



# REQUEST FOR PROPOSAL

**BROKER BACK OFFICER AND  
ORDER MANAGEMENT  
SYSTEMS.**

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The Colombo Stock Exchange  
Level 04, West Tower  
World Trade Centre  
Colombo 01, Sri Lanka  
Date: 21<sup>st</sup> January 2026

Dear Sir,

1. The Colombo Stock Exchange (“CSE”) acting as the facilitator of the Procurement process, invites interested vendors who are capable of providing a Broker Back Office and/or Order Management System for the CSE’s member organizations to submit proposals for the purpose.
2. The Technical and Financial evaluation would be conducted an Evaluation Committee appointed by the CSE and the Colombo Stock Brokers Association (“CSBA”) , and the proposed systems that meet the specifications and standards prescribed in this RFP will be shortlisted in accordance with the procedures described in the RFP.
3. Member organizations will thereafter be required to independently further negotiate with and contract for a Broker Back Office and/or Order Management System (as applicable) being proposed by one or more shortlisted Vendors within a prescribed period.
4. Shortlisted vendors (“Selected Vendors”) shall be required to provide the CSE with a guarantee that they will, upon selection, enter into written contracts with member organizations (also referred to as the Stockbroker Firms) that wish to secure their services for implementing the Broker Back Office and/or Order Management Systems (as applicable).
5. The RFP includes the following documents:
  - Annexure 1 – Instructions to the Vendor
  - Annexure 2 – Technical Proposal – Standard Form
  - Annexure 3 – Financial Proposal – Standard Form
  - Annexure 4 – Terms of Reference and Statement of Compliance
  - Annexure 5 - Bid Bond form
  - Annexure 6 – Proposal Form
  - Annexure 7 - Summery of the Proposal
  - Annexure 8 - Automated Trading rules of the CSE
6. The proposal Submission Procedure and other related information is set out in the RFP

Yours faithfully,  
Chief Market Operations Officer  
The Colombo Stock Exchange  
Telephone: +94 11 2356404  
Email : chandrakanth@cse.lk

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## ANNEXURE 1 - INSTRUCTIONS TO VENDORS

### 1. ELIGIBILITY CRITERIA FOR VENDORS

- a. The vendor must be a legal entity incorporated / established within or outside Sri Lanka. Local presence of the vendor in some form (have a place of business in Sri Lanka or a duly appointed agent in Sri Lanka) will have an added advantage
- b. The vendor should be able to provide the Broker Back Office System or the Order Management System **both solutions together**, and services described in this RFP; and,
- c. In the event, a vendor is unable to provide the implementation services set out in this RFP or any part thereof, such vendor may partner-up with another Service Provider to the extent of providing such implementation services and submit a combined proposal. The integrity and validity of the combined proposal will be recognized, provided that:
  - The arrangements are identified and relationships are fully disclosed, and
  - A prime service provider is designated and that the prime service provider will be fully responsible for the performance of the contract (which includes the implementation, maintenance and upgrading of the solution/s) entered into with CSE Member Organizations.
- d. During the last 5 years the System Provider's organization should have recorded positive operating cash flows in a minimum of three financial years, including the most recent financial year
- e. The System Provider must have a directly relevant and comparable reference site for OMS and BBO software solutions
- f. Prospective System Providers who have alternative approaches or models are also encouraged to submit their Proposals

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## 2. SCOPE OF WORK

The scope of work encompasses the supply, delivery, installation, testing, commissioning, migration, post implementation support & maintenance and integration of a Broker Back Office System and/or Order Management System into the CSE member organizations' environment.

The vendor is required to provide sufficient technical information for the proposed solution to operate to meet the CSE's member organizations' business requirements.

## 3. TERMS OF REFERENCE

The vendors are required to provide a Broker Back Office System and/or Order Management System and services which are more-fully set out in **Annexure 4 (Terms of Reference)** of this RFP to the member organizations of the CSE

In the event, the vendor is unable to comply with and/or could only partially comply with the specifications and standards set out in Annexure 4; such vendor shall;

- Indicate alternative solution(s) in the Proposal; and/or
- Provide satisfactory clarifications in the Proposal as to how the vendor intend to comply with such specification/s and standard/s, and the time-lines for same (if applicable).

### 3.1 IMPLEMENTATION

The vendor shall be required to perform the following tasks:

- Develop a detailed implementation plan;
- Perform project management, quality assurance and issue resolution activities throughout the implementation life cycle;
- Deliver all components of the proposed solution;
- Install all components of the proposed solution including database, development tools, application software, operating system and the related development environment

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- Define and develop integration solutions, where required, to integrate solutions to Member Organization's operating environment and systems;
- Manage and perform test activities including unit test and system integration test;
- Conduct the required education and training for the Member Organization's employees on the use and operation of the application software, system administration and the related development tools;
- Provide complete handover documentation;
- Provide, perform and review system acceptance tests with Member Organization's and obtain sign-off from the Member Organization's;
- Conduct post-implementation review and issue resolution; and
- Provide post-implementation support and maintenance services for Hardware and Software provided.

#### **4. DOCUMENTS AND DETAILS TO ACCOMPANY THE PROPOSAL**

Proposals shall contain adequate particulars in respect of the solution offered. Failure to furnish the following documents/information with the response may result in the proposal being rejected. The proposal, including all related supporting documents shall be in English.

- (1) Duly completed Proposal in the format set out in Annexure 6 of this RFP
- (2) Duly completed Technical and Financial proposals in the format set out in Annexures 2 and 3 (respectively) of this RFP
- (3) product brochures of the service providers, illustrations and full particulars of the Solutions offered
- (4) Variations and/or deviations from specifications (if any)
- (5) Additional Technical information

A Vendor may submit only one (01) proposal. In the event, a vendor submits more than one proposal, all such proposals will be rejected.

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## **5. CLARIFICATION ON THE RFP DOCUMENT**

The vendors may request clarifications on the RFP up to ONE (1) week before the proposal submission date. Any request for clarification must be sent in writing, by post or standard electronic means to the address indicated below.

Chairman of the Technical Evaluation Committee  
C/O Colombo Stock Exchange  
# 04-01, West Block,  
World Trade Centre,  
Echelon Square,  
Colombo 01, Sri Lanka.  
E-mail: cserfp@cse.lk

The Chairman of the Technical Evaluation Committee will respond in writing, by post or standard electronic means to the vendors who request for clarification. Should it be deemed necessary to amend the RFP as a result of a clarification, the RFP shall be amended according to the procedure set out in Section 6.

## **6. PROCEDURE TO AMEND RFP**

At any time before the submission of proposals, the CSE may amend the RFP by issuing an addendum in writing. Such addendum will be forwarded to the Vendors who have confirmed their intent to submit proposals. The addendum/s shall be binding on all such service providers. To give the Vendors reasonable time in which to take the amendment/s into account in their proposals, the CSE may, at its discretion, if the amendment is substantial, extend the deadline for submission of proposals.

## **7. ACQUAINTANCE WITH THE RFP CONDITIONS**

Vendors will be liable for all risks of errors in the proposal and are therefore advised in their own interest to acquaint themselves fully with all conditions relating to this RFP. No plea of lack of information or insufficient information from the service providers will be entertained at any time.

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## **8. RFP BRIEFING SESSION**

An RFP briefing session will be held, if required, at the CSE within 2 days from the last date of confirmation of intent to submit proposals. The CSE will inform the date of the RFP briefing session only to the Vendors, who confirm their intent to submit proposals.

## **9. ALTERATIONS & ERASURES IN ENTRIES MADE IN THE PROPOSAL**

Any alterations, erasures in rates, amounts, etc., in the proposal should be initialed by the authorized signatories of the relevant vendor.

## **10. GUIDELINES FOR PROPOSAL PREPARATION**

### **10.1. PROPOSAL SUBMISSION**

- i. The proposal as well as all related documents/correspondence exchanged by the service provider and the CSE shall be written in English.
- ii. The service provider is required to adopt the formats provided in the RFP in preparing/submitting the proposal.
- iii. In preparing the proposal, the service provider is expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the documents/information requested may result in rejection of the proposal.
- iv. The proposal shall be submitted in several parts as set forth below. The service provider will confine its submission to those matters sufficient to define its proposal and to provide an adequate basis for evaluation of the proposal.

### **10.2. TECHNICAL PROPOSAL FORMAT AND CONTENT**

The service provider is required to submit a full Technical Proposal with respect to the solution/s and services to be provided by such service provider. The following sections indicate the format of the Technical Proposal to be submitted. Submission of the wrong type of Technical Proposals will result in the proposal being deemed non-responsive.

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### **10.2.1. EXECUTIVE SUMMARY**

The Executive Summary should present a high-level synopsis of the service provider responses to the RFP including a brief overview of the engagement and identify the main features and benefits of the proposed solution.

### **10.2.2. COMPANY OVERVIEW**

This section should include the profile of the Vendor with details which will support its technical and financial capacity to provide the deliverables set out in the RFP.

### **10.2.3. SCOPE, APPROACH AND METHODOLOGY**

This section should include;

- An estimated project Schedule for one installation (including installation of hardware and software, implementation and Data Migration)
- Vendors proposed rollout/implementation methodology in implementing the solution for multiple member organizations of the CSE simultaneously.
- Planned Data Migration Process
- Change Management Process
- The Statement of Compliance with Terms of Reference (Annexure 4).
- Description of any Additional features and functions of the proposed solution
- System architecture diagrams

### **10.2.4. CLOUD INFRASTRUCTURE AND NETWORK DETAILS**

This section should include;

- Expected maximum transactional capacity of the proposed cloud infrastructure in terms of but not limited to:
  - Peak order rate
  - Total transactions per day
  - No of Client Accounts
  - No of Concurrent users
  - Maximum concurrent report requests

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- Maximum concurrent queries
  - Number of file uploads per day
  - Number of file downloads per day
- Third party licenses needed for the solution and licensing schemes (if Any)
- Disaster recovery Solutions
- End user hardware requirement (if Any)

#### **10.2.5. WARRANTY AND MAINTENANCE**

This section should include details of:

- Warranty Period of the software
- Other terms and conditions of the Warranty
- Available Maintenance and Support Schemes for the software and Cloud Infrastructure after implementation
- Response and resolution times applicable for each such Maintenance and Support Scheme
- Availability of support engineering teams in Sri Lanka and planned support methodology

#### **10.2.6. PROJECT MANAGEMENT APPROACH**

This section shall include details of the following:

- The method and approach to be used to manage the overall project and client correspondence.
- Brief description of how the engagement would proceed from beginning to the end.

#### **10.2.7. PROJECT TEAM STAFFING**

This section shall include:

- Curriculum Vitae with details of qualifications and relevant experience of the key staff and management personnel that would be assigned to this project.

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- A declaration by the vendor that the personnel assigned to this project possess relevant qualifications and experience sufficient to perform the required services.
- Details of experts (if any) involved in the assignment

#### **10.2.8. REFERENCES**

The vendor should provide three (3) current corporate references (in the form of valid letters) for which the vendor has performed similar work.

#### **10.2.9. TRAINING**

This section should include details of the product functionality, administration and technical training that can be provided by the vendor to the staff of the member organizations of the CSE.

### **10.3. FINANCIAL PROPOSAL FORMAT AND CONTENT**

The financial proposal with respect to the hardware and software to be provided by the service provider shall be prepared in accordance with the format set out in Annexure 3. The service provider shall set out all costs associated with the proposal including all activities and items described in the Technical Proposal must be priced separately; activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.

#### **10.3.1. TAXATION**

The service provider may be subject to relevant local taxes on the amounts received for the solutions to be offered and the services to be provided by the service provider under this RFP. The amounts set out in the Financial Proposal shall be exclusive of relevant local taxes.

It shall be the responsibility of the service provider to fulfill its local tax liabilities (if any). Hence, the service providers should contact the local tax authorities or a

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tax expert to ascertain its local tax liability, for services to be provided under the RFP.

#### **10.4. PROPOSAL DOCUMENT PACKAGING**

- The Technical and Financial Proposals must be submitted separately.
- The Proposal must be accompanied by a covering letter which must include the name of the vendor and registration number, business address and telephone number of the vendor. It must also include the name of the person or persons who will be authorized to make commitments for and on behalf of the vendor.
- Each page of the original Technical and Financial Proposals must be initialed by the authorized signatories of the vendor. The vendor shall enclose with the proposal, the document/s (i.e. power of attorney or board resolution) indicating proof of such authority.
- The signed Technical and Financial Proposals shall be marked as “ORIGINAL”.
- The vendor shall submit the proposal in softcopy form only.

#### **11. MINIMUM VALIDITY PERIOD OF PROPOSALS**

All proposals must be valid for a **minimum period of one hundred and eighty (180) days** from the closing date of proposal submission.

The CSE may at its discretion request service providers to extend the validity period of their proposals.

All prices indicated in the Financial Proposal, shall be firm, and shall not be subject to any price variation within the validity period of the proposal.

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## 12. CONFORMITY TO SPECIFICATIONS

The service providers are required to comply in full with the specifications applicable to the relevant solution/s and services to be provided by the service provider, which are set out in the Terms of Reference (Annexure 4) attached hereto. Any deviation with an applicable specification/s shall be disclosed in detail with reasons where necessary.

## 13. CONFIRMATION OF INTENT TO SUBMIT PROPOSALS

Interested service providers should confirm their intent to submit a proposal on or before **28<sup>th</sup> January 2026**. Confirmations should be sent to the Colombo Stock Exchange by electronic means ([cserfp@cse.lk](mailto:cserfp@cse.lk)).

## 14. PROPOSAL SUBMISSION AND CLOSING DATE

The soft copies of the “TECHNICAL PROPOSAL” and the “FINANCIAL PROPOSAL” should be submitted separately.

The soft copy of the “TECHNICAL PROPOSAL” should be sent to following electronic address on or before 16:30 hours on **16<sup>th</sup> February 2026** (“Closing Date”):

Chairman of the Technical Evaluation Committee  
C/o Colombo Stock Exchange  
# 04-01, West Block,  
World Trade Centre,  
Echelon Square,  
Colombo 01, Sri Lanka.  
[cserfp@cse.lk](mailto:cserfp@cse.lk)

The soft copy of the “FINANCIAL PROPOSAL” should be sent to following electronic address on or before 16:30 hours on **16<sup>th</sup> February 2026** (“Closing Date”):

Chairman of the Financial Evaluation Committee  
C/o Colombo Stock Exchange  
# 04-01, West Block,  
World Trade Centre,  
Echelon Square,  
Colombo 01, Sri Lanka.  
[Kusal@cse.lk](mailto:Kusal@cse.lk)

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All proposals received after 16:30 hours on the Closing Date will be rejected.

#### **15. ACKNOWLEDGEMENT OF RECEIPT OF PROPOSALS**

The CSE will acknowledge the receipt of proposals from the service provider by post or electronic mail, within 10 days from the Closing Date.

#### **16. ACCEPTANCE AND REJECTION**

The CSE reserves the right to accept or reject any proposal (in full or in part) in its absolute discretion, based on the determinations made by the evaluation committee and shall not be obliged to give any reason/s for the rejection of any proposal.

#### **17. MODIFICATION OF PROPOSAL**

The service provider may not alter the Proposal after the submission. Any modification considered expedient by the service provider should form the subject of a separate letter to supplement the proposal.

#### **18. PRESENTATION AND DEMONSTRATION**

The service provider must be prepared to conduct presentations, demonstrations and additional briefings upon request by the CSE. Such presentations and/or demonstrations will provide the service provider an opportunity to explain the functional and technical capabilities of the proposed solution/s.

The service provider shall also be prepared to provide detailed clarifications regarding its Proposal. The CSE will schedule all the required infrastructure for the presentations/demonstrations and venue, and the service provider shall arrange for the necessary materials. The cost and expenses of preparation for the presentations, demonstrations shall be borne by the service provider. The CSE may request represented parties to do a Proof of Concept (POC) with an agreed time line before the evaluation.

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## **19. EVALUATION OF PROPOSALS**

The proposals will be evaluated by a committee comprising of officials appointed by the CSBA and CSE ('evaluation committee'). The said committee may, at its sole discretion, delegate the whole or part of the evaluation to any person(s) or sub committees which it deems to have the requisite specialized expertise and knowledge to conduct such an evaluation.

During the time period, within which the proposals are evaluated, the service providers shall not contact the CSE or any member of the evaluation committee on matters related to its Technical and/or Financial Proposal. Any effort/s by the service providers to influence the CSE and /or any member of the evaluation committee in the examination, evaluation, ranking of proposals and selection of a suitable service provider/s may result in the rejection of the applicable proposal.

## **20. NEGOTIATIONS**

The time and place of negotiation will be notified to service providers in advance. The invited service providers must as a pre-requisite for attendance at the negotiations, confirm availability of Representatives. Failure in satisfying such requirements may result in the evaluation committee proceeding to negotiate with the next-ranked service provider. Representatives conducting negotiations on behalf of the service provider must have written authority to conduct negotiations with regard to the proposal submitted by such service provider.

### **20.1. TECHNICAL NEGOTIATIONS**

Negotiations will include a discussion of the Technical Proposal, the proposed technical approach and methodology, work plan, and organization and staffing, and any suggestions made by the service provider to improve the Terms of Reference. The evaluation committee and service provider will finalize the Terms of Reference, staffing schedule, work schedule, logistics, and reporting. Special attention will be paid to clearly defining the inputs and facilities required from the CSE to ensure satisfactory implementation of the assignment. Minutes shall be maintained of such negotiations, which will be signed and confirmed by the service provider.

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## **20.2. FINANCIAL NEGOTIATIONS**

Upon evaluating the technical proposals, the service providers will be invited for negotiations of their financial proposals, based on the rankings awarded to the Technical proposals of the service providers.

The financial negotiations will include a clarification (if any) of the vendor's tax liability in Sri Lanka and the manner in which it will be reflected in the Contract to be entered into with Stockbroker Firms and will also reflect the agreed technical modifications in the cost of the services.

## **21. CONCLUSION OF THE NEGOTIATIONS AND EXECUTION OF CONTRACT**

The evaluation committee will select one or more service providers that is capable of providing the solution/s and services, which best serve the business needs of the Stockbroker Firms and shortlist the proposals that meet the criteria required by the RFP. The selected service providers will be notified thereof in writing by the respective evaluation committees.

Upon selection, the service providers shall be required to negotiate with and enter into a contract with the relevant Stockbroker Firm/s for provision of services envisaged in the RFP. Such contract must incorporate the terms and conditions contained in this RFP as a minimum and the proposal submitted by the selected service providers in response thereto.

The selected vendor/s shall also be required to provide to the procuring member organizations, i.e. the relevant Stockbroker Firms a Performance Bond obtained from a licensed commercial bank in Sri Lanka for a minimum sum of five percent (5%) of the total contract price. Performance Bond should be valid until 1 month after the expiry of the warranty period.

Vendors are further clearly advised that the CSE and /or the evaluation committee will only provide a shortlist of vendors whose proposals meet the specifications and standards required of a Broker Back Office and Order Management System which systems such organizations shall be required to implement in due course. The evaluation committee may shortlist one or more vendors as meeting such standards. Consequently, the CSE does not guarantee that the member organizations will obtain the services of any particular selected vendor.

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## 22. BID BOND

The vendors shall submit a bid bond with their proposals, in the form of a bank guarantee in accordance with the Bid Bond form set out in Annexure 5, from a licensed commercial bank in Sri Lanka in an amount not less than **One Million Sri Lankan Rupees (LKR 1,000,000/=) and valid for 180 (one hundred and eighty) days** or any agreed extension thereof.

The bid bond shall guarantee that in the event that the vendors' proposal is shortlisted, the vendor shall execute the formal contract with any member organization that wishes to procure the services of that vendor for the implementation of a Broker Back Office and/or Order Management System (as applicable).

The Bid Bonds of the unsuccessful vendors will be returned after it is determined that such vendors will / have not been selected. The Bid bond of the selected vendor/s will be returned after the execution of the contracts with the respective member organizations for the performance of the services. If the selected vendor fails for any reason to execute a contract as aforesaid, the bid bond will be forfeited to the CSE.

Proposals which are not accompanied by a bid bond as per the attached sample format will be rejected.

## 23. INDEMNITY AGAINST VIOLATIONS OF INTELLECTUAL PROPERTY RIGHTS

The service provider shall represent and warrant in the proposal that, the use of the solutions offered in the proposal by CSE will not infringe the Intellectual Property Rights of any other third party.

The service provider shall indemnify the CSE, its fully owned subsidiary Central Depository Systems (Pvt) Limited ("CDS") and CSE Clear (Pvt) Ltd ("CSE Clear") and its employees against any and all actions, claims and demands that may be instituted against the CSE/CDS

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and CSE Clear, its employees for infringement of intellectual property rights of any other party as a result of the use of the solution/s offered by the service provider.

## **24. FRAUD AND CORRUPTION**

The CSE requires all service providers to adhere to the highest ethical standards during the selection process and throughout the execution of the contract and that they should not resort to any corrupt, fraudulent, collusive or coercive practices in order to secure any contract. The CSE will reject any proposal, if it determines that the service provider has, directly or through an agent has engaged in corrupt, fraudulent, collusive or coercive practices in competing for the award of the contract.

## **25. GOVERNING LAW**

To any questions regarding the scope, meaning or interpretation of the proposal and to any questions regarding the formation of the contract with the relevant Stockbroker Firms, the substantive law of the Democratic Socialist Republic of Sri Lanka shall apply.

## **26. DISPUTE RESOLUTION**

Any dispute arising out of or in connection with the RFP shall be settled amicably between the service provider and the evaluation Committee.

## **27. ADHERENCE TO THE CSE IT SECURITY POLICY FOR THRID PARTIES**

All selected vendor/s that will supply, implement and maintain IT systems at the member organizations shall abide by the Minimum Guidelines for Internet Trading and the procuring member organizations' IT Security Policies for Third Parties.

## **28. SEVERABILITY**

If certain provisions of this RFP should prove to be or become invalid or illegal and/or is deemed at any time to be in contravention of any provisions of the law or any rule or order made or any direction given by any authority having jurisdiction over the parties hereto, the validity or legality of the remaining provisions shall not be affected in any manner whatsoever.

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The Parties undertake to substitute any invalid or unenforceable provision/s, with a valid or enforceable provision/s, which achieves to the greatest extent possible the economic, legal and commercial objectives of the invalid or unenforceable provision/s.

## **29. CONFIDENTIALITY**

Information relating to evaluation of Proposals and recommendations shall not be disclosed to the other service providers who submitted the Proposals or to other persons not officially involved with the process, until the publication of the names of the selected service provider.

The undue use by any service provider of confidential information related to the process may result in the rejection of its Proposal.

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## ANNEXURE 2 - TECHNICAL PROPOSAL STANDARD FORM

ITEM NO	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	VENDOR'S COMMENTS
1	The Proposed system should be a a. SaaS based model for the OMS and BBO System for the subscribed Stock broker Firms b. in Local or prior authorized public Cloud Infrastructure by the CSE		
2	Cloud Infrastructure sizing based on 5000 orders per day <b>per broker</b>		
3	99.99% high available solution		
4	Redundancy at software level		
5	Redundancy and high availability at database level		
6	Redundancy at Cloud Infrastructure level		
7	Redundancy at network level		
8	Disaster recovery solution (Indicate the Recovery Point and time objectives of the proposed solution)		
9	Cost of Solution includes Conducting of a Annual DR test		
10	Cost of Solution includes Conducting of <b>annual</b> Vulnerability and Penetration testing by a recognized independent auditor by the CSE		
11	Provide 24 x7 Support and Maintenance for the proposed solution including Remote server monitoring and management		
12	Cost of Solution includes Hosted base solution for Test Environment <b>per</b> broker firm		

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13	The maintenance cost should cover regulatory changes and interface certifications imposed by CSE and SEC time to time (Refer Annexure 4)		
14	The proposed OMS systems MUST support open APIs to connect to any BBO System		
15	The Proposed BBO systems MUST Support Open APIs to Connect to multiple of OMS systems		

I / We agree to supply, support, install & commission the above-mentioned solutions and services to CSE as per the Technical Proposal quoted

.....

Name & Signature of the Vendor

.....

Official seal /stamp

.....

Date

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## ANNEXURE 3 - FINANCIAL PROPOSAL STANDARD FORM

### Broker Back Office and Order Management System

#### (Monthly Subscription Per Subscribed Broker Firm)

ITEM NO	DESCRIPTION	UNIT PRICE	<u>Per Subscribed Broker Firm</u> USD
1	Monthly Subscription Fee for the Solution  (Vendors could proposed pricing based on based on volumetrics in Annexure 4 and Number of subscribed Broker firms)		
2	Cost of Training of Staff on the solution		
	Broker Business Staff		
	IT Administration Staff		
3	Software solution implementation cost		
4	Change request charges (Man day rate card)		
5	Data Migration Professional Charges		
6	Other Related costs (Please Specify)		

<b>Delivery Period</b>	
<b>Payment Terms</b>	
<b>Currency</b>	
<b>Taxes</b>	
<b>Quotation Validity Period</b>	
<b>Warranty</b>	

I / We agree to supply and deliver the above mentioned solution and services to CSE as per the price quoted above.

If you are a Sri Lankan company and the price quoted above is in a foreign currency, the payment will be made in LKR after converting using the Selling rate applicable to such currency announced by the Central Bank of Sri Lanka on Invoice date.

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In the event the price quoted above is in a foreign currency, I/we agree to the Selling rate applicable to such currency announced by the Central Bank of Sri Lanka on Invoice date.

.....  
Name & Signature of the Vendor                      Official seal /stamp                      Date

Note:

- All Costs related to implementation of Broker Back Office System and Order Management System should be submitted separately, unless otherwise please specify
- All details shall be filled and submitted with the proposal. Incomplete proposals will be rejected.
- All applicable taxes should be separately indicated in this form.
- Any other charges should be clearly included
- Any assumption on above fees should be indicated
- Advance payment will be based on the submission of Advance Payment Bond issued by the licensed Commercial Bank of Sri Lanka
- All remittances to the foreign companies are subjected to With Holding Tax (WHT)/Royalty, The rate is based on the double tax agreement between Sri Lanka and Foreign country. After the deduction, the net amount will be remitted. The certificate will be issued for the tax deduction and the deducted tax amount can be claimed in your respective foreign country as advance tax payment.

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## **ANNEXURE 4 - TERMS OF REFERENCE AND STATEMENT OF COMPLIANCE**

**See end of this Document**

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## ANNEXURE 5 – BID BOND FORM

To: Chairman of the Financial Evaluation Committee

C/O The Colombo Stock Exchange

#Level 4, West Block, World Trade Center

Echelon Square, Colombo 01

Sri Lanka

WHEREAS .....  
 (hereinafter called “the Vendor”) has submitted a Proposal dated ..... for the  
 provision of ..... (Insert Brief Description of the  
 Software) RFP No : ..... (hereinafter called “the RFP”)

AND WHEREAS it is a condition for the acceptance by the CSE of such a proposal that the Vendor  
 provides a Bank Guarantee to the CSE in the sum of ..... guaranteeing compliance with the  
 conditions set out in Schedule A hereto;

AND WHEREAS we, ..... have agreed and bound ourselves to provide the said  
 guarantee on behalf of the vendor to the CSE;

KNOW ALL MEN by these presents that:

WE ..... of  
 ..... having our registered office at  
 ..... (hereinafter called “ the Bank”) are bound unto Colombo Stock  
 Exchange (hereinafter called “ the CSE”) in the sum of  
 ..... (Amount of the Guarantee in words  
 and Figures).

Whereas we have agreed to make payment to the CSE of the above sum guaranteed immediately  
 upon receiving notice from the CSE under the hand of its ..... that the Vendor has failed of  
 neglected to meet any one of the conditions set out in Schedule A hereto .

Sealed with the common seal of the said Bank this ..... Day of ..... 2026.

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## Schedule A

THE CONDITIONS of this obligation are:

1. If the Vendor withdraws its Proposal during the period of RFP validity specified by the CSE on the RFP terms and conditions; or
2. If the Vendor, having been notified of selection as a vendor by the CSE during the period of proposal validity, fails or refuses to execute the Contract with the procuring member organization/s, when requested.

We undertake to pay to CSE up to the above amount upon receipt of its first written demand, without the CSE having to substantiate its demand, provided that in its demand the CSE will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two above-stated conditions, specifying the occurred condition or conditions.

THIS GUARANTEE is irrevocable and will remain in force up to and including thirty (30) days after the period of proposal validity, and any demand in respect thereof should reach the bank not later than such date.

(Name of the Bank)

By .....

(Title)

(Authorized Representative)

.....

(Signature of Witness)

.....

Name of Witness

.....

Address of Witness

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## ANNEXURE 6 – PROPOSAL FORM

To: The Chairman of the Technical Evaluation Committee  
 C/o The Colombo Stock Exchange  
 Level 4, West Block, World Trade Center  
 Echelon Square, Colombo 01  
 Sri Lanka

1. I/We having examined the conditions of the RFP, Specifications and all other documents pertaining to this ..... (Proposal No: ..... ) do hereby offer and undertake to carry out the ..... to the satisfaction of the Evaluation Committee in strict accordance with the conditions of RFP, applicable specifications and other associated documents at the prices (as indicated in the Financial Bid) and within the period set forth in the accompanying Bill of Quantity/Schedules. Such provision of services shall commence within ..... days of receiving notice in writing from the CSE that my/our proposal has been accepted.
2. I/We further undertake
  - (a) not to withdraw the proposal before the expiration of one hundred and eighty (180) days from date of closing but shall remain binding on me/us and may be accepted at any time before such expiration;
  - (b) to make reasonable corrections etc., in the Proposal documents if found necessary and initial same when called upon to do so;
  - (c) in the event the proposal being shortlisted, to execute a contract with any procuring member organization/s for the performance of the services set out in the TOR of the RFP if required by a member organization;
  - (d) to ensure that the solution/s comply/will comply with the relevant laws and regulations in Sri Lanka; and,
  - (e) to upgrade the solution/s as and when required by the CSE/SEC, fulfill interface certification requirements of the CSE and to comply with the industry standards applicable from time to time.

.....

Vendors' Signature

Date:

Vendors' Name and Address:

Witness: 1. Signature:

Date:

Name & Address:

2. Signature:

Date:

Name & Address:

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## ANNEXURE 7 – SUMMARY OF THE PROPOSAL

Reference No	Question	Vendor Response																									
<b>A1. Vendor Profile</b>																											
A1.01	Date when company was founded(Annexed certification of incorporation)																										
	Annexed the latest form 20																										
A1.02	Location of office																										
A1.03	Parent company name																										
A1.04	% of sales spend on R&D																										
A1.05	Revenue for the last 3 years <i>Please attach annual reports with Auditors report and financial statements.</i>																										
A1.06	Profits for the last 3 years <i>Please attach annual reports with Auditors report and financial statements.</i>																										
A1.07	Composition of business with regards to the % of revenue.																										
A1.08	Number of staff in your service offices (Total and Sri Lankan office (if any) separately: · Sales & Marketing staff · Application Support staff · Application Development staff · Application Implementation staff · Business Consultants staff · Operating system staff · Hardware & network staff																										
A1.09	Please state projects of similar nature that your company has undertaken. Please insert additional lines if required. We may contact these references during the evaluation process.	<table border="1"> <thead> <tr> <th>Name of Customer</th><th>Project Duration</th><th>Date Started/ Date completed</th><th>Modules Implemented</th><th>Contact Person &amp; Details</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Name of Customer	Project Duration	Date Started/ Date completed	Modules Implemented	Contact Person & Details																				
Name of Customer	Project Duration	Date Started/ Date completed	Modules Implemented	Contact Person & Details																							
<b>A2. Implementation</b>																											

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A2.01	What tools and methods does your company apply to assist in expediting design, development and implementation? Please provide details of tools and methods used including integration tools (if any).				
<b>A3. Support</b>					
A3.01	Please specify the guaranteed Response and Resolution times for below category of Incidents (24 x 7)	Incident Type	Description	Response Time	Resolution Time
P1		severe impact on the business operations			
P2		significant but limited impact to business operations			
P3		A Problem which has no commercial impact			
A3.02	Do you provide on-site support for the application and all the customization?				
A3.03	How often are new versions released?				
A3.04	Is the source code provided to the customers? If not, is it held in escrow? (Please provide a sample of the terms and conditions for source codes/escrow)				
A3.05	Do you retain existing broker firm specific customizations during a version upgrade process?				
A3.06	Does your support organization provide quality assurance methodology when implementing version upgrades, encompassing: <ul style="list-style-type: none"> <li>· Planning</li> <li>· Tracking</li> <li>· Organizing</li> <li>· Documentation</li> <li>· Deliverables</li> <li>· Performance</li> <li>· Implementation approach</li> <li>· Implementation strategy</li> <li>· Testing</li> <li>· Change management</li> </ul>				
<b>A4. Data Conversion &amp; Data Cleansing (Data migration from existing systems)</b>					

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A4.01	<p>Please specify approach and details of data conversion and data cleansing methodology.</p> <p>Note: Vendor is responsible for data conversion and data cleansing. Vendor should ensure no erroneous data is converted from legacy system to new system.</p>	
A4.02	Is there any specific data format for conversion required?	
<b>A5. Documentation</b>		
A5.01	Does the proposed system provides online user document ?	
A5.02	Does the documentation provided include data flow diagrams, entity flow diagrams, program narratives and file/table layouts?	
A5.03	Can the Broker firm customize the on-line documentation?	
<b>A6. Training</b>		
A6.01	<p>What training services are included in the proposal? Please provide details. For example:-</p> <ul style="list-style-type: none"> <li>· Users</li> <li>· System Administrators</li> <li>· Report and software customization</li> <li>· Other related trainings</li> </ul>	
<b>A7. Upgrades &amp; Releases</b>		
A7.01	Describe your product roadmap time schedules for major enhancement upgrades consider the next 5 years.	
A7.02	What major releases have been completed in the last three years and that major functionality has been included in each of these releases?	
A7.03	<p>Do software upgrades protect existing customization (including user specific screen modifications, help text, queries, etc.) or</p> <p>Existing customizations are considered as chargeable change requests to be incorporated in the product upgrades?</p>	
A7.04	<p>Describe adaptation of below practices in the software design Process</p> <ul style="list-style-type: none"> <li>a. Secure by Design</li> <li>b. Privacy by Design</li> </ul>	

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<b>A8. Awards or Recognitions/ Compliance</b>		
A8.01	Are there any international and / or local awards or recognitions accredited to your company (e.g. NBSQA, Best service partner award, If yes, please specify.	
A8.02	Does your firm follow / accredited with below best practice processes? a. IT Service Management (ISO 20000) b. Information Security Management (ISO 27001) c. Business Continuity Management (ISO 22301)	

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## **ANNEXURE 8 – RULES OF THE CSE**

Please refer the below link of the website of Colombo Stock Exchange

a. Automated Trading Rules

<https://www.cse.lk/rules-circulars/rule-books/trading-rules>

b. Rules Governing Application Systems

[https://cdn.cse.lk/pdf/rule-books/uINUyithHNic17pB\\_10Mar2025062713GMT\\_1741588033652.pdf](https://cdn.cse.lk/pdf/rule-books/uINUyithHNic17pB_10Mar2025062713GMT_1741588033652.pdf)

c. CSE Clear Rules

<https://www.cse.lk/rules-circulars/rule-books/cse-clearing-rules>

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## **ANNEXURE 4 - TERMS OF REFERENCE AND STATEMENT OF COMPLIANCE**

### **1.0 Introduction**

The Colombo Stock Exchange (“CSE”), a company limited by guarantee, is incorporated under the Companies law of Sri Lanka and is licensed by the Securities and Exchange Commission (“SEC”) to operate as a stock exchange. The CSE is a mutual exchange and has 15 members and 10 Trading Members licensed by the SEC and stockbrokers currently trade in both equity and debt securities

### **2.0 The Assignment**

#### **2.1 Project Background**

Stockbroker firms have expressed their willingness to change their Broker Back Office (BBO) & Order Management Systems (OMS) considering the next 5-year period. Accordingly, the CSE invites interested vendors who are capable of providing OMS and BBO Systems for the CSE’s member organizations to submit proposals for the purpose.

#### **2.2 Objective of the Assignment**

The objective of the assignment is to evaluate and shortlist one or more suitable Broker Back Office and Order Management System/s for Broker Firms organizations

### **3.0 Statement of Compliance**

The documents issued shall not be altered by the Vendor. Vendor shall submit a Clause by Clause (or Sub-Clause) statement of compliance (i.e. “Complied” or “Not Complied”) for all the key components of the RFP, which are applicable for the solution/s to be provided by Vendor.

Any such applicable clause that has not been indicated as “Complied” or “Not Complied” will be treated as “Not Complied”.

The term “Complied” shall be used only in the event where the Vendor can unconditionally meet the requirements of the relevant clause. The phrase “Not Complied” shall be used in

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the event where the Vendor cannot unconditionally meet the requirements of the relevant clause.

The Vendor shall add comments to enable the evaluation committee to understand the extent to which the Proposal does not comply with the RFP.

The failure to furnish a clause by clause statement of compliance as set out above may result in the rejection of the proposal.

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## 4.0 ORDER MANAGEMENT SYSTEM

The proposed solution should comply with the following:

- a. Rules Governing Application Systems
- b. Rules governing Trading

Published in the CSE website ([www.cse.lk](http://www.cse.lk))

### 4.1 GENERAL REQUIREMENTS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
4.1.1	System Access Modes/Channels	<ul style="list-style-type: none"> <li>Thin Client (Web browser-based Portal)</li> <li>Thick Client (Dealer Terminal)</li> <li>Mobile Application (iOS and Android Based)</li> </ul>		
4.1.2	OMS Admin Modules:	Admin module to be securely accessed from Internet		
4.1.3	Multi Markets	Ability to Trade with multiple exchanges		
4.1.4	Multi-Asset Facility	a. Equities b. Options c. Bonds –ETF d. Rights e. Stock Lending & Borrowing f. Margin Trading g. Fixed Income products h. Derivatives		
4.1.5	Multi Currency Facility	Trading with exchange's base currency and cross currency		
4.1.6	Real time Market information	<ul style="list-style-type: none"> <li>Market Statistics               <ul style="list-style-type: none"> <li>o Top Gainers</li> <li>o Top Losers</li> <li>o Market Movers (Turnover)</li> <li>o Most Active (Volume)</li> <li>o No. of Trades</li> <li>o Time and Sales</li> </ul> </li> <li>Sector Statistics</li> <li>Market News</li> </ul>		

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		<ul style="list-style-type: none"> <li>• Market Announcement</li> <li>• Price Alerts and Notification based on custom threshold</li> <li>• Ticker</li> <li>• Indices</li> <li>• Ability create Custom Watch</li> <li>• Full Market Watch</li> <li>• Stock-wise statistics such as EPS, P/E, NAV, PBV</li> </ul>		
4.1.7	Charting and Market Analysis	<b>Technical Analysis</b> <ul style="list-style-type: none"> <li>• Daily closing price processing</li> <li>• Historical chart</li> <li>• Drawing tools</li> <li>• Overlay Indicators</li> <li>• Oscillator Indicators</li> <li>• Other Indicators</li> <li>• Daily, Weekly, Monthly charts</li> <li>• Specific interval (Intraday / History)</li> <li>• Stock/Index charts</li> <li>• What-if calculator</li> <li>• Average cost calculator</li> <li>• Bond calculator</li> <li>• Yield calculator</li> </ul>		
4.1.8	Order Types/ Boards/ Fill Types /Instrument Types	Refer Automated Trading Rules of CSE in <a href="http://www.cse.lk">www.cse.lk</a> under Regulations Section		
4.1.9	Market dashboard and Reports	<ul style="list-style-type: none"> <li>• Market watch, Multiple Order book and Order status</li> <li>• Sector Watch, Blotter and Filled (Executed) Orders</li> <li>• Real Time Margin, Position and History reports</li> <li>• Integrated Reports Builder</li> </ul> <p>Reports on</p> <ul style="list-style-type: none"> <li>• Rejected Orders</li> <li>• Pending Orders</li> <li>• Trade Executions</li> <li>• Trade Confirmations</li> <li>• Portfolio Transactions</li> <li>• Daily Purchases</li> <li>• Daily Sales</li> <li>• Turn Over Summary and Brokerage</li> </ul>		

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		<ul style="list-style-type: none"> <li>• Turnover List Advisor Wise</li> <li>• Turnover List Client Wise</li> <li>• Clients Short Position report</li> </ul>		
4.1.10	Order Entry Management	<ul style="list-style-type: none"> <li>• Create/ Amend and Cancel Orders</li> <li>• Trade Book – View trade of Each Security</li> <li>• Blotter Facility</li> <li>• Advanced Order Entry screens with Market Depth Information</li> <li>• Advanced Order Management with Basket Orders.</li> <li>• Filterable Order Lists.</li> <li>• Order Tracker- window displays all the historical information of orders placed of the user</li> <li>• My Trades - window displays all the trades executed by the user per day</li> </ul>		
4.1.11	Other Desirable Features	<ul style="list-style-type: none"> <li>• Conditional and Algorithmic Orders</li> <li>• Exposure calculation at the order entry level</li> <li>• Alert Manager – Email or SMS Alerts on Price Alters</li> <li>• Mobile app Notifications</li> </ul>		
4.1.12	Future Roadmap	<ul style="list-style-type: none"> <li>• Application software roadmap facilitates the intended future products releases by CSE as described in Section 9</li> </ul>		
4.1.13	AI & Machine Learning Integration for AI-Driven Fundamental Analysis (Optional)	<ul style="list-style-type: none"> <li>• Predictive analytics for market trends and suggestions to Clients based on Fundamental and Technical Analysis</li> <li>• Earnings prediction models based on historical data and macro indicators</li> <li>• Listed Company health dashboard (profitability, debt, growth metrics)</li> </ul>		
4.1.14	AI-Powered Technical Analysis (Optional)	<ul style="list-style-type: none"> <li>• Pattern recognition</li> <li>• Automated support/resistance level detection</li> <li>• Sentiment analysis from news and social media</li> </ul>		
4.1.15	AI Driven Personalized Trade Recommendations (Optional)	<ul style="list-style-type: none"> <li>• AI-curated watchlists based on user behavior and portfolio</li> <li>• Risk-adjusted trade suggestions</li> <li>• Portfolio optimization using machine learning</li> </ul>		

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4.1.16	Broker Research Data	<ul style="list-style-type: none"> <li>• Upload broker Research Reports and other information</li> </ul>		
4.1.17	Broker wise Branding	<ul style="list-style-type: none"> <li>• Ability to brand the system with our brokering company identity.</li> </ul>		
4.1.18	Other General Requirements	<ul style="list-style-type: none"> <li>• Broker-specific announcements for system users/clients.</li> <li>• Digital signature functionality for selected system-generated reports.</li> <li>• Automated SOD and EOD functionality</li> </ul>		

## 4.2 TRADING

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
4.2.1	Trade Error \Cancellation	<p>Error trades should be able to select based on the criteria specified</p> <p>Feature headings should reflect the standard CSE formats to avoid any ambiguities</p>		

## 4.3 CLIENT MANAGEMENT

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
4.3.1	Portfolio Balances			
4.3.2	Account Balances			
4.3.3	Facilitate Trading limit for Margin, Custodian, any type of client accounts	System should allow to set limits for Margin, Custodian , etc . with a validity period.		
4.3.4	As for Margin , Custodian Client details also should be able to upload to the OMS.	The System should be able to upload multiple Margin, Custodian limits to the system		

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	# some of the margin providers provide this service. Custodian clients operates as margin clients.	<p>The System should be able to provide a template to the Margin\Custodian Providers to include the data send it via Email or in a secure method or</p> <p>Directly upload to a portal via a designated user id to the system in a specific time.[*If the provider fails, it can be done manually by the stock broker firm.]</p> <p>- once updated a confirmation mail should be sent to the Margin\Custodian Providers with client id's and limits.</p>		
--	--	--	--	--

#### 4.4 RISK MANAGEMENT

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
4.4.1	risk management features	<p>Inbuilt risk management controls, such as determining trading limits for the Clients when placing orders</p> <p>Trade Risk : Buying Power validations, Tick size configuration, Price validations</p> <p>Margin Trading Related Risk Management features</p> <p>Risk-based client categorization and monitoring</p> <p>Ad-hoc credit provision for enhancing client buying power</p>		
4.4.2	Realtime risk exposure status view	<p>The System should be capable of AI Driven Risk Management Real-time pre-trade risk scoring (Optional)</p> <p>Real-time anomaly detection for compliance and fraud prevention</p> <p>This should capture current Margin, DVP, CCP requirements</p>		
4.4.3	VAR Calculation	VaR /broker-specific security level risk management methodology.		

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## 4.5 ADMIN MODULE

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
4.5.1	User and Role Management	<ul style="list-style-type: none"> <li>• User Account Creation and Role assignment</li> <li>• View current logged in users</li> <li>• view current user sessions</li> <li>• Link Advisors to User</li> <li>• Password Policy Maintenance</li> <li>• <b>Role-Based Order Entry and Parameter Settings</b> <ul style="list-style-type: none"> <li>– Configurable features based on user roles, such as access to debt trading, market orders etc...</li> </ul> </li> </ul>		
4.5.2	System maintenance	<ul style="list-style-type: none"> <li>• Symbols creation and Market data settings</li> <li>• Messages to the users</li> </ul>		

## 4.6 Dealer Terminal

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
4.6.1	Pre-trade Risk Control			
4.6.2	Account Management	Portfolio Management, Cash Management		
4.6.3	Trading Management	<ul style="list-style-type: none"> <li>• Portfolio Level Login, Cash Positions Cash-in, Cash-out Status</li> <li>• Advanced Order Entry screens with Market Depth Information</li> <li>• Conditional and Algorithmic Orders</li> <li>• Advanced Order Management with Basket Orders.</li> <li>• Filterable Order Lists.</li> <li>• Cancellation of Client Orders</li> </ul>		

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#### 4.7 INTEGRATION WITH OTHER SYSTEMS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
4.7.1	Integrate with third party Broker Back Office system and third party application platforms;	A Secured real time API Infrastructure is <b>mandatory</b> to be present to communicate the data interchange between proposed OMS System and various Broker Back Office Systems  Third party trading front ends such as mobile applications		
4.7.2	Coexistence with third party order routing Platforms (Eg. Bloomberg \Reuters \etc)	A Secured API Infrastructure to be present to communicate with third party order routing platforms		
4.7.3	Market Announcements	Integrate with CSE Market Announcement Feed		
4.7.4	fundamental data feeds	Ability to integrate to third party fundamental data feeds		

#### 4.8 SYSTEM ARCHITECTURE & PERFORMANCE

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
4.8.1	Maximum Order/Trade rates for a given config.	Refer Section 8		
4.8.2	Redundancy of Production and DR Infrastructure	The Proposed solution and infrastructure should ensure the <b>High availability</b> infrastructure in components such as in <ul style="list-style-type: none"> <li>• software level</li> <li>• database level</li> <li>• hardware level</li> <li>• network level</li> </ul>		

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		<p>The Proposed solution should be Cloud Native and should support</p> <ul style="list-style-type: none"> <li>• Microservices-based deployment for scalability and resilience</li> <li>• Real-time processing at the edge for latency-sensitive trading</li> </ul>		
4.8.3	Scalability	The proposed system architecture and proposed Cloud infrastructure should be scalable to expand to meet abrupt capacity surges of the market		
4.8.4	Restore recovery times on failures	<p>The recovery point objective of the proposed infrastructure should be Zero and no data loss should be experienced when switching over to the DR Infrastructure</p> <p>Recovery Time Objective of the proposed infrastructure should be less than one hour.</p>		
4.8.5	Ability to be hosted on virtualized environments, Private/Public Clouds	System Must be able to host in Virtual and Public Cloud environments		
4.8.6	Reports / charts and analytics - Separate reporting server for OMS	Broker house should be able to generate any report/ charts and analytics should not cause performance degradation or disruption of the performance of the live system)		
4.8.7	Test / UAT Environment	Dedicated test environment required for each member firm subscribing to the OMS system		

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## 4.9 SYSTEM SECURITY

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
4.9.1	Application of industry standard security features	Application systems and their infrastructure should have Industry standard security controls, encryption and features to ensure confidentiality and integrity of all information captured and stored by the systems		
4.9.2	Access Control Security	<p>An Industry standard password for the first login and the mandatory requirement to change the password in the first login</p> <p>Automatic expiry of passwords at the end of a reasonable period of time</p> <p>Account lockout after maximum 5 unsuccessful attempts</p> <p>Password reset procedure</p> <p>Unlock procedure</p> <p>Passwords will be stored securely using encryption</p> <p>The permissions are granular – for a particular role</p>		
4.9.3	Communication Security	Ensure all <b>internal and external</b> communications are encrypted and secured using industrial standards to prevent from unauthorized interception from telecommunication and other networks while delivering the intended services		
4.9.4	Audit Log capabilities	System should maintain audit logs that record all user activities, exceptions and information security events		

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4.9.5	Systems Activity Log	<p>maintain a detailed Application System activity logs with time stamps on all Application System activities</p> <p>activity log shall include the orders entered through the OMS by Third-Party Application Platforms;</p> <p>the system should have a mechanism to detect the exact geographical location (IP address) where the connection initiated for the transaction</p> <p>System to have a log viewing, querying and extraction facility for privilege users</p>		
4.9.6	Security by Design Features	<p>The Proposed System should facilitate</p> <ul style="list-style-type: none"> <li>- Multi-factor authentication (MFA)</li> <li>- Fine-grained permission management</li> <li>- Tokenization of sensitive data</li> <li>- Integration with SIEM (Security Information and Event Management) systems</li> </ul> <p>The System should be developed in line with Secure coding standards (e.g., OWASP Top 10 compliance)</p>		
4.9.7	Privacy by Design Features	<p>The proposed system should be in line with Privacy by Design Features such as</p> <ul style="list-style-type: none"> <li>- Clear consent mechanisms for data collection and usage during registration to the system (Web and Mobile)</li> <li>- Masking of client identifiers in logs and reports</li> <li>- Pseudonymized data for analytics and testing environments</li> </ul>		

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## 5.0 BROKER BACK OFFICE SOLUTION REQUIREMENTS

### 5.1 GENERAL REQUIREMENTS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.1.1	ATS/CSE/SEC guidelines & requirements to be followed			
5.1.2	User friendliness			
5.1.3	Uniformity in user interfaces	# BBO -OMS data integrity & uniformity (Excel or CSV)– a. CDS A/C number format should be same with Both systems b. Data & format integrity with excel /csv download option		
5.1.4	Dual authorization for required transactions	a. All system parameter changes should support dual Authorization b. Sys admin should have option to enable or disable dual Authorization option for each function		
5.1.5	Provision of Single Sign On			
5.1.6	Efficient searching methods (Eg; Client search by NIC, PP, TEL No.s)			
5.1.7	Proper validations for data entry fields in forms			
5.1.8	Monitoring of System performance, alerts to configure to notify the broker [90%]			
5.1.9	Comprehensive audit trails for all user actions including login attempts & viewing status  Audit Trails & System action logs	The system should log all user activities and include a function to view those logs for user activity review purpose. # Audit Trails – Audit trail report should be		

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		properly categorized filter with different areas # System action log – a. Report should be properly categorized filter with different actions b. Compatibility with well-known log management Analyzing platforms		
5.1.9.1	Privilege Account access management report	Vendor & Broker IT Staff		
5.1.10	Export report formats to Excel, PDF or other types			
5.1.11	Charts - Graphical presentations for required reports			
5.1.12	System should support multiple product lines (equity, debenture, etc...)			
5.1.13	System should support multiple locations (branches)			
5.1.14	System should support multiple Stock Exchanges			
5.1.15	System task schedule			
5.1.16	Sending messages to users through the system			
5.1.17	Should be able to scan, upload and attach the required documents with related data records in the system			
5.1.18	Detailed and summarized trade reports and settlement reports should be taken client wise, security wise, trade type wise, clearing type wise, branch (location) wise, investment advisor wise, Agent wise.			
5.1.19	Debtors and creditors age analysis should be generated for any given age categories (break down of due amount in to many age categories) with portfolio valuation.  A facility should be available to generate the debtors report with the Breakdown under T+2			

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5.1.20	All the reports should facilitate sorting, grouping and filtering (Advisor wise, agent wise, Location/Branch wise, Transaction type wise, client wise, date and time wise) wherever required and applicable.			
5.1.21	Function to periodically reconcile the portfolio balances with the CDS portfolio balances in order to maintain accuracy of portfolio balances.			
5.1.22	Should be able to generate Asset class wise statements as well as integrated statements when required (Eg: Portfolio Statement, Accounts Statement, Age analysis, Transaction reports, Etc. Equity & Debenture separately and/or Integrated, based on the requirement).			
5.1.23	All system generated mails should be able to send to a designated mail id for reference purpose.	- This is to ensure the mail has sent to the respective client via the system and to eliminate any client disputes.		
5.1.24	Should include a report generator			
5.1.25	<p>A system-function should be available to generate a list of users including the following ;</p> <p>Full Name User Name User ID Employee Number Department /Business Unit Designation Creation Date Authority Level granted Modification Date Termination Date Last Login Date User Status (Active/Inactive)</p>			
5.1.27	Periodic database Backup, random testing, and store on different location [DR Site\separate cloud infrastructure ]			

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5.1.28	Collection of Server, storage and Networking equipment configuration and logs for post review and analysis			

## 5.2 ADMIN MODULE

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.2.1	User management			
5.2.2	Create & Maintain User Profiles			
5.2.3	Role Creation	<ul style="list-style-type: none"> <li>System should allow to create any amount of roles.</li> <li>User should be able to edit, inquirer or delete a role.</li> <li>Dual authorization should be enabled on all role management functions.</li> </ul>		
5.2.4	Grant system rights to Roles	User should be able to attach or detach system rights to a role with dual authorization.		
5.2.5	Assign User to Role	User should be able to assign or remove users to a role with dual authorization.		
5.2.6	Password Policies (standard best practices to be implemented)	<ul style="list-style-type: none"> <li>There should be a minimum and maximum length to a password</li> <li>It should have an expiration date</li> <li>It should be encrypted with salting</li> <li>Password complexity</li> </ul>		
5.2.6.1	All Password policy settings should be parameterized [without doing any code modifications]	All the parameters of Password policy to be defined by the user		
5.2.7	Dual authorization and action log recording for admin operations			

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5.2.8	Menu options which are not authorized to users should be hidden.			
5.2.9	More fine tuning is required on permission on the system	Eg: some rights\permissions are bind to an entire parameter page. Instead , it should be refined for a page section based on the end user's requirement.		

### 5.3 GLOBAL SETTINGS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.3.1	System related global settings	(Eg: File paths, company details etc.)		
5.3.2	Operation related global settings	(Eg: default values for Contract Posting, Cheque Handling etc.)		
5.3.3	Financial related global settings	(Eg: Penalty rates, grace period, advisor & agent commission rates )		

### 5.4 REFERENCE DATA MAINTANANCE

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.4.1	Advisors	Advisor code, Name, Short Name, Branch, Commission percentage, etc. should be maintained in a reference table.		
5.4.2	CDS downloading types	All the CDS transaction type codes should be maintained in this option. Whenever a CDS share transaction is updated to the system (through text file uploading/via API)		
5.4.3	Sectors	Sector code, sector name, etc...		
5.4.4	Listed companies	Company code, company name sector, etc...		

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5.4.5	Stock codes	Stock Code, stock name, company code, sector code should be maintained in this reference. * As per DVP requirement, Liquid/illiquid states of a share code should be recorded with the stock code.		
5.4.6	Banks and branch details	Bank code ,bank name branch code ,branch name should be maintained in the system (as per Central Bank)		
5.4.7	Agents	Agent code, agent name, contact details, agent commission percentage, etc...		
5.4.8	Locations(Branches)	Branch details of the broker firms, Authorized Officer details (code, name, etc...)		
5.4.9	CSE calendar	To record CSE holidays in order to facilitate contract settlement operations with the option of auto marking Saturdays Sundays or any other weekday as holiday CSE Calendar\Holiday file should be able to upload to the BBO along with manual update.		
5.4.10	Margin Providers & Custodian Clients , Etc.	- Margin extractor files should be generated from the system for the respective Margin\Custodian client and send via Email - Email sent status should be captured in a report.		
5.4.11	Backdated Portfolio Gain\Loss reports should be able to generate	- Backdated Portfolio Gain\Loss Report should be able to generate from the system[Excel, PDF export, Print, Email facility should be provided. Data retention should be complied with CSE data retention period.		
5.4.12	Cost per share	Option to copy cost per share from one account to another\ File upload and an option to recalculate the cost.		

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## 5.5 DOCUMENTATION AND OPERATIONS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.5.1	Applications & Request Processing	<p>1. Client Registrations Should be able to add, edit and update the processing status of registration applications</p> <p>2. Client detail Amendments Should be able to add, edit and update the processing status of client details amendment requests</p> <p>3. CDS Deposits and withdrawals Should be able to add, edit and update the processing status of CDS Deposit applications</p> <p>4. CDS share transverse Should be able to add, edit and update the processing status of Inter/Intra transfer applications</p> <p>5. IPO request handling Should be able to add, edit and update the processing status of IPO applications</p> <p>6. Bonus issue Should be able to add, edit and update the processing status of Bonus applications</p> <p>7. Rights issues Should be able to add, edit and update the processing status of Rights applications</p> <p>8. Warrants issues Should be able to add, edit and update the processing status of Warrants applications</p>		
5.5.2	Maintenance of CDS registered clients	<p>1. CDS Registered Client details maintenance user should be able to modify the profile data(contact details, Advisor, agent, etc..) &amp; parameters(contact settlement method, cheque posting method, penalty interest rates, etc...) of registered customers with dual authorization</p> <p>2. Right issues</p>		

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		Should be able update and handover accounts to process payments for purchase confirmations		
5.5.3	CDS/CSE File Upload or API Integration	<p>1. CDS client registrations</p> <p>When the text files are uploaded (or via APIs) and posted all the new CDS accounts opened in CDS under stockbroker should be added to the system (Client's CDS Account number, registration date, address, etc...)</p> <p>2. CDS client details amendments</p> <p>When the relevant text file is uploaded (or via APIs) and posted client details amendments done in CDS should be updated to the system (E.g. changing of name, changing of address, etc.)          *Changing of NIC will considered as a new registration</p> <p>3. CDS Share transactions details</p> <p>When the relevant text file is uploaded (or via APIs) and posted, deposits, withdrawals, transfers, etc., taken place at CDS for the day, should be updated to the system.</p> <p>4. CSE Daily Order details</p> <p>When the relevant text file is uploaded (or via APIs) and posted, all the orders entered by the broker firm for the day should be recorded to the system.</p> <p>5. CSE Daily transaction details</p> <p>When the relevant text file is uploaded and posted (or via APIs), Executed sales and purchases for the day should be updated to the system.          * As per DVP requirement Clients share ledger should contain two types of balances as final balance and shadow balance          * Only the shadow balance should be updated to the system at this point. The final balance should be updated on T+3</p>		

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		<p>if the broker firm decided to transfer it. Otherwise the quantity in shadow balance should be transferred to brokers account.</p> <p>6. CSE market data When the relevant text file is uploaded and posted, share prices &amp; traded quantity details should be updated to the system (E.g. opening High, low, VWAP, closing, index details, etc.)</p> <p>7. CSE - Stock Status (Liquid or Non Liquid stocks for DVP)  When the relevant text file is uploaded and posted, Stocks will be marked as Liquid or Non Liquid. - Debt Status When the relevant text file is uploaded and posted. Debt will be marked as Liquid or Non Liquid.</p> <p>8. Facility to roll back uploaded files Need the facility to rollback the transactions and upload back with correct file.</p> <p>9. Daily client wise DVP Margin limit file also should be able to upload to the BBO and generate reports.</p>		
5.5.4	Handling Transaction confirmations & client's requests	<p>1. Daily transaction confirmations should be able to generate and print or email the statement based on the requested method in client parameters (Daily)</p> <p>2. Contract notes (consolidated and normal) should be able to generate and print or email the statement based on the requested method in client parameters (Daily)</p> <p>3. Portfolio statements should be able to generate and print or email the statement based on the requested method in client parameters (Daily/weekly/monthly) Should be able to generate for past data.(backdated portfolio valuation)</p> <p>4. Accounts statements</p>		

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		<p>should be able to generate and print or email the statement based on the requested method in client parameters (Daily/weekly/monthly)</p> <p>5. Capital Gain statement should be able to generate and print or email the statement based on the requested method in client parameters(on request)</p> <p>6.Report_Director Disclosure_RelatedPartyInformations</p> <p>7.Report_Scenario Analysis</p> <p>8.Report_Trade Analysis</p> <p>9. Parameterized Automatic email reminders of Debtor reports to Customers\Investors [Advisors\Compliance\Finance] with different thresholds</p>		
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## 5.6 GENERAL INQUIRY

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.6.1	Client profile data	CDS account number, name, address, telephone number, advisor, agent, email, fax, date of birth, registered date etc...		
5.6.2	Client parameters	Payment options, Penalty interest rates, cheque/contact notes posting options, statement printing frequency, etc...		
5.6.3	Client Accounts	Statements details of transactions for a given period with opening balance & closing balance.		
5.6.4	Client Portfolio balance statement (with value)	List of share balances with the value, Debt Portfolio with the Security Values.		

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5.6.5	Client Portfolio Gain & loss			
5.6.6	Client Capital gain statement	To check the gain or loss with the investment		
5.6.7	Client - CDS/CSE Share movement details Client - CDS/CSE Debt movement details	Client - CDS/CSE Share movement details deposit, withdrawals, transfer, bonus, rights, sales, purchases, etc... details of a given share Client - CDS/CSE Debt movement details of deposits, withdrawals, transfer, bonus, rights, sales, purchases, etc. details of a given debt		
5.6.8	Client Financial Transaction history	Details to be filtered by transaction types (Buy/Sell/Payments/Receipts/penalty/etc...)		
5.6.9	Client order history			
5.6.10	Client stock wise profit calculation			
5.6.11	Stock wise client holdings (share quantity)	a. once a stock code is given the system should display a list of clients with the available quantity.		
5.6.12	Outstanding Deals including Premium / Discounts.			
5.6.13	Bond Calculator			
5.6.14	Yield Calculator			
5.6.15	Active clients	filtering and managing inactive (no turnover) concurrent online users.		

## 5.7 GENERAL REPORTS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.7.1	Order reports (all orders ,sector wise, advisor wise, stock wise)			
5.7.2	Transaction detail reports (transaction validation)			
5.7.3	Executed transaction details			
5.7.4	Performance reports (advisor wise ,location wise, agent wise, stock wise)			

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5.7.5	Broker firm Settlement schedule			
5.7.6	Broker / Agent commission reports			
5.7.7	Company performance report			
5.7.8	Penalty report			
5.7.9	List of clients with current account balance and portfolio value(advisor wise branch wise, agent wise)			
5.7.10	Listing of all master and reference data.			
5.7.11	Price List			

## 5.8 ACCOUNTING

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.8.1	Receipts	<ul style="list-style-type: none"> <li>○ when a client payment is received a receipt should be generated.</li> <li>○ A receipt may be a cash, cheque, SLIPS or RTGS transfer.</li> <li>○ User should be able to select the contracts and other dues to be settled or system to settle FIFO basis as per the user requirement.</li> <li>○ Receipt should be updated to the internet trading system real time with approval.</li> </ul> E- Receipts should be generate and email to clients\broker firm [Finance ,etc for reference].		
5.8.2	Generate Deposit Slips	○ This will allow the cashier to generate the deposit slip for cash or cheque and to be used for automatic bank reconciliation		
5.8.3	Receipt cancellation	○ to cancel a payment received from a client		
5.8.4	Cheque returns	○ when a cheque given by client get rejected by bank		

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5.8.5	Creditors projection	<ul style="list-style-type: none"> <li>○ projection for due sales based on the parameters in client details</li> <li>○ Creditors projection for TOM / SPOT</li> </ul>		
5.8.6	Generate payment vouchers	generate payment vouchers for projected creditors or past dues		
5.8.7	Payment voucher approval			
5.8.8	Payment cancellation			
5.8.9	Client setoff	<ul style="list-style-type: none"> <li>○ Process to set off clients' sales &amp; purchases based on the instructions recorded in client parameters given by client, all debit &amp; credit should be setoff.</li> </ul>		
5.8.10	Broker setoff	<ul style="list-style-type: none"> <li>○ Update the CDS settlement details to the system for Brokers and Custodians</li> </ul>		
5.8.11	Early settlements	<ul style="list-style-type: none"> <li>○ Settlement of Sales to be made before the settlement date with an option to deduct discounted Interest.</li> </ul>		
5.8.12	Share journals	<ul style="list-style-type: none"> <li>○ Transfer funds between clients / Bank Accounts from/to Client Accounts</li> </ul>		
5.8.13	Penalty Interest Calculation	<ul style="list-style-type: none"> <li>○ Penalty to be calculated according the parameters set in the global configuration or client parameters for the outstanding amount periodically as per the set value in the global setting.</li> </ul>		
5.8.14	Penalty interest waive off	<ul style="list-style-type: none"> <li>○ For a Client and/or for a period with a % or a value</li> </ul>		
5.8.15	Online Banking (incl SLIPS & RTGS)	Settlement of payments related to trades through SLIPS & RTGS  Integration facility to Banking APIs		
5.8.16	Client Interest Payments			
5.8.17	Debts Maturity Payments			

## 5.9 CHEQUE PRINTING MODULE

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.9.1	Maintain cheque book			
5.9.2	Damaged cheque leaf cancellation			

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5.9.3	Printing cheques for all approved payments related Share purchases & general payments in GL			
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## 5.10 ACCOUNTING REPORTS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.10.1	Broker Age Analysis			
5.10.2	Cheque Cancellation List			
5.10.3	Creditors Age Analysis with facility to customized age ranges and classify according to Advisor / Branch / Agent / Client Type etc.			
5.10.4	Debtors Age Analysis with facility to customized age ranges and classify according to Advisor / Branch / Agent / Client Type etc.			
5.10.5	Payment Cash Book			
5.10.6	Payment Vouchers			
5.10.7	Penalty Details			
5.10.8	Receipt Cash Book			
5.10.9	Share Journal Report			
5.10.10	Settlement Schedule	generate a schedule of settlement details for a given transaction		
5.10.11	Capital gain/loss for a period for all the client or selected			
5.10.12	Collection Report for a Cashier or per Branch or All for the given date range			
5.10.13	Stamp duty report			
5.10.14	All CSE\SEC reports should be able to generate automatically from the BBO system and mail to the respective institution with a copy to the Broker firm. or subject to approval mechanism.	- status should be visible in the Dashboard.		

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## 5.11 MIS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.11.1	Advisor wise performance			
5.11.2	Client wise performance			
5.11.3	Agent wise performance			
5.11.4	Branch wise performance			
5.11.5	Stock wise performance for given period			
5.11.6	Top clients analysis			
5.11.7	Stock broker wise turnover contribution			
5.11.8	Company Performance			
5.11.9	Back-office reports related to 3rd party system transaction- <b>Order source wise</b> should be captured in the reports.	E.g. -Turnover & market reports -Risk management repots Compliance Officer reports		
5.11.10	MIS Reports including executive dashboard for ;	E.g. -Market Share Report – Advisor wise with Turnover & brokerage -Market segment performance Report (HNI / Retails / Institution / Foreign /etc.) -Company Market performance Report /dash bord with graph - Client grouping for reporting purposes (e.g., margin client groups).		

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## 5.12 CRM

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.12.1	Customer wise profile maintenance			
5.12.2	Customer request processing inquiry with status			
5.12.3	Connectivity to Telephone system (enabling client info display when client calls)			
5.12.4	Integration with CSE CDS System , KYC,etc			
5.12.5	Integration with CSE Investor App			
5.12.6	Integration with Central Bank FIU and Anti money laundering systems	<ul style="list-style-type: none"> <li>- Automatic sanction list filtering on customer information</li> <li>- Enable Red flags on clients based on pre-defined criteria</li> </ul>		
5.12.7	Non trading Client portal			

## 5.13 SMS & EMAILS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.13.1	Customer performance			
5.13.2	Purchase & Sale trade reporting (contract note generation)			
5.13.3	Reminders on Debtors			
5.13.4	Reminders for Payment Collections			
5.13.5	Online Account & back Office User Email ID's should be able to extract from the system.	- This is to send any communications for active clients.		

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5.13.6	Facilitate option for sending message/basic document to Online & Back Office clients using the system	Selected clients\client Groups[Risk Groups\etc...]		
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## 5.14 GL

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.14.1	Chart of accounts			
5.14.2	Account wise budgeting			
5.14.3	Journal entries Standard & Recurring Journals	1. User should be able to add,edit and inquire entries 2. Required option to view and approve or reject entries 3. required to create templates for recurring / Standard journals.		
5.14.4	General payments	1. AdHoc Payments / Standard Payments		
5.14.5	General receipts			
5.14.6	Petty cash module			
5.14.7	Bank Reconciliation with automation by uploading the bank statement			
5.14.8	Management accounts CSE formats & internal formats	1. TB 2. P&L 3. Balance sheet 4. Cash flow statement		
5.14.9	Fixed Asset Register			

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### 5.15 USER RIGHTS & CONTROLS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.15.1	Data encryption as per industry standards			
5.15.2	Password complexity and policies			
5.15.3	Audit trails for all the options			

### 5.16 INTEGRATION WITH OTHER SYSTEMS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.16.1	Trading frontends (Internet & LAN basis for advisors & clients)			
5.16.2	Third party GL systems			
5.16.3	Third party Cheque Printing Modules			
5.16.4	Banking and other financial systems need basis			
5.16.5	Extract data formats for out sourcing functions			
5.16.6	Telephone system			
5.16.7	OMS\RMS\BBO should support API's to integrate with 3rd Party System\Apps	- main features such as. Buy\Sell ; Portfolio ; Account Statement ; CSE\Broker Announcements ; Market Data , etc		
5.16.8	Integration with CSE FTP/ API - - BBO system should integrate with CSE FTP or API to download\upload data.			

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	-BBO system be updated based on a verification process. Current, manual update process should be available as an alternative process.			
5.16.9	Provision for integrating system with payment gateway to systematic client payment procedure			

## 5.17 COMPLIANCE AND REGULATORY REQUIREMENTS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.17.1	Net capital statements			
5.17.2	Cash flow statement			
5.17.3	Age analysis			
5.17.4	FIU reports (as per Central Bank requirement)			
5.17.5	Trade pattern analysis report			
5.17.6	Compliance officers report			
5.17.7	List of clients who trade without portfolio/without 50% deposit			
5.17.8	Clients margin requirements			
5.17.9	Clients collateral availability against the margin requirements			
5.17.10	Clients short selling positions with regards to securities			

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## 5.18 RMS

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.18.1	Maintain a list of Assets allowed for Collateral and the allowed Percentage			
5.18.2	Maintain client wise collaterals (Attach the Assets for the Client) this will enable to validate client level collateral at order entry. The trading front end should communicate with the Back office for this Purpose			
5.18.3	Maintain Client security wise margin requirement linked to the CSE RMS system Option to calculate client wise margin requirement for buy / sell transactions.			
5.18.4	Have an interface to look at the Collateral % used for a Broking house and create Alerts to predefined groups or persons thru Different channels (email, Desktop Notifications, SMS etc.)			
5.18.5	Automatic Blocking\Allowing of Clients in the OMS as for the Client Debtor Status in the system. Status should be captured in a report.  Options can be provided based on Credit Agreements, Exposure, Account balance , Aging, etc...  - Category level RMS for Margin Providers.	<p>- Clients who are debtors over are T+3 has to be notified via email with the respective adviser.</p> <p>- Same has to be captured in a report in the BBO, In this report we might have to capture the status for a given period\time.</p> <p>- Once a sale is made or fund the account, respective client should be enabled in the OMS notified via email with the respective adviser.</p>		

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	<ul style="list-style-type: none"> <li>- Stockwise Buy/Sell restrictions</li> <li>- Clientwise TIF ( Time In Force / Number of days) restrictions</li> </ul>			
	Client-Level Risk Controls	<ul style="list-style-type: none"> <li>- Real-time <b>client buying power calculation</b> based on:               <ul style="list-style-type: none"> <li>• Available cash / prefunded balances</li> <li>• Approved credit limits</li> <li>• Haircut-adjusted collateral and securities</li> <li>• Pending trades and unsettled obligations</li> </ul> </li> <li>- Configurable <b>client exposure limits</b> (gross, net, single security, sector)</li> <li>- Automatic blocking / rejection of orders breaching client risk limits</li> <li>- Support for differentiated risk profiles (retail, HNI, proprietary, institutional)</li> </ul>		
	Broker-Level & Clearing House Risk Controls	<ul style="list-style-type: none"> <li>- Real-time monitoring of <b>broker exposure vs Clearing House limits</b></li> <li>- Automated enforcement of:               <ul style="list-style-type: none"> <li>• Trading limits assigned by the Clearing House</li> <li>• Margin utilization thresholds</li> <li>• Settlement obligation caps</li> </ul> </li> <li>- Early-warning alerts for approaching Clearing House risk thresholds</li> <li>- Ability to impose <b>restrictions</b> in real time at the client level/ Member level</li> </ul>		
	Margining & Collateral Management	<ul style="list-style-type: none"> <li>• Support for Clearing House-prescribed margin methodologies (e.g., SPAN / VaR-based)</li> <li>• Real-time margin requirement computation at:               <ul style="list-style-type: none"> <li>• Client level</li> <li>• Broker aggregate level</li> </ul> </li> </ul>		

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		<ul style="list-style-type: none"> <li>• Collateral eligibility management (cash, securities, haircuts)</li> <li>• Automated margin shortfall detection and escalation workflows               <ul style="list-style-type: none"> <li>• Intraday margin call capability</li> </ul> </li> </ul>		
	Pre-Trade & Post-Trade Risk Management	<ul style="list-style-type: none"> <li>• Pre-trade validation against:               <ul style="list-style-type: none"> <li>○ Client buying power</li> <li>○ Broker and Clearing House exposure limits</li> </ul> </li> <li>• Post-trade recalculation of:               <ul style="list-style-type: none"> <li>• Margins</li> <li>• Net obligations</li> <li>• Settlement risk</li> </ul> </li> </ul> <p>Ability to reverse or adjust risk in case of trade cancellations or corrections</p> <ul style="list-style-type: none"> <li>•</li> </ul>		
	Stress Testing & Scenario Analysis	<ul style="list-style-type: none"> <li>- Broker-level and client-level <b>stress testing</b> based on Clearing House scenarios</li> <li>- Support for:               <ul style="list-style-type: none"> <li>• Price shocks</li> <li>• Concentration risk scenarios</li> <li>• Liquidity stress scenarios</li> </ul> </li> <li>- What-if analysis for large orders before execution</li> <li>- Scenario results aligned with Clearing House risk parameter</li> </ul>		
	Alerts, Controls & Governance	<p>Real-time alerts for:</p> <ul style="list-style-type: none"> <li>• Limit breaches</li> <li>• Margin shortfalls</li> <li>• Abnormal trading behavior</li> </ul>		

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		<p>Configurable escalation matrix (risk desk, compliance, senior management)</p> <p>Manual override controls with:</p> <ul style="list-style-type: none"><li>• Dual authorization</li><li>• Full audit trail</li></ul> <p>Time-based and event-based risk controls</p>		
	Reporting & Regulatory Compliance	<ul style="list-style-type: none"><li>- Real-time dashboards for broker and Clearing House risk exposure</li><li>- End-of-day risk and margin reconciliation with Clearing House</li><li>- Regulatory risk reports aligned with Exchange and SEC requirements</li><li>- Historical risk data retention for audit and dispute resolution</li></ul>		

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## 5.19 DVP

CLAUSE NO	REQUIREMENT	DESCRIPTION	"COMPLIED" OR "NOT COMPLIED"	RELEVANT SECTION IN THE TECHNICAL DOCUMENT WHERE THE COMPLIANCE IS SHOWN
5.19.1	Maintain clients' stock balances accurately by recording sales, purchases, deposits, withdrawals and transfers.			
5.19.2	Categorization of stocks (based on liquidity, volatility etc...)			
5.19.3	Enable the sell check in trading front end base on the stock type.			
5.19.4	Trading front end should communicate with back office to validate the client ID and sell check when submitting the order.			
5.19.5	Client wise sell buy transactions should be recorded and settled and unsettled status should be maintained.			
5.19.6	Should generate a text file to CSE including contract wise settlement details in order to facilitate the share settlements on t+3			
5.19.7	Early settlements of share quantities will not be permitted.			
5.19.8	Early settlement of funds will be permitted.			

## 5.20 ADDITIONAL FEATURES

FEATURE NO.	DESCRIPTION OF FEATURE

All Additional features which require from the CSE\SEC should be introduced to the OMS\RMS\BBO CSE\SEC Circulars can be used as the confirmation.

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## 6.0 Vendor's Obligations

CLAUSE NO	REQUIREMENT	"COMPLIED" OR "NOT COMPLIED"
6.1	The VENDOR shall carry out Vulnerability and Penetrating Test ('VAPT') on the Licensed Program by an independent auditor prior to go live of the proposed system	
6.2	After Go live of the OMS and BBO Systems the vendor should proactively monitor the performance, health and capacity of the system on 24 x 7 basis and take necessary actions to solve any identified issues.  A Quarterly report on the systems performance statics to be submitted to CSE	
6.3	Vendor shall ensure Service Levels of 99.99% availability and fit to use the OMS and BBO System during trading hours of CSE	
6.4	VENDOR will warrant that the Licensed Program and proposed cloud infrastructure are capable of meeting the transaction volumes and system performance levels described in the Operating Specifications set out in Section 8	
6.5	The VENDOR shall carry out a system audit and a Vulnerability and Penetrating Test ('VAPT') on the Licensed Program by an independent auditor <b>Annually</b> and shall submit the relevant audit report/s to the subscribed broker firms  A report should submitted to CSE and should include include number of high, medium, and low issues identified, status of resolution and planned dates for any unresolved issues	
6.6	CSE reserves the right to conduct a system audit by an external auditor periodically and the vendor should promptly respond to any adverse audit observations and finding	
6.7	the VENDOR shall provide prompt technical assistance to fail-over the system to the disaster recovery system within One (01) hours of receipt such notice.	
6.8	The vendor should conduct <b>High availability and disaster recovery</b> drills <b>annually</b> with CSE and subscribed broker firms on the functioning of the OMS System	
6.9	The vendor should submit a comprehensive release notes to the subscribed Broker Firms whenever a new release is submitted and update user manuals [Desktop, Web and Mobile] accordingly. Also, Software and web application cross-platform compatibility should be checked and verified.	

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6.10	Any system related changes\maintenance activities should be notified in advance and will be carried out under supervision of Subscribed Broker Firm	
6.11	The vendor's system development and operations should be aligned with the ISO 27001 Information Security Standards and ISO 27017 (guidelines for information security controls in cloud computing)	
6.12	The proposed OMS systems MUST support open APIs to connect to any BBO System	
6.13	The Proposed BBO systems MUST Support Open APIs to Connect to any number of OMS systems	
6.14	The Proposed system should be a SaaS based model for the OMS and BBO System for the subscribed Stock broker Firms in Local or prior authorized public Cloud Infrastructure by the CSE	

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## 7.0 Vendor's Legal Obligations to be included in Implementation and Support Agreement

The following key clauses should be included in the Implementation and Support Agreement along with other required terms and conditions.

CLAUSE NO	CLAUSE NO	REQUIREMENT
7.1	<b>Performance Bond</b>	Vendor shall submit a Performance Bond from a licensed commercial bank in Sri Lanka acceptable to the CSE for a minimum sum of five percent (5%) of the total contract price. Performance Bond should be valid until one (1) month after the expiry of the warranty period (6 months) after Go Live.
	<b>Advance Bond</b>	Any advance payment will be based on the submission of Advance Payment Bond issued by the licensed Commercial Bank of Sri Lanka
	<b>Bid Bond</b>	The vendors shall submit a bid bond with their proposals, in the form of a bank guarantee in accordance with the Bid Bond form set out in Annexure 5, from a licensed commercial bank in Sri Lanka in an amount not less than One Million Sri Lankan Rupees (LKR 1,000,000/=) and valid for 180 (one hundred and eighty) days or any agreed extension thereof.
7.2	<b>Insurance</b>	Vendor shall bear the risk of loss and damage to and shall maintain appropriate insurance in relation to the Hardware and Software solution on which is valid up to the point the goods are being delivered to (GRN) CSE.  Further vendor shall take necessary insurance covers to the Hardware and Software solution during the Installation and implementation period.
7.3	<b>Delays in Implementation</b>	<b>Vendor</b> shall for each full week of delay in completing the implementation as per the respective completion dates related to the Project Plan, pay to <b>subscribed Stockbroker Firm</b> as liquidated damages which shall be calculated at a percentage rate of the total implementation fee
7.4	<b>Delay Delivery of Software for Final Acceptance</b>	the delivery by the VENDOR of the software release of the Licensed Program intended for Final Acceptance ("UAT Release") is delayed beyond the date specified in agreed project Schedule for the UAT Release ("UAT Delivery Date"), then the VENDOR should be liable to pay liquidated damages which shall be calculated at a percentage rate of the License/Implementation Fee per day for each day of delay from the UAT Delivery Date until the actual delivery of the UAT Release
7.5	<b>Critical Errors in the Final Acceptance</b>	If there are more than 5 "Critical Error(s)" reported by the CSE to the VENDOR in accordance on or before the date indicated as "UAT by the Customer" in agreed project schedule ("Bug Reporting Cutoff Date") and where such Critical Errors reported by the CSE on or before the Bug Reporting Cutoff Date are not fixed by the VENDOR before the date of Final Acceptance of the Licensed Program ("UAT Date"), the VENDOR should be liable to pay liquidated damages which shall be calculated at a percentage rate of the License Fee per day for each day of delay from the UAT Date until delivery of the fixed Critical Errors by the VENDOR ("Error Fixes").

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		Any bug fixes, customizations during the Warranty Period shall be done by the Vendor free of charge,
7.6	<b>Payments</b>	<p>All remittances to the foreign companies are subjected to With Holding Tax (WHT)/Royalty, The rate is based on the double tax agreement between Sri Lanka and Foreign country. After the deduction, the net amount will be remitted. The certificate will be issued for the tax deduction and the deducted tax amount can be claimed in your respective foreign country as advance tax payment</p> <p>All payments to be made to the Sri Lankan VENDOR hereunder shall be made in Sri Lankan Rupees (The conversion of the amounts specified in US Dollars hereunder to Sri Lankan Rupees shall be done at the selling rate of the Central Bank of Sri Lanka applicable as at the date of the applicable invoice).</p>
7.7	<b>system audit and a Vulnerability and Penetrating Test</b>	The VENDOR shall carry out a system audit and a Vulnerability and Penetrating Test ('VAPT') on the Licensed Program by an independent auditor <b>Annually</b> and shall submit the relevant audit report/s to the CUSTOMER
7.8	<b>Representations and Warranties</b>	The VENDOR further warrants that the Licensed Program is capable of meeting the described in the Operating Specifications set out in Section 8 , The Vendor shall be liable for any breaches of representations and warranties provided by the Vendor and shall indemnify the member firm accordingly for any breaches of same.
7.9	<b>System Monitoring</b>	After Go live of the System the vendor should proactively monitor the performance, health and capacity of the system on 24 x 7 basis and take necessary actions to solve any identified issues.
7.10	<b>System availability</b>	The System is expected to be 99.999% available for its intended use during trading time frame of the CSE and any unavailability of the system due to application or hardware related issues, the VENDOR should be liable to pay service credits equivalent to an agreed percentage of that Maintenance Year's fees.
7.11	<b>Delays in Support service Levels</b>	<p>The parties shall mutually agree on Service levels, response and Resolution times. In an event of System unavailability if within any Maintenance Year and the VENDOR does not provide a "<i>permanent correction</i>" in accordance with the <b>Resolution</b> terms for any Level 1 Program Error reported by the subscribed stock broker to the VENDOR the VENDOR should be liable to pay Service credits equivalent to an agreed percentage of that Maintenance Year's (i.e. the Maintenance Year in which such Resolution was not provided)</p> <p>The parties shall agree on an escalation procedure acceptable to the parties.</p>
7.12	<b>Technical assistance during DR fail over</b>	the VENDOR shall provide prompt technical assistance to fail-over the system to the disaster recovery system within One (01) hours of receipt such notice. Any failure thereof shall attract penalties/indemnities.
7.13	<b>Disaster Recovery Drills</b>	The vendor should conduct <b>High availability and disaster recovery drills annually</b> with CSE and subscribed broker firms on the functioning of the OMS/ BBO System

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7.14	<b>Governing Law and Jurisdiction</b>	The Agreement shall be governed and interpreted in accordance with the laws of Sri Lanka and be subject to the exclusive jurisdiction of the Sri Lankan Courts.
7.15	<b>Sub licensing</b>	The VENDOR is required to authorize the CSE to sub-license the OMS system to stockbrokers and stock dealers.
7.16	<b>Open Interconnection for OMS</b>	The OMS System should support open interconnection to other BBO systems without any licensing fees
7.17	<b>Open Interconnection of BBO</b>	The BBO System should support open interconnection to other OMS systems without any licensing fees
7.18	<b>Data Protection</b>	The Vendor shall handle all customer data and data relating to CSE and its subsidiaries in accordance with the Data Protection Act No. 09 of 2022 as amended. The Vendor shall enter into a controller processor agreement when processing any customer data or any data relating to the CSE and/or its subsidiaries.
7.19	<b>Escrow Provisions</b>	The VENDOR would be required to sign an agreement with suitable Escrow Provisions as required.
7.20	<b>Rules/ regulations/Directives or guidelines issued by the SEC on Service Providers/Vendors</b>	The Vendor shall fully comply with all Rules/ regulations/Directives or guidelines issued by the SEC on Service Providers/Vendors from time to time.

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## 8.0 Operating Specifications of the Proposed OMS System

### Order Statistics for Month of past 3 years for BBO\_OMS capacity planning

Order Statistics (2025)				Order Statistics (2024)				Order Statistics (2023)			
Avg Orders Per Day	No. Firms	Peak Orders per Day	No. Firms	Avg Orders Per Day	No. Firms	Peak Orders per Day	No. Firms	Avg Orders Per Day	No. Firms	Peak Orders per Day	No. Firms
10K-15K	3	10K-18K	3	10K-15K	0	10K-18K	2	10K-15K	0	10K-18K	0
5K-9.9K	4	5K-9.9K	8	5K-9.9K	5	5K-9.9K	4	5K-9.9K	2	5K-9.9K	3
1K-4.9K	10	1K-4.9K	9	1K-4.9K	11	1K-4.9K	11	1K-4.9K	13	1K-4.9K	13
<1 K	6	<1 K	3	<1 K	7	<1 K	6	<1 K	8	<1 K	7

**Minimum, 5000 orders** per broker per day should support by the system. Vendors may planned\architect the capacity requirements for their infrastructure.

Sizing Parameter	Current	Peak (5th Year)	Avg (5th Year)	Metric
Clients Total	850,000	3,330,000	1,850,000	Total
Active Clients	60,000	900,000	500,000	Active (at least 1 trade per quarter)
Concurrent Users	30,000	450,900	250,500	At any given point during trading hours
Mobile + Web	29,800	450,000	250,000	At any given point during trading hours
Dealer Terminal	200	900	500	At any given point during trading hours
Orders	200,000	1,800,000	1,000,000	Per Day
Trades	150,000	900,000	500,000	Per Day
Peak Order Rate	500	1,350	750	Per Second for 60 seconds
Sustained Order Rate	100	360	200	Per Second during trading hours
Securities/Instruments	650	2,700	1,500	Total
Member Firms	24	45	25	Total

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## 9.0 CSE Roadmap for the next 3 years

key items identified in the CSE Roadmap for the next 3 years.

1. Green, Social, and Sustainability bonds (GSS)
  - a. Green Bonds  
Corporate debentures where the proceeds are utilized for green initiatives
  - b. Social Bonds  
issued to finance projects that deliver positive social outcomes
  - c. Blue Bonds  
Designed to finance projects that protect and restore oceans, marine ecosystems, and water resources.
  - d. Orange Bonds  
Finance projects that empower women and girls, promote gender equity, and support underserved communities
2. Exchange Traded Funds (ETF) (ATS)
3. Structured Warrants (ATS)
4. Foreign Currency Debt and Equity
5. Index Futures and Index Options

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