal Guarantee Letter**	Annexure 4
5.	**Certified true copy of board resolution**	----
6.	**Guidelines for Undertaking**	Annexure 5
7.	**Checklist for software development**	Annexure 6

Table of Content

Part L: Application for Application for API for MarketXstream facility

Members of the Exchange or Empanelled ISVs (CTCL Vendors) desirous of developing software to use MarketXstream shall provide the following to the Exchange:

Sr. No.	Particulars	Format
1.	**Application for API for Tick by Tick Trading Market Data (MarketXstream) facility**	Annexure 29
2.	**Application for API for Tick by Tick Trading Market Data (MarketXstream) facility – ISV**	Annexure 30
3.	**Application for enabling Tick by Tick Trading Market Data (MarketXstream) - Trading Member**	Annexure 31

Table of Content

Part M: Application for CTCL / IBT / WT Services through ASP

Members of the Exchange desirous for availing CTCL/IBT/WT/ services through APS shall provide the following to the Exchange:

Sr. No.	Particulars	Format
1.	**Application form for permission to provide CTCL/ IBT / WT services using an ASP**	Annexure 35
2.	**Undertaking to be submitted by member**	Annexure 36
3.	**Guidelines for submitting undertaking**	Annexure 5
4.	**Countersigned documents by ASP and member**	Annexure 37
5.	**Network Diagram**	Annexure 38
6.	**Member to submit the copy of Undertaking executed with ASP Vendor for availing services**	----

Annexures

Some of the Annexures has been omitted as same is merged with other annexures

Annexure 1

CRITERIA FOR EMPANELMENT OF ISV / ASP

Sr. #	Criteria	Response to Criteria
1.	The vendor should be a LLP / Limited Company / Private Limited Company having its registered office in India.	Documentary proof of the same is to be submitted
2.	Vendor organization should be in existence and should be in business of software development for minimum of 2 years	Please provide necessary proof like certificate of Incorporation etc.
3.	Whether the Vendor has any affiliation with other entities like brokers / sub-brokers etc. including beneficial interests held by / in such brokers / sub-brokers etc.	If Yes, Please mention name of all such entities with required details
4.	Whether applicant is having previous experience in similar product development / implementation.	If yes, provide name and project / product details with reference
5.	Whether Applicant has requisite skills within the organization in relation to product development, system integration and maintenance	Please provide details with key personnel profile
6.	At least 2 designated directors should have minimum 5 years' experience in Information Technology and Finance Domain	
7.	Whether Applicant is certified for ISO 9001:2008 or CMMi	
8.	Whether the Applicant has adequate infrastructure in terms of: • Hardware & software facilities. • Communication & networking facilities within the organization	Please provide the existing and planned infrastructure.

	• General office facilities in terms of office space and infrastructure • Staff	
9.	The vendor should have sound financial condition for continuous support having net worth of minimum Rs.1 Cr.	
10.	The vendor should have minimum 5 clients for the CTCL software in any other national level stock exchange or commodity exchange	
11.	At least 2 designated directors should provide Personal Guarantee to the Exchange to indemnify Exchange against any claims made by users of the said software due to any malfunction of the software provided by the vendor	
12.	The vendor must warrant that there are no legal actions being taken against it for any cause in legal jurisdiction of India. The vendor should not have been blacklisted by Stock Exchange / Commodity Exchange / SEBI / or any other Government agencies	
13.	Should have permanent location or office within India	

Annexure 2

APPLICATION FOR EMPANELMENT AS ISV
(To be executed on letter head of the ISV)

To
CTCL Department
Multi Commodity Exchange of India Limited
255, Exchange Square,
Suren Road, Chakala,
Andheri (East),
Mumbai – 400 093.

Sr. #	Particulars	Details
1.	Application for empanelment for: (CTCL / IBT / WT/ATF)	
2.	API required from Exchange: (NonFIX API / FIX API)	
3.	Name of the ISV:	
4.	Registered Address:	
5.	Legal form of Organisation:	Certificate of Registration / Partnership deed to be enclosed
6.	Telephone No.:	
7.	Fax No.:	
8.	Name(s) & Designation of Authorised Signatory:	
9.	Contact details (Phone, Fax, Email) of Authorised Signatory:	
10.	Correspondence Address of Authorised Signatory:	
11.	Organisational structure:	To be enclosed
12.	Total Staff:	
13.	Directors:	
14.	Technical Staff - Hardware:	
15.	Technical Staff - Software:	
16.	Technical Staff - Support:	
17.	Technical Staff - Others:	
18.	No. of support offices across the country:	Complete details to be enclosed

19.	Details of promoters and their background:	To be enclosed
20.	No. of years in the IT Business:	
21.	IT Turnover for last three years:	Complete details including audited balance sheets to be enclosed
22.	Technical Details – Hardware Infra Structure available within Organisation:	To be enclosed
23.	Technical Details – Software Infra Structure available within Organisation:	To be enclosed
24.	Technical Details – Communication / Networking Infra Structure available within Organisation:	To be enclosed
25.	Details of Empanelment as CTCL / IBT / WT software vendor with other Exchanges:	
26.	Complete details of Proposed Solution along with Platforms used:	Comprehensive write-up explaining features of the solution, programming language, OS platform, Database details and network diagram to be provided.
27.	Name and reference of Exchange (MCX) trading members where solution is implemented, if any:	
28.	Proposed Price (indicative per user & site license fee) for providing the Solution to the Members of the Exchange: Price for Workgroup edition	(Give details)
29.	Networth Details	Amount to be mentioned

We certify that all the statements are true and correct to the best of our knowledge. We undertake to ensure continuous compliance with the requirements of the Exchange, Department of Technology (Government of India) policy and regulations with regard to levels of encryption, etc., and directives and other statutory requirements including tax and foreign exchange laws of the regulators in this regard, as may be issued from time to time.

Signed sealed and delivered by the Authorised signatory of the Vendor

Date:
Place:

Annexure 3

UNDERTAKING TO BE GIVEN BY ISV

I / We, _____, an individual /a firm registered under the Partnership Act, 1932 / a Company / body corporate incorporated under the Companies Act of 1956_and residing at / having our office/ registered office at _____ (hereinafter referred to as the 'Undersigned' which expression shall unless repugnant to the context include her/his/ its successors, assigns and legal representatives) give this Undertaking on this _____ day of _____20_____ at _____ IN FAVOUR of MULTI COMMODITY EXCHANGE OF INDIA LTD, a company incorporated under the Companies Act, 1956 and a Commodity Exchange duly recognized by the Central Government having its registered office at Exchange Square, Suren Road, Chakala, Andheri (East), Mumbai – 400 093, India (hereinafter referred to as "MCX", which expression shall unless repugnant to the context include its successors, assigns and legal representatives)

WHEREAS

a) MCX has provided the trading software to enable its Members of the Exchange to trade.

b) In addition, MCX provides a Computer to Computer Link (hereinafter referred to as the 'CTCL facility'), Internet Based Trading (hereinafter referred to as the 'IBT') facility, Algorithmic Trading (hereinafter referred to as the 'ATF') facility and Wireless Trading (hereinafter referred to as the 'WT') facility on CTCL/IBT/ATF/WT software provided by CTCL empanelled vendors designated by the Exchange and on CTCL/IBT/ATF/WT software procured from empanelled vendor, for order entry, receipt of order and trade confirmation and also for receipt of data relating to its trade quotations.

c) MCX has decided that it shall make the CTCL/IBT/ATF/WT Facility available to its Members of the Exchange / grant permission to Members of the Exchange to offer CTCL/IBT/ATF/WT facility on a case to case basis subject to such terms and conditions as MCX may impose from time to time.

d) The empanelled ISV's of MCX may facilitate CTCL/IBT/ATF/WT Trading through order routing system for trading for its members, after obtaining permission from MCX.

e) MCX has decided that the software vendors shall be identified for this purpose, based on the application received from them and subject to fulfillment of such criteria as may be stipulated by MCX from time to time, and subject to such software vendor executing an Undertaking in favour of MCX in the format prescribed by it and agreeing to abide by and be bound by the various terms and conditions which MCX may prescribe in this regard from time to time.

f) MCX has agreed to identify me / us as a software vendor for the above purpose and I / we am / are desirous of developing the software for the Trading Member to enable the

Member to avail of the CTCL/IBT/ATF/WT facility, and shall fulfill all the terms and conditions as may be prescribed by MCX from time to time at its discretion in this regard.

g) I / We had entered into an agreement dated ____ day of _____, 20__, (hereinafter referred to as 'Agreement') with the Member Mr. / Ms. / M/s. _____ (hereinafter referred to as Member) having their residence / registered office at _____ for development of the software for the CTCL/IBT/ATF/WT facility (hereinafter referred to as 'Software') for the Member. The software duly tested and found free of any errors / bugs has been put into operations. We are aware that the Member _____ has obtained necessary approvals, entered into the necessary undertaking etc. from/ with MCX before commissioning our services in this regard.

NOW THEREFORE IN CONSIDERATION OF MCX having agreed to identify / identified me / us as a software vendor for the aforesaid purposes, I / we hereby IRREVOCABLY AND UNCONDITIONALLY UNDERTAKE and agree to abide by and be bound by the following terms and conditions:

1. I/We shall ensure that the connectivity of the CTCL/IBT/ATF/WT facility is as per MCX and Department of Telecommunications (DOT) approved network diagram for the CTCL/IBT/ATF/WT facility.

2. I/We undertake to pay any such license fees/charges/royalties as may be levied by DOT/MTNL/MCX any other regulatory/statutory authorities from time to time.

3. I/We shall install the software only at the “Members of the Exchange” location only after duly ensuring that all the requirements stipulated by MCX in this regard have been complied with by the Member and that the Approved User shall not make the CTCL/IBT/ATF/WT facility available to any other unauthorized person.

4. I/We undertake to ensure that the connectivity between the Member and MCX shall be used only for application of the CTCL/IBT/ATF/WT facility.

5. I/We agree that the data communication link between MCX's equipment and the Member's equipment is on a computer to computer basis and that the link shall not be connected to my/our own telecommunication network.

6. I/We undertake to obtain the prior approval of MCX for any changes to be made to the existing network diagram **/** software.

7. I/We undertake to ensure that access shall be given only to the individuals authorized and also a method shall be established to ensure that non authorized persons cannot access the system.

8. I/We undertake that the software design shall use only the specified messages given by MCX and shall consider all the structures defined by MCX from time to time. The Deliverables shall be:

   i. Basic functionalities as and when required by MCX.
   ii. Customization of Members of the Exchange needs as approved by MCX.

9. I/We undertake that the Software developed by me / us, shall not resemble or result in duplication of the trading software of the Exchange. We also undertake that the Software shall provide all the essential functions as may be stipulated by MCX from time to time.

10. I/We undertake that controls shall be inbuilt by me / us to ensure that the orders are matched by the central computer of MCX only and there is no scope for orders being matched with my / our own private network.

11. I / we shall not develop or use any software / program facility which shall either directly or indirectly facilitate automated trading without prior written approval of the Exchange. For the purpose of this clause the term 'Algorithmic Trading' shall mean any software or facility by the use of which, upon the fulfillment of certain specified parameters, without the necessity of manual entry of orders, buy/sell orders are automatically generated and entered by the software / program facility into the Trading System of MCX to be matched by the Exchange's System.

12. I/We undertake that the following controls shall be inbuilt in the Software by me/us to detect loss of product integrity:

    i. Data validation routines to detect input errors.
    ii. Backup and recovery procedures.

13. I / We shall ensure that the Approved Persons shall not make the CTCL/IBT/ATF/WT facility available to any other person and that there shall be no provision in the Software to enable such persons to do so.

14. I / We shall ensure that position monitoring etc., shall be inbuilt in the CTCL/IBT/ATF/WT facility and it shall be flexible to change as per the requirements of the Exchange and the regulators.

15. I / We shall ensure that the CTCL/IBT/ATF/WT facility shall be developed so as to generate the following from the System for the purpose of verification during the inspection:

    i. Number of Users connected on to the Network.
    ii. Number of Dealers connected on to the Network including privileges to each

Dealer.

iii. All the systems logs and audit trails of the Dealer and the Member.

iv. Provision for entering complementary dummy orders.

16. I/We undertake that

(i) MCX shall have the right and privilege of inspecting and testing the Software at my/our site and the Members of the Exchange site without any prior notice.

(ii) The source code of the Software shall be available at both, my/ our site as well as the Member's site for verification.

(iii) I / We shall make available Prototype and the technical specifications of the Software to MCX for testing purposes.

(iv) I / We shall be responsible to fix the bugs in the Software if any, found at the time of testing.

17. That I / We shall meet the criteria set to measure the expected level of performance.

18. That the terms of delivery and payment shall be as agreed to by the Member and myself/us. I / We also undertake that the entire development, testing and installation process of the CTCL/IBT/ATF/WT facility shall not take more than six months from the ___ day of _____, 20___, being the date the Member has entered into an agreement with MCX.

19. I / We shall provide the documentation i.e. training manuals required to operate the product and use of system outputs as specified by the Member, with the Software. Further, such documentation shall include the potential error conditions and recommend action in the event of occurrence of error.

20. I / We undertake to provide User training first when the product is installed and thereafter whenever a major upgrade is released to the Member's Personnel for the following:

(i) Use of Product

(ii) Maintenance of the product.

Further, I / We also undertake that the frequency and caliber of the Vendor Personnel providing the training shall be as specified.

21. I / We undertake that:

i. All material and information which has or will come into my /our possession or knowledge in connection with the agreement or the performance hereof, consists of confidential and proprietary data, whose disclosure to or use by third parties will be damaging or cause loss to MCX. I / We agree to hold such material and information in strict confidence, not to make use thereof other than for the performance of the Agreement, to release it only to my/our employees requiring such information and that too only with the written consent of MCX, and not to release or disclose it to any other

parties. I / We shall take appropriate action with respect to my / our employees to ensure that the obligations of non-use and non-disclosure of confidential information under the Agreement are fully satisfied and shall also ensure that my/our Employees are aware and comply with the above provisions. The provisions of this clause shall survive the termination of the agreement. For the purpose of this clause the term data shall include amongst other things technical data which may be divulged by the Member during the normal course of development of the software and information relating to the operations of MCX.

ii. I / We shall not in any way represent that the software developed is a part of the MCX Trading software.

iii. I / We shall not advertise or publish any brochure, pamphlet, booklet, notice, or promotional material mentioning MCX or the services to be provided under the Agreement without the prior written consent of MCX.

iv. I / We shall keep full security of MCX's programs, databases and computer records in accordance with best computing practice.

22. I / We shall develop the software after considering the current and expected increase in workload, to ensure that the desired efficiency can be maintained with future workloads.

23. I / We shall develop the software and make it compatible to other Operating Systems, in case of any need to transfer the Software from one piece of hardware to another due to technological changes.

24. I / We shall provide upgrade to the application software as and when the need for the same arises and in accordance with the requirements of MCX.

25. I / We undertake to make the Software compatible with the MCX Trading system, under intimation / (written consent) of MCX, in case any modification is made to the MCX Trading software by MCX and the same is required to be incorporated in the Software.

26. I / We am / are fully aware that MCX shall not be responsible for development, maintenance, updates, upgrades, error fixes and other support functions.

27. I / We undertake to provide the training and documentation as and when the Software is technically upgraded.

28. I / We undertake to provide such warranty as required under the agreement.

29. I / We undertake to ensure as follows:

(i) That in case of failure or malfunctioning of the Software, I/We shall resolve such first level trouble shooting and rectification of the Software problem to restore the Software in its proper operating condition at no cost to the Member.

(ii) That I / We shall provide services for regular onsite maintenance of the Software in such manner and at such time intervals as specified by the Member. The fees for the same will be the amount mutually agreed upon by the Member and me/us and shall not at any point of time be unreasonable so as to put the Member in hardship. We are also aware that MCX shall in no way be responsible for non-fulfilment of either this or any other condition by the Member.

(iii) Shall supply and maintain the CTCL application software solution to any MCX Member at any location in the country, which the Member desires to operate from.

30. I / We confirm that the Software complies with all the requirements stipulated by MCX and DOT in this regard and undertake that I / we shall modify the Software, if necessary to ensure continued compliance with the requirements of MCX / DOT / any other authority as may be issued from time to time.

31. I / We hereby undertake to duly inform MCX in case of any cause, resulting in any change to my/our entity, or any change in any of the eligibility criteria based on which we have been identified as a software vendor for this purposes by MCX.

32. I / We hereby undertake to duly inform MCX the list of Members of the Exchange who are using my/our CTCL / Internet trading application software.

33. That during the continuation of the Agreement if any modification/amendment is required by MCX/ Member, to be made by us, I/We agree and undertake to make the same.

34. I / We shall render all possible assistance and co-operation to MCX by providing access to any kind of information in any form as it may require and I/we hereby undertake to produce such documents, records, accounts, books, data howsoever stored including data stored in magnetic tapes, floppy diskettes, etc. and any other information as may be required by MCX at its discretion.

35. I / We agree and undertake that MCX shall not be liable for any direct or indirect loss, damage, costs, claims and expenses whatsoever caused or contributed by any event of force majeure. For the purposes of this Clause, "Force Majeure" means and includes governmental acts, regulatory changes, acts of God or forces of nature, landslides, earthquakes, floods, fire, lightening, explosions, major storm (hurricanes, typhoons, cyclones, tsunami etc.) or major storm warnings, tidal waves, shipwrecks, communication cable cutting/theft, major telephone exchange failure and perils of navigations, acts of war (declared or undeclared), insurrection, terrorism riots or public enemies, unavailability of public services, strikes, lockouts, acts or omission of sovereign states or

those purporting to represent sovereign states, blockades, embargoes, epidemics, quarantines, public disorders, sabotages, accidents, and such other acts or events beyond MCX's control and further the above is without prejudice to the rights already accrued to MCX due to my/our failure to perform either in full or in part, my/our obligations prior to the occurrence of events of Force Majeure.

36. I / We shall indemnify and keep indemnified MCX harmless against every and all claims, demand, damages, liabilities, losses and expenses suffered by it directly by reason of my / our non-compliance, contravention with any of the provisions of this Undertaking or by reason of bugs or malfunctioning of the software provided by us to the Members of the Exchange.

37. I / We agree that no forbearance, delay or indulgence by MCX in enforcing the provisions of this Undertaking shall prejudice or restrict the rights of MCX nor shall any waiver of its rights operate as a waiver of any subsequent breach and no rights, powers, remedies herein conferred upon or reserved for MCX is exclusive of any other right, power or remedy available to MCX and each right, power or remedy shall be cumulative.

38. I / We undertake that any declaration or other notice to be given by me/us to MCX shall be sent by registered letter or telex/cable or facsimile transmission to the address first mentioned above.

39. That I / we shall produce all such necessary documents/papers to MCX in support of my claim that software is solely developed and the intellectual property rights of the software is owned by me/us.

40. That I / we shall execute, sign, and subscribe to such other documents, papers, agreement, covenants, bonds, and/or undertakings as may be prescribed or required by MCX from time to time.

41. I/We also agree that in the event of my/our non-compliance with any of the provisions as mentioned above, MCX shall take such action against us as it may deem fit in this regard.

IN WITNESS WHEREOF this Undertaking is executed by the undersigned on the day, month, year and the place first mentioned above.

SIGNED, SEALED AND DELIVERED BY

_____ for and on behalf of _____

_____

Before me

In Presence of Witnesses

Sr. No.	Name	Address	Signature
1.			
2.			

Annexure 4

PERSONAL GUARANTEE

(to be executed on Rs.300 Stamp Paper)

I,
……..……
residing at ……..
……..……..
……..…..... (hereinafter "Guarantor") do hereby personally guarantee the performance of ……..…… With regard to an undertaking dated …….. (hereinafter "Undertaking") given by M/s. ……..……
……..…… (hereinafter "Company") in favour of Multi Commodity Exchange of India Ltd (hereinafter "MCX/Exchange") in reference to the circular no…….. dated ……. (copy of said undertaking is attached hereto as Exhibit A). In the event that Company fails to make payment to MCX, or fails to perform in any manner with regard to the said Undertaking given by Company in favour of MCX, I, hereby personally and solidarity guarantee:

i. All of the obligations of the Company and agree to be bound solidarity with MCX for the prompt performance of it's' obligations under the said Undertaking.

ii. to comply with all such requirements, existing and future, with regard to and in connection with Vendor Empanelment for CTCL/IBT/WT of MCX.

iii. to abide by, comply with and be bound by the Bye- Laws, Rules and Regulations of MCX as in existence or in force from time to time and any modification through any circular, order, direction, notice, instruction issued and in force from time to time;

iv. that the information provided in the application form for CTCL Vendor Empanelment of MCX is true and correct to the best of the knowledge and belief and shall be binding on my successors and permitted assigns. That any defenses which Company might have been able to set up against MCX in respect of any claim by Company against MCX under the Undertaking or in law, including without limitation any claim of non-performance by Company of its obligations to MCX thereunder and any right of compensation or set-off which MCX might have had against Company under the Undertaking or in law, are expressly excluded and that I shall not be entitled to set up any such defense in the event of a claim by Company against me pursuant to this guarantee.

v. that (i) the essential stipulations of the present guarantee were not imposed by MCX and were negotiable, and that it is accordingly not a contract of adhesion within the meaning under the laws of India; (ii) the Undersigned has signed same in a free and enlightened manner, without error, fear or lesion, intending in good faith to be bound thereby, and the Undersigned had the benefit of independent legal counsel in connection therewith; (iii) the clauses of the present guarantee and of the Circular and all other contractual agreements between Company and MCX have been expressly

brought to my attention; (iv) an adequate explanation of the nature and scope of the clauses thereof has given to me, and (v) the said clauses are not excessively or unreasonably detrimental to me and therefore are in good faith.

vi. Notwithstanding the foregoing, the Undersigned guarantees hereunder to pay any and all amounts including costs, expenses, fees, dues & penalties imposed, owing by Company to MCX

IN WITNESS WHEREOF, this personal guarantee is entered into this …….. day of ……(month), …… (year) at ……. (place of execution)

Name:
Signature:
Date:

Annexure 5

GUIDELINES FOR SUBMITTING UNDERTAKING

1. The Undertaking is to be executed on a non-judicial stamp paper/s or on paper franked from Stamp Office / authorised banks, for a value of INR 500/-

2. Further the Undertaking (including all annexures / schedules) has to be notarised before a Notary Public.

3. Please use the format of respective undertaking as it is. **PLEASE DO NOT RETYPE THE UNDERTAKING**. The said Undertaking should not be modified without the consent of the Exchange (MCX).

4. All the pages of this Undertaking (including all annexures / schedules) have to be signed in full with company stamp. The persons signing should also sign in full at all places in the Undertaking where anything has been hand-written / any corrections have been made with company stamp.

   If the Member or Vendor is an individual, then the Undertaking has to be signed by the individual Member or Vendor himself. If the Member of Vendor is a firm, then ALL the partners are required to sign this Undertaking. If the Member or Vendor is a company, then the Undertaking has to be signed by the Managing Director or any Director of the company named as an authorised signatory of the company.

5. If the Member or Vendor is a company, the Undertaking has to be accompanied with a certified copy of the resolution of the Board of Directors of the company authorising the person(s) executing the undertaking to do so. The Common Seal of the company has to be affixed by the company on this Undertaking in the presence of such persons as authorised by the Articles of Association of the company. The Board Resolution should clearly state that the affixation of common seal shall be made in the presence of such persons as authorised by the Articles of Association of the company and should also clearly state the names of such persons. The above persons should sign the undertaking as a token of their presence when the common seal is affixed.

6. Please type the following on the non-judicial stamp paper as the first page and sign.

   The non-judicial stamp paper of Rs._____ forms part and parcel of this Undertaking executed by me/us Mr. /Mrs. /M/s. _____ having my/our residence/office at _____ on this the _____day of _____ 20___at _____IN FAVOUR of Multi Commodity Exchange of India Limited.

Signature**
(**to be signed by the person(s) signing the Undertaking)

Annexure 6

Checklist/ Reference Points While Developing CTCL/IBT/AT/WT Software

Description	Type of software and requirements			
Application	CTCL	IBT	AT	WT
Availability of Secured Socket level security for server access through internet	NA	Yes	NA	Yes
Display details of Software Name, Version Number	Yes	Yes	Yes	Yes
Display of UMC Member Code / SEBI registration Code	Yes	Yes	Optional	Yes
Display of Useful Link to website – www.mcxindia.com and www.sebi.gov.in	Yes	Yes	Optional	Yes
Display of Strategy Name and Version Number	NA	Yes	Yes	Yes
Type of Strategy	NA	NA	Yes	NA
Display of Exchange Time	Yes	Yes	Yes	Yes
Display of Login/ Log Off Status	Yes	Yes	Yes	Yes
Display of Market Status (eg: Open/Closed)	Yes	Yes	Yes	Yes
Display of Price Data in Ticker form (minimum Commodity Symbol, Expiry, Price (LTP))	Optional	Optional	Optional	Optional
Market Data/Watch – should contain minimum information of Segment, Contract Symbol, Expiry, Best Buy Quantity & Price, Best Sell Quantity & Price, Last traded price, Last traded time, Last updated time, Daily price range.	Yes	Yes	Optional	Yes
Contract Information to be provided - Contract Symbol, Expiry, Tick Size, Price Range, Min Lot Price Unit, Quantity Unit, Delivery Unit, Last traded price etc.	Yes	Yes	Optional	Yes
Facility of one key stroke for Buy or Sell order entry & Contract Information	Yes	Yes	NA	Yes
Password Standards				
User should be able to login with valid user id and password	Yes	Yes	Yes	Yes
Minimum password length should be 6 and maximum 8 characters length	Yes	Yes	Yes	Yes
The password numeric values should not fully comprise of user id	Yes	Yes	Yes	Yes
Password should expired after minimum predefined period (eg: 15/ 30/ 45 days)	Yes	Yes	Yes	Yes

Description	Type of software and requirements			
Application	CTCL	IBT	AT	WT
In case of multiple invalid password entries the user id should be locked	Yes	Yes	Yes	Yes
Password should be alphanumeric and comprise one special character	Yes	Yes	Yes	Yes
Appropriate message should be displayed while user login fails	Yes	Yes	Yes	Yes
Two factor authentication for login	Optional	Yes	Optional	Yes
Password help file can be provided	Optional	Optional	Optional	Optional
Message Broadcast				
Display of Exchange Messages/ Announcements & Response messages for Failures.	Yes	Yes	Yes	Yes
Different Window for Internal Messages (Broker Messages)	Optional	Optional	Optional	Optional
Time sync with Exchange in Messages, LTT, LUT etc.	Yes	Yes	Yes	Yes
Vendors to provide details of any add-on provided on CTCL terminals, also notified in the product write-up.	Yes	Yes	Yes	Yes
Order Entry				
Order Entry at Market/Limit price with RL/SL type in both Normal & Spread contracts	Yes	Yes	Market Not Allowed	Yes
Order validity types provided i.e. GTC/GTD/Day/IOC/EOS	Yes	Yes	IOC Not Allowed	Yes
User Types provide Pro & Client	Yes	Yes	Yes	Yes
Order Entry should follow SMPF Rule	Yes	Yes	Yes	Yes
In case of buy SL order, the trigger price should be less than limit price & vice versa for sell order	Yes	Yes	Yes	Yes
Order Modification from Order type RL to SL - Not Allowed	Yes	Yes	Yes	Yes
Order Modification from Order type SL to RL Allowed	Yes	Yes	Yes	Yes
If the orders are cancelled by Exchange or by Member Admin or by client, details of such information should be display in Order Book and/or captured in logs.	Yes	Yes	Yes	Yes
Order Cancellation message should Contain minimum-Order number, Order Type, Market type, Commodity name. Date & time, User id, Price Quantity & cancelled By.	Yes	Yes	Yes	Yes

Description	Type of software and requirements			
Application	CTCL	IBT	AT	WT
Order Modification message should Contain minimum-Order number, Order Type, Market type, Commodity name. Date & time, User id, Price Quantity & Modified By.	Yes	Yes	Yes	Yes
Order Rejection message should Contain minimum-Order number, Order Type, Market type, Commodity name. Date & time, User id, Price Quantity & Rejection Message.	Yes	Yes	Yes	Yes
Trade Confirmation message should Contain minimum-Trade number, Trade Type, Market type, Commodity name. Date & time, User id, Price Quantity.	Yes	Yes	Yes	Yes
Order Entry with Disclosed Quantity below 25% not allowed	Yes	Yes	Yes	Yes
Market Price Protection check.	NA	NA	Yes	NA
Order Entry during Halt session is not allowed	Yes	Yes	Yes	Yes
Tracing and mitigating possibility of excessive and unnecessary order modification & Cancellation in the nature of order per second as per regulatory compliance.	Yes	Yes	Yes	Yes
RMS				
With every CTCL order, 15 digit terminal info should be provided (as per API)	Yes	Yes	Yes	Yes
With every Algo order, approved Strategy ID should be sent	NA	NA	Yes	NA
DPR Updating in software during the market hours	Yes	Yes	Yes	Yes
Intraday Special/Additional Margin changes @ Exchange should get updated on respective CTCL terminals	Yes	Yes	Yes	Yes
Alerts of Maximum Sale Traded Value /Maximum Sale Traded Quantity	Yes	Yes	Yes	Yes
Limit breach for CTCL Terminal should be handled at CTCL Manager level	Yes	Yes	Yes	Yes
On Square-Off/Suspended mode/Segment disallow, also all pending orders should be rejected & order entry is not allowed	Yes	Yes	Yes	Yes
Trade Modification from OWN to CLI or vice versa for CTCL ID not allowed	Yes	Yes	Yes	Yes

Description	Type of software and requirements			
Application	CTCL	IBT	AT	WT
Complete Audit Trail like order book, order history, trade book etc.	Yes	Yes	Yes	Optional
Order Alerts while breaching the limits	Yes	Yes	Yes	Yes
The algorithmic system should have pre-defined parameters for an automatic stoppage in the event of algorithmic execution leading to a loop or runaway situation	Optional	Optional	Yes	Optional
Checks are in place to ensure maximum order per second does not exceed 120 orders per second	Optional	Optional	Yes	Optional
Checks are in place to ensure that OTR does not exceeds the ratio prescribed by SEBI (i.e. for excessive modification and cancellation or orders)	Optional	Optional	Yes	Optional
Algorithmic trading software accounts for all executed, unexecuted and unconfirmed orders, placed by it before releasing further order(s).	Optional	Optional	Yes	Optional
Reports				
Trade Book , Order Book	Yes	Yes	Yes	Optional
Net Position should be accurate	Yes	Yes	Yes	Yes
System Logs/Reports				
All message logs maintained (order logs, trade log, Client code modification log etc.)	Yes	Yes	Yes	Yes
Connection Logs to be maintained at CTCL Server	Yes	Yes	Yes	Yes
Backup Facility & Database Security	Yes	Yes	Yes	Yes
Activity/ System Log	Yes	Yes	Yes	Yes
Access Controls/remedies for misuse of log in id/ password	Yes	Yes	Yes	Yes
Alternate mode of connection in case of Link Failure	Optional	Yes	Optional	Yes
System Rollback functionality	Yes	Yes	Yes	Yes
Session Management- Logout after a system defined period of inactivity	Yes	Yes	Yes	Yes

Signed sealed and delivered by the Authorised Signatory of the Vendor

Signed Date: Place:

Annexure 7

Application for approval of CTCL/IBT/WT/ATF
(To be executed on letterhead of the Vendor)

To
CTCL Department
Multi Commodity Exchange of India Limited
255, Exchange Square,
Suren Road, Chakala,
Andheri (East),
Mumbai – 400 093.

We are desirous of making available CTCL/IBT/WT/ATF to members of the Exchange for the purpose of Trading. We hereby apply for the permission of the Exchange for approval of CTCL/IBT/WT/ATF software / strategies.

Sr. #	Particulars	Details
1.	Name of the ISV:	
2.	Registered Office/ Correspondence address :	
3.	Telephone No.:	
4.	Fax No.:	
5.	Name and Designation of the Authorised Signatory:	
6.	Contact details of the Authorised Signatory Telephone No. : Email :	
7.	API Type (FIX or Non FIX)	
8.	Technical Details a) Hardware b) Software	
9.	Name of the CTCL/IBT/WT Software and Version Number	
10.	Name of the Algo Strategy Name and Version number	
11.	Detailed Write-up on CTCL/IBT/WT/ATF (Algo Strategy- Should cover note on Liquidity Infusion and controls built-in in the software to comply Exchange / SEBI guidelines	

	and to be provided on letterhead of the Vendor)	
12.	Details of Empanelment as CTCL/IBT/WT/ATF Software/Strategy(ies) vendor with other Exchanges:	

Signed sealed and delivered by the Authorised Signatory of the Vendor

Date:

Place:

Annexure 11
Software confirmation by Vendor
(On letterhead of the Vendor)

To,
CTCL Department
Multi Commodity Exchange of India Limited
255, Exchange Square,
Suren Road, Chakala,
Andheri (East),
Mumbai – 400 093

Sub: CTCL / IBT /ATF/ WT software procurement confirmation

Dear Sir/Madam,

This is to state that M/s._____ (Name of the member), registered member (Member Id: _____ CTCL Id :_____) of MCX**,** has purchased CTCL/IBT/ATF/WT software from us for trading on MCX platform and same is installed at their premises.

Name of CTCL/ IBT/ATF/WT software: _____.

Software version number: _____.

In case of ATF Strategy Name & Version No.: _____.

Kindly enable them to start trading using CTCL / IBT / ATF/WT software.

Thanking You,
Yours Sincerely,

For (Name of ISV)

Authorised Signatory
(Name and designation)

Date:
Place:
Annexure 12

(On Letter Head of Member)

CERTIFIED TRUE COPY OF THE BOARD RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF ……. (Name of the company) IN THEIR MEETING HELD ON …..…the (date of board meeting) at ……. (Office address)

"RESOLVED THAT the company can avail a Computer To Computer Link (CTCL)/ Internet based Trading (IBT) / Wireless Trading (WT) facility on its own behalf and on behalf of its clients in consonance with the Bye-Laws, Rules and Regulations laid down in this regard by Multi Commodity Exchange of India Limited.

"**RESOLVED FURTHER THAT** any one of the Directors (Name mentioned below) are hereby authorize to execute the Undertaking and all the necessary documents that may be required by the authority for the same."

Name	**Designation**	**Signature**
…….	Director	……
…….	Director	……
…….	Director	……

"**RESOLVED FURTHER THAT** the Common Seal of the company be affixed on such Undertaking to be provided to MCX, in the presence of

Mr……., Director

of……..."

Certified True Copy

For …….

Director

Date:
Place:

Annexure 13

CTCL/IBT/ATF/WT Undertaking
(To be submitted by member)

PART I – CTCL/IBT Undertaking

I / We, _____, an individual /a firm registered under the Partnership Act, 1932 / a Company / body corporate incorporated under the Companies Act of 1956 /_____ Act, 19__, and residing at / having our office/ registered office at _____ (hereinafter referred to as the 'Undersigned' which expression shall unless repugnant to the context include her/his / its successors, assigns and legal representatives) give this Undertaking on this _____ day of _____20_____ at _____ IN FAVOUR of MULTI COMMODITY EXCHANGE OF INDIA LTD, a company incorporated under the Companies Act, 1956 and a Commodity Exchange duly recognized by the Central Government having its registered office at Exchange Square, CTS No.255, Suren Road, Chakala, Andheri (East), Mumbai – 400 093, India (hereinafter referred to as "MCX", which expression shall unless repugnant to the context include its successors, assigns and legal representatives)

WHEREAS,

a) MCX has provided the trading software to enable its Members to trade.

b) In addition, MCX provides a Computer to Computer Link (hereinafter referred to as the 'CTCL facility'), Internet Based Trading (hereinafter referred to as the 'IBT') facility, Algorithmic Trading (hereinafter referred to as the 'ATF') facility and Wireless Trading (hereinafter referred to as the 'WT') facility on CTCL/IBT/ATF/WT software provided by CTCL empanelled vendors designated by the Exchange and on CTCL/IBT/ATF/WT software procured from empanelled vendor, for order entry, receipt of order and trade confirmation and also for receipt of data relating to its trade quotations.

c) MCX has decided that it shall make the CTCL/IBT/ATF/WT facility available to its Members on case to case basis, subject to such terms and conditions as MCX may impose and one of the conditions is that they execute an undertaking in its favor in the format prescribed by it and agree to provide the said facility only to such persons (hereinafter referred to as the "Approved Persons") as MCX may permit and also agree to abide by and be bound by the various terms and conditions which it may prescribe in this regard from time to time.

d) I / We have admitted to the Membership of MCX, and am/are desirous of availing the CTCL/IBT/ATF/WT facility by fulfilling all the terms and conditions as may be prescribed by MCX from time to time at its discretion in this regard.

NOW THEREFORE IN CONSIDERATION OF MCX having agreed to allow me / us to avail the CTCL/IBT/ATF/WT facility, I / we hereby IRREVOCABLY AND UNCONDITIONALLY UNDERTAKE and agree to abide by and be bound by the following terms and conditions.

1. That I / We shall make the CTCL/IBT/ATF/WT facility available to the Approved Persons only after obtaining the prior written consent of MCX and subject to such terms and conditions as may be prescribed by MCX from time to time.

2. That in addition to such terms and conditions as may be prescribed under clause (1) by MCX, all the provisions of the Byelaws, Rules, Regulations and Circulars relating to use and operation of the Trading System shall also mutatis mutandis become applicable to the use and operation of the CTCL/IBT/ATF/WT facility.

3. That notwithstanding anything contained in this Undertaking all my / our liabilities and obligations as a Member of MCX shall not be affected nor shall be prejudiced in any manner whatsoever.

4. That without prejudice to the generality of the clause (3) of this Undertaking, I / we shall be responsible to settle all the trades executed by the Approved Persons on my / our behalf whether such trades were executed with or without my permission / knowledge and that I shall be bound to complete / fulfill all my / our obligations / liabilities / commitments arising due to the trades executed by the Approved Persons on my / our behalf, including the trades executed by using CTCL/IBT/ATF/WT facility.

5. That I/We shall abide by, comply with and be bound by the Rules, Bye-laws, and terms and conditions as applicable for CTCL and/or Internet Based Trading and/or Wireless Trading facility of MCX as in existence or as may be modified / amended by the relevant authority from time to time and any circular, order, direction, notice, instructions issued and / or as maybe modified or amended from time to time by the relevant authority.

6. That MCX, at its discretion, may make the CTCL/IBT/ATF/WT facility available to me / us at MCX address first mentioned above or at any other address as MCX from time to time may notify to me / us or approve as being the location.

7. That MCX shall be entitled to amend its Rules, Bye Laws, Regulations and terms and conditions for CTCL and/or Internet Based Trading and/or Wireless Trading facility unilaterally and I/We shall be deemed to have consented to them, and accordingly be bound by the Rules, Bye-laws, Regulations and terms and conditions for CTCL and/or IBT and/or ATF and/or WT facility prevailing from time to time and MCX shall be entitled to all powers vested in them under the Rules, Bye-laws and Regulations, by which I/We unconditionally agree to be bound.

8. That I/We shall execute, sign, subscribe, to such documents, papers, agreements, covenants, bonds and / or undertakings whether legal or otherwise as maybe required by MCX from time to time.

9. That without prejudice to the rights, remedies whether legal or otherwise available to MCX upon my / our non-compliance with this Undertaking, I/We shall indemnify and keep indemnified MCX and its directors, managers, officers, employees and authorised representatives against any loss / damage suffered by it whether legal or otherwise arising due to non-compliance by me/us with the provisions of this Undertaking.

10. That I / We shall use the physical communication link (s) provided to me / us, for the purpose of having access to the CTCL / IBT / ATF / WT facility and TRADING SYSTEM Software.

11. That MCX, at its absolute discretion, may make the CTCL/IBT/ATF/WT facility available to me / us only from the date of my / our enablement on the CTCL/IBT/ATF/WT facility till such time as it may deem fit and further that the CTCL/IBT/ATF/WT facility may at any time be withdrawn by MCX at its discretion without giving me / us any notice or any reasons whatsoever.

12. That the CTCL/IBT/ATF/WT facility if made available to me / us by MCX will be made available to me / us by MCX on a non-exclusive basis only and that the same may be made available by MCX, at its discretion, to any other Trading cum Clearing Member whomsoever on such terms and conditions as it may deem fit.

13. That I / We may be entitled by giving one month's written notice to request MCX to withdraw the CTCL/IBT/ATF/WT facility extended to me / us and such withdrawal shall be subject to such terms and conditions as may be prescribed by MCX including payment of such compensation to MCX as may be decided by MCX at its discretion.

14. That I / We shall be responsible and take all such steps, actions and proceedings to ensure and keep ensured that no Approved Persons in any way further makes the CTCL/IBT/ATF/WT facility available to any other person nor shall extend the CTCL/IBT/ATF/WT facility outside his/new premises / outside India and that in case I / We fail to ensure the same, MCX shall be empowered to take such action as it may deem fit, which action may include disabling me / us from having access to CTCL/IBT/ATF/WT facility, and taking of such disciplinary actions as it may deem fit.

15. I / we undertake that

a) I / We shall at my / our own expenses provide all lines, cabling, software, hardware, equipment and other communication facilities required for transmission of the data between the Receiving Premises and my / our server at my / our office and also obtain the necessary approvals from relevant authorities.

b) I / We shall ensure that the connectivity of the CTCL/IBT/ATF/WT facility is as per the MCX and Department of Telecommunications (DoT) and/or Mahanagar Telephone Nigam Limited (MTNL) and/or any other appropriate governmental / statutory authority approved network diagram and that I/we shall produce the necessary approvals to MCX in order to meet one of its requirements for enabling me/us for having access to the CTCL/IBT/ATF/WT facility.

c) I / We undertake to ensure that access shall be given only to Approved persons and also a method shall be established to ensure that non-Approved persons cannot access the system.

d) I/We undertake to pay any such license fees/charges/royalties as may be levied by DoT/MTNL/MCX/any other regulatory/statutory authorities from time to time. MCX fees

if any for using the CTCL/IBT/ATF/WT facility shall be paid in advance.

e) I / we shall ensure that data communication lines between the MCX equipment and my / our equipment will be connected to my / our own and further telecommunication network will be as per the MCX and DoT and/or MTNL and/or any other appropriate governmental / statutory authority approved network diagram.

f) I / We shall indemnify the Exchange against any loss or damage including liabilities arising out of failure to comply with Clause (e) above.

g) I / We shall provide MCX with the Network diagram as adopted by me / us for having access to the CTCL/IBT/ATF/WT facility between the Receiving Premises and my / our server at my / our office and that we shall also provide MCX with the new network diagram as and when any changes are made to the existing Network diagram with the prior written permission of MCX.

h) I / We shall notify MCX giving the details related to the Approved Persons as prescribed in this Circular, hereto for prior approval of MCX and shall acquire the prior written permission from MCX for every additional Approved Person taken subsequently before letting him / her have access to the CTCL/IBT/ATF/WT facility. Further in case an Approved Person is disabled from acting in his / her capacity as such for any reason whatsoever, then I / we shall acquire prior written permission from MCX before appointing any other individual to act as an Approved Person in his / her place.

i) I / We shall make the necessary changes in the software used by me / us for accessing the CTCL/IBT/ATF/WT facility as and when any changes either technical or structural are made by MCX in the CTCL/IBT/ATF/WT facility.

j) I / We shall not develop / use any software for accessing the CTCL/IBT/ATF/WT facility, which software in the opinion of MCX shall resemble or result in duplication of TRADING SYSTEM software in any manner and further that no representation shall be made by me / us that the software developed by me / us for accessing the CTCL/IBT/ATF/WT facility is part of-the TRADING SYSTEM software.

k) I / We shall not assign or otherwise transfer the rights and obligations arising out of the use of the CTCL/IBT/ATF/WT facility and this undertaking whether in whole or in part without the prior written consent of MCX.

l) I/We shall not do unauthorized change to the approved software and only use the software which is approved by the Exchange.

m) I / We agree not to use, without the express permission of MCX, the name of MCX to directly or indirectly promote my/ our business.

n) I / We shall not, either by myself / ourselves or through any person acting on my / our behalf, issue / release / publish any advertisement, brochure, pamphlet, booklet, notice or any other promotional material on any aspect relating to the CTCL/IBT/ATF/WT

facility in any form, whether in writing or otherwise, in accordance to the Code of Advertisement as prescribed by the MCX except with the prior written approval of MCX.

o) I / We agree to obtain prior approval of MCX for change of its activities/operations from existing empanelled CTCL/IBT/ATF/WT vendor to another empanelled vendor.

16. I / We agree that MCX does not warrant that the provision of the CTCL/IBT/ATF/WT facility will be error free or uninterrupted.

17. I / We undertake and agree that:-

a) I / We shall maintain all systems logs and make the same available for inspection by MCX at any time at its discretion.

b) I / We shall not under any circumstances match the respective orders entered in by my / our Approved Persons from their terminals by myself / ourselves by using any means whatsoever and that I / we shall route all the orders entered in by my / our Approved Persons to the Trading System of MCX so that they could be matched by the Central Computer of MCX only.

c) I/We shall ensure that the following guidelines on CTCL/IBT/ATF/WT and services would be adhered to:

i. System used by me / us has provision for security, reliability and confidentiality of data through the use of encryption technology.

ii. I / We shall maintain adequate backup systems and data storage capacity and also arrange for alternative means of communications in case of Internet Link failure or any other software failure relating to the Trading System.

iii. Order/Trade confirmation shall be sent to the investor through email at client's discretion at the time period specified by the client in addition to the other mode of display of such confirmations on real time basis on my/our web site. The investor shall be allowed to specify the time interval on the web site itself within which he/she would like to receive this information through email. Facility for reconfirmation of orders which are larger than that specified by the member's risk management system shall be provided on the internet based system

iv. I / We shall ensure to have a system based control on the trading limits of clients and exposures taken by clients and also set pre-defined limits on the exposure and turnover of each client. The system will also be capable of assessing risk of the client as soon as the order comes in. The client also to be informed of acceptance/rejection of the order within a reasonable period. Reports on margin requirements, payment and delivery obligations etc to be informed to the clients through the system

v. I/We shall ensure that the following security measures shall be in-built in the system:
   - User Id
   - First Level Password (Private Code)

- Automatic expiry of passwords at the end of reasonable duration. Reinitialize access on entering fresh passwords.

vi. All transaction logs with proper audit facilities to be maintained in the system

vii. Secured Socket Layer Security for server access through Internet

viii. Suitable Firewalls between trading set-ups directly connected to an Exchange trading system and the Internet trading set up.

ix. Shall integrate any advanced level security as specified by MCX from time to time.

x. The following systems operations procedures will be adhered to:
- Shall follow similar logic/priorities used by the Exchange to treat client orders
- Shall maintain all activities / alerts log with audit trail facility
- The Web-server shall have internally generated unique numbering for all client orders/trades

d) I / We shall ensure that on-line surveillance and risk management features like trade-by-trade Position Monitoring etc., shall be inbuilt in the CTCL/IBT/ATF/WT facility and it shall be flexible to change as per MCX guidelines.

e) I / We shall not develop or use any software / program facility which shall either directly or indirectly facilitate program trading without prior written approval of the Exchange. For the purpose of this clause the term 'Algorithmic Trading' shall mean any software or program facility by the use of which, upon the fulfillment of certain specified parameters, without the necessity of manual entry of orders, buy/sell orders are automatically generated and entered by the software / program facility into the Trading System of MCX to be matched by the central computer.

f) I / We shall not develop or use any software / program which shall either directly or indirectly facilitate orders to cross trades of their clients with each other. All orders shall be offered to the market for matching.

g) MCX shall be possessed with the absolute right to inspect the internal software used / being utilised me / us at any time at its discretion.

h) I / We shall render all possible assistance and cooperation to MCX by providing access to any kind of information in any form as it may require and shall produce such documents, records, accounts, books, data howsoever stored including data stored in magnetic tapes, floppy diskettes, etc. and any other information as may be required by MCX at its discretion.

18. That after the completion of the necessary test and after completely satisfying myself / ourselves that the CTCL/IBT/WT/ATF facility is fault free, I / we shall submit an Acceptance Certificate in the format as specified by MCX in partial fulfillment of one of

the conditions of MCX for my / our enablement for having access to the CTCL/IBT**/**ATF/WT facility.

19. I / We undertake that
    a. will take all necessary steps to ensure that every new software and any change thereupon to the trading and/or risk management functionalities of the software will be tested as per the framework prescribed by SEBI / Exchange before deployment of such new / modified software in Commodity/Securities market.

    b. We shall put in place adequate mechanism to restore trading systems to 'production stat' at the end of testing session so as to ensure integrity trading system

    c. will ensure that approval of the Exchange is sought for all new/modified software and will comply with various requirements specified by SEBI or the Exchange from time to time with regard to usage, testing and audit of the software.

    d. the absolute liability arising from failure to comply with the above provisions shall lie entirely with me/us.

20. That Member should arrange to provide demonstration of the IBT/ATF/WT software as per the Exchange's convenience. After successful demonstration of the software, MCX would grant permission to Member for the usage of IBT/ATF/WT facility.

21. That I/We cannot claim any direct or indirect damage, costs and expenses whatsoever arising from the following:-

i. Arising from mechanical or electrical or telephone or network breakdown or power failure or malfunction of any computer and / or / our server and / or any other auxiliary equipment or any other cause beyond the reasonable control of MCX.

ii. Based upon special indirect economic or consequential loss or damage including, but not limited to loss of profit, business revenue, opportunity costs, and goodwill or anticipated savings.

iii. Caused or contributed to by any event of Force Majeure. For purposes of this Clause, "Force Majeure" means and includes governmental acts, regulatory changes, acts of God or forces of nature, landslides, earthquakes, floods, fire, lightening, explosions, major storm (hurricanes, typhoons, cyclones, tsunami etc.) or major storm warnings, tidal waves, shipwrecks, communication cable cutting/theft, major telephone exchange failure and perils of navigations, acts of war (declared or undeclared), insurrection, terrorism riots or public enemies, unavailability of public services, strikes, lockouts, acts or omission of sovereign states or those purporting to represent sovereign states, blockades, embargoes, epidemics, quarantines, public disorders, sabotages, accidents, and such other acts or events beyond MCX control, and further the above is without prejudice to the rights already accrued to MCX due to my / our failure to perform either in full or in part, my / our obligations prior to the occurrence of events of Force Majeure.

iv. Or any other nature or type.

22. That MCX shall not be responsible for any development, maintenance, updates upgrades, error-fixes and any other support of my / our software for accessing the CTCL/IBT/ATF/WT facility and shall not be liable for any loss suffered by me / us due to the use of the software for accessing the CTCL/IBT facility.

23. That neither MCX nor the directors, managers, officers, employees or agents of MCX, guarantee the functioning of the CTCL/IBT/ATF/WT facility. MCX and the directors, managers, officers, employees and agents of MCX shall not be liable in any way to me / us or to any of my / our Approved Persons or to any other person, for any non-performance or interruption of CTCL/IBT/ATF/WT facility or for any damages, consequential or otherwise, arising there from or occasioned thereby. No proceedings would be adopted by me / us or any third party neither against MCX nor against any individual officer or employee of MCX for any act done by such officer or employee of MCX in their official capacity.

24. I / We shall indemnify and keep indemnified MCX harmless against every and all claims, demand, damages, liabilities, losses and expenses suffered by it directly by reason of the provision of the CTCL/IBT/ATF/WT facility to me / us or by reason of my / our noncompliance, contravention with the any of the provisions of this Undertaking.

25. That this Undertaking is applicable not only in respect of the information services and terminal equipment currently offered by me / us to Approved Persons but also in respect of any information services and terminal equipment developed by or for me / us in the future, even if I / we should at any time alter my / our mode of supplying information to Approved Persons provided MCX approves in writing of such alteration with all details.

26. That without prejudice to any other right under any law for the time being in force or which may become applicable, MCX shall be vested with the exclusive right, upon my / our non-compliance with any of the terms and conditions of this Undertaking or upon the termination, suspension of my / our Membership or upon my / our ceasing to be a Member of MCX, to take, at its discretion, such actions, steps, proceedings, measures, decisions within such period of time and upon such terms and conditions as it may deem fit and that any such actions, steps, proceedings, measures, decisions may, inter alia, include denial of access to the CTCL/IBT/ATF/WT facility and / or take such disciplinary actions as it deems fit. I / we further undertake that I / we shall abide by and be bound by any actions, steps, proceedings, measures, decisions as may be taken by MCX.

27. That no forbearance, delay or indulgence by MCX in enforcing the provisions of this Undertaking shall prejudice or restrict the rights of MCX nor shall any waiver of its rights operate as a waiver of any subsequent breach and no right, power or remedy herein conferred upon or reserved for MCX is exclusive of any other right, power or remedy available to MCX and each such right, power or remedy shall be cumulative.

28. I / We shall treat as confidential all information obtained from MCX pursuant to the arrangement and shall not divulge such information to any person (except to my / our

own employees and then only to those employees who need to know the same) without the MCX prior written consent and that I / we shall also ensure that my / our employees are aware of and comply with the provisions of this clause. The foregoing obligations as to confidentiality shall survive any termination of the availability of the CTCL/IBT**/**ATF/WT facility.

29. Any declaration or other notice to be given by me / us to MCX shall be sent by registered letter or telex / cable or facsimile transmission to the registered address.

30. This Undertaking will be binding on my / our successors / legal representatives and permitted assignees.

31. I / We shall execute, sign, and subscribe, to such others documents, papers, agreement, covenants, bonds, and / or undertakings as may be prescribed or required by MCX from time to time.

32. A Member shall not advertise or use any software/ program, which may directly or indirectly facilitate matching of orders between or among two or more clients by way of grouping or otherwise. The CTCL/IBT**/**ATF/WT facility being used by a member shall have inbuilt feature of pushing in all the orders, entered by any of the approved persons only through CTCL/IBT**/**ATF/WT server of the member for which in turn will push such orders to the trading system of the Exchange, for the purpose of execution.

33. A member shall ensure to undertake periodic audit of their CTCL/IBT**/**ATF/WT Systems.

34. I /We hereby confirm that we are not directly/indirectly referring to any past or expected future return/performance of an algorithm trading services/strategies in any form of advertisements/business communication on publicly accessible platforms such as social media/websites/digital & print media etc. and are not associated with any platform providing such reference.

PART II - Algorithmic Trading Undertaking

WHEREAS

- MCX has provided the trading software to enable its Members to trade.

- MCX provides a Computer – to –Computer Link (hereinafter referred to as the 'CTCL') facility for order entry, receipt of order and trade confirmation and also for receipt of data relating to its trade quotations by using their own trading front end software in order to trade on MCX trading system.

- MCX also decides to permit the users of CTCL, an ALGORITHMIC TRADING facility (hereinafter referred to as the "ATF facility") which mean any software or facility by the use of which, upon the fulfillment of certain specified parameters, without the necessity of manual entry of orders, buy/sell orders are automatically generated and entered by the software/program facility into the MCX trading system to be matched by the

Exchange's system and such permission is subject to terms and conditions as may be specified by MCX from time to time.

- MCX allows to avail the ATF facility by fulfilling all the terms and conditions as may be prescribed from time to time at its discretion.

NOW THEREFORE IN CONSIDERATION OF MCX having agreed to allow me / us to avail the ATF facility, I / we hereby IRREVOCABLY AND UNCONDITIONALLY UNDERTAKE and agree to abide by and be bound by the following terms and conditions.

1. I / We shall use the Algorithmic Trading software approved by the Exchange and the data generated from the same exclusively for trading on MCX trading platform.

2. I / We shall use only those Software & strategies which are approved by the Exchange.

3. I / We confirm and certify that the software has undergone tests by us and we are satisfied about the same. Further, we undertake to comply with and be bound by the Rules, Bye-laws, Regulations of the Exchange, SEBI, any other statutory and regulatory body(ies) as may be applicable from time to time.

4. I / We undertake that any modifications / Change to the software to be effected only on prior approval of Exchange.

5. I/We shall not do unauthorized change to the approved software and only use the software which is approved by the Exchange.

6. I / We are using the approved user IDs allotted by the Exchange under ATF in compliance to the details / documents of the strategy submitted to the Exchange.

7. I/We shall not modify the software/algorithm for ATF facility as approved by MCX without prior approval of MCX.

8. I / We agree that MCX shall be entitled to conduct audit / inspection of the ATF facility, at any time in its absolute discretion. MCX officials or MCX appointed auditors can visit our office without prior intimation for the purpose of audit / inspection.

9. I/We confirm that I/We have proper procedures and arrangements to safeguard algorithms from misuse or unauthorised access. I/We undertake to ensure that access shall be given only to authorised persons.

10. I/We agree and confirm that I/We have proper procedures, systems and technical capability to carry out trading through the use of algorithms.

11. I/We agree and confirm that we have real time monitoring systems to identify dysfunctional algorithms that may not behave as expected and will inform the Exchange immediately in case of such incidents. Further, I/We confirm that we have system to control to shut down such algorithms if identified on immediate basis.

12. I/We shall maintain logs of all trading activities to facilitate audit trail for minimum 3 years and I/We agree to provide such logs to the Exchange / appointed auditors during inspection / audits.

13. I/We shall maintain record of control parameters, orders, trades and data points emanating from trades executed through algorithmic trading for minimum 3 years and I/We agree to provide these information / data to the Exchange / appointed auditors during inspection / audits.

14. I/We shall provide details of algorithmic trading strategies to the Exchange wherever required for the purpose of inquiry, surveillance, investigation etc.

15. I/We shall be solely liable and responsible for any monetary losses, damages or other costs and consequences arising in any manner due to algo orders submitted to the Exchange on account of any inadvertent mistake or malfunctioning or failure of our system, including component failure, and shall always keep the Exchange and its official/s indemnified against any loss or damage or compensation etc. Further, I/We shall not hold MCX responsible in any manner whatsoever due to use of ATF Facility.

16. I/We shall adhere to the connectivity diagram approved by MCX and shall not make any changes in the same.

17. I/We shall be solely responsible and liable for the consequences in case of any breach of this undertaking and MCX shall be entitled to take such appropriate action as deem fit against me/us.

18. That MCX, at its absolute discretion, shall make the ATF facility available to me / us only from the date of enabling the ATF facility, till such time as it may deem fit and further that the ATF facility may at any time be withdrawn by MCX at its discretion without giving me / us any notice or any reasons whatsoever.

19. I / We shall adhere to SEBI circular CIR/CDMRD/DEICE/03/2015 dated December 11, 2015 and / or undertakings / circulars as may be prescribed or required by MCX / Regulator from time to time.

20. I / We shall also ensure to undertake System Audit of ATF facility by System Auditors empanelled by the Exchange and submit the report as per the timeline specified by the Exchange.

21. I / We shall also ensure to undertake that Algorithmic Trading Terminals will not be provided to my clients for placing Algorithmic orders directly to the Exchange.

22. I/We shall also ensure to participate in periodic mock trading sessions conducted by the Exchange using all User Ids approved for Algorithmic trading on an ongoing basis, irrespective of the algorithm having undergone change or not.

23. I/ We will not directly or indirectly make any reference to the past or expected future return/performance of the algorithm trading services/strategies in any form of

advertisements/business communication on publicly accessible platforms such as social media/websites/digital & print media, SMS, what's app messages and telegram services etc.; and/or

24. I/ We are not directly or indirectly associated with any platform providing any reference to the past or expected future return/performance of the algorithm.

25. I/ We shall not make any reference to the past performance or expected return out of algorithmic trading services/strategies, during any presentations/account opening forms/pamphlets/banners/forums/gatherings organised to onboard new clients/pitching new segment/product to existing clients including, exhibiting of past performance, or expected return on any of the platforms used by Authorized Persons/Vendor/associated entities of the member

26. I/ We hereby confirm that, we have adhered to the provisions of SEBI circular no. SEBI/HO/MIRSD/DOP/P/CIR/2022/117 dated September 02, 2022, and Exchange circular MCX/CTCL/521/2022 dated September 08, 2022.

PART III – Wireless Trading Undertaking

WHEREAS,

- The Exchange has also allowed its trading members providing/using IBT facility to offer the facility of Trading using Wireless Technology (hereinafter referred to as the 'Wireless Trading'), to its clients subject to submission of this Undertaking.

- We are desirous of providing the Wireless Trading facility to our clients in compliance with relevant Circulars of the Exchange.

NOW THEREFORE IN CONSIDERATION OF EXCHANGE having agreed to allow me / us to avail the Wireless Trading facility,

1. I / We undertake and agree to ensure that adequate measures shall be taken for user identification, authentication and access control using means such as user-id, passwords, smart cards, biometric devices or other reliable means, to prevent misuse of facility by unauthorised persons.
2. I / We shall ensure that alternative means of communication for placing orders shall be made to our clients available in case of failure of the wireless network.
3. I / We undertake that access for order routing is permitted only through the user of client specific User Ids.
4. I / We undertake that the risk management system takes into account overall positions of clients irrespective of the medium of undertaking and provides a system-based control facility on the trading limits of the clients and exposures taken by the clients.
5. I / We undertake to offer facility of Wireless Trading to any client only after obtaining undertaking from the client that they are fully aware and agree for additional provisions specifying possible risks, responsibilities, obligations and liabilities associated with Wireless Trading as mentioned time to time by the Exchange in its circulars.

6. I / We shall ensure that the addresses of Internet web site/web page where detailed information would be available, along with the minimum information shall be available on hand held device, as it may not be possible to give detailed information to the investor on a hand held device.
7. I / We undertake that order confirmation shall be provided to the user on submission of the order and also on order modification / cancellation in the handheld device. Trade confirmation shall be provided to the user, along with history of trades for the day.
8. I / We undertake and agree to ensure that Session login details are not stored on the devices used for Wireless Trading.
9. I / We undertake to ensure that Network security protocols and interface standards shall be as per prevalent industry standards and sound audit trails are available for all transactions conducted using wireless devices.
10. I / We shall ensure that server routing orders placed through Wireless Trading System to the exchange trading system shall be located in India.
11. I / We shall ensure to undertake periodical System audit of the Wireless Trading system and software as specified by the Exchange and to submit certificate/report to the Exchange.

IN WITNESS WHEREOF this Undertaking is executed by the undersigned on the day, month, year and the place first mentioned above.

SIGNED, SEALED AND DELIVERED BY
_____ for and on behalf of _____
_____

Before me
In Presence of Witnesses

Sr. No.	Name	Address	Signature
1.			
2.			

Annexure 14

Checklist/ Reference Points While Developing CTCL/IBT/AT/WT Software

Description	Software and requirements			
Application	**CTCL**	**IBT**	**AT**	**WT**
Availability of Secured Socket level security for server access through internet	NA	Yes	NA	Yes

Description	Software and requirements			
Application	**CTCL**	**IBT**	**AT**	**WT**
Display of UMC Member Code / SEBI registration Code	Yes	Yes	Optional	Yes
Display of Useful Link to website – www.mcxindia.com and www.sebi.gov.in	Yes	Yes	Optional	Yes
Display details of Software Name, Version Number	Yes	Yes	Yes	Yes
Display of Strategy Name and Version Number	NA	Yes	Yes	Yes
Type of Strategy	NA	NA	Yes	NA
Display of Exchange Time	Yes	Yes	Yes	Yes
Display of Login/ Log Off Status	Yes	Yes	Yes	Yes
Display of Market Status (eg: Open/Closed)	Yes	Yes	Yes	Yes
Display of Price Data in Ticker form (minimum Commodity Symbol, Expiry, Price (LTP))	Optional	Optional	Optional	Optional
Market Data/Watch – should contain minimum information of Segment, Contract Symbol, Expiry, Best Buy Quantity & Price, Best Sell Quantity & Price, Last traded price, Last traded time, Last updated time, Daily price range.	Yes	Yes	Optional	Yes
Contract Information to be provided - Contract Symbol, Expiry, Tick Size, Price Range, Min Lot Price Unit, Quantity Unit, Delivery Unit, Last traded price etc.	Yes	Yes	Optional	Yes
Facility of one key stroke for Buy or Sell order entry & Contract Information	Yes	Yes	NA	Yes
Password Standards				

Description	Software and requirements			
Application	**CTCL**	**IBT**	**AT**	**WT**
User should be able to login with valid user id and password	Yes	Yes	Yes	Yes
Minimum password length should be 6 and maximum 8 characters length	Yes	Yes	Yes	Yes
The password numeric values should not fully comprise of user id	Yes	Yes	Yes	Yes
Password should expired after minimum predefined period (eg: 15/ 30/ 45 days)	Yes	Yes	Yes	Yes
In case of multiple invalid password entries the user id should be locked	Yes	Yes	Yes	Yes
Password should be alphanumeric and comprise one special character	Yes	Yes	Yes	Yes
Appropriate message should be displayed while user login fails	Yes	Yes	Yes	Yes
Two factor authentication for login	Optional	Yes	Optional	Yes
Password help file can be provided	Optional	Optional	Optional	Optional
Broadcast				
Display of Exchange Messages/ Announcements & Response messages for Failures.	Yes	Yes	Yes	Yes
Different Window for Internal Messages (Broker Messages)	Optional	Optional	Optional	Optional
Time sync with Exchange in Messages, LTT, LUT etc.	Yes	Yes	Yes	Yes
Order Entry				
Order Entry at **Market/Limit price** with RL/SL type in both Normal & Spread contracts	Yes	Yes	Market Not Allowed	Yes

Description	Software and requirements			
Application	**CTCL**	**IBT**	**AT**	**WT**
Order validity types provided i.e. GTC/GTD/Day/IOC/EOS	Yes	Yes	IOC Not Allowed	Yes
User Types provide Pro & Client	Yes	Yes	Yes	Yes
Order Entry should follow SMPF Rule	Yes	Yes	Yes	Yes
In case of buy SL order, the trigger price should be less than limit price & vice versa for sell order	Yes	Yes	Yes	Yes
Order Modification from Order type RL to SL - Not Allowed	Yes	Yes	Yes	Yes
Order Modification from Order type SL to RL Allowed	Yes	Yes	Yes	Yes
If the orders are cancelled by Exchange or by Member Admin or by client, details of such information should be display in Order Book and/or captured in logs.	Yes	Yes	Yes	Yes
Order Cancellation message should Contain minimum-Order number, Order Type, Market type, Commodity name. Date & time, User id, Price Quantity & cancelled By.	Yes	Yes	Yes	Yes
Order Modification message should Contain minimum-Order number, Order Type, Market type, Commodity name. Date & time, User id, Price Quantity & Modified By.	Yes	Yes	Yes	Yes
Order Rejection message should Contain minimum-Order number, Order Type, Market type, Commodity name. Date & time, User id, Price Quantity & Rejection Message.	Yes	Yes	Yes	Yes
Tracing and mitigating possibility of excessive and unnecessary order modification &	Yes	Yes	Yes	Yes

Description	Software and requirements			
Application	**CTCL**	**IBT**	**AT**	**WT**
Cancellation in the nature of order per second as per regulator compliance.				
Trade Confirmation message should Contain minimum-Trade number, Trade Type, Market type, Commodity name. Date & time, User id, Price Quantity.	Yes	Yes	Optional	Yes
Order Entry with Disclosed Quantity below 25% not allowed	Yes	Yes	Yes	Yes
Market Price Protection check	NA	NA	Yes	NA
Order Entry during Halt session is not allowed	Yes	Yes	Yes	Yes
RMS				
With every CTCL order, 15 digit terminal info should be provided (as per API)	Yes	Yes	Yes	Yes
With every Algo order approved Strategy ID should be sent	NA	NA	Yes	NA
DPR Updating in software during the market hours	Yes	Yes	Yes	Yes
Intraday Special/Additional Margin changes @ Exchange should get updated on respective CTCL terminals	Yes	Yes	Optional	Yes
Alerts of Maximum Sale Traded Value /Maximum Sale Traded Quantity	Yes	Yes	Yes	Yes
Limit breach for CTCL Terminal should be handled at CTCL Manager level	Yes	Yes	Yes	Yes
On Square-Off/Suspended mode/Segment disallow, also all pending orders should be rejected & order entry is not allowed	Yes	Yes	Yes	Yes

Description	Software and requirements			
Application	**CTCL**	**IBT**	**AT**	**WT**
Trade Modification from OWN to CLI or vice versa for CTCL ID not allowed	Yes	Yes	Yes	Yes
Order Alerts while breaching the limits	Yes	Yes	Yes	Yes
The algorithmic system should have pre-defined parameters for an automatic stoppage in the event of algorithmic execution leading to a loop or runaway situation	Optional	Optional	Yes	Optional
Checks are in place to ensure maximum order per second does not exceed 20 orders per second	Optional	Optional	Yes	Optional
Checks are in place to ensure that OTR does not exceeds the ratio prescribed by SEBI (i.e. for excessive modification and cancellation or orders)	Optional	Optional	Yes	Optional
Algorithmic trading software accounts for all executed, unexecuted and unconfirmed orders, placed by it before releasing further order(s).	Optional	Optional	Yes	Optional
Complete Audit Trail like order book, order history, trade book etc.	Yes	Yes	Yes	Optional
Reports				
Trade Book , Order Book	Yes	Yes	Yes	Optional
Net Position should be accurate	Yes	Yes	Yes	Yes
System Logs/Reports				
All message logs maintained (order logs, trade log, Client code modification log etc.)	Yes	Yes	Yes	Yes
Connection Logs to be maintained at CTCL Server	Yes	Yes	Yes	Yes
Backup Facility & Database Security	Yes	Yes	Yes	Yes

Description	Software and requirements			
Application	**CTCL**	**IBT**	**AT**	**WT**
Activity/ System Log	Yes	Yes	Yes	Yes
Access Controls/remedies for misuse of log in id/ password	Yes	Yes	Yes	Yes
Alternate mode of connection in case of Link Failure	Optional	Yes	Optional	Yes
System Rollback functionality	Yes	Yes	Yes	Yes
Session Management- Logout after a system defined period of inactivity	Yes	Yes	Yes	Yes

Signed sealed and delivered by the Authorised Signatory of the Member

Date:

Place:

Annexure 16
(To be executed on letterhead of the Vendor)

I / We ----------, having our registered office at ----------and represented by ----------and hereinafter referred to as VENDOR have sold to M/s. ----------, having their registered office at ----------who are members of Multi Commodity Exchange of India Limited, and hereinafter referred to as MEMBER, a software for internet based trading services.

NOTWITHSTANDING the generality of the above, the software provided by us complies with the following provisions in particular as directed by the MCX.

Access for order routing is permitted only through the use of client specific User ids the access is permitted only through the use of client specified password (private code)

The system provides for automatic expiry of passwords at the end of a reasonable duration and re-initialising of access on entering fresh passwords. All transaction logs are maintained with proper audit facilities (a write-up in this regard shall be enclosed) Secured socket level security for server access through Internet is available.

Suitable firewalls between trading set-up and Internet trading set up are available. The optional advanced security products used for e-commerce, including SMART cards, dynamic password and 128 bit encryption, second level pass words are available. If so, details of the same, between the trading web server and trading client terminals, interfaces standards as per recommendations of IETF and W3C (e.g. HTTP ver. 4 or above, HTM ver 4/XML) are adopted.

Logic/priorities similar to those used by the MCX is used to treat client orders. Provision for maintenance of all activities / alerts log with audit trail available the member's web server internally generates unique numbering for all client orders/ trades. Adequate provisions for maintaining backup systems and data storage capacity are available. An alternative means of communication is arranged for in case of Internet link failure (A write up shall be provided in this regard)

The web site providing the Internet based trading facility contains information meant for investor protection such as rules and Business Rules affecting client broker relationship, arbitration rules, investor protection rules, etc. The web site also provides and displays prominently hyper link to the web site/page on the web site of the MCX displaying rules/Business Rules/circulars. The web site displays the ticker/quote/order book of the MCX along with the time stamp.

The software provides for sending of the order/trade confirmation through email at clients discretion at the time period specified by the client in addition to the other mode of display of such confirmations on real time basis on the web site. The web site allows for specifying the time interval on the web site itself by the client.

The software provides for reconfirmation of orders, which are larger than that as specified by the member's risk management system. In this regard the system is capable of assessing the risk of the client as soon as the order comes in and shall inform the client of acceptance/rejection of the order within a reasonable period.

The software provides a system-based control facility on the trading limits of the clients and exposures taken by the clients. All orders entered into the internet-based trading system are offered to the market for matching and no cross trades are generated the software has the facility of providing the reports on margin requirements, payment and delivery obligations etc to the clients through the system.

Signed sealed and delivered by the Authorised representative of the VENDOR

Date
Place:

We, ----------having our registered office at ----------and represented by ---------- are members of the Exchange. We confirm and certify that the software provided by the vendor for internet based trading has undergone tests by us and we are satisfied that it complies with the stipulations of the Exchange. We also undertake to get the software modified, if necessary to continue compliance with the requirements of the Exchange, DoT policy and regulations with regard to levels of encryption, etc and Exchange / any other regulatory body(ies) directives and other statutory requirements etc. as may be issued in this regard from time to time.

Countersigned, sealed and delivered by the Authorised representative of the MEMBER

Date:
Place:

Annexure 17
Contingency Plan

(On Letterhead of the Member)

The Company is providing Internet Trading through Order Routing System to its Registered Clients and in case of any failure of the system the Registered Client would be given an option to execute his trade through the dealers at the various existing branches / locations.

As a measure of contingency it has been worked out that in case the investor is not able to establish the link to their site or in case the link is missed investor can contact the following persons at the respective places as mentioned below: -

LOCATION	CONTACT PERSON	ADDRESS	TEL. NO.	FAX NO.

In the process of giving further link the authorised person _____ will make certain questions to the clients & if satisfied about the authenticity of the client he will again allot new Password to him.

If you have any contingency plan for server, kindly mention.

(Authorised signatory)
Name & Designation
Company Stamp

Date:
Place:

Annexure 18

Letter from Exchange empanelled CTCL vendor
(On letterhead of the vendor)

To,
CTCL Department
Multi Commodity Exchange of India Limited
255, Exchange Square,
Suren Road, Chakala,
Andheri (East),
Mumbai – 400 093

Sub : Application Program Interface (API) to _____ (Member Name)

I/We_____ (Name of the Exchange empanelled CTCL vendor) hereby confirm that, we have provided API version _____ to the Member _____ for In-house development of IBT / WT software for their own use.

I/We undertake the responsibility that whenever there is any change in the API or a new version of the API is released, we will inform the same to the aforesaid member in advance and will ensure that the member is informed about the date of implementation of the software.

Sr. No	Particulars	Details
1	Registered Office address	
2	Telephone no	
3	E-mail ID	

I / We declare that the information so furnished is true and correct

For
(Name of the empanelled vendor)

Authorised signatory
(Name and designation)
Date:
Place:

Annexure 20

(To be submitted by member)

Undertaking for In-house software development by Member for CTCL/IBT/ATF/WT

I / We, _____, an individual /a firm registered under the Partnership Act, 1932 / a Company / body corporate incorporated under the Companies Act of 1956 /_____ Act, 19__, and residing at / having our office/ registered office at _____ (hereinafter referred to as the 'Undersigned' which expression shall unless repugnant to the context include her/his / its successors, assigns and legal representatives) give this Undertaking on this _____ day of _____20_____ at _____ IN FAVOUR of MULTI COMMODITY EXCHANGE OF INDIA LTD, a company incorporated under the Companies Act, 1956 and a Commodity Exchange duly recognized by the Central Government having its registered office at Exchange Square Suren Road, Chakala, Andheri (East), Mumbai – 400 093, India (hereinafter referred to as "MCX", which expression shall unless repugnant to the context include its successors, assigns and legal representatives)

WHEREAS,

- MCX has provided the trading software to enable its Members to trade.

- In addition, MCX provides a Computer – to –Computer Link (hereinafter referred to as the 'CTCL facility') Internet Based Trading (hereinafter referred to as the 'IBT') facility, Algorithmic Trading (hereinafter referred to as the 'ATF') facility and Wireless Trading (hereinafter referred to as the 'WT') facility on CTCL/IBT/ATF/WT software developed in-house by the member / procured from non-empanelled vendor, for order entry, receipt of order and trade confirmation and also for receipt of data relating to its trade quotations.

- MCX has decided that it shall make the CTCL/IBT/ATF/WT facility available to its Members on case to case basis, subject to such terms and conditions as MCX may impose and one of the conditions is that they execute an undertaking in its favor in the format prescribed by it and agree to provide the said facility only to such persons (hereinafter referred to as the "Approved Persons") as MCX may permit and also agree to abide by and be bound by the various terms and conditions which it may prescribe in this regard from time to time.

- I / We have admitted to the Membership of MCX, and am/are desirous of availing the CTCL/IBT/ATF/WT facility by fulfilling all the terms and conditions as may be prescribed by MCX from time to time at its discretion in this regard.

NOW THEREFORE IN CONSIDERATION OF MCX having agreed to allow me / us to avail the CTCL/IBT/ATF/WT facility, I / we hereby IRREVOCABLY AND UNCONDITIONALLY UNDERTAKE and agree to abide by and be bound by the following terms and conditions.

1. That I / We shall make the CTCL/IBT/ATF/WT facility available to the Approved Persons only after obtaining the prior written consent of MCX and subject to such terms and conditions as may be prescribed by MCX from time to time.

2. That in addition to such terms and conditions as may be prescribed under clause (1) by MCX, all the provisions of the Byelaws, Rules, Regulations and Circulars relating to use and operation of the Trading System shall also mutatis mutandis become applicable to the use and operation of the CTCL/IBT/ATF/WT facility.

3. That notwithstanding anything contained in this Undertaking all my / our liabilities and obligations as a Member of MCX shall not be affected nor shall be prejudiced in any manner whatsoever.

4. That without prejudice to the generality of the clause (3) of this Undertaking, I / we shall be responsible to settle all the trades executed by the Approved Persons on my / our behalf whether such trades were executed with or without my permission / knowledge and that I shall be bound to complete / fulfill all my / our obligations / liabilities / commitments arising due to the trades executed by the Approved Persons on my / our behalf, including the trades executed by using CTCL/IBT/ATF/WT facility.

5. That I/We shall abide by, comply with and be bound by the Rules, Bye-laws, Regulations and terms and conditions as applicable for CTCL and/or Internet Based Trading and/or Wireless Trading and/or Algorithmic Trading facility of MCX as in existence or as may be modified / amended by the relevant authority from time to time and any circular, order, direction, notice, instructions issued and / or as maybe modified or amended from time to time by the relevant authority.

6. That MCX, at its discretion, may make the CTCL/IBT/ATF/WT facility available to me / us at MCX address first mentioned above or at any other address as MCX from time to time may notify to me / us or approve as being the location.

7. That MCX shall be entitled to amend its Rules, Bye Laws, Regulations and terms and conditions for CTCL and/or Internet Based Trading and/or Wireless Trading facility unilaterally and I/We shall be deemed to have consented to them, and accordingly be bound by the Rules, Bye-laws, Regulations and terms and conditions for CTCL/IBT/ATF/WT facility prevailing from time to time and MCX shall be entitled to all powers vested in them under the Rules, Bye-laws and Regulations, by which I/We unconditionally agree to be bound.

8. That I/We shall execute, sign, subscribe, to such documents, papers, agreements, covenants, bonds and / or undertakings whether legal or otherwise as maybe required by MCX from time to time.

9. That without prejudice to the rights, remedies whether legal or otherwise available to MCX upon my / our non-compliance with this Undertaking, I/We shall indemnify and keep indemnified MCX and its directors, managers, officers, employees and authorised representatives against any loss / damage suffered by it whether legal or otherwise arising due to non-compliance by me/us with the provisions of this Undertaking.

10. That I / We shall use the physical communication link (s) provided to me / us, for the purpose of having simultaneous access to the CTCL/IBT/ATF/WT facility and TRADING SYSTEM Software.

11. That MCX, at its absolute discretion, may make the CTCL/IBT/ATF/WT facility available to me / us only from the date of my / our enablement on the CTCL/IBT/ATF/WT facility till such time as it may deem fit and further that the CTCL/IBT facility may at any time be withdrawn by MCX at its discretion without giving me / us any notice or any reasons whatsoever.

12. That the CTCL/IBT/ATF/WT facility if made available to me / us by MCX will be made available to me / us by MCX on a non-exclusive basis only and that the same may be made available by MCX, at its discretion, to any other Member whomsoever on such terms and conditions as it may deem fit.

13. That I / We may be entitled by giving one month's written notice to request MCX to withdraw the CTCL/IBT/ATF/WT facility extended to me / we and such withdrawal shall be subject to such terms and conditions as may be prescribed by MCX including payment of such compensation to MCX as may be decided by MCX at its discretion.

14. That I / We shall be responsible and take all such steps, actions and proceedings to ensure and keep ensured that no Approved Persons in any way further makes the CTCL/IBT/ATF/WT facility available to any other person nor shall extend the CTCL/IBT/ATF/WT facility outside his/new premises and that in case I / We fail to ensure the same, MCX shall be empowered to take such action as it may deem fit, which action may include disabling me / us from having access to CTCL/IBT/ATF/WT facility, and taking of such disciplinary actions as it may deem fit.

15. I / we undertake that

a) I / We shall at my / our own expenses provide all lines, cabling, software, hardware, equipment and other communication facilities required for transmission of the data between the Receiving Premises and my / our server at my / our office and also obtain the necessary approvals from relevant authorities.

b) I / We shall ensure that the connectivity of the CTCL/IBT/ATF/WT facility is as per the MCX and Department of Telecommunications (DoT) and/or Mahanagar Telephone Nigam Limited (MTNL) and/or any other appropriate governmental / statutory authority approved network diagram and that I/we shall produce the necessary approvals to MCX in order to meet one of its requirements for enabling me/us for having access to the CTCL/IBT/ATF/WT facility.

c) I/We shall be solely responsible for the network infrastructure and connectivity for availing CTCL/IBT/ATF/WT facility made available to me.

d) I / We undertake to ensure that access shall be given only to Approved persons and also a method shall be established to ensure that non-Approved persons cannot access the system.

e) I/We undertake to pay any such license fees/charges/royalties as may be levied by DoT/MTNL/MCX/any other regulatory/statutory authorities from time to time. MCX fees if any for using the CTCL/IBT/WT facility shall be paid in advance.

f) I / we shall ensure that data communication lines between the MCX equipment and my / our equipment will be connected to my / our own and further telecommunication network will be as per the MCX and DoT and/or MTNL and/or any other appropriate governmental / statutory authority approved network diagram.

g) I / We shall indemnify the Exchange against any loss or damage including liabilities arising out of failure to comply with Clause (e) above.

h) I / We shall provide MCX with the Network diagram and as adopted by me / us for having access to the CTCL/IBT/ATF/WT facility between the Receiving Premises and my / our server at my / our office and that we shall also provide MCX with the new network diagram as and whenever any changes are made to the existing Network diagram with the prior written permission of MCX.

i) I / We shall notify MCX giving the details related to the Approved Persons as per circular format described attached hereto for prior approval of MCX and shall acquire the prior written permission from MCX for every additional Approved Person taken subsequently before letting him / her have access to the CTCL/IBT/ATF/WT facility. Further in case an Approved Person is disabled from acting in his / her capacity as such for any reason whatsoever, then I / we shall acquire prior written permission from MCX before appointing any other individual to act as an Approved Person in his / her place.

j) I / We shall make the necessary changes in the software used by me / us for accessing the CTCL/IBT/ATF/WT facility as and when any changes either technical or structural are made by MCX in the CTCL/IBT/ATF/WT facility.

k) I / We shall provide MCX with the Technical Specifications for the software used by me / us for accessing the CTCL/IBT/ATF/WT facility and shall also provide it with the new Technical Specifications for the software as and whenever any changes are made by me / us to the existing software used to access the CTCL/IBT/ATF/WT facility.

l) I / We shall not develop / use any software for accessing the CTCL/IBT/ATF/WT facility, which software in the opinion of MCX shall resemble or result in duplication of TRADING SYSTEM software in any manner and further that no representation shall be made by me / us that the software developed by me / us for accessing the CTCL/IBT/ATF/WT facility is part of-the TRADING SYSTEM software.

m) I / We shall not assign or otherwise transfer the rights and obligations arising out of the use of the CTCL/IBT/ATF/WT facility and this undertaking whether in whole or in part without the prior written consent of MCX.

n) I / We agree not to use, without the express permission of MCX, the name of MCX to directly or indirectly promote my/ our business.

o) I / We shall not, either by myself / ourselves or through any person acting on my / our behalf, issue / release / publish any advertisement, brochure, pamphlet, booklet, notice or any other promotional material on any aspect relating to the CTCL/IBT facility in any form, whether in writing or otherwise, in accordance to the Code of Advertisement as prescribed by the MCX except with the prior written approval of MCX.

p) I / We agree to obtain prior approval of MCX for change of its activities/operations from existing approved CTCL/IBT/ATF/WT vendor to another.

q) I/We shall not do unauthorized change to the approved software and only use the software which is approved by the Exchange.

16. I / We agree that MCX does not warrant that the provision of the CTCL/IBT/ATF/WT facility will be error free or uninterrupted.

17. I / We undertake and agree that

a) I/We shall maintain logs of all trading activities to facilitate audit trail for minimum 3 years and I/We agree to provide such logs to the Exchange / appointed auditors during inspection / audits.

b) I / We shall not under any circumstances match the respective orders entered in by my / our Approved Persons from their terminals by myself / ourselves by using any means whatsoever and that I / we shall route all the orders entered in by my / our Approved Persons to the Trading System of MCX so that they could be matched by the Central Computer of MCX only.

c) I/We shall ensure that the following guidelines on CTCL/IBT/ATF/WT and services would be adhered to:

i. System used by me / us has provision for security, reliability and confidentiality of data through the use of encryption technology.

ii. I / We shall maintain adequate backup systems and data storage capacity and also arrange for alternative means of communications in case of Internet Link failure or any other software failure relating to the Trading System.

iii. Order/Trade confirmation shall be sent to the investor through email at client's discretion at the time period specified by the client in addition to the other mode of display of such confirmations on real time basis on my/our web site. The investor shall be allowed to specify the time interval on the web site itself within which he/she would like to receive this information through email. Facility for reconfirmation of orders which are larger than that specified by the member's risk management system shall be provided on the internet based system.

iv. I / We shall ensure to have a system based control on the trading limits of clients and exposures taken by clients and also set pre-defined limits on the exposure and turnover of each client. The system will also be capable of assessing risk of the client as soon as the order comes in. The client also to be informed of

acceptance/rejection of the order within a reasonable period. Reports on margin requirements, payment and delivery obligations etc to be informed to the clients through the system

v. I/We shall ensure that the following security measures shall be in-built in the system:
- User Id
- First Level Password (Private Code)
- Automatic expiry of passwords at the end of reasonable duration. Reinitialize access on entering fresh passwords.

vi. All transaction logs with proper audit facilities to be maintained in the system.

vii. Secured Socket Layer Security for server access through Internet.

viii. Suitable Firewalls between trading set-ups directly connected to an Exchange trading system and the Internet trading set up.

ix. Shall integrate any advanced level security as specified by MCX from time to time.

x. The following systems operations procedures will be adhered to:
- Shall follow similar logic/priorities used by the Exchange to treat client orders
- Shall maintain all activities / alerts log with audit trail facility
- The Web-server shall have internally generated unique numbering for all client orders/trades

d) I / We shall ensure that on-line surveillance and risk management features like trade-by-trade Position Monitoring etc., shall be inbuilt in the CTCL/IBT facility and it shall be flexible to change as per MCX guidelines.

e) I / We shall not develop or use any software / program facility which shall either directly or indirectly facilitate program trading without prior written approval of the Exchange. For the purpose of this clause the term 'Algorithmic Trading' shall mean any software or program facility by the use of which, upon the fulfillment of certain specified parameters, without the necessity of manual entry of orders, buy/sell orders are automatically generated and entered by the software / program facility into the Trading System of MCX to be matched by the central computer.

f) I / We shall not develop or use any software / program which shall either directly or indirectly facilitate orders to cross trades of their clients with each other. All orders shall be offered to the market for matching.

g) MCX shall be possessed with the absolute right to inspect the internal software used / being utilised me / us at any time at its discretion.

h) I / We shall render all possible assistance and cooperation to MCX by providing access to any kind of information in any form as it may require and shall produce such documents, records, accounts, books, data howsoever stored including data stored in

magnetic tapes, floppy diskettes, etc. and any other information as may be required by MCX at its discretion.

18. That after the completion of the necessary test and after completely satisfying myself / ourselves that the CTCL/IBT/ATF/WT facility is fault free, I / we shall submit an Acceptance Certificate in the format as specified in circular by MCX in partial fulfillment of one of the conditions of MCX for my / our enablement for having access to the CTCL/IBT**/**ATF/WT facility.

19. I / We undertake that
    a. will take all necessary steps to ensure that every new software and any change thereupon to the trading and/or risk management functionalities of the software will be tested as per the framework prescribed by SEBI / Exchange before deployment of such new / modified software in Commodity/Securities market.

    b. We shall put in place adequate mechanism to restore trading systems to 'production stat' at the end of testing session so as to ensure integrity trading system

    c. will ensure that approval of the Exchange is sought for all new/modified software and will comply with various requirements specified by SEBI or the Exchange from time to time with regard to usage, testing and audit of the software.

    d. the absolute liability arising from failure to comply with the above provisions shall lie entirely with me/us.

20. That Member should arrange to provide demonstration of the IBT software as per the Exchange's convenience. After successful demonstration of the software, MCX would grant permission to Member for the usage of IBT facility.

21. That I/We cannot claim for any direct or indirect damage, costs, and expenses whatsoever arising from the following:-

a) Arising from mechanical or electrical or telephone or network breakdown or power failure or malfunction of any computer and / or / our server and / or any other auxiliary equipment or any other cause beyond the reasonable control of MCX.

b) Based upon special indirect economic or consequential loss or damage including, but not limited to loss of profit, business revenue, opportunity costs, and goodwill or anticipated savings.

c) Caused or contributed to by any event of Force Majeure. For purposes of this Clause, "Force Majeure" means and includes governmental acts, regulatory changes, acts of God or forces of nature, landslides, earthquakes, floods, fire, lightening, explosions, major storm (hurricanes, typhoons, cyclones, tsunami etc.) or major storm warnings, tidal waves, shipwrecks, communication cable cutting/theft, major telephone exchange failure and perils of navigations, acts of war (declared or undeclared), insurrection, terrorism riots or public enemies, unavailability of public services, strikes, lockouts, acts or omission of sovereign

states or those purporting to represent sovereign states, blockades, embargoes, epidemics, quarantines, public disorders, sabotages, accidents, and such other acts or events beyond MCX control, and further the above is without prejudice to the rights already accrued to MCX due to my / our failure to perform either in full or in part, my / our obligations prior to the occurrence of events of Force Majeure.

d) Or any other nature or type.

22. That MCX shall not be liable for any development, maintenance, updates and, upgrades, error-fixes and any other support of my / our software for accessing the CTCL/IBT facility and shall not be liable for any loss suffered by me / us due to the use of the software for accessing the CTCL/IBT/ATF/WT facility.

23. That neither MCX nor the directors, managers, officers, employees or agents of MCX, guarantee the functioning of the CTCL/IBT**/**ATF/WT facility. MCX and the directors, managers, officers, employees and agents of MCX shall not be liable in any way to me / us or to any of my / our Approved Persons or to any other person, for any non-performance or interruption of CTCL/IBT**/**ATF/WT facility or for any damages, consequential or otherwise, arising there from or occasioned thereby. No proceedings would be adopted by me / us or any third party neither against MCX nor against any individual officer or employee of MCX for any act done by such officer or employee of MCX in their official capacity.

24. I / We shall indemnify and keep indemnified MCX harmless against every and all claims, demand, damages, liabilities, losses and expenses suffered by it directly by reason of the provision of the CTCL/IBT**/**ATF/WT facility to me / us or by reason of my / our noncompliance, contravention with the any of the provisions of this Undertaking.

25. That this Undertaking is applicable not only in respect of the information services and terminal equipment currently offered by me / us to Approved Persons but also in respect of any information services and terminal equipment developed by or for me / us in the future, even if I / we should at any time alter my / our mode of supplying information to Approved Persons provided MCX approves in writing of such alteration with all details.

26. That without prejudice to any other right under any law for the time being in force or which may become applicable, MCX shall be vested with the exclusive right, upon my / our non-compliance with any of the terms and conditions of this Undertaking or upon the termination, suspension of my / our Membership or upon my / our ceasing to be a Member of MCX, to take, at its discretion, such actions, steps, proceedings, measures, decisions within such period of time and upon such terms and conditions as it may deem fit and that any such actions, steps, proceedings, measures, decisions may, inter alia, include denial of access to the CTCL/IBT**/**ATF/WT facility and / or take such disciplinary actions as it deems fit. I / we further undertake that I / we shall abide by and be bound by any actions, steps, proceedings, measures, decisions as may be taken by MCX.

27. That no forbearance, delay or indulgence by MCX in enforcing the provisions of this Undertaking shall prejudice or restrict the rights of MCX nor shall any waiver of its rights operate as a waiver of any subsequent breach and no right, power or remedy herein

conferred upon or reserved for MCX is exclusive of any other right, power or remedy available to MCX and each such right, power or remedy shall be cumulative.

28. I / We shall treat as confidential all information obtained from MCX pursuant to the arrangement and shall not divulge such information to any person (except to my / our own employees and then only to those employees who need to know the same) without the MCX prior written consent and that I / we shall also ensure that my / our employees are aware of and comply with the provisions of this clause. The foregoing obligations as to confidentiality shall survive any termination of the availability of the CTCL/IBT facility.

29. Any declaration or other notice to be given by me / us to MCX shall be sent by registered letter or telex / cable or facsimile transmission to the registered address.

30. This Undertaking will be binding on my / our successors, legal representatives and permitted assignees.

31. I / We shall execute, sign, and subscribe, to such others documents, papers, agreement, covenants, bonds, and / or undertakings as may be prescribed or required by MCX from time to time.

32. A Member shall not advertise or use any software/ program, which may directly or indirectly facilitate matching of orders between or among two or more clients by way of grouping or otherwise. The CTCL/IBT/ATF/WT facility being used by a member shall have inbuilt feature of pushing in all the orders, entered by any of the approved persons only through CTCL/IBT/ATF/WT server of the member for which in turn will push such orders to the trading system of the Exchange, the purpose of execution.

33. A member shall ensure to undertake periodic audit of their CTCL/IBT/ATF/WT systems.

34. I/We hereby confirm that we are not directly/indirectly referring to any past or expected future return/performance of an algorithm trading services/strategies in any form of advertisements/business communication on publicly accessible platforms such as social media/websites/digital & print media etc. and are not associated with any platform providing such reference.

Trading member's undertaking for use of Algorithmic Trading Facility (ATF)

WHEREAS

- MCX also decides to permit the users of CTCL, an ALGORITHMIC TRADING facility (hereinafter referred to as the "ATF facility") which mean any software or facility by the use of which, upon the fulfillment of certain specified parameters, without the necessity of manual entry of orders, buy/sell orders are automatically generated and entered by the software/program facility into the MCX trading system to be matched by the Exchange's system and such permission is subject to terms and conditions as may be specified by MCX from time to time.

- MCX allows to avail the ATF facility by fulfilling all the terms and conditions as may be prescribed from time to time at its discretion.

NOW THEREFORE IN CONSIDERATION OF MCX having agreed to allow me / us to avail the ATF facility, I / we hereby IRREVOCABLY AND UNCONDITIONALLY UNDERTAKE and agree to abide by and be bound by the following terms and conditions.

1. I / We shall use the Algorithmic Trading software approved by the Exchange and the data generated from the same exclusively for trading on MCX trading platform.

2. I / We shall use only those software / strategies which are approved by the Exchange.

3. I / We confirm and certify that the software has undergone tests by us and we are satisfied about the same. Further, we undertake to comply with and be bound by the Rules, Bye-laws, Regulations of the Exchange, SEBI, any other statutory and regulatory body(ies) as may be applicable from time to time.

4. I / We undertake that any modifications / Change to the software to be effected only on prior approval of Exchange.

5. I/We shall not do unauthorized change to the approved software and only use the software which is approved by the Exchange.

6. I / We are using the approved user IDs allotted by the Exchange under ATF in compliance to the details / documents of the strategy submitted to the Exchange.

7. I/We shall not modify the software/algorithm for ATF facility as approved by MCX without prior approval of MCX.

8. I/We shall obtain prior approval of the Exchange on any modification or change to the approved strategy or software used for ATF facility. I/We shall ensure conformance of such modified strategy or algorithmic trading system to the requirements specified by the Exchange / any other regulatory body (ies) from time to time.

9. I/We agree that I/We will take undertaking from our non-empanelled software vendor on the following points

a. Software vendor will not implement any software change or modification in the software already installed at Member's end without the change being approved by the Exchange.
b. Software vendor will not incorporate features / functionalities which are against guidelines of the Exchange / any other regulatory body(ies)

10. I / We agree that MCX shall be entitled to conduct audit / inspection of the ATF facility, at any time in its absolute discretion. MCX officials or MCX appointed auditors can visit our office without prior intimation for the purpose of audit / inspection.

11. I/We confirm that I/We have proper procedures and arrangements to safeguard algorithms from misuse or unauthorised access. I/We undertake to ensure that access shall be given only to authorised persons.

12. I/We agree and confirm that I/We have proper procedures, systems and technical capability to carry out trading through the use of algorithms.

13. I/We agree and confirm that we have real time monitoring systems to identify dysfunctional algorithms that may not behave as expected and will inform the Exchange immediately in case of such incidents. Further, I/We confirm that we have system to control to shut down such algorithms if identified on immediate basis.

14. I/We shall maintain record of control parameters, orders, trades and data points emanating from trades executed through algorithmic trading for minimum 3 years and I/We agree to provide these information / data to the Exchange / appointed auditors during inspection / audits.

15. I/We shall provide details of algorithmic trading strategies to the Exchange wherever required for the purpose of inquiry, surveillance, investigation etc.

16. I/We shall be solely liable and responsible for any monetary losses, damages or other costs and consequences arising in any manner due to algo orders submitted to the Exchange on account of any inadvertent mistake or malfunctioning or failure of our system, including component failure, and shall always keep the Exchange and its official/s indemnified against any loss or damage or compensation etc. Further, I/We shall not hold MCX responsible in any manner whatsoever due to use of ATF Facility.

17. I/We shall ensure that there is no interlink with any system or User ID located / linked outside India.

18. I/We shall be solely responsible and liable for the consequences in case of any breach of this undertaking and MCX shall be entitled to take such appropriate action as deem fit against me/us.

19. I/We shall not extend ATF facility to any other person/entity and/or premises unless I/We obtain prior written permission from MCX.

20. That MCX, at its absolute discretion, shall make the ATF facility available to me / us

only from the date of enabling the ATF facility, till such time as it may deem fit and further that the ATF facility may at any time be withdrawn by MCX at its discretion without giving me / us any notice or any reasons whatsoever.

21. I / We shall adhere to SEBI circular CIR/CDMRD/DEICE/03/2015 dated December 11, 2015 and / or undertakings / circulars as may be prescribed or required by MCX / Regulator from time to time.

22. I / We shall also ensure to undertake System Audit of ATF facility by System Auditors as mentioned in this circular and submit the report as per the timeline specified by the Exchange from time to time.

23. I / We shall also ensure to undertake that Algorithmic Trading Terminals will not be provided to my clients for placing Algorithmic orders directly to the Exchange.

24. I/ We will not directly or indirectly make any reference to the past or expected future return/performance of the algorithm trading services/strategies in any form of advertisements/business communication on publicly accessible platforms such as social media/websites/digital & print media, SMS, what's app messages and telegram services etc.; and/or

25. I/ We are not directly or indirectly associated with any platform providing any reference to the past or expected future return/performance of the algorithm.

26. I/ We shall not make any reference to the past performance or expected return out of algorithmic trading services/strategies, during any presentations/account opening forms/pamphlets/banners/forums/gatherings organized to onboard new clients/pitching new segment/product to existing clients including, exhibiting of past performance, or expected return on any of the platforms used by Authorized Persons/Vendor/associated entities of the member.

27. I/ We hereby confirm that, we have adhered to the provisions of SEBI circular no. SEBI/HO/MIRSD/DOP/P/CIR/2022/117 dated September 02, 2022, and Exchange circular MCX/CTCL/521/2022 dated September 08, 2022.

Trading Member's Undertaking for Wireless Trading Facility

WHEREAS,

- The Exchange has also allowed its trading members providing/using IBT facility to offer the facility of Trading using Wireless Technology (hereinafter referred to as the 'Wireless Trading'), to its clients subject to submission of this Undertaking.

- We are desirous of providing the Wireless Trading facility to our clients in compliance with relevant Circulars of the Exchange.

NOW THEREFORE IN CONSIDERATION OF EXCHANGE having agreed to allow me / us to avail the Wireless Trading facility, I / we hereby IRREVOCABLY AND UNCONDITIONALLY UNDERTAKE and agree to abide by and be bound by the following terms and conditions

We agree and acknowledge that the Exchange has allowed offering of Wireless Trading facility at its discretion and that it may at any time and at its sole discretion withdraw the privilege offering wireless trading facility.

1. I / We undertake and agree to ensure that there shall be secure access, encryption and security of communication for IBT and wireless trading, in accordance with DOT policy and regulation regarding the level of encryption.
2. I / We undertake and agree to ensure that adequate measures shall be taken for user identification, authentication and access control using means such as user-id, passwords, smart cards, biometric devices or other reliable means, to prevent misuse of facility by unauthorised persons.
3. I / We shall ensure that alternative means of communication for placing orders shall be made to our clients available in case of failure of the wireless network.
4. I / We shall not develop or use any software / program which shall either directly or indirectly facilitate orders to cross trades of their clients with each other. All orders shall be offered to the market for matching.
5. I / We undertake that access for order routing is permitted only through the user of client specific User Ids.
6. I / We undertake that the risk management system takes into account overall positions of clients irrespective of the medium of undertaking and provides a system-based control facility on the trading limits of the clients and exposures taken by the clients.
7. I / We undertake to offer facility of Wireless Trading to any client only after obtaining undertaking from the client that they are fully aware and agree for additional provisions specifying possible risks, responsibilities, obligations and liabilities associated with Wireless Trading as mentioned in this undertaking.
8. I / We shall ensure that the addresses of Internet web site/web page where detailed information would be available, along with the minimum information shall be available on hand held device, as it may not be possible to give detailed information to the investor on a hand held device.
9. I / We undertake that order confirmation shall be provided to the user on submission of the order and also on order modification / cancellation in the handheld device. Trade confirmation shall be provided to the user, along with history of trades for the day.
10. I / We undertake and agree to ensure that Session login details are not stored on the devices used for Wireless Trading.
11. I / We undertake to ensure that Network security protocols and interface standards shall be as per prevalent industry standards and sound audit trails are available for all transactions conducted using wireless devices.

12. I / We shall ensure that server routing orders placed through Wireless Trading System to the exchange trading system shall be located in India.
13. I / We shall ensure to undertake periodical System audit of the Wireless Trading system and software as specified by the Exchange and to submit certificate/report to the Exchange.

IN WITNESS WHEREOF this Undertaking is executed by the undersigned on the day, month, year and the place first mentioned above.

SIGNED, SEALED AND DELIVERED BY
_____ for and on behalf of _____
_____

Before me

In Presence of Witnesses

Sr. No.	Name	Address	Signature
1.			
2.			

Annexure 19

Application of Empanelment as an Application Service Provider (ASP)
(to be provided on letter head of the ASP)

BASIC DETAILS:

Sr. #	Particulars	Details

1.	Applicant Name	
2.	Application for empanelment for: (CTCL / IBT / WT)	
3.	API required from Exchange: (NonFIX API / FIX API)	
4.	Registered Address	
5.	Telephone No.	
6.	Fax No	
7.	Name(s) & Designation of Authorised Signatory	
8.	Telephone No. of Authorised Signatory	
9.	Correspondence Address	
10.	Telephone No.	
11.	Fax No	

ORGANISATION DETAILS

Sr. #	Particulars	Details
1.	Organizational Structure	
2.	Promoters / Directors and their brief profile	
3.	Total Staff	
4.	No. of offices	
5.	ASP solution hosting location (Primary)	

6.	ASP solution hosting location (DR Site)	
7.	ASP Solution used for any other Exchange	

TECHNICAL DETAILS:

Complete details of IT Infra Hardware:- Software:- Network:-	
Solution Architecture Diagram	
Solution details with brief write-up on following area • Functionality of the system • Details on Risk Management System of the Solution • Provisions for system redundancy, fault tolerance and load balancing • Database redundancy and standby databases (hot standby / cold standby) • Provisions to monitor system capacity and scalability of system on capacity utilisation • Provisions for back-up systems and data storage • Contingency planning in case of technical failure and capacity planning (including periodic evaluation of capacity based on historical and anticipated volumes) should be documented and be available for inspection • Alternate means of communication with the Exchange in case of primary mode of connectivity failure	
Security Requirements with brief write-up on following area • Physical security of hardware / systems at hosting location and controls on admission of personnel into location.	

• Access control of staff to system. Audit trail of all access by staff. • Maker – Checker for critical functions. • Authentication Mechanism • Password Policy and Encryption of passwords. • Security, reliability and confidentiality of data related to members and clients. Provisions to ensure that a member / client can see data only pertaining to himself and no other members / clients. • Integrity of the data - records maintained in electronic form should not be susceptible to manipulation • Logs of all activities / transaction to be maintained with proper audit facilities • Secured Socket Layer access through Internet – certified by an approved Certifying Authority • Firewalls between Internet and trading set-up • Other security provisions, if any	
Facilities for call center / Help Desk	

We certify that all the statements are true and correct to the best of our knowledge. We undertake to ensure continuous compliance with all the requirements, rules and regulations of the Government, Regulator and Exchange in this regard, as may be issued from time to time.

Signed sealed and delivered by the Authorised representative of the Applicant.

Date

Place:

Annexure 21

No Change Letter
(to be provided on letter head)

Member ID & Name / Vendor Name	
Address	
Software Name and Version No.:	
Strategy Name and Version No.:	

Sr. No.	Particulars	Changes Done (Yes/No)
A	**Does not results in change in OMS or RMS:**	
1	Fix the bugs in the Software	
2	Modifications - 'Look and feel'	
3	Changes pertaining other Exchange's Trading System	
B	**Results in change in OMS or RMS:**	
1	Modification in existing feature/functionalities	
2	Addition/Introduction of New feature/functionalities	
C	**Others:**	
1	Member insisting on version change for Uniformity with other Exchanges	

Signed sealed and delivered by the Authorised Signatory of the Vendor

Signed
Date:
Place:

Annexure 22
Form for creation of in-house CTCL / IBT / WT / ATF Software in CTCL online portal

To
CTCL Department
Multi Commodity Exchange of India Limited
CTS No.255, Exchange Square, Suren Road, Chakala,
Andheri (East), Mumbai – 400 093

I / We _____ (Name of the Member) hereby wish to apply for the following in-house software. Kindly create the same in CTCL online portal to submit online application to the Exchange.

Sr. #	Particulars	Details
1.	Member ID	
2.	Member Name	
3.	API Procured from	Exchange / Vendor
4.	If API is procured from Vendor, name of Empanelled Vendor from whom API is Procured	
5.	Type of API	FIX / Non-FIX
6.	Type of facility	CTCL / IBT / WT / ATF
7.	Software Name	
8.	Software Version No.	
9.	ATF Strategy Name (applicable only for Algo facility)	
10.	ATF Strategy Version No. (applicable only for Algo facility)	
11.	Algo (ATF) Strategy Category (applicable only for Algo facility)	1. Execution 2. Arbitrage 3. Alpha Seeking 4. High Frequency 5. Scalping 6. Others [provide brief description]
12.	Operating System	WINDOWS / LINUX / UNIX / MACOS
13.	Software Developed by	In-House Team / Non-Empanelled vendor
14.	Details Non-Empanelled vendor from whom the software is developed	Name: E-Mail ID:

Annexure 27
System Audit Report – Format
(On the letterhead of system auditor)

Date:

Name of Trading Member:

Member Id:

1. **IBT Audit Checklist (Part I & Part II)**
2. **Wireless Trading Audit Checklist (Part I & Part III)**

Part I

<table>
<tr><th>Sr. No.</th><th>Area of Audit</th><th>Results & Observations</th><th>Auditor's Remark</th></tr>
<tr><td>A.</td><td>System Features & Functionality</td><td>Results</td><td>Opinions</td></tr>
<tr><td>1.</td><td>Software Details

<table><tr><td>Particulars</td><td>Name</td><td>Version No.</td></tr><tr><td>Application Software</td><td></td><td></td></tr><tr><td>Software developed by</td><td></td><td></td></tr><tr><td>Gateway</td><td></td><td></td></tr><tr><td>Risk Administration / Manager</td><td></td><td></td></tr><tr><td>Front End / Order Placement</td><td></td><td></td></tr><tr><td>Database details</td><td></td><td></td></tr></table></td><td></td><td></td></tr>
</table>

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
2.	**The installed system features are as prescribed by MCX.** The Member ensures that software version number is used to identify the system being approved by the Exchange. Price Broadcast The system has a feature for receipt of price broadcast data Order Processing : The system has a feature: a) Which allows order entry and confirmation of orders b) Which allows for modification or cancellation of orders placed Trade Confirmation: The system has a feature, which enables confirmation of trades.		
3.	**The installed system provides a system based control facility over the order input process** Order Entry The system has order placement controls that allow only orders matching the system parameters to be placed. Order Modification The system allows for modification of orders placed. Order Cancellation The system allows for cancellation of orders placed Order Outstanding Check The system has a feature for checking the outstanding orders i.e. the orders that have not yet traded or partially traded.		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Ticker/quote/order book displayed on website also display the time stamp as well as the source of such information against the given information Website of the TM contains information for investor protection such as rules and regulations affecting client broker relationship, arbitration rules, investor protection rules etc. and hyperlink to exchange website providing such information.		
4.	**The installed system provides a system based control facility over the trade confirmation process** Trade Confirmation and Reporting Feature Should allow confirmation and reporting of the orders that have resulted in trade		
5.	**The installed system provides a system based control facility over the order input process** Order Matching Does the System pass all the Orders to the trading platform of the Exchange for execution and not allow any crossing of orders that are routed through it?		
6.	The System generates appropriate audit logs and trails so as to facilitate tracking of events such as orders and trades with timestamp.		
7.	**The installed system allows for placing of orders only for authorized clients** Client ID Verification Only duly authorized client's orders are allowed to be placed. Proprietary order entry mechanism Order entry for Pro types of orders is executed through specific User Ids. The system should not in any manner suggest to the user by default the name of Exchange, Scrip and		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Segment etc. It is the user who should have the option to select the same.		
8.	**The installed system has a User Management system as per the requirements of MCX.** Approved Users: Only users approved by MCX are allowed to access the system and documentation regarding the same is maintained in the form of a) User Approval Application b) Copy of User Qualifications User Creation: New User IDs are created as per the CTCL guidelines. User ID: All users are uniquely identified through issue of unique CTCL ids. User Disablement: Users not compliant with the Exchange Requirements are disabled and event logs maintained User Deletion: Users are deleted as per the MCX guidelines Reissue of User Ids: User Ids are reissued as per the MCX guidelines. Locked User Accounts: Users whose accounts are locked are unlocked only after documented unlocking requests are made.		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
9.	User management and authentication mechanism a) Whether user management, password policy and procedures are documented? b) Whether registration and de-registration of user IDs are carried out as per the approved policy? c) Whether system has facility to manage users and roles assigned to them? d) Whether system allows access to only authorised users? e) Whether system has User ID and Password combination authentication mechanism which allows access only after providing valid details? f) Whether system requests for identification and new password before login into the system? g) Whether system allows access to functionality / module for which they are authorised?		
10.	Whether all successful and failed login attempts are logged with details like IP address and other data to enable traceability (optional)		
B	**Risk Management System**	Results	Opinions
11.	**The installed system is capable of assessing the risk of the client as soon as the order comes in and informs the client of acceptance/rejection of the order within a reasonable period.** Should allow for risk management of the orders placed and online risk monitoring of the orders being placed. Order Parameters There is online risk assessment of all orders placed through the system.		
12.	Whether the system carries out appropriate validations of the following risk parameters including Credit checks before the orders are released to the Exchange: a) Exposure limit b) Margin limit c) Order Quantity Limits d) Order Value Limits e) Daily Price Range Checks f) Cumulative limit on value of unexecuted orders g) Order Price Checks		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
13.	**The installed system provides a system based event logging and system monitoring facility which monitors and logs all activities / events arising from actions taken on the gateway / database server, authorized user terminal and transactions processed for clients or otherwise and the same is not susceptible to manipulation.** The installed systems has a provision for On-line surveillance and risk management as per the requirements of MCX and includes Number of Users Logged In / hooked on to the network incl. privileges of each The installed systems has a provision for off line monitoring and risk management as per the requirements of MCX and includes reports / logs on a) Number of Authorized Users b) Activity logs c) Systems logs d) Number of active clients		
14.	**The installed system provides a system based control facility on the trading limits of the clients and exposures taken by the clients including set pre-defined limits on the exposure and turnover of each client.** Only orders that are within the parameters specified by the risk management systems are allowed to be placed.		
15.	System-based control on the pre-defined trading limits set by the Member.		
16.	**The installed system provides for reconfirmation of orders which are larger than that as specified by the member's risk management system.** Whether system has a manual override facility for allowing orders that do not fit the system based risk control parameters?		
17.	Facility to prompt the user when he puts in orders that are over and above the normal limits set by the Member.		
18.	Review and release facility for orders which got rejected because of clients having exceeded limits etc.		
C	**Session Security**	Results	Options

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
19.	Whether system has secure end-to-end encryption for all data transmission between the client and the member system through a Secure Standardized Protocol. A procedure of mutual authentication between the client and the member server is implemented?		
20.	**The installed system provides for session security f o r all sessions established with the server by the front end application.** a) The system uses session identification and authentication measures to restrict sessions to authorized user only. b) The system uses session security measures like encryption to ensure confidentiality of sessions initiated.		
21.	**The installed system has provision for security, reliability and confidentiality of data through use of encryption technology, SSL or similar session confidentiality protection mechanisms** a) The system uses SSL or similar session confidentiality protection mechanisms b) The system uses a secure storage mechanism for storing of usernames and passwords c) The system adequately protects the confidentiality of the user's trade data.		
D	**Password Security**	Results	Options
22.	**The installed system Authentication mechanism is as per the guidelines of the MCX** a) The installed system uses passwords for authentication. b) The system requests for identification and new password before login into the system. c) The Password is masked at the time of entry.		
23.	System authenticates user with a User Name and password as first level of security.		
24.	System mandates changing of password when the user logs in for the first time?		
25.	Automatic disablement of the user on entering erroneous password on five consecutive occasions.		
26.	The system provides for automatic expiry of passwords at the end of a reasonable duration (maximum 6		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	months) and re-initialisation of access on entering fresh passwords.		
27.	Prior intimation is given to the user before such expiry?		
28.	System controls to ensure that the password is alphanumeric (preferably with one special character), instead of just being alphabets or just numerical.		
29.	System controls to ensure that the changed password cannot be the same as of the last 6 passwords.		
30.	System controls to ensure that the Login id of the user and password should not be the same.		
31.	System controls to ensure that the password should be of minimum six characters and maximum 8 characters.		
32.	User/Client is deactivated if the same is not used for a continuous period of 12 (Twelve) months from date of last use of the account.		
33.	System allows user to change their passwords at their discretion and frequency.		
34.	System controls to ensure that the password is encrypted at member's end so that employees of the member cannot view the same at any point of time.		
35.	Two-factor authentication for login session - (mandatory for IBT & STWT) In case of Biometric authentication additional one more factor out of 1.Knowledge factor (password, PIN) 2.Possession factor (OTP, Security token) to be implemented. In case of non-biometric case		
E	**Infrastructure & Capacity Management**	Results	Options
36.	System has built-in high system availability to address any single point failure.		
37.	Service has adequate bandwidth and multiple links to ensure reliability and redundancy.		
38.	Are the resources monitored, tuned and calculations made for future capacity requirements to ensure the required performance.		
39.	Adequate un-interrupted power supply for smooth operation of the System is available at the Site?		
40.	Whether backup network link is available in case of failure of the primary link to the MCX?		
41.	Adequate data backup & data storage capacity		
42.	**Firewall** Whether suitable firewalls are implemented?		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Is specific port / services access granted on firewall by following a proper approval process?		
43.	**Anti-virus** Is Anti-virus system is installed and updated on regular basis?		
44.	**Additional Access Control Security** **The installed system provides a dual factor authentication system for access to the various components.** Extra Authentication Security The systems uses additional authentication measures like smart cards, biometric authentication or tokens etc. The system has a second level of password control for critical features. Whether adequate controls have been implemented for admission of personnel into the server rooms / place where servers are located and whether audit trails of all the entries / exits at the server room / locations are maintained?		
F	**Backup & Recovery Procedures**	Results	Options
45.	Does the organization's documented policy include a backup policy and procedures?		
46.	The back-up and restore systems implemented by the member is adequate to deliver sustained performance and high availability. Whether the member system has on-site as well as remote site back-up capabilities?		
47.	**The Installed systems backup capability is adequate as per the requirements of the MCX for overcoming loss of product integrity.** Are backups of the following system generated files maintained as per the MCX guidelines?		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	a) At the server/gateway level b) Database c) Audit Trails Reports At the user level a) Market Watch b) Logs c) History d) Reports e) Audit Trails Are backup procedures documented and backup logs maintained? Are the backup logs maintained and are the backups been verified and tested? Are the backup media stored safely in line with the risk involved? Are there any recovery procedures and have the same been tested?		
G	**Business Continuity & Disaster Recovery Procedures**	Results	Options
48.	**Does the Organisation have a suitable documented Business Continuity or Disaster Recovery or Incident Response process commensurate with the organization size and risk profile to ensure a high degree of availability of the installed system** Is there any documentation on Business Continuity / Disaster Recovery / Incident Response? Does a BCP / DRP plan exist? If a BCP/DRP plan exists, has it been tested on regular basis? Are there any documented incident response procedures? Are there any documented risk assessments? Does the installation have a Call List for emergencies maintained?		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Whether redundancy is built at all level of infrastructure? Whether all critical systems / infrastructure are in HA mode?		
49.	**How will the organization assure customers prompt access to their funds and securities in the event the organization determines it is unable to continue its business in the primary location - Network / Communication Link Backup** Is the backup network link adequate in case of failure of the primary link to the MCX? Is the backup network link adequate in case of failure of the primary link connecting the users? Whether detailed network diagram is prepared and available for verification? Is network and network diagram in line with the one submitted to the Exchange?		
50.	**How will the organization assure customers prompt access to their funds and securities in the event the organization determines it is unable to continue its business in the primary location - System Failure Backup** Are there suitable backups for failure of any of the critical system components like a) Gateway / Database Server b) Router c) Network Switch Infrastructure breakdown backup Are there suitable arrangements made for the breakdown in any infrastructure components like a) Power Supply b) Water c) Air Conditioning		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Primary Site Unavailability Have any provision for alternate physical location of employees been made in case of non-availability of the primary site Disaster Recovery Are there suitable provisions for Books and records backup and recovery (hard copy and electronic). Have all mission-critical systems been identified and provision for backup for such systems been made?		
51.	In case of failure of Internet, the alternate channel of communication has adequate capabilities for client identification and authentication.		
H	**Operational Integrity**	Results	Options
52.	Does the organization's policy and procedure document have an access control policy for users of the service?		
53.	**The installed system provides a system based access control over the server as well as the risk management and front end dealing applications while providing for security** Access controls a) The system allows access to only authorized users b) The system has a password mechanism which restricts access to authenticate users.		
54.	**Physical Security** Whether adequate controls have been implemented for admission of personnel into the server rooms / place where servers / hardware / systems are located and whether audit trails of all the entries/exits at the server room / location are maintained?		
55.	**To ensure information security for the Organisation in general and the installed system in particular policy and procedures as per the MCX requirements must be established, implemented and maintained.** Does the organization's documented policy and procedures include the following policies and if so are they in line with the MCX requirements? a) Information Security Policy		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	b) Password Policy / Standards c) User Management and Access Control Policy d) Network Security Policy e) Application Software Policy f) Change Management Policy g) Incident Management Policy h) Version & Patch Management Policy i) Backup & Restoration Policy j) BCP and Response Management Policy k) Audit Trail Policy Does the organization follow any other policy or procedures or documented practices that are relevant? o Whether member has proper procedures, systems and technical capability to carry out trading though CTCL software? o Whether member has proper procedure in place to report any abnormal incident to the Exchange on immediate basis? o Whether system has sufficient security features including password protection for User ID, automatic expiry of password at the end of a reasonable duration and re-initialisation of access on entering fresh password? o Whether any changes / upgrades done to the CTCL software and system only after approval by the Exchange o Whether version and patch management controls are in place? o Whether approvals are in place for all the changes during the audit period? o Whether all backup is available for minimum period of 3 years o Whether backup logs are maintained? o Have backup been verified and tested? o Are there any recovery procedure and have the same been tested? o Whether backup media is stored safely? o Whether Members have defined and implemented recovery procedures to recover system and data from any unforeseen events / disaster? o Whether recovery procedures are tested regularly?		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
56.	The Member ensures that the persons supporting the service possess requisite skills for technical support, System administration and other related functions pertaining to the System.		
57.	**Are documented practices available for various system processes** Day Begins Day Ends Other system processes a) Audit Trails b) Access Logs c) Transaction Logs d) Backup Logs e) Alert Logs f) Activity Logs g) Retention Period h) Data Maintenance		
58.	**In case of failure, is there an escalation procedure implemented?** Day Begin Day End Other system processes Details of the various response procedures including for a) Access Control failure b) Day Begin failure c) Day End failure d) Other system Processes failure		
59.	**To ensure system integrity and stability all changes to the installed system are planned, evaluated for risk, tested, approved and documented.** Planned Changes a) Are changes to the installed system made in a planned manner? b) Are they made by duly authorized personnel? c) Risk Evaluation Process d) Is the risk involved in the implementation of the changes duly factored in?		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Change Approval Is the implemented change duly approved and process documented? Pre-implementation process Is the change request process documented? Change implementation process Is the change implementation process supervised to ensure system integrity and continuity Post implementation process Is user acceptance of the change documented? Unplanned Changes In case of unplanned changes, are the same duly authorized and the manner of change documented later? In case of members self-developed system SDLC documentation and procedures if the installed system is developed In-House.		
	Approvals, Undertaking, Policies and Other Area	Results	Options
60.	**Insurance (optional)** The insurance policy of the Member covers the additional risk of usage of system and probable losses in case of software malfunction.		
61.	**Settlement of Trades** **The installed system provides a system based reports on contracts, margin requirements, payment and delivery obligations** Margin Reports feature Should allow for the reporting of client wise / user wise margin requirements as well as payment and delivery obligations.		
62.	**Database Security** a) The installed system has sufficient controls over the access to and integrity of the database. b) The access to the database is allowed only to authorized users / applications. c) The database is hosted on a secure platform. d) The database stores the user names / passwords securely.		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	e) Whether database is hardened with latest security guidelines.		
63.	Whether system has adequate safety features to ensure it is not susceptible to internal / external attacks?		
64.	Is there any other area/aspect which in the auditor's opinion is not complied with and which is significant and material in relation to the size and the nature of the operations?		
65.	Whether the required details of all the ids created in the server of the trading member, for any purpose (viz. administration, branch administration, mini-administration, surveillance, risk management, trading, view only, testing, etc.) and any changes therein, have been uploaded as per the requirement of the Exchange? If no, please give details		
66.	Whether all the user ids created in the server of the trading member have been mapped to 12 digit codes on a one-to-one basis and a record of the same is maintained? If no, please give details		
J.	**Software Testing Verification**	Results	Options
67.	**Verification of software testing done by Member in Exchange provided Test environment** Whether member has tested the Software in Exchange provided Test Environment Details a) No. of days software has been tested by member in Exchange provided Test environment b) Member Id & User Id used by member for testing in the Exchange provided Test environment Whether any abnormalities observed in the verification of Logs, Reports, Audit Trail and Database of the tests performed by member in Exchange provided Test environment		
68.	**Verification of participation by Member in Periodic Mock Session / Simulated Trading Environment conducted by Exchange**		

<table>
<tr><th>Sr. No.</th><th>Area of Audit</th><th>Results & Observations</th><th>Auditor's Remark</th></tr>
<tr><td></td><td>Whether member has participated in Mock Trading sessions / Simulated Trading Environment conducted by Exchange (Minimum 1 before approval)

Details
<table>
<tr><th>Mock/Simulated Trading Date</th><th>Test Duration</th><th>Segment</th><th>User ID</th><th>CTCL / IBT / WT / ATF</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
</table>
Whether any abnormalities observed in the verification of Logs, Reports, Audit Trail and Database of the tests performed by member while participating in Periodic Mock Trading session conducted by Exchange</td><td></td><td></td></tr>
</table>

PART II

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
A.	**System Features & Functionality**	Results	Opinions
1.	View Order status i.e. the orders that have not yet traded or partially traded or cancelled Order Confirmation		
2.	Acceptance / rejection of an order / trade is communicated to the IBT client.		
3.	**Order Capture / Status** should capture the following information: Order Id generated by the Exchange IBT Client ID and type of IBT Client Date and Time of order placement Scrip name / code / symbol Action (Buy/Sell) Quantity (ensure market lot) Order type (Regular Lot / Stop Loss or such orders as allowed by Exchange)		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Order validity (type as permitted by exchange such as Day, EOS, IOC) Price (Ensure DPR -price band / circuit limit and minimum tick size as allowed by Exchange) Execution status System captures the IP address (from where the orders are originating) for all IBT orders		
4.	Is the trade confirmation sent to the client via SMS/e-mail?		
5.	Can the IBT client choose the interval of receiving the e-mail?		
6.	Whether a unique identification number as prescribed by Exchange (i.e. 111111111111 in CTCL Unique number) is sent with each IBT Order?		
7.	Two-factor authentication for login session has been implemented for all IBT orders emanating using Internet Protocol?		
8.	Member ensures that a specific email id to receive emails is communicated to all clients.		
9.	Member has documented and implemented a procedure to escalate the issue if the email is not responded within one working day.		
B.	**Risk Management System**	Results	Opinions
10.	Whether System-based control is implemented by the Member for the Margin, Order Quantity and Value?		
11.	IBT Member shall ensure that logic / priorities used by the Exchange are followed by the System for treating IBT Client Orders.		
C.	**Session Security**	Results	Opinions
12.	In case of no activity by the IBT client, the system provides for automatic trading session logout after a configurable time period (as determined by the system).		
13.	Whether system use session identification and authentication measures to restrict sessions to authorized user only?		
D.	**Password Security**	**Results**	**Opinions**
14.	Does the organization's policy and procedure document have an access control policy for users of the service?		
15.	Whether all successful and failed login attempts are		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	logged with details like IP address, MAC address and other data to enable traceability		
E.	**Network Security**	**Results**	**Opinions**
16.	Whether the web server is kept separate of the application and database server?		
17.	Whether suitable firewalls are present between the member trading setup and internet?		
18.	Records are temper-proof		
F.	**Operational Integrity**	**Results**	**Opinions**
19.	The IBT member ensures that a specific email id to receive mails from IBT Clients is communicated to all clients.		
20.	Member has documented and implemented a procedure to escalate the issue if the email is not responded within one working day.		
G.	**Approvals, Undertaking, Policies and Other Area**	**Results**	**Opinions**
21.	Display of Investor protection rule, Arbitration rule and rules effecting member - client relationship on approved IBT member's website.		
22.	The web site of IBT approved member provides and displays prominently hyper link to the web site/page on the web site of the MCX displaying rules/Business Rules/circulars.		

PART III

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
A.	**System Features & Functionality**	Results	Opinions
1.	The installed Wireless Trading system provides a system based control facility over the trade confirmation process Trade Confirmation and Reporting Feature		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Should allow confirmation and reporting of the orders that have resulted in trade As it may not be possible to give detailed information about the order status on a hand held device e.g. mobile phones, it should be ensured that minimum information may be given with addresses of the Internet web site / web page where detailed information would be available.		
2.	The installed Wireless Trading system provides a system based control facility over the order input process Order Identification Methodology A unique identification number for each Wireless Trading System captures the IP address (from where the orders are originating) for all Wireless Trading orders?		
3.	Whether a unique identification number as prescribed by Exchange (i.e. 333333333333 in CTCL Unique number) is sent with each Order originating from a wireless device?		
4.	Whether audit trails are provided to the user on the wireless device?		
B.	**Session Security**	Results	Opinions
5.	In case of no activity by the Wireless Trading client, the system provides for automatic trading session logout.		
6.	In case of Wireless Trading whether provision has been made to lock the trading application in case of loss of the hand held device?		
7.	It must be ensured that the session login details should not be stored on the devices used for Wireless Trading.		

Summary Sheet

Sr. No.	Area of Audit	Control / Processes	Compliance S / M / W	Report Referenc
1.	System Features & Functionality	Gateway & System Parameters		
		Application Features		
		Order Management / Identification		

Sr. No.	Area of Audit	Control / Processes	Compliance S / M / W	Report Referenc
2.	Risk Management System	Application Features		
		System Parameters		
		Monitoring System		
3.	Session Security	Session Security Parameters		
		Encryption Technologies		
4.	Password Security	Policies & Procedures		
		Password Management		
5.	Infrastructure & Capacity Management	Network & Redundant Connectivity		
		Scalability		
		Dependability		
6.	Backup & Recovery Procedures	Policies & Procedures		
		Backup & Archival process		
7.	Business Continuity & Disaster Recovery	Policies & Procedures		
		System Failure Backup		
		Disaster Recovery		
8.	Operational Integrity	Server Room / Network Room / Information Security		
		Qualified Personnel & Problem Escalation		
		Change Management		
		Audit Trail Management		
		Software Access Management		
9.	Vulnerability Assessment	Database		
		Operating System		
10.	Software Testing	Testing in Exchange provided Test environment		
		Testing & participation in Exchange conducted Mock		
11.	Any Other area/aspect which in the auditors opinion is not complied with and which is significant and material in relation to the size and the nature of the operations			

Overall rating for the Member's software and system:
(Strong / Medium / Weak)

It is hereby confirmed and certified that system audit of the software and systems used by _____ , a member of Multi Commodity Exchange of India Limited ('Exchange') has been conducted by me and have been found to be in compliance with the requirements stipulated by SEBI and Exchange. The software and system have capacity to meet all requirements of the SEBI and Exchange as on date.

We certify that none of the current Directors / Partners / Promoters of the member are directly or indirectly related with any of the Directors / Promoters / Partners of _____(Name of Auditing Firm) and there is no conflict of interest with respect to the member being audited.

_____

Signature

(Name of the Auditor & Auditing firm)

CISA / DISA / CISM / CISSP Reg. No.:

UDIN:

Date:

Place:

Stamp/Seal:

Note: Process Area Controls Evaluation Criteria

Control Evaluation Criteria	**Description**
Strong (S)	The controls are defined as Strong if the following criteria are met Implemented controls fully comply with the stated objectives and no material weaknesses are found.
Medium (M)	The controls are defined as Medium if the following criteria are met Implemented controls substantially comply with the stated objectives and no material weakness result in substantial risk exposure due to the non-compliance with the criteria Compensatory controls exist which reduce the risk exposure to make it immaterial vis-à-vis the non-compliance with the criteria.
Weak (W)	The controls are defined as Weak if the following criteria are met Implemented controls materially fail to comply with the stated control objectives. Compensating controls fail to reduce the risk so as to make it immaterial vis-à-vis the non-compliance with the compliance criteria.

Annexure 28

System Auditors' Certificate
(On the letterhead of System Auditor)

3. **For CTCL / IBT / WT – Part I & Part II**
4. **For Algo Trading Facility (ATF) – Part I & Part III**

Part – I: System Auditors' Certificate

To

CTCL Department

Multi Commodity Exchange of India Limited

Exchange Square,

Suren Road, Chakala,

Andheri (East), Mumbai – 400 093.

It is hereby confirmed and certified that _____, a member of Multi Commodity Exchange of India Limited ('Exchange') has successfully completed the testing of all areas as laid down by the Exchange for the below mentioned 'CTCL Software' by participating for minimum time period as mandated by the Exchange. The software and system have capacity to meet all requirements of the Exchange and SEBI as on date.

Sr. No.	Particulars	Details
1.	Category	(New / Modification)
2.	Verification of software testing done by Member in Exchange provided Test environment No. of days software has been tested by member in Exchange provided Test environment Member Id & User Id used by member for testing in the Exchange provided Test environment	

<table>
<tr><td></td><td>Whether any abnormalities observed in the verification of Logs, Reports, Audit Trail and Database of the tests performed by member in Exchange provided Test environment</td><td></td></tr>
<tr><td>3.</td><td>Verification of participation by Member in Mock Trading or in the simulated environment session conducted by Exchange Tested in Mock or Simulated Environment:

<table><tr><td>Mock / Simulated Trading Date</td><td>Test Duration (Time in Hrs.)</td><td>Segment</td><td>User ID</td><td>CTCL/IBT/WT/ATF</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>
Whether any abnormalities observed in the verification of Logs, Reports, Audit Trail and Database of the tests performed by member while participating in Mock/Simulated Environment Trading session conducted by Exchange</td><td></td></tr>
<tr><td>4.</td><td><table><tr><td>Particulars</td><td>Name</td><td>Version No</td></tr><tr><td>Application software</td><td></td><td></td></tr><tr><td>Software developed by</td><td></td><td>---</td></tr><tr><td>Gateway</td><td></td><td></td></tr><tr><td>Risk Administration / Manager</td><td></td><td></td></tr><tr><td>Front End / Order Placement / Algo Strategy(ies)</td><td></td><td></td></tr><tr><td>Database details</td><td></td><td></td></tr></table></td><td></td></tr>
</table>

Part II - CTCL / IBT / WT Checklist:

Sr. No.	Area of Audit	Complied (Yes/No)	Auditor's Remark
1.	Display details of Software Name, Version Number		
2.	Display Login/ Log off Status		
3.	Display Market Status (Open/Closed)		
4.	Display of UMC Member Code / SEBI registration Code		
5.	Password policy: a) User should be able to login with valid user id and password b) Password length meets Exchange guidelines c) The password numeric values should not fully comprise of User ID d) In case of multiple invalid password entries the user id should be locked e) Password should be alphanumeric and comprise one special character (mandatory for CTCL) f) Two factor authentication for login (mandatory for IBT / WT) g) Appropriate message is displayed for login attempt failure		
6.	Contract Information displays minimum following details: a) Symbol & Expiry b) Product and Tender Start & End date c) Delivery Unit d) Market lot and Max order size e) Price tick & Price Quotation f) Daily Price Range (DPR)		
7.	Market Picture displays minimum following details: a) Symbol & Expiry b) Last Traded Price (LTP) & Last Traded Quantity (LTQ) c) Open Interest (OI) & Volume d) Open, High, Low & Close. e) Daily Price Range (DPR) f) Turnover Value		
8.	Message window with Exchange & Internal Messages / Announcements is displayed		
9.	Order validity types provided – GTC, GTD, Day, IOC & EOS (write-up should contain details of validity which is not provided)		
10.	Order Entry at Market / Limit price with Regular / Stop Loss type in both Normal & Spread contracts		

Sr. No.	Area of Audit	Complied (Yes/No)	Auditor's Remark
11.	Order Modification from Order type Regular to Stop loss is not allowed.		
12.	Orders Modified / Cancelled / Rejected by Exchange / Member Admin - such information must be displayed in Message bar / Log, Order Book with reasons for cancellation / rejection.		
13.	Order book / Trade book contains minimum following details: a) Market / Limit b) Order number & Order type c) Trade Number d) Symbol & Expiry e) Date and Time f) Price & Quantity g) Validity, Status & Reason		
14.	CTCL terminal info sent along with the orders placed via software complies the guidelines laid by the Exchange		
15.	Order Entry for Disclosed Order below 25% is not allowed		
16.	Maximum order per second does not exceeds 100 order per second (should be mentioned in write-up)		
17.	Order Entry during Halt session is not allowed		
18.	Alerts of Maximum Single Transaction Value / Maximum Single Transaction Quantity / Limit breach for CTCL Terminal are handled by CTCL Manager (application) level.		
19.	MTM Calculation in Software is accurate.		
20.	Trade Modification from OWN to CLI or vice versa for CTCL ID is not allowed		
21.	Activity/ System Logs are maintained		
22.	Whether member has implemented access controls for IT systems & databases		
23.	Whether Member has implemented back-up and recovery policy and controls		
24.	Whether Member does Vulnerability Assessment and Penetration Testing for its critical assets & Application Security Assessments for all critical applications		

Part III – ATF Checklist

Sr. No.	Area of Audit	Complied (Yes / No)	Auditor's Remark
1.	Product write-up of the software contains detailed strategy(ies) write-up with comprehensive note for the following points: a) Algo Software/strategy will not take liquidity away from market and is conducive to efficient price discovery/ fair play. b) The member has system to identify dysfunctional algorithms. Further, the algorithmic system has pre-defined parameters for an automatic stoppage in the event of algorithmic execution leading to a loop or a runaway situation. c) Checks are in place to ensure Maximum order per second does not exceed 120 orders per second. d) Checks are in place to ensure that OTR does not exceeds the ratio prescribed by SEBI (i.e. for excessive modification and cancellation of orders). e) An Algorithmic trading software accounts for all executed, unexecuted and unconfirmed orders, placed by it before releasing further order(s).		
2.	Maker checker facility available for defining parameters in strategy		
3.	CTCL terminal info sent along with the orders placed complies the guidelines laid by the Exchange. The orders generated by Automated Trading software are identified as Algorithm orders while releasing to the Exchange.		
4.	IOC and Market orders are not allowed		
5.	Orders Modified / Cancelled / Rejected by Exchange / Member Admin - such information is displayed in Message bar / Log, Order Book with reasons for cancellation/rejection.		
6.	If Order book / Trade book is provided in software it must contain at least Order number, Order type, Symbol, Expiry, strike price and option type (for options), Date and Time, Price, Quantity, Validity,		

Sr. No.	Area of Audit	Complied (Yes / No)	Auditor's Remark
	Reasons, Status, Market / Limit.		
7.	Order Entry during Halt session is not allowed		
8.	Strategy is behaving as expected while partial execution of orders and after DPR relaxation.		
9.	The members shall have the capability to set up and apply the necessary following risk control checks at the individual order level and client level before each order is generated: **Daily Price Limit**: Orders are not released in violation of the daily price limit defined in the contract specification or any other limit, which may be prescribed by the Exchange. **Maximum Order Size / Position Limits**: (Maximum Single Transaction Value / Maximum Single Transaction Quantity): Order is not released in violation of the maximum order size limit / position limits at client / member level defined in the contract specification. *Alerts of Maximum Single Transaction Value / Maximum Single Transaction Quantity / DPR Limit breach for CTCL Terminal is handled at CTCL Manager level itself.		
10.	MTM Calculation in Software is accurate (optional)		
11.	The algorithm strategy/ies are conducive to efficient price discovery and fair play and shall not take liquidity away from the market		

It is hereby confirmed and certified that system audit of the software and systems used by _____ , a member of Multi Commodity Exchange of India Limited ('Exchange') has been conducted by me and have been found to be in compliance with the requirements stipulated by SEBI and Exchange and the above mentioned software can be put to use.

We also certify that none of the current Directors / Partners / Promoters of the member are directly or indirectly related with any of the Directors / Promoters / Partners of _____ (Name of Auditing Firm) and there is no conflict of interest with respect to the member being audited.

Signature

(Name of the Auditor & Auditing firm)

CISA / DISA / CISM / CISSP Reg. No. :

UDIN:

Date:

Place:

Stamp/Seal:

Annexure 29

Application for API for Tick by Tick Trading Market Data (MarketXstream) facility
(On the letterhead of the Trading Member)

To,
CTCL Department,
Multi Commodity Exchange of India Limited
Exchange Square, CTS No-255, Suren Road,
Chakala, Andheri (East),
Mumbai – 400 093.

I/We …… (Name of the Trading Member) hereby apply for API for Tick by Tick Trading Market Data (MarketXstream)

Sr.#	Particulars	Details
1.	Name of the trading member	
2.	Member Id	
3.	Registered Office/ Correspondence address :	
4.	Telephone & Fax No.:	
5.	Name(s) & Designation of Authorised Signatory:	
6.	Contact details (Phone, Fax, Email) of Authorised Signatory:	
7.	Correspondence Address of Authorised Signatory:	
8.	Name of Software Vendor who will develop the Software/Technical component for MarketXstream API	

I / We certify that all the statements are true and correct to the best of our knowledge. We are aware that in case any of the statements are found to be incorrect or false, we are liable for disciplinary action.

I/We undertake that MarketXstream API shall be used exclusively for the purpose of our own activities and for activities of our clients on MCX platform only.

I/We undertake that we shall keep MarketXstream API information received from the Exchange strictly confidential and shall not disclose the same to unauthorized persons.

I/We undertake to abide by any action deemed fit by the Exchange in case of non-compliance of the conditions so imposed by the Exchange from time to time.

I / We understand that the Exchange reserves the right to modify or withdraw this facility.

Place:
Date:

_____
Signature of the Authorised representative of the trading member & Stamp

Annexure 30

Application for API for Tick by Tick Trading Market Data (MarketXstream) facility

(On the letterhead of the Empanelled ISV)

To,
CTCL Department,
Multi Commodity Exchange of India Limited
Exchange Square, CTS No-255, Suren Road,
Chakala, Andheri (East),
Mumbai – 400 093.

I/We …… (Name of the ISV) hereby apply for API for Tick by Tick Trading Market Data (MarketXstream)

Sr. No.	Particulars	Details
1.	Registered Office/ Correspondence address :	
2.	Telephone & Fax No.:	
3.	Name(s) & Designation of Authorised Signatory:	
4.	Contact details (Phone, Fax, Email) of Authorised Signatory:	
5.	Correspondence Address of Authorised Signatory:	

I / We certify that all the statements are true and correct to the best of our knowledge.

I/We undertake that MarketXstream API shall be used exclusively for the purpose activities of our clients on MCX platform only.

I/We undertake that we shall keep MarketXstream API information received from the Exchange strictly confidential and shall not disclose the same to unauthorized persons.

I/We undertake to abide by any action deemed fit by the Exchange in case of non-compliance of the conditions so imposed by the Exchange from time to time.

I / We understand that the Exchange reserves the right to modify or withdraw this facility.
Place:
Date:

_____
Signature of the Authorised representative of the vendor & Stamp

Annexure 31

Application for enabling Tick by Tick Trading Market Data (MarketXstream)
(On the letterhead of the Trading Member)

To,
CTCL Department,
Multi Commodity Exchange of India Limited
Exchange Square, CTS No-255, Suren Road,
Chakala, Andheri (East),
Mumbai – 400 093.

I/We …… (Name of the Trading Member) hereby apply for enabling Tick by Tick Trading Market Data (MarketXstream)

Sr.	Particulars	Details
1.	Name of the trading member	
2.	Member Id	
3.	Registered Office/ Correspondence address :	
4.	Telephone & Fax No.:	
5.	Name(s) & Designation of Authorised Signatory:	
6.	Contact details (Phone, Fax, Email) of Authorised Signatory:	
7.	Correspondence Address of Authorised Signatory:	
8.	IP Address of Point to Point Leased Line (minimum 2 Mbps bandwidth)	
9.	Empanelled Vendor Name / In-house/ Name of Non-Empanelled vendor	
10.	Name of the Software and Version Number	
11.	Algo Strategy Name and Version number	
12.	Detailed Product Write-up	
13.	Allow Interactive feed to be disabled	**Yes**

I / We certify that all the statements are true and correct to the best of our knowledge. We are aware that in case any of the statements are found to be incorrect or false, we are liable for disciplinary action.

I/We undertake that Tick by Tick Trading Market Data (MarketXstream) shall be used exclusively for the purpose of our own activities and for activities of our clients on MCX platform only.

I/We undertake that we shall keep Tick by Tick Trading Market Data (MarketXstream) data received from the Exchange strictly confidential and shall not disclose the same to unauthorized persons.

I/We undertake to abide by any action deemed fit by the Exchange in case of non-compliance of the conditions so imposed by the Exchange from time to time.

I / We understand that the Exchange reserves the right to modify or withdraw this facility.

Place:
Date:

_____

Signature of the Authorised representative of the trading member & Stamp

Annexure 35

Application form for permission to provide Computer to Computer Link (CTCL) / Internet based Trading (IBT) / Wireless Trading (WT) services using an ASP
(To be executed on letterhead of the Member)

We/I, _____ am/are trading member/s of Multi Commodity Exchange of India Limited; hereby apply for the permission of the Exchange for providing CTCL / IBT / WT facility and services.

A. GENERAL

Member ID	
SEBI Registration number	
Registered Office/ Office address	
Telephone / Fax No.	
Email ID	
Name of the Authorised Signatory and designation	
Contact address of the Authorised Signatory, telephone numbers, fax number	
Name of the Application Service Provider (ASP)	
Copies of the agreement/MOU entered into with the ASP to be enclosed	
User ID to be used for CTCL / IBT / WT using ASP facility	

B. PERSONNEL REQUIREMENTS

Total number of personnel currently employed with breakup of dealers, back office personnel etc.	
No. of personnel to be dedicated to handle CTCL / IBT / WT service with break up for communication handling, back office etc.	
Names of personnel, qualification, etc. of personnel specified in point 2 above	
Whether above personnel handling Internet trading have obtained certification in the MCCP module of the Exchange (copies of mark sheet / certificates to be enclosed): YES / NO	

We certify that all the statements are true and correct to the best of our knowledge. We are aware that in case any of the statements are found to be incorrect or false, we are liable for disciplinary action. We undertake to ensure continuous compliance with the requirements of the Exchange, DoT policy and Regulatory directives and other statutory requirements etc. in this regard, as may be issued from time to time.

We confirm and certify that the software / system provided by the Application Service Provider (ASP) for trading has undergone testing and we are satisfied with the product and it complies with the stipulations of the Exchange.

Signed, sealed and delivered by the Authorised representative of the member.

Name
Designation

Signature of the Authorised Signatory

Date:
Place:

Annexure 36

CTCL / IBT / WT UNDERTAKING

(To be submitted by member)

I / We, _____, an individual /a firm registered under the Partnership Act, 1932 / a Company / body corporate incorporated under the Companies Act of 1956 /_____ Act, 19__, and residing at / having our office/ registered office at _____ (hereinafter referred to as the 'Undersigned' which expression shall unless repugnant to the context include her/his / its successors, assigns and legal representatives) give this Undertaking on this _____ day of _____20_____ at _____ IN FAVOUR of MULTI COMMODITY EXCHANGE OF INDIA LTD, a company incorporated under the Companies Act, 1956 and a Commodity Exchange duly recognized by the Central Government/Forward Markets Commission having its registered office at Exchange Square, CTS No.255, Suren Road, Chakala, Andheri (East), Mumbai – 400 093, India (hereinafter referred to as "MCX", which expression shall unless repugnant to the context include its successors, assigns and legal representatives)

1. WHEREAS, MCX provides *inter-alia* a Computer To Computer Link (hereinafter referred to as the "CTCL facility" as well as facility to use Internet Based Trading and Wireless Trading) through Application Service Provider (ASP) by which MCX provides a facility to its Trading Members to access the trading system of MCX.

2. WHEREAS, MCX makes available the CTCL and/or Internet based trading and/or Wireless Trading facility to its Trading Members through ASP on case to case basis, subject to such terms and conditions as specified by MCX from time to time. One of the conditions is that each trading member willing to avail of the CTCL and/or internet based trading and/or Wireless Trading facility through ASP shall execute an undertaking in favour of MCX in the format prescribed by MCX and agree to abide by any modifications / additions, as may be carried out by MCX, from time to time.

3. WHEREAS, I/We have been admitted to the Trading Membership of MCX, and am/are desirous of availing the CTCL / Internet Based trading / Wireless Trading facility through ASP by fulfilling all the terms and conditions as may be prescribed by MCX from time to time at its discretion in this regard.

NOW THEREFORE IN CONSIDERATION OF MCX having agreed to allow the Member at his / its request, to avail of the CTCL and/or Internet based trading and/or wireless trading facility through ASP, the Trading Member hereby IRREVOCABLY UNDERTAKES and agrees to abide by and be bound by the following terms and conditions:

1. That I / We shall make the CTCL/IBT/WT facility available to the Authorized Persons only after obtaining the prior written consent of MCX and subject to such terms and conditions as may be prescribed by MCX from time to time.

2. I / We undertake and agree to adhere to the provisions of the Bye-laws, Rules, Regulations and Circulars of Exchange and the Regulations, Guidelines and Circulars issued by Securities Exchange Board of India (SEBI) from time to time relating to use, operation of the Trading System, CTCL, IBT and Wireless Trading facility.

3. That notwithstanding anything contained in this Undertaking, all my / our liabilities and obligations as a Trading cum Clearing Member of MCX shall not be affected nor shall be prejudiced in any manner whatsoever.

4. That without prejudice to the generality of the clause (3) of this Undertaking, I / we shall be responsible to settle all the trades executed by the Approved Persons on my / our behalf whether such trades were executed with or without my permission / knowledge and that I shall be bound to complete / fulfill all my / our obligations / liabilities / commitments arising due to the trades executed by the Approved Persons on my / our behalf.

5. That I/We shall abide by, comply with and be bound by the Rules, Bye-laws, and terms and conditions as applicable for CTCL and/or Internet Based Trading and/or Wireless Trading facility of MCX as in existence or as may be modified / amended by the relevant authority from time to time and any circular, order, direction, notice, instructions issued and / or as maybe modified or amended from time to time by the relevant authority.

6. That MCX may, at its discretion, make the CTCL/IBT/WT facility available to me / us at MCX address first mentioned above or at any other address as MCX from time to time may notify to me / us or approve as being the location.

7. That MCX shall be entitled to amend its Rules, Bye Laws, Regulations and terms and conditions for CTCL and/or Internet Based Trading and/or Wireless Trading facility unilaterally and I/We shall be deemed to have consented to them, and accordingly be bound by the Rules, Bye-laws, Regulations and terms and conditions for CTCL and/or Internet Based Trading and/or Wireless Trading facility prevailing from time to time and MCX shall be entitled to all powers vested in them under the Rules, Bye-laws and Regulations, by which I/We unconditionally agree to be bound.

8. That I/We shall execute, sign, subscribe, to such documents, papers, agreements, covenants, bonds and / or undertakings whether legal or otherwise as maybe required by MCX from time to time.

9. That without prejudice to the rights, remedies whether legal or otherwise available to MCX upon my / our non-compliance with this Undertaking, I/We shall indemnify and keep indemnified MCX and its directors, managers, officers, employees and authorized representatives against any loss / damage suffered by it whether legal or otherwise arising due to non-compliance by me/us with the provisions of this Undertaking.

10. That MCX, at its absolute discretion, may make the CTCL/IBT/WT facility available to me / us only from the date of my / our enablement on the CTCL/IBT/WT facility till such time as it may deem fit and further that the CTCL/IBT/WT facility may at any time be withdrawn by MCX at its discretion without giving me / us any notice or any reasons whatsoever.

11. That the CTCL/IBT/WT facility if made available to me / us by MCX will be made available to me / us by MCX on a non-exclusive basis only and that the same may be made available by MCX, at its discretion, to any other Trading cum Clearing Member whomsoever on such terms and conditions as it may deem fit.

12. That I / We may be entitled by giving one month's written notice to request MCX to withdraw the CTCL/IBT/WT facility extended to me / us and such withdrawal shall be subject to such terms and conditions as may be prescribed by MCX including payment of such compensation to MCX as may be decided by MCX at its discretion.

13. That I / We shall be responsible and take all such steps, actions and proceedings to ensure and keep ensured that no Authorized Persons in any way further makes the CTCL/IBT/WT facility available to any other person nor shall extend the CTCL/IBT/WT facility outside his/new premises and that in case I / We fail to ensure the same, MCX shall be empowered to take such action as it may deem fit, which action may include disabling me / us from having access to CTCL/IBT/WT facility, and taking of such disciplinary actions as it may deem fit.

14. I / we undertake that
    a) I / We shall at my / our own expenses provide all lines, cabling, software, hardware, equipment and other communication facilities required for transmission of the data between the Receiving Premises and my / our server at my / our office and also obtain the necessary approvals from relevant authorities.

    b) I / We shall ensure that the connectivity of the CTCL/IBT/WT facility is as per the MCX and Department of Telecommunications (DoT) and/or Mahanagar Telephone Nigam Limited (MTNL) and/or any other appropriate governmental / statutory authority approved network diagram and that I/we shall produce the necessary approvals to MCX in order to meet one of its requirements for enabling me/us for having access to the CTCL/IBT/WT facility.

    c) I / We undertake to ensure that access shall be given only to Authorized persons and also a method shall be established to ensure that non-Approved persons cannot access the system.

    d) I / We undertake to offer facility of IBT/WT to any client only after obtaining undertaking from the client that they are fully aware and agree for additional

provisions specifying possible risks, responsibilities, obligations and liabilities associated with Internet Based Trading/ Wireless Trading as mentioned in Annexure -3 of Exchange circular MCX/COMP/469/2011 dated December 22, 2011.

e) I/We undertake to pay any such license fees/charges/royalties as may be levied by DoT/MTNL/MCX/any other regulatory/statutory authorities from time to time. MCX fees if any for using the CTCL/IBT/WT facility shall be paid in advance.

f) I / We shall provide MCX with the Network diagram and as adopted by me / us for having access to the CTCL/IBT/WT facility between the Receiving Premises and my / our server at my / our office and that we shall also provide MCX with the new network diagram as and whenever any changes are made to the existing network diagram with the prior written permission of MCX.

g) I / We shall notify MCX giving the details related to the Authorised Persons as per **Annexure 7** format described attached hereto for prior approval of MCX and shall acquire the prior written permission from MCX for every additional Authorised Person taken subsequently before letting him / her have access to the CTCL/IBT/WT facility, further in case an Authorised Person is disabled from acting in his / her capacity as such for any reason whatsoever, then I / we shall acquire prior written permission from MCX before appointing any other individual to act as an Authorised Person in his / her place.

h) I / We shall make the necessary changes in the software used by me / us for accessing the CTCL/IBT/WT facility as and when any changes either technical or structural are made by MCX in the CTCL/IBT/WT facility.

i) I / We shall not develop / use any software for accessing the CTCL/IBT/WT facility, which software in the opinion of MCX shall resemble or result in duplication of TRADING SYSTEM software in any manner and further that no representation shall be made by me / us that the software developed by me / us for accessing the CTCL/IBT/WT facility is part of-the TRADING SYSTEM software.

j) I / We shall not assign or otherwise transfer the rights and obligations arising out of the use of the CTCL/IBT/WT facility and this undertaking whether in whole or in part without the prior written consent of MCX.

k) I / We agree not to use, without the express permission of MCX, the name of MCX to directly or indirectly promote my/ our business.

l) I / We shall not, either by myself / ourselves or through any person acting on my / our behalf, issue / release / publish any advertisement, brochure, pamphlet, booklet, notice or any other promotional material on any aspect relating to the CTCL/IBT/WT facility in any form, whether in writing or otherwise, in accordance

to the Code of Advertisement as prescribed by the MCX except with the prior written approval of MCX.

m) I / We agree to obtain prior approval of MCX for change of its activities/operations from existing approved ASP vendor to another.

n) I/We shall not do unauthorized change to the approved software and only use the software which is approved by the Exchange.

15. I / We agree that MCX does not warrant that the provision of the CTCL/IBT/WT facility will be error free or uninterrupted.

16. I / We undertake and agree that

a) I / We shall maintain all systems logs and make the same available for inspection by MCX at any time at its discretion.

b) I / We shall not under any circumstances match the respective orders entered in by my / our Authorised Persons from their terminals by myself / ourselves by using any means whatsoever and that I / we shall route all the orders entered in by my / our Authorised Persons to the Trading System of MCX so that they could be matched by the Central Computer of MCX only.

c) I/We shall ensure that the following guidelines on CTCL/IBT/WT and services would be adhered to:

i. System used by me / us has provision for security, reliability and confidentiality of data through the use of encryption technology.

ii. I / We shall maintain adequate backup systems and data storage capacity and also arrange for alternative means of communications in case of Internet Link failure.

iii. Order/Trade confirmation shall be sent to the investor through email at client's discretion at the time period specified by the client in addition to the other mode of display of such confirmations on real time basis on my/our web site. The investor shall be allowed to specify the time interval on the web site itself within which he/she would like to receive this information through email. Facility for reconfirmation of orders which are larger than that specified by the member's risk management system shall be provided on the internet based system.

iv. I / We shall ensure to have a system based control on the trading limits of clients and exposures taken by clients and also set pre-defined limits on the exposure and turnover of each client. The system will also be

capable of assessing risk of the client as soon as the order comes in. The client also to be informed of acceptance/rejection of the order within a reasonable period. Reports on margin requirements, payment and delivery obligations etc. to be informed to the clients through the system.

v. I/We shall ensure that the following security measures shall be in-built in the system:
   - User Id
   - First Level Password (Private Code)
   - Automatic expiry of passwords at the end of reasonable duration. Re-initialise access on entering fresh passwords.

vi. I/We shall ensure that all transaction logs with proper audit facilities are maintained in the system.

vii. I/We shall ensure that Secured Socket Layer Security for server access through Internet is installed.

viii. I/We shall ensure that shall integrate any advanced level security as specified by MCX from time to time.

ix. I/We shall ensure that the following systems operations procedures will be adhered to:

   - Shall follow similar logic/priorities used by the Exchange to treat client orders.
   - Shall maintain all activities / alerts log with audit trail facility.
   - The Web-server shall have internally generated unique numbering for all client orders/trades.

d) I / We shall ensure that on-line surveillance and risk management features like trade-by-trade position monitoring etc., shall be inbuilt in the CTCL/IBT/WT facility and it shall be flexible to change as per MCX guidelines.

e) I / We shall not develop or use any software / program facility which shall either directly or indirectly facilitate program trading without prior written approval of the Exchange. For the purpose of this clause the term 'Program Trading' shall mean any software or program facility by the use of which, upon the fulfillment of certain specified parameters, without the necessity of manual entry of orders, buy/sell orders are automatically generated and entered by the software / program facility into the Trading System of MCX to be matched by the central computer.

f) I / We shall not develop or use any software / program which shall either directly or indirectly facilitate orders to cross the trades of the clients of MCX with each other. All orders shall be offered to the market for matching.

g) MCX shall be possessed with the absolute right to inspect the internal software used / being utilised me / us at any time at its discretion.

h) I / We shall render all possible assistance and cooperation to MCX by providing access to any kind of information in any form as it may require and shall produce such documents, records, accounts, books, data howsoever stored including data stored in magnetic tapes, floppy diskettes, etc. and any other information as may be required by MCX at its discretion.

17. That MCX shall not be liable for any direct or indirect damage, costs, claims and expenses whatsoever.

i. Arising from mechanical or electrical or telephone or network breakdown or power failure or malfunction of any computer and / or / our server and / or any other auxiliary equipment including but not limited to the use of such ASP facility provided by ASP or any other cause beyond the reasonable control of MCX.

ii. Based upon special indirect economic or consequential loss or damage including, but not limited to loss of profit, business revenue, opportunity costs, and goodwill or anticipated savings.

iii. Caused or contributed to by any event of Force Majeure. For purposes of this Clause, "Force Majeure" means and includes wars, insurrections, revolution, fires, floods, epidemic quarantine restrictions, declared general strikes in relevant industries, act of God, act of the Government of India and any concerned State Government and such other acts or events beyond MCX control, and further the above is without prejudice to the rights already accrued to MCX due to my / our failure to perform either in full or in part, my / our obligations prior to the occurrence of events of Force Majeure.

iv. Or any other nature or type.

18. That MCX shall not be responsible for development, maintenance, updates upgrades, error-fixes and any other support of my / our software for accessing the CTCL/IBT/WT facility and shall not be liable for any loss suffered by me / us due to the use of the software for accessing the CTCL/IBT/WT facility.

19. That neither MCX nor the directors, managers, officers, employees or agents of MCX, guarantee the functioning of the CTCL/IBT/WT facility. MCX and the directors, managers, officers, employees and agents of MCX shall not be liable in any way to me / us or to any of my / our Authorized Persons or to any other person, for any non-performance or interruption of CTCL/IBT/WT facility or for any damages, consequential or otherwise, arising there from or occasioned thereby. No proceedings would be adopted by me / us or any third party neither against MCX nor against any individual officer or employee of MCX for any act done by such officer or employee of MCX in their official capacity.

20. I / We shall indemnify and keep indemnified MCX along-with its Directors, Employees, Officers, Servants, Agents and Representatives harmless against every and all claims demand, damages, liabilities, losses and expenses suffered by it directly by reason of the provision of the CTCL/IBT/WT facility to me / us or by reason of my / our non-compliance, negligence, contravention with the any of the provisions of this Undertaking.

21. That this Undertaking is applicable not only in respect of the information services and terminal equipment currently offered by me / us to Authorised Persons but also in respect of any information services and terminal equipment developed by or for me / us in the future, even if I / we should at any time alter my / our mode of supplying information to Authorised Persons provided MCX approves in writing of such alteration with all details.

22. That without prejudice to any other right under any law for the time being in force or which may become applicable, MCX shall be vested with the exclusive right, upon my / our non-compliance with any of the terms and conditions of this Undertaking or upon the termination, suspension of my / our Membership or upon my / our ceasing to be a Trading cum Clearing Member of MCX, to take, at its discretion, such actions, steps, proceedings, measures, decisions within such period of time and upon such terms and conditions as it may deem fit and that any such actions, steps, proceedings, measures, decisions may, *inter alia*, include denial of access to the CTCL/IBT/WT facility and / or take such disciplinary actions as it deems fit. I / we further undertake that I / we shall abide by and be bound by any actions, steps, proceedings, measures, decisions as may be taken by MCX.

23. That no forbearance, delay or indulgence by MCX in enforcing the provisions of this Undertaking shall prejudice or restrict the rights of MCX nor shall any waiver of its rights operate as a waiver of any subsequent breach and no right, power or remedy herein conferred upon or reserved for MCX is exclusive of any other right, power or remedy available to MCX and each such right, power or remedy shall be cumulative.

24. I / We shall treat as confidential all information obtained from MCX pursuant to the arrangement and shall not divulge such information to any person (except to my / our own employees and then only to those employees who need to know the same) without the prior written consent of MCX and that I / we shall also ensure that my / our employees are aware of and comply with the provisions of this clause. The foregoing obligations as to confidentiality shall survive any termination of the availability of the CTCL/IBT/WT facility.

25. Any declaration or other notice to be given by me / us to MCX shall be sent by registered letter or telex / cable or facsimile transmission to the address first mentioned above.

26. A Member shall not advertise or use any software/ program, which may directly or indirectly facilitate matching of orders between or among two or more clients by way of grouping or otherwise. The CTCL/IBT/WT facility being used by a member shall have

inbuilt feature of pushing in all the orders, entered by any of the Authorized persons only through CTCL/IBT/WT server of the member for which in turn will push such orders to the trading system of the Exchange, the purpose of execution.

27. The above undertaking will be binding on my / our successors and permitted assignees.

28. I/ we hereby represent and warrant to MCX as follows:

    a) I/ we have duly organized and validly existing under the laws of India and has full power and authority and has all material governmental licenses, consents and approvals necessary to own my/our assets and properties and to carry on its business as now conducted.

    b) I/ we have all necessary powers, authority and approvals to execute and deliver this undertaking and to perform all of its obligations arising or created hereunder.

    c) There exists no undertaking, commitments or agreements of any nature which may conflict in interest with this undertaking, and

    d) Person signing onto this Undertaking on my/our behalf has been duly authorized to do so.

    e) That upon execution and delivery hereof and at the execution of this Undertaking and any undertakings contemplated herein, all of such shall be legal, valid and binding obligations on me/ us and shall be enforceable against me/ us in accordance with their respective terms.

    f) I/ we hereby agree that I/ we shall perform my/our role in the manner specified in this undertaking and fulfill my/our duties, and obligations in the manner specified in this undertaking.

29. I/ we hereby further undertake and agree to the following:

    a) Any and all disputes or differences between us and MCX arising out of or in connection with this Undertaking or its performance shall, so far as it is possible, be settled by negotiations between us and MCX amicably through consultation between our representatives and MCX.

    b) Any dispute or difference arising out of or in connection with this Undertaking, which cannot be amicably settled within 30(thirty) days, shall be referred to the sole arbitrator to be appointed by MCX. The arbitration shall be governed by the Arbitration and Conciliation Act, 1996. The award passed by the Arbitrator shall be final and binding on us. The language of arbitration shall be English and the venue of arbitration shall be Mumbai.

    c) I/ we shall bear and pay all the costs and expenses in connection with the arbitration proceedings unless the arbitrators direct otherwise.

d) I/ we must continue to fulfill my/ our obligations under this Undertaking to the extent reasonably practicable based upon the nature of the dispute during the pendency of a Dispute Resolution.

e) The arbitration proceedings including the arbitral award shall be kept confidential.

30. I / we hereby undertake and agree that this Undertaking shall be governed in accordance with the laws of India and shall be subject to the exclusive jurisdiction of the courts in Mumbai, India.

31. I / We undertake that

a) will take all necessary steps to ensure that every new software and any change thereupon to the trading and/or risk management functionalities of the software will be tested as per the framework prescribed by SEBI / Exchange before deployment of such new / modified software in Commodity/Securities market.

b) We shall put in place adequate mechanism to restore trading systems to 'production stat' at the end of testing session so as to ensure integrity trading system

c) will ensure that approval of the Exchange is sought for all new/modified software and will comply with various requirements specified by SEBI or the Exchange from time to time with regard to usage, testing and audit of the software.

d) the absolute liability arising from failure to comply with the above provisions shall lie entirely with me/us.

IN WITNESS WHEREOF this Undertaking is executed by me / us (*in terms of the resolution passed by the Board of Directors at the duly convened meeting held on _____) on the day, month, year and the place first mentioned above

(*I / We or me/us or my / our delete whatever is inapplicable)

SIGNED and DELIVERED by the within named)
_____, *for and on behalf of)

In the presence of Witnesses

Sr. No.	Name	Address	Signature
1.			
2.			

Annexure 37

(To be executed on letter head of the Application Service Provider)

We / I _____, having our registered office at _____ and represented by _____ and hereinafter referred to as APPLICATION SERVICE PROVIDER are providing to M/s._____, having their registered office at _____ who are trading members of Multi Commodity Exchange of India Limited, and hereinafter referred to as MEMBER, services (inter alia including software / hardware / applications / infrastructure etc.) to facilitate CTCL / IBT /WT services to be provided by the member. We hereby certify that the software / system provided by us comply with all the stipulations and directives of Regulator & the Exchange in this regard.

NOTWITHSTANDING the generality of the above, the software provided by us complies with the following provisions in particular as directed by Regulator / the Exchange.

Sr. No:	Particulars	Remarks
1	Access for order routing is permitted only through the use of specific user ids / client specific User ids	Yes / No
2	The access is permitted only through the use of specified / client specified password (private code)	Yes / No
3	The system provides for automatic expiry of passwords at the end of a reasonable duration and reinitializing of access on entering fresh passwords.	Yes / No
4	The system has provision for security, reliability and confidentiality of data related to members and clients	Yes / No
5	Records maintained in electronic form are not susceptible to manipulation	Yes / No
6	All transaction logs are maintained with proper audit facilities (a write-up in this regard shall be enclosed)	Yes / No
7	Secured socket level security for server access through Internet is available.	Yes / No
8	Suitable firewalls between trading set-up and Internet trading set up are available.	Yes / No
9	There are adequate provisions in respect of physical security of the hardware / systems at the hosting location and controls on admission of personnel into the location (audit trail of all entries-exits at location etc.)	Yes / No
10	There is role based access control of the APPLICATION SERVICE PROVIDER's staff to the system and audit trail of all access by the staff.	Yes / No
11	The optional advanced security products used for e-commerce, including SMART cards, dynamic password and 128 bit encryption or above, second level pass words are available. If so, details of the same.	Yes / No

Sr. No:	Particulars	Remarks
12	Between the trading web server and trading client terminals, interfaces standards as per recommendations of IETF and W3C (e.g. HTTP ver 4 or above, HTML ver 4/XML) are adopted.	Yes / No
13	Logic/priorities similar to those used by the Exchange are used to treat client orders.	Yes / No
14	Provision for maintenance of all activities / alerts log with audit trail is available	Yes / No
15	The CTCL / Web server internally generates unique numbering for all client orders/ trades.	Yes / No
16	Adequate provisions for backup systems and data storage capacity are available.	Yes / No
17	There are adequate provisions for system redundancy, fault tolerance and load balancing as well as database redundancy and standby databases (hot standby / cold standby)	Yes / No
18	Adequate provisions for capacity planning including provisions to monitor system capacity utilisation and scalability of system on capacity utilisation are available	Yes / No
19	An alternative means of communication is arranged for in case of Internet link failure / Exchange link failure. (A write up shall be provided in this regard)	Yes / No
20	The web site providing the internet based trading facility contains information meant for investor protection such as rules and regulations affecting client broker relationship, arbitration rules, investor protection rules, etc. The web site also provides and displays prominently hyper link to the web site/page on the web site of the Exchange displaying rules/regulations/circulars.	Yes / No
21	The web site displays the ticker/quote/order book of the Exchange along with the date and time stamp as well as the source of the information.	Yes / No
22	The software provides for sending of the order/trade confirmation through email at clients' discretion at the time period specified by the client in addition to the other mode of display of such confirmations on real time basis on the web site. The web site allows for specifying the time interval on the web site itself by the client.	Yes / No
23	The software provides for reconfirmation of orders which are larger than that as specified by the member's risk management system. In this regard the system is capable of assessing the risk of the member / client as soon as the order comes in and shall inform the member / client of acceptance/rejection of the order within a reasonable period.	Yes / No
24	The software provides a system-based control facility on the trading limits of the member's/ clients and exposures taken by the clients.	Yes / No

Sr. No:	Particulars	Remarks
25	All orders entered into the CTCL / internet-based trading /Wireless Trading system are offered to the market for matching and no cross trades are generated	Yes / No
26	The software has the facility of providing the reports on margin requirements, payment and delivery obligations etc to the member / clients through the system.	Yes / No

Signed sealed and delivered by the Authorised representative of the APPLICATION SERVICE PROVIDER

Date
Place:

We / I, _____ having our registered office at _____ and represented by _____ are trading members of the Exchange. We confirm and certify that the software / system provided by the APPLICATION SERVICE PROVIDER for CTCL / IBT / WT has undergone tests by us and we are satisfied that it complies with the stipulations of the Regulator and the Exchange. We also undertake to get the software / system modified, if necessary to continue compliance with the requirements of the Exchange, DOT policy and regulations with regard to levels of encryption, etc, Regulatory directives and other statutory requirements etc. as may be issued in this regard from time to time.

Countersigned, sealed and delivered by the Authorised representative of the MEMBER

Date:
Place:

Annexure 38

NETWORK DIAGRAM

(Kindly enclose your network architecture)

Annexure 41

Compliance Letter from Member

(To be on the letter head of the MEMBER)
Compliance Letter on Algorithmic Trading Facility

Date:

To,

CTCL Department
Multi Commodity Exchange of India Limited
255, Exchange Square, Suren Road,
Chakala, Andheri (E),
Mumbai – 400 093

1. We confirm that we are using version of Algorithmic Trading Facility (ATF) software which is approved by the Exchange
2. We confirm that we are using only those strategies which are approved by the Exchange
3. We confirm and certify that the software has undergone tests by us and we are satisfied about the same. Further, we undertake to comply with and be bound by the Rules, Bye-laws, Regulations of the Exchange, SEBI, any other statutory and regulatory body(ies) as may be applicable from time to time.
4. We undertake that any modifications / Change to the software to be effected only on prior approval of Exchange.
5. We are using the approved user IDs allotted by the Exchange under ATF in compliance to the details / documents of the strategy submitted to the Exchange.
6. We certify that all the statements are true and correct to the best of our knowledge. We are aware that in case any of the statements are found to be incorrect or false, we are liable for disciplinary action.

Seal and Signature
Authorized person of Member
Name of Member
Member ID

Date:
Place:

Annexure 43

Application form for Discontinuation of CTCL / IBT / Wireless Trading (WT) / Algorithmic Trading Facility (ATF) Software

(On letterhead of the member)

To
CTCL Department
Multi Commodity Exchange of India Limited
255, Exchange Square,
Suren Road, Chakala,
Andheri (East),
Mumbai – 400 093

I/We_____Name of the Member & Member ID) hereby apply for Discontinuation of CTCL / IBT / WT / ATF Software.

Sr. #	Particulars	Details
1.	Member ID	
2.	Registered Office/ Correspondence address	
3.	Type of Software (CTCL / IBT /WT / ATF)	
4.	Software Name and Version number	
5.	For ATF- Strategy Name and version number.	
6.	User ID	
7.	Name of Empanelled Vendor / In-house	
8.	Contact Details of Authorised Signatory	
9.	Email ID of Authorised Signatory	

I / We certify that the CTCL Terminal details registered under the mentioned User ID/s / Software are deactivated by me/us.

I / We certify that all the statements are true and correct to the best of our knowledge. We are aware that in case any of the statements are found to be incorrect or false, we are liable for disciplinary action.

For (Name of the Member)

Authorised signatory
(Name and designation)
Date:
Place:

Glossary

Abbreviation	Meaning
Algo / AT	Algorithmic Trading
ASP	Application Service Provider
ATF	Algorithmic Trading Facility
BCP / DR	Business Continuity Plan / Disaster Recovery
CISA	Certified Information System Auditors from ISACA
CISM	Certified Information Securities Manager from ISACA
CISSP	Certified Information Systems Security Professional
CTCL	Computer to Computer Link
DISA	Diploma in Information System Audit from ICAI
FIX	Financial Exchange Information
FMC	Forward Market Commission
IBT	Internet Based Trading
ICAI	Institute of Chartered Accountants of India
ISV	Independent Software Vendor
MCX	Multi Commodity Exchange of India Limited
RMS	Risk Management System
SEBI	Securities Exchange Board of India
TOR	Terms of Reference
WT / STWT	Wireless Trading

Reference - List of Circulars:

Date	Circular Number	Subject
20-Jul-04	MCX/061/2004	Empanelment of vendor for providing CTCL/IBT Solutions
9-Feb-06	MCX/358/2006	Computer to computer link and IBT facilities
31-Jan-07	MCX/CTCL/042/2007	IBT software In-house development by member
2-Feb-07	MCX/CTCL/043/2007	CTCL (In-house CTCL software development by member OR Procurement of CTCL software from non-empanelled vendor)
1-May-08	MCX/CTCL/006/2008	Uploading Of Computer to computer link (CTCL) details
21-Feb-08	MCX/CTCL/075/2008	CTCL Terminal Details
9-Oct-08	MCX/CTCL/287/2008	IBT Terminal Details using CTCL ID
3-Oct-09	MCX/CTCL/119/2009	CTCL In-house development revised charges
4-Apr-12	MCX/CTCL/132/2012	Compliance Certificate for Automated Trading Facility
16-Apr-12	MCX/CTCL/152/2012	Approval Process For Internet Based Trading & Wireless Trading
22-Mar-13	MCX/CTCL/116/2013	Guidelines For Algorithmic Trading Facility
27-Dec-13	MCX/CTCL/431/2013	Revision in Guidelines for Algorithmic Trading Facility (ATF)
27-Mar-15	MCX/CTCL/095/2015	Computer to Computer Link (CTCL), Internet Based Trading (IBT), Wireless Trading (WT) Services through ASP
7-Mar-15	MCX/CTCL/192/2015	Tick by Tick Trading Market Data (MarketXstream)
15-Dec-15	MCX/TECH/350/2015	Testing of software used in or related to Trading and Risk Management
5-Feb-16	MCX/CTCL/032/2016	Empanelment of Application Service Provider (ASP)
21-Mar-16	MCX/CTCL/080/2016	Testing of Software used in or related to Trading & Risk Management
16-Aug-16	MCX/CTCL/236/2016	Annual system audit report of trading members of National Commodity Derivatives Exchanges
6-Sep-16	MCX/CTCL/270/2016	System Audit of Members of the Exchange
27-Sep-16	MCX/CTCL/299/2016	Broad Guidelines on Algorithmic Trading
01-Mar-17	MCX/CTCL/062/2017	Revision in ATF Guidelines
30-Mar-17	MCX/CTCL/096/2017	System Audit of Members of the Exchange
06-Jun-17	MCX/CTCL/171/2017	CTCL and IBT services through ASP
04-Apr-18	MCX/CTCL/131/2018	Orders per second limit and requirement of empanelment of system auditors for algorithmic trading in Commodity Derivatives
06-Apr-18	MCX/CTCL/140/2018	Revision in ATF Guidelines (Order per second – OPS limit)

15-Nov-19	MCX/CTCL/644/2019	CTCL/IBT/WT software In-house development by member
19-May-20	MCX/CTCL/356/2020	Introduction to CTCL Web Portal for availing CTCL Facility
26-May-20	MCX/CTCL/371/2020	Tick by Tick Trading Market Data (MarketXstream) – Additional Information
16-Jun-20	MCX/CTCL/419/2022	Test Market Environment for testing Negative (-) Price
06-Jul-20	MCX/CTCL/481/2020	CTCL Web Portal – Wireless Trading (WT) & Algo Trading Facility (ATF) application
23-Jul-20	MCX/CTCL/526/2020	Master Circular CTCL – Change in approval process
14-Aug-20	MCX/CTCL/583/2020	Test Market Environment for testing of software
30-Sep-20	MCX/CTCL/721/2020	CTCL Web Portal - Application for CTCL IBT WT services from Empanelled ASP
25-Nov-20	MCX/CTCL/891/2020	Testing of software used in or related to Trading and Risk Management
04-Dec-20	MCX/CTCL/921/2020	CTCL facility enablement Disablement on User ID(s) through eUIMS portal
29-Jan-21	MCX/CTCL/063/2021	CTCL Web Portal – In-house development of CTCL_IBT_WT_ATF software
29-Jun-21	MCX/CTCL/381/2021	Testing of Algo software used in or related to Trading and Risk Management
21-Mar-22	MCX/CTCL/167/2022	Revision in ATF Guidelines (Order per second – OPS limit)
31-Mar-22	MCX/CTCL/186/2022	Revision in ATF Guidelines (Order per second – OPS limit)
15-Jun-22	MCX/CTCL/346/2022	Implementation of Two Factor Authentication
26-Jul-22	MCX/TECH/445/2022	Empanelment of Backoffice Vendors
08-Sep-22	MCX/CTCL/521/2022	Performance return claimed by unregulated platforms offering algorithmic strategies for trading
03-Oct-22	MCX/CTCL/567/2022	Display of Brokerage Statutory Regulatory Levies
10-Nov-22	MCX/CTCL/639/2022	CTCL Web Portal – Application for version change
21-Feb-23	MCX/CTCL/120/2023	Display of Last Trading Day on CTCL Front-end and Back-office system
01-Apr-23	MCX/CTCL/218/2023	Display of Last Trading Day on CTCL Front-end and Back-office system

Note-Some of the Annexures has been omitted as same is merged with other annexures