IIBX
India International Bullion Exchange IFSC Ltd

Request for Proposal

For Futures Trading

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INDIA INTERNATIONAL BULLION EXCHANGE IFSC LTD

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1. ABOUT INDIA INTERNATIONAL BULLION EXCHANGE IFSC LTD

India's gold market is one of the largest in the world and holds an important position in the global bullion market.

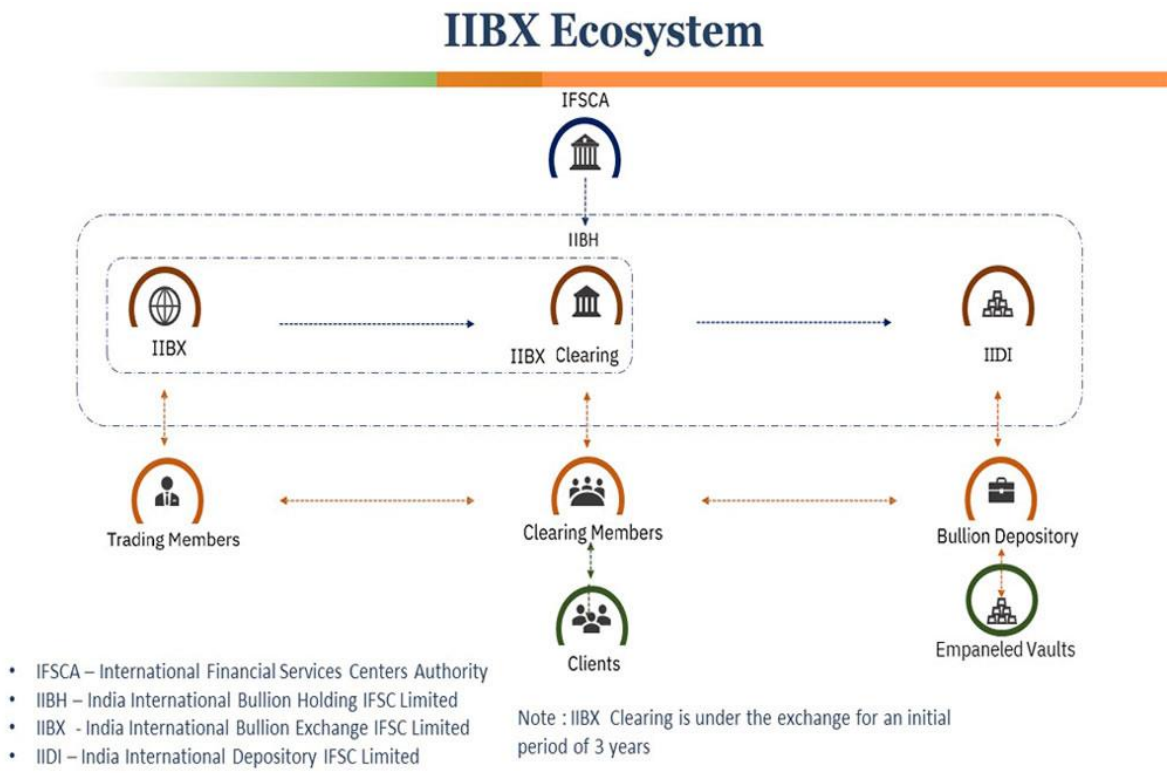
Giving a major boost to India's aspiration of having its own International Bullion Exchange and paving the way for India to play a larger role in the global bullion market, India International Bullion Exchange IFSC Limited (IIBX) was launched by the Honourable Prime Minister of India, Shri Narendra Modi on 29th of July 2022. IIBX is promoted by India's leading market infrastructure institutions like NSE, INDIA INX (subsidiary of BSE), NSDL, CDSL and MCX. IIBX is established at GIFT IFSC, Gandhinagar, Gujarat, India. IIBX is regulated by International Financial Services Centres Authority (IFSCA) (https://www.ifsca.gov.in).

IIBX has been conceptualised to provide a gateway to import bullion into India and provide world class bullion exchange ecosystem to promote bullion trading, investment in bullion financial products and vaulting facilities in IFSCs.
IIBX enables trading in bullion which adhere to OECD Due Diligence Guidance for Responsible Supply chain of Minerals from Conflict Affected and High-Risk Areas for establishing supply chain integrity.

For the first time, an Indian resident Jeweller (Qualified Jeweller - QJ) can import bullion directly into India through IIBX by being a Client or a Limited Purpose Trading Member of IIBX. Top bullion dealers and jewellers of India have been onboarded by IIBX with many more applications in the pipeline.

Bullion is kept in the vaults authorised by International Financial Services Centres Authority (IFSCA) and empanelled by India International Depository IFSC Limited (IIDI). Bullion on IIBX is traded in the form of Bullion Depository Receipts (BDRs) which are credited in the Demat account opened with the IIDI. The global bullion banks, bullion refiners and bullion traders through IIBX, can

directly access the bullion buyers in India via IIBX. GIFT IFSC area offers convenience to re-export the Bullion as and when required by bullion suppliers without payment of customs duty. T+0 contracts are currently available for 995 1kg (LBMA & UAEGD) and 999 100 gm (LBMA) with plans to enhance the product suite going forward. IIBX proposes to launch Derivatives Products, Repo products, Gold metal loan and lease products and introduce Silver shortly. IIBX proposes to have IFSCA approved vaults at multiple SEZs across India.



2. EXECUTIVE SUMMARY

IIBX is an International Bullion Exchange setup at GIFT, IFSC, regulated by International Financial Services Centres Authority (IFSCA). IIBX is keen to become a price influencer for Gold prices and best in class technology is the most important aspect in gaining the competitive edge.

The Exchange is exploring an opportunity to adopt the new Exchange Technology for Futures Trading by inviting Global and Domestic Technology Companies through this Request for Proposal (RFP) and would like such Exchange Technology Companies to come with their proposals to assist the Exchange in providing scalable and robust technology. The Exchange may also float a separate RFP in future for other requirements like Options Trading coupled with SPAN margining and would prefer to having the Technology partners who have the ready solution that can be directly plugged with the proposed solution.

3. PROPOSED SOLUTION

The proposed solution should consist of the following applications:

Main Applications

1. Trading & Surveillance
   - ✓ Order Management System
   - ✓ Matching System
   - ✓ Data dissemination through FIX Adapted for Streaming (FASt) –
   - ✓ INDEX calculation
   - ✓ Auction system
   - ✓ UCC Management System
   - ✓ Debarred Entry Database
2. Collateral Management & Clearing & Settlement System
   - ✓ Collateral Management
   - ✓ Clearing & Settlement System
   - ✓ SWIFT Formats to interact with the Banks
   - ✓ Formats to interact with Depository
3. Risk management System with Interactive messaging standard like FIX

Ancillary Applications

1. Member Onboarding and Tracking System
2. Web-portal for Member Compliances & Service request submission with auto service-ticket generation and tracking.
3. Transaction charge Billing and Accounting System having interface with the Banks through files / API.
4. Reporting Application
5. Automated report generation and email facility.
6. Scheduler for Automation of various tasks
7. Data Warehouse for all master data and transactional data

Other key requirements

1. The Order Management System (OMS) and Risk Management System (RMS) must be capable of very high frequency and low latency trading with a round trip latency of not more than few microseconds.

2. To ensure online real time margining and position monitoring requirements, the RMS engine should be closely integrated with the OMS engine.
3. Considering the possibility of separation of Exchange and Clearing Corporation in future as two independent identities, the Trading, Clearing & Settlement and Risk Management systems should be able to operate independently.
4. Considering the possibility of introduction of Interoperability of Clearing Corporations in future, Exchange systems should have the capability for integration with multiple Clearing Corporations.
5. Flexibility of real time modifications to be affected in the system.
6. In addition to the Primary and Disaster Recovery sites, the necessary User Acceptance Testing (UAT), Live like and Member Testing environments should be provided along with the solution. However, the required hardware, operating system, database & connectivity will be provided by IIBX for creation of various environments.
7. The Primary and Disaster Recovery application architecture should support the Recovery Time Objective and Recovery Point Objective of not more than 45 Minutes and 15 minutes respectively for critical applications.
8. We are looking at Hybrid solution on hardware platform, which should be supporting hyper converged, virtualized as well as standalone servers.
9. The proposed solution should have the Financial Information Exchange (FIX) Messaging Standard for Trading system and for interaction between Trading System & Risk Management System.
10. FIX based API for Members / Independent Software Vendors to connect to the Exchange / Clearing System / Risk Management System.
11. All necessary APIs as and when needed to connect to new or existing peripheral software application servers must be part of the solution and must be made available free of cost during support period.

4. FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS

The Functional Requirements and Non-Functional Requirements for the Solution along with the format for submission of Vendor / Technology Partner details are annexed as Technical Parameters to this Request for Proposal. The vendor / technology partner should submit its responses against each of the requirements mentioned in Technical Parameters in the specified format only.

The format for the submission of Commercial bids is also annexed as Commercial Parameters to this Request for Proposal. The vendor / technology partner should submit its responses against each of the Commercial Parameter in the specified format only.

5. ELIGIBILITY CRITERIA FOR TECHNOLOGY PARTNER / VENDOR

1. The technology partner / vendor firm must have at least 15 years of relevant experience in executing such large technology project and must demonstrate such project along with the name of clients. The Exchange shall maintain utmost confidentiality in case vendors disclose any of their critical business information like clientele and kind of projects overseen by them for those clients.
2. The technology partner / vendor must demonstrate its experience & track record of its key managerial personnel, technological know- how, and other critical aspect, as may be required for development and implementation.
3. The technology partner / vendor should have a proven track record and must have developed and implemented such project (as described through this RFP) for any of the Stock Exchanges/Commodity Exchanges/Clearing Corporations etc. anywhere in the world. The implementation of proposed solution within India would be preferred.
4. The technology partner / vendor should have understanding about Regulatory Framework of SEBI and IFSCA and should capture all features in the system. Such understanding will be an added advantage and shall give confidence to the Exchange while selecting the technology partner / vendor.
5. Technology partner / vendor must have minimum turnover of INR 50 Millions across the last three financial years.
6. The technology partner / vendor needs to have their operations in such a way that takes care of at least 12 hours support for 6 days a week.
7. The above support cost should be included in the Annual Maintenance Cost proposed by the technology partner / vendor.

6. SELECTION CRITERIA

1. The technology partner / vendor would be evaluated based on scores obtained by them on Technical and Commercial Parameters mentioned in Table A and Table B respectively.
2. The Commercial bids would be invited only from the bidders scoring more than 80 marks out of 100 on Technical Parameters mentioned in Table A.
3. The Commercial bids received from technically successful bidders would be given scores based on Commercial Parameters mentioned in Table B.
4. The bids for each commercial parameter would be compared against the least bid for that parameter to arrive at the score of the bidder on that commercial parameter.
5. The final score of the bidder would be calculated be assigning 70% weightage to the Technical Scores & 30% weightage to the Commercial Score of the bidder.
6. The bidder having the highest technical score (H1), may be asked to match the bid with the Lowest (L1) bidder. If the H1 bidder matches bid with the L1 bidder, it may be considered for the award of contract, else the bidder scoring highest based on 70:30 ratio would be considered for the award of contract.
7. The Exchange may go for product-wise/phase-wise implementation as may be decided later.

7. TECHNICAL & COMMERCIAL PARAMETERS

1. Technical Parameters (Table A)

Sr. No.	Parameters	Score
1	Functional Requirements in the proposed solution	**55**
1.1	Trading & Surveillance System (Annexure A)	15
1.2	Collateral Management & Clearing & Settlement System (Annexure B)	15
1.3	Risk Management System (Annexure C)	15
1.4	Ancillary Applications (Annexure D)	10
2	Non-Functional Parameters (Annexure E)	**15**
3	Technical Proposal & Vendor Presentation demonstrating System Architecture for Resiliency, Zero Data Loss, Scalability, Implementation Time, Experience, Track Record, Technology Platform & Support, Uptime Commitment etc. (Annexure F)	**15**
4	Other Parameters – Net worth, Staff Strength for proposed solution, Number of Persons deployed onsite for Implementation, Onsite support availability (Annexure G)	**5**
5	Sharing of Source Code with IIBX along with Technical Document, Architectural design, Data Flow Diagram, Data Dictionary, System Design Documents for its exclusive use.	**10**
	Total	**100**

2. Commercial Parameters (Table B)

Sr. No.	Parameters	Score
1	Total Cost of Ownership for 5 Years including the Fixed Annual Maintenance Charges (AMC).	70
2	Cost of Hardware (Servers and Storage), Operating System, Database, Third Party Software (if any), required to meet minimum performance requirements* with high availability at Primary site. *Minimum Performance requirement for hardware sizing : 500 orders per second with maximum round trip latency not exceeding 2ms and throughput of 100 trades per second. The software application should be scalable to meet the higher performance requirements. The incremental hardware cost should be linear to the increase in performance of the system.	10
3	Customization – Number of Man Months included in Fixed Annual Maintenance Charges (AMC)	5
4	Customization – Additional per Man Month cost (Blended)	5
5	Support – Additional Charges for 24 hours support (Beyond 12 hours support included in AMC)	5
6	Warranty Period	5
	Total	**100**

8. ASSUMPTIONS AND CONSTRAINTS

1. All development work will be done at selected vendor's premises except for meetings required for clarification of requirements and project updates.
2. There should be regular review and follow-up meetings and the selected vendor shall provide the status of implementation. The same may be held through video conferencing.
3. The Exchange may decide to select different technology providers for different functions, though, this RFP has been issued for all functions.
4. The selected vendors, in the event of selection of multiple vendors for the multiple functions, will have to fully co-operate and co-ordinate with other vendors for integration.
5. All costs and expenses shall be incorporated into the project proposal and the Exchange shall not be liable for any expenses above and beyond the quoted project costs.
6. All software and hardware required by the project team shall be discussed and finalized before the award of project.
7. Timely delivery of the project is of most importance and any delay in the project shall be financially penalized based on mutually agreed upon criteria.
8. No party will disclose any of the Confidential Information to any person except those of their employees, consultants, contractors and advisors having a need to know whole or portion of such information in order to accomplish the purpose and will require each employee(s), consultants, contractors and advisors before he or she receives direct or indirect access to the Confidential Information to acknowledge the confidential and proprietary nature of the Confidential Information and agree to be bound by the obligations of the Client and/or the Vendor, as the case may be, under this Agreement.

9. TERMS AND CONDITIONS

1. This RFP does not commit to award a contract or to pay any costs incurred in the preparations or submission of proposals, or costs incurred in making necessary studies for the preparation thereof or to procure or contract for services or supplies.
2. The Exchange reserves the right to reject any or all proposals received in response to this RFP and to negotiate with any of the vendors or other firms in any manner deemed to be in the best interest of the Exchange.
3. Vendors must provide all requisite information as required under this RFP and clearly and concisely respond to all points listed out in this RFP. Any proposal, which does not fully and comprehensively address this RFP, may be rejected.
4. Vendors must adhere strictly to all requirements of this RFP. No changes, substitutions, or other alterations to the technical and functional specifications of requirement as stipulated in this RFP document will be accepted unless approved in writing by the Exchange.
5. The vendor providing the **source code** of the software along with Technical Document, Architectural design, Data Flow Diagram, Data Dictionary, System Design Documents for its exclusive use would be preferred.
6. The vendor shall deliver the operational /user manual of the system.
7. The system should support 99.99% uptime to ensure the reliability and compliance of the service levels to the users.
8. The system should be highly available and automatically use failover servers/components in case of failure of any hardware or software component.
9. The system should be easily scalable with the introduction of additional hardware components or software components.
10. The vendor should be able to demonstrate the system capacity to handle the maximum number of transactions mentioned in the Technical proposal.
11. The vendor should provide the Simulator software to the Exchange for testing of the maximum transaction capacity as and when the hardware is

upgraded. The simulator software should also have the market replay functionality.

12. The vendor should be able to demonstrate that the system is fault tolerant and has resilient architecture and that there is no single point of failure.
13. The vendor should provide hot standby diagram of Basic hardware /software in the Technical Proposal.
14. The vendor must provide version numbers for various Licenses (OS, DB and other if any).
15. The technology partner / vendor must present implementation time for the project under consideration.
16. The technology partner / vendor should also provide a framework on its support services and further development post implementation of the project.
17. The technology partner / vendor should provide details on Service Level standards for initial development till go live and for further enhancement / developments due to regulatory, business-related changes and for continuous support while system is being used in production.
18. Application vendor should support all regulatory activity like Mock, Disaster Recovery (DR) Drill and DR trading within given cost.
19. Security testing (VAPT) of the software would be carried out by the Exchange through 3rd party Security Auditor. The vendor must fix all vulnerabilities found during the security testing at no additional cost in a time bound manner to meet the Go-live date decided by the Exchange.
20. The certification by System Auditors for Software functionality, accuracy of various algorithms and System Security would also be part of the User Acceptance Testing.
21. The Exchange shall conduct Mock Trading & Settlement Cycle for a period of at least 30 days before putting the systems into Production Environment and Go-Live.
22. The Warranty / Support shall begin from the Go-Live date or from the successful completion of User Acceptance Testing, which is later.

23. Requirement of any additional functions or features, as regulatory requirements which may be mandated by the IFSCA or any other regulatory body would be taken for development up till 2 months before the target Go-Live date.
24. The technology partner / vendor should provide its plan with respect to Annual Maintenance for a period of 5 years. The Annual Maintenance shall start after completion of the Warranty period.
25. The technology partner / vendor should provide detailed cost breakup containing the year wise breakup for Application Cost (License Fee), AMC Cost and/or any other cost.
26. The vendor should be able to demonstrate the functionalities which are mentioned as "Available" by the vendor in response to the Functional Requirements during the Product Evaluation meeting.
27. Any disputes of claims would be subject to the exclusive jurisdiction of Courts in Ahmedabad and governed by laws of India.

10. CONFIDENTIALITY STATEMENT

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11. SUBMISSION DETAILS

All interested vendors are requested to respond to Request for Proposal based on the details sought under various sections of these documents. The following are the tentative timelines for the various stages of RFP.

Sr. No.	Milestone	Date	Day
1.	Floating of Request for Proposal	20-Apr-2023	Thursday
2.	Submission of queries by the bidders	05-May-2023	Friday
3.	Meeting to answer the queries raised by the bidders	11-May-2023	Thursday
4.	Publishing the replies of the queries raised by the bidders	17-May-2023	Wednesday
5.	**Last date for Submission of Technical Bids in specified format**	**25-May-2023**	**Thursday**
6.	Technical Presentation by the bidders	30-May-2023	Tuesday
7.	Evaluation of Technical Bids by IIBX	09-Jun-2023	Friday
8.	Intimation to the Technically qualified bidders for submission of Commercial Bids in specified format	12-Jun-2023	Monday
9.	Submission of Commercial Bids in specified format by qualified bidders in a **Password-Protected file***	16-Jun-2023	Friday
10.	Opening of Password-Protected commercial bids in presence of bidders	19-Jun-2023	Monday
11.	Declaration of the selected bidder	26-Jun-2023	Monday

****Passwords to be informed by bidder only during the bid opening meeting***

All queries and proposals may be emailed to ProcurementcommitteeIIBX@iibx.co.in.

12. GLOSSARY

Acronym	Milestone
AMC	Annual Maintenance Charges
API	Application Programming Interface
BDR	Bullion Depository Receipt
BSE	Bombay Stock Exchange
CDSL	Central Depository Services (India) Ltd.
DB	Database
DR	Disaster Recovery
FASt	FIX Adapted for Streaming
FIX	Financial Information eXchange (FIX)
GIFT	Gujarat International Finance Tec-City
IFSC	International Financial Services Centres
IFSCA	International Financial Services Centres Authority
IIBX	India International Bullion Exchange IFSC Ltd.
IIDI	India International Depository IFSC Ltd.
India INX	India International Exchange
ISV	Independent Software Vendor
LBMA	London Bullion Market Association
MCX	Multi Commodity Exchange of India Ltd.
NSDL	National Securities Depository Ltd.
NSE	National Stock Exchange
OECD	Organization for Economic Cooperation and Development
OMS	Order Management System
OS	Operating System
QJ	Qualified Jewellers
QS	Qualified Suppliers
RFP	Request for Proposal
RMS	Risk Management System
RPO	Recovery Point Objective
RTO	Recovery Time Objective
SEBI	Securities and Exchange Board of India
SEZ	Special Economic Zone
SPAN	Standardized Portfolio Analysis of risk
SWIFT	Society for Worldwide Interbank Financial Telecommunications
UAEGD	United Arab Emirates - Good Delivery
UAT	User Acceptance Testing
UCC	Unique Client Code

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