

REQUEST FOR EXPRESSION OF INTEREST [EOI] FOR IMPLEMENTATION OF COMPREHENSIVE TREASURY MANAGEMENT SYSTEM

EXPORT-IMPORT BANK OF INDIA

Request for EOI No.: 2

Dated: 31.03.2021

Information Technology Group, Export-Import Bank of India, Centre One Building, Floor 21, World Trade Centre Complex, Cuffe Parade, Mumbai- 400 005

- 1. Export-Import Bank of India [Exim Bank] was set up in 1981 by an Act of Parliament and commenced business in March 1982. In its initial years, it engaged in vanilla ECA business, mainly medium/long term post-shipment credit for project exports, along with some packing credit and overseas investment finance. With the opening of the Indian economy, it took up finance for export capability creation, spanning export marketing, R&D, export production, export facilitation etc. Over the past decade and a half, it has also assumed the role of the GOI's policy instrument for its economic diplomacy initiatives viz. Lines of Credit, Buyer's Credit etc. Information on Bank's products & services and past financial performance can be accessed from the Bank's website: www.eximbankindia.in.
- **2.** Exim Bank has a network of 10 Regional Offices spread across India. The Bank also has 8 overseas representative offices and one London Branch Office.
- 3. Exim Bank invites Expression of Interest (EOI) from the bidders, which can provide the solutions as per details in this EOI and wishing to be considered for short listing for participating in bidding process of the proposed activities for an end-to-end implementation of COMPREHENSIVE TREASURY MANAGEMENT SYSTEM in Exim Bank hereinafter referred to as the **Solution**. Bank intends to implement/host the proposed solution at Exim Bank Data Centre, Head Office, Mumbai and at Disaster Recovery Site, Bengaluru.
- 4. The scope of implementation of Comprehensive Treasury Management System (TMS) envisages a complete turnkey solution which may inter-alia includes supply, install and maintain TMS software, third-party software (if any), customization of the TMS system, system integration, and training to end-users in EXIM Bank.
- **5. Please note**, this is the first stage of a multi-stage procurement process. The objective of this Request for EOI is to identify and pre-register eligible bidders who are interested in providing the proposed solution and have suitable capacity, capability, and experience.
- **6.** Exim Bank proposes to acquire licenses and implement a comprehensive Treasury Management System.
- **7.** Expression of Interest (EOI) is invited in sealed envelope superscribed as [EOI COMPREHENSIVE TREASURY MANAGEMENT SYSTEM]:
 - a. From the bidders who meet the eligibility criteria as set out in **Annexure 'A'**,
 - b. Who have solution strictly in line with the technical parameters as set out in **Annexure** 'B' and

- c. Agree to abide by the terms and conditions contained in this Request for EOI document.
- d. Sealed envelope containing complete set of hard copy of EOI and a soft copy thereof (in a pen drive) should be submitted by Post to or delivered in person at the below mentioned Office:

The General Manager Information Technology Group Export-Import Bank of India Centre One Building, Floor 21 World Trade Centre Complex Cuffe Parade, Mumbai 400005

8. The Bidders Eligibility Criteria:

This process is open to all bidders who fulfill the eligibility criteria as set out in **Annexure** 'A' of this document. The bidders should furnish information on the lines of Annexure A in their EOI proposal.

9. Technical Parameters of the Solution/Scope of Work:

The bidder should describe how the proposed solution will fulfill the requirements as detailed in **Annexure 'B'** of this document. The bidder should furnish information on the lines of Annexure-B in their EOI proposal.

10. Process before submission of EOIs:

- a. Raising of queries/clarifications on Request for EOI document: The bidders requiring any clarification on this document should submit their written queries on or before April 15, 2021 to: dineshj@eximbankindia.in; Basant.b@eximbankindia.in
- b. Modification in Request for EOI document: At any time prior to the last date for submission of EOIs, Exim Bank may modify any part of this document. Such change(s) if any may be in the form of an addendum/corrigendum and will be uploaded in Exim Bank's website http://www.eximbankindia.in. All such change(s) will automatically become part of this Request for EOI and binding on all bidders. Interested bidders are advised to regularly refer the Bank's URLs as above for changes uploaded, if any.
- c. Extension of date of submission of EOIs: Request for extension of date for submission of EOIs will not be entertained. However, the Bank at its discretion may extend the date in order to allow prospective bidders a reasonable time to take the amendment/changes, if any, into account.

d. Briefing session: Exim Bank may, at its sole discretion, organize a briefing session to respond to the queries received by the scheduled date and time from the bidders. The exact date, time and location of such session will be communicated through Exim Bank website http://www.eximbankindia.in. The bidders may also seek clarifications at the briefing session. All clarifications will be e-mailed to the bidders who raise queries and participate in briefing session.

11. Format and Signing of EOI:

- i. The bidder should prepare EOI strictly as detailed in this Request for EOI document.
 - a. EOI should be typed and submitted on A4 size paper, spirally and securely bound and with all pages therein in serial numbered.
 - b. All pages of the EOI should be signed by only the authorized person(s)of the company/firm. Any interlineations, erases or overwriting shall be valid only if the person(s) signing the EOI authenticates them. The EOI should bear the rubber stamp of the bidder on each page except for the un-amendable printed literature.
 - c. Contact detail of the authorized signatory and an authorized contact person on behalf of the bidder are to be provided as under:

Particulars	Authorized signatory for signing the EOI	Authorized person.	contact
Name			
Designation			
Email ID			
Landline			
Mobile No.			
Fax No.			
Address			

- ii. The bidders should demonstrate in EOIs that they meet all parameters given in **Annexure 'A'** and **Annexure 'B'** of Request for EOI.
- iii. In case any discrepancy is observed between hard and soft copy, the hardcopy will be considered as the base document.

12. Last Date for submission of EOI:

The last date for submission of EOI is **April 22**, **2021** up to 17:00 Hrs. In case the designated day happens to be a holiday; the next working day will be deemed as the last date for submission of EOI.

13. Process after submission of EOIs:

- i. All EOIs received by the designated date and time will be examined by the Bank to determine if they meet criteria/terms and conditions mentioned in this document including its subsequent amendment(s), if any and whether EOIs are complete in all respects.
- ii. On scrutiny, the EOIs found NOT in desired format/illegible/incomplete/not containing clear information, in view of Exim Bank, to permit thorough analysis or failing to fulfill the relevant requirements will be rejected from further evaluation process.
- iii. Exim Bank reserves the right, at any time, to waive any of the requirements of this Request for EOI document if it is deemed in the interest of Exim Bank.
- iv. If deemed necessary, the Bank may seek clarifications on any aspect of EOI from the bidder. If a written response is requested, it must be provided within 7 days beyond which the response received, if any will not be considered. However, that would not entitle the bidder to change or cause any change in the substances of their EOI document already submitted. Bank may also make enquiries to establish the past performance of the bidders in respect of similar work. All information submitted in the application or obtained subsequently will be treated as confidential.
- v. After examining the EOI, some or all of the bidders may be asked to make presentation of the solution and demonstrate proof of concept.
- vi. Exim Bank may shortlist the bidders who fulfill the eligibility criteria, have solution as per the requirement of the Bank and are agreeing to abide by the terms and conditions of the Bank. Bank's judgment in this regard will be final.
- vii. Exim Bank may issue a Request for Proposal (RFP) to shortlisted bidders for inviting technical and indicative commercial bids for next process of procurement. However, please note that short listing of bidders should not be treated as a contract for the proposed work.
- viii. The bidders will be advised about shortlisting of their EOIs or otherwise. However, bidders will not be provided with information about comparative position of their EOIs with that of others.
- ix. Nothing contained in this EOI shall impair the Bank's Right to issue 'Open Tender' on the proposed solution.

14. Terms & Conditions

- i. Lodgment of an EOI is evidence of a bidder's consent to comply with the terms and condition of Request for EOI process and subsequent bidding process. If a bidder fails to comply with any of the terms, its EOI may be summarily rejected.
- ii. Willful misrepresentation of any fact in the EOI will lead to the disqualification of the bidder without prejudice to other actions that the Bank may take. The EOI and the accompanying documents will become property of Exim Bank. The bidders shall be deemed to license, and grant all rights to Exim Bank, to reproduce the whole or any portion of their product/solution for the purpose of evaluation, to disclose the contents of submission to other bidders and to disclose and/ or use the contents of submission as the basis for EOI process.
- iii. Exim Bank reserves the right to accept or reject any or all EOIs received without assigning any reason thereof whatsoever and the Bank's decision in this regardwill be final. No contractual obligation whatsoever shall arise from the EOI process.
- iv. Any effort on the part of the bidder to influence evaluation process may result in rejection of the EOI.
- v. Exim Bank is not responsible for non-receipt of EOIs within the specified date and timedue to any reason including postal delays or holidays in between.
- vi. Exim Bank reserves the right to verify the validity of information provided in the EOIs and to reject any bid where the contents appear to be incorrect, inaccurate or inappropriate at any time during the process of EOI or even after award of contract.
- vii. The bidders shall be deemed to have:
 - a. examined the Request for EOI document and its subsequent changes, if any for the purpose of responding to it.
 - b. examined all circumstances and contingencies, having an effect on their EOI application and which is obtainable by the making of reasonable enquiries.
 - satisfied themselves as to the correctness and sufficiency of their EOI
 applications and if any discrepancy, error or omission is noticed in the EOI,
 the bidder shall notify the Bank in writing on or before the end date/time.
- viii. The bidder shall bear all costs associated with submission of EOI, presentation/POC desired by the Bank. Bank will not be responsible or liable for any cost thereof, regardless of the conduct or outcome of the process.
- ix. The bidders must advise the Bank immediately in writing of any material change to the information contained in the EOI application, including any substantial change in their ownership or their financial or technical capacity. Copies of relevant documents must be submitted with their advices. For successful bidders, this requirement applies until a contract is awarded as a result of subsequent bidding

process.

- x. Shortlisted bidders must not advertise or publish the same in any form without the prior written consent of Exim Bank.
- xi. Brief overview of the proposed procurement/scope of work given in this document may be further elaborated, viz., more details may be included in the Request for Proposal (RFP) document to be issued as a result of evaluation process of EOIs.
- xii. Exim Bank shall have the right to cancel the EOI process itself at any time, without thereby incurring any liabilities to the affected bidders. Reasons for cancellation, as determined by Exim Bank in its sole discretion include but are not limited to, the following:
 - a. Services contemplated are no longer required.
 - b. Scope of work not adequately or clearly defined due to unforeseen circumstance and/or factors and/or new developments.
 - c. The project is not in the best interest of Exim Bank.
 - d. Any other reason.
- xiii. The selected bidders have to adhere to the implementation timelines and to the penalties for the overrun.
- xiv. The selected bidders have to get themselves annually audited by external empaneled Auditors appointed by the Bank/ inspecting official from the Reserve Bank of India or any regulatory authority, covering the risk parameters finalized by the Bank/ such auditors in the areas of products (IT hardware / software) and services etc. provided to the Bank and the bidders are required to submit such certification by such Auditors to the Bank. The Selected bidder and / or his / their outsourced agents / sub contractors (if allowed by the Bank) shall facilitate the same. The Bank can make its expert assessment on the efficiency and effectiveness of the security, control, risk management, governance system and process created by the bidder. The bidders shall, whenever required by the Auditors, furnish all relevant information, records/data to them. All costs for such audit shall be borne by the Bank.
- xv. Where any deficiency has been observed during audit of the bidder on the risk parameters finalized by the Bank or in the certification submitted by the Auditors, the bidder shall correct/ resolve the same at the earliest and shall provide all necessary documents related to resolution thereof and the auditor shall further certify in respect of resolution of the deficiencies. The resolution provided by the bidder shall require to be certified by the Auditors covering therespective risk parameters against which such deficiencies have been observed.
- xvi. The bidders shall, whenever required by the Bank, furnish all relevant information,

records/data to such auditors and/or inspecting officials of the Bank/Reserve Bank of India and or any regulatory authority. The Bank reserves the right to call and/or retain for any relevant material information / reports including auditor review reports undertaken by the bidders (e.g., financial, internal control and security reviews) and findings made on Selected bidder in conjunction with the services provided to the Bank.

15. Disclaimer:

Exim Bank is not committed either contractually or in any other way to the bidders whose applications are accepted. The issue of this Request for EOI does not commit or otherwise oblige the Bank to proceed with any part or steps of the process.

Subject to any law to the contrary, and to the maximum extent permitted by law, Exim Bank and its directors/officers/employees/contractors/agents and advisors disclaim all liabilities (including liability by reason of negligence) from any lossor damage, cost or expense incurred or arising by reasons of any person using the information and whether caused by reasons of any error, omission ormisrepresentation in the information contained in this document or suffered by any person acting or refraining from acting because of any information contained in this Request for EOI document or conduct ancillary to it whether or not the loss or damage arises in connection with any omission, default, lack of care or misrepresentation on the part of EXIM Bank or any of its officers, employees, contractors, agents or advisors.

Please Note: Since this is not a Request for Proposal (RFP), commercials are not required to be submitted at this stage.

ELIGIBILITY CRITERIA

Sr. No.	Eligibility Criteria	Compliance (Yes/No)	Supporting documents to be Submitted
1	The bidder must be an Indian firm/ Company / Organization registered under Companies Act/Partnership Act/LLP Act etc. or a foreign company, registered under applicable laws & regulations, with Sales and Support arrangement in India.		Copy of the Certificate of Incorporation issued by Registrar of Companies and full address of the registered office. Proof of partnership/LLP. Foreign companies to provide declaration with details of sales & support arrangement in India.
2	The bidder should be profit making company i.e. Profit after tax for at least any two of the last three Financial Years (2017-18, 2018-19 2019-20)		Audited Balance Sheet for the last3 years should be enclosed.
3	The proposed TMS solution should satisfy the requirement as stated in Annexure B and should have been implemented in at least two large scale banks in India including one Public Sector Bank.		Two references with following details for each reference to be provided: 1. Name of the Organization 2. Name of the Official 3. Contact number of Official. 4. E-mail ID of Official 5. Purchase Orders
4	The bidder can be a software (OEM/OEMs) of the Proposed solutions or can be a System Integrator (SI), who is authorized by an OEM to propose and implement the proposed solution and conduct necessary customization / parameterization.		Declaration to be provided
5	The bidder should not have been debarred/black-listed by the Government / Government Agency / Banks / Financial Institutions in India during the last three years		Self-declaration this effect must be submitted in company letter head.

6	The bidder should have	Self – declaration to be submitted.
	support office with minimum 50	
	support / customization	
	employees in their Mumbai	
	office.	

Note:

- 1. All eligibility requirements mentioned above should be complied by the bidders as applicable and relevant support documents should be submitted for the fulfillment of eligibility criteria failing which the Bids may be summarily rejected. Self- declaration needs to be signed by the Authorized Signatory of the Bidder. Non- compliance of any of the criteria can entail rejection of the offer. Photocopies of relevant documents / certificates should be submitted as proof in support of the claims made for each of the above-mentioned criteria and as and when the Bank decides, originals / certified copies should be shown for verification purpose.
- 2. The Bank reserves the right to verify / evaluate the claims made by the Bidder independently. Any deliberate misrepresentation will entail rejection of the offer ab- initio.

SCOPE OF WORK

The applicant should clearly mention, describe their proposed solution and how it will meet the required parameters and provide details thereof in their EOI proposal on the following lines. Solution providers must explicitly mention all details and must be able to seamlessly integrate with systems being used at Exim Bank like SWIFT, CBS (FINACLE SYSTEM), TRADE MODULES, Payment Gateways etc. to meet the parameters. The Bank is currently using FINACLE TREASURY APPLICATION.

If the solution is not able to meet some of the parameters mentioned below directly, the solution providers must explicitly mention supporting partner details and must be able to provide seamless integration to meet the parameters (Though it is not preferred, it will be examined by Exim Bank at its sole discretion, considering the individual weightage for each parameter subject to the adherence of the other terms and conditions mentioned in this EOI)

Applicant should clearly specify whether they adhere to each of the following requirements (Yes/No).

Sr. No.	Parameters	Compliance (Yes/No)
1	SUPPORT DIFFERENT ASSET CLASSES: Complete Front to Back solution with the ability to support comprehensive spectrum of asset classes such as forex, equities, mutual funds, bonds, Government Securities, money markets, derivatives, fixed, incomes, Alternative Investment Funds and cash equivalents etc.	
2	COMPLETE DERIVATIVES MODULE: Ability to handle CSA backed trades as well as trades novated to CCPs (including CCIL, LCH, etc.). Derivatives pricing capabilities with complete XVA module including Credit Valuation Adjustment as well as Funding Valuation Adjustment calculation capabilities prior to trade executions, calculation of valuation in relation to unwinding of derivative deals, collateral management for CSA derivatives with MTM calculations, margin calculations and dispute redressal mechanism (Dispute Redressal mechanism is for the differences in margin calls for Credit Support Annex (CSA) arrangements with interbank counterparties, which the Collateral Module is expected to generate based on MTM), portfolio management and custodial services, profit and loss (P&L) and cash management, risk management, general accounting, regulatory compliance and reporting. Capability to handle Initial Margin as well as Variation Margin Requirements	

	Documentation details, ISDA, historical versioning of agreements. Storing electronic copy of master agreements to file server with linking to counterparty data.	
3	COMPLETE CASH MODULE: including forex, borrowings including bonds, loans and hybrid instruments as well as investments including but not limited to equities, mutual funds, bonds, Government Securities, money markets, derivatives, fixed, incomes, Alternative Investment Funds and cash equivalents, etc.	
4	FULL-TRADE LIFE CYCLE SUPPORT : End-to-end ability to support trading activities, including pre- and post-trade functions, workflow configuration, automation and control of trade. System should be capable to check short selling.	
5	COMPLETE COMPLIANCE MODULE including PRE-DEAL LIMIT CHECKS	
6	COMPLETE ASSET-LIABILITY MANAGEMENT (ALM) MODULE	
7	COMPLETE CREDIT RISK MODULE	
8	COMPLETE MARKET RISK MODULE	
9	COMPLETE HEDGING MODULE including HEDGE ACCOUNTING: Hedge identification wherein, there should be a functionality to link	
	the hedging instrument (derivative) with the underlying (Strategy Linking) for IRS as well as CCS deals.	
	Hedge effectiveness testing using Critical Terms Matching (CTM) at the time of entering the hedge. The system should have capability of reporting the exceptions between the hedging instrument and the underlying. Subsequently, hedge effectiveness testing at quarterly intervals, as per the method specified in the Risk Management Policy of the Bank.	
10	COMPLETE ACCOUNTING MODULE	
11	COMPLETE LIQUIDITY MANAGEMENT MODULE: The System supports monitoring cash flows by instrument /dealer/portfolio on a real time basis.	
	The System shall support monitoring balances and projected cash flows and retrieving of historical data of cash flows for planning fund transfer and investment.	
	 "The System caters for updating of cash flows on a real time basis by aggregating data from Treasury system and CBS including but not limited to the following data points: a. Projected Disbursement Schedule from CBS. b. Repayment Schedule (ALCO Repayments Report File) from CBS. 	

	 c. Debt Servicing data (both Principal & Interest) from Treasury System. d. Borrowings data from Treasury System. e. Swap related Inflow & Outflow data from Treasury System. f. Investments (includes MF, CP, CD) / BRDS and its Maturity Profile from Treasury System. g. TREPS Borrowing & Lending data from Treasury System 	
12	COMPLETE BALANCE SHEET MANAGEMENT MODULE	
13	INTEGRATION WORKFLOW CAPABILITIES: Set of capabilities centering on the orchestration layer, integration and synchronization with external systems, third-party execution platforms or service providers.	
14	RATE DOWNLOAND AND UPLOAD: The system should have the capability to automatically download & upload various rates from all standard market data types and conventions including but not limited to FIMMDA, Equity exchanges, FBIL, FEDAI, Refinitiv, etc.	
15	REPORTING CAPABILITIES : Support for both internal and external (regulatory) reporting capabilities involving BI, real time data aggregation, NOOP (Net Overnight Open Position), MIS support for generation of reports, Transaction level reporting etc., preferably out-of-the-box i.e., without using any third-party services/applications. System should be capable of designing and generating ad-hoc reports/ user defined reports by the bank officials through a user-friendly interface/ MIS Module. This is regarding the generation of reports and not the delivery channel as such.	
16	RISK MANAGEMENT: Front-to-back risk management capabilities, including pre-trade to post-trade execution across all asset classes, real-time risk assessment capabilities, stress-testing tools, back testing, clean back testing, dirty back testing, limit management, VaR and Enterprise VaR (EVaR), Stress VaR etc., forward guidance along with limit management. VaR is presently computed by Historical Simulation method. However, system should be having capabilities to compute VaR/Expected Shortfall by Monte Carlo Simulation Forward guidance includes having system capabilities to assess, compute the impact of interest rates, macroeconomic variables on bank's portfolio. The software should have capabilities to monitor, maintain various treasury/ risk management limits as per bank's limit management framework along with real time utilisation and their soft checks.	

17	PORTFOLIO / POSITIONING MANAGEMENT: (Related to Bank's portfolio). Ability to offer functions and features for better portfolio and positioning management, such as real-time monitoring, trading activities, dashboards etc.	
18	NEW ASSET ADDITION: Ability to introduce a new asset and address its need of configuration including NDF, NDS, CDS, etc.	
19	NEW REGULATION ADDITION: Ability to cope with new regulatory requirements. As and when regulatory changes are required, the system must be able to deliver the same.	
20	PROCESS, SETTLEMENT AND CLEARING: handle connections with different settlement/clearing systems, including any new connections, generation of deal confirmation messages and swift messages. STP for inward swift message processing and outward swift message generation.	
	SWIFT message generation module containing complete message format generation for all type of messages (not only treasury messages). The solution should cater to generation of other free format messages related to SWIFT. Also, system should support generation of all SWIFT message formats.	
21	SOLUTION DELIVERY, ONGOING SUPPORT: The professional services available, both onshore and offshore. Level 1 onsite support directly by Application vendor (Preferably).	
22	UPGRADE INTEGRATION: Flexibility in integrating an upgrade (full or partial) to the existing environment. Easy Upgradation to the new releases.	
23	OPEN ARCHITECTURE REFERENCE MODEL: Ability to support and adopt industry standards such as data formats, messages and protocols, integration capabilities, and the provision of an extensible framework of services and standardized processes	
24	COMPONENTIZATION CAPABILITIES: The number of modules and components, and the methodology used to deliver the right mix between granularity and complexity. It includes the interface standards used and the components' ability to run on a stand- alone basis or in a distributed environment.	
	The system should be able to run on a standalone basis or in a distributed environment. Further, there should be modular structure whereby, the individual modules may be run separately in standalone environments also, if required.	

25	MOBILITY ON PRESENTATION LAYER: Support across channels	
	like mobile devices and includes capabilities such as mobile data analysis and visualization. The support for mobile apps/widgets, whether stand-alone or as part of a Container/flexibility in creating	
	new apps. Reports must be platform independent and must be able	
	to be delivered in mobile devices with proper visualizations etc.	
	Customer interface for merchant transaction must be deployable on mobile devices as well.	
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26	EXCEPTION REPORTS : Must be able to produce exception reports, audit trail reports and record post audit data.	
27	INTEGRATION CAPABILITIES: Must be capable of integrating with bank's existing systems and other regulatory database (like PAN etc.) for validation purposes E.g., CBS, Payment Gateways, SWIFT Gateways etc.	
	STP for auto deal flow from Refinitiv Dealing System into the proposed Treasury System.	
	STP auto deal flows from CCIL Systems (TREPS / CROMS / NDS-OM / FX-CLEAR / FX-SWAP) with the proposed Treasury System.	
	STP with RBI's E-Kuber platform	
	STP with CCIL as well as other reporting platforms	
	STP upload without any manual intervention for reporting of deals on the 63 Moons platform or any similar platform authorised by the Bank for the purpose	
28	FOREX MERCHANT CAPABILITIES: Must be able to facilitate merchant trades, reporting of Forex Transactions for Cover, limit management of bookings done directly with Treasury by customers, entire life-cycle management of forward contracts, PCFC, bills etc. and other forex merchant products and to improve Treasury Business using asset-wise / customer-wise automatic margin additions etc. Maintenance of customers at Bank (CIF) level with seamless integration with Banks CBS and Trade Finance Modules for real time data analysis. Solution must be highly customizable for configuration and addition of new products and rules. All trade transactions are expected to be covered.	
29	COMPUTATION OF CRAR UNDER BASEL-III including stress scenarios.	
	Statement showing computation of Leverage Ratio, LCR, NSFR ratio and other liquidity ratios prescribed by Reserve Bank of India	
	System should generate Capital charge for all exposures including QCCP default fund exposure as per RBI guidelines.	
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30	Out-of-the box generation / customization of critical and Indian	
	regulatory reports like R-Return, NOOP, MAP, GPB, IC5, SIR, Form A, Form VIII, BAL, LRA2, 15CC, DSB Returns, BLR4, Cost Yield,	
	Export Credit, Regulatory Annexure(s) etc.	
31	GENERATION OF FUND TRANSFER PRICING REPORT (Profit	
	Centre wise, Product Category Wise, Office Wise, Currency Wise etc.)	
32	MARKET RISK REQUIREMENTS: Performance Analysis capabilities, (Sharpe ratio, Information Ratio, Sortino ratio, Jensen alpha, Treynor measure etc.), Valuation of products like Bonds with embedded optionality/convertible bonds and exotic products, Portfolio optimization (through (i) Efficient frontier portfolio (ii) Minimum variance portfolio (iii) Optimal portfolio & other methods), What-if & Regression analysis, Model validation module, Capabilities for computation of RAROC, maximization of Economic Value Addition (EVA) and RAROC with allocated and consumed capital, Analytical capabilities pertaining to Capital Planning, Financial Planning, Risk Rudgeting, and Performance Massurement, System, Capital	
	Budgeting and Performance Measurement System, Capital computation methods as Revised Market Risk Guidelines of Basel, Capture riskiness through Greeks, SA-CCR, CVA& DVA, FRTB etc.	
	Beta of the equity portfolio, P/L of mutual fund and FI. (Realized as well unrealized), P/L of derivative position, Rate scan for forex .[Calculation based on trade date rather than settlement date], Liquidity Risk management, Expected Shortfall, Rate Scan for all products, NOOP module, Hedge effectiveness module, Multi-currency IRRBB models, Reverse Stress testing models (qualitative and quantitative) for Market Risk, IRRBB & Liquidity Risk. Framework for computation of market illiquidity forthe securities, derivatives and forex positions.	
	Regression analysis is used amongst others for rates forecasting, analysis of trend of macroeconomic variables on interest rates, forex rates and impact on banks portfolio, testing hedge effectiveness etc.	
	It is desirable that system have capability of building algorithms with neural network etc.	
	Capability of computing the Risk Weighted Asset (RWA) comprising credit risk and market risk in respect of the derivative and investment portfolio, as per Basel I requirement by the regulator. The system should also be capable of calculating RWA as per Basel III requirements as and when made applicable by the regulator.	
	Capital Computation is computed as per both Basel I & III	

33	FRONT-TO-BACK RISK MANAGEMENT CAPABILITIES including pre- trade to post-trade execution across all asset classes, real time risk assessment capabilities, stress testing tools, back testing, clean-back testing, dirty back testing, limit management, VaR and Enterprise VaR (EVaR), Stressed VaR etc. Capabilities for deal level VaR generation	
34	NOSTRO RECONCILIATION: Ability to deliver an automated, real- time multi-way, multi-transaction model for NOSTRO reconciliations that helps to monitor and manage transactions throughout their lifecycle and supports an array of reconciliation requirements, with established straight through processes with other systems, swift and other payment gateways.	
	Reconciliation of Nostro and mirror transactions module with capability to account for incoming swift messages and generating swift messages for queries etc. is expected.	
35	CLOUD DEPLOLYMENT CAPABILITY: Capability to be deployed completely on Bank's in-premise cloud with full efficiency. Bank may or may not decide at its sole discretion for the deployment to be done on Bank's cloud instead of physical deployment.	
36	RECORD RETENTION AND PURGING FUNCTIONALITY: System should be capable enough to store the records as per the bank's policy of record retention at present 10 years. Functionality to purge Matured deals and retrieve conveniently. Archive schema for matured and purged data.	
37	MONTH-END / QUARTER-END REPORTING FALLING ON HOLIDAYS: System should be capable of generating reports in case month- end or quarter-end falls on Sundays or pre declared public holidays	
38	ONLINE REAL-TIME ACCOUNTING as mandated by Indian regulators: As per regulatory compliance requirements, accounting entries must be posted on a real time basis to CBS and before the corresponding SWIFT messages are generated.	
39	REAL-TIME DAY LIGHT LIMIT MONITORING and support for clubbing with the Bank's Foreign Offices data for reports generation	
40	Functionality for valuation of Corporate Bonds as per FIMMDA guidelines. Valuation Model for Tax Free Bonds, Bond valuation and Bond with Options. Computation of Beta for EquityPortfolio.	
41	System should have the provision to handle multiple branches (overseas as well as domestic) with ability to grant differential access.	

42	Ability for generations of application-level logs for security, suspicious activities and audit monitoring (in addition to the DB level logs generations)	
43	Availability of downloadable manuals for internal distribution amongst end users.	
44	Willingness to provide trainings at periodic intervals to the end-users both at technical and operations/functional level	
45	Support for auto reconciliation of data with Bank's other systems like CBS, Swift and Payment Gateways and notifications for any exceptions/mismatches.	
46	System must be highly flexible and configurable for introducing new products, processes and solutions as per emerging intergr trends and regulatory requirements.	
47	System must support encryption with industry standards for data at rest, data in motion and data in use etc.	
48	System must be IFRS (Ind-AS) compliant with support for configuration of multiple accounting and classifications based on regulatory requirements, generation of reports based on these accounting subsets and classifications, in the same primary system.	

Note: The bidders may please note that the above parameters are only indicative, comprehensive detail may be included in the Request for Proposal (RFP) document to be issued post completion of the EOI process.