Circular No.: MCX/CTCL/651/2026 November 19, 2026

Revision in formats for registration of the software documents and other important updates.

In continuation to Exchange Circular no. MCX/CTCL/256/2026 dated April 30, 2016 wherein operational guidelines were specified for Trading members/Empanelled Vendors/ Application Service Providers (ASPs) and Algo Providers seeking registration of their software.

The Current circular modifies/adds to specified sections of the earlier circulars as mentioned above, to the extent of documents and formats required for CTCL software registration.

Accordingly, Trading members are requested to note the following:

1. **Trading Member to provide**
   a. **Vendor confirmation letter:**

In accordance with SEBI circular SEBI/HO/ ITD-1/ITD_CSC_EXT/P/CIR/2024/113 dated 20 August 2024, on the Cybersecurity and Cyber Resilience Framework (CSCRF), and Exchange circular no. MCX/TECH/501/2026 dated September 02, 2026, all Trading Members shall submit a 'Vendor confirmation letter - CSCRF' at the time of CTCL registration with the Exchange. This letter shall confirm that the minimum software / hardware requirements including the baseline requirements and security patch levels have been met as per the specifications provided by the empanelled vendor. The format of the 'Vendor confirmation letter - CSCRF' has been provided in Annexure A.

   b. **Revised Audit Report, Audit Certificate and Undertaking**:

With reference to Exchange circular no. MCX/CTCL/256/2026 dated April 26, 2026 find updated pre-approval Audit Report and Certificate. Further, undertaking for In-house software development by Member for CTCL/IBT/WT/ATF/DMA is also updated.

2. **Revised Algo Provider Empanelment Undertaking:**

Further to the Exchange circular no. MCX/CTCL/256/2026 dated April 26, 2026, Chapter 14 'Annexure C – "UNDERTAKING To be provided by Algo Provider" has been updated with additional clauses pertaining to affiliation with other entities like Brokers/Sub-brokers and others. The revised undertaking has provided as Annexure C.

3. **Format to submit VAPT Report:**

With reference to Exchange circular no. MCX/CTCL/256/2026 dated April 26, 2026, Chapter 14 Criteria for Empanelment of "Algo Provider" point no. 9 format of VAPT report has been provided.

---------- Corporate office ----------
Multi Commodity Exchange of India Limited
Exchange Square, CTS 255, Suren Road, Chakala, Andheri (East), Mumbai – 400 093
Tel.: 022 – 6649 4000 Fax: 022 – 6649 4151
www.mcxindia.com email: customersupport@mcxindia.com

In view of the above, market participants are advised to refer the following table for the respective changes made to the documents and formats:

Sr. No.	Market Participant	Chapter No.	Document reference	Requirement Type
1.	Trading Member	2 & 3	Vendor Confirmation Letter **Annexure A**	New Requirement
2.	Trading Member	2, 3, 4, 5, 12, 14	Auditor Report – Annexure 27 and Auditor Certificate – Annexure 28	Revision in existing formats
3.	Algo Provider	14	Annexure C	Revision in existing formats
4.	Algo Provider	14	Criteria for Empanelment of "Algo Provider" point no. 9 VAPT Report	VAPT report format
5.	Trading Member	5 & 6	Undertaking for In-house software development by Member for CTCL/IBT/WT/ATF/DMA – Annexure - 20	Revision in existing formats

The revised formats (as specified in the enclosed annexures along with additional requirements) shall come into effect immediately. However, applications submitted with formats as per Circular no.: MCX/CTCL/256/2026 dated April 30, 2026, shall be acceptable for CTCL software registration requests submitted till November 30, 2026. Thereafter, only such applications which are submitted as per revised formats shall be considered valid for processing.

Members are requested to take note of the same.

Abhay Angarkar
Vice President

Kindly contact Customer Service Team on 022 – 6649 4040 or send an email at customersupport@mcxindia.com for any clarification.

Classification: Public

Annexure A
Vendor Confirmation Letter - CSCRF
(On the letterhead of the vendor)

To,
CTCL Department
Multi Commodity Exchange of India Ltd. (MCX)
Mumbai.

Subject: Vendor Confirmation regarding compliance with requirements specified in the Cyber Security and Cyber Resilience Framework (CSCRF) of SEBI

Dear Sir/Madam,

With reference to MCX circular no. **MCX/TECH/501/2026 dated September 02, 2026** regarding the Standardisation Testing & Quality Certification (STQC) and other compliance requirements for software vendors as per the Cyber Security and Cyber Resilience Framework (CSCRF) of SEBI.

We, **[Vendor Name]**, having our registered office at **[address]**, are the Software Vendor of below mentioned application/s, being deployed/used by **[Trading Member M/s. _____ & TM Code]** for its trading operations.

With reference to the above-mentioned MCX Circular and the requirements applicable to software registration, we hereby confirm as follows:

1. **Software Details**
   The software/application proposed to be deployed by the Member is:
   - Application Name:
   - Version Number:
   - Release Date:
   - Software Type: CTCL/IBT/WT/ATF/API/DMA-CTCL/DMA-ATF

2. **Validation of Minimum Requirements:**

   We have validated the **minimum software and hardware requirements** prescribed/recommended by us for the above application and confirm that the requirements have been met by the Trading Member in the environment where the application is being deployed.

3. **Baseline Configuration Requirements:**

   We confirm that the relevant **baseline configuration requirements**, including operating system, database, middleware, application dependencies, network configuration and other technical prerequisites applicable to the deployed version, have been verified and found compliant with the requirements specified by us. We shall support only up-to-date, stable, and activity-maintained software versions and ensure compatibility with software and components supported by the respective original equipment manufacturers (OEMs).

4. **Security Patch Levels:**

   We have verified the applicable security patch levels of the software/hardware/operating-system components forming part of the deployment environment and confirm that the required security patches/updates, as applicable to the supported configuration, have been implemented.

5. **Compatibility**
   We confirm that the deployed environment, including the relevant hardware, operating system, database, middleware and other dependencies, is compatible with the above-mentioned version of the application.

6. **Security and Vulnerability Requirements**

   We confirm that the software version provided to the Member, identified by its product name and version number, is a supported version and complies with the organization's approved technology and security standards. All applicable security updates and patches have been implemented, and all vulnerabilities identified during the internal Vulnerability Assessment and Penetration Testing (VAPT) have been remediated and formally closed, as applicable. We shall support only up-to-date, stable, and actively maintained software versions and ensure compatibility with software and components supported by the respective Original Equipment Manufacturers (OEMs).

7. **Change / Version Management**

   Any subsequent major or minor version upgrades, material changes to the application architecture, or modifications impacting the aforementioned requirements shall be assessed for compatibility and compliance with applicable regulatory requirements prior to deployment. Appropriate Functional/ Sanity testing, and User Acceptance Testing (UAT) shall be conducted for all software releases, patches, fixes, and updates to ensure their stability, functionality, and compliance before being made available to members for deployment.

I/We hereby confirm that, the above-mentioned software and version deployed at Trading member end comply with the applicable minimum software/hardware, baseline configuration and security patch levels requirements.

Thanking you,
For [Vendor Name]

_____
Name and Signature of Authorised signatory
Designation:
Date :

Annexure C - Undertaking

To be executed on Rs. 1000/- stamp paper / applicable stamp duty of the state (whichever is higher), duly Notarized on all pages, signed, stamped & sealed by Authorized Signatory on all pages

I / We _____, an individual / a firm registered under the Indian Partnership Act, 1932 / a Limited Liability Partnership registered under Limited Liability Partnership Act 2008/a Company / Body Corporate incorporated under the Companies Act of 2013/ _____ Act, ___, and residing at / having our registered office at/ having place of business at _____ (including its successors, assigns and legal representatives) give this UNDERTAKING on this _____ day of _____ at _____ IN FAVOUR of MULTI COMMODITY EXCHANGE OF INDIA LTD., a company incorporated under the Companies Act of 1956, with 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) I/We (hereinafter also referred to as "Algo Providers") am/are desirous of making available decision support tools/algorithms ("Algorithm/Tools") to trading members of MCX (hereinafter "Trading Members") for the purpose of algorithmic trading and has/have approached MCX.

b) MCX may, at its sole discretion, empanel such Algo Providers to provide Trading Members with Algorithm/Tools purposed for algorithmic trading ("Product") based on the application received from them and fulfilment of criteria stipulated by MCX from time to time. This includes the vendor providing an undertaking in favour of MCX in the prescribed format and agreeing to abide by and be bound by the various terms and conditions prescribed by MCX from time to time.

c) I / We have developed the Product for Trading Members to enable them to avail of the algorithmic trading facilities with the Exchange, and in this regard, I/ We, have submitted our application to MCX for empanelment along with an undertaking as herein below:

NOW THEREFORE IN CONSIDERATION OF MCX having agreed to identify / identified me / us as "Algo Provider" and my/our Product as "Registered Product" for the aforesaid purposes, I / we hereby IRREVOCABLY AND UNCONDITIONALLY AGREE, ACCEPT and UNDERTAKE to abide by and be bound by the following terms and conditions:

1. I/We hereby, declare that the information provided by me/ us in the application form submitted to MCX for registration as an Algo Provider or for the registration of the Product (hereinafter as "Registered Product") are correct, complete, true in all aspects. I/We hereby acknowledge and understand that my/our registration as Algo Provider and/or registration of our Product as Registered Product by MCX is only basis the documentation provided by me to MCX and MCX shall not

Classification: Public

held liable for any claim or penalty arising as a result of use or availment of my Product.

2. I/We agree to pay any such license fees/charges/royalties as may be levied by DOT/SEBI/MCX or any other regulatory/statutory authorities from time to time.
3. I/We shall ensure that the Product along with Risk Management System complies and shall continue to comply at all time with the requirements laid down by MCX and/or SEBI.
4. I/We undertake that our Product adheres to implementation standards formulated by Broker's Industry Standards Forum, under aegis of stock exchanges / commodity exchanges and in consultation with SEBI.
5. I/We undertake to ensure that access shall be given only to the authorized individuals, either it being our representatives ("Algo Provider's Personnel") or representative of the Trading Member ("Approved Users") and shall ensure to deploy necessary security, tools, method (including malware protection) to prohibit any unauthorized access to the Product provided.
6. I/We shall install the Product only at the Trading Member's location only after duly ensuring that all the requirements stipulated by MCX in this regard have been complied by the Trading Member and that the Approved User shall not make the Product available to any other unauthorised person.
7. I/We undertake to give MCX prior notification for any changes to be made to the Software and seek fresh registration from MCX of the Product as Registered Product.
8. I/We undertake that the Product design shall be compatible with MCX's trading system in order to use only the specified messages given by MCX and shall consider all the structures defined by MCX from time to time. I/We shall ensure that the Product shall be compatible with basic functionalities as required by MCX and to any changes thereof. Further, I/We shall ensure that any customization requirement of the Trading Members shall be in line with MCX requirements. It is further clarified that Algo Providers do not interface with MCX's trading system directly, but only through the APIs made available by Trading Members. Accordingly, the Algo Provider's compliance with MCX requirements shall be limited to the functionality and controls permitted by such Trading Member APIs."
9. I/We undertake that the Product developed by me / us shall be at all times similar to that of the specifications of Member Control Station (MCS) / Member Trade Station (MTS) or any other Exchange provided software including any upgrades stipulated by MCX, from time to time. However, I/ we shall ensure that such Product developed by us shall be distinctly identifiable from MCS/MTS or any other Exchange provided software. It is further clarified that Algo Providers do not develop products by directly interfacing with MCS/MTS or any Exchange-provided software. Such products operate solely through the APIs made available by Trading Members, and their functionality is limited to what is permitted by such APIs. Accordingly, the Algo Provider shall regularly seek

guidance from the Trading Member to align its product with the specifications of MCS/MTS or other Exchange software."

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 in my / our / Trading Members own private network.
11. I/We undertake that the following controls shall be inbuilt in the Product by me/us to detect loss of product integrity:
    a. Data validation routines to detect input errors.
    b. Backup and recovery procedures.
12. I / We shall ensure that the Product shall have adequate security features and that the Product cannot be made available to any other person other than Approved Users.
13. I / We shall ensure that the Product shall be developed so as to generate the following from the system for the purpose of verification during the inspection:
    a. Number of users hooked on to the network, including privileges to each user.
    b. All the systems logs and audit trails of the user and the Trading Member.
14. I/We undertake that
    (i) SEBI/MCX shall have the right and privilege of auditing and testing the Product at my/our site and the Trading Members site at any point of time without any prior notice. The source code of the Product shall be made available at my/our site for verification and during such audit by SEBI/MCX.
    (ii) I / We shall provide all the necessary support, technical and otherwise, as may be required for SEBI/MCX or any other regulatory authority to inspect and test the Product and/or our site.
    (iii) I / We shall make available prototype and the technical specifications of the Product to MCX for testing purposes.
    (iv) I / We shall be responsible to fix the bugs in the Product if any, found at the time of testing.
15. That I / We shall meet the criteria set to measure the expected level of performance.
16. I/ We agree that the terms for providing the Product and for the payment thereof, shall be as agreed by the Trading Member and myself/us and MCX shall not be responsible for any breach, either by the Trading Member or by me/ us, of such terms and conditions agreed therein.
17. I/We shall provide the documentation i.e. training manuals required to operate the Product and use of system outputs as specified by the Trading Member.

Further, such documentation shall include the potential error conditions and recommend action in the event of occurrence of error.

18. I / We undertake to provide user training first when the Product is installed and thereafter whenever a major upgrade is released, or at such other intervals as may be required by Trading Member or stipulated by the Exchange for the following:

    (i) Use of Product

    (ii) Maintenance of the Product

    Further, I / We also undertake that the frequency and calibre of my/our personnel providing the training shall be as specified.

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

20. I / We shall develop the Product and make it compatible to other operating systems, in case of any need to transfer the Product from one piece of hardware to another due to technological changes.

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

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

23. I/ We undertake to provide such warranty as may be required for the purposes of this Undertaking.

24. I/We certify that I/we am/are not (as applicable), engaged in the business of trading securities directly or indirectly through any subsidiary or associate/affiliate company or any other Company in which any of my/our directors/relatives have a direct/indirect beneficial interest or through a related party, as defined under applicable law.

25. In case I/we do engage in such business as specified in paragraph 24 above, I/we understand, acknowledge and undertake that I/we shall disclose this information to Exchange and trading members who wish to procure software from me/us.

26. Further, upon sharing the affiliation details with trading members, I/we shall seek the acknowledgement regarding this from the trading members and maintain the record of such acknowledgement.

27. I shall maintain confidentiality with respect to any or all information received by it from the MCX, its members, or any other source, and shall not disclose such information to any third party without prior written consent of MCX, except as required by law. The obligations contained in this clause shall survive the expiration or termination of this undertaking.

Classification: Public

28. I / We undertake to ensure as follows:

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

(ii) That I / We shall provide services for regular on-site maintenance of the Product in such manner and at such time intervals as specified by the Trading Member. The fees for the same will be the amount mutually agreed upon by the Trading Member and me/us and shall not at any point of time be unreasonable so as to put the Trading 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 Trading Member.

(iii) Shall supply and maintain the Product trading solution to any MCX Trading Member at any location in the country, which the Trading Member desires to operate from.

29. I / We undertake to ensure as follows:

i. For the purpose of provision of algo trading through APIs, trading member shall be the principal while the Algo Provider shall act as its agent, while using the API provided by the trading member.

ii. All algo orders originating/flowing through Application Programming Interface (API) extended by Trading Member to Algo Providers, shall be tagged with a unique identifier provided by Stock Exchange.

iii. In case, I/We provide the software to tech-savvy retail investors, then, I/we shall get it registered with the Exchange through Member, only if they cross the Specified Order Per Second Threshold.

iv. Software so provided shall be permitted to be used by such retail investors for their family (but not for other investors). 'Family' for this purpose would be as defined in SEBI circular SEBI/HO/MIRSD/MIRSD-PoD1/P/CIR/2024/169 dated 3 December 2024.

v. Access is allowed only through a unique vendor client specific API key and static IP whitelisted by the Trading Member to ensure identification and traceability of the Algo Provider and the end user (i.e. investor) and the access is not permitted through open APIs;

vi. Access to API is authenticated through two factor authentication;

vii. Product shall have Open Authentication (OAuth) based authentication only and any other authentication mechanisms as prescribed by MCX/SEBI from time to time.

viii. For Black Box Algos, i.e. Algos where logic is not known to the user and is not replicable, I/We shall register as a Research Analyst and maintain a detailed research report for each such algo and confirm to MCX that such report has been maintained. In case there is any change in the logic governing the algo, then I/We shall register such algo as a fresh

algo and maintain a detailed research report for the new algo and confirm to MCX that such report has been maintained.

30. I / We confirm that the Product complies with all the requirements stipulated by MCX, SEBI and the DOT in this regard and undertake that I/we shall modify the Product, if necessary to ensure continued compliance with the requirements of MCX / DOT / SEBI / 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 my / our Product has been identified as 'Registered Product' for these purposes by MCX.
32. I / We hereby undertake to duly inform MCX the list of Trading Members who are using my/our Product as and when MCX seeks such information within the stipulated time, as communicated by MCX.
33. I/We agree and undertake to make any modification/amendment to the Product as required by MCX during the continuation of the empanelment.
34. I/We agree that the term "Empanelment at MCX" is specifically limited to accessing test market and receiving update from MCX regarding the software facility, wherever we display or express our empanelment with MCX.
35. I/We agree that "Empanelment at MCX" does not guarantee the veracity of the Product or any commercial veracity of any contract or agreement done by us with our clients.
36. I/ we agree that our empanelment at MCX does not constitute or imply endorsement, recommendation, or favour by MCX, its associate companies or any of its employees or contractors acting on its behalf. Further to that, I/We would not position ourselves to the market at large in a manner that is akin to conveying endorsement, recommendation or favour by MCX.
37. I / We shall render all possible assistance and co-operation to MCX/SEBI 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/SEBI at its discretion.
38. I/We hereby acknowledge, accept and understand that MCX makes no representations or warranty, express or implied, regarding the advantages, benefits, usefulness, or accuracy of the Product or the advantages accruing from subscribing to it. MCX shall not be responsible or liable for the functionality or performance of the Product and does not guarantee any desired results/outcomes. MCX shall not be liable for any direct or indirect claims, damages or the like arising from the use, availment, or subscription of such facility by the trading member.
39. I/We agree that the empanelment granted by MCX for providing the Product does not, in any manner, represent or warrant that the Product shall be free of any error, omission, defects, bugs, shortcomings or limitations of any nature. The Algo Provider and Trading Member are solely responsible for ensuring that the Product does not result in any market disruption, manipulation, aberration or affecting the integrity of the market or sanctity of price discovery mechanism.

Furthermore, I/We and Trading Member shall be solely liable for all/any dysfunctional, erroneous or disorderly functioning of the Product and for any technical glitch in the same and the consequences arising therefrom. I/we and Trading Member shall at all times ensure that the Product is not used for any purpose that is contrary to applicable Circulars, Byelaws, Rules and Regulations of the SEBI and/or Exchange.

40. I/We agree that in event of any dispute arising between me/us and Trading Member/s, MCX shall not be responsible for the resolution of such dispute. Furthermore, MCX shall not be liable for any breach of terms and conditions, commercial agreement or other agreements mutually agreed upon between I/we and trading member.

41. I/We agree that MCX only facilitates access for Trading Members to the test market to test the Product that is developed by me/us. The grant of such access by MCX shall not be used by me/us to communicate to any Trading Members that MCX assumes any responsibility for the Product developed by us.

42. I / We shall indemnify and keep MCX harmless and defend against all claims, demands, damages, liabilities, losses and expenses (including the reasonable cost of investigating and reasonable counsel fees) suffered by MCX due to my / our non-compliance, breach or contravention of any provisions of this Undertaking or due to bugs or malfunctioning of the Product provided by us to the Trading Members of MCX or any claims, damages or the like arising from the use, availment, or subscription of such facility by the trading member. This indemnification shall be limited to the average annual revenue generated by us in the last three (3) completed and audited financial years from the suite of products registered by MCX.

43. The limits on liability as stated above do not apply to: (a) Fraud, fraudulent misrepresentation, willful misconduct, or conduct that demonstrates a reckless disregard for the rights of others; (b) Negligence causing death or personal injury; (c) any third Party claim related to Intellectual Property Rights.

44. For the purpose of this Undertaking "**Intellectual Property Rights**" means:
    i. Copyrights, patents, know-how, trade secret, database rights and rights in trademarks and designs (whether registered or unregistered),
    ii. Applications for registration, and the right to apply for registration and extensions and renewals for any of the same, and
    iii. All other intellectual property rights and equivalent or similar forms of protection existing anywhere in the world including any future rights that may be recognized.

45. If any obligation is cast unto MCX by any court of competent jurisdiction to pay or deposit any interim amount pending final disposal of any matter pertaining to the above mentioned adverse actions, claims or demands, I/ We shall promptly (without any delay or demur) pay such interim amount to MCX, provided it does not exceed the average annual revenue generated of Algo business by us in the last three (3) completed and audited financial years from the suite of products registered by MCX. In the event of any higher amount being ordered to be paid or deposited, then the same would be mutually discussed and appropriate amount agreed upon for payment to MCX.

Classification: Public

46. 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.
47. 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.
48. I/We shall not advertise or publish any brochure, pamphlet, booklet, notice, or promotional material mentioning MCX or MCS / MTS without the written consent of MCX.
49. I/We shall submit that I/We shall ensure that the empanelment fee payable to MCX is timely paid to MCX.
50. I/We shall submit such details as required by MCX including the details regarding the list of Trading Members of MCX to whom I/we have provided the license to use the Product and number of licenses provided to the Trading Members of MCX. The details shall be submitted by me / us on a periodical basis or as and when asked by MCX.
51. I/We shall execute, sign, subscribe to such other documents, papers, agreement, covenants, bonds, and/or undertakings as may be prescribed or required by MCX from time to time.
52. I/We shall not (a) Provide advice or recommendations related to securities unless registered with or expressly permitted by SEBI and (b) Make any claims about returns or performance related to securities unless expressly permitted by SEBI. A breach of this clause will allow MCX to terminate my/our empanelment immediately.
53. I/We agree that MCX has the right to withdraw my / our identification as “Algo Provider” or identification of my/our Product ‘Registered Product’ for any segment without giving any reason.
54. I/We undertake that any agreement entered into between Trading Members and Algo Providers shall be separate and independent of this Undertaking and I/We shall ensure that MCX shall not be liable for any claim arising out of such agreement entered into between Trading Members and Algo Providers.
55. I/We undertake that there is no conflict of interest with the business of MCX. I / We shall ensure continued compliance with this requirement. We also undertake that our group companies including holding or subsidiary companies are not engaged in a business which gives rise to conflict of interest with the business of MCX. I/We shall immediately inform MCX in case a conflict of interest arises in the future and in such an event, MCX may take such action as it may deem fit including withdrawal of identification of my/our Product.

56. In the event that the Undersigned wishes to dis-empanel itself, it shall provide MCX with at least 90 days' prior notice. The Undersigned agrees to extend full cooperation and support to the trading member(s) to ensure a smooth transition, including but not limited to assisting with the porting of services, data and any necessary technical or operational handover.
57. The Undersigned agrees and undertakes 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 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's control and further the above is without prejudice to the rights already accrued to MCX due to failure of the Undersigned to perform either in full or in part, its obligations arising prior to the occurrence of events of Force Majeure.
58. I/We affirm to provide all support that is required for the conduct of any audit or investigation or process in respect of our Product, pursuant to any regulatory requirement.
59. I/We affirm to abide by all relevant Laws, Rules and Regulations applicable to me/us during the course of my/our empanelment with MCX for providing Algorithm/Tools to Trading Members of MCX for the purpose of algorithmic trading.
60. I/We affirm that this Undertaking is governed by the laws of India and any dispute arising from the same will be subject to the jurisdiction of courts of Mumbai.
61. We affirm that in the event of contravention of the above terms of the Undertaking, MCX shall have the absolute right to discontinue our empanelment without notice and without assigning any specific reasons whatsoever. We confirm that such a decision by MCX to discontinue our empanelment shall be final and binding on us.

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 the presence of Witnesses

1. _____ (Name & Address) ……..
2. _____ (Name & Address) ……..

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)**
3. **DMA Audit Checklist (Part I & Part IV)**

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>FIX / Non-FIX</td><td>---</td></tr>
<tr><td>Risk Administration / Manager</td><td></td><td></td></tr>
<tr><td>Algo Strategy(ies)</td><td></td><td></td></tr>
<tr><td>Exe/Browser (in case of IBT):</td><td></td><td>---</td></tr>
<tr><td>Database details</td><td></td><td></td></tr>
</table></td><td></td><td></td></tr>
<tr><td>2.</td><td>The installed system features are as prescribed by MCX.

The Member ensures that the 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
c) Order modification/ cancellation facility and trade history provided to clients

Trade Confirmation:</td><td></td><td></td></tr>
</table>

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	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 been traded or partially traded. 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 orders only for authorized clients** Client ID Verification		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	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 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 the 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)		
11.	Order/ Trade confirmation displayed on website/ application on real time basis		
B	**Risk Management System**	Results	Opinions
12.	**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.		
13.	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 h) Security wise limit check		
14.	**The installed system provides a system-based event logging and system monitoring facility which monitors and logs all activities / events arising**		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	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 have 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 have a provision for offline monitoring and risk management as per the requirements of MCX and include reports / logs on a) Number of Authorized Users b) Activity logs c) Systems logs d) Number of active clients		
15.	**The installed system provides a system-based control facility on the trading limits of the clients and exposures taken by the clients include 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.		
16.	System-based control over the pre-defined trading limits set by the Member.		
17.	**The installed system provides for reconfirmation of orders which are larger than that as specified by the members' risk management system.** Whether system has a manual override facility for allowing orders that do not fit the system-based risk control parameters?		
18.	Facility to prompt the user when he puts in orders that are over and above the normal limits set by the Member.		
19.	Review and release facility for orders which got rejected because of clients having exceeded limits etc.		
20.	Internally generated unique numbering for all client order/trades		
21.	To capture IP address for all orders		
22.	System doesn't have any functionality for matching of cross trades, and all orders are offered to exchange		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	trading system for matching		
C	**Session Security**	Results	Options
23.	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?		
24.	Session login details are not stored on the devices used for internet-based trading and securities trading using wireless technology.		
25.	**The installed system provides 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 users only. b) The system uses session security measures like encryption to ensure confidentiality of sessions initiated.		
26.	**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
27.	**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 identification and a new password before logging into the system. c) The Password is masked at the time of entry.		
28.	System authenticates users with a Username and password as first level of security.		
29.	System mandates changing of password when the user logs in for the first time?		
30.	Automatic disablement of the user on entering erroneous password on five consecutive occasions.		
31.	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.		
32.	Prior intimation is given to the user before such expiry?		
33.	System controls to ensure that the password is alphanumeric (preferably with one special character), instead of just being alphabets or just numerical.		
34.	System controls to ensure that the changed password cannot be the same as of the last 6 passwords.		
35.	System controls to ensure that the Login id of the user and password should not be the same.		
36.	System controls to ensure that the password should be of minimum 8 characters and maximum 12 characters.		
37.	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.		
38.	System allows users to change their passwords at their discretion and frequency.		
39.	System controls to ensure that the password is encrypted at the member's end so that employees of the member cannot view the same at any point of time.		
40.	Two-factor authentication for login session - (mandatory for IBT & WT) 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		
41.	2 factor authorization for login session and these 2 factors can't be the same		
E	**Infrastructure & Capacity Management**	Results	Options
42.	System has built-in high system availability to address any single point failure.		
43.	Service has adequate bandwidth and multiple links to ensure reliability and redundancy.		
44.	Are the resources monitored, tuned and calculations made for future capacity requirements to ensure the required performance.		
45.	Adequate un-interrupted power supply for smooth operation of the System is available at the Site?		
46.	Whether backup network link is available in case of failure of the primary link to the MCX?		
47.	Adequate data backup & data storage capacity.		
48.	**Firewall** Whether suitable firewalls are implemented? Suitable Firewalls between trading set-up directly connected to an Exchange trading system and the Internet trading set-up		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Is specific port / services access granted on firewall by following a proper approval process?		
49.	Network security protocols & interface standards are as per prevalent industry standards		
50.	**Anti-virus** Is Anti-virus system is installed and updated on regular basis?		
51.	**Additional Access Control Security** **The installed system provides a dual factor authentication system for access to the various components.** Extra Authentication Security The systems use 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
52.	Does the organization's documented policy include a backup policy and procedures?		
53.	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?		
54.	**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? a) At the server/gateway level b) Database c) Audit Trails Reports At the user level a) Market Watch b) Logs		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	c) History d) Reports e) Audit Trails Are backup procedures documented, and backup logs maintained? Are the backup logs maintained and are the backups 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
55.	**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? Whether redundancy is built at all level of infrastructure? Whether all critical systems / infrastructure are in HA mode?		
56.	**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?		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	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?		
57.	Location of all servers is within India		
58.	Security, reliability & confidentiality of data through encryption		
59.	Suitably qualified & Adequate personnel to handle communication including trading instruction & back-office work		
60.	**How will the organization assure customers that 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 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?		
61.	In case of failure of the IBT or wireless network, alternative means of communication for placing orders		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	for client with identification and authentication. are available		
H	**Operational Integrity**	Results	Options
62.	Does the organization's policy and procedure document have an access control policy for users of the service?		
63.	**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.		
64.	**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?		
65.	**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 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		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	report any abnormal incident to the Exchange on an 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 in place? o Whether approvals are in place for all the changes during the audit period? o Whether all backup is available for a minimum period of 3 years o Whether backup logs are maintained? o Have backup been verified and tested? o Are there any recovery procedures 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?		
66.	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.		
67.	**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		
68.	**In case of failure, is there an escalation procedure implemented?** Day Begin		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	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		
69.	**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? 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.		
I	**Approvals, Undertaking, Policies and Other Area**	Results	Options
70.	**Insurance (optional)** The insurance policy of the Member covers the additional risk of usage of the system and probable losses in case of software malfunction.		
71.	**Settlement of Trades** **The installed system provides system-based**		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	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.		
72.	**Database Security** a) The installed system has sufficient control 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 usernames / passwords securely. e) Whether database is hardened with the latest security guidelines.		
73.	Whether system has adequate safety features to ensure it is not susceptible to internal / external attacks?		
74.	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?		
75.	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		
76.	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
77.	**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		

<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>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</td><td></td><td></td></tr>
<tr><td>78.</td><td>Verification of participation by Member in Periodic Mock Session / Simulated Trading Environment conducted by Exchange

Whether members have 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 / DMACTCL / DMAATF</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 members 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 been 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) 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.	Has two-factor authentication for login session been implemented for all IBT orders emanating using Internet Protocol?		
8.	Members ensure that a specific email id to receive emails is communicated to all clients.		
9.	Members have documented and implemented a procedure to escalate the issue if the email is not responded within one working day.		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
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 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.	Members have 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		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	Trade Confirmation and Reporting Feature 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 handheld 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?		
5.	WT Member shall ensure that logic / priorities used by the Exchange are followed by the System for treating IBT Client Orders.		
6.	Is the order / trade confirmation sent to the client via SMS/e-mail?		
7.	Minimum information provided to investors on a handheld device along with address of website/ webpage where detailed information is available (Applicable for WT only)		
B.	**Session Security**	Results	Opinions
8.	In case of no activity by the Wireless Trading client, the system provides for automatic trading session logout.		
9.	In the case of Wireless Trading whether provision has been made to lock the trading application in case of loss of the hand held device?		
10.	It must be ensured that the session login details should not be stored on the devices used for Wireless Trading.		
11.	Other forms of access controls such as smart cards, biometric devices etc.		

PART IV

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	System Features & Functionality	Results	Opinions
1.	**The installed DMA 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.** Order Parameters based on the respective risk profile of the client. • Spread order value and quantity limit per order should not exceed as specified in RMS. • Order value limit at client level. • Order value limit at branch level. • Security-wise order limits at client level. Are there provisions for setting - trading limits, - exposure limits, - position limits, - order quantity limits order value limits, - price range checks, - Net Position limits for all DMA clients based on risk assessment, credit quality and available margins of the client. (Net outstanding position to fully cover the emanating risk with client's available margin) - Also, appropriate limits for securities which are subject to FPI limits as specified as regulator.		
2.	**Order Management** - DMA orders are routed through electronic/automated RMS of the TM - All DMA orders are routed to the exchange trading system through the broker's trading system - Similar logic/priorities used by the SE to treat DMA client orders - Internally generated unique numbering for all client order/trades - DMA facility shall be offered only to those categories of investors which have been specified by Stock Exchange - The system doesn't have any functionality for matching of cross trades and all orders are		

Classification: Public

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
	offered to exchange trading system for matching		
3.	**The installed DMA system provides a system-based control facility over the order input process.** Whether Broker is using similar logic/ priorities as used by Exchange to treat DMA client orders. • The system has appropriate authority levels to ensure that the limits can be setup only by persons authorized by the risk / compliance manager. • Frequency of antivirus patch updation. • TM maintains logs for all activities to facilitate audit trail for all DMA orders and is able to provide identification of actual user-id for all such orders and trades		
4.	**The installed DMA 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.** • Review of logs (activity/system/alert/incident)		
5.	**The installed DMA system parameters are as per MCX norms** • Market Segment • IP Address		
6.	**To ensure information security for the Organization in general and the installed DMA system in particular policy and procedures as per the MCX requirements must be established, implemented and maintained.** Whether installed systems & procedures are adequate to handle DMA orders/ trades? Whether details of users activated for DMA facilities is maintained along with username, unique identification of user, authorization levels. Whether all the documents are classified as per CIA (Confidentiality, Integrity and Availability)		
7.	**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.** Are there suitable backups for failure of any of the critical system components like. • Gateway / Database Server / web server • CTCL router • Network Switch		

Sr. No.	Area of Audit	Results & Observations	Auditor's Remark
8.	**Firewall** Are all servers placed in a DMZ and segregated from other zones by using a firewall? Is there segregation between application and database servers? Are user and server zones segregated?		
9.	**Physical Security** Server Room/Network Room Security (UPS)		

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.

I hereby confirm, Member has complied with the requirement of Exchange Circular MCX/TECH/501/2026 dated September 02, 2026, on minimum software / hardware requirements including the baseline requirements and security patch levels specified by the empanelled vendor in the vendor confirmation letter.

_____
Signature
(Name of the Auditor & Auditing firm)
CISA / DISA / CISM / CISSP Reg. No.:
UDIN:
Date:
Place:
Stamp/Seal:
(valid digital signatures are acceptable)

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)

1. **CTCL – Part I, Part II**
2. **IBT / WT – Part I, Part II & Part IV**
3. **Algo Trading Facility (ATF)– Part I, Part III**
4. **DMA – CTCL – Part I, Part II & Part V**
5. **DMA – Algo – Part I, Part III & Part V**

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 Trading Member ID_____Member Name_____, and 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 the capacity to meet all requirements of the Exchange and SEBI as on date.

<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>1.</td><td>Category</td><td>(New / Modification)</td></tr>
<tr><td>2.</td><td>Verification of software testing done by Member in Exchange provided Test environment

No. of days software has been tested by members in Exchange provided Test environment

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 members 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><th>Mock / Simulated Trading Date</th><th>Test Duration (Time in Hrs.)</th><th>Segment</th><th>User ID</th><th>CTCL/IBT/WT/ATF/DMA-CTCL/DMA-ATF</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
</table>
</td><td></td></tr>
</table>

	Whether any abnormalities observed in the verification of Logs, Reports, Audit Trail and Database of the tests performed by members while participating in Mock/Simulated Environment Trading session conducted by Exchange	
4.		

Particulars	Name	Version No
Application software		
Software developed by		---
Gateway	FIX / Non-FIX	---
Risk Administration / Manager		
Algo Strategy(ies)		
Exe/Browser/ (in case of IBT):		---
Database details		

Part II - CTCL / IBT / WT /DMA-CTCL 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		

Classification: Public

Sr. No.	Area of Audit	Complied (Yes/No)	Auditor's Remark
6.	Contract Information displays the 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		
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 with the guidelines laid by the Exchange		
15.	Order Entry for Disclosed Order below 25% is not allowed		
16.	Maximum order per second does not exceed 120 order per second (should be		

Sr. No.	Area of Audit	Complied (Yes/No)	Auditor's Remark
	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 is 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		
25.	Display of Brokerage statutory Regulatory Levies on terminal.		
26.	Display of Last Trading Day on CTC L/IBT/WT/DMA-CTCL front-end.		
27.	**Hardware / Software** Trading member technical team shall be responsible for determining the hardware configuration including servers, firewalls, network devices, and anti-malware applications. Hardware configurations and security settings should be implemented as per the trading member policy subject to same meeting the minimum software / hardware requirements including the baseline requirements and security patch levels specifications provided by the vendor/ developed Inhouse. Trading Member has successful completed the sanity test of all software releases before deployment in production.		

Sr. No.	Area of Audit	Complied (Yes/No)	Auditor's Remark
28. **A**	**At Individual Order Level**		
1.	**Price Check** Orders shall not be released in breach of the price bands /dummy filters as defined by the Exchange in respective segments. Additionally, Orders should not be placed at unrealistic price that are far away from the fair price at the relevant point of time. Appropriate internal systems/ checks in place to restrict placing orders at unrealistic prices.		
2.	**Quantity Limit Check** Orders shall not be released in breach of order quantity limit per order as defined by the Exchange in respective segments.		
3.	**Order Value Check** Orders are not released in breach of the "value per order" (combination of price and quantity checks) as defined by the Exchange for the security in respective segments.		
4.	**Regulator Violation Check for FPI Restricted Commodity Contracts** Orders shall not be released for security restricted by regulator from time to time. Appropriate limits for securities which are subjected to FPI limits as specified by regulator.		
28. **B**	**At Client Level**		
1.	**Cumulative Open Order Value Check** Orders shall not be released in breach of Individual client level cumulative open order value check at the client level. An open order value for a client is the total value of its unexecuted orders released from the trading members system. System shall not permit the user to set "Unlimited values".		
2.	**Net Position Vs. Available Margin Check** Orders shall not be released in breach of Net positions as against the available margin defined by the trading member for the client		
3.	**Position Limit Check**		

Sr. No.	Area of Audit	Complied (Yes/No)	Auditor's Remark
	Provision to generate and monitor alerts on position limits at client level / member level as defined in the contract specifications. Further, Orders shall not be released in breach / violation of position limit at client level / member level and the same is validated with necessary risk mitigation checks / controls in the CTCL system of the member.		
4.	**Exposure Limit Check at individual client level and at overall level for all clients.** Orders shall not be released in breach of exposure limit as defined by the trading member for the client.		
5.	**Trading Limit Check & Security Wise Limit Check** Orders shall not be released in breach of security-wise value limit & **Trading Limit** as defined by the trading member for individual security.		
6.	**Turnover limits**		
7.	**Credit Check**		

Part III – ATF / DMA-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 a 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 the Maximum order per second does not exceed 120 orders per second. d) Checks are in place to ensure that OTR does not exceed 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		

Sr. No.	Area of Audit	Complied (Yes / No)	Auditor's Remark
	order(s). f) Automated Execution Check: An algo shall account for all executed, unexecuted and unconfirmed orders placed by it before releasing any further order/s.		
2.	Maker checker facility available for defining parameters in strategy		
3.	CTCL terminal info sent along with the orders placed complies with the guidelines laid by the Exchange. The orders generated by Automated Trading software are identified as Algorithm orders while being released 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, 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. Additionally, Orders should not be placed at unrealistic price that are far away from the fair price at the relevant point of time. Appropriate internal systems/ checks in place to restrict placing orders at unrealistic prices. **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.		

Sr. No.	Area of Audit	Complied (Yes / No)	Auditor's Remark
	*Alerts of Maximum Single Transaction Value / Maximum Single Transaction Quantity / DPR Limit breach for CTCL Terminal is handled at CTCL Manager level itself.		
10.	**Position Limits**: Provision to generate and monitor alerts on position limits at client level / member level as defined in the contract specifications. Further, Orders shall not be released in breach / violation of position limit at client level / member level and the same is validated with necessary risk mitigation checks / controls in the algorithmic / CTCL trading system of the member.		
11.	MTM Calculation in Software is accurate (optional)		
12.	The algorithm strategy/ies are conducive to efficient price discovery and fair play and shall not take liquidity away from the market		
13.	Market price protection check		
14.	Whether member has implemented access controls for IT systems & databases		
15.	Whether Member does Vulnerability Assessment and Penetration Testing for its critical assets & Application Security Assessments for all critical applications		
16. **A**	**At Individual Order Level**		
16.1	**Price Check** Orders shall not be released in breach of the price bands /dummy filters as defined by the Exchange in respective segments. Additionally, Orders should not be placed at unrealistic price that are far away from the fair price at the relevant point of time, to ensure that the trades resulting from the execution of such orders are not in the nature of abnormal / manipulative trades. Appropriate internal systems/ checks in place to restrict placing orders at unrealistic prices.		
16.2	**Quantity Limit Check** Orders shall not be released in breach of order quantity limit per order as defined by the Exchange in respective segments.		
16.3	**Order Value Check** Orders are not released in breach of the "value per order" (combination of price and quantity checks) as defined by the Exchange for security		

Sr. No.	Area of Audit	Complied (Yes / No)	Auditor's Remark
	in respective segments.		
16.4	**Regulator Violation Check for FPI Restricted Commodity Contracts** Orders shall not be released for security restricted by regulator from time to time. Appropriate limits for securities which are subjected to FPI limits as specified by regulator.		
16. **B**	**At Client Level**		
16.1	**Cumulative Open Order Value Check** Orders shall not be released in breach of Individual client level cumulative open order value check at the client level. The open order value for a client is the total value of its unexecuted orders released from the trading members system. System shall not permit the user to set "Unlimited values".		
16.2	**Net Position Vs. Available Margin Check** Orders shall not be released in breach of Net positions as against the available margin defined by the trading member for the client		
16.3	**Position Limit Check** Provision to generate and monitor alerts on position limits at client level / member level as defined in the contract specifications. Further, Orders shall not be released in breach / violation of position limit at client level / member level and the same is validated with necessary risk mitigation checks / controls in the algorithmic / CTCL trading system of the member.		
16.4	**Exposure Limit Check at individual client level and at overall level for all clients.** Orders shall not be released in breach of exposure limit as defined by the trading member for the client.		
16.5	**Trading Limit Check & Security Wise Limit Check** Orders shall not be released in breach of security-wise value limit & Trading Limit as defined by the trading member for individual security.		
16.7	**Turnover limits**		
16.8	**Credit Check**		

Part IV IBT / WT – All check points are mandatory.

Sr. no.	Area of Audits		Complied (Yes/No)
I	Risk Management		
1	Individual orders	**Price check -** The price quoted by the order shall not violate the price bands defined by the exchange for security. For securities that do not have price bands, dummy filters shall be brought into effective use to serve as an early warning system to detect sudden surge in prices.	
2		**Quantity limit check -** The quantity quoted in the order shall not violate the maximum permissible quantity per order as defined by the exchange for the security.	
3		**Order value check -** The individual client level cumulative open order value check may be prescribed by the broker for the clients. Cumulative Open Order Value for a client is the total value of its unexecuted orders released from the stockbroker system.	
4	Client Level	**Exposure limits -** The broker shall ensure that trading limits/ exposure limits/ position limits are set for all clients based on risk assessment, credit quality and available margins of the client.	
5		**Turnover limits –** The Broker must set pre-defined limits on the turnover of each client.	
6		**Trading limits –** The broker have a system-based control on the trading limits of clients.	
7		**Cumulative open order value check -** Orders shall not be released in breach of Individual client level cumulative open order value check at the client level. An open order value for a client is the total value of its unexecuted orders released from trading members system. System shall not permit the user to set “Unlimited values”.	
8		**Security wise limit check -** Orders shall not be released in breach of security-wise value limit as defined by the trading member for individual security.	
9	System is capable of assessing the risk of the client as soon as order comes in		
10	Margin requirements, payment & delivery obligations etc. informed to clients through system		
11	Review and release facility for orders which got rejected because of clients having exceeded limits etc.		

Sr. no.	Area of Audits	Complied (Yes/No)
II	**Order Management**	
12	Order modification/ cancellation facility and trade history provided to clients	
13	Orders/ trades placed through either fixed Internet or wireless system should be accessible from both systems.	
14	TM follows similar logic/priorities used by the Exchange to treat client orders	
15	Internally generated unique numbering for all client order/trades	
16	To capture IP address for all orders	
17	Order/ Trade confirmation sent to investor	
18	Order/ Trade confirmation displayed on website/ application on real time basis	
19	Reconfirmation of orders which are larger than that specified by TM's risk management system provided on the internet-based system	
20	System doesn't have any functionality for matching of cross trades and all orders are offered to exchange trading system for matching	
21	In case of failure of the IBT or wireless network, alternative means of communication for placing orders are available	
III	**Systems, Infrastructure and Network**	
22	Location of all routing servers is within India	
23	Security, reliability & confidentiality of data through encryption	
24	Records are temper-proof	
25	Adequate data backup, data storage and data transfer capacity	
26	High system availability to ensure there is no single point failure.	
27	Adequate back-up (on-site as well as remote site) and restore systems in place to deliver sustained performance and high availability.	
28	Suitably qualified & Adequate personnel to handle communication including trading instruction & back-office work	
29	Ticker/quote/order book displayed on website also display the time stamp as well as the source of such information against the given information	
30	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	
31	Minimum information provided to investors on a handheld device along with address of website/ webpage where detailed information is available (Applicable for WT only)	
IV	**Access and Security controls**	
32	User id	
33	First Level password (Private code)	
34	Other forms of access controls such as smart cards, biometric devices etc. (Applicable for WT only)	

Classification: Public

Sr. no.	Area of Audits	Complied (Yes/No)
35	Automatic expiry of passwords at the end of a reasonable duration. Reinitialize access on entering fresh passwords	
36	2 factor authorization for login session and these 2 factors can't be the same	
37	Session login details are not stored on the devices used for internet-based trading and securities trading using wireless technology	
38	In case of no activity by the client, the system provides for automatic trading session logout	
39	All transaction/activities/alert logs with proper audit facilities maintained in the system	
40	Secured Socket Level (SSL) Security for server access through Internet	
V	**Cyber Security & Cyber Resilience framework**	
41	Suitable Firewalls between trading set-up directly connected to an Exchange trading system and the Internet trading set-up	
42	Network security protocols & interface standards are as per prevalent industry standards	
43	Transactions are digitally signed to ensure client authentication and to support non-repudiation	
44	Adequate safety features to ensure it is not susceptible to internal/ external attacks	

Part V – DMA check, – All points are mandatory.

Sr. no.	Area of Audits		Complied (Yes/No)
I.	**Risk Management**		
1	**Individual orders**	**Price check -** The price quoted by the order shall not violate the price bands defined by the exchange for security. For securities that do not have price bands, dummy filters shall be brought into effective use to serve as an early warning system to detect sudden surge in prices.	
2		**Quantity limit check -** The quantity quoted in the order shall not violate the maximum permissible quantity per order as defined by the exchange for the security.	
3		**Order value check -** The individual client level cumulative open order value check may be prescribed by the broker for the clients. Cumulative Open Order Value for a client is the total value of its unexecuted orders released from the stockbroker system.	

Sr. no.	Area of Audits		Complied (Yes/No)
4		Appropriate limits for securities which are subjected to FII limits as specified by regulator / exchange	
5	Client Level	**Exposure limits -** The broker shall ensure that trading limits/ exposure limits/ position limits are set for all clients based on risk assessment, credit quality and available margins of the client.	
6		**Turnover limits –** The Broker must set pre-defined limits on the turnover of each client.	
7		**Trading limits –** The broker have a system-based control on the trading limits of clients.	
8		**Cumulative open order value check -** Orders shall not be released in breach of Individual client level cumulative open order value check at the client level. An open order value for a client is the total value of its unexecuted orders released from the trading members system. System shall not permit the user to set "Unlimited values".	
9		**Credit Check -** The broker shall ensure that all DMA orders are routed through electronic/automated risk management systems of the broker to carry out appropriate validations of all risk parameters including Credit Checks before the orders are released to the Exchange.	
10		**Position Limits specified in derivative segment -** The broker shall ensure that trading limits/ exposure limits/ position limits are set for all DMA clients based on risk assessment.	
11		Net outstanding position to fully cover the emanating risk with client's available margin	
II.	**Order management**		
12	DMA orders are routed through electronic/automated RMS of the TM		
13	All DMA orders are routed to the exchange trading system		

Classification: Public

Sr. no.	Area of Audits	Complied (Yes/No)
	through the broker's trading system	
14	Similar logic/priorities used by the SE to treat DMA client orders	
15	Internally generated unique numbering for all client order/trades	
16	DMA facility shall be offered only to those categories of investors which have been specified by Stock Exchange	
17	System doesn't have any functionality for matching of cross trades, and all orders are offered to exchange trading system for matching	
III.	**Systems, Infrastructure and Network**	
18	Location of all servers is within India	
19	TM maintains logs for all activities to facilitate audit trail for all DMA orders and is able to provide identification of actual user-id for all such orders and trades	
20	TM systems have appropriate authority levels to ensure that the Risk Management limits can be set up only by persons authorized by the risk / compliance manager.	
IV	**Access and Security controls for clients**	
21	User id	
22	First Level password protection (Private code)	
23	Automatic expiry of passwords at the end of a reasonable duration.	
24	Reinitialization of access on entering fresh passwords	

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: (valid digital signature is acceptable)

VAPT Report

This is to certify that I am a Partner/ Proprietor of firm <Name of the Auditing Organization> with CERT-In empanelment from <Date> to <Date>. I have conducted VAPT for <Name of the Vendor/algo provider> period <….> as per below. The scope of VAPT covers following (wherever applicable):

Checklist for VAPT compliance:

Sr. No.	Areas	Applicable (Yes/ No)	Details (assets, applications, etc.) of the Audit area	Auditor's comments*
1	Grey Box assessment of APIs, mobile applications, web applications, and thick client applications.			
2	Authenticated (wherever possible) Vulnerability Assessment of infrastructure (operating systems, databases & middleware, endpoint devices, network devices, security devices, cloud)			
3	External Penetration testing of all public facing URLs/IPs			
4	Review of network architecture of critical infrastructure			
5	Firewall Rule review/ Security Group Configuration			
6	Configuration audit of infrastructure (operating systems, databases & middleware, endpoint devices, network devices, security devices, cloud)			

7	Wireless Penetration Testing			
8	VAPT of Cloud implementation and deployments			

*Auditor's Comment may include and not limited to reason for not applicable areas.

VAPT Report Summary	**Critical**	**High**	**Medium**	**Low**
(A) No. of Closed Vulnerabilities				
(B) No. of Open Vulnerabilities				
Reason for non-closure: Mention for Critical, High, Medium & Low Separately				
Vulnerabilities planned to be closed by "(DD/MM/YYYY)"				
Remark				

I confirm that the VAPT has been conducted as per above mentioned scope and considering the architecture/ infrastructure of <Name of the Vendor/algo provider>.

I also confirm that I have no conflict of interest in undertaking the above-mentioned VAPT activity.

For and on behalf of

Name:

Contact no.:

Place:

Date:

Annexure 20
(To be submitted by member)

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

To be executed on Rs. 1000/- stamp paper / applicable stamp duty of the state (whichever is higher), duly Notarized on all pages, signed, stamped & sealed by Authorized Signatory on all pages

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 facility (hereinafter referred to as the 'IBT'), Algorithmic Trading facility (hereinafter referred to as the 'ATF'/ Algo Strategy), Wireless Trading facility (hereinafter referred to as the 'WT') and Direct Market Access (hereinafter referred to as the 'DMA) etc. CTCL software developed in-house by the member / developed using API from empaneled vendors / 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/DMA 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/DMA 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/DMA facility, I / we hereby IRREVOCABLY AND

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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/DMA 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/DMA 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/DMA 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 /or Algorithmic Trading facility and/or Direct Market Access 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/DMA 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 /or Algorithmic Trading facility and/or Direct Market Access 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/DMA 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.

Classification: Public

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/DMA facility and TRADING SYSTEM Software.

11. That MCX, at its absolute discretion, may make the CTCL/IBT/ATF/WT/DMA facility available to me / us only from the date of my / our enablement on the CTCL/IBT/ATF/WT/DMA facility till such time as it may deem fit and further that the CTCL/IBT/ATF/WT/DMA 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/DMA 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/DMA 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/DMA facility available to any other person nor shall extend the CTCL/IBT/ATF/WT/DMA 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/DMA 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/DMA 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 all of its requirements for enabling me/us for having access to the CTCL/IBT/ATF/WT/DMA facility.

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

Classification: Public

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 also confirm that I/We have not obtained nor applied for any other User ID in the names of the Approved Person/User/s and that the User ID allotted shall be utilized by the Approved Person/user/s only to access the MCX trading system.

f) 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/DMA facility shall be paid in advance.

g) 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.

h) I / We shall indemnify the Exchange against any loss or damage including liabilities arising out of failure to comply with this circular.

i) I / We shall provide MCX with the Network diagram and as adopted by me / us for having access to the CTCL/IBT/ATF/WT/DMA facility between the Receiving Premises and my / our server at my / our office and that we shall also provide MCX with the network diagram.

j) I / We shall notify MCX giving the details related to the Approved Persons as per circular format issued by the exchange from time to time, 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/DMA 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.

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

l) I / We shall provide MCX with the Technical Specifications for the software used by me / us for accessing the CTCL/IBT/ATF/WT/DMA facility and shall also provide it with the new Technical Specifications for the software as and whenever any changes are proposed to be made by me / us to the existing software used to access the CTCL/IBT/ATF/WT/DMA facility. I /We shall make such changes only after receipt of prior written consent from MCX.

m) I / We shall not develop / use any software for accessing the CTCL/IBT/ATF/WT/DMA 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/DMA facility is part of-the TRADING SYSTEM software.

Classification: Public

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

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

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

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

r) I/We shall not do unauthorized changes 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/DMA 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 a minimum of 5 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 undertake that the CTCL/IBT/WT facility shall be developed so as to generate the following from the System for the purpose of verification during the inspection:

    a) Number of Users connected on to the Network.
    b) Number of Dealers connected on to the Network including privileges to each dealer.
    c) All the systems logs and audit trails of the Dealer and the Member.
    d) Provision for entering complementary dummy orders

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

    i. The 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. I/We undertake that the following controls shall be inbuilt in the Software to detect any loss of product integrity:

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

iv. 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.

v. I / We shall ensure to have 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 the client's risk as soon as the order comes in. The client also needs 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.

vi. 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.

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

viii. Secured Socket Layer Security for server access through the Internet.

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

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

xi. 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 Webserver shall have internally generated unique numbering for all client orders/trades

e) 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/DMA facility and it shall be flexible to change as per MCX guidelines.

f) 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

Classification: Public

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.

g) 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.

h) The Exchange shall have an absolute right to inspect the software used by us either in our own office and / or extended such facility at any other location, at any time and without prior notice.

a) The Member undertakes to make available the prototype and the technical specifications of the software to MCX for testing purposes.
b) The Members undertakes the responsibility to fix the bugs in the software, if any, found at the time of testing.

i) 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/DMA 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/DMA 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 state’ 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.

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

Classification: Public

20. That Member should arrange to provide a demonstration of the CTCL facility software (e.g. ATF/Algo facility) as per the Exchange's convenience. After successful demonstration of the software, MCX would grant permission to Member
for the usage of CTCL facility.

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

Notwithstanding anything contained in this undertaking or elsewhere MCX shall not be liable:

a) for any claim, damage, losses, costs, claims, expenses and responsible for any liability arising out of this Undertaking or otherwise or because of supply of API.

b) 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.

c) 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.

d) 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.

e) 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/ATF/WT/DMA 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/DMA facility.

23. That neither MCX nor the directors, managers, officers, employees or agents of MCX, guarantee the functioning of the CTCL/IBT/ATF/WT/DMA facility. MCX and the directors, managers, officers, employees and agents of MCX shall not be

Classification: Public

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/DMA 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 either 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/DMA 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/DMA 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/DMA 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 office address of MCX.

Classification: Public

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 other 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 orders between or among two or more clients by way of grouping or otherwise. The CTCL/IBT/ATF/WT/DMA 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/DMA 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/DMA systems.

34. The Member undertakes to make any modification / amendment as required by MCX to be made from time to time by the Member during the continuation of the Agreement, if any.

35. 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.

36. I / We shall comply with CSCRF guidelines defined by regulatory body(ies) and exchange as applicable from time to time.

37. I / We shall comply all the guidelines defined by regulatory body(ies) and exchange as applicable from time to time for “Safer Participation of Retail Investors in Algorithmic Trading”.

38. 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.

39. I/We shall be solely liable and responsible for any monetary losses, damage or other costs and consequences arising in any manner due to algo/non-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 the use of CTCL Facility.

Classification: Public

Trading member's undertaking applicable for members using CTCL facilities (CTCL, IBT, WT, etc) procuring API from Exchange Empanelled vendor

WHEREAS,

1. MCX allows their trading members to develop a software in-house for their use after procuring API from Exchange empanelled vendor and after duly complying with the requirements as may be stipulated by the exchange in this regard.

2. I/We shall undertakes to receive the latest API version from the vendor, on any change in the API version, and incorporate necessary changes in the software as per the requirement of the Exchange. I/We ready to give a comprehensive demonstration of the software during registeration/ approval, modification/change as stipulated by the exchange in this regard from time to time.

3. I/We shall be fully responsible and liable for all orders emanating through CTCL facility developed using API from the empanelled vendors.

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

WHEREAS

A. 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 fulfilment 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.

B. 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, Byelaws, Regulations of the Exchange, SEBI, any other statutory and regulatory body(ies) as may be applicable from time to time.

Classification: Public

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 changes 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 vendors 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 a system to control to shut down such algorithms if identified on an immediate basis.

14. I/We shall maintain a record of control parameters, orders, trades and data points emanating from trades executed through algorithmic trading for a minimum of 5 years and I/We agree to provide this 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.

Classification: Public

16. I/We shall be solely liable and responsible for any monetary losses, damage 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 the 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.

Classification: Public

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,

1. 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.

2. 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 the 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 Wireless Trading facility to any client only after obtaining undertaking from the client that they are fully aware and agree for additional

Classification: Public

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 the Internet web site/web page where detailed information would be available, along with the minimum information shall be available on handheld device, as it may not be possible to give detailed information to the investor on a handheld 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 the 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 a periodical System audit of the Wireless Trading system and software as specified by the Exchange and to submit certificate/report to the Exchange.
14. 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 Direct Market Facility (DMA)

WHEREAS,

1. The Exchange has also allowed its trading members providing/using DMA facility to offer the facility of Direct Market Access, to its clients subject to submission of this Undertaking and fulfilling conditions prescribed from time to time.

2. We are desirous of providing the Direct Market facility to our clients in compliance with relevant Circulars of the Exchange. DMA facility is being permitted only to FPI's (Foreign Portfolio Investors) as specified in SEBI/Exchange circular from time to time.

3. MCX has provided the trading software to enable its members to trade.

4. 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.

5. MCX also decided to permit the users of CTCL, with Direct Market Access (hereinafter referred to as the "DMA facility") with an ATF/Without ATF which

mean any software or facility by the use of which, upon the fulfillment of certain specified parameters, without the necessity of manual entry or without incase of Non-ATF 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.

6. Members are required to use designated User Id for the purpose of DMA facility, and the said User Id should not be used for any other purpose.

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

NOW THEREFORE IN CONSIDERATION OF EXCHANGE having agreed to allow me / us to avail the Direct Market Access 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 ensure that alternative means of communication for placing orders shall be made to our clients available in case of failure of the network.
2. 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.
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, Byelaws, 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 changes to the approved software and only use the software which is approved by the Exchange.
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 DMA to client as prescribed by exchange, 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 Trading as mentioned in this undertaking.
8. I / We shall ensure that the addresses of the Internet web site/web page where detailed information would be available, along with the minimum information shall be available on held device, as it may not be possible to give detailed information to the client on a 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 the history of trades for the day.

10. 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 devices.

11. I / We undertake to ensure that all DMA orders shall be routed to the exchange trading system through the broker's trading system. The broker's server routing DMA orders to the exchange trading system shall be located in India.

12. I / We shall ensure to undertake a periodical System audit of the DMA Trading system and software as specified by the Exchange and submit certificate/report to the Exchange.

13. I / We undertake to ensure a sound audit trial for all DMA orders and trades and be able to provide identification of actual user-id for all such orders and trades. The audit trail data should be available for at least five years and specified by Exchange from time to time.

14. I / We undertake to ensure where the clients access the DMA server of the broker through a third-party service provider, the password maintenance and authentication can be done either by the broker of by third party network service provider, so long as the exchange/broker ensures secured access and communication and a sound audit trail for all DMA orders/ trades.

15. The authorized user and client details should be part of the order details received and authenticated at the DMA server of the broker.

16. Brokers should follow the similar logic/priorities used by the Exchange to treat DMA client orders. Brokers should maintain all activities/ alerts log with audit trail facility. The DMA Server should have internally generated unique numbering for all such client order/trades.

17. 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.

18. I/We agree that I/We will take undertaking from our non-empanelled software vendor on the following points:
    1. Software vendors 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.
    2. Software vendor will not incorporate features / functionalities which are against guidelines of the Exchange / any other regulatory body(ies)

19. I / We undertake to ensure to execute an agreement with such clients who are availing of the DMA facility. The model agreement as specified in SEBI circular. Members shall ensure that the agreement entered into with their clients for DMA facility should not have any clause that is less stringent/contrary to the conditions in the above proposed model agreement.

Classification: Public

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.			

Classification: Public