Request for Proposal (RFP)
For
Supply, Installation, Implementation, Post- Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) (E-Tendering)

Head Office-2
Department of Information Technology
5th Floor, 3 & 4 DD Block, Sector -1
Salt Lake, Kolkata-700 064

RFP Ref. No: UCO/DIT/2241/2022-23   Date: 05/12/2022

Disclaimer

The information provided by the bidders in response to this RFP Document will become the property of the Bank and will not be returned. The Bank reserves the right to amend, rescind or reissue this RFP Document and all amendments will be advised to the bidders and such amendments will be binding on them. The Bank also reserves its right to accept or reject any or all the responses to this RFP Document without assigning any reason whatsoever.

This document is prepared by UCO Bank for its Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering). It should not be reused or copied or used either partially or fully in any form.

While the document has been prepared in good faith, no representation or warranty, express or implied, is or will be made, and no responsibility or liability will be accepted by UCO BANK or any of its employees, in relation to the accuracy or completeness of this document and any liability thereof expressly disclaimed. The RFP is not an offer by UCO Bank, but an invitation for bidder's responses. No contractual obligation on behalf of UCO Bank, whatsoever, shall arise from the offer process unless and until a formal contract is signed and executed by duly authorized officials of UCO Bank and the selected Bidder.

Table of Contents

List of Annexures

Annexure No	Subject
1	Tender Offer Forwarding Letter
2	General Details of The Bidder
3	Manufacturer Authorization Form (MAF)
4	Format Of Bank Guarantee (EMD)
5	Proforma For Performance Bank Guarantee
6	Undertaking For Non-Blacklisting / Non-Debarment of The Bidder
7	Undertaking To Abide by All By-Laws / Rules / Regulations
8	Undertaking Letter on the Bidder's Letterhead for Central Minimum Wages Act & Labour Laws
9	Undertaking Letter on The Vendor's Letterhead for GST Law
10	Undertaking For Price Validity & Acceptance of All Terms & Conditions Of RFP
11	Undertaking For No Deviation
12	Certificate From Chartered Accountant (Signed &Stamped) Showing Company's Financial Position in Last 3Years (Annual Turnover, Profit / Loss, Net worth Etc.)
13	Format Of Pre-Bid Queries to Be Submitted by The Bidder(S)
14	Pre-contract Integrity Pact
15	Non-Disclosure Agreement
16	Eligibility Compliance
17	Functional & Technical Specification
18	Masked Bill of Material
19	Commercial Bid
20	Compliance Chart
21	Undertaking for Bid Validity
22	Local Content Certificate
23	Restriction On Procurement Due to National Security
24	Reference Details
25	Sizing Adequacy Letter
26	Resource Experience
27	Bio Data Format
28	Resource Deployment
29	Current daily Transaction volumes & Future Projections
30	Stack Confirmation form
31	Hardware End of Life and Support Declaration
32	Hardware Baseline
33	Undertaking for OEM Implementation
34	Compute Virtualization: Specification of Hyper visor

Bid Control Sheet

Tender Reference	**RFP Ref No: UCO/DIT/2241/2022-23 Date: 05.12.2022**
Cost of Tender Document	**Rs.30,000/- (Rupees Thirty Thousand Only)**
Date of issue of RFP	**05.12.2022**
Date of commencement of sale of tender document	**05.12.2022**
Pre-Bid queries submission Date	**On or before 14.12.2022 up to 01:00 PM**
Pre bid Meeting and Venue	**15.12.2022 at 12:30 PM (Meeting would be done through Video-Conferencing)**
Last Date and Time for receipts of tender bids	**05.01.2023 at 04:00 PM**
Opening of Technical Bids	**05.01.2023 at 04:30 PM**
Opening of Commercial Bid	**Will be informed subsequently to eligible & technically qualified bidders.**
Website for Online RFP	**https://www.ucobank.com & https://www.tenderwizard.com/UCOBANK**
Address of Communication	**Chief Manager,** **UCO Bank, Head Office-2** **Department of Information Technology** **7th Floor,3 & 4 DD Block, Sector -1** **Salt Lake, Kolkata-700 064**
Address for support for Online RFP/Process of submission of tender documents	This Tender will follow e-Tendering process [e-bids] as under which will be conducted by Bank's authorized e- Tendering Service Provider M/s Antares Systems Ltd through Website **https://www.tenderwizard.com/UCOBANK** Following activities will be conducted online through above website: a) Submission of Eligibility/Technical Bid & Commercial Bid by the bidder b) Clarification, if any, sought by the Bank c) Opening of Eligibility/Technical Bid by the Bank d) On-line evaluation by the Bank. e) Opening of Commercial Bid by the Bank & On-line evaluation. Representatives of bidders will be given training for e- Tendering by the Service Provider, M/s Antares Systems Ltd. * Bidders who wish to participate in online tenders will have to register with the website

	(https://www.tenderwizard.com/UCOBANK) through the "Register" link provided on the home page. Bidder will create login id & password on their own in registration process.
	* Following facilities shall be provided to registered bidders by the service provider M/s Antares Systems Ltd:
	a) Support to the Bidders for participating in the bids through e-tendering Website.
	b) Call center support/ email/ phone/mobile etc. in all possible medium.
	c) Registration with the e-tendering website.
	d) User Manual / Training Kit to the Bidder.
	e) Any no. of users of Bidder organization can take support on the e-tendering system.
	f) Bidder who wish to participate in this tender need to procure Digital Signature Certificate (for Signing and Encryption) as per Information Technology Act-2000 and CVC guidelines using that they can digitally sign their electronic bids. Bidders can procure the same from any of the CCA approved certifying agencies, or they may contact M/s Antares Systems Ltd. at below mentioned address and they will assist them in procuring the same.
	Bidders who already have a valid Digital Signature Certificate need not to procure the same. In case bidders need any clarification regarding online participation, they can contact
	Antares Systems Ltd. Registered Office at: #24, Sudha Complex, 3rd Stage, 4th Block, Bangalore – 560079. Ph: - 080-49352000 / 40482000 Fax: - 080-49352034 Help Desk: Contact Person: Mr. Kushal Bose/ Mr. Subrata Sheed Mobile no. 09674758719/ 09674758723 (On working days-0900 hours–1800 hours) e-mail: **kushal.b@antaressystems.com** subrata.s@antaressystems.com
	Bidders who wish to participate in e-Tender need to fill data in predefined forms of RFP, Technical,

	Price bid available in respective tender only.
	h) Bidder should upload scanned copies of reference documents in support of their eligibility of the bid and as per the instructions given in tender documents.
	After filling data in predefined forms bidders need to click on final submission link to submit their encrypted bid.
Email address	**hodit.proc@ucobank.co.in** **kushal.b@antaressystems.com** **subrata.s@antaressystems.com**
Contact Telephone/Fax Numbers	**Tel : 033-44559770/ 9324**

Note: UCO Bank reserves the right to accept or reject in part or full, any or all tenders without assigning any reason whatsoever and without any cost and compensation therefore. Any decision of UCO Bank in this regard shall be final, conclusive and binding on all the Tenderers

Part-I

1. Introduction

UCO Bank, a body corporate, established under the Banking Companies (Acquisition and Transfer of Undertakings) Act 1970, having its Head Office at 10, B.T.M. Sarani, Kolkata-700001, India, and its Department of Information Technology at 3 & 4, DD Block, Sector-1, Salt Lake, Kolkata - 700064, hereinafter called "the Bank", is one of the leading public sector Banks in India having more than 3100 branches, two overseas Branches one each at Singapore & Hong Kong Centre and more than 2100+ ATMs (including Biometric enabled ATMs), spread all over the country. All the branches of the Bank are CBS enabled through Finacle as a Core Banking Solution.

2. Objectives

The objective of the exercise is to engage a vendor for supply, installation, implementation, post-implementation Onsite support of end-to-end Comprehensive & Integrated Global Treasury Management Solution (On Bank Premise Implementation) in UCO Bank.

The selected bidder will implement the Treasury Solution at UCO Bank by going through a detailed step by step process. These includes detailed requirement gathering, technical design, data extraction, data preparation, data quality, go- live, data Migration and information delivery. The vendor is also required to provide requisite training, documentation, and support to Bank. Training is to be provided by vendor to the UCO Bank Team.

The bidder should provide the required software, licenses etc. for successful implementation of the proposed solution. **The location address will be shared to the successful bidder.**

3. Eligibility Criteria

The eligibility criteria to participate in bidding process are mentioned below. Only those Bidders, who fulfill the following all eligibilities criteria, are eligible to respond to this RFP. Offers received from the bidders who do not fulfill any of the following eligibility criteria are liable to be rejected.

Sl. No.	Criteria	Proof of documents to be submitted
1.	Bidder should be a limited company (Public/Private) registered in India under the Companies Act, 1956/2013 for the last 3 years as on RFP issuance date Companies registered as MSME Entrepreneur & still categorized as MSME as on RFP submission date. Bidder/Partner/Investor must adhere cross border sharing/FDI/FEMA and other regulatory guidelines of Govt of India.	1. Certificate of Incorporation Issued by Registrar of companies along with 2. Copies of Memorandum of Association 3. Copies of Articles of Association 4. Shareholding pattern 5. PAN, TAN, GSTIN Certificate and any other tax related document if applicable is required to be submitted along with the eligibility bid. 6. Registration from DIC, KVIB, NSIC,

			KVIC, DIHH, UAA or any other body specified by Ministry of MSME.
2.		The Bidder should have a minimum annual turnover of Rs.300 Crore in each of the last three financial years i.e., 2019-20, 2020-21, 2021-22.	Copy of the audited balance sheet, certificate from the Chartered Accountant as per Annexure XII (in case of Provisional Balance Sheet) of the company showing profit, net worth and turnover of the company for the consecutive last three financial years i.e. 2019-20, 2020-21, 2021-22 should be submitted.
3.		The bidder should have positive Net Worth during the past 3 financial years i.e., 2019-20, 2020-21, 2021-22.	
4.		The Bidder should have the experience of implementing the proposed Integrated Treasury solution with all three modules (Front, Mid & Back) in last 10 years and providing Post Go-Live Support in any Bank, in India or abroad, which is having presence in India as Scheduled Commercial Bank and the solution is running as on bid submission date OR The OEM of the proposed Treasury Solution should have the experience of implementing the proposed Integrated Treasury solution with all three module (Front, Mid & Back) in last 10 years in any Bank, in India or abroad, which is having presence in India as Scheduled Commercial Bank and the solution is running as on bid submission date	Copy of purchase order along with Satisfactory Client Certificate /Reference Letter / Sign off from customer mentioning the Module and status of implementation of the project is to be submitted. IN case OEM Experience is shown then Annexure XXXIII needs to be provided duly signed by the OEM which needs to be dully signed and stamped by Both i.e., OEM of treasury solution and the authorized signatory of the Bidder.
5.		The Bidder should have a staff of minimum 50 (Fifty) people to support customization, installation, implementation, integration and periodic maintenance of the proposed solution	Self-declaration to this effect on company's letter head should be submitted which needs to be signed by the HR of the company
6.		The bidder must be CMMI level 5 Certified Company, and the certificate should be valid as on date of bid submission.	Copy of certification needs to be submitted
7.		The bidder must have presence in India and have their own support center in Kolkata, Bangalore, and Mumbai. In case bidder does not have their own support centre at any of the above-mentioned cities, then they need to submit undertaking to open support centre in these cities within 60 days from the date of award of contract.	Self-Declaration on Bidder's letter head signed by the authorized signatory and provide the GST Certification Detail of the support center
8.		The bidder shall be the certified or authorized agent / reseller / partner of the offered hardware and software, or the OEM of the solution offered as on the RFP bid submission date.	MAF as per annexure III for Authorized partner. Self- declaration if the bidder is an OEM.
9.		Bidder should not have been blacklisted by any Public Sector Bank / Govt institution in India as on RFP Submission date. An undertaking to this effect must be submitted in their letter head.	Self-declaration to this effect on the company's letter head should be submitted as per format given as Annexure-VI singed by authorized signatory.

No.	Requirement	Supporting Document
10.	The service provider should ensure that there are no legal proceedings / inquiries / investigations have been commenced / pending / threatened against service provider by any statutory or regulatory or investigative agencies or any other for which performance under the contract will get adversely affected / may get affected.	Self-declaration to this effect on the company's letterhead should be submitted signed by authorized signatory.
11.	As per the Government guidelines on Procurement bidder needs to submit the Annexure XXIII	Bidder needs to Submit Annexure XXIII on letter head dully signed by Authorized signatory
12.	The third-party agency for Review of Configurations, Audit and Model Set-up should be CERT-in emplaned and should have experience of doing IS audit/ VAPT for a scheduled commercial bank in India Having more than 500 branches in India	Relevant Credential Letter from the Bank OR Copy of Purchase Order/Contract with completion certificate
	OEM's Experience	
13.	The Proposed Integrated Treasury Solution with all three modules (Front, Mid, Back office) should have been implemented in at least One Scheduled Commercial Bank in India having more than 1500 Branches in India. And The proposed integrated treasury solution with all three modules (Front, Mid & Back) should have been implemented abroad in commercial Bank having presence in India as Schedule Commercial Bank with business figure of Rs.200,000 Crore (Deposit + Advance of scheduled commercial bank) in India during the last financial year (2021-2022).	Relevant Credential letter from the customer Or Bidder should provide Purchase Order(s) together with the project completion / installation report duly signed & sealed by the respective OEM's customer (The Purchase Orders & the installation /Project completion reports should have dates). Or Self-declaration from Company Secretary / authorized signatory signature (other than bid signatory) along with a reference call / a mail confirmation from the customer only in case of Global credentials.
14.	As per the Government guidelines on Procurement all OEM needs to submit the Annexure XXIII	OEM needs to Submit Annexure XXIII on letter head dully signed by Authorized signatory
15.	The proposed Backup software should have been implemented in at least one scheduled commercial Bank in India having more than 1500 branches.	Relevant Credential Letter from the Bank Or Copy of Purchase Order/Contract with completion certificate
16.	The proposed Tape Library should have been implemented in at least one scheduled commercial Bank in India having more than 1500 branches.	Relevant Credential Letter from the Bank Or Copy of Purchase Order/Contract with completion certificate
17.	The OEM of Treasury Application must have presence and should have their own support center in India/Singapore/ Hongkong from where OEM shall provide 24x7 application related support in addition to the proper qualified onsite L2 level (either OEM certified or directly under OEM payroll) FM support to implement, manage and maintain the proposed solution during the contract period at Bank's site in India.	A joint undertaking duly signed by the authorized signatory of bidder and OEM should be submitted to this effect along with the bid.

18.	The Proposed OEM of treasury solution should have Positive Net Worth during the past 3 financial years i.e., 2019-20, 2020-21, 2021-22.	certificate from the Chartered Accountant as per Annexure XII of the company showing profit, net worth and turnover of the company for the consecutive last three financial years i.e., 2019-20, 2020-21, 2021-22 should be submitted.
19.	The Proposed OEM of treasury solution Should have a minimum annual turnover of Rs.400 Crore in each of the last three financial years i.e., 2019-20, 2020-21, 2021-22.	

Note: In this tender process, either authorized representative / distributor in India on behalf of Principal OEM (Original Equipment Manufacturer) or Principal OEM itself can bid but both cannot bid simultaneously. In such case OEM bid will only be accepted. If an agent/ distributor submits bid on behalf of the Principal OEM, the same agent / distributor shall not submit a bid on behalf of another Principal OEM in the same tender for the same item or product.

Bidder must comply with all above-mentioned criteria. Non-compliance of any of the Eligibility Criteria will entail rejection of the offer summarily. **Photocopies of relevant documents / certificates should be submitted as proof in support of the claims made**. UCO BANK reserves the right to verify /evaluate the claims made by the vendor independently. Any decision of UCO BANK in this regard shall be final, conclusive, and binding upon the bidder.

- Bidders need to ensure compliance to all the eligibility criteria points.

- Purchase orders without relevant organization confirmation through a credential letter will not be considered as credentials.

- Proposed implementation experience need not be in the current product version proposed.

- Public Sector / scheduled commercial Banks do not include regional rural Banks and cooperative Banks.

- Public sector / scheduled commercial Banks refer to public sector / scheduled commercial Banks in India having minimum 1000 / 1500 branches (bricks & Mortar) on the date of RFP. Date of RFP will be the date on which the bid is submitted

- Either the bidder representing a principal/OEM of the proposed solution or Principal/OEM itself can bid but both cannot bid simultaneously for the same product in this tender.

- If a bidder submits bid on behalf of the principal/OEM, the same bidder shall not submit on behalf of another principal/OEM in this tender.

- The branches being considered in the criteria should be per Bank and not cumulative across Banks. The branches consider here are brick and motor branches only

- In case of business transfer where bidder has acquired a Business from an entity ("Seller"), work experience credentials of the Seller in relation to the acquired business may be considered.

- In-case of corporate restructuring the earlier entity's incorporation certificate, financial statements, net-worth, Credentials, other certificates etc. may be considered.

Part-II: Invitation for Bids and Instructions to Bidders

1. Invitation for Bids

UCO Bank invites sealed tenders comprising of Eligibility Bid, Technical bid and Commercial bid from experienced perspective bidders having proven capabilities and experience of having implemented of Treasury solution in India. The prospective bidder is required to adhere to the terms of this RFP document and any deviations to the same shall not to be acceptable to UCO Bank. Sealed offers / Bids (Bid) prepared in accordance with this RFP should be submitted as per details given in the Bid Control sheet. The criteria and the actual process of evaluation of the responses to this RFP and subsequent selection of the successful bidder will be entirely at Bank's discretion.

2. Due Diligence

The Bidder is expected to examine all instructions, forms, terms and specifications in this RFP and study the RFP document carefully. Bid shall be deemed to have been submitted after careful study and examination of this RFP with full understanding of its implications. The Bid should be precise, complete and in the prescribed format as per the requirement of this RFP. Failure to furnish all information required by this RFP or submission of a Bid not responsive to this RFP in each and every respect will be at the Bidder's own risk and may result in rejection of the Bid and for which UCO Bank shall not be held responsible.

3. Tender Document and Fee

A complete set of tender documents can be obtained from the following address during office hours on all working days on submission of a written application along with a non-refundable fee of **Rs.30,000/- (Rupees Thirty Thousand Only**) as Tender document Cost.

The tender document may also be downloaded from the Bank's official website www.ucoBank.com . The bidder downloading the tender document from the website is required to submit a non-refundable fee of **Rs. 30,000/- (Rupees Thirty Thousand Only)** in the form of Demand Draft or Banker's Cheque in favor of UCO BANK, payable at Kolkata, or NEFT at the time of submission of the technical bid, failing which the bid of the concerned bidder will be rejected.

In case of bidders being an MSME under registration of any scheme of Ministry of MSME, they are exempted from the submission of EMD and the Tender Cost / Fee. A valid certificate in this regard issued by the Ministry of MSME has to be submitted.

The Bank details are as below: Bank details for Tender Fee	Address for Obtaining printed copy of RFP
Account Number-18700210000755 Account Name- M/s H O DIT Branch- DD Block, Salt Lake branch IFSC- UCBA0001870 MICR-700028138	UCO Bank Head office, Department of Information Technology 7th floor, 3&4 DD Block, Salt Lake City, Sector-1, Kolkata – 700064 Ph. No.- 033- 4455-9765/9770

4. Earnest Money Deposit

The Bidder(s) must submit Earnest Money Deposit in the form of Bank Guarantee valid for a period of 6 months together with a claim period of 30 days in favour of UCO Bank payable at Kolkata for an amount mentioned hereunder:

Particulars of Job to be undertaken	EMD (in the form of BG)
Request for Proposal (RFP) For Supply, Installation, Implementation, Post- Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering)	Rs. 3,00,00,000/- (Rupees Three Crore Only)

Non-submission of Earnest Money Deposit will lead to outright rejection of the offer. The EMD of unsuccessful bidders will be returned to them on completion of the procurement process without any interest thereon. The EMD of successful bidder(s) will be returned to them on submission of Performance Bank Guarantee (s) either at the time of or before the execution of Service Level Agreement (SLA).

The Earnest Money Deposit may be forfeited under the following circumstances:

a. If the bidder withdraws its bid during the period of bid validity (180 days from the date of opening of bid).

b. If the bidder makes any statement or encloses any form which turns out to be false, incorrect and / or misleading at any time prior to signing of contract and/or conceals or suppresses material information; and / or

c. The selected bidder withdraws his tender before furnishing on unconditional and irrevocable Performance Bank Guarantee.

d. The bidder violates any of the provisions of the terms and conditions of this tender specification.

e. In case of the successful bidder, if the bidder fails:

- ✓ To sign the contract in the form and manner as per the terms and conditions of the RFP.

- ✓ To furnish Performance Bank Guarantee in the form and manner as per the terms and conditions of the RFP either at the time of or before the execution of Service Level Agreement (SLA).

- ✓ If the Vendor, having been notified of the acceptance of its proposal by the Bank during the period of the validity of the proposal fails or refuses to enter into the contract in accordance with the Terms and Conditions of the RFP.

5. Rejection of Bid

The Bid is liable to be rejected if:

a. The document doesn't bear signature of authorized person on each page signed and duly stamp.

b. It is received through E-mail.

c. It is received after expiry of the due date and time stipulated for bid submission.

d. Incomplete Bids, including non-submission or non-furnishing of requisite documents /Conditional Bids/ deviation of terms & conditions or scope of work/ incorrect information in bid / Bids not conforming to the terms and conditions stipulated in this Request for proposal (RFP) are liable for rejection by the Bank.

e. Bidder should comply with all the points mentioned in the RFP. Non-compliance of any point will lead to rejection of the bid.

f. Any form of canvassing/lobbying/influence/query regarding short listing, status etc. will be a disqualification.

g. The bidder submits Incomplete Bids, including non-submission or non-furnishing of requisite documents / Conditional Bids / Bids not conforming to the terms and conditions stipulated in this Request for proposal (RFP).

h. Non-submission of Pre-Contract Integrity Pact as per format given in Annexure – XIV.

6. Pre-Bid Meeting

The queries for the Pre-bid Meeting should reach us in writing or by email on or before the date mentioned in the Bid Control Sheet by e-mail to **hodit.proc@ucobank.co.in**. It may be noted that no query from any bidder shall be entertained or received after the above-mentioned date. Queries raised by the prospective bidder and the Bank's response will be hosted at Bank's website. No individual correspondence will be accepted in this regard. Bidder needs to note that query need to be send in the Excel format only and specifically as per the format mentioned in the Annexure XIII.

Only authorized representatives of bidder will be allowed to attend the Pre-bid meeting.

7. Modification and Withdrawal of Bids

No bid can be modified by the bidder subsequent to the closing date and time for submission of bids. In the event of withdrawal of the bid by successful bidders, the EMD will be forfeited by the Bank.

8. Information Provided

The RFP document contains statements derived from information that is believed to be reliable at the date obtained but does not purport to provide all of the information that may be necessary or desirable to enable an intending contracting party to determine whether or not to enter into a contract or arrangement with Bank in relation to the provision of services. Neither Bank nor any of its employees, agents, contractors, or advisers gives any representation or warranty, express or implied as to the accuracy or completeness of any information or statement given or made in this RFP document.

9. Clarification of Offer

To assist in the scrutiny, evaluation and comparison of offers/bids, UCO Bank may, at its sole discretion, ask some or all bidders for clarification of their offer/bid. The request for such clarifications and the response will necessarily be in writing and no change in the price or substance of the bid shall be sought, offered or permitted. Any decision of UCO Bank in this regard shall be final, conclusive and binding on the bidder.

10. Late Bids

Any bid received by the Bank after the deadline (Date and Time mentioned in Bid Details table / Pre-Bid / subsequent addendum / corrigendum) for submission of bids, will be rejected and / or returned unopened to the bidder.

11. Issue of Corrigendum

At any time prior to the last date of receipt of bids, Bank may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the RFP document by a Corrigendum. Any such corrigendum shall be deemed to be incorporated into this RFP.

12. For Respondent Only

The RFP document is intended solely for the information to the party to whom it is issued ("the Recipient" or "the Respondent") and no other person or organization.

13. Disclaimer

Subject to any law to the contrary, and to the maximum extent permitted by law, Bank and its officers, employees, contractors, agents, and advisers disclaim all liability from any loss or damage (whether foreseeable or not) suffered by any person acting on or refraining from acting because of any information, including forecasts, statements, estimates, or projections contained in this RFP document or conduct ancillary to it whether or not the loss or damage arises in connection with any negligence, omission, default, lack of care or misrepresentation on the part of Bank or any of its officers, employees, contractors, agents, or advisers.

14. MSME Bidder

As per recommendations of GOI, Bank has decided to waive off EMD and tender cost for NSIC registered MSME entrepreneurs.

   i.   Exemption from submission of EMD and Tender Fee / Cost shall be given to bidders who are Micro, Small & Medium Enterprises (MSME) and registered under provisions of the Policy i.e. registration with District Industries Centre (DIC) or Khadi and Village Industries Commission (KVIC) or Khadi and Industries Board (KVIB) or Coir Board or National Small Industries Commission (NSIC) or directorate of Handicrafts and Handlooms or Udyog Aadhaar Memorandum or any other body specified by Ministry of MSME. Bids received without EMD and tender cost from bidders not having valid NSIC registered documents for exemption will not be considered.

   ii. To qualify for EMD & Tender Fee / Cost exemption, firms should necessarily enclose a valid copy of registration certificate which is valid on last date of submission of the tender documents. MSME firms who are in the process of obtaining registration will not be considered for EMD & Tender Fee / Cost exemption. (Traders are excluded who are engaged in trading activity without value addition / branding / packing. In such a case they will have to submit EMD and Tender Cost).

   iii. MSME bidder has to submit a self-declaration accepting that if they are awarded the contract and they fail to sign the contract or to submit a Performance Bank Guarantee before the deadline defined by the Bank, they will be suspended for a period of three years from being eligible to submit bids for contracts with the Bank.

   iv. Bids received without EMD for bidders not having valid NSIC registered documents for

exemption will not be considered. Bids received without EMD for bidders not having valid registration documents for exemption will not be considered. However, Performance Bank Guarantee has to be submitted by the bidder under any circumstance.

15. Purchase preference to Micro and Small Enterprises (MSEs)

Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total quantity.

16. Costs Borne by Respondents

All costs and expenses incurred by Recipients / Respondents in any way associated with the development, preparation, and submission of responses, including but not limited to attendance at meetings, discussions, demonstrations, etc. and providing any additional information required by Bank, will be borne entirely and exclusively by the Recipient / Respondent.

17. No Legal Relationship

No binding legal relationship will exist between any of the Recipients / Respondents and Bank until execution of a contractual agreement.

18. Cancellation of Tender Process

a. UCO Bank reserves the right to cancel the tender process partly or fully at its sole discretion at any stage without assigning any reason to any of the participating bidder.
b. The vendor shall indemnify UCO Bank and keep indemnified against any loss or damage that UCO Bank may sustain on account of any violation of patents, trademark etc. by the vendor in respect of the products supplied / services offered.

19. Corrupt and Fraudulent Practices

As per Central Vigilance Commission (CVC) directives, it is required that Bidders/ Suppliers / Contractors observe the highest standard of ethics during the procurement and execution of such contracts in pursuance of this policy:

"Corrupt Practice" means the offering, giving, receiving, or soliciting of anything of values to influence the action of an official in the procurement process or in contract execution

AND

"Fraudulent Practice" means a misrepresentation of facts in order to influence a procurement process or the execution of contract to the detriment of the Bank and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid

prices at artificial non-competitive levels and to deprive he Bank of the benefits of free and open competition.

The Bank reserves the right to reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.

The Bank reserves the right to declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if at any time it determines that the firm has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

20. Non-Transferable Offer

This Request for Proposal (RFP) is not transferable. Only the bidder who has purchased this document in its name or submitted the necessary RFP price (for downloaded RFP) will be eligible for participation in the evaluation process.

21. Address of Communication

Offers / bid should be addressed to the address given in bid control sheet.

22. Period of Bid Validity

Bids shall remain valid for 180 (One Hundred and Eighty) days after the date of bid opening prescribed by UCO BANK. UCO BANK holds the rights to reject a bid valid for a period shorter than 180 days as non-responsive, without any correspondence. In exceptional circumstances, UCO BANK may solicit the Bidder's consent to an extension of the validity period. The request and the response thereto shall be made in writing. Extension of validity period by the Bidder should be unconditional and irrevocable. The EMD provided shall also be suitably extended. A bidder acceding to the request will neither be required nor be permitted to modify its bid. A bidder may refuse the request without forfeiting its EMD. In any case the EMD of the bidders will be returned after completion of the process.

23. No Commitment to Accept Lowest or any Bid

UCO Bank shall be under no obligation to accept the lowest or any other offer received in response to this RFP and shall be entitled to reject any or all offers including those received late or incomplete offers without assigning any reason whatsoever. UCO Bank reserves the right to make any changes in the terms and conditions of purchase. UCO Bank will not be obliged to meet and have discussions with any vendor, and or to listen to any representations.

24. Errors and Omissions

Each Recipient should notify Bank of any error, omission, or discrepancy found in this RFP document.

25. Acceptance of Terms

A Recipient will, by responding to Bank RFP, be deemed to have accepted the terms as stated in the RFP.

26. RFP Response

If the response to this RFP does not include the information required or is incomplete or submission is through Fax 4mode or through e-mail, the response to the RFP is liable to be rejected. All submissions will become the property of Bank. Recipients shall be deemed to license, and grant all rights to, Bank to reproduce the whole or any portion of their submission

for the purpose of evaluation, to disclose only the contents of the submission for the purpose of inter se competition among bidders, who have registered a submission and to disclose and/or use the contents of the submission as the basis for any resulting RFP process, notwithstanding any copyright or other intellectual property right that may subsist in the submission or Banking documents.

27. Notification

Bank will notify the Respondents in writing as soon as possible about the outcome of the RFP evaluation process, including whether the Respondent's RFP response has been accepted or rejected. Bank is not obliged to provide any reasons for any such acceptance or rejection.

28. Erasures or Alterations

The Bid should contain no alterations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case corrections should be duly stamped and initialed / authenticated by the person/(s) signing the Bid.

29. Clarifications on and Amendments to RFP Document

Prospective bidders may seek clarification on the RFP document by letter/fax/e-mail till the date mentioned in the bid control sheet. Further, at least 7 days" time prior to the last date for bid-submission, the Bank may, for any reason, whether at its own initiative or in response to clarification(s) sought from prospective bidders, modify the RFP contents by amendment. Clarification /Amendment, if any, will be notified on Bank's website.

30. Language of Bids

The bid as well as all correspondence and documents relating to the bid exchanged by the bidder and the Bank shall be in English language only.

31. Authorized Signatory

The bid shall be signed by a person or persons duly authorized by the Bidder with signature duly attested. In the case of a body corporate, the bid shall be signed by person who is duly authorized by the Board of Directors / Competent Authority of the bidder or having Power of Attorney.

The selected bidder shall indicate the authorized signatories who can discuss, sign negotiate, correspond and any other required formalities with the Bank, with regard to the obligations. The selected bidder shall submit, a certified copy of the resolution of their Board certified by Company Secretary along with Power of Attorney duly stamped, authorizing an official or officials of the company to discuss, sign with the Bank, raise invoice and accept payments and to correspond.

32. Submission of Offer - Two Bid System

UCO Bank will follow Two Bid System i.e., Separate Eligibility cum Technical bid & Commercial bid. **Eligibility Bid** – containing Eligibility Information, Tender Fee, Earnest Money Deposit in the form of Bank Guarantee OR certificate from Ministry of MSME (wherever required) and Pre-Contract Integrity Pact, **Technical Bid** – containing Technical Information, Masked Commercial Bid, Masked Bill of Materials & any other relevant document and **Commercial Bid** – containing Price Information.

Eligibility evaluation would be completed first followed by Technical & Functional evaluation. Thereafter, Price Information (Commercial Bid) of the eligible & technically qualified Bidders will be opened.

The Eligibility and Technical Offers should be complete in all respects and contain all information asked for, in the exact format of eligibility and technical specifications given in the RFP, except prices along with the Tender Fee, Earnest Money Deposit in the form of Bank Guarantee and the Pre-Contract Integrity Pact on a non-judicial stamp paper of requisite value. Tender Offer forwarding letter prescribed in Annexure – I should be submitted with the Eligibility / Technical Offer. The Eligibility and Technical offers must not contain any price information. UCO BANK, at its sole discretion, may not evaluate Eligibility or Technical Offer in case of non-submission or partial submission of eligibility or technical details. Any decision of UCO BANK in this regard shall be final, conclusive and binding upon the Bidder. The Technical bid should have documentary proof in support of Eligibility Criteria and Annexures.

The entire RFP, Pre-bid responses along with all the Addenda and Corrigenda should be stamped & signed by the authorized signatory of the participating Bidder and to be submitted with all other documents as part of the Eligibility bid.

Bid documents which are to be submitted on non-judicial stamp paper, should be first uploaded on the e-procurement portal followed by submission of hard copy at Bank (address- Chief Manager, UCO Bank, Head Office-2 Department of Information Technology 7th Floor,3 & 4 DD Block, Sector -1 Salt Lake, Kolkata-700 064) within seven days from the date of bid submission.

Note:

a. The Technical bid should be complete in all respects and contain all information asked for, except prices. The documentary proof in support of all Eligibility Criteria should be submitted along with Eligibility Bid.

b. Bidders to submit a **masked commercial Bid** i.e., by hiding price commercial bid as per **Annexure –XVIII** with technical bid.

c. The Bank reserves the right to resort to re-tendering without providing any reason whatsoever. The Bank shall not incur any liability on account of such rejection.

d. Canvassing of any kind or Bid submitted with false information will be a disqualification.

e. The bidder is required to guarantee that exchange rate fluctuations, changes in import duty and other taxes will not affect the Rupee value of the commercial bid over the price validity period.

f. Prices quoted by the Bidder shall be in India Rupees, firm and not subject to any price escalation if the order is placed within the price validity period.

g. Further, subsequent to the orders being placed, the Bidder shall pass on to Bank all fiscal benefits arising out of reductions in Government levies /taxes.

h. The Bank reserves the right to modify any terms, conditions and specifications of this request for submission of offer and to obtain revised bids from the bidders with regard to such changes. The Bank reserves the right to accept or reject any bid.

i. Printed literature (for specific product and version numbers) describing configuration and functionality should be provided to the Bank for the products proposed to be supplied for

the project. It should be noted that the product proposed will have to be supplied with all the software updates/fixes, if any, and associated documents. The bidder shall not quote for the products, whose End of sale/ End of Support/End of License/ End of Life has been declared by the OEM.

j. Bids once submitted shall not be returned to the Bidder in future. The selected bidder must adhere to the terms of this RFP document

33. Adoption of Integrity Pact

UCO Bank has adopted practice of Integrity Pact (IP) as per CVC guidelines. The Integrity Pact essentially envisages an agreement between the prospective vendors / bidders / sellers, who commit themselves to Integrity Pact (IP) with the Bank, would be considered competent to participate in the bidding process. In other words, entering into this pact would be the preliminary qualification. In case of bids for the purchase of Goods, Services, and Consultancy etc. not accompanied with signed IP by the bidders along with the technical bid, the offers shall be summarily rejected. The essential ingredients of the Pact include:

i. Promise on the part of the principal not to seek or accept any benefit, which is not legally available.

ii. Principal to treat all bidders with equity and reason

iii. Promise on the part of bidders not to offer any benefit to the employees of the principal not available legally

iv. Bidders not to enter into any undisclosed agreement or understanding with other bidders with respect to prices, specifications, certifications, subsidiary contract etc.

v. Bidders not to pass any information provided by the principal as part of business relationship to others and not to commit any offence under PC/IPC Act.

vi. Foreign bidders to disclose the name and address of agents and representatives in India and Indian Bidders to disclose their foreign principals or associates.

vii. Bidders to disclose any transgressions with any other company that may impinge on the anti-corruption principle.

viii. For Joint Ventures (JV) entities, Integrity Pact should be signed by all partners.

ix. In case of foreign contractor, details of their Indian counterpart should be submitted to Bank by the vendor.

Integrity Pact, in respect of a particular contract, shall be operative from the date When IP is signed by both the parties till the final completion of the contract. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings with UCO Bank. IP shall cover all phases of contract i.e., from the stage of Notice Inviting Tenders (NIT)/Request for Proposals (RFP) till the conclusion of the contract i.e. final payment or the duration of warrantee/guarantee. Format of IP is attached as Annexure – XIV for strict compliance.

The following Independent External Monitors (IEMs) have been appointed by UCO Bank, who will review independently and objectively, whether and to what extent parties have complied with their obligation under the pact.

1. **Shri Ranjan S Katoch**
   A-91, Alkapuri,
   Bhopal, MP- 462022:
   email:rkatoch@nic.in

2. **Shri Hare Krushna Dash**
   House.No.829, Sector 8
   Gandhinagar- 382007, Gujarat
   email: hkdash184@gmail.com

All pages of Integrity Pact (IP) must be signed, and stamped Integrity Pact (IP) should be deposited with IT Department undertaken procurement at the address mentioned along with RFP document.

33. Preference to Make in India

The policy of the Govt. of India to encourage "Make in India" and promote manufacturing and production of goods and services in India, "Public Procurement (Preference to Make in India), Order 2017 and the revised order issued vide GOI, Ministry of Commerce and Industry, Department for Promotion of Industry and Internal trade, vide Order No. P-45021/2/2017-PP (BEII) dated 04.06.2020 will be applicable for this tender.

Purchase Preference: In procurement of all goods, services or works in respect of which Nodal Ministry/Department has communicated that there is sufficient local capacity and local competition, only "Class-I Local Supplier", as defined under the order, shall be eligible to bid irrespective of purchase value.

In procurements of goods or works which are divisible in nature, the "Class-I Local Supplier" shall get purchase preference over "Class-II Local Supplier" as well as "Non-Local Supplier", as per following procedure:

   i.   Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.

   ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity in toto shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers then such balance quantity may also be ordered on the L1 bidder.

In procurement of goods or works which are not divisible in nature and in procurement of services where the bid is evaluated on price alone, the 'Class-1 local supplier' shall get Purchase Preference over 'Class-II Local Supplier' as well as 'Non- Local Supplier' as per following procedure:

   i.   Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class – I Local Supplier', the contract will be awarded to L1.

   ii. If L1 is not 'Class – I Local Supplier, the lowest bidder among the 'Class-I Local Supplier', will be invited to match the L1 price subject to Class – I local suppliers quoted price falling with in the margin of purchase preference and the contract shall be awarded

to such 'Class -1 Local Supplier' subject to matching the L1 price.

iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of Purchase Preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case of none of the 'Class-1 Local Supplier' within the margin of Purchase Preference matches the L1 price, the contract may be awarded to the L1 bidder.

iv. "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

33.1 For the purpose of Preference to Make in India, Order 2017 (PPP-MII Order):

i. "Local content" means the amount of value added in India which shall be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

ii. "Class-I Local supplier" means a supplier or service provider whose product or service offered for procurement has local content equal to or more than 50%.

iii. "Class-II local supplier" means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%.

iv. "Non-Local Supplier" means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%.

v. "Margin of purchase preference" means the maximum extent to which the price quoted by a local supplier may be above the L1 for the purpose of purchase preference. The margin of purchase preference shall be 20%.

33.2 Verification Of Local Content:

i. The 'Class-1 local supplier'/'Class-II Local Supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self–certification that the item offered meets the local content requirement for 'Class –I Local Supplier'/'Class –II Local Supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.

ii. In case of procurement for a value in excess of Rs 10 Crores, the 'Class-I Local Supplier/ 'Class-II Local Supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

The local supplier at the time of submission of bid shall be required to provide a certificate as per Annexure-XXII from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
The Bank shall follow all the guidelines/notifications for public procurement.

34. Restriction On Procurement Due to National Security

Any bidder from a country sharing a land border with India will be eligible to bid in this tender only if the bidder is registered with the Department for Promotion of Industry and Internal

Trade (DPIIT). A copy of the valid Certificate to be attached with the Bid. Certificate as per the Annexure to be attached along with the Bid. Vide Ministry of Finance OM No. 6/18/2019-PPD dated 23rd July 2020.

Reference is made to Government of India order F. No. 7/86/2020/BOA-I dated 07.08.2020 on restrictions on procurements from bidders from a country or countries, on grounds of defense in India, or matters directly or indirectly, related thereto, including national security.

i. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

ii. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

iii. "Bidder from a country which shares a land border with India" for the purpose of this Order means: -

    a. An entity incorporated, established or registered in such a country; or

    b. A subsidiary of an entity incorporated, established or registered in such a country; or

    c. An entity substantially controlled through entities incorporated, established or registered in such a country; or

    d. An entity whose beneficial owner is situated in such a country; or

    e. An Indian (or other) agent of such an entity; or.

    f. A natural person who is a citizen of such a country; or

    g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

iv. The beneficial owner for the purpose of (iii) above will be as under:

In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation:

i. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

ii. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

    a. In case of a partnership firm, the beneficial owner is the natural person(s) · who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.

    b. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

c. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

d. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

iii. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

iv. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

35. Other Terms and Conditions

i. Cost of preparation and submission of bid document: The bidder shall bear all costs for the preparation and submission of the bid. UCO Bank shall not be responsible or liable for reimbursing/compensating these costs, regardless of the conduct or outcome of the bidding process.

ii. The Bank reserves the right to modify any terms, conditions and specifications of this request for submission of offer and to obtain revised bids from the bidders with regard to such changes. The Bank reserves its right to negotiate with any or all bidders. The Bank reserves the right to accept any bid in whole or in part.

iii. The Bank reserves the right to reject any or all offers based on its own evaluation of the offers received, or on the basis of stability, capabilities, track records, reputation among users and other similar features of a bidder. When the Bank makes any such rejection, the Bank will not be bound to give any reason and/or justification in this regard to the bidder. The Bank further reserves the right to reject any or all offers or cancel the whole tendering process due to change in its business requirement.

iv. Response of the Bid: The Bidder should comply all the terms and conditions of RFP.

v. The bidder is solely responsible for any legal obligation related to licenses during contract period for the solution proposed and Bidder shall give indemnity to that effect.

vi. UCO Bank shall be under no obligation to accept the lowest or any other offer received in response to this offer notice and shall be entitled to reject any or all offers without assigning any reason whatsoever. UCO Bank has the right to re- issue tender/bid. UCO Bank reserves the right to make any changes in the terms and conditions of purchase that will be informed to all bidders. UCO Bank will not be obliged to meet and have discussions with any bidder, and / or to listen to any representations once their offer/bid is rejected. Any decision of UCO Bank in this regard shall be final, conclusive and binding upon the bidder.

Part-III: Bid Opening and Evaluation Criteria

There would be Three (3) stages for evaluation process. The Stages are:

1. Eligibility Criteria Evaluation
2. Technical Evaluation
3. Commercial Evaluation

1. Eligibility Evaluation

The Eligibility would be evaluated first for the participating bidders. The bidders, who would qualify all Eligibility Criteria as mentioned in Annexure XVI, will be shortlisted for the technical bid evaluation.

2. Normalization of Bids

Bank may go through a process of technical evaluation and normalization of the bids to the extent possible and feasible to ensure that Bidders are more or less on the same technical ground. After the normalization process, if Bank feels that any of the bids needs to be normalized and that such normalization has a bearing on the price bids; Bank may at its discretion ask all the technically Shortlisted Bidders to resubmit the technical and / or commercial bids once again for scrutiny. The re- submissions can be requested by Bank in the following two manners:

1. Incremental bid submissions in part of the requested clarifications by Bank
2. Revised submissions of the entire bid in the whole

Bank can repeat this normalization process at every stage of bid submission till Bank is satisfied. The Bidders agree that they have no reservation or objection to the normalization process and all the Bidders will, by responding to this RFP, agree to participate in the normalization process and extend their co-operation to Company during this process. The Bidders, by submitting the response to this RFP, agree to the process and conditions of the normalization process.

3. Technical Evaluation

The Bank will evaluate the technical bids received in response to the RFP as below:

Bidders will be evaluated against the eligibility criteria mentioned in Annexure XVI. The bidder has to comply with all the eligibility criteria without fail. The bid will be evaluated as per the Evaluation Matrix given below. Further, the bidder needs to provide necessary details/documents for scoring against the maximum marks mentioned below.

Parameters	Maximum Score	Minimum Score	Minimum Passing Percentage in respective parameters
Proposed Treasury Solution Capability and Integration	200	110	55%
Bidder's or OEM Capability and Experience	100	60	60%
Compliance to Annexure XVII – Functional & Technical Requirement	400	320	80%
Technical Presentation & Demo of Product	300	210	70%
Total	1000	700	70%

* All the requirement mentioned in Annexure XVII is essential requirement. The bidder has to comply with all the requirement before go-live.

#	Evaluation Parameter	Evaluation Approach	Max Marks
1.	**Proposed Treasury Solution Capability and Integration**	A. The proposed integrated treasury solution with all three module (Front, Mid & Back) should have been implemented in scheduled commercial Bank in India having more than 1500 branches in India AND The proposed integrated treasury solution with all three module (Front, Mid & Back) should have been implemented abroad in commercial Bank having presence in India as Scheduled Commercial Bank with business figure of Rs.200,000 Crore (Deposit + Advance of scheduled commercial bank) in India during the last financial year (2021-2022). **(Max 100 Marks)** 　1. 1 Client reference (One India & One abroad) **(60 marks)** 　2. More than one Client reference (More than one India & more than one abroad) **(100 marks)** B. The proposed integrated Treasury solution should have been integrated with Finacle Core Banking solution (version 10x) in a scheduled commercial bank in India having at least 100 Nos of RBI approved Forex branches. **(Max Marks – 50)** 　1. 1 Client reference **(30 marks)** 　2. More than one Client Reference **(50 marks)**	200

		C. The proposed integrated treasury solution with all three module (Front, Mid & Back) should have been implemented in any global Bank having presence at least in India as scheduled commercial Bank, Hongkong & Singapore where the proposed architecture of either single instance multi entity setup or single instance single entity setup (separated either physically or through software driven virtualization) have been implemented in at least one Bank and running as on bid submission date after complying to General Data Protection Rules and Regulation of the respective country and their respective regulatory authority RBI, MAS & HKMA. **(Max Marks – 50)**
		    1. 1 Client reference **(20 marks)**
		    2. More than one Client Reference **(50 marks)**	

2.	**Bidder's or OEM Capability and Experience**	The Bidder should have the experience of implementing the proposed Integrated Treasury solution with all three module (Front, Mid & Back) in last 10 years and providing Post Go-Live Support in any Bank, in India or abroad, which is having presence in India as Scheduled Commercial Bank and the solution is running as on bid submission date. **(Max 100 Marks)**
		   i. 1 Client Reference **(60 Marks)**
		  ii. 2 Client Reference **(80 Marks)**
		 iii. More than 2 Client Reference **(100 Marks)**
		
		OR
		
		The OEM of the proposed Treasury Solution should have the experience of implementing the proposed Integrated Treasury solution with all three module (Front, Mid & Back) in last 10 years in any Bank, in India or abroad, which is having presence in India as Scheduled Commercial Bank and the solution is running as on bid submission date. **(Max 100 Marks)**
		   i. 1 Client Reference **(60 Marks)**
		  ii. 2 Client Reference **(80 Marks)**
		 iii. More than 2 Client Reference **(100 Marks)**
			100

3.	**Compliance to Annexure XVII – Functional & Technical Requirement**	Bidder needs to submit the compliance to Functional & Technical Requirements for Solution Provided as per Annexure XVII jointly signed by the authorized signatory of the bidder and application OEM. Bidders should score 80% in Compliance for Treasury Solution only to Annexure 9. However, bidder should score 100% for other hardware/software items mentioned in Annexure XVII.	400

		The total marks of the Annexure will be scaled down on a scale of **400 marks** 1. Available of 80% (out of the box) of the functional requirement as per Annexure – XVII **(Marks – 320)** in the base product and remaining shall be made available through customization **before go-live.** 2. Available of 90% (out of the box) of the functional requirement as per Annexure – XVII **(Marks – 360)** in the base product and remaining shall be made available through customization **before-go-live**. 3. Available of 100% (out of the box) of the functional requirement as per Annexure – XVII **(Marks – 400)** in the base product. **Note:** • Deviations and non-conformance to requirements in the RFP shall be penalized and lead to disqualification. • Unreasonable scope limitations which defeat the purpose of this RFP shall lead to reduction in scores or even possibility of disqualification of the bidder. This will be at the sole discretion of the Bank. The percentage criteria mentioned for scoring is applicable for Annexure 9.1 to 9.8. Bidder has to fully comply with Annexure 9.9 to 9.11 from the proposed hardware / Software. The declaration to be provided under Annexure – XVII, during submission of bid, shall be cross-checked/ validated/ complied with demo presentation.	
4.	**Technical Presentation and Product Demo**	Demo and Presentation by the bidders covering product features, support, infrastructure, implementation and Maintenance strategy, company's financial and project management capabilities etc. **Presentation: - Max 100 Marks** The bidders of this RFP have to give presentation/ interactions before the panel of representatives of Bank on the methodology/approach, time frame for various activities, strengths of the bidders on such projects The technical competence and capability of the bidder should be clearly reflected in the presentation. If any short-listed bidder fails to make such presentation, they will be disqualified from the selection process.	300

| | | Bank will confirm the veracity of the claim in the presentation during the site visit and if not satisfied, bidder will be disqualified from the selection process.

1. Demonstration of organization capability for the proposed initiative **(5 Marks)**
2. Demonstration of value proposition offered in the bid which shall enable the success of the project **(15 Marks)**
3. Demonstration of at least five accelerators or value addition for the proposed solution that brings in distinct solution advantage or implementation time or savings in efforts **(20 Marks)**
4. Detailed solution capability and Approach **(20 Marks)**
5. Future readiness and roadmap of the proposed solution **(40 Marks)**

Demo Scripts: (max 200 marks)

Demo Script will be shared by Bank before Presentations and will provide 7 days of intimation to all bidder so that bidder can prepare the same. | |
| | | **Total** | **1000** |

Notes:

i. The bidder has to score minimum of 700 overall marks to qualify for Commercial Evaluation.

ii. Bidder should score at least 80% marks in the technical and Functional evaluation - Technical & Functional Requirements as per Annexure XVII for out of box functionality to qualify for commercial bid. However, all the requirements are mandatory through out of box of customization. Bank reserves the right to disqualify the bidder if any mandatory requirements are not available in the solution.

iii. Bank reserves the right to normalize the evaluation criteria by reducing the minimum qualifying marks

iv. Demo and presentation to be made by the Project Manager to be deployed for the Project, along with the proposed team; at the time and location allocated by the Bank.

v. Documentary evidence must be furnished against each of the above criteria along with an index as required by Bank.

vi. All documents must be signed by the authorized signatory of the bidder. Relevant portions, in the documents submitted in pursuance of above criteria, should be highlighted.

vii. Each line item in the technical and Functional evaluation sheet mentioned in Annexure XVII carries 10 marks. The marks allotted to the responses of the Bidder by the UCO Bank,

would be reduced to a scale proportionate to the marks allocated for the technical evaluation. It is important for the bidder to score 80% marks in Technical Specifications.

viii. The Technical Score will be calculated based on the Technical Evaluation Metric mentioned above. The Highest Technical Score (TB) will be given a technical score (ST) of 100 points. The technical scores of other Bids will be computed as follows:

a. ST = 100 x F /TB (F = Technical Score of the bidder)

b. The Bank will calculate the technical scores up to two decimal points only. If the third decimal point is greater than .005 the same shall be scaled up, else, it shall be scaled down to arrive at two decimal points.

4. Commercial Evaluation

The format for quoting commercial bid set out in Annexure – XIX. The commercial offer should consist of comprehensive Cost for required solution. Bidder must provide detailed cost breakdown, for each and every category mentioned in the commercial bid.

The Commercial Bids of only technically qualified bidders will be opened and evaluated by the Bank and the evaluation will take into account the following factors:

i. The Bill of Material must be attached in Technical Proposal as well as Commercial Bid. The format will be identical for both Technical Proposal and Commercial Proposal, except that the Technical Proposal should not contain any price information (with Prices masked). Technical Proposal without masked Bill of Materials will be liable for rejection. Any deviations from the Bill of material/ non submission of prices as per the format shall make the bid liable for rejection.

ii. The optimized TCO (Total Cost of Ownership) identified in the commercial bid would be the basis of the entire outflow of the Bank for undertaking the scope of work. Any further hardware, software, licenses required to meet the performance criteria of the Bank as stated in the RFP, during the tenure of the project, would be at the cost of the Bidder.

iii. The bidder will be solely responsible for complying with any applicable Export / Import Regulations. The Bank will no way be responsible for any deemed Export benefit that may be available to the bidder.

iv. In case there is a variation in value between numbers and words; the value mentioned in words would be considered.

v. The Bidder needs to provide Unit costs for components and services; unit rates with applicable taxes would be considered for the TCO purposes.

vi. In the event the bidder has not quoted or mentioned the component or services required, for evaluation purposes then it will be assumed that the Bidder will provide the same at no cost to the Bank.

5. Final Evaluation – Weighted Techno-commercial Evaluation

The Proposals will be finally ranked according to their combined Technical Score(s) and Financial Score as follows:

S = ST x Tw + SF x Fw

Where S is the combined score, and Tw and Fw are weights assigned to Technical Proposal and Financial Proposal that shall be **0.70 and 0.30** respectively. ST and SF will be calculated for individual bidders, as per description mentioned in Part III Section 3 and 5 respectively. Bidder with the highest Final score shall be considered for award of the Contract.

For example:

Three vendors namely A, B and C participated in the bid process and their technical score are as under:

A=60, B=80, C= 90

After converting them into percentile, we get

ST for A = (60/90) * 100 = 66.67

ST for B = (80/90) * 100= 88.89

ST for C= (90/90) *100=100

The Commercial Bid prices of the Vendors are as under:

A= Rs. 8000, B= Rs. 9000, C= Rs. 10000

The final cost (lower cost quoted in Commercial price bid, in this case is Rs 8000) quoted by the bidders converted into percentile score shall be as under:

SF for A = (8000/8000) * 100 = 100 SF for B= (8000/9000) * 100 = 89 SF for C= (8000/10000) * 100 = 80

As the weightage for technical parameter and cost are Tw = 70% and Fw = 30% respectively, the final scores shall be calculated as under:

S for A= (66.67*0.7) + (100*0.3) = 76.67

S for B= (88.89*0.7) + (89*0.3) = 88.92

S for C= (100*0.7) + (80*0.3) = 94

Hence, the offer of 'C' (being highest score) would be considered and the contract shall be awarded to 'C' at Rs. 10000 being the price quoted by C.

Note:

The highest technical bidder shall not automatically qualify for becoming selected bidder and for award of contract by the Bank. The Successful Applicant shall be the first ranked Applicant (having the highest combined score). The final decision on the successful bidder will be taken by the Bank. The implementation of the project will commence upon acceptance of purchase order by the selected bidder.

If for some reason, the successful bidder fails to execute an agreement within a specified timeline, the Bank reserves the right to award the contract to the next most eligible bidder based on the final evaluation scope of technical evaluation scores and commercial prices quoted during reverse auction.

In case of a tie of Total Score between two or more bidders, the Bid with higher technical score would be chosen as the successful Bidder.

The Bank will calculate the scores up to two decimal points only. If the third decimal point is greater than .005 the same shall be scaled up else, it shall be scaled down to arrive at two decimal points.

Part – IV: Scope of Work

1. Broad Scope of Work

The objective of the exercise is to engage a vendor for supply, installation, implementation, post-implementation support of end-to-end Treasury Solution (On Bank Premise Implementation) in UCO Bank.

The Bank intends to implement Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) along with Market Risk Solution for all Treasury products and surrounding Treasury IT applications to cater the needs of Treasury operations across all Geographies in which Bank has presence. The Bank is centrally located with Head Quarters at Kolkata and with Treasury & Investment dept at Mumbai, Hongkong & Singapore at present. There are 69 offices around India at present dealing with forex or trade-based customers. CIGTMS should be a web-based application that should provide scalability, maneuverability, and flexibility to introduce new products and securities. CIGTMS should also support multi- currency transaction/settlement. CIGTMS should be comprehensive, integrated, functionally rich and user friendly to cater to the entire range of functionalities required. End to end supply, installation, implementation, customization, migration, testing, training, go-live, post go-live support for the application shall be required.

The treasury department is an integral function of the Bank. It is responsible for managing the consolidated fund of the Bank and ensures that the Bank generates consistent returns. It is involved in daily trading activities and investments. The function of the treasury division includes asset and liability management, liquidity and fund management, trading and investment, capital adequacy and reserve management, transfer pricing, etc.

The selected bidder has to provide the Perpetual / subscription-based License of the proposed Treasury solution to the Bank. Training is to be provided by vendor to the UCO Bank Team.

The Bidder is required to provide diagrammatic representation of functional, physical and logical architecture of all components of the solution as part of the bid document. The broad Scope of work (not limited to) for the bidder is as below:

1) Supply, install, implement, maintain, and support the new Integrated Treasury Management for the tenure of the contract at the Data Centre and Disaster Recovery Site.
2) Perform Data Migration from existing systems to proposed systems
3) Integrate with existing and required interfaces
4) Gap's study and Business parameter Definition (BPD)/Detail Requirement Gathering
5) Suggest alternative/better approaches for achieving the similar functionality in new systems to avoid customization retrofitting and porting along with Interface porting.
6) Installation, integration and Implementation of proposed solutions
7) Provide Functional & Technical training to the Core teams and trainers.
8) Design, Size and maintain the required hardware, middleware, software and new solutions at DC, DR.
9) Provide AMC and ATS support during the period of the contract
10) Provide facility management support during the period of the contract
11) Provide exit management and reverse transition during the end of the contract
12) Conduct periodic DR drills (as and when required by Bank) of the in-scope applications as per regulatory guidelines and Bank's policy and perform closure of Gaps of information

security audits.

13) The expected CIGTMS should facilitate the day to day functioning of Treasury operations, covering front, mid/market risk and back-office functionalities, including deal capturing, what-if-analysis, scenario simulations, structuring of products, pricing, valuation, exposure, confirmations, settlements, reconciliations, accounting reporting etc. and limit monitoring across the Bank.

Additionally, Bank would like to specify the following mandatory scope for this project:

1) The Vendor should provide a separate Test/ Development/ UAT environment as mentioned in the Annexure XXXII.

2) Any level / version changes and / or clarification or corrections or modifications in the above-mentioned documentation should be supplied by the Vendor to the Bank free of cost in timely manner.

3) The CIGTMS solution should be capable of taking care of both back-end (Bank side) and front-end (Customer side). The corporate clients should be able to access services through multiple channels including but not limited to online portal, host-to- host Banking, SFTP, SWIFT, APIs and web-services for seamlessly integrating their requirement into proposed solution as well as our existing Core Banking Solution.

4) The CIGTMS solution should support encryption and digital signature feature.

5) The CIGTMS solution must have the capability of batch/ file uploads of the data.

6) The CIGTMS solution must enrich / enhance each document with additional meta-data fields to ensure end-to-end audit trail and tracking.

7) The CIGTMS solution should have the facility to use digital signature / bio- metric for login / transaction / transaction file upload.

8) The CIGTMS solution should check/record/verify authentication of source of each transaction like user IDs, IP address, machine address etc. which is required for audit purpose.

9) The CIGTMS solution must provide customization of user transaction password and 2FA authentication based on customer account.

10) The CIGTMS solution must have provision to handle upload of documents and/or integration with DMS.

11) The CIGTMS solution should be capable of configuring the audit trial of each and every activity of users / admin module wise with the facility to enable / disable the log by admin for a particular activity.

12) The CIGTMS solution should be able to give the feature of split screen functionality for ease of data entry.

13) The CIGTMS solution should have functionality of Queue management, job re- allocation, dash boards including TAT monitoring at Back Office.

14) The solution should be able to provide the FAQs from the database and the ability to accept the suggestions on the FAQs.

15) The Vendor have to ensure seamless migration of the application and solution after expiry of contract period, if Bank selects another vendor after the contract period or during the contract period due to any reason.

16) The solution should integrate with Customer ERP and Finacle Core Banking for transaction processing (Adapter based/ API based/ Web Service/ File Based). System should support authentication through Tokens/ Soft Token, OTP, Digital Certificates, IP Address & Mobile Application.

17) The CIGTMS Solution should provide a robust MIS support by way of Dashboard with certain in-built reports. These reports would inter alia cover extraction of data for various internal, external MIS and regulatory purposes including Transaction Monitoring activities. The dashboard has to be multi-level both at front end and back end viz: (1) Corporate Level/Group level information; and

(2) Branch/Country/Region level information for the Bank users/ Administrators. The indicative list of reports which come predefined with the CIGTMS solution should be provided with technical bid. The reports should be generated for different domain like universal, country specific and frequency for generating these reports should be as per Bank's requirement (monthly, quarterly, annually etc) and format of reports should be like excel, CSV, XML, pdf etc.

18) If there is any core Banking system upgrade, then it is vendor's responsibility to ensure that the integration with the core Banking system is provided without affecting the normal course of business without any additional cost.

19) Backup System: The vendor will be responsible for Backup up of Application and Data Base as per the requirement of the Bank.

20) The solution should provide option to save "incomplete" transaction to be retrieved for further input. It should also allow for a quick save without all the controls to be performed

21) The CIGTMS Solution should be capable of being implemented on a Centralized, localized and / or a hub and spoke model implementation. Hubs may be one or multiple.

22) The CIGTMS Solution should have capability to generate Digitally signed / Encrypted MIS in any format i.e. csv, xls, XML, pdf. etc.

23) The CIGTMS Solution should have the capability of logging successful and unsuccessful authentication attempts. The solution should be able to log successful and unsuccessful authorization events

24) An authenticated session, together with its encryption protocol, should remain intact throughout the interaction with the customer. In the event of interference, the Developer will ensure controls are in place to terminate the session and reverse out the affected transactions. As an integral part of the two-factor authentication architecture, appropriate measures to minimize exposure to a middleman attack which is more commonly known as a man- in-the-middle attack (MITMA), man-in-the browser attack or man-in-the application attack, are implemented.

25) The CIGTMS Solution should be able to upload all BIC/IFSC Code automatically and provide error at Front end

26) The CIGTMS Solution should have facility of "forget user id / password".

27) Support to Multi Entity and Multi Time Zone capability is expected along with the capability of handling multi-currency features. It should support all types of treasury products that are available in the market on worldwide basis and should have the capability to be extendable to new products as and when introduced. The solution should be capable of addressing the current Market Risk functionalities and should be adaptable to changing regulatory requirements as per domestic and overseas operations including such country where Bank is directly engaged in doing business.

28) The system should support & provide multi-entity and multi-currency balance sheet. Should be capable of providing consolidated balance sheet or global position of the treasury for the Bank-as-a-whole in INR or any in any other currency.

29) The system should be compatible with accounting standards like International Accounting Standard, IFRS, Indian Accounting Standards (Ind-AS), US GAAP, IGAAP,

reporting to MAS (Monetary Authority of Singapore) & HKMA (Hongkong Monetary Authority) etc. along with any other country specific accounting standards where Bank is engaged in doing business either with that country or with the particular currency of that country etc.

30) Generate analytical dashboards, scorecards for Top Management and Treasury Desks etc. to assist the Bank in monitoring, analyzing and providing decision support. There should be a robust analytical engine to provide all the above in addition to easy user-friendly reporting mechanism.

31) Act as an integrated solution for internal monitoring of regulatory related activities like SLR, CRR, MCB (Singapore), MLA (Singapore), AMR (Singapore), LMR (Hongkong) etc. related reporting according to the global presence of the Bank. The proposed application will enable different treasury desks to view the investments made by the respective desks any other information they are entitled to view for business specific inputs thus providing transparency.

32) Generation of reports, as required by various users/authorities at all levels of the division, for internal/external purposes duly ensuring speed, data integrity and consistency and timely submission.

33) Robust, scalable and futuristic with minimal dependency on external support with high level of parameterization and configurations to enable the Bank to configure or modify the parameters and generate required outputs on its own.

34) In case of single instance multi entity set up, every entity should be separated on calendar date wise, time zone wise, holiday wise, accounting wise etc. but having the capability to perform 24/7 non-stop trading, support of local conventions, market data & calculation rules, managing multiple currencies and local currencies as if one single solution, reporting regionally and locally as if one single solution, curves and analytics according to the local time zone, deals blotters remain live till midnight local time, reporting globally, aggregating risk and P/L, Availability as per the defined SLA and RT positions, managing access rights between the different location to specific user only, etc.

35) Application shall be platform independent with respect to Operating System / Database version and compatible even if the version of the OS / DB of the application is upgraded to higher level. Also ensure that the application is compatible with latest (N) or at most N-1 version of operating system / middleware / messaging / database which are under support by respective OEM's. Should any components be announced End of Support during the contract period, the bidder will have to replace the same with an equivalent or higher specification product at no additional cost.

1.1 Project Phases

Phase 1: - Required gathering, Designing, Implementation, Integration, Data Migration, Go-Live, stabilization period of 1 month, roll-out support for 3 months

Phase 2: - Sustenance support

1.2 Solution Design

The Bank requires the solution architecture to have the following minimum capabilities/ features:

1.2.1 End to end IT Architecture

The Solution should have a compatible end to end IT architecture covering

1. End to end solution architecture

2. End to end integration architecture

3. End to end implementation architecture

1.2.2   24 X 365 Availability

The Critical Business Solutions and other proposed solutions' design and deployment architecture should be such that the system is available to users 24 X 7 throughout the year without any down-time even during OLTP, daily, monthly or annual closings, system maintenance, backups, report generation, MIS generation, and running of batch processes.

1.2.3   Liaison with existing Bank vendors/OEMs

The bidder is required to liaise with the vendors of all existing applications, interfaces, delivery channel and network management of the Bank, and draw their support implementation of proposed solution, other applications/utilities, interfaces and hardware implementation. The bidder is expected to take the responsibility of managing all the applications, interfaces, infrastructure and coordinate with the Bank's vendors to meet required SLAs in addition to provide helpdesk support, facility management support, infrastructure support and facility management services. Bank will facilitate the process to liaise the newly on boarded vendor with existing ITMS vendor to get necessary support for migration of legacy data & interface details according to the data migration strategy. For any change in the existing application bank will bear the cost.

1.2.4   Manuals/Documentation

Bidder has to provide soft copies of Job Cards, User and Technical Manuals for all the functionalities/modules/hardware/tools proposed for the solution separately. In addition, all the applications/utilities should have online contextual help with search option for all the users.

Bidder has to follow leading practices and standard for documentation for the entire system development life cycle. The documents and manuals should be kept up to date with proper version control during the entire contract period. Bank may require the bidder to deliver the following documents in hard and soft copy to Bank during development and implementation of the solution.

1. Detailed System Requirements Specification Documents

2. High Level architecture document

3. Customization retro fitment document

4. Techno-functional risks and mitigation document

5. Functionality traceability matrix which would provide details on the interdependence of technical components for the realization of a functionality

6. High Level Design document

7. Low Level Design document

8. Data migration strategy document

9. Interface strategy document

10. Test cases with results during UAT, SIT and any other test cases

11. Deployment plan document

12. Change management methodology document

13. Security guide

14. User management guide

15. Release notes

16. Impact matrix

1.2.5 Current State of Treasury Solution

At present, Treasury operation of the Bank is running through system. Bank has procured Treasury Application from M/s Intellect Design Arena Pvt. Ltd (erstwhile M/s Polaris Financial Technology Ltd) in the year of 2013 and the same is now running for its India Operations. For its Hongkong (HK) & Singapore (SG) centre, the treasury operation is running through some manual processes & few customized modules developed under Finacle core version 10.2.09.

A. List of Treasury Activities & Products handled by Domestic & Overseas   Centers:

1. **Forex (Inter-Bank):** Spot USD/INR, spot crosses, Swaps, borrowing/placement of deposits, Exchange Traded Currency Futures (SEBI approved exchanges) in USD/INR, EUR/INR, GBP/INR, JPY/INR currency pairs, PCFC, RFC, FCNR (B), deposit pricing, Fund management/ Nostro Management, GAP Management etc.

2. **Forex (Merchant):** Outright cash/tom/spot/forward (USD/INR and crosses), part/full cancellation of forward contracts, early/part utilization of forward contracts, cancellation of overdue forward contracts.

3. **Money Market:** Call/notice/term money, Treps borrowing/lending, LAF Repo/ LAF Reverse Repo & MSF, Market Repo/Reverse Repo (Govt. & Corporate debt securities), BRDS, Bulk Deposits, maintaining CRR, SLR, SLGR, MCB (Singapore), MLA (Singapore), AMR (Singapore), LMR (Hongkong) etc.

4. **SLR Investments:** Investment and trading of Govt. Securities/Treasury Bills, State Govt loans, Govt Floating Rate Bonds, Central Govt Special Securities, Other approved securities, Maintaining SLR etc.

5. **Non-SLR Investments:** Investment and Trading in Certificates of Deposit, Mutual Funds, Commercial Papers, PSU Bonds (Taxable & Tax free), Zero Coupon bonds, Floating Rate Notes, Debentures, Pass Through Certificates (PTCs), IBPC etc.

6. **Corporate Bonds:** Investment and Trading in Corporate Bonds, CDs, etc.

7. **Derivatives:** Interest rate Swaps, Principal Only Swap, Currency Swaps, Options (FC/INR), Options (Non INR), Forward Rate Agreements, Long Term foreign exchange (LTFX) contracts, Structured deals, Basis Swaps, Interest Rates Futures (IRF), Credit Default Swaps (CDS), Exchange traded Currency Futures, Currency Options, etc.

8. **Debt Sales:** Retailing of central and state government Securities/treasury bills and corporate bonds, participation in auctions (competitive and non-competitive

bidding) on behalf of non- constituents, Operation of G-sec Samriddhi portal and Sale of G-sec on ATM.

9. **Primary Dealers Business:** PD Desk deals in Treasury Bills, Cash Management Bills, Government securities - Fixed rate/Floating rate, Inflation Index Bond, State Development Loans, Short-Selling in Government Securities; When-issued market: Long and Short Position, Trading in Strips & IRF, Market making of few G-Sec etc.

10. **Equity:** Long Term Investment and trading in Secondary Market, Investment and trading in MFs and ETFs, Preference Shares, Venture Capitals, Security Receipts etc.

B. List of the Functionalities Available in the existing System:

I. Master:
- a. Instrument Masters
- b. Entity Master
- c. Other Masters
- d. Market Data

II. Deal Listing: This view facilitates the users to view all deals entered in the system between the data range. Entered deals can be further modified and deleted based on profile rights of users. Maker-Checker configuration entered deals can be further tagged as authorized/ Unauthorized /Confirmed/ Settled deals. User Defined and Customized Deals tickets are available in the system based on Asset class and transaction Types.

III. Primary Market: The module is facilitating to enter the following types of deals in the system.
- a. FIS Auctions (Price /Yield based)
- b. Primary Application/ Subscription /Rejection
- c. Equity IPO Applications/ Allotment/Rejection

IV. Secondary Market:
- a. Opening Transactions
- b. Purchase /Sale Transactions (FIS)
- c. Equity Transactions
- d. Mutual Fund Transactions
- e. Fixed Deposit Transaction

V. Money Market:
- a. Cash Transactions (Call /Term /Notice)
- b. Repo /Reverse Repo Transactions
- c. CBLO Transactions
- d. Pledge Transactions

VI. Interfaces Upload: System has inbuilt interface upload engine allow to upload market data, closing prices received for securities received from various agencies/ platforms. The deal executed at various platforms can be directly uploaded in the system with predefined format normally .csv files. The following are few sample uploads available in the system.
- a. BSE /NSE
- b. AMFI/CRISIL

c. FIMMDA prices

d. MF Transactions

e. Equity Transactions

f. FIS transactions

VII. Deal Documents and Deal Confirmation

    a. Deal Tickets

    b. Internal documents

    c. Option to print the deal ticket for all position transactions

    d. Include all deal details such as amount, price, counterparty etc.

    e. Documents are communication to counterparties.

    f. Option to print the deal confirmation for all market transactions

    g. Include all deal details such as amount, price, counterparty etc.

VIII. Positions Monitoring: Maintain list of investment holdings for various Portfolio wise, asset class wise like fixed income securities, money market, Equities and Mutual Funds, FD across the system.

IX. Costing Methodology: Profitability being computed at various level e.g. deal, dealer, security, portfolio level. The system supports following costing methodology, same can be configured and monitored in the system.

    a. Weighted Average cost method

    b. Deal by setoff Method

X. Valuation and Valuation Data: IT computes valuation of holdings as per FIMMDA valuation guidelines for Fixed Income Securities. The valuation data will track and monitor the investments portfolio wise, asset class wise and analyze unrealized gain loss and take investment decision.

XI. Decision Support

    a. Income & Corporate Actions

System supports the following Income and corporate action events. Asset Class	Transaction Types
Fixed Income Securities	1. Interest Management 2. Redemption Management (Bullet/Partial) 3. Put/Call Management
Equity	4. Dividend Management 5. Bonus Management 6. Merger and Split
Mutual Fund	7. Dividend Management 8. Bonus Management 9. MF Switch Transactions

XII. Balance Sheet Activities

    a. Accruals: Computes Interest accrued on Fixed Income Securities.

b. Amortization & Accretion: System supports below methods of Amortization and Accretion for Securities (Straight Line and Constant Yield Method).

XIII. Reporting

a. System has inbuilt report designer engine, helps to design, create and develop user defined New Reports as per user requirements.

b. There are various MIS reports and regulatory reports which are getting generated either directly through system or prepared manually. Those reports should also be made available in the system apart from the list or reports mentioned in the annexure of Functional and Technical Specifications.

XIV. Accounting & Generate Accounting Entries.

a. It allows accounting vouchers for each transaction type at the time of System implementation. Based on these definitions, accounting entries are automatically generated for relevant transactions.

b. Voucher Generation for accounting entries posted

c. Accounting Ledger / Trial Balance / PL Statement / Balance Sheet

d. Manual Journal Voucher (JV) Entry

e. Profit and Loss Account Transfer

XV. Risk and Limit Monitoring: The following are key features in limit management module:

a. Limit Definition (Online /Offline & Hard and soft limits).

b. Limit Configuration: Limits can be configured on various data points like Portfolio, Asset class, Security types, Issuer, Dealer limits, Book value, Deal amount.

c. Limit Results: Status report for both Online and Offline limits

d. There has to be integration with Treasury system and Core Banking system (Finacle) of the Bank to have a real time view of limit provided by the Risk Management department related to Bank Specific, country specific (Centre wise), counter party specific and customer specific which is not been monitor manually.

XVI. Pre-configured swift messages
   a. 100 Series-199 | 103
   b. 200 Series-200 | 202 | 203 | 210 | 292 | 296 | 299
   c. 300 Series-300 | 305 | 320 | 330 | 340 | 341 | 360 | 361 | 362 | 364 | 365 | 395 | 399
   d. 500 Series-540 | 541 | 542 | 543 | 599
   e. 600 series-600 | 604 | 699
   f. 900 Series–900 | 999 | 940 | 950

XVII. System driven Identification of NPI & SMA on daily basis as per RBI / MAS/ HKMA

extant guidelines through system and manual intervention along with direct integration with CBS for handshaking of data from / to CBS for the respective customer

      a. CGS, SGS, Bonds & Debentures/Coupon Bearing Preference Shares,
      b. Venture capital
      c. CD, CP, T-Bills
      d. Equity
      e. Non coupon Bearing Preference shares

XVIII. Nostro Management:

      a. Maintenance of multiple nostro account for each currency
      b. Fetch nostro balance from MT940 or mirror account for nostro balance projection
      c. Monitor nostro balance at bank level –View balance by Account / Currency
      d. View projected balance
      e. View deals affecting Nostro a/c
      f. Transfer balance between Nostro accounts

All the existing functionalities & interfaces but not limited to the above exhaustive list should be made available in the proposed solution either through out-of-the-box functionality or through separate customization. All types of customized items, covered under as a part of scope of work mentioned in the RFP document and Annexure - XVII, should be delivered before go-live. The proposed system should also support all treasury specific modules required for functioning and meeting all regulatory & statutory guidelines and settlement processes on a single platform. Provision to introduce new products or modify the existing features of the treasury products as directed by regulators or as demanded by the business should be available. The proposed application should be capable and scalable enough to incorporate, accommodate, integrate, implement any changes in the system arising on impact of amendments to regulator's direction and well within timeline stipulated by the regulator (specifically for RBI, MAS & HKMA or any other regulatory authority or any statutory country specific guidelines where Bank is engaged in doing business).

1.3 Integration with existing Infrastructure and applications

The bidder shall ensure seamless integration of the proposed solutions with other existing applications/utilities, network, security, platform and storage infrastructure in the Bank's Data Centre and Disaster Recovery Site etc.

Bidder has to ensure that the proposed solution should integrate with existing solutions which are already implemented in the Bank. Bidder needs to integrate the solution with all the interfaces mentioned below. Bidder needs to factor all the efforts required for integration.

1) FX Dealing platform: Bloomberg, Refinitiv (Thomson Reuters), Trade web etc.
2) CCIL Dealing platform: TREPS, ASTROID, OIS/IRS, Currency futures
3) Core Banking System of UCO Bank
4) Market data providers
5) Centralized Information Management System
6) Active Directory
7) Notification Channels

8) Security Information and Event Management (SIEM)
9) Business Intelligence (BI)
10) External Holiday Calendar
11) Operation Support System
12) Initiation of transaction at Finacle through ISO followed by SWIFT message generation
13) STP integration between Treasury application and Finacle for identification, downgrade & upgrade of NPI & NPA respectively on real time basis.
14) SWIFT messaging system
15) FXPC: - Centralized Processing Center for Forex operation
16) MIS system or Data Analytics system

2. Detailed Scope of Work

It is expected that the solution proposed by the Bidder is based on the requirements as enumerated in the RFP document and its annexures. The contents of the RFP contain only principal requirements of the assignment and that the delivery of the deliverables and the services required in connection therewith are integral part of the assignment. Bank will not accept any plea from the Bidder for omission of critical services on the pretext that it was not expressly stipulated in the RFP or in its annexures.

1) End-to-end implementation of (CIGTMS) along with market risk Solution along with a comprehensive workflow. The proposed solution should include Supply, Installation, Implementation, Customization, Integration, Migration, Testing, Training, tuning /optimization of proposed application / Database and post go-live support and Maintenance of all necessary Software and other utilities etc. at primary site and also at Disaster Recovery Site.

2) The successful bidder is expected to conduct study of complete requirements of the Bank and provide a Systems Requirement document to the Bank. The bidder should also provide Functional requirement document/ Business Requirement Document, system specification document for all the functionalities discussed.

3) During requirement gathering bidder need to provide 3 Document specify to the country i.e. India, Singapore and Hongkong (4 Copy for each country).

4) Bidder is required to conduct a Gap Analysis and Gap report submission.

5) Preparing functional requirements document for implementation of various products and processes of the treasury department of Bank.

6) Preparing system specification document, solution design document based on the agreed functional requirements. Bidder needs to note that the Specification diagram should be for India, Singapore and Hongkong separately.

7) Performance of configuration and enhancement of solution to cater to the requirements mentioned by the Bank. Bank is looking for a modern performance-oriented architecture with true visibility to the proposed application and infrastructure performance.

8) Setup and maintenance of all the on-premises environments for the solution i.e. Production, DR, UAT, Development, SIT & Testing and Training. Bidder can provide CIGTMS solution for 3 different center viz. India, Singapore & Hongkong either through single instance multi entity setup or through 3 independent single

entity single instance setup. If bidder is providing 3 independent single entity single instance setup, then in that case all 3 environment should be separated from each other either physically or through software driven virtualization. In both of the scenarios (single instance multi entity setup or single entity single instance setup) mentioned bidder needs to stick to General Data Protection Rules and Regulation of the respective country and their respective regulatory authority RBI, MAS & HKMA. If any deviation in any of the guidelines as on bid submission date bidder needs to correct the same at its own cost and Bank will not pay any cost of the same.

- Production at DC should be deployed under highly available manner such that the failure of a single server/node will not interrupt the running application

- DR site will also be deployed with same architecture and same capacity as of production DC site.

- UAT 40% of production in non-HA

- Test & SIT-20% of production in non-HA

- Training-20% of production in non-HA

- Development-20% of production in non-HA

- Report Environment at DR site - will be updated at T-1 frequency and will be used by the Bank for generating the reports from Treasury applications. Bidder needs to factor the required infra / Licenses in the bill of material. This reporting server will be standalone Database and no High Availability is required for this environment.

9) According to the above, there would be two production environment one is DC and another is DR. Rest of the environments should be recognized as non-production environment. Bidder can virtualize the environment; however, production and non- production environment should be physically separated. UAT, Test & SIT, Development, Training should have dedicated environments. All the environments should be versatile, stable and very scalable with useful DRS and resource pooling features. Bidder needs to adhere to the Annexure XXXII.

10) The hardware sizing provided should be able to cater the load of next 5 years and the average CPU, Memory utilization should not exceed 70% and storage space utilization should not exceed 80%.

11) Bidders need to ensure that UAT and Training environment should be in sync with Production environment in terms of master data and sources. All the customization / enhancement / products / parameter change needs to be applied in these environments on monthly basis. Bidder needs to ensure that all the master data such as customer information and balances needs to be masked before releasing the non-Production environment to the end user. Non-Production environment here refers to UAT, Test & SIT, Development, Training.

12) The Data in the Non-Production environment has to be masked all the times

13) The bidder should have the Capability to maintain the software and provide support to the Bank in case of configuration changes, development of new components, change requests, etc. post go live of the software

14) If Hyper Visor is being proposed for the purpose of virtualization then the bidder needs to adhere to the Annexure XXXIV.

15) The selected bidder needs to configure performance intents, which will assure the infra performance at minimal cost. Based on operational and business intent, should automatically balance workloads, and proactively avoid contention. Bidder should also configure Automate workload balancing.

16) On Demand Scalability should be the key so that bank can adopt any compatible hardware based on prompt availability without any dependency on a particular server hardware vendor.

17) The selected bidder needs to configure the required compliance to Reduce risk and enforce IT regulatory standards for virtual infrastructure and configure automated drift remediation. Bidder should ensure environment's adherence to common requirements with compliance templates—such as for PCI, HIPAA, or SOX—or should also be able to create custom templates.

18) Application maintenance including bug fixing, patch management, up gradation, additions / modifications in the application to cater to changes to data sources and /or new reporting requirements during warranty period of one year as well as during the post warranty period.

19) Provide onsite support post go-live. Duties of onsite engineer include day to day operation support, configuration changes, version upgrades, performance monitoring, trouble shooting, Bug Fixing, patch installation and liaising with Bank official for various support issues etc. and assisting Bank official in switching to the DR site in case of system failure and Conducting DR drills in conjunction with the Bank.

20) The proposed solution should have all the treasury related modules and should meet the functionality as mentioned in the Functional Specifications and should meet all regulatory guidelines and settlement processes.

21) The bidder should seamlessly migrate the history/legacy data into the proposed CIGTMS system for backward compatibility and continuity. In addition to that, the bidder should provide a robust reporting on the migrated data.

22) The bidder should provide a facility to migrate historic data of all the existing solutions currently used by the Bank. The migrated data should be cross verified, validated and authenticated. The proposed solution should be capable of viewing and generating required reports from the above data without referring to the base solutions.

23) All proposed software and hardware should be of latest and current version as of go-live date and should be in the name of UCO Bank. Wherever required, the selected bidder should submit renewal certificate in the name of Bank in physical/ electronic form well in advance before the license expiry date during the contract period. **The suggested OEM products/tools should not have end of support for next 8 years and bidder needs to submit an OEM declaration for the same as per Annexure XXXI.**

24) Should any components be announced End of support during the contract period the bidder will have to replace the same with an equivalent or higher

specification product without any additional cost

25) The CIGTMS licenses should be perpetual / subscription-based licenses in the name of the Bank. The Bidder should note these licenses should have no restrictions whatsoever on data, asset size, transactions or number of non-production sites across the Bank.

26) The proposed solution should be able to integrate with Bank's existing security solution like DAM, PIM, SIEM etc. Besides that, Bank will provide required network components, security components (firewall ports, Anti-virus, etc.), co-hosting space, power and cooling. All other components required to complete the scope of work needs to be quoted by the bidder.

27) The bidder should provide all documentation including User Manuals, module wise complete solution document, Technical Manuals, Training Materials, Standard operating procedure, etc.

28) Bidder needs to engage an independent third party for conducting UAT & Data Migration Audit. The engaged 3rd party should have with experience of doing UAT in scheduled commercial Bank in India for treasury solution.

29) The Bidders should provide ongoing support during the implementation and post go live Facility Management support based on the SLA's during the entire contract period.

30) The successful bidder has to abide by the Bank's information security policies

31) The bidder should arrange for the closure of all observations including IS, Data Migration Audit, VAPT and Security Audit within time frame stipulated by Bank without any additional cost to the Bank. The bidder must ensure that the findings of the audit are successfully closed.

2.1 Project Implementation and Methodology

The scope of work for implementation should abide by the following requirements

2.1.1 Development Methodology

The Scope of Work laid out in this RFP requires the vendor to understand the complex nature of the project and hence should use a strong methodology that should be followed strictly.

i.   The vendor should follow a suitable SDLC methodology waterfall/ iterative/ agile/ proprietary methodology, etc. as part of vendor's response.

ii. The methodology should clearly lay out the overall steps from Initiation to Closure of this engagement. The methodology should address development, customization, managed services, post go-live support services, and hardware / software installation / configuration services. Each of the steps should detail the input, process and output. The vendor should further detail how their tools/templates can be used to leverage them effectively. The vendor should provide deliverables accompanied with functional specification, technical specification, impact analysis document, test case along with the test results and release document

iii. The vendor should ensure all process templates as per their CMMI/Quality

certification is adhered to and provide to capture and prevent risks and issues.

2.1.2 Project Implementation

The entire implementation will be carried out in the Bank's premises. No remote access shall be provided. Following points should be covered by the vendor as part of the project implementation phase:

2.1.2.1 Walkthrough of the Entire solution and its functionalities to the users

2.1.2.2 Study of the current products, processes and operations of the concerned department, incorporate the additional functionalities identified during the study and define the exact deliverables

2.1.2.3 Gap Analysis, identification of Gaps and resolution of the gaps in line with the Bank's requirements

2.1.2.4 Preparation of Business requirement document

2.1.2.5 Preparation of Functional requirements specification document and finalization

2.1.2.6 Parameterization and Configuration to meet the requirement

2.1.2.7 Customization to meet the Banks requirement

2.1.2.8 Building Data migration strategy for migration from existing systems and carrying out the test migration activity to fine tune the migration strategy

2.1.2.9 Development of test strategy test plan and Test cases

2.1.2.10 Development to meet the functionalities

2.1.2.11 Testing and verifying the calculations / Functionalities

2.1.2.12 Support to users to carry out UAT and fixing the UAT observation

2.1.2.13 Carrying out Impact analysis wherever required and substantiate with the Impact analysis document for the Bank to take a call on the proposed change

2.1.2.14 Defect fixing

2.1.2.15 Training for both functional and technical users before UAT start and before Go-live

2.1.2.16 Internal audit of the application

2.1.2.17 To impart training to the user on the Techniques of generating various MIS reports

2.1.2.18 Developing new audit reports / tools using the proposed solution

2.1.2.19 Training for report writer facility to create new reports and modify existing reports

2.1.2.20 Incidence analysis and reporting

2.1.2.21 Log analysis and monitoring

2.1.2.22 Program Management with weekly, fortnightly, monthly status updates to

steering committee

2.2 Functional requirements specification study

1) The Bidder should conduct a detailed system requirements study and provide a Functional Requirements Specification Manual (FRSM) relating to the functionalities as required to support the various products and services offered by the Bank/to be offered by the Bank in the near future as responded by the Bidder in Annexure XVII – Functional and technical Requirements.

2) The Bidder is expected to provide the FRSM to the Bank for review and comments, and any comments or suggestions of the Bank will be incorporated therein.

3) FRSM should include all the areas where the Bidder is suggesting a work-around and if it involves re-alignment of proposed business process, the re-aligned process should be included in the manual. The FRSM will be deemed complete when signed–off by the Bank.

4) The Bidder is expected to assist the Bank in aligning the business requirements with the applications so as to enable centralization of desired business process, eliminate redundant and duplicate processes, increase operational efficiency and improve customer service.

2.3 Gap Identification and Resolution

1) The Bidder is expected to provide the Bank with the gap identification report along with the necessary solutions to overcome the gaps and the time frames.

2) The Bidder will give adequate time to the Bank for reviewing the gap report.

3) The Bidder will incorporate all the suggestions made by the Bank to the gap report.

4) The Bidder will ensure that they have the necessary infrastructure and people in place to resolve all the gaps within the timelines agreed, for the implementation and roll out

5) The Gap Identification report needs to be prepared separately for all the 3 countries

2.4 Application Installation and Implementation

1) The vendor needs to ensure that the scope of work for installation and implementation of hardware & software includes installation, functional requirements specifications study, configuration, development, customization, implementation and integration of the software. The precise nature and scope of the activities and functions to be undertaken for installation and implementation of the licensed software have been detailed and set out in this RFP document as a part of the scope of work, functional requirements, interface requirements.

2) Bidder needs to note that Bank will only provide hosting space, network port, power, security (Anti-virus) and cooling, all the other component required for implementing and running the solution needs to be factored and quote by the bidder in the Commercial Bill of Material. Bidder must note that in case the proposed hardware is unable to meet the requirements stated in the RFP, bidder will be held responsible for augmenting the same at no additional cost to the Bank.

3) All the hardware supplied will be managed by the system integrator.

2.5 Parameterization/Definition of Rules

1) The system should be highly parameterized and flexible. It should be possible to clone existing product and process, with edit facility, thereby facilitating faster time to market.

2) There should be very limited coding required to configure the system, parameterization, definition of rules, and other user defined and driven system controls. It will be ideal if all these can be achieved by intuitive graphical user interface.

3) The successful bidder should provide the source code of all the customizations made to the Bank. The Bidder is also required to perform a secure source code review of all the custom developments and share the report with Bank for review and approval. Bidder will carry out the customization or new functional capability development in the applications during the course of implementation as well as during the validity of the contract within the agreed fees. No additional charges will be paid.

4) Bidder is expected to customize all gaps observed in the solution during Functional RFP, Product Demo, Current Systems Study, Training, UAT, Business Requirement Definition ('BRD') subsequent roll out for all the proposed solutions. The Bidder also needs to provide all statutory reports as required by the regulatory institutions. Bank will not pay any additional customization costs either for gaps observed for the above and/or regulatory and statutory reports as required by the Bank.

2.6 An Overview of Basic Functional Landscape

Asset Classes	Functionality
Debt Asset Class	Fixed Income Securities, IRS/CIRS, Bond OTC Options, Warrants, Futures, Traded Options
EQ Asset Class	Equities, Equities OTC Options, Equity Swaps, Warrants, Futures, Traded Options, Mutual Funds
FX Asset Class	FX Spot, FX Swaps/Forwards, FX OTC Options, Warrants, Futures, Traded Options
MM Asset Class	MM, Sec lending, Repos, FRA, Cash Flow, IRS/CIRS, Warrants, Futures, Traded Options

Asset Classes	External Interface Infrastructure (Java API – XML/CSV over MQ SFTP etc.)	Interfaces
	Reference Data Sources (Reuters, Bloomberg etc.) & Trading Interfaces (Reuters, Bloomberg, EBS, Markit Wire etc.)	

	Trading	**Risk Management**	**Operations & Trade Processing**	
Foreign Exchange Fixed Income Money Markets FX & IR Derivatives Equities & Mutual Funds Hybrids & Structured Products Credit Derivatives Commodities Islamic	Pre Trade Analytics & Compliance Structuring & Sales Real Time Positions & P&L Portfolio Management Pricing What if analysis APIs & Excel interface for deal capture	•Credit Risk •Market Risk & VaR •Operational Risk •Scenario Analysis •Liquidity Management •P&L Analysis •IR Gap Analysis •Audit & Compliance •Capital Charge •Stress Testing	•Deal Life Cycle Management •Confirmations & Settlements •Collateral Management •Corporate Actions •Custodian Views •Nostro Reconciliation •Accounting & Sub GL	Core Banking System •Enterprise GL •SWIFT / CLS •Local Payment Gateways •Custodians
Enablement of Multi-Channel –E-Banking Platform & Mobility			
	Real Multi Entity	Inbuilt Reporting	Email Integration	SMS Integration

2.7 User Defined Customization in Treasury

Bank is looking to have below customer wise and account wise records in their treasury solution to keep the monitoring of the branch operations and also to recon the PL & GL of the forex balance sheet. Bidder needs to customize this module in the treasury system as per the SRS defined during requirement gathering however bidder needs to factor below mentioned minimum features which needs to be customized

Indian Treasury

• Foreign currency asset and liabilities portfolio: -

1. Granular portfolio details (Account ledger replication) for Forex assets (like PCFC, FCTL, PSFC) and liability (like FCNR, EEFC, RFC, RFCTD) can be removed, if the proposed solution fetches and provides the GL level data of CBS for each Forex items along with accrued interest in all currency separately on daily basis . Such data is required for correct computation of Foreign exchange position in each currency. The system should have provision of DUAL currencies in which bank can maintain the base currency equivalent to all foreign currencies possessions, balances, transactions. However, such information is required for Foreign bill Module and Merchant forward contract with granular parameters and that should be part of the proposed Treasury solution.
2. FC Borrowing and FC Lending initiated in Treasury system are required to be synchronized in CBS on real-time basis.

3. Granular portfolio details (Account ledger replication) for Forex assets (like PCFC, FCTL, PSFC) and liability (like FCNR, EEFC, RFC, RFCTD) can be removed, if the proposed solution fetches and provides the GL level data of CBS for each Forex items along with

4. accrued interest in all currency separately on daily basis . Such data is required for correct computation of Foreign exchange position in each currency. The system should have provision of DUAL currencies in which bank can maintain the base currency equivalent to all foreign currencies possessions, balances, transactions. However, such information is required for Foreign bill Module and Merchant forward contract with granular parameters and that should be part of the proposed Treasury solution.

5. Customer id detail: - the customer level details should be reflected in treasury vis-à-vis in CBS.

6. Country wise/ currency wise/ Bank wise/ customer specific limit maintenance and monitoring of the same at Treasury system through STP mechanism which shall be in sync with CBS

7. Capability of supporting negative interest rate

8. Granular portfolio details (Account ledger replication) for Forex assets (like PCFC, FCTL, PSFC) and liability (like FCNR, EEFC, RFC, RFCTD) can be removed, if the proposed solution fetches and provides the GL level data of CBS for each Forex items along with accrued interest in all currency separately on daily basis . Such data is required for correct computation of Foreign exchange position in each currency. The system should have provision of DUAL currencies in which bank can maintain the base currency equivalent to all foreign currencies possessions, balances, transactions. However, such information is required for Foreign bill Module and Merchant forward contract with granular parameters and that should be part of the proposed Treasury solution

9. Capability of foreign exchange position handshake between two system for various Fx GL.

• **Inward forex Transaction:**

Currently Branches manually monitors the Swift messages and once the inward forex transaction message is received, the branch initiates the transaction in CBS. They debit the treasury adjustment account of respective currency and credits the customer. Meanwhile they send a message to treasury software for debit of Mirror for reimbursement. On receipt of this message the treasury software generates STP accounting on real-time basis for mirror Accounting in CBS. Thus, it debits the mirror to reimburse the branch intersol parking account. Thus, both the currency position in treasury software and account balance in CBS is in Sync.

Inward transaction includes Foreign Documentary Bills Under Collection/Purchase/Discount/Negotiation, Foreign Clean Bills Under Collection/ Purchase/Discount/Negotiation, Foreign Usance Bills Under Collection, Foreign TT Remittance, Foreign Cheque Collection, utilization of forward contract with swap.

• **Outward forex Transaction: -**
Currently the Branch initiates the outward transaction at the instance of the customer thereby debiting the customer account and releasing the SWIFT message to Correspondent Bank. Along with this a message is relayed by CBS to treasury software for accounting of outward swift in treasury software. Treasury software creates the accounting entry for credit of Mirror Account by debiting suspense account. The Branch credits the proceeds to treasury intersol parking account for offsetting the suspense entry.

Foreign Outward Remittance includes Foreign Import Bill under Collection, Payment

under LC, Foreign Telegraphic Transfers, Foreign Cheque issuance, Foreign Demand Drafts, Foreign Travelers Cheque and any other inward/ outward remittance like FCNR, EEFC, RFC.

- **Trade finance bills transaction**
  1. For early realization of bills, the system should invoke the Rate quote module/Chat for incorporating Swap points and spot rate. The same logic is also to be used while cancellation/early utilization of Forward Contract. This shall eliminate the manual EDC recovery which is presently done
  2. System Driven- Early/Late realization charges (swap cost) Collection module. System Driven- Merchant Forward Contract cancellation charges collection as per the exchange rate given by the dealer
  3. Provision of feeding of NTP in export bills with report showing due date.
  4. Interest calculation of PCFC/PSFC: - Provision required to add overdue interest rate after due date
  5. PCFC/PSFC reports as per Input, Purchase suspense realization should provide for applying of swap charges

- **Vostro Management**
o   The system should be able to manage the Vostro account operations for domestic as well as foreign branches and should be able to receive and consume 940 swift messages for Treasury NOSTRO transactions.

- These Customization needs to be done for below mentioned instruments
o   Foreign Bills Purchase
o   Clean Bills Foreign Bills Purchase,
o   Usance Bills Foreign Bills Purchase,
o   Sight Bills Foreign Bills negotiated.
o   Foreign Usance Documentary Bills
o   Discounted Merchant Trade Bills:
o   Export/Import Crystallization of Export Bills
o   Deemed Export Bills
o   Diamond Dollar account
o   Export Bill Rediscounted
o   Packing Credit
o   Foreign Currency Loans and
o   Crystallization of PCFC/PSFC bills due date
o   FC Bonds
o   Any other future requirement similar to the above

- **Multicurrency GL**
o   50 paise in INR in CCIL needs to be converted in higher rupee
o   Forward contracts getting overdue gets generated on the same day, Forward contract due between two given dates should get generated.
o   Transfer entry of misc transactions should not be modified and verified by the same user
o   Gain or loss on delivery of FCY by customer should be the calculated on the rate prevailing at the time the currency is delivered (and not on EoD or average day rate, for example). Rate is to be provided by dealing room as per prevailing market rates.

Hong Kong Treasury:

o   Foreign Inward Remittance: Foreign Documentary Bills Under Collection, Foreign Clean Bills Under Collection, Foreign Usance Bills Under Collection, Foreign TT Remittance, Foreign Cheque Collection, utilization of forward contract with swap.

- o Foreign Outward Remittance: Foreign Import Bill under Collection, Payment under LC, Foreign Telegraphic Transfers, Foreign Cheque issuance, Foreign Demand Drafts, Foreign Travelers Cheque and any other inward/ outward remittance
- o FCL - Foreign Currency Loan with monthly interest calculation and resetting of interest rate in line with CBS system.
- o FC Borrowings along with accrual of interest including negative interest thereon.
- o Contract cancellation and exchange difference payable /receivable
- o Multicurrency GL
- o Forward contracts getting overdue gets generated on the same day, Forward contract due between two given dates should get generated.
- o Transfer entry of misc transactions should not be modified and verified by the same user

- • **Vostro Management**
    - • The system should be able to manage the Vostro account operations for domestic as well as foreign branches and should be able to receive and consume 940 swift messages for Treasury NOSTRO transactions.

- • These Customization needs to be done for below mentioned instruments

    - o Foreign Bills Purchase
    - o Clean Bills Foreign Bills Purchase,
    - o Usance Bills Foreign Bills Purchase,
    - o Sight Bills Foreign Bills negotiated.
    - o Foreign Usance Documentary Bills
    - o Discounted Merchant Trade Bills:
    - o Export/Import Crystallization of Export Bills
    - o Deemed Export Bills
    - o Diamond Dollar account
    - o Export Bill Rediscounted
    - o Invoice Financing
    - o Foreign Currency Loans and
    - o FC Bonds
    - o Any other future requirement similar to the above

Singapore Treasury :

- o Foreign Inward Remittance: Foreign Documentary Bills Under Collection, Foreign Clean Bills Under Collection, Foreign Usance Bills Under Collection, Foreign TT Remittance, Foreign Cheque Collection, utilization of forward contract with swap.
- o Foreign Outward Remittance: Foreign Import Bill under Collection, Payment under LC, Foreign Telegraphic Transfers, Foreign Cheque issuance, Foreign Demand Drafts, Foreign Travelers Cheque and any other inward/ outward remittance.
- o Deposits other than SGD in Foreign Currency.
- o Account & customer details should be opened automatically by fetching data from CBS and vice versa facility should also be available
- o Interest Accrued, Booked & Paid amount should be calculated by Treasury system and same should be validated with CBS by providing report with details.
- o FCL - Foreign Currency Loan with monthly interest calculation and resetting of interest rate in line with CBS system.
- o FC Borrowings along with accrual of interest including negative interest thereon.
- o Contract cancellation and exchange difference payable /receivable

- o Multicurrency GL
- o Forward contracts getting overdue gets generated on the same day, Forward contract due between two given dates should get generated.

- • **Vostro Management**
  - • The system should be able to manage the Vostro account operations for domestic as well as foreign branches and should be able to receive and consume 940 swift messages for Treasury NOSTRO transactions.

- • These Customization needs to be done for below mentioned instruments
  - o Foreign Bills Purchase (Usance and Sight)
  - o Sight Bills Foreign Bills negotiated.
  - o Foreign Usance Documentary Bills
  - o Invoice Financing/Trust Receipt Financing.
  - o Syndication Loans, Term Loan.

2.8 Nostro Reconciliation Management – Large Volume STP reconciliation at lower risk

Bank is already having a Nostro recon solution from Ameya Infovision. Bidder needs to integrate the proposed treasury Solution with the bank's existing solution. However, all the Nostro Entries needs to made in the Treasury solution.

2.9 Multi Entity Risk Management for Mid office functionalities and other functionalities to Market Risk

Some of the multi entity risk management functionalities of Mid Office team, related to Market Risk, are required to run the Mid office smoothly. These functionalities are broadly mentioned in detail under Annexure XVII Tab 9.6, Tab 9.7, Tab 9.11 and as below. Out of those, some of those functionalities, exclusively mentioned under Annexure XVII Tab 9.11 and if any under Tab 9.6 and Tab 9.7, are related to Market Risk which Bidder needs to provide either as part of Treasury Solution or bidder can proposed some plugin solution which will be tightly integrated with Proposed treasury solution to achieve these functionalities. . Bidder needs to factor all the cost related to this in bill of material. Bidder needs to comply with the Technical and Functional specifications mentioned in the Annexure XVII t Tab 9.6, Tab 9.7, Tab 9.11 and as below. All the hardware, software, Licenses required to active the functionalities need to be quote by the bidder. The basic requirements or features that are required, mentioned hereunder, in addition to the functionalities mentioned under Annexure XVII, if any, will be as follows –

1. Online Limits Monitoring
2. Absolute & Alarm Limits
3. Pre & Post Deal Limits Check
4. Limits Exception Configuration & Management
5. Ladder, Trades & Exposure Drill-down
Credit Risk
1. Counterparty / Counterparty Group
2. Country
3. Issuer & Broker
4. Hierarchical Structure
5. Cash, Settlement & Closeout Limits
6. Capital Charge using Standard Approach
7. Non Performance Investments (NPI) –Securities, Equities & Loans
8. Collateral Agreement Management
Market Risk

1. Real-time Position & P&L
2. Trading Book and Stop Loss Limits
3. Industry / Sector Risk
4. Scenario Analyzer & What-If Deals
5. Concentration by Ratings
6. Gap Views & Liquidity Views
7. Currency Risks, NPV, Greeks, Close Out & MTM
8. Rate, Amount & Tenor Tolerances
9. VaR | Back Testing
10. Stress Testing (Basel III / RBI)
11. Capital Charge & Risk Weighted Asset -SMM method & IMA Approach
12. Risk views on FX, Securities, Derivative
13. IRR Risk Views & IRR by Analytics
14. Hedge Effectiveness Computation

Liquidity Risk
1. Cash Flow Projections
2. Gap Analysis
3. Nostro & CLS
4. Nostro Reconciliation
5. Netting & Novation Agreements

Operational Risk
1. Audit Trail
2. Deal Versioning
3. 4/6-Eye Check -Deal & Static Data
4. Permissions
5. Holiday check
6. Unscheduled Holidays
7. Straight Through Processing

Value at Risk (VaR)

Historical VaR
1. Historical VAR for FX, Money Market, Equities, Securities, Interest Rate Derivatives and Listed Derivatives
2. Generate VAR number based on holding period, confidence percentage, decay factor and products
3. View VAR by product, portfolio, currency and entity

VaR back testing
1. Clean Back Testing (Hypothetical)
2. Dirty Back Testing (Actual)
3. Both

Stressed VaR
1. Value at Risk computed using highly stressed scenarios as market parameters to current portfolio
2. Computation of Stressed VaR using Historical Simulation method

2.10 FEDAI & FIMMDA Valuation

FEDAI :- FX Valuation as per RBI Guidelines : Solution should be capable of doing following activities as per FEDAI guidelines
1. Valuation based on rates against INR published by FEDAI
2. Linear interpolation to compute forward rates for broken (intermediate) dates
3. For non-INR currency pairs like EUR/INR, the valuation rate is derived based on EUR/USD and USD/INR rates
4. Valuation should be done for open currency positions date-wise.

5. For long-term FX where forward rates are not published by FEDAI, the forward rates are taken from other platform such as Bloomberg or forward rates can be derived from the yield curve.
6. FEDAI published rates can be uploaded
7. In case of separate regulatory guidelines exists for MAS & HKMA that should be handled or incorporated or implemented for Fx valuation for Singapore & Hongkong Treasury solution respectively.

FIMMDA :- Security Valuation as per RGI guidelines: solution should be capable of doing following activities as per FIMMDA guidelines.
1. Valuation of various kinds of debt securities as per FIMMDA guidelines.
2. For SLR and non-SLR securities, where market prices are available, the valuation is done based on the same
3. Otherwise, the prices are derived from the base yield curve. For debt issued by financial institutions, PSUs, NBFCs and corporates where credit spreads are published by FIMMDA, the same is included based on the bond's rating
4. Valuation of Bonds with special features such as perpetual bonds, bonds with embedded call/ put options, tax-free bonds, floating rate bonds, unrated bonds, staggered redemption, inflation linked bonds is supported as per FIMMDA guidelines
5. Solution should supports ex-dividend
6. In case of separate regulatory guidelines exists for MAS & HKMA that should be handled or incorporated or implemented for Security valuation for Singapore & Hongkong Treasury solution respectively.

2.11 SWIFT generation during various Operations:

Operations: Swift Confirmation Trade Matching Platform

- Ability to match incoming /outgoing SWIFT messages as listed below
  - o MT300 Foreign Exchange Confirmations
  - o MT305 Foreign Currency Option Confirmations
  - o MT 306 Foreign Currency Option Confirmations
  - o MT320 Fixed Loan/Deposit Confirmations
  - o MT330 Call Notice Loan/Deposit Confirmations
  - o MT340 Forward Rate Agreement Confirmation
  - o MT341 Forward Rate Agreement Settlement Confirmation
  - o MT350 Advice of Loan/Deposit Interest Payment
  - o MT360 Single Currency Interest Rate Derivative Confirmation
  - o MT361 Cross Currency Interest Rate Swap Confirmation
  - o MT362 Interest Rate Reset/Advice of Payment
  - o MT364 Single Currency Interest Rate Derivative Termination/Recouponing Confirmation
  - o MT365 Cross Currency Interest Rate Swap Termination/Recouponing Confirmation
  - o MT515 Client Confirmations of Purchase or Sale
  - o MT518 Market-Side Securities Trade Confirmations
- Generation of Chaser MT399 / MT599 and Integration of Chaser MT399 / MT599
- Integration of MT392

- Integration of MT096 (Fin T-Copy) and translation into underlying MT3/6xx
- Reporting Tools: Matching Monitor, Matchable Report, Message Report, Task Station

Operations: Derivatives and Cash Processing

Confirmations & Lifecycle Processing

- Generation of SWIFT Confirmations as listed below:
  - MT300 Foreign Exchange Confirmations
  - MT305 Foreign Currency Option Confirmations
  - MT306 Foreign Currency Option Confirmations
  - MT320 Fixed Loan/Deposit Confirmations
  - MT330 Call Notice Loan/Deposit Confirmations
  - MT340 Forward Rate Agreement Confirmation
  - MT341 Forward Rate Agreement Settlement Confirmation
  - MT350 Advice of Loan/Deposit Interest Payment
  - MT360 Single Currency Interest Rate Derivative Confirmation
  - MT361 Cross Currency Interest Rate Swap Confirmation
  - MT362 Interest Rate Reset/Advice of Payment
  - MT364 Single Currency Interest Rate Derivative Termination/Recouponing Confirmation
  - MT365 Cross Currency Interest Rate Swap Termination/Recouponing Confirmation
  - MT515 Client Confirmations of Purchase or Sale
  - MT518 Market-Side Securities Trade Confirmations
  - Swift Free-Format MTx99
- Generation of PDF Confirmations as listed below:
  - ISDA confirmations for Swaps
  - ISDA confirmation for Cross Currency Swaps
  - ISDA confirmation for FRA
  - ISDA confirmations for FX Options Vanilla
  - ISDA confirmation for FX, FX Forward, FX Swap, FX NDF
  - PDF Chaser
- Template Management:
  - Multi-language framework for PDF confirmations
  - Messages keywords for supported products and events (reset, fixings, etc.)
  - Document edition, version comparison, formatting (image integration, final/show markup), 4eyes validation
  - Image Repository
- Confirmation message workflows
- Life Cycle events management
- Task Station
- Back Office Standard Reports: Trade, Transfer, Message, Diary and Fixing Reports

Settlement Processing

- Generation of SWIFT Settlement messages as listed below:
  - MT101 Request for Transfer

- o MT103 Single Customer Credit Transfer
- o MT102 Multiple Customer Credit Transfer
- o MT192 Request for Cancellation
- o MT200 Financial Institution Transfer for its Own Account
- o MT202 and 202COV General Financial Institution Transfer
- o MT203 Multiple General Financial Institution Transfer
- o MT204 Financial Markets Direct Debit Message
- o MT205 and 205COV Financial Institution Transfer Execution
- o MT210 Notice to Receive
- o MT292 Request for Cancellation
- o MT920: Request Message
- o MT940: Customer Statement Message
- o MT950: Statement Message
- Settlement message workflows
- Authorization procedure, including valid payment rules and confirmation matching status control
- Manage settlement instructions (standard and manual/ad-hoc)
- Interest Claims for Late Settlement
- Automatic and Ad-hoc Netting
- Task Station
- Back Office Standard Reports: Trade, Transfer, Message Reports

Operations: Cash Management

- Intraday Movement Reconciliation
  - o Integration of MT103/202 and intraday reconciliation with cash transfer
  - o Integration of MT900/910 and intraday reconciliation with cash transfer
  - o Integration of MT942 and intraday reconciliation with cash transfer
- T+1 Movement Reconciliation
  - o Integration MT940 and T+1 reconciliation with cash transfer
  - o Integration MT950 and T+1 reconciliation with cash transfer
  - o Integration MT970 and T+1 reconciliation with cash transfer
- Interest Claims for Late Settlement
- Matching Monitor
- Task Station
- Back Office Standard Reports: Trade, Transfer, Message, Inventory, Matchable, Reconciliation Reports

Operations: Securities Processing

Confirmation Processing
- Generation of SWIFT MT messages as listed below:
  - o MT515 Client Confirmation of Purchase or Sale
  - o MT518 Market-Side Securities Trade Confirmation
- PDF trade – and trade life cycle – messages

Settlement Processing

- Generation of SWIFT MT messages as listed below:
    - MT540 Receive Free
    - MT541 Receive Against Payment
    - MT542 Deliver Free
    - MT543 Deliver Against Payment
    - MT530 Transaction Processing Command
    - MT549 Request for Statement/Status Advice
    - MT500 Instruction to Register: instruct the registration, deregistration or reregistration of a financial instrument for Issuance
- Integration of SWIFT MT messages as listed below:
    - MT544 Receive Free Confirmation (including broker matching)
    - MT545 Receive Against Payment Confirmation (including broker matching)
    - MT546 Deliver Free Confirmation (including broker matching)
    - MT547 Deliver Against Payment Confirmation (including broker matching)
    - MT548 Settlement Status and Processing Advice (including broker matching)
    - MT578 Settlement Allegement
    - MT586 Statement of Settlement Allegement
    - MT501 Confirmation of Registration or Modification for Issuance
    - MT510 Registration Status and Processing Advice for Issuance
    - MT535 Statement of Holdings
- Security Inventory Position
- Position Reconciliation (via Swift MT535)
- Interest Claims for Late Settlement
- User-Defined Security Settlement Workflow
- User-Defined Trade and Trade Lifecycle Events Workflows
- Standard Settlement Instructions
- Automatic or Ad-hoc Netting
- Process Security Settlements – Deliveries/Receipts and Incoming Status

Operations: Corporate Actions Bonds: Standard

- Corporate Action Events from Product definition
- Process Mandatory Bonds Corporate Actions
- Corporate Actions Claim Management
- Stock Borrow Loan & Repo Cash and Stock Claim
- Withholding Tax Processing
- Integration of SWIFT MT messages as listed below
    - MT564 integration for Corporate Action Event reconciliation
    - MT566 integration for Settlement

Operations: Corporate Actions Equities: Standard

- Corporate Action Events from Product definition
- Process Mandatory with Choice Corporate Actions

- Process Voluntary Equity (Stock and Cash) Corporate Actions - in Default Option only
- Corporate Actions Claim Management
- Stock Borrow Loan & Repo Cash and Stock Claim
- Withholding Tax Processing
- Integration of SWIFT MT messages as listed below:
    - MT564 Corporate Action Notification for Equity CA product creation
    - MT568Corporate Action Narrative
    - MT566 Corporate Action Confirmation for Settlement

2.12 LIBOR Reforms:

- Modelling of RFR based instruments, including:
    - RFR indexed Vanilla Swaps (fixed/fixed, fixed/float, float/float), bullet, broken date, and predefined custom schedules
    - RFR indexed Cross Currency Swaps (fixed/fixed, fixed/float, float/float), bullet, broken date, and predefined custom schedules
    - RFR based Futures
    - RFR linked Floating Rate Notes
    - RFR linked Structured Flows
- Specific support of new RFR conventions for FRN, including:
    - Simple Spread method
    - Override of default reset lag
    - Control of rounding of compounded final rate and accrual calculation
    - Support for rate lookback
    - FRN pricing model update
    - Support for cut-off lag for last coupon only
    - Cut-off lag on daily compounding, simple averaging
    - Holiday calendar override for cut-off lag
    - Reset lag observation period shift
    - Support for published compounded RFR index, such as SOFRINDEX
    - Support for published 30-, 90-, 180-day compounded SOFRAVG index
    - Support for Floating Rate to Floating Rate Reconvention on Bond product*
    - Support for ESTRAVG index
- Specific support of new RFR conventions for IRD, including:
    - Cut-off lag on daily compounding coupons
    - Trade-level override of compounding
    - Xccy Swap support for different payment dates for Principal Adj and Interest cashflows
    - Cut-off lag on daily compounding, simple averaging
    - Holiday calendar override for cut-off lag
    - Reset lag observation period shift
    - Support for published compounded RFR index, such as SOFRINDEX
    - Support for published 30-, 90-, 180-day compounded SOFRAVG index
    - Swap pricing model update
    - Turn rates for Basis curves*

- o Support for ESTRAVG index
- o Support for Mid-Coupon Amortization via NCCR
- Support of new RFR conventions for Structured Flows, including:
  - o Cut-off lag on daily compounding, simple averaging
  - o Holiday calendar override for cut-off lag
  - o Reset lag observation period shift
  - o Support for published compounded RFR index, such as SOFRINDEX
  - o Support for published 30-, 90-, 180-day compounded SOFRAVG index
  - o Support for different payment dates for Principal Adj and Interest cashflows
  - o Support for ESTRAVG index
  - o Support for Mid-Coupon Amortization via NCCR
- Support for Risk
  - o Support of new RFR rates for scenario generation & pricing
  - o Support for Scenario Engine Manager, Historical VaR, Hypothetical P&L
- Support for LIBOR fallbacks
  - o Identify and tag fallback used by a trade
  - o Support for resetting LIBOR trades with ISDA/BIS fallback rates that publish in arrears
  - o Support for pricing LIBOR trades using RFR curve according to ISDA/BIS fallback†
  - o Updates to transfers and messages to identify when fallback rates are used
  - o Retention of trade history (resetting/pricing using LIBOR) prior to fallback trigger

2.13 Migration of existing LIBOR exposures:

The Bank's treasury related exposure to LIBOR includes lending and borrowings; derivatives linked to LIBOR in various currencies and of various tenors. The Scope is applicable for UCO bank's Treasury related exposure only. In relation to proposed discontinuation of LIBOR post 01.01.2022 UCO Bank, Treasury requires a software or utility to handle the entire transition. The proposed integrated Treasury solution should be able to:

- ➢ Analyze the current exposure to LIBOR and its cost benefit analysis for shifting to ARRs (Alternate Reference Rate) or RFRs (Risk Free Rates).

- ➢ Undertake new lending and borrowing trades linked to ARRs (SOFR or others etc.). The proposed integrated Treasury solution should be able to calculate the Cash Flow of such deals incorporating the Compounding adjustments and spread adjustments as applicable.

- ➢ Undertake various new derivative trades linked to SOFR or other ARRs. Derivative trades include all kinds of SWAP including Currency Swap, Interest Rate Swaps, Cross Currency SWAP, MIFOR Swap etc. It should be able to provide quotes and compute Cash flow and MTM valuation of all such new deals on a daily basis.

- ➢ The existing exposures (Derivatives and Lending/Borrowing) linked to LIBOR maturing after Libor transition date will require to be moved to new rate regime (ARR). Such transition will also require computation for applicable Alternate Reference Rate after adjustment of credit spread and compounding effect for

arriving at Fall Back Rate in line with regulatory guidelines. The proposed integrated Treasury solution should be able to compute the cash flows and MTM after such adjustments post migration. For contracts or trades to be continued in LIBOR till their discontinuation, the proposed integrated Treasury solution should be able to provide the Cash flow as per LIBOR as well in under new ARR mechanism. Such analysis is required for renegotiation of contracts mutually.

➢ Scope will cover the Valuation of all derivatives trades linked to SOFR or other ARRs post their migration. It should be able to provide the MTM valuation for all outstanding derivative trades linked to LIBOR till the time the respective LIBOR rates is being published. The MTM valuation frame work should be able to provide valuation for the outstanding deals linked to LIBOR under new ARR mechanism even if the respective LIBOR being still available. This implies the MTM of deals continued in LIBOR post 01.01.2022 shall be made available in terms of LIBOR as well as new ARR mechanism (SOFR or other applicable rates). All such valuation should be made available on daily basis.

➢ The proposed integrated Treasury solution should be able to run the necessary interest accrual for all outstanding derivative trades and lending/borrowing deals, irrespective of deals being linked to LIBOR/SOFR/other applicable ARRs on a daily basis.

2.14 Branch Portal

There are lots of operations which branch use to do like Rate Quote, Inward / outward forex transaction so there will be a requirement of Branch Portal which will be access by branches over intranet for the treasury related operation ((manual/automated way) at branch level. Bidder needs to factor the same in the proposed solution and must compile with the below functionalities so that these functions can be carried out in automated way through proposed solution –

INDIA Treasury Specific
1. Rate Quote Module: Quoting of rate and capturing of all related details of CBS system into Treasury solution
    a. Branch user will enter into Treasury system and asked for providing rate through maker-checker concept.
    b. Once rate provided by Treasury, the same shall be accepted by respective branch only through maker-checker concept.
    c. once it is accepted, treasury solution will initiate the txn in CBS through webservice along with rate as a part of cross currency transaction in CBS.
    d. Once transaction initiated and acknowledged by Treasury solution, system should knock-off the rate
    e. Outward in foreign currency from these accounts should be supported by the system along with accounting of the same in CBS without any manual intervention.
2. Limit Maintenance: Rate quote module requires the transaction margin data for each customer based on preset business rules and therefore the customer profile in CBS needs to be shared/replicated in treasury software so that the customer wise transaction have correct rate and data is captured appropriately.

HongKong Treasury Specific

1. Rate Quote Module: Quoting of rate and capturing of all related details of CBS system into Treasury solution
2. Limit Maintenance: Rate quote module requires the transaction margin data for each customer based on preset business rules and therefore the customer profile in CBS needs to be shared/replicated in treasury software so that the customer wise transaction have correct rate and data is captured appropriately.
3. Trade finance bills transaction also follows the similar logic as that of inward transaction.
4. For early realization of bills, the system should invoke the Rate quote module/Chat for incorporating Swap points and spot rate. The same logic is also to be used while cancellation/early utilization of Forward Contract. This shall eliminate the manual EDC recovery which is presently done Facility for opening of Customer id shall be available in the proposed Treasury applications after complying with all KYC/e-KYC norms. For all kind of treasury related transactions the customer id of the related party/counter-party details should be fetched from the CBS system as the same would be required for special Fx margin maintenance, customer exposure, Request for Quote integration and Fx transaction turnover computation.
5. Country wise/ currency wise/ Bank wise/ customer specific limit maintenance and monitoring of the same at Treasury system through STP mechanism which shall be in sync with CBS
6. Capturing the transaction details initiated under NOSTRO Mirror account
7. The data from Swift 940/950 message of Nostro Account statement needs to be synced on daily basis in Treasury software for reconciliation of mirror transaction processed at CBS with actual Nostro Entries.
8. Reconciliation of the outward entries should be automatic as the data is already available in mirror prior to the 940 statement
9. Reconciliation of the inward entries should be automatic by allowing the inward transaction to be initiated from the data uploaded by Swift MT 940 on a Portal along with all relevant details thereby eliminating the manual processing and manual reconciliation

Singapore Treasury Specific

1. Rate Quote Module: Quoting of rate and capturing of all related details of CBS system into Treasury solution
2. Limit Maintenance: Rate quote module requires the transaction margin data for each customer based on preset business rules and therefore the customer profile in CBS needs to be shared/replicated in treasury software so that the customer wise transaction have correct rate and data is captured appropriately.
3. Trade finance bills transaction also follows the similar logic as that of inward transaction.
4. For early realization of bills, the system should invoke the Rate quote module/Chat for incorporating Swap points and spot rate. The same logic is also to be used while cancellation/early utilization of Forward Contract. This shall

eliminate the manual EDC recovery which is presently done

5. Foreign currency asset and liabilities :Accounts in FCY initiated in CBS are required to be synchronized in both system on real-time basis. (Account ledger creation , closing , transaction accounting etc.)

6. Facility for opening of Customer id shall be available in the proposed Treasury applications after complying with all KYC/e-KYC norms. For all kind of treasury related transactions the customer id of the related party/counter-party details should be fetched from the CBS system as the same would be required for special Fx margin maintenance, customer exposure, Request for Quote integration and Fx transaction turnover computation.

7. Country wise/ currency wise/ Bank wise/ customer specific limit maintenance and monitoring of the same at Treasury system through STP mechanism which shall be in sync with CBS

8. Capturing the transaction details initiated under NOSTRO Mirror account

9. The data from Swift 940/950 message of Nostro Account statement needs to be synced on daily basis in Treasury software for reconciliation of mirror transaction processed at CBS with actual Nostro Entries.

10. Reconciliation of the outward entries should be automatic as the data is already available in mirror prior to the 940 statement.

11. Reconciliation of the inward entries should be automatic by allowing the inward transaction to be initiated from the data uploaded by Swift MT 940 on a Portal along with all relevant details thereby eliminating the manual processing and manual reconciliation.

2.15 Flexible User Interface Screen Design

The application should allow the flexibility to create and design customizedscreens with ability to select and add fields, apply rules on the fields (such as length, type of data, mandatory/non-mandatory, help function, dependencyon other fields and its values etc.), multi-branding with color, design, logos etc.

2.16 Data Entry/Capture, and Data Quality and Integrity Methodologies

The Solution should support the following data entry methodologies to minimizedata entry errors and improve data integrity. One should be able to choosethe data entry option for each type of transaction and change the same asand when required.

- Maker / Checker – One person should enter data, and another shouldauthorize the entered data. If the authorizer notices errors in data entry,the task should be returned to the data entry operator. Typically, all master table data entry should follow the maker / author route.

- The captured data stored in systems should be managed and monitored regularly through appropriate data quality and integrity toolsin place to ensure that the quality of the data is protected and managed effectively.

2.17 End to End Architecture

The Solution should have a complete end to end IT architecture covering the following architectural domains in detail:

- End to end solution architecture
- End to end information architecture (with enterprise data model) thatexplains how

data integration and interoperability is achieved between software components/modules.

- End to end integration architecture (leading practices with supporting integration patterns and standards used)
- End to end infrastructure architecture namely, hardware, network, storage, and security
- End to end security architecture
- The architecture should be documented in detail.

2.18 Application Security

The IT systems should have high standards of built in security to support thefollowing:

- Authentication
- Access control and authorization
- Session management to ensure that the user gets to access only thatdata for which he is authorized.
- Data access control
- Log maintenance and monitoring
- Data should be encrypted wherever necessary.
- Bidder should comply with requirements on Information Security, Data Privacy and Data Leakage as defined by Bank and Regulator from timeto time.
- Bidder should confirm compliance to these security requirements.

2.19 Security Management

1) The proposed solution should consider and address the following security management requirements:

2) The Bidder should ensure that the application and hardware components in scope are compliant with the Bank's security policies.

3) The Bidder is responsible for regularly updating the baseline security ofthe system as per the Bank's policies. Bidder should guarantee thatthere are no vulnerabilities in the deployed solution including customdeveloped components. There should be no back doors, Trojans or any such vulnerability.

4) The Bidder would be responsible for implementing the IT Security policydeveloped by Bank. This policy will reflect the regulatory compliancesexpected of the bidder based on the Bank's operations. Any deviationsto such model policies should be justified to the Bank for approval, the decision of the Bank shall be final.

5) The bidder shall develop and maintain a security configurationdocument for all the applications and systems that are implemented as part of this contract in accordance to the Bank's IT security policy.

6) The bidder is expected to implement a robust change management process to ensure that only business approved changes are made in the production environment. Prior to any change being done on the production environment including servers, applications, databases and network components, a proper risk assessment needs to be carried outand the results to be documented for review and approval.

7) The Bidder will ensure and incorporate all necessary security and control features within the application, operating system, database, etc. so as to maintain integrity and confidentiality of data at all times. Any suggestions from the Bank in consonance with regulatory authority of India, Hongkong, Singapore, RBI, MAS, HKMA and Bank's CISO will have to be included by the Bidder without any additional cost.

8) The bidder shall be liable to comply with all the legal requirements defined by RBI and Indian Government.

9) The servers should be hardened to the highest level by removing all vulnerabilities.

10) Encryption of passwords and sensitive data during transmission as well as storage of passwords &sensitive data in the database should be supported.

11) Strict password policy/mechanism of the Bank should be supported.

12) Bidder to avoid request for any sort of remote access to the application / Database for development / testing / support requirement.

13) Before go-live, application shall be subjected to VAPT and post implementation audit by Third party vendor. Compliance to audit observation needs to be ensured by the vendor before go-live of the application.

2.20 Implementation

- The Bidder will have to ensure that the software provided as part of theproject meets all the requirements described in detail in the functional and technical requirements. The Bidder shall provide all statutory andregulatory reports as required by the Bank in the desired format as partof implementation process. Any interfaces arising out of business needsshould be made available to the Bank at no cost during the contractperiod.

- In the event of any deviations/discrepancies/errors observed, the bidder has to successfully rectify the deviations/discrepancies/errors reported within the stipulated time.

- During Implementation bidder needs to take care to abide by the statuary and Regulatory guidelines of the respective country Authorities.

2.21 Independent Third-party Review of Configurations, Audit and Model Set-up

The Bidder will onboard a 3rd party and provide an independent review of the configuration set-up of the CIGTMS, using reputed third parties with relevant experience in this area. The review should ensure that the set-up of the CIGTMS particularly conforms to leading practices and market conventions. The cost for this review will beseparately included in the bill of materials submitted by the bidder.

Additionally, the independent third-party review will comprise the following:

- Configuration of instruments done by the vendor should be reviewed byindependent party

- Models' setup for valuation and risk measures should be independentlyvalidated by a third party

- The third party should have experience of validating models independently on statistical platforms like R or Python

- The Third party will also perform Configuration review, VAPT, IS Audit, implementation Audit (OS/app/web/db/middleware server), compliance to the

Functional and Technical Specifications 2 times i.e Pre and Post Go-Live

- The Bidder needs to be take care that the Third Party Audit report should be based on the parameters as defined in CIS Benchmark and all the parameters needs to be audit according to the CIS Benchmark.

2.22 Auditing

All actions and activities performed within the system should have a full audit trail that not only simplifies troubleshooting and problem resolution but also provides an audit document to pinpoint accountability. The application architecture should also provide for easy drill down and scale up of information.Business logic should be available and verifiable "as of" a particular point in timeto support comprehensive auditing requirements.

There should also be proper audit trail of addition, deletion, modification, activation, deactivation etc. of users and their system rights. In addition there should also be proper audit trail of addition, deletion, modification, at the record level showing the changes, users, date and time stamp. In this regard, it isto be noted that system should be capable of maintaining of all historical data along with audit record.

The system should have the ability to generate a detailed audit trail on a daily basis for the following minimum features for all the functionalities available in theproduct and customization solution:

a. Attempted unauthorized logins
b. Time of login and logout
c. Change of passwords
d. Change of parameters
e. The audit trail should be at a granular level, and track the user across eachactivity
f. All transactions should be time stamped with user ID along with details of modification, if any.
g. Details of databases accessed and modified by the users should be maintained by the system.
h. The system should have the ability to store and track all system events,including corrections and cancellations by multiple criteria.
i. The system should maintain an error log in case of missing and/or erroneousdata.
j. The system should maintain an error log in case of missing and/or erroneousdata.
k. Able to generate statement & reports on audit trail & logs as mentioned above

2.23 Integration

i. The Bidder is expected to configure seamless integrations between other upstream/downstream systems through industry standardtechniques.

ii. The Bidder will be responsible for fault detection and rectification. The Bidder is responsible to ensure that the integrated systems are fullyfunctional.

iii. Bidder needs to coordinate with all the vendor and do the require changes in the CIGTMS solution.

iv. Bidder needs to note that the integration needs to be automated without any manual intervention as much possible through API / STP only.

v. Below is the list of the existing and the future integrator system which bidder needs to do. Bidder needs to factor all the cost of these integrator.

1) FX Dealing platform: Bloomberg, Refinitiv (Thomson Reuters), Tradeweb,

JPMorgan, Barclay's, 360T, SCB, Wells Fargo or any trading platform which are currently available or will be available in near future

2) CCIL Dealing platform: TREPS, ASTROID, OIS/RIS, Currency Futures

3) Core Banking System of UCO Bank

4) Market data providers

5) Centralized Information Management System

6) Active Directory

7) Notification Channels

8) Security Information and Event Management (SIEM)

9) Business Intelligence (BI)

10) External Holiday Calendar

11) Operation Support System

12) Initiation of transaction at Finacle through ISO followed by SWIFT message generation

13) STP integration between Treasury application and Finacle for identification, down gradation & upgradation of NPI & NPA respectively on real time basis.

14) SWIFT messaging Reconciliation system

15) E-Blotter

16) Retail-FX

17) MIS and ADF

18) CCIL Settlement

19) CLS Settlement

20) ALM system

21) IRMA from CRISIL

22) XSTP (NSE)

23) Fund Transfer Pricing System

24) Anti-Money Laundering System & Tarde based Money Laundering system (Domestic & Overseas), EFRM application, SWIFT-XMM application

25) Manual Data (Excel / Text Files)

26) Finacle Core (Domestic & Overseas)

27) RTGS

28) Trading Platforms

29) SWIFT Message Reconciliation Application

30) Daily Basis FIMDA/FBIL, Fedai, NAC, BSE Price

31) All sources of Risk-Free Rates

32) Any other source not specified above

33) All the Overseas/Domestic subsidiaries
34) All non-Banking entities

2.24 Testing & Data Migration Audit

- The bidder may engage an independent 3rd party with experience of conducting UAT for treasury solution in a Scheduled Commercial Bank in India to conduct testing

followed by System Integration testing and assist the user in carrying out User Acceptance testing.

- The testing agency should possess experience in areas of CIGTMS functionalities for conducting the functional / UAT testing of the proposed upgrade.

- Testing agency should have field level pre-& post data migration testing experience on CIGTMS, and this experience should be with use of a testing tool.

- Testing Agency testing team has to engage during the implementation stages. The external testing agency and bidder will completely be responsible for end-to-end UAT and data migration audit.

- Testing agency will have to report on field level variances, if any.

- The testing agency shall be required to arrive at Test Methodology in consultation with the Bank, based on a standard which is suitable for the Bank and perform UAT on behalf of the Bank. The external testing agency will completely be responsible for end-to-end UAT

- Bidder needs to note that training need to be conducted by the bidder through automated tool as well as manual.

- The Bidder is expected to set up a test environment which shall support simultaneous testing and installation of applications including the customizations as per Bank's requirement and replication of production data in the test server. The Bank expects the test environment to be available to the Bank at all times, for the purpose of testing. The Bidder or 3rd party are expected to provide requisite test and development infrastructure.

- The Bidder or 3rd party are responsible for preparing detailed test cases including test data.

- The Bidder or 3rd party are expected to assist the Bank in conducting all the tests and analyzing /comparing the results. The Bidder shall provide full-time resources conversant in all business areas, for troubleshooting during the entire UAT process.

- Any deviations / discrepancies / errors observed during the testing phase should be formally recorded and reported by 3rd party and bidder is expected to resolve within the mutually agreed period.

- The Bidder will be responsible for maintaining appropriate program change control and version control for all the modifications / enhancements carried out during the implementation /testing phase and all future releases.

- The Bidder will be responsible for providing and updating system and user documentation as per the modifications.

2.24.1 Testing Scope:

- External testing agency team will be responsible for performing below activities for CIGTMS solution:
  - o Perform System Integration Testing
  - o Perform User Acceptance Testing
  - o Perform Critical field level testing (Pre-& Post)
- Development of suitable testing methodology/testing strategy document

- Development of test cases in consultation with Bank and according to the functional and technical specification excel sheet as well as signed SRS.
- Test cases must include testing on calculations, fees & charges, EOD/BOD, Interest application etc.
- Development of test calendars.
- Execution of all the test cases.
- Agency needs to provide test cases to Bank (at least 8000) mix of positive and negative and take approval from Bank on the same. Bank will review the same and can add more test cases to the list.
- Bidder needs to accommodate the test cases suggested by the Bank.
- Development of entry and exit criteria for the testing.
- Development of detailed test scripts in UAT environment.
- Train the Bank's team in test script development and testing methodology.
- Test the application software's for functionality, operational convenience, security, and controls. This will also include the positive and negative cases for each type.
- Test Data preparation for all testing in scope.
- Testing will be done on LAN as well as WAN environment including HO, CO and Branches as desired by Bank.
- Record the test results against the test cases tested.
- The testing should also ensure conformity to:
  - Existing functionality already running.
  - Testing of all the customizations done including reports, etc. in the existing version Fare working as per expected.
  - All the customized Interfaces are working as per expected.
  - All the functionality working properly as per the Functional Requirement Specifications Manual provided by OEM.
  - All Interface testing with all types of transactions pertaining to that interface
- Point out gaps, errors, bugs during testing.
- Document the gaps, errors and bugs observed during testing.
- Maintain a track of errors, bugs and customization request and their resolution.
- Explain the bugs, errors and gaps to the Bank and application vendors.
- Follow up with Application vendor for fix or patch.
- Re-test the gaps, errors and bugs after rectification.
- Assist in Sign – off on the customization
- Assist in Sign – off on the user acceptance test.
- Submit all documents on methodology, strategy, test cases, test documentation, customization requests, solution etc. to Bank.
- Conduct System Testing, Integration Testing of the entire functionality of the solution.
- Vendor is responsible for end-to-end testing and UAT activities within schedule timeline.
- Testing must include test cases on calculation and apply of charges, EOD / BOD,

interest application,

- Batch job execution, month end / half year end and yearly EOD / BOD, demand generation response time etc.

- All the testing will be carried out by Vendor in coordination with Bank Team.

- Acceptance testing shall broadly cover the testing of the new version functionality, all interfaces to verify that the proposed solution conforms to the business & technical requirements and Gap analysis.

- Once the bugs are fixed, or necessary rectifications are made and deliver patches/version towards changes, testing team shall re-do the open test cases for closure.

- Testing team shall capture all the relevant screen shots for all the test cases executed (Pass/fail cases).

- The Bank shall accept the application software only after the critical or major Bugs are fixed, which are then ready for production Implementation.

- Testing Team shall perform end to end testing during Oracle version upgrade and Single byte to multi byte conversion.

- Data Testing with the help of tool on pre-& post migration state of data

- Identify the critical fields (Up to 200) from CIGTMS solution for field level data migration testing in both pre and post migration environment.

- Final compliance report for data migration testing.

- Testing agency / Bidder's testing team will test all instruments as per the functional specifications of the RFP.

2.25 Training

Bank believes that training imparted to Bank's personnel is a very important component for the successful implementation of the CIGTMS and other applications. The OEMs of the Treasury solution are required to provide Executive Training, Core Team training and Technical User Training to the Bank's team and the same should be factored in the commercials. End user Training can be provided by bidder resource or OEM resource. Further, the Bidder will be responsible for training designated Bank staff, including but not limited to the following areas:

- Functionality available in the solution

- Customization features developed

- Parameterization methodology

- User administration

- Comprehensive troubleshooting techniques commonly faced by users of the product

- Techniques of generating various reports from the solution provided

- Training for creating new reports and modify existing reports using the report writing tools

- Log analysis and monitoring

- Incidence analysis and reporting

- Complete technical training

- The Bidder should provide a detailed training methodology & schedule to the Bank for review and sign – off prior to commencement of the training.

S.no	Training Type	Min No of Days / Week per Batch	Batches	Min No. of Trainees per batch
1	Executive Awareness	1 day	1	15
2	Core Team Training	15 days	5	10
3	End User Training	5 days	10	15
4	Technical User Training	15 days	2	15

- The Bank will arrange for the training in either Kolkata or Mumbai Centers. The Bidder will be responsible for providing the users with the requisite training material in both hard and soft copies for the core team as well as for the end users. The onus of preparing the training material will be on the Bidder.

- Bidder will be expected to deliver to the Bank one (1) physical copy and one (1) electronic copy (through CD / e-mail) of documentation for each of the deliverables and online context-sensitive help module included in the application to enable the Bank's personnel to use and understand the operations of the deliverables. The Bank may make additional copies of the Bank- specific Documentation for their internal use

- The Bidder will be responsible for preparing, circulating and collecting training feedback forms from the participants.

2.26 Data Migration

- The Bidder will also be responsible for formulating the "Data migration strategy" and process documents.

- Bidder will be responsible for the migration of the data from the existing application and data from other sources to the new environment.

- Bidder needs to migrate all the legacy data into the new system and if at all during strategy it been decided that only active data needs to migrate all History / Legacy data should be converted or stored as it is for the purpose of view and reporting on a separate system and necessary views/reports should be made available to the Bank.

- The vendor to liaise, interact, develop tools, correspond etc. with the existing treasury system vendors to obtain the data as desired by the CIGTMS. Bank will facilitate the process to liaise the newly on boarded vendor with existing ITMS vendor to get necessary support for migration of legacy data & interface details according to the data migration strategy

- It will be the responsibility of the bidder to extract the data from the legacy system.

- Since the Singapore and Hongkong system are mostly having manual data bidder needs to provide template to the Bank so that Bank can provide the data in those

templates for upload.

- The template made by the bidder should be error free and have all the micro and check inbuilt to avoid any errors.

2.27 Simulation Run

- Vendor has to provide the simulation plan for a comprehensive plan to conduct multiple simulation activities. The bidder should conduct the simulation, provide support during the simulation.

- Switch over from DC to DR and vice versa should be conducted during simulation

- All the defects, errors reported should be closed by the bidder. This process has to be conducted multiple times, to ensure that all the errors are closed within the stipulated timeframe

2.28 Roll out plan

- Bidder should plan the complete parallel run activity and roll out of the solution to the Production environment

- The Bidder is expected to provide a roll–out plan

- Since the roll out will happen in 3 different countries bidder needs to factor the resources accordingly

- Bank expect that at least 2 resources per site (Mumbai, Singapore & Hongkong) center must be deployed during Phase 1 of the UAT period to hand hold the users and to sort out the issues.

- Post go-live onsite application support for roll out under Phase 1 shall be provided for 3 months at Singapore centre & Hongkong Centre during business hours and in case of emergency for extended hours also in addition to the L2 Treasury Application Support during Sustenance Phase. Bidder needs to note that during this 3 month period bidder needs to factor 1 Treasury application OEM resource onsite at Mumbai Treasury.

2.29 Program Management and Independent PMO

The bidder is required to provide project management & governance for the scope of the RFP throughout the tenure of the contract. Project Management activities will be carried out by bidder with support from the Bank as required. The Project Management Office will address the overall allocation of work packages and direct co-ordination of activities and portfolio governance. The Bidder should follow an industry standard Project Management methodology which has been agreed with the Bank. The Successful Bidder shall develop and implement a governance mechanism to institutionalize and effective approach towards planning and organizing, acquiring and implementing, delivering and supporting and monitoring service performance of the services deployed in Bank to support its business requirements and objectives.

One dedicated PMO resource should be deployed at Kolkata, Bank's Head office, from bidder's side who must be flexible to travel at Mumbai, Bangalore, Hongkong & Singapore location, for multiple times, as and when required and asked by Bank without any intervention of bidder or OEM, for the CIGTMS solution for the entire implementation period till go-live. Bidder should factor the cost of all kind of expenses inclusive of professional services fee, airfare, accommodation, local transportation, per diem, passport, visa and other incidental charges

of PMO resource. The resource will work directly under the supervision of the Bank and will help Bank in the below mentioned activities –

1) Steering committee update
2) Hardware / Software Acceptance
3) Day to day update and issue resolution
4) Assist in review and finalization in SRS & Blueprint design
5) Assist in review and finalization of data migration strategy
6) High Level Design and Low-Level Design Review
7) Assist in review and finalization of the training strategy
8) Review SOPs, user manuals and technical documentation of all systems
9) Assist in review of the detailed architectural deployment document
10) Assist in review to finalize of the test cases for testing
11) Assistance in Go-Live
12) Assist the Bank in closure of issues pending for resolution
13) Review the resolution provided by the vendor and offer the solutions to the Bank based on the industry best practices.
14) Review the progress made in the implementation of the project
15) Monitor closure of gaps and customizations as per delivery schedules
16) Assist the Bank in defining the rollout schedules.
17) Assist in review of the detailed architectural deployment
18) Managing Timelines tracker
19) Managing Issue Tracker
20) Managing Penalties and SLA
21) Review the coverage and the quality of the documents
22) Attend call and meetings with existing and new vendor

The bidder shall setup a program management office (PMO) to manage the delivery of the systems and services as requested by Bank in this RFP. The Bidder shall have a dedicated Program Manager who will be responsible for the delivery of the program and providing weekly, monthly updates to Bank's management and various committees.

- The Bidder PMO team shall work with Bank's team and facilitate program level reviews as requested by Bank's team.

2.29.1 Principles of Governance

For managing the operations effectively and meeting the contractual requirements and SLAs, Bank proposes to set-up governance mechanism with following principles. The Bidder will assist Bank by adhering to the below principles:

- Bringing focus and discipline in governance mechanism.
- Setting clear policies and procedures.
- Strengthening ethics and accountability.
- Continuous vigilance and adaptation.
- Strong financial oversight.
- Independent audits to bring more objectivity.
- Strong quality checks

2.29.2 Indicative structure of governance set-up

The Successful Bidder is required to develop the framework and capacity for making and implementing decisions required to manage and control IT Infrastructure and services

monitoring and management within the business. IT Governance scope shall encompass the structures, processes, responsibilities, decisions for operation of IT Infrastructure and services monitoring and management. The Successful Bidder shall be provided with Bank' existing Policies/procedures/SOPs etc. which can be used to develop governance and Quality framework for IT services management in Bank. The Successful Bidder should propose an organization structure with regard to governance of the Contract.

2.29.3 Performance management and reporting

The Successful Bidder shall be required to report on the services offered to Bank on a periodic basis or as and when required by Bank. The Successful Bidder shall provide reports/ data that would include but not be limited to:

- Performance report with respect to all service levels;
- Report of the ongoing and planned changes performed;
- Any ad-hoc report that may be required by Bank;
- Periodic reports to governance committees;
- Quality adherence reports

These reports would compare the quality of service provided with the defined/target SLAs. The list of reports will finalized with the Bank during the first 3 weeks of the project. During transition, reporting and review of performance metrics shall be carried at mutually agreed frequency (to be decided along with Service Provider). The template and any other reporting requirement shall be agreed on mutually. In addition, the Successful Bidder will provide assistance to Bank for audit/compliance related requirements, including but not limited to:

- Providing sample data as required within the timeline; and
- Coordinating with other sites for providing data samples.
- Setup the project management office and framework comprising of:
  o Project charter formulation
  o Project risk analysis
  o Assistance in project management and project delivery team identification and resourcing
  o Change management procedures
  o Project planning and detailing
  o Project quality management procedures
  o Employ a formal project methodology on all projects undertaken with the level of detail and control scaled appropriately to the magnitude of the project effort and adhere to all project management processes and procedures
- Project Manage the following phases of the project:
  o Current State assessment
  o Business parameterization
  o Gap analysis and Customization
  o User Acceptance testing
  o Data migration if any
  o Go-live/ Rollout
- Closure of issues pending for resolution
- Measure the progress made in the implementation of the project
- Track customization and gaps

- Monitor closure of gaps and customizations as per delivery schedules
- Provide regular updates to the steering committee and board as required by the Bank
- Participate in all technical and functional discussions relating to the projects
- The bidder is required to project manage the Go-Live and provide executive reports.
- Bidders need to provide escalation matrix for all projects at the time of Kick off meeting.
- Architecture validation, review and reporting for the proposed solution
  - Infrastructure, proposed architecture validation, configuration, installation, review of deployment, visibility & detailed reporting.
- Program Management assistance in the installation, implementation, configuration, testing and go-live for infrastructure & applications (the proposed solution).
- Program management of the quarterly DC – DR drill. As part of the exercise, a detailed pre-drill report needs to be shared evaluating the Processes, dependencies, risks, contingencies, and dependencies. Post drill report capturing the events of the DC-DR drill including success/failure of instances, validation of the root cause analysis, evaluating resolutions including impact assessment, etc.
- Project Status meeting, steering committee meeting etc. needs to be done with Bank stakeholders and bidder on mutually agreed timelines

2.29.4 Quality Assurance (QA)

Scope related to Quality Assurance (QA) shall include:

- Developing and employing a quality assurance program, subject to Bank approval, designed to promote performance of the scope of work with a high level of quality, focusing on measuring and improving reliability, speed, cost effectiveness, and customer satisfaction.

- Writing and maintaining procedures and measurements on all quality assurance activities associated with the work. Ensuring that the quality metrics and procedures employed are consistent with similar standards in Bank's peer group and/or in the provision of similar professional services.

- Ensuring compliance with a published quality assurance program, with adequate internal controls and verification activities.

- Conducting periodic quality audits of the work rendered.

- Documenting audit findings and remediating non-conformances within a stipulated time period. Allowing Bank to perform audits that will focus on the Successful Bidder's adherence to its quality assurance procedures and standards; on the metrics gathered to support quality assurance activities; and on the Successful Bidder's efforts to improve overall quality. The Successful Bidder will cooperate fully and assist Bank with any such audits by the Bank, its agents, RBI and any other statutory/regulatory bodies

- Bidder needs to engage a Third party for the same.

2.29.5 Suggested Governance Structure

Governance Layer	Governance Participants		Responsibility	Review Frequency
	UCO	Service provider		
Steering Committee	General Manager IT, DGM IT,	Executive Sponsor	1. Define strategic objectives 2. Ensure continual executive 3. Performance reporting 4. Issue resolution (Final escalation level)	Quarterly/ Semi Annually
Program Management	Chief Manager Head-IT (Infrastructure & Application)	Program Manager	1. Account Management 2. Monitor service delivery 3. Single point of contact for issue escalation 4. Issue resolution (Intermediate escalation)	Monthly
Operations Management	Operations Managers	Managers	1. Issue resolution and escalation 2. Manage people issues 3. Plan, track and review SLAs 4. Plan and track timelines	Weekly Monthly Quarterly

2.30 Software Licenses

The bidder shall supply the software & licenses for the proposed solution required for successfully operationalizing the solution proposed in the bid. All licenses has to be procured/supplied by the bidder in the name of UCO Bank only and proof of the same shall be submitted accordingly either through Software license agreement or through End-User-License-Agreement which must be executed between Bank and OEM. Otherwise e-license or paper license shall be issued by OEM as a proof of the same.

The Bidder may use the information provided in the RFP to estimate the requirements for the proposed solution. The bidder should consider implementation timeline while sizing the licensing cost for the different modules.

The following considerations must be taken for supply of software.

a. All software envisaged is required to be on-premises software licensed to UCO Bank.

b. The bidder should provide enterprise wide/ perpetual / subscription-based licenses for the proposed application in the name of UCO Bank only.

c. The software supplied must be the latest version of the software supplied by the OEM.

d. Beta versions of any software shall not be accepted.

e. The bidder must consider the disaster recovery environment while proposing the software licenses.

f. The successful bidder should provide comprehensive warranty and ATS for proposed solution, including other software, associated modules and services required to meet the requirements in the RFP. The period of warranty shall be of 1 year for the proposed software and application licenses provided by the bidder. The warranty shall start from the date of Go Live and sign off by the Bank. The ATS will start after the warranty period.

g. During warranty period –

i. The OEM may from time-to-time release Updates/Upgrades/New releases/New versions and notify the Bank about the same. The Bidder agrees that all such Updates/Upgrades/ new releases/New versions, as and when released during the term of warranty will be implemented without any additional cost to the Bank.

ii. The warranty also includes all software (critical hot fixes, service packs, and all upgrades/updates) of all components supplied as part of solution, wherever applicable.

iii. Warranty also includes statutory or regulatory (specifically for RBI, MAS & HKMA or any other regulatory authority or any statutory country specific guidelines where Bank is engaged in doing business) changes at no additional cost to the Bank.

iv. Any modification which needs to be done as per the finalized scope of the RFP or any bug or error fixes

h. The ATS support for Solution should include the following:

i. Any kind of Enhancement, modifications, customization, patches, upgrades within the implementation (before go-live sign-off) period under the purview of existing scope of work due to statutory, regulatory, industry, changes will be provided at no additional cost to the Bank. Post go-live, any minor enhancement /modifications / customization /patches /upgrades on the existing implemented module/ functionalities/ instruments due to any statutory or regulatory (specifically for RBI, MAS & HKMA or any other regulatory authority or any statutory country specific guidelines where Bank is engaged in doing business) changes shall be provided at no additional cost to the Bank. However, only major version upgrades, if required by the Bank will be undertaken as per mutually agreed terms and conditions and cost.

ii. Program updates, patches, fixes and critical security alerts as required

iii. Documentation updates

iv. Support for application related malfunctions as defined in SLAs and ability to log requests online.

v. The OEM must conform to a response time aligned to service levels defined in section Service Level Availability and Monitoring.

2.31 Sizing of infrastructure

- The successful bidder is required to provide the necessary hardware (Server, Storage, OS and Database etc.), to operationalize the complete Solution as proposed in the bid.

- The Bidder shall confirm/ certify that the hardware offered by them for Solution should be adequate to fulfil UCO Bank's requirement and is as per the industry best practices.

- Bidder needs to do adequate sizing as per the Parameters provided in the RFP to maintain the SLA of the RFP for the duration of 5 years (as per the data points mentioned in this RFP). In case of any short fall bidder has to provide the same without any additional cost to the Bank.

- All the ATS and AMC of the software and infrastructure supplied through this RFP needs to be factored by the bidder. All bug resolution / issue fix/ patch management and all coordination with OEM needs to be done by the bidder.

- The Bidder is required to maintain all in scope items for all the environments. Bidder is required to perform vendor management during contract duration.

- Bidder should specify various infrastructure requirements well in advance before delivery of hardware & software which need to be provided for commissioning and smooth functioning of the equipment. This will include site requirements, power requirements, network requirements, UPS, environmental conditions, illumination etc., so that

- Bank can arrange accordingly at the desired premises. Bidder needs to note that Bank will only provide the Rack Space, Power, Network, port, EMS, Anti-virus and cooling. All other things are Bidder's responsibility. Bidder in there technical Proposal needs to mentioned the required number of EMS & Anti-Virus license.

- All the hardware and software to be supplied/proposed must be IPv4 and IPv6 compliant wherever applicable.

- Bidder will be responsible for sizing for the proposed Solution. The sizing needs to be done based on Bank's requirements, optimized power usage and scalability.

- The Bidder is required to maintain all in scope items for all the environments. Bidder is required to perform vendor management during contract duration.

- Any other hardware and peripheral software like Database etc. need to be implemented and maintained by the bidder throughout the tenure of the contract.

- The hardware technology proposed for the Solution should be enterprise class, best of the breed, latest, tested and stable release of OEM vendor and based on the latest platform enabling technology.

- The Bidder needs to size, design, commission and maintain the hardware and related software for all the applications supplied in the RFP for the period of contract required as per the RFP.

- Bidders need to submit a detail architecture of - over all solution and while designing the solution bidder has to keep in mind that architecture alignment is as per the Architecture shared in the RFP.

- The bidder shall propose hardware sizing such that at any point in time during the contract period, the average CPU, Memory utilization should not exceed 70% during business hours and storage space utilization should not exceed 80%. In case the server resource utilization exceeds 70% during business hours or storage space utilization exceed 80%, the additional hardware has to be provided by the successful bidder to optimize the performance, within the indicated timelines, at no further cost to the UCO BANK.

- In case the Utilization of the Sizing including Storage, Server, CPU, RAM, Memory exceeds as per the SLA defined the bidder is liable to pay penalty as well as needs to augment the hardware according to the requirement as mentioned in Annexure XXV - Sizing Adequacy Letter

- If the threshold mentioned for server or storage exceeds more than 3 times in a quarter during business hours then the successful Bidder is required to upgrade the hardware/solution, within one month without any extra cost to the UCO BANK. Also, bidder needs to pay penalty as per the Annexure 18- Sizing Adequacy letter

- Bidder needs to note that minimum baseline sizing of the environment and all the layers of application has been provided in the Annexure XXXII. Bidder needs to independently arrive on the sizing based on the parameters, projections and SLA mentioned in the RFP but needs to adhere to the Minimum sizing mentioned in Annexure XXXII

- The quantity of the hardware components should be as per the solution proposed by the bidder. The following considerations need to be taken for sizing:

  - All the hardware and software to be supplied/proposed must be IPv4 and IPv6 compliant wherever applicable.

  - Bidder will be responsible for sizing for the proposed Solution. The sizing needs to be done based on UCO Bank requirements, optimized power usage and scalability.

  - Compliance to specifications mentioned in the RFP and any regulatory or statutory requirement.

- In the event, that the proposed sizing is not able to meet the performance standards specified in the RFP, at the time of go live, the successful bidder will be required to augment/ upgrade the hardware & software components in the solution to ensure that the performance requirements are met. The additional hardware equipment & software shall be provided by the successful bidder at no extra cost to UCO Bank.

2.31.1 Environments

Logical separation / Virtualization for UAT, Test & SIT, Development and Training can be done in a dedicated non-production environment. The bidder should note that the production and nonproduction environment should be physically separate. **However, a common storage may be proposed for production and non-Production environment with different LUN/volumes in DR site**. The licenses should be provided to meet the requirements of the contract, during the period of contract.

Bidder can provide CIGTMS solution for 3 different centers viz. India, Singapore & Hongkong either through single instance multi entity setup or through 3 independent single entity single instance setup. If bidder is providing 3 independent single entity single instance, then in that case all 3 environment should be separated from each other either through physically or through software driven virtualization. In both of the scenarios (Single instance multi entity setup or single entity single instance setup) mentioned bidder needs to stick to General Data Protection Rules and Regulation of the respective country and their respective regulatory authority RBI, MAS & HKMA. If any deviation in any of the guideline's as on bid submission date bidder need to correct the same at its own cost and Bank will not pay any cost of the same. However, the Infrastructure will be deployed in UCO Bank DC and DR.

- DC data should be automatically propagated online through asynchronous replication to DR site.

- RTO of 2 hours and RPO of 30 minutes should be provided

- Fail over should be allowed only as per the DR policy of the Bank

- Bidder shall design and implement data synchronization procedures for the DR Site.

- Periodic testing and drills shall be conducted to ensure that all replication and data synchronization procedures are in place all the time. In case of disaster at primary site / production site, DR site is to be made operational. Bidder should carry out DR drill on every month basis or as per Bank's policy.

- Production at DC and DR (100% compute and storage capacity of DC)

- The Test & SIT, training and development servers should be minimum of 20% respectively of the size of the production as per the fifth-year sizing however the database size will be similar to production database size

- The UAT server should be minimum of 40% of the size of the production as per the fifth-year sizing however the database size will be similar to production database size

- All the Non-Production Environment should be physical separated from the Production Environment.

- Bidders need to ensure that UAT and Training environment should be in sync with Production environment in terms of master data and sources. All the customization / enhancement / products / parameter change needs to be applied in these environments on periodic basis which should be weekly for training environment and

monthly for UAT environment. Bidder needs to ensure that all the master data such as customer information and balances needs to be masked before releasing the Non-Production environment to the end user. Non-Production environment here refers to UAT, Test & SIT, Development and Training.

- Bidder should arrive at the sizing independently. In case, the sizing quoted by the Bidder fails to meet the necessary services, Bank will not bear any cost for upgrades or replacements. Also, during the contract period, growth of the Bank should be considered and thus, the appliances proposed should have enough CPUs, memory and storage available to accommodate the predicted sizing required.

- The Bidder will be completely responsible for supply, installation, configuration, customization and maintenance of complete solution for the contract duration. The Bank, at a later date, will not make any additional payments for the solution provided by the Bidder.

- All kind of databases (for production and non-production environment) should be quoted under Enterprise edition. Bank is already having ULA with ORACLE for the below components as mentioned in the RFP. Bidder who are proposing below components needs not to factor any amount for the same in bill of material however the sizing (no of Licenses) needs to be provided. The licenses for Oracle components as proposed by the bidder will be shared by the Bank. In case during contract period if bidder require a greater number of Licenses for these components Bidder needs to provide the same at no additional cost to Bank. In case if the proposed application is compatible with any other enterprise level database other than Oracle then the number of licenses and cost for the database license and ATS should be quoted in the commercial format in the respective fields.

#	Product Description	License Type/ Term
1.	Oracle Database Enterprise Edition	Processor/ Perpetual
2.	Oracle Partitioning	Processor/ Perpetual
3.	Oracle Diagnostics Pack	Processor/ Perpetual
4.	Oracle Tuning Pack	Processor/ Perpetual
5.	Oracle real Application Cluster	Processor/ Perpetual
6.	Oracle Advance Security	Processor/ Perpetual
7.	Oracle Data Masking and Sub-setting Pack	Processor/ Perpetual
8.	Oracle Advance Compression	Processor/ Perpetual

2.31.2 Backup Solution

Bidder needs to propose a new backup solution which needs to be in compliance with the technical specification mentioned in the functional & technical specifications. Bidder needs to Supply, install, implement, and provide AMC/ATS support for new back-up solution for the period of contract. Bidder needs to factor 200 cartridges for the project, any additional cartridges will be provided by the Bank. The new backup software will be used for the doing backup of the DB, Operating system & Application. Bidders need to proposed capacity-based / Host-Based license for the new backup solution as per the below details:

The new solution should fulfil Bank's daily back-up requirement for next 5 years for the proposed solution.

1. Supply requisite hardware with accessories, software & licenses
2. Study existing environment and prepare detailed design documents for:
   - The deployment / installation of each of proposed Backup Solution
   - Implementation of Backup solution and Tape solution with a detailedbackup plan. Install, configure, and integrate Backup solution with hosts
3. Install, configure, and operationalize of backup software, tape library, serverand appliances at DC
4. Integrate, configure, and operationalize backup solution with the Tape Library
5. Prepare detailed implementation plan with installation/implementation documents (with all screenshots).
6. Provide monitoring and management application for the proposed solution
7. Backup solution configuration and backup
8. Complete configuration and architecture diagram for the solution.
9. File system and Database Backup Daily policy which is incremental.
10. File system and Database Backup weekly policy which is full.
11. File system and Database Backup monthly policy which is full.
12. Onsite tape management will be under the purview of the bidder however at offsite Bank will facilitate the storage at identified location.

#	Backup Client	Application	Backup Frequency	Backup Type
1	DB and File System	All	Daily	Incremental
2		All	Weekly	Full
3		All	Monthly	Full

2.31.3 EMS Tool for Server Monitoring and Ticket logging

Bank is already having an EMS tool of M/s Microfocus along with requisite hardware which will be augmented to bidder for tacking and monitoring the SLA and response time of the call logged by the users. Integration of the proposed solution with existing EMS tool will be the responsibility of the bidder. Bidder needs to quote the number of licenses required for integration with existing EMS tool which is covering features like call & helpdesk management, change management, patch management, asset management (DC, DR infrastructure and network devices) along with Server, database monitoring & network monitoring, overall reporting Bank as a whole irrespective of any location.

2.32 Escrow

a. Subject to payment of fees for the escrow set up and annual updates by the Bank and verification by an independent consultant, the Bank and the OEM/bidder shall agree to appoint an escrow agent to provide escrow services for the deposit of the source code for the Treasury software product licensed/procured by the OEM/bidder to the Bank in order to protect its interests in an eventual situation that may arise. The Bank and the OEM shall enter into a tri-partite escrow agreement with the designated escrow agent, which will set out, inter alia, the events of the release of the source code for the software and the obligations of the escrow agent. As a part of the escrow arrangement, the company is also expected to provide a detailed code documentation of the Treasury solution which has been duly reviewed by an external independent organization / consultant of the Bank.

b. The escrow arrangement suggested by the OEM shall not be binding on the Bank. The Bank reserves the right to explore alternate escrow mechanisms based on the Bank's existing practices. The Bank and the OEM may enter into such escrow arrangement that is mutually agreed upon by the two parties.

c. In case OEM have its own ESCROW arrangement then the entire cost shall be borne by the bidder/OEM. In case if OEM does not have any escrow agreement, then the costs for the Escrow will be paid by the Bank directly to Escrow agent.

d. In Case OEM is having its own Escorw agreement then Bidder needs to submit an undertaking from OEM stating that OEM is already having an escorw agreement with the details of the Escorw agent. In the same declaration OEM needs to confirm that Bank will be party/beneficiary of the said Escrow agreement if bidder declare as successful bidder. This undertaking needs to be on OEM letter head signed by OEM authorised signatory.

e. The source code in escrow will be released to the Bank and shall be licensed to the Bank to use the source code for the purpose of maintaining and developing the software for its internal business requirements in the event that the Agreement/SLA is terminated for either default or insolvency or should the Company cease, or give notice of intention to cease to provide maintenance or technical support service for the software as required by the Agreement.

f. The proposed agreement, to be executed between Bank, OEM and Escrow Agent, should ensure that the Escrow Agent is under an obligation to handover the Source Code to Bank merely on a demand from Bank, without any reference to OEM, claiming that the same is required to be handed to Bank in terms of the RFP/SLA/Contract to be executed between the Bank and successful bidder/Vendor.

2.33 Exit Management Plan

- The proposed application should be capable and scalable enough to incorporate, accommodate, integrate, implement any changes into the proposed solution as suggested by the regulatory or statutory authority of India, Hongkong, Singapore, RBI, MAS, HKMA and other country specific statutory guidelines at the discretion of Bank.

- Bidder shall provide the Termination/Expiration Assistance regardless of the reason for termination or expiration.

- Bidder shall comply/adhere to the Exit Plan.

- Bidder shall not make any changes to the Services under this Agreement and shall continue to provide all Services to comply with the Service Levels.

- The bidder should perform a complete reverse transition of services to the Bank's selected new vendor or Bank's officials.

- Bidder shall within ninety (90) days of the Signing Date, deliver to Bank a plan specifying the Termination/Expiration Assistance including the functions and services of Bidder necessary to accomplish the transfer of the responsibility for the Services from Bidder to Bank or a Third Party, in the event of the expiry of the Term or the termination of this Agreement. The plan shall at the minimum, contain the Bidder's detailed plan for Operational and Knowledge Transfer requirements and list of documentation.

- The Exit Plan shall be updated by the Bidder on an annual basis in accordance with Bank's requirements and delivered to Bank for its approval on or before the start of

each Contract Year.

- Knowledge Transfer and Handover of Services.

- Bidder shall provide for a -transfer of knowledge regarding the Services.

- Provide to Bank personnel or designated third party personnel training in the performance of the Services that are to be transferred.

- Bidder shall train personnel designated by Bank and/or its designee(s) in the use of any processes or associated Equipment, Materials, Systems or tools used in connection with the provision of the Services as needed for such personnel to assume responsibility for performance of the Services.

- Provide to Bank and/or its designee(s) information regarding the Services as necessary to implement the Exit Plan and providing such information regarding Services as reasonably necessary for Bank or its designee to assume responsibility for continued performance of Services in an orderly manner so as to minimize disruption in the operations.

- Provide Bank or its designee a complete copy of the Bank's IP in Bidder's possession or control and of the Bidder IP that Bank is licensed or otherwise authorized to use.

- Explain the change management process, problem management process, Policies and Procedures Manual, reports and other standards and procedures to Bank's or its designee's operations staff.

- Provide technical documentation for Software used by Provider to provide the Services as needed for continuing performance of the Services.

- Identify, record and provide release levels for Software and updating such records of release levels prior to and during transition of the Services.

- Provide assistance to Bank or its designee in notifying third-party vendors of procedures to be followed during the transition of Services.

- Ensure transfer of the Configuration Management Database (CMDB) that contains details of the data elements that are used in the provision and management of the Services. The CMDB must be in a form that can be migrated to a new environment that manages the Configuration Items.

- Bidder shall provide other technical and process assistance as requested by Bank and/or its designee(s).

- The vendor will not be allowed to take any Bank's IP or information.

- During Exit Management, it will be the responsibility of the vendor to provide assistance for Data Migration if required by the Bank during contract period at no extra cost to Bank. However, if the same assistance is required beyond the contract period, then the terms will be mutually agreed between vendor and Bank.

2.34 OEM Scope

- The OEM has to give commitment to be part of the Implementation and migration project along with the bidder/vendor

- ALL the SRS / LLD/ HLD needs to be vetted and sign off by the OEM

- All the parameters and Configuration of the CIGTMS needs to be reviewed and sign off by the OEM

- For being committed to the success of the project and take ownership during the

actual implementation, it is the responsibility of the bidder to ensure requisite support from the OEM for various aspects of project including configuration, performance tuning, implementation support, setting up of production and Nonproduction environment. The Bidder shall assess the requirement of services from OEM(s) for all the supplied applications & Hardware, and provision for requisite support as part of Annexure XIX- Commercial Bid Format.

- Bidder must provision for qualified personnel to ensure highest standards during implementation phase.

- Bidder needs to ensure that OEM efforts are factored in the Annexure XIX and it should not be less than 20% of the overall bidder efforts for CIGTMS.

- Bidder needs to note that this 20% factor needs to be factor by those bidders who are getting qualified with Bidder's credential in Eligibility and Technical evaluation criteria. The bidders who are getting qualified by OEM credentials in Eligibility and Technical evaluation criteria needs to submit Annexure XXXIII and the treasury application OEM needs to implement the solution as per the Annexure XXXIII

- OEM's involvement for onsite implementation effort being proposed by the bidder during the implementation should be 20% of the overall effort of respective components. During implementation OEM involvement should be spanning across all phases of implementation including Project Preparation, Solution Design Phase (Including Review/design of all the Documents, HLDs/LLDs/ Blueprints and other Solution documents), Migration (if applicable, Configuration and Customization, Integration, Acceptance and Training)

- In case if Bidder has shown the experience of OEM in eligibility and technical scoring and provide Annexure XXXIII then the implementation of complete treasury solution out of the box functionalities will be the responsibility of the Proposed Treasury OEM.

- Below mentioned activities are to mandatorily be done by the product OEM.

Srl	Deliverable	Application OEM Responsibility
1	Project Plan	OEM(s) to review the Project plan submitted by the Bidder for their respective solution.
2	Training	OEM(s) have to mandatorily provide training to the Core team Technical & Administrative). It is also the responsibility of the OEM(s) to provide training manuals to each participant. All training material should be in English and should include Specific architecture and layout done for UCO BANK However, it is the responsibility of the Bidder to arrange and manage the training schedules.
3	SRS Document	OEM(s) to validate the SRS document submitted by the Bidder for the supplied applications

4	HLD/ LLD	Bidder to take inputs from the OEM(s) and provide LLD & HLD documents to the UCO BANK. However, it is the responsibility of the OEM(s) to review and recommend a methodology to achieve best performance. The same needs to be implemented upon sign-off on the documents by the UCO Bank.
5	Data Migration Strategy (Application, Database, Storage, Backup and LTO)	OEM(s) to validate the Data Migration Approach prepared by the Bidder which should broadly include Transaction Data, the approach for customer data, execution of migration utilities on the data and resolving the issue for any inconsistency in the data.
6	SIT & UAT	OEM(s) to assist in SIT and UAT
7	Base Product Patches	OEM(s) to provide all patches related to Product, Customizations and Interfaces within the agreed timelines. OEM(s) to reconcile the product and other patches provided to the UCO Bank in a manner that the same is available on Day 1 to the UCO Bank.
8	Go-Live	OEM(s) to assist in having hygiene factors in place for checks and closures of SIT/ UAT/ correctness of data. OEM(s) should be available during the Go-live period to address any bugs raised during the go-live phase.
9	Status Reports	OEM(s) till implementation closure is required to be a part of the status calls from an application point of view to provide timelines for bug closures.
10	Documentation	OEM(s) to share the following: • Product manuals • Technical manuals • Data Dictionary of the Products

2.35 Post Go-live Support/Facilities Management

This section of the On-Going Operations is broadly classified under Two (2) categories of services that the Bidder is required to offer.

1. Domain Services
2. Cross Functional Services

Any other tools required by the Bidder for offer the services as per the RFP should be proposed and factored in the bill of material.

2.35.1 Domain Services

UCO Bank has identified number of domain services to support business operations. Bidder is expected to provide support for these domain services as per the defined scope and the corresponding SLAs.

The following table presents an overview of the services to be provided by Bidder under domain services, on an ongoing basis for the duration of the contract. Bidder is expected to adhere to IT Service Management (ITSM) processes based on IT Infrastructure Library (ITILv3) framework (version 3) for all the services:

Domain Services	Description
Database Management	The management of the provisioning, maintenance and support of database hardware and software as well as monitoring, access management, backup and recovery and ad hoc support
Server Management Services	Monitoring and management of computing platformson which utilities and applications are hosted
Storage Management Services	Monitoring and management of the enterprise storage environments within UCO Bank. This also includesstorage area networks (SANs) Replication and storageon distributed file servers.
Backup and Restore Management Services	Management of backup facilities within UCO Bankproposed by the bidder for all the in-scope solution. TheSuccessful Bidder shall be responsible for taking centralized backups from DC and DR for all the in-scope servers hosted at DC and DR.

2.35.1.1 Database management Domain Services

The scope of the database management services includes all in scope data and database management activities on the production, non-productionand disaster recovery environment that will be included as part of this service. The expected database management services can be further defined by the following high-level service requirements:

Domain Services	Description
Build, Installation	Definition/ Installation/ Creation of databases with suitable hardening procedures as per UCO Bank'spolicy
Database Performance Management	Fine tune and resolve performance issues through performance tuning and optimizations.
Database Capacity Management	Estimate & recommend database requirements based on performance andBusiness projections
Monitoring and administration	Provides the required operational support to monitor UCO Bank database environments

Backup and restore	Refers to the successful backup and restoration of the database instances as defined by UCO Bank policy
Access management	Management of the granting, removal, monitoring and editing of access rights allocated to thedatabase environments
Database adhoc support	Processes to perform database upgrades, performance tuning and repairing a database
DC and DR testing	Create, Implement and validate database recovery solutions. Support during DR testing and during actual DR situations

General

1. The scope of work mentioned is illustrative and not exhaustive. The bidder needs to comply with UCO Bank's requirements and any statutory or regulatory guidelines

2. All in scope Database process and DBMS best practices will be a part of scope

Database Build and Installation

3. Defining the physical database design (log files, rollback segments, tablespaces, database descriptors, partitioned objects)
4. Installation of software and database creation [in consultation with the UCO Bank team] - Oracle/ SQL etc. as per UCO Bank standard
5. Create definitions of logical data structures, tables, views, indexes, program specification blocks, stored procedures & define their relationships
6. Hardening process document for fresh DB installation and perform hardening
7. Test and prepare database upgrades.
8. Implement database upgrades into the production, non- production and DR environments
9. Publish Plan of Action (PoA) to be verified and validated by UCO Bank team before implementation

Database Performance Management

10. Track & co-ordinate database related incidents/ problems till resolution
11. Conduct first level diagnosis for reported Incidents & perform resolution
12. Analysis of incident/ problem trends
13. Co-ordination & escalation to Database vendors (L3) (Logging ticket at Vendor side as well internal tracking through service desk), follow- up till resolution
14. Maintaining & monitoring the health & performance of databases (Primary and standby)
15. Monitor & analyze alerts & logs including
16. Trace files (including data block corruptions, Enqueue

resources, internal errors & I/ O read-write failures)

17. Database changes
18. Background job status
19. Operating system logs
20. Space management
21. Monitoring the table space utilization, file system usage and all other events of O.S which may deter the performance of the database (primary as well as DR)
22. Analyzing/Troubleshooting Database Performance
23. Collection of statistics for databases
24. Optimizing database performance, Performance tuning
25. Monitor physical DBMS for performance & capacity requirements
26. Monitoring of databases
27. Monitoring of transaction logs
28. Provide recommendations on DBMS design
29. Monitor the backup & report on backup logs
30. DDL, export & import related activities
31. Preparing monthly database related reports
32. Periodic optimization of application databases through compression facilities and database tuning.
33. Provide reports on database currency and propose upgrade recommendations

Database Capacity Management

34. Estimate & recommend database requirements based on received data from Database Performance team and Business projections (Annual/ As and when required)
35. Perform Database Space analysis
36. Alignment to purging policy
37. Review archive logs requirements
38. Customizations required at DB level
39. Review and planning for 6 months

Database Monitoring and Administration

40. Setting data storage parameters for storage associated with the physical elements of the database
41. Handling password issues
42. Configuration of Databases
43. Creating a new database instance
44. Testing & implementation of patches
45. Testing & implementation of upgrades
46. Managing, applying & verifying Database program patches
47. Database Scripting
48. Review recommends and test patches.
49. Coordinate all changes through the agreed upon change management process
50. Start-up and shutdown of databases

51. Daily activities such as end of day, end of month, end of year/quarter etc.
52. Daily / Weekly / Monthly backup of databases
53. Database recovery
54. Weekly database recovery checks
55. Required logs maintenance as per Standards of the UCO Bank
56. Disaster recovery as per Standards of the UCO Bank
57. Database problem resolution
58. Recreation of Indexes
59. Perform pre-batch activities-Scheduling of resources-Scheduling batch services-Define, maintain and document a work schedule for running production system batch jobs, and possible started tasks- Install and document system related batch jobs in the automated job scheduling package-Manage the root cause analysis for scheduling problems-Develop and maintain standards for job acceptance and implementation. The bidder can either use scripts or propose a tool for batch automation
60. Remove applications from the application portfolio following decommissioning from projects or improvements.
61. Perform regular import and loading of data and ad-hoc data extractions.
62. Responsible for maintaining DB inventory
63. Maintaining and performance tuning of UAT databases
64. Migration of Databases (Release Upgrade)
65. Execution of all back-end changes across all applications as informed by application owner
66. Manage database transaction (SQL)/ archive (Oracle) logs
67. Administration/ management of archival databases (Purge from production and move to archive database)
68. Resolving corruption (both Physical & Logical) issues at primary & standby databases
69. Execute DBMS changes in support of major application or logical database design changes
70. Designing &Implementation of logical & physical backups
71. Flash back up on daily basis
72. Vendor coordination with OEMs for upgrades, patches, bug fixes, performance tuning etc.
73. Creation of a Standby database & setting up the DR
74. Log shipping/Mirroring/Always On for SQL
75. Monitoring, management and implementation of High Availability (HA) viz. clustering/RAC etc.
76. Review of all databases
77. Switchover of databases (as and when required and as per the defined time window)
78. Refresh of Databases as per defined frequency or on demand
79. Day end, month end, quarter end, year-end End of Day & Begin of Day support
80. Resolution of audit points and VA/PT reports
81. Management of tools
82. Ad-hoc support for processes run by branch charges for average quarterly

balance/ SB interest calculation

83. Apply application data fixes.
84. Install patches and upgrades to database software.
85. Installing database software as appropriate.
86. Perform application nonproduction environment data refreshes.
87. Cloning of application data environments.
88. Monitor capacity and performance of databases.
89. Control of the database (adapting database profile parameters, expansion of tables and table spaces)
90. Technical reorganization of the database (defragmentation) also after archiving
91. Analysis of the DB tables & indexes - continual performance enhancement measures
92. Create new indexes, performs reorganizations as required per analysis
93. Creation, maintenance and execution of database related scripts such as start-up and shutdown processes
94. Creating and maintaining formal documentation of the database environment (e.g. scripts, design, configuration, access rights)
95. Monitor availability of the databases as a subset of monitoring overall service availability.
96. Providing solution services for database design, configuration and maintenance
97. Assist with incident and problem management related activities relating to the database environment (e.g. integration, interface, performance, configuration issues as part of the overall support service) including interaction with third party suppliers where necessary.
98. Archive of application specific data as requested.
99. Implementation and monitoring of database security.
100. Loading software components- Kernel patches, Release changes.
101. Proactively apply security fixes
102. Documentation upkeep and records maintenance

Database Backup restore

103. Manage Database backup/ restore schedule, administration (RMAN Backup)/Scheduled Backups and others
104. Data Deletion & Purging/archival activity
105. Purging of tables based on availability of space on a regular frequency (Frequency to be decided)
106. Consolidating all database backups & Transaction log backups at a single file Server
107. Perform database backup, restore and recovery routines.
108. Compliance, review and updates to database standards documents.

Access management

109. Implementing & managing security rules & access authority as per UCO BANK's security policy, database Hardening etc.
110. Implementation of database security by creating roles, privileges & profiles

111. Management of users in database and assigning   of roles/privileges
112. Monitoring and   management of logs for user access management of privileged users

Database Adhoc Support

113. Provide access to DBA resource for ad hoc work requests and change orders

Database Recovery

114. Create & implement database recovery solutions in consultation with UCO BANK's team
115. Recovery of database at primary and standby as per case
116. Restoration activities (from backup media)
117. Database recovery using the physical & logical backups
118. Support for DR Configuration and BCP activities and Plan
119. Evaluating current backup, recovery, & data replication procedures & providing recommendations for improving those procedures

2.35.1.2 Server (Bare Metal, Virtualized / Hyper Converge) Management

The scope of the server / Hyper Converge Management services includes all in scope server and hyper converge activities on the production, non-production and disaster recovery environment that will be included as part of this service. The expected server Management services can be further defined by the following high-level service requirements:

Service	Description
Installation and configuration services	Refers to the appropriate installation and configuration of the server environment as per industry best practice as well as UCO Bank's policy requirements.
Monitoring operations	Provides processes and procedures to monitor the server environment to ensure that the appropriate monitoring, reporting and maintenance activities occur.
Operating system support	Provides for operating systems and related software configurations. The service also consists of ongoing processes to maintain supplier supported operating platforms for preventive software maintenance Services. This includes services such as: 1) Software configuration management 2) Software upgrades and patch management 3) Software release management 4) Software optimization, tuning and preventative maintenance

Hardware support	Provides the services and methodologies that will be used by the Bidder to support the UCO Bank's server requirements. This service consists of the following components: 1) Hardware installation and configuration 2) Hardware environment support 3) Hardware preventative maintenance	
Operating system security administration	Operating system security administration provides the processes to manage access to client assets at an operating system level. This security service provides the management of user logon ids and their access rights to system level resources, as well as maintaining server level security parameters and security product options. This section describes the various actions to be taken as part of the Security Administration Service, as well as what is needed on behalf of the client in order to provide these service levels.	
System Vulnerability Management	Vulnerability management consists of preventive and detective services to identify vulnerabilities as they emerge; to prevent those vulnerabilities from affecting the in-scope systems; to detect when an in-scope system has been affected; and to cure those affected systems. Vulnerability management consists of both Vulnerability Alert management and Vulnerability Scanning processes. Vulnerability Alert management is the preventative process that collects known vulnerabilities and prioritizes vulnerabilities based on associated risk.	
Performance and capacity management	Consist of the support processes to collect, monitor, and analyze system performance information, for processor usage, input/output (I/O) throughput activity, disk usage, and memory usage	
scheduling and monitoring	Scheduling and monitoring Process consist of those specific tasks associated with administering the automated scheduling system to provide the tools and processes necessary to support a scheduling and monitoring processing environment.	
Failover management	Provides for the recovery of the critical workload on the server environments in the event of an outage of primary server and / or a disaster. The bidder is required to prepare documentation of a written recovery plan for the server environments	

Operating system Security event logging	Operating system security event logging is a detective control that enables the recording of security events on system hosts based on present parameters. The administrative tool's logging function is enabled, and the security events are retained in a record for future review.

1. The Scope of work mentioned is illustrative and not exhaustive. The bidder needs to comply with UCO Bank's requirements and any statutory or regulatory guidelines.
2. The scope of work mentioned is illustrative and not exhaustive. The bidder needs to comply with UCO Bank's requirements and any statutory or regulatory guidelines.
3. Shifting of servers within the premises and reinstallation and configurations including cabling and asset labelling.
4. Provide server configuration reports and configuration details to the UCO Bank as requested.
5. Maintain accurate supplier contact information and escalate to supplier contacts in a timely manner.
6. Implement configuration management processes and procedures.
7. Record and plan release   of server upgrades and support its implementation.
8. Maintain an audit trail of server configuration changes as resulting from release and change control processes.
9. The required software agents are to be installed, configured and monitored.
10. Provide guidance to the UCO Bank and industry best practice for the optimal configuration of the operating system environment.
11. Produce and maintain installation and configuration diagrams of all installations
12. Actively manage and report on the availability of all servers.
13. Perform server periodic checks, monitoring and performance tuning.
14. Communicate any service issues or implementation concerns with the UCO Bank and appropriate support personnel and/or vendors.
15. Monitor hardware and system software status, process status, and take necessary action based on detected problems or issues as provided in this schedule.
16. Provide problem escalation and interact as necessary with third party suppliers.
17. Provide monitoring and troubleshooting for the server environment
18. Provide timely notification and escalation to on site personnel if any hardware and software conditions exist that must be resolved on site to meet the service levels provided in this schedule.
19. Bidders will ensure appropriate resources are on site to ensure service levels are achieved if recovery or corrective actions are required.
20. Propose tools for operations such as monitoring, deployment and configuration etc.
21. Ensure server access is secure and authorized.
22. Management of logical access to the server environment in accordance

with the UCO Bank's policy (including administrator \ root access)

23. Assist the UCO Bank with application support requiring operating system changes or access

24. Evaluate the impact of new operating system upgrades or releases on existing applications and performance.

25. Install patches as and when these become available, per vendor instructions for security exposures and Operating System bug fixes deemed critical by the vendor.

26. Ensure the configuration of operating systems is in line with standards and policies as defined by the UCO Bank

27. Document and track all configuration management problems using the site change management process.

28. Co-ordinate all changes through the site's change management process.

29. Configuration management for operating system release levels, patches, and status.

30. Perform routine system operation functions and system console operations actions such as power on/off, system reboots, and start/stop/reset.

31. Apply preventive and corrective maintenance to all system level software (operating system and other non- application software).

32. Install and upgrade all system level software (the operating system and other non-application software).

33. Escalate hardware related malfunctions to the hardware supplier for resolution as provided in the vendor maintenance contract

34. Inventory information about hardware shipping and receiving, raised floor space requirements, equipment placement, cabling, fibre, connectivity details, power and earthing requirements

35. Servers/Storage hardware maintenance and support is based on various maintenance levels.

36. Alert the UCO Bank about hardware changes that may impact application execution in support of the UCO BANK's application testing.

37. Design back-out processes to return to the former hardware configuration if unforeseen problems occur during installation.

38. Co-ordinate the scheduling and installation of supplier - recommended preventative maintenance and other hardware specific changes.

39. Schedule down time as and when required to perform required hardware preventative maintenance, installation and testing.

40. Design, build, schedule, and implement a hardware refresh template.

41. Configure operating systems at the setup of each server, to establish super user privileges and access rules and establishing other standard guidelines, based on the agreed security policy of the UCO Bank

42. Establish the process and procedures for requesting logon IDs and OS system level access

43. Create, modify, and delete system logon IDs using the Change Control Procedure

44. Monitor and maintain accounts and IDs and their designated privileges or access to make certain only active, authorized IDs have access, based on the agreed security policy.

45. Remove inactive or suspended IDs after a specified amount of time, based

on consultation with security administration and the UCO Bank's using the Change Control Procedure

46. Adjust and maintain operating system and security software parameters for password expiration, available in the specific operating system environment to meet the agreed security policy requirements

47. Provide processes and procedures to maintain operating system data protection options.

48. Perform bi-annual re-verification of data owners, authorized submitters and logon IDs, existing level of privileges, based on input from the UCO Bank and system security configuration.

49. Work with the UCO Bank's application support personnel as reasonably

50. required for the Quarterly reviews and maintenance of inactive user id's

51. Compile a list of defined users id's on the Operating System, and

52. provide list to the UCO Bank

53. Perform reviews of system, monitoring and database administration user id definitions.

54. Bidders will apply the necessary changes as per the outcome of the review.

55. Hardening of servers as per UCO Bank's policy

56. Anti-virus scan and anti-virus update on the server

57. Bidders will delete the UCO Bank's application user id definitions, once such a request has been forwarded by the UCO Bank.

58. Bidder to update virus related signature files on servers to manage the removal of malicious code.

59. Support and ensure that the timely installation of updated signature files and anti-virus software patches on all servers within the managed environment occurs.

60. Coordinate with UCO Bank's SOC Vendor for receiving the most up-to- date information on malicious code outbreaks and the appropriate software signature files to protect against malicious code.

61. Testing of signature files are to be performed prior to deployment.

62. Perform pre-production scans to identify potential security risks on a server prior to entering the production environment.

63. Review the results of vulnerability scans and determine corrective actions based on the results of the scans

64. Review the results of penetration testing and determine corrective actions based on the results of the scans.

65. Review government and supplier bulletins and various other sources to identify emerging threats or vulnerabilities to the UCO Bank's hosts.

66. Maintain the risk evaluation process of vulnerabilities in which mitigation plans are determined, in accordance with the agreed security policy.

67. Maintain a vulnerability correction process to correct vulnerabilities detected through scanning of servers.

68. Maintain a vulnerability correction process as new vulnerabilities are identified.

69. Correct known vulnerabilities detected within the scope of the Bidder's responsibility, using the appropriate correction and change management processes.

70. The agreed security policy is to form the basis of security level.

71. Maintain processes to provide consistent configuration of parameters for logging devices and ongoing maintenance of those parameters.
72. Make certain of adequate retention of security event logs, based on the agreed security policy.
73. Configure the parameters of the administrative tools for all system hosts, in accordance with the agreed security policy.
74. Will provide event logging to the extent that tools, resources, and storage are available on client owned environments
75. Ensure sufficient storage capacity available to retain logs
76. Provide a listing of resource access rules for re-verification purposes
77. Perform quarterly review all user ID's and forward list of ID's not used for the last 6 months to the UCO Bank for permission to delete these ID's.
78. Process security data identifying logged or audited access to a resource.
79. Process security data identifying attempted access to a protected resource.
80. Process security data identifying password violation attempts.
81. Process security data identifying usage of emergency ID's.
82. Monitor and maintain ID's and their designated privileges or access to make certain that only active, authorized ID's have access.
83. Adjust and maintain operating system and security software parameters, consisting of password expiration, available in the specific operating system.
84. Provide performance management functions and establish performance monitoring thresholds for major processes.
85. Proactively identify performance problems and improvements.
86. Provide capacity planning processes, for short term and long-term planning, forecasting resource requirements, and analyzing and reporting resource trends.
87. Monitor server utilization, CPU usage and I/O activity, produce capacity projection reports and develop plans for improvements.
88. Review server capacity and advice where future additional capacity may be required or archiving policies need reviewing or implementing.
89. Use standard operating system utilities and/or other third-party tools where appropriate, to project the effects of new changes and workload changes or when large configuration changes are performed in the environment on request of the UCO Bank.
90. Perform operating system software tuning \ optimization as required to maintain day-to-day operations
91. Provide, install and maintain performance monitoring software.
92. Maintain system parameters to manage subsystem performance and workload throughput.
93. Implement changes as necessary to optimize the effectiveness and efficiency of the server platform.
94. Analyze system resource and storage utilization.
95. Perform capacity trend analysis.
96. Perform capacity modelling.
97. Capture capacity usage for the last 12 months.
98. Provide forecasting based on historic trends and planned UCO Bank's initiatives.
99. Provide assistance with batch scheduling issues and problems using the

problem management process.

100. Process job dependency information for batch job cycles as defined by the application support staff.
101. Maintain specific batch cycles utilizing the standard operating system CRON scheduler throughout the operational support coverage hours as necessary to meet defined service levels.
102. Provide appropriate system resources, tools and procedures to support the processing of user-initiated batch jobs.
103. Agree with the UCO Bank prioritization for scheduled, ad hoc and system jobs.
104. Provide the necessary operational resources to support UCO Bank- submitted or UCO Bank-scheduled batch processing.
105. Maintain tools and facilities for UCO Bank to perform batch scheduling and batch monitoring activities.
106. Log problem records if scheduled and automated batch jobs fail.
107. Consult with the UCO Bank should job priorities require a change due to system constraints.
108. Perform problem diagnosis and purging of jobs on Operating System as necessary.
109. Monitor automation tools and functionality.
110. Maintain and execute system start- up/shutdown processes.
111. Monitor, identify, and implement automation techniques to remove manual interventions for ongoing monitoring and operation activities.
112. Perform maintenance and support for automation tools and products
113. Problem determination and isolation for automated operational processes.
114. Maintain and update documented hardware, facility, operating system, database and related system software recovery plans as necessary.
115. Perform quarterly tests of the recovery plans to verify the effectiveness there-off in supporting the day-to-day UCO Bank operations.
116. Provide the required personnel resources to perform recovery plan drills or actual recovery plan execution at the time of disaster.
117. Provide requisite mirroring and redundancy across the DC & DR facilities to ensure adequate failover for the server environments.
118. Cluster configuration including the integration of startup/shutdown scripts
119. Configuration of shared storage
120. Provision of documentation on implemented high availability solution
121. Installation, maintenance and monitoring of clustering
122. Conduct Cluster tests as a part of DR drills.

2.35.1.3 Storage Management

Storage and data consist of a system managed storage strategy that enables all data to be managed individually and automatically by the system. Within the system managed storage environment are both online and removable storage media, commonly referred to as disks and tapes.UCO Bank requirements for data availability, accessibility, performance,and retention can be accommodated at the data set level and used by the system managed storage environment to select the correct media.

The expected storage and data management services can be further defined by the following high-level service requirements:

Service	Description
Mirroring	Includes the management of the SAN environment to ensure the availability, integrity and redundancy of UCO Bank's storage environment across DC, DR and Near Site
Configuration	Process of organizing and maintaining storage information to streamline the process of maintenance, repair, expansion and upgrading.
End to end storage monitoring	Continuous monitoring of a DC, DR and Near Site Storage Equipment notification to the administrator(s) in cases of failure / outages.
Archiving	Assist in implementing and maintain UCO Bank's archive strategy as part of ensuring effective usage of storage resources.
Media management	Management of the associated media and peripheral equipment used for data storage (ex. tape management)

1. The scope of work mentioned is illustrative and not exhaustive. The bidder needs to comply with UCO Bank's requirements and any statutory or regulatory guidelines
2. Develop and document storage and data management requirements and policies.
3. Develop and document procedures for performing storage management that meet requirements and conform to defined policies.
4. Review Storage Management procedures on a regular basis to be defined.
5. Provide appropriate data storage services (e.g. RAID array, SAN, tape, etc.) compliant with the agreed service levels and performance and availability metrics
6. Monitor and control storage performance according to data management policies.
7. Maintain and improve storage resource efficiency and space requirements.
8. Perform data backups and restores per established procedures and service level requirements as well as in accordance to the UCO Bank's change management process.
9. Adjust the backup and restoration plan as new components are added to the system or availability requirements change
10. Provide input processing, for activities such as loading and rotation of third-party media (e.g. tape) and receipt and/or transmission of batch files, or large files.
11. Define storage management reporting requirements
12. Provide storage management reporting as defined by the UCO Bank
13. Maintain the integrity of storage media, e.g. tape and disk.
14. Maintain the data integrity across DC and DR
15. Perform the relevant maintenance activities to ensure data availability and redundancy
16. Management of all third parties required to support the storage and data environment

17. Storage Management administration – manage and (Pro-active)monitor to ensure all time storage availability.
18. Resolve incident/problem related to storage as per agreed SLA.
19. Supporting new and existing storage products and services like replication, mirroring, security, traffic analysis, compression,virtualization etc.
20. Managing of physical storage elements/equipment
21. Managing moving inactive data off of production machines to freeonline disk space for important active data
22. Managing logical storage elements like caching, I/O technologies, data protection technologies etc.
23. Storage provisioning. Estimate and recommend storage requirements
24. Performing data management including backup and recovery
25. For disk storage, responding to storage requests by:
    - Allocating raw storage
    - Defining logical volumes
26. Troubleshooting disruptions and working with vendors to resolve theissues including software/firmware/patches related issues
27. Performing capacity management of storage resources to meet business needs
28. Planning for upgrades to hardware and software (including execution)
29. Granting UCO BANK access to the storage management system fromall applicable locations where the Services are performed, and allowing UCO BANK to monitor and view the knowledge database onan ongoing basis (including Authorized Users)
30. Storage provisioning, purging of disk space, Replication support, LUN, SAN Switches, FC Links, Point in time copy / Snapshot management, RAID Configuration
31. Supporting Disaster Recovery activities pertaining to storage devices
32. Enable Proactive monitoring to ensure Minimal/Zero system disruptions/performance issues/outages.
33. Incorporate takeaways from Major Incidents into monitoring to prevent repetitions.
34. Maintaining documentation of configurations (including pictorial representation of the storage layout.)
35. Maintaining documentation of storage component details including architecture diagram, policies and configurations and the same should be reflected in the Configuration Management Database (CMDB)
36. Performing any other day-to-day administration and support activities

2.35.1.4 Backup and Restoration Management services

The scope of work mentioned is illustrative and not exhaustive. The bidder needs to comply with UCO BANK's requirements and any statutory or regulatory guidelines The Bidder shall define data backup and recovery requirements. These requirements should cover the following at a minimum:

1. Identify the data backup technique which best suits the needs of UCOBANK for each application / server
2. Install, configure, test and manage any tools that may be required fordata backup and recovery, such as those for writing the same datato multiple storage devices at the same time
3. Restore data to the database, as appropriate while ensuring that there is no loss of information / data.
4. Development of procedures and templates. Periodically conducting restoration drills, recording the results and reporting the results to UCO BANK.

5. Execute backup and recovery procedures
6. The IT MSP is required to handover the tapes to UCO BANK's personal/3rd party who will vault the tapes at offsite locations andretrieve tapes from UCO BANK's resources when required.
7. Restore required files and data sets
8. Performing mock system failure and then data restoration drills onperiodic basis
9. Manage all existing and all future deployments of Backup and Restore Infrastructure. Media will include both tape and disk drives
10. Performance tuning for the Backup and Restore Infrastructure
11. Install and configure new equipment as required
12. Configure any new Backup and Restore infrastructure to theMonitoring and Alerting system and commence the Monitoring activity upon completion of the installation.
13. Provide capacity planning on backup and restore platforms.
14. Equipment shifting within the premises including reinstallation/ configuration and calling & labelling

Administration

15. Backup and Restoration Administration - Manage and monitor backup and restoration activities.
16. Provide Backup and restore infrastructure configuration maintenance
17. Handling backup (Full, Differential, Incremental) of agreed data for all managed servers as per the frequency (daily, weekly, monthly, yearly) defined in the backup & restore policy/ procedure/ guideline of UCOBANK.
18. Performing media management for offsite/onsite backup
19. Handling service requests on backup and restoration.
20. Generating daily/weekly/monthly report on the backup/restoration performance
21. Performing retrieval of backup data
22. Performing back up media maintenance:
    o Defining media rotation requirements and/ or follow standard procedure
    o Labelling backup media as per backup policy
    o Planning and requisitioning of storage media
    o Monitoring and maintenance of the scratch tape pool
    o Registering tapes into automated tape handling devices
    o Handing over of tapes to UCO BANK's personal /3rd party vendor for rotation of tapes to offsite facilities
    o Destruction of media coming out of service in accordance withback up policy
23. Executing database back-ups and restores (including export and/orimport) using database tools.
24. Performing restoration activities:
    o Testing of the restore the Data as per UCO BANK Policy/guidelines.
    o Restoring complete or incremental backup as authorized (including user approval for restoration to same path, businessmanager approval for restoration of common folders to same path and UCO BANK IT approval for all other restorations) within24 elapsed hours
    o Periodically verifying backup media integrity and testing of backup and restoration process as per a defined schedule

o Restoring single or multiple objects from the backup media

25. Reviewing backup and restoration process and infrastructure, to reduce the backup or restoration windows

26. Monitoring the backup and report on backup logs. Reasons for backup failures are to be analyzed and reported.

27. Monitor tape hardware for malfunctions and monitor tape usage

28. Managing and maintaining of back up tape devices

29. Performing maintenance of appropriate documentation, in accordance with back up policy:

   o Maintaining a backup register

   o Labelling and tracking of tapes

   o Backup and verification Logs

   o Restoration Logs

30. Granting UCO BANK access to the backup management system from all applicable locations where the Services are performed, and allowing UCO BANK to monitor and view the knowledge database on an ongoing basis (including Authorized Users)

31. Rapidly resolving every backup request/incident/problem within mutually agreed timelines

32. Backup policies configuration, modification for file systems, databases on heterogeneous operating systems

33. Performing any other day-to-day administration and support activities

34. Perform periodic audits to ensure the proper cataloguing of media

35. Review compliance with physical specifications, retention periods and Security

36. Provide monthly reports of retired and disposed Tapes. The report is to also to account for the status of all the backup media in the storage, including new media added for the month.

37. Maintain the integrity of the tape library system

38. Monitor tape library for reliability and minimization of read/write errors during the entire retention period

Backup and Recovery - Restoration testing

39. Carry out mock restoration tests

40. Decide applications and data for testing through restoration testing as per UCO BANK policy

41. Document test plans and results

42. Delete data from test servers

43. Review restoration test results

44. Storing backups and managing media life expectancy for storage media, etc.

Offsite Media Management

45. Responsibility for off-site media storage, including:

   o Integrity Checking

   o Compliance with UCO BANK and/or government requirements

   o Handover the Tape Media and business- recovery-related paper documentation to UCO BANK personnel/3rd party vendor for secure off-site vault storage

46. Follow off-site Tape Media storage procedures, including:
   o Prepare media for off-site storage, for transfer to other Third Parties/UCO BANK's personnel as requested by UCO BANK, or as otherwise required
   o Log all physical tape Media in and out of the Data Center and/or remote locations, as appropriate.
   o Handover the tape media to UCO BANK personnel/3rd party vendor to ship/receive tape Media to and from the off-site storage location(s) on a daily basis or as required.
   o Maintain the rotation of the tape Media that is required for off- site storage.
   o Periodically Audit the off-site tape storage facility for compliance and control procedures and provide reports of such audits to UCO BANK.
   o Maintain the integrity of data shipped to off- site storage by UCO BANK's personnel/3rd party vendor
   o Notify UCO BANK of any problems
   o Design an emergency tape Media return process and submit to UCO BANK for approval
   o Comply with, and review compliance with, physical specifications, retention periods, and security
   o Wipe/erase the data and configuration information resident on the External Storage Media using recognized industry standards prior to disposing of the External Storage Media.

Replication
47. Monitor the RTO and RPO of complete solution as per the UCO BANK's policy
48. Monitor and manage the replication between the DC and DR
49. Generate reports to review the performance of the replication
50. Ensuring the RTO and RPO are maintained of the Complete solution as per the UCO Bank's policy.

2.35.1.5 DC – DR Drills

The scope of work mentioned is illustrative and not exhaustive. The bidder needs to comply with UCO Bank's requirements and any statutory or regulatory guidelines. After implementation of the supplied hardware and software bidder need to perform the first DC DR Drill in totality within three months in coordination will all other vendors of the UCO Bank.

1. Bidders need to perform minimum of 4 DC DR drill in each year during the contract period as per the discretion of the UCO Bank.
2. Bidder needs to allocate adequate resources, do project management and work closely with the application owner for performing the DC-DR Drills whenever planned by the UCO Bank.
3. Any configuration level changes which can impact the DC DR drill need to be informed to ADR team before handover to avoid issues during the Drill.
4. During DC DR drill bidder need to allocate appropriate resources onsite to avoid any failure and delays which will be penalized appropriately as mentioned in the Section 7 Penalty & Uptime of RFP
5. Bidders need to perform project management and all reporting and pre and post environment preparation to avoid any failure in the drill.
6. Maintain and update Business Continuity plan
7. Maintain and update disaster recovery plan
8. Ensure successful replication between production and DR
9. Notifying UCO Bank promptly if a Disaster recovery scenario / condition

arises.

10. Assisting UCO BANK in execution of DR plan in such scenario
11. Perform periodic recovery testing
12. Developing and executing test plans as per defined periodicity or asand when required
13. Documentation for Business continuity plan, Business continuitystrategy plan & Roles and responsibility matrix for DC and DR team
14. Coordinate with all the users involved in DR testing
15. Track and report DR test results.
16. Develop an action plan and timeline to address DR testing results.
17. Implement DR action plans and provide ongoing status reporting until completion of all action items.
18. Initiate the DR plan for UCO BANK in the event of UCO BANK declared DR situation as per UCO BANK Disaster Recovery policies and procedures.
19. Perform monthly/quarterly DC-DR drills based on UCO BANK's periodicity.
20. Coordinate with UCO BANK and third parties during a DR situation as per UCO BANK Disaster Recovery policies and procedures.
21. UCO BANK can also do an unplanned DC-DR Drill which bidder needs to support and design the system accordingly.

2.35.1.6 RTO / RPO Management

The bidder needs to maintain the below RTO and RPO parameters of the all the in-scope equipment's and software as mentioned below.

Application Name	RTO / RPO
CIGTMS	RPO: - 30 Minutes
	RTO: - 120 minutes

2.35.2 Cross Functional Services

Over and above the defined scope of services within the Domain Services, it isexpected that the Bidder provide the IT support service management activitiesrequired to effectively manage the services required in a consistent, efficient, and reliable manner and is able to meet the desired service levels.

The Cross Functional Services are mentioned below:

Service	Description

Incident management and IT Infrastructure Support Services	Incident management refers to an unplanned interruption to an IT Service or a reduction in the Quality of Service. The objective of incident management is to restore normal operations as quickly as possible with the least possible impact on either the business or the user. The Bidder is expected to assume accountability for the resolution of incidents as part of the 1st line of support to be provided. All 2nd level support will be the Bidder's responsibility. The Bidder should also take into account that a 24x7x365 support service is required. Bidder will raise tickets with respective OEMs for level 3 support.
Change Management and Release Management	Change Management will protect the production environment and its services. All changes to Configuration Items must be carried out in a planned and authorized manner. This includes identifying the specific Configuration Items and IT Services affected by the Change, deploying the Change, testing the Change on UAT environment, and having a roll back plan should the Change result in an unexpected state of the Service. Release Management will take a holistic view of a Change to an IT service and to verify that all aspects of a Release, both technical and non- technical
Service Level Management	Service Level Management will maintain and gradually improve business- aligned IT service quality through a constant cycle of agreeing, monitoring, reporting, and reviewing IT service achievements and through instigating actions to eradicate unacceptable levels of service
Security Management	Security Management will ensure compliance to security policies, contractual requirements, regulatory/statutory requirements, and as expressed in the Service Levels
Patch Management	Provide patches management services for in-scope infrastructure at DC/DR
IT service continuity and Disaster Recovery	Supporting disaster recovery activities in scenario of a disaster and to keep the UCO BANK disaster recovery plan up to date

2.35.2.1 Incident Management and IT Infrastructure Support Services

The Bidder should not only take precautions necessary to minimize damage from incidents and malfunctions, but also monitor and document these incidents in detail with a view to learn from them. The bidder should designand implement formal systems and procedures for detecting and reporting incidents relating to exceptional situations in day-to-day administration of the IT infrastructure. It should ensure that incidents are reported in time toenable authorities to take appropriate corrective actions to avoid

the recurrence of such events in future.

The bidder is required to provide an IT Infrastructure Support Services to UCO BANK's Application Monitoring Group for any issues in domain or cross functional services.

Incident Management and IT Infrastructure Support Services

1. The scope of work mentioned is illustrative and not exhaustive. The bidder needs to comply with UCO BANK's requirements and any statutory or regulatory guidelines
2. Receiving incidents through helpdesk tools and taking necessary action. The successful bidder shall update the status of the ticket as and when desired
3. The bidder will have to ensure that categorization of services is possible/enabled in the system to capture the defined SLAs
4. Providing updates to UCO BANK's Team on incidents logged
5. Receiving requests and trouble reports, assign priority based on agreed upon definitions   and route the request to the appropriate service engineer (including for remote support or on call support) and track till resolution
6. Resolving all incidents as per resolution time limit specified
7. The resolution time will be measured from the time when Bidder receives an intimation (through helpdesk tool /phone /email) from the group/end user. Resolution of problem for the purposes of this Service Level shall mean to achieve normal operational functionality
8. Define help desk call prioritization guidelines, problem severity codes, and escalation procedures
9. Provide L1 & L2 support for infrastructure and application calls
10. Level 1 Support for the Infrastructure & other queries linked with in-scope equipment, applications & services
11. Conduct a thorough Root Cause Analysis to identify the problem and do an assessment requirement for routing it to L2 or AMC / ATS Support
12. Escalate and communicate issues as per agreed escalation/communication processes
13. Carrying out root cause analysis and corrective action for recurring incidents and for all critical and major problems.
14. Subject to UCO BANK's review and approval, developing and periodically updating problem escalation procedures and distributing such procedures to Authorized Users
15. Escalate the tickets to Level 2 Support group for resolution.
16. Resolve the L2 problems logged by the users. Logs calls with AMC / ATS service providers in case of needs and coordinate and follow up with them till closure
17. Coordinate with Application / Hardware service providers to get the calls resolved which needs their support for ticket closure.
18. Support for the IT peripherals at DC and DR
19. Ensuring approval from UCO BANK for moving out a helpdesk personnel
20. Notifying users of problem status and resolution through the Helpdesk system.
21. Monitor the resolution of the tickets
22. Manage problem escalation procedures
23. Providing status of pending requests to UCO BANK business user -The mail should contain business, domain type, company code, person who raised the ticket, description of the incident/problem, actions taken, current status, last contacted personnel and reasons for pending status
24. Notifying UCO BANK business users when request is completed
25. Resolution of the problems linked to in scope infrastructure or services
26. Notifying UCO BANK IT of any deviation to process or failure to meet SLA
27. Developing the knowledge database that is required in order to solve as many incidents as possible as a first-time fix.

28. Knowledge database on an ongoing basis (including Authorized Users)
29. Liaison with the 3rd party Vendors, application service providers and coordinate problem identification and resolution
30. Record, analyze and report queries/tickets/calls received by the help desk, including:
    - Query volumes and duration,
    - Problem trends, and
    - Query resolution time.
    - Unresolved called
    - Age analysis of unresolved queries
    - Problem solution and resolutions
31. Conduct trend analysis and if required forward the case to the incident management team
32. Generate the reports from the system to track the Helpdesk support service levels
33. Dispatch the appropriate support personnel to remedy a problem if it is a hardware, network or security infrastructure related issue
34. Bidder will provide Induction Training to all the bidder personnel joining UCO BANK account covering the following aspects:
    - Introduction to UCO BANK's IT policies and processes
    - Understanding of UCO BANK Business Processes and culture
    - Adequate training on new products and services
35. Performing any other day-to-day administration and support activities.

2.35.2.2 Change Management and Release Management:

As part of the change management process the bidder is expected toperform the following activities:

Service Requirements	Description
Initial user request	In case of changes required to application softwaremaintained by the bidder, the user shall submit the requirements to the UCO BANK IT Team. The change request form can be from Bidder as well as from bank side as there can be scenario where bidder needs to do changes in application configuration of DB to resolve some issues Initial user request: The bidder/Bank must populate the Change Requirement form depending upon the type of change. The requirements could relate to changes required in the operational infrastructure to support new/existing requirements or frequent error messages indicating that some parts of the programs are incorrect. The requirements could relate to additional features required to be built in the system or changes forced by theregulatory body as well as suggestions from the stakeholder community

Approval of request	1. Once UCO BANK provides the go ahead, the bidder along with the Bidder team, shall conduct a feasibilityanalysis 2. Subject to the outcome of the feasibility study, the request shall be forwarded to the relevant team. 3. An enterprise-wide, standard naming convention for each application / Hardware change requests must beadopted by the Bidder. This naming convention should clearly and unambiguously highlight the respective application / Hardware name, module name and the version number. 4. The Bidder, should collate the relevant information toassist UCO BANK in analyzing the Change Request based on the following: • Criticality and need for program change • Exploring new ways of getting the same functionalitywithin the existing set up • Building workarounds • Effect on other modules/ menu options/ businessprocess – Impact Analysis • Any possible effect on existing control procedures 5. The Bidder shall formally provide its recommendations toUCO BANK.
Documenting the changes	The Bidder shall maintain the documentation related to theIT infrastructure and accordingly make the necessary modifications/updates as and when changes are made to programs. The Bidder must ensure that the user operating manual aswell as system documentation is updated on a timely basis.The responsibility of maintaining the above documents iswith the Bidder.

1. The scope of work mentioned is ilTThe scope of work mentioned is illustrative and not exhaustive. The bidder needs to comply with UCO BANK's requirements and any statutory or regulatory guidelines of all the three countries
2. Apply change and release management policies, procedures and processes to comply with service level requirements
3. Establish change classifications (impact, priority, risk) and change authorization process.
4. Participate in the development of the change management and release management procedures and policies.
5. Document and classify proposed changes to UCO BANK services. Documentation shall include UCO BANK cost and risk impact if needed and back out plans for all proposed changes.
6. Develop and maintain a schedule of planned changes and provide toUCO BANK as required, complying with change control process.
7. Determine change logistics and schedule.
8. Schedule and conduct change management meeting to includereview of planned changes and results of changes made.
9. Attend weekly CAB meetings for approval of change implementation.
10. Attend change management meetings.
11. Provide change management documentation and tooling as required.

12. Review change management details and suggest amendments as appropriate to meet the needs of UCO BANK (back out plan, go/no go decision).
13. Notify UCO BANK of change timing and impact.
14. Implement change and adhere to detailed release plans.
15. Modify configuration, asset management items and service catalogue (if applicable) to reflect change. Asset management is reviewed quarterly but also can be requested on demand (referred later). Disaster recovery impact is covered under the normal change control processes.
16. Verify that completed changes delivered the expected impact and resolve negative impacts.
17. Monitor changes and report results of changes and impacts.
18. Conduct user acceptance tests as required.

2.35.2.3 Service Level Management

The objective of the Service Level Management process is to manage and maintain the quality of IT services delivered to UCO BANK's end users. The process should also seek to improve the quality of service delivered to the end users by reviewing the level of performance achieved by the IT Help Desk.

The Bidder is expected to design and implement a Service Level Management process to enable both the end user and the Vendors to have a clear understanding of the expected level of delivered services by documenting these goals in formal documents.

The SI is expected to perform the following activities in relation to Service Level Management with other IT processes:

1. Incident Management service assists Service Level Management by:
   - Monitoring and reporting on threshold breaches in agreements and notifying support officers when escalation and breach events occur
   - Providing information on historical data and trends
   - Providing the interface with customers on the level of services provided
   - Recording escalation actions and activities to maintain the service commitment under an SLA with the customer.
2. Problem Management service - assists Service Level Management by:
   - Identifying the underlying cause of incidents and problems to minimize their recurrence
   - Providing statistics, trends and historical data and assisting with Service Level Management reporting.
3. Change Management service assists Service Level Management by:
   - Providing information on the effect of changes on the IT infrastructure and the impact on service level targets before and after these changes are implemented
   - Tracking improvement in services since service levels are defined
4. Configuration Management service assists Service Level Management by:
   - Identifying the services affected by faulty configuration implementations
   - Identifying components/functions that combine to deliver a business function/service so that underlying agreements can be set up.
5. Assess and collate the Service Levels across multiple Vendor Contracts
6. Define, document, and implement a process to ensure that service levels are tracked
7. Develop a process by which reports are produced showing the performance

of a service against its SLA

8. Undertake routine exercises whereby each SLA target is analyzed
9. Define, document, and implement a process that ensures that SLAs are regularly reviewed to ensure that they meet the UCO BANK's requirements
10. Track the SLA in conjunction with the change management process, define, document and implement a process whereby all changes to SLAs are agreed upon and raised through the change management process using a request for change.
11. Provide periodic status on the Service Levels maintained across all the components/services that are required to be tracked
12. Compute the penalties based on the Service Level defaults
13. Collate the required documentation, evidence required to be shared with the respective Vendors

2.35.2.4 Security Management:

The Bidder must ensure that the ongoing operations adheres to UCO BANK's security policy. The Bidder is expected to monitor and report any deviation from UCO BANK's policies for the complete operations solution.

UCO BANK's policies are in line with global standards like ISO 27001. Audits will be conducted by UCO BANK (or by auditors and / or Consultants empanelled by UCO BANK for the purpose.) Any findings unearthed duringthese audits will have to be fixed by the bidder. The bidder is required to ensure anti-virus scans and updates for the in-scope infrastructure.

The Bidder shall define a standard operating environment for UCO BANK's IT infrastructure based on UCO BANK's security policies. It shall also ensure that the required updates are performed as necessary.

The scope of work mentioned is illustrative and not exhaustive. The bidderneeds to comply with UCO BANK's requirements and any statutory or regulatory guidelines

1. Entire IT infrastructure of the UCO BANK (supplied and maintain bybidder) complies with the Security Policy
2. Activities that would be carried out:
3. user ID creation / deletion,
4. password setting / resetting,
5. creation of limited access shared space on servers,
6. secured installation of assets, secured backup tape storage,
7. destruction of data on failed hardware components (for example,data on a server hard drive that fails) and
8. Confidential data protection methodologies.
9. Secure network resources against unauthorized access from internalor external sources.
10. Periodically review access authorizations and remove those for which approval no longer exists
11. Reset logon ID passwords and disclose passwords only to authorizedpersonnel
12. Establish, change, deactivate, and remove logon IDs and associatedaccess authorizations
13. Provide and maintain virus avoidance, detection, and elimination software for Servers.
14. Conduct periodic virus scans for Servers to monitor for virus propagation and perform virus detection and eradication

15. Maintain security controls for dial-in services and add users to the services as requested
16. Restrict physical access to Servers and infrastructure devices and other secured areas to authorized personnel only at DC
17. Restrict physical access to Servers and infrastructure devices and other secured areas to authorized personnel only at DRS
18. Implement controls which protect printed output and portable storage media (for example, tapes and disk packs) from unauthorized access and
19. Anti-virus update on the in-scope infrastructure
20. Anti-virus scan on the in scope infra

Security Incident Reporting

21. Report any significant computer security incidents occurring on any systems
22. Report any significant network security incidents occurring on any systems
23. Track the number of security incident occurrences resulting in a user's loss of data integrity, denial of service, loss of confidentiality or that renders the user(s) unproductive for a period.
24. Facilitate meetings with the UCO BANK team

2.35.2.5 Patch Management

The Bidder will be responsible for implementing patch management for in-scope infrastructure at DC and DR.

The Bidder shall perform system planning and design for patch management. Once this process is defined, Bidder shall configure the patch management set-up and test the patch management process. The Bidder shall develop the strategy for activation, including:

1. Which hardware must be activated first
2. Start times (e.g., nights and weekends when there is less line activity and less impact on performance)
3. Assignment of attended and unattended nodes
4. Identification of hardware which do not get updated and developing a plan to update the same.
5. Distribution of patches, services packs, reports etc.

Bidder shall take corrective action, as appropriate, for problems resulting from patch management (additions or upgrades) to facilitate application stability. Bidder shall monitor the asset management and software license management systems implemented at UCO BANK.

Patch Management for end user computer/laptops, branch network equipment and branch peripherals are out of scope for the bidder.

1. The scope of work mentioned is illustrative and not exhaustive. The bidder needs to comply with UCO BANK's requirements and any statutory or regulatory guidelines

2. Define patch management processes and procedures, packaging (Server software build), configuration customization, and deployment of patches

3. Ensure that installed software is available at consistent release levels.

4. Perform system planning and design for patch management e.g. boot disks, tapes, server-based software)

5. Develop the strategy for activation, including:

6. Start times (e.g., nights and weekends when there is less line activity and less impact on End Users);

7. Assignment of attended and unattended Hardware; and Distribution

8. Check software configuration and ensure policy compliance

9. Document the patch management strategy for each application

10. Test all new releases of software prior to promotion into the production environment

11. Take corrective action, as appropriate, for problems resulting from software distribution (additions or upgrades) to correct error conditions and facilitate application stability.

12. Patch Management is only for in scope infrastructure at DC, DR, NDR & HO. The end user devices are out of scope

2.35.2.6 IT service continuity and Disaster Recovery

The bidder is required to provide IT service continuity and disaster recovery tool as the Technical Specification mentioned in the AnnexureXVII- Functional & technical specifications for UCO BANK production environments and their associated infrastructure. The bidder must demonstrate that it will consistently meet or exceed UCO BANK business continuity and disaster recovery requirements.

The scope of work mentioned is illustrative and not exhaustive. Thebidder needs to comply with UCO BANK's requirements and any statutory or regulatory guidelines

1. Maintain and update Business Continuity plan.
2. Maintain and update disaster recovery plan
3. Ensure successful replication between production and DR
4. Notifying UCO BANK promptly if a Disaster recoveryscenario/condition arises
5. Assisting UCO BANK in execution of DR plan in such scenario
6. Perform periodic recovery testing
7. Developing and executing test plans as per defined periodicity or asand when required
8. Documentation for Business continuity plan, Business continuity strategy plan & Roles and responsibility matrix for DC and DR team
9. Coordinate involvement of users for DR testing
10. Track and report DR test results
11. Develop an action plan and timeline to address DR testing results
12. Implement DR action plans and provide ongoing status reporting until completion of all action items
13. Initiate the DR plan for UCO BANK in the event of an UCO BANK declared DR situation per UCO BANK Disaster Recovery policies andprocedures.
14. Perform monthly/quarterly DR drills or DR drills based on UCO BANK's periodicity

15. Coordinate with UCO BANK and third parties during a DR situation perUCO BANK Disaster Recovery policies and procedures.

2.35.2.7 Roles and Responsibility of L1 and L2 Treasury application resources

The Bidder will be the Single Point of Contact and responsible for Facilities Management Services, AMC and ATS for all components, hardware, software, etc. While bidding for providing Facilities Management Services, the products and solutions proposed by the Bidder by way ofthis RFP should come with warranty as mentioned in the RFP. Bidderneeds to quote for AMC and ATS for all in-scope applications and hardware

The Bidder shall consider and envisage all services that will be required inthe maintenance of the system.

1. Application maintenance would include installation, re- installation, troubleshooting, performance tuning, performance monitoring, applications of patches, bug fixing, improvements in presentation and / or functionality and others within a durationmentioned in Service Level Agreement for the extended period. The AMS (Application Management Services) team should providesupport to all applications & modules referred in the RFP.

2. Bidder should deploy competent resources for the team to provide necessary maintenance and support as per the requirement of theBank. Bidder has to deploy adequate resources to ensure that thesystems are up and customer service is not impacted. To ensurethat the SLAs are met, the Bidder if required will need to deployadditional resources during the contract period including implementation schedule without any additional cost to the Bank. The Bank has a right to interview and reject resources deployed bythe Bidder.

3. L1 and L2 team should be available on-site and would resolve day-to-day production issues reported in all in scope applications / hardware by debugging and analyzing the same.

4. Upon intimation of the issue from the Banks' Team, the L1 / L2Support Team would analyze the issue and provide the necessary solution /Patch within the SLA. The issue would be categorized as a bug, enhancement, understanding issue, setup related or datarelated issues.

5. Bidder's support team would liaise with the ATS / AMC team of OEMVendor to report product related bugs and obtain fixes (if applicable) for the same.

6. If the issue is a bug and would require a fix, restoration would be provided by the support team.

7. If the issues are because of the incorrect understanding, the issuewould be closed with appropriate explanation in consultation with the Bank.

8. If the issues require changes in the product setup or data, the Bidder's team would suggest the required changes to theparameters / data to be made, after discussing the same with Banks' team and taking

an approval Bidder needs to make the changes in the data through DML statement however if the changes required in the front end that Bidder need to provide the SOP to Bank for doing the changes.

Level 1 (L1) Service Desk

Level 1 (L1) Service desk would need to be setup at the Banks' premises on all working days of the Bank as per Annexure XXVII.

The Bank reserves the right to increase or decrease the number of seats at L1 helpdesk depending on its requirements at the Bank. The Bank also reserves the right to change the locations of helpdesks at its discretion. The Bidder is expected to quote a per seat rate, which shall be used in case the Bank orders for lesser or more number of seats at the L1 helpdesk. The Bank expects the Bidder to provide for L1 support for all activities and services that are part of scope. Bidder shall at minimum deploy the resources as per the minimum deployment level specified in the RFP. Bidder should independently arrive at the sizing and deployment plan to meet the RFP requirements (as per scope of work and SLAs), adhering to the minimum deployment level. Bidder shall deploy resources at no extra cost if the proposed deployment does not meet the RFP requirements and SLAs.

The key activities that the SI is expected to perform as part of Level 1 Support are:

1. Assessment in case of specific rights assignment

2. Provision for assigning user rights only for certain fixed period

3. Periodic user right monitoring (at known frequency) must be specified and implemented.

4. Categorization of requests into functional clarification, bug or change request and route the ticket to the right team.

5. Functional clarification to be provided by Level 1 support itself.

6. Bugs & change requests to be logged and reported for further processing

7. Provide telephonic and / or electronic mechanisms for problem reporting requests as well as for service and status updates.

8. Escalate/assign unresolved issues to L2 helpdesk

9. L1 support team will be responsible for first level of trouble shooting for all the applications, hardware / infrastructure components, links etc. taken over / supported by the Bidder or provisioned by the Bidder through this RFP.

10. L1 support team needs to assign unresolved calls to L2 support team and follow up for resolution.

11. L1 team also has the responsibility to provide the solution to end users after taking the same from L2 team and close the call with appropriate

comments.

12. Bidder has to leverage the functionality of EMS tool and providethe system uptime / down time/ Call response time / No of callattended report every month.

13. Bidder has to maintain SLA defined in RFP for L1 helpdesk.

Level 2 (L2) Service desk

Level 2 (L2) Service desk would need to be setup at the Banks' premises all Working days of the week.

The Bidders should include the complete cost of the L2 helpdesk for the entire contract period as part of the Commercial bid.

The support staff in the L2 helpdesk must have a minimum relevant experience as mentioned in RFP. Bidder shall at a minimum deploy theresources as per the minimum deployment level. Bidder shouldindependently arrive at the sizing and deployment plan to meet the RFP requirements (as per scope of work and SLAs) adhering the minimumdeployment level. Bidder shall deploy resources at no extra cost if theproposed deployment does not meet the RFP requirements and SLAs.

As part of L2 support, Bidder needs to perform the below activities:

1. Provide continuous onsite support for all applications being implemented / procured through the Bidder

2. Performing and troubleshooting End of Day, End of Month, End of Quarter and End of Year activities

3. Resolve calls within stipulated timeframe as defined in the Service Level Agreement

4. L2 team has to support all the interfaces with Treasury Solution and needs to do trouble shooting, customization etc. at Treasury end for smooth functioning of day-to-day operation of the Bank.

5. Bidder L2 team need to support all the hardware and software which will be implemented as part of this RFP.

6. L2 team needs to support the customization and troubleshooting of all in scope applications and their interfaces.

7. Provide on-site trained personnel in each L2 shift, having adequate exposure and background on the solutions for problem handling and resolution

8. Coordinate with the L3 teams for resolution and provide necessary information as may be required by the team to resolve the issues

9. Bidder has to maintain SLAs defined in RFP

10. Bidder has to leverage functionality of the EMS tool to provide call response time of L2 team.

11. Escalate the unresolved calls as per escalation matrix

12. Provide timeframes for providing a solution of resolution of the escalated calls

13. Prepare Root Cause Analysis document with the root cause and resolutions provided for major issues such as:

    a. Problems which have resulted in complete service disruptions or downtime

    b. Critical production issues such as incorrect interest application in majority of the accounts, frauds done using the system, inconstant accounting or system behavior

    c. Delayed response times

    d. Data / table corruptions

    e. System Performance issues (high utilization levels)

14. Decide on preventive maintenance schedule with the Bank

15. Liaise with the L1 support personnel for the call information and resolution

16. All other activities as would be required by the Bidder to manage and maintain the solutions

17. Application database and middleware support need to be fully provided and adequate number of resources need to be factored

18. Bidder needs to commission, decommission, install, uninstall and support the middleware from all aspects.

19. Support and maintain all interfaces to the Treasury solutions as part of this RFP scope including the middleware

20. Ensure patch releases are ported to the production environment without causing business disruption or business losses

21. Perform calendar quarter BCP/DR drill of all in scope applications.

22. Bidder has to do customizations and trouble shooting and take end to end responsibility for each of the in- scope applications.

23. The Bank reserves the right to increase or decrease the number of seats at L2 helpdesk depending on its requirements at the Bank. The Bank also reserves the right to change the locations of helpdesks at its discretion. The Bidder is expected to quote a per seat rate, which shall be used in case the Bank orders for lesser or more number of seats at the L2 helpdesk. The Bank expects the Bidder to provide for L2 support for all activities and services that are part of scope.

Level 3 (L3) Service desk

Level 3 (L3) Service Desk would need to be provided from the respective OEM premises or Bank's Premises if required. This shall be considered under the 24*7 operations support window for the tenure of the Contract. The following activities are in the scope of L3 support:

1. Resolve calls within stipulated timeframes as defined under the service

level agreements

2. Communicate the status of the call to the Bank and accordinglyupdate the status, resolution and date of resolution in the appropriate tool

3. Prepare a Root Cause Analysis document for issues referred to L3 support and provide to the Bank along with the resolution

4. Liaise with the L2 support personnel for the call information andresolution

5. All other activities as would be required by the Bidder to manage and maintain the solutions

6. Provide version upgrades

7. Perform Version Migration - The services specified herein are not exhaustive and only indicative:

   a. Perform version migration as per the version release plan ofOEM and agreed by the Bank

   b. Version upgrades and migrations should also include porting of existing customizations

   c. Provide training to the Banks core functional and technicalteam members on the new version functionalities and technical aspects as and when version upgrades and migrations are performed

   d. For any version migration to be performed the Bank and theBidder will mutually draw up an implementation plan andschedule for the same

Application management

including day-end, day-begin, month-end, year-end,periodic and daily backups

1. Bidder has to start L1 support after the completion of implementation.

2. Interface with the applicable 'Third Party Vendor' on behalf of the Bank. This may involve working with the 'Third Party Vendor' to issuedefect correction information, a restriction, or a bypass

3. Defect correction information, a restriction, or a bypass shall beissued by the responsible party involved. The Bidder is required totake the lead to ensure the completion of the required activities.

4. Bidder shall facilitate resolution of End User Software problemsincluding, for warranted or supported Software, contacting the'Third Party Vendor' for resolution assistance or, if available, toobtain the "fix" from the 'Third Party'

Note: Bidders are hereby notified that terms & conditions mentioned in the RFP, Pre-bid responses/corrigendum/addendum will be part and parcel of Service Level Agreement (SLA) and it is not negotiable.

2.36 Disaster Recovery Management

Bidder should setup DC-DR for proposed application including database log-based replication and transaction-based replication. Application installed at DR site should be sync with application with DC side. DR site Database should be sync with primary site DB where all transactions are performed, as per Bank RTO.

At least first 4 DR drills to be conducted by OEM after successful implementation of proposed solution and training to be given to the UCO Bank's staff. Subsequently all DR Drill to be performed by bidder. The bidder should also ensure proper disaster recovery management with work-flow based monitoring, management and troubleshooting features.

Database Recovery

- o Create & implement database recovery solutions in consultation with Bank's team
- o Recovery of database at primary and standby as per case
- o Restoration activities (from backup media)
- o Database recovery using the physical & logical backups
- o Support for DR Configuration
- o Evaluating current backup, recovery, & data replication procedures & providing recommendations for improving those procedures.

Database Back-up Store

- o Manage Database backup/ restore schedule, administration (RMAN Backup)/Scheduled Backups and others
- o Data Deletion & Purging/archival activity
- o Purging of tables based on availability of space on a regular frequency (Frequency to be decided)
- o Consolidating all database backups & Transaction log backups at a single file Server
- o Perform database backup, restore and recovery routines.
- o Compliance, review and updates to database standards documents

Database Capacity Management

- o Estimate & recommend database requirements based on received data from Database Performance team and Business projections (Half-yearly/ As and when required)
- o Perform Database Space analysis
- o Alignment to purging policy
- o Review archive logs requirements
- o Customizations required at DB level

Part-V

1. Order Details

The purchase order will be placed by UCO Bank Head Office, DIT in the name of selected bidder as per requirement. The payment will be made by Head Office, DIT and the Performance Bank Guarantee for order will be required to be submitted in the same office.

2. Delivery and Installation

The selected bidder has to ensure the delivery, installation and implementation of the proposed solution to be completed within **18 months** from the date of issuance of the Purchase Order as per the Phase Implementation Schedule mentioned in Clause No. 6 of the RFP. The delay period of site readiness will not be included in above-mentioned delivery and installation period.

3. Contract Period

The selected bidder needs to execute a Service Level Agreement (SLA) with Bank covering all terms and conditions of this RFP. SLA will cover performance and availability of the solution deployed. The contract period will be for a period of five years (05) from the date of Issuance of Purchase order which can be extended further on mutual terms and conditions for the period as decided by the Bank. The performance of the selected bidder shall be reviewed every quarter. Any offer falling short of the contract validity period is liable for rejection.

The draft format of SLAs will be provided after acceptance of Letter of Intent (LOI) by the successful bidder.

4. Warranty/ AMC & ATS
For Hardware:

The Selected Bidder must provide **Five years** comprehensive on-site Warranty after completion of Implementation and acceptance sign off by the Bank. The Warranty of the Hardware will start from the Go-Live of the Phase 1.

For Software:

The Selected Bidder must provide **1 (One)** year comprehensive on-site warranty after completion of Implementation (Go-Live Sign off). The Bidder has to provide ATS for all the Software supplied under this RFP for the remaining period of the contract. after the expiry of warranty period. The Warranty of the Software will start from the Go-Live of the Phase 1.

The Onsite FM Service for the solution to be provided post implementation and Go-Live of Phase 1 for the remaining contract period i.e., Up to 5 years including implementation & warranty period. The draft format of SLAs will be provided after the Letter of Intent (LOI) with the successful bidder.

5. Payment Terms

The payment will be released to the vendor as per the payment schedule defined as below:

a. There will be no advance payments. There will be no interest on late payment.

Deliverables	% Of Payment	Stages (On Completion of the activities)
Hardware	85%	Delivery of the Hardware and submission of invoice with Proof of Delivery and other documents
	10%	On Successful installation and acceptance of the infrastructure / hardware by the Bank
	5%	After Successful Go-Live
Database systems, OS & Other Peripheral	85%	Delivery of the Hardware and submission of invoice with Proof of Delivery and otherdocuments
	10%	On Successful installation and acceptance of the infrastructure / hardware by the Bank
	5%	After Successful Go-Live
Application licenses (Treasury)	70%	Delivery of Base version of respective application software and on submission of Invoice and proof of Delivery.
	10%	On successful completion of current state assessment, gap analysis and system specification definition Phase for respective applications
	10%	On UAT sign off for respective applications
	10%	On successful release of customized software to production, for respective applications
Solution Implementation Cost (Treasury)	30%	SRS Sign-off of respective application
	30%	Application installation, Configuration & Master Set up in UAT environment
	20%	Development & Customization in UAT Environment
	20%	On successful release of customized software to production, and After 3 months of go-live, after realizing penalty charges/LD for late delivery, if any
Training	100%	Will be paid as and when each batch of training is completed
AMC/ ATS	ATS Yearly in Advance, AMC Quarterly in Arrears	The AMC/ATS shall commence on completion of the warranty period (5 years for hardware and One year for software/services). *** AMC / ATS warranty of all components will start after Go live of that Component only.** Bidder has to provide (a warranty of 5 Years for Hardware and 1 Year for Software). In case of extension of go-live due to any reason, subject to & after complying all terms and conditions of the RFP, the payment of ATS shall be made on proportionate basis.
Managed Services	Quarterly in arrears	The Bidder shall provide managed services for all in scope software and hardware. The facilities management costs towards managed services will therefore commence after successful Go-Live of the project and sign off by the Bank for Phase 1 Section-A. The bidder must note that the managed services should be available for all environments viz., production
Hardware &	40%	On successful implementation of hardware & peripheral software

Deliverables	% Of Payment	Stages (On Completion of the activities)
Peripheral software installation & commissioning	50%	On successful completion of acceptance of hardware & peripheral software by the Bank
	5%	After three months of acceptance sign off by the Bank
	5%	After 3 months on successful release of customized software to production or After 3 months of go-live whichever is later, after realizing penalty charges/LD for late delivery, if any
Escrow	Yearly in Advance	Escrow Payment will start after Go-Live
Quality Assurance	25%	On submission of the "Before UAT" Report
	25%	On Sign off the "Before UAT" report by Bank
	25%	On submission of the "After Go-Live" Report
	25%	On Sign off the "After Go-Live" report by Bank
Charges for testing Agency	10%	Bank's Sign-off on test cases & scenarios submitted by agency
	20%	On testing the base version and submitting the gap analysis
	20%	On testing and submission of test report on customized solution
	20%	Testing sign-off given by Agency on the final test cases and scenarios
	20%	Bank's sign-off on testing carried out by agency on the final test cases and scenarios
	10%	Release to production after stabilization period of 1 month
Charges for Data Migration Audit	25%	Submission of Data Migration Audit Strategy Document
	25%	Installation of Tool
	35%	Field Wise (Pre-Migration Reports)
	15%	Field Wise (Post-Migration Reports)
3rd party Configuration Review, Audit and Model setup	20%	Submission of Configuration Review report "Before Go-Live"
	20%	Submission of VAPT Report "Before Go-Live"
	20%	Submission of IS Audit and Functional and technical Specification Report "Before Go-Live"
	20%	Submission of Configuration Review report "After Go-Live"
	10%	Submission of VAPT Report "After Go-Live"
	10%	Submission of IS Audit and Functional and technical Specification Report "After Go-Live"
User Defined Customization	40%	When the Customization is delivered in UAT after having the SIT Sign off
	40%	After getting the UAT Sign off by the Bank
	10%	ON Go-Live
	10%	after three months of successful go-live

Bank shall pay each undisputed invoice raised in accordance with this RFP and subsequent agreement, within thirty (30) working Days after its receipt unless otherwise mutually agreed in writing, provided that such invoice is dated after such amount have become due and payable under this RFP and subsequent agreement. Bidder needs to

submit the proof of Bill of Lading, Custom duty paid etc along with the invoice of Hardware / Software imported and supplied by them. In the absence of these documents, genuineness of the equipment imported/supplied by the vendor could not be verified

Any objection / dispute to the amounts invoiced in the bill shall be raised by the Bank within 30 working days from the date of receipt of the invoice, only in exceptional circumstances will Bank raise a dispute beyond 30 working days. Upon settlement of disputes with respect to any disputed invoice(s), the Bank will make payment within thirty (30) working Days of the settlement of such disputes

Data Migration Audit, UAT through external party are applicable only for Phase 1 implementation.

Bidder needs to quote the cost for the Phase 3 delivery in the bill of material however it the implementation of the same will be at the discretion of the Bank. The cost will be considered for the TCO Purpose. If bidder does not propose any cost for Phase 3 delivery then it will be assume that Bidder will be doing the Phase 3 delivery free of cost if required by the Bank in future during contract period.

6. Schedule of Implementation

Implementation Roadmap and Schedule of Delivery

Below Phase wise Implementation of Asset classes needs to be done

Implementation Roadmap and Schedule of Delivery for all three centres India, Hongkong & Singapore in a consolidated table chart

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
		Section – A 1. Required for all three centres from Day-1 2. Though the same has been mentioned for specific countries, the same should be available for all three countries from Day-1 3. OEM, needs to provide written confirmation during the submission of bid that proposed solution should have the capability and enough scalability to accommodate, integrate & implement the following functionalities / modules / instruments without any difficulty from Day-1.	**Section – B** 1. These functionalities/ modules/instruments should be provided under the same licenses of Section-A. 2. These functionalities/ modules/instruments will be implemented later on, as and when required by Bank, on mutual terms and conditions and cost. 3. Bidder needs to consider the sizing of the hardware after considering the Section-B functionalities / modules / instruments. 4. OEM, needs to provide written confirmation during the submission of bid that proposed solution should have the capability and enough scalability to accommodate, integrate & implement the following functionalities / modules / instruments without any	OEM, needs to provide written confirmation/ sign-off before go-live that proposed solution should have the capability and enough scalability to accommodate, integrate & implement the following functionalities / modules / instruments without any difficulty, as and when required by Bank, on mutual terms and conditions and cost.

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
			difficulty, as and when required by Bank, on mutual terms and conditions and cost.	
Debt Asset Class	Fixed Income Securities, IRS/CIRS, Bond OTC Options, Warrants, Futures, Traded Options	1. Fixed Income: IN, SG & HK: • Bonds (Fixed, Floating, Inverse Floater, • Perpetual, Callable/Puttable) • Bonds (Govt., Corp, Muni, Floating rate bond, When Issued) • Repurchase Agreements (Term / open) • Triparty Repo • Pledge • Securities Lending Security Basket • SG Specific: • Banker's Acceptance Facility • RIETS • AMR Bill - MAS Bill / SGS Bond / SGD T Bill / USD T Bill & Notes / USD Bond • Non-SLR - Corporate Bonds / Credit • Linked Notes / Amortizing Bonds • IR Caps / Floors / Collars • Currency F & O's IN Specific: • Securities Lending Fixed Income • Securities • Listed Bond Futures & Options • Vanilla OTC options on Government • Bonds • Convertible Bonds • SLR – CG & SG Securities / Treasury Bills / Other SLR Bonds • Non-SLR – Non-SLR Bonds / PSU, FI, NBFC • Bonds / Debentures & Corporate Bonds /CDs & CPs / PTCs & Amortizing Bonds /ARCIL HK Specific:	1. Fixed Income: • Asset Backed & Mortgage Backed • Securities Lending: • Fee Trade/Fee Rerate • Fee Principal Mark to Market • Fee in same or different currency • Rebate Trade /Rebate Rerate 2. Interest Rate Derivative ☐ Zero Coupon Swap ☐ Quanto Swap ☐ Vanilla Cap/ Floor/ Collar/ Corridor/ Straddle ☐ Digital Cap/ Floor/ Collar/ Corridor/ Straddle ☐ Cancellable Fixed Rate Swap ☐ Asset Swaps ☐ Leverage Cap/Floor 3. Inflation Linked ☐ Inflation Swap, ZC and YOY ☐ Inflation Cap/Floor, ZC and YOY ☐ Coverage includes: US, Canada, Euro-zone, France, UK, Japan, Australia, South Africa	Interest Rate Derivative • Spread Cap/ Floor • Callable Zero Coupon Swap • Callable / Non-Callable Range • Accrual Swap/ Note • Callable /Non-Callable • Snowball Swap/Note • Target Redemption Swap/ Note • Callable Exotic Swap • Extendible Swap • Structured Swap • Structured Basis Swap • Structured Digital Cap/ • Floor/ Collar/ Corridor/ Straddle • Cancellable Cross Currency Swap • Treasury Lock

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore	Phase 2
		• Listed Bond Futures & Options • Banker's Acceptance Facility • Convertible Bonds • ALR – Govt Securities of major countries / • US Treasury Bills / Hongkong Dollar EFN • Non-SLR – Corporate Bonds / Credit • Linked Notes / Amortizing Bonds • Repurchase Agreement:- • Fixed Income Securities • Single/Cross Currency • Fixed/ Floating Rate • Single/Multi Collateral • Streamlined Substitution / Repricing, • Partial Return, Interest Clean up, • Rerate Screen • Country Specific: General Collateral • (USA), DBV (UK), PLI (France), Gensaki • (Japan) • Buy/Sell Back 2. Interest Rate Derivative IN, SG & HK: • Vanilla Swap & Vanilla Basis Swap • Cross Currency Swap & Cross currency Basis Swap • Overnight Index Swap • FRA • Future on Interest Rate • Interest rate Swap • IR Swaptions • IR / Bond F&O's IN Specific: • IR Caps / Floors / Collars • Retail G Sec • SG Specific: • IR Caps / Floors / Collars • Currency F & O's HK Specific: • FX OTC options • Currency F & O's • Convertible Bonds	

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
		• CFD- Non Deliverable Forward • Mark to Market Cross Currency Swap • Non-Deliverable Swap • Constant Maturity Swap 3. Inflation Linked • Inflation Indexed Bond		
EQ Asset Class	Equities, Equities OTC Options, Equity Swaps, Warrants, Futures, Traded Options, Mutual Funds	IN, SG & HK: • Equities • Preference Shares • Rights & Warrants • Mutual Funds • REITS • ETFs • Venture Capital • OTC Single –Stock and Basket options • Securities Lending • Equities • Fee Trade/ Fee Rerate • Fee Principal Mark to Market • Fee in same or different currency • Rebate Trade /Rebate Rerate/ Repricing • Cash collateral in same or different currency • Partial/ Full Termination • Security Basket • Repo IN Specific: • Corporate actions • Bonus Issue, Stock split , • Merger • Conversion of debenture, preference • share to equity SG Specific: • OTC Swaps-:Variance & Volatility, • Correlation • Equity linked structured Notes & Swaps HK Specific: • OTC Swaps-:Variance & Volatility, Correlation	• ADR and GDRs • Equity Forwards • Listed Derivatives : Index & Single Stock Futures, Options, Warrants and Options-on-Futures • Listed Derivatives : Dividend / Volatility • Futures & Options • Barrier / Asian Options (single-stock, basket, index) • Look back options (single-stock, basket, index)	• Digital options (single-stock, basket, index) - Range Accruals, Accumulators Exotic payoffs (Cliquet: Compound: Rainbow: Altiplano: Himalaya) • Portfolio Swap • CFD • Hybrid Options on Equities and Hybrid Options on Rates and FX/PM • PRDC (Power Reverse Dual Currency) • Target Redemption Callable/ Auto Callable
FX Asset Class	FX Spot, FX Swaps/ Forwards,	1. IN, SG & HK: • Spot • Forward (Deliverable Window-NDF)	• Non deliverable Vanilla options • Binary / Digital Options	

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
	FX OTC Options, Warrants, Futures, Traded Options	• Swap (Deliverable / NDF) • Accruals (Cash payout, Fx accruals, fader option) • FX futures • Flexible Forward (Merchant FX) 2. IN Specific: • Interest Rate Derivative – • Vanilla options (OTC) • Vanilla options strategies • Barrier Options • Double Barrier Options • Resettable CIRS • Barrier & Digital Swaps • Asset Swaps • Total return Swap	• Digital with Barrier Options • Asian Options • FX Listed Options • Look Back Options • Forward Start Options • Compound Options • Forward Volatile Agreement • Volatility & Variance Swaps, Capped • Swaps, and Options • FX Target Redemption Forwards • (Vanilla, KO, Variable Leverage Ratio, • Alternative Payoffs)	
MM Asset Class	MM, Sec lending, Repos, FRA, Cash Flow, IRS/CIRS, Warrants, Futures, Traded Options	IN, SG & HK: • Repo & Reverse Repo • Structured Loan & Deposit (Callable & Non-Callable) • Reciprocal Deposits (CCS) • Zero Coupon Bond • Vanilla Loan/Deposit(open &term) • FRA • Money Market Interest Rate Future • Option on Money Market Interest Rate Future SG & HK specific: • Borrowings & Placements (InterBank) • Call account • Transfer of Cash • Credit Facility IN specific: • Call & NDS Call • Cash Pay / Rec • Borrowings & Placements (TREPS, RIDF, CROMS) • LAF • Standing Deposit Facility (SDF) • CP & CD		
Credit Derivatives		• CDS: Index, Single Name, Forward, Index Futures		• Managed CDO

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
		• Credit Linked Notes • Syndicated loans		• CDOSquared (Normal, Cross Subordination) • Nth Loss Baskets • CDS Swaption • Index Options • Options on Index Tranches • CDS on Structured Finance • LCDX,LevX • Tranched LCDX • Contingent CDS(CCDS) • Risk Participation Swaps(RPS) • Recovery Rate Swap • Index Tranche • First-to-Default/ Nth to Default Baskets • TRS(Bond, Bond Basket or Market Index) • Single Tranche CDO
Hybrids & Structured Products				• Dual Currency Deposits Range Accruals • Snow Ball • Snow Bear • Inverse Floaters • Leveraged Floaters
Commodities				• Financials • Physicals • Dore Bars • Commodity Precious Metals: • Spot and Forward Precious Metals • Physical Precious Metals(Pricing by form and location) • Precious Metals Lease /Depo • Precious Metals Lease Rate Swap • Options(un allocated loco-London underlying's only) • Vanilla Options(OTC) • Vanilla Options Strategies • Barrier Options(Full,

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
				Partial, Expiry-Only Barriers)
				• Binary / Digital Options (Full,
				• Partial, Expiry-Only Triggers)
				• Digital with Barrier options
				• Asian Options(Arithmetic and Geometric Averaging:
				• Average Rate, Strike and Double Average)
				• Accruals(Cash Payout, FX Accrual, Fader Option)
				• Precious Metal Futures
				• Precious Metal Listed Options
				• Unallocated loco-London Underlying
				• Look back options (Floating/ Fixed Strike)
				• Forward Start Option
				• Compound Option
				• Forward Volatility Agreement
				• Volatility & Variance Swap, Capped Swaps and Options
				• Precious Metal target redemption Forwards (Unallocated loco-London underlying) Commodity Derivatives:
				• Financially settled Commodity Swaps (Bullet or Asian; Single- Underlying or Spread)
				• Commodity Index Swap (Excess or Total Return)
				• OTC Options- Caps & Floors
				• Vanilla, Asian, Digital, Single Barrier

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
				• OTC Swaptions • Commodity Futures(Futures, Index Futures, Futures Spread) • Listed Commodity Options(Options on Futures, Index Future Options, CSOs, ISOs) • Physical Settled Forwards(Ags, Softs, Base Metals, Carbon Allowances) • Cheapest to deliver for Carbon Allowances • Physical OTC option (exercise into commodity Forward) • Certificate management
Islamic				• Mudarabah • Murabaha -Bank Murabaha -Private Murabaha -TFO Murabaha -Reverse Murabaha • Wakala • Sukuk

Below Timelines are application for all 3 countries parallel

S. no	Milestone (CIGTMS)	Timeline from PO (T)
1	Onboarding to team	T+1 Week
2	Kick Off: - Submission of Project Plan - Detailing each task with target date and assigned resources including migration planof existing data and installation of all items supplied and integration with existing infrastructure at DC and DR.	T+2 Weeks
3	Delivery of Hardware & software at DC & DR	T+10 Weeks
4	Power-on, Basic Installation, configuration, commission and documentation of all itemssupplied at DC and DR Sites	T+12 Weeks
5	Submission of HLD	T+10 Weeks
6	Core Team Training completion	T+9 Weeks
7	Data Requirement Identification and Analysis (Not dependent on Hardware)	T+9 Weeks
8	Interface requirements (Not dependent on Hardware)	T+9 Weeks
9	SRS Sign off (Not dependent on Hardware)	T+11 Weeks
10	Submission of LLD	T+12 Weeks
11	Application installation, Configuration &Master Set up in UAT environment	T+16 Weeks
12	Development & Customization in UAT Environment	T+36 Weeks
13	Interface, Customization with internal & external systems	T+36 Weeks
14	SIT, UAT, Pre Data audit , Data Migration completion in UAT Environment, Simulation Run	T+59 Weeks
16	Production Movement & Go-Live	T+60 Weeks
17	Stabilization Period	T+64 Weeks

Assets Classes Mentioned in Phase 3 will be at the discretion of the Bank. Whenever Banks wants to have these products implemented Bank will inform the bidder and bidder needs to implement the same as per the agreed timelines with Bank.

7. Penalty & Uptime

The Bidder shall perform its obligations under the agreement entered into with the Bank, in a professional manner.

If any act or failure by the bidder under the agreement results in failure or inoperability of systems and if the Bank has to take corrective actions to ensure functionality of its property, the Bank reserves the right to impose penalty, which may be equal to the cost it incurs or the loss it suffers for such failures. However the Penalty amount will not exceed the At risk amount clause.

If the Bidder fails to complete the due performance of the contract in accordancewith the specification and conditions of the offer document, the Bank reserves the right either to cancel the order or to recover a suitable amount as deemed reasonable as Penalty /

Liquidated Damage for non-performance.

Bank may impose penalty to the extent of damage to its any equipment if the damage was due to the actions directly attributable to the staff of the Bidder.

1) **"Downtime"** shall mean the time period for which the specified services / components with specified technical and service standards are not available to Bank and excludes the scheduled outages planned in advance and the bandwidth link failures within SLA limits agreed with network service providers.

2) **"Incident"** refers to any event / abnormalities in the functioning of the equipment /specified services that may lead to deterioration, disruption in normal operations of Bank's services.

3) **"Resolution Time"** shall mean the time taken in resolving (diagnosing, troubleshooting and fixing) an incident after it has been reported at the helpdesk. The resolution time shall vary based on the category of the incident reported at the service desk. The category shall be defined and agreed between Bank and Service Provider.

4) **"Scheduled operation time"** means the scheduled operating hours of the System for the month. All planned downtime on the system would be deducted from the total operation time for the month to give the scheduled operation time.

5) **"System downtime"** subject to the SLA, means accumulated time during which the System is not available to the Bank's users or customers due to in-scope system or infrastructure failure, and measured from the time the Bank and/or its customers log a call with the Bidder help desk of the failure or the failure is known to the Bidder from the availability measurement tools to the time when the System is returned to proper operation. Any denial of service to the Bank users and Bank customers would also account as "System downtime"

6) The business hours are 9:00 AM to 9:00 PM (India) on any calendar day the Bank's branchis are operational. The Bidder however recognizes the fact that the branches will require to work beyond the business hours and holidays on need basis. Bidder also needs to note here that the timings mentioned will be as per the entity as Hongkong and Singapore are working in the different time zone.

7) Critical and Key infrastructure of Data Centre, Disaster Recovery Centre and Near Line Site will be supported on 24x7 basis.

8) Uptime will be computed based on availability of the applications to the Bank's users irrespective of availability of servers either individual server/clusters. Also, non-compliance with performance parameters for business, network and environmental infrastructure and system / service degradation will be considered for downtime calculation.

9) If any one or more of the components defined in "Critical" at the Data Centre, Disaster Recovery Facility and Near Line Site are down resulting in non- availability of Solution, then all the services listed in the "Critical" availability measurements table shall be considered for calculating the system downtime. All the components which are proposed by the bidder for running the Production setup will be termed as critical.

10) Typical Resolution time will be applicable if systems are not available to the Bank's users and customers and there is a denial of service.

11) Following are the requirements related to managing the service levels to be maintained in providing such services:

7.1 Service Level Agreement and Targets

This section includes the SLAs which Bank requires the Successful Bidder to manage as key performance indicators for the scope of work. The objective of the SLA is to clearly define the levels of services to be delivered by the Successful Bidder to Bank for the duration of the contract.

The following section reflects the measurements to be used to track and report performance on a regular basis. The targets shown in the following sections are for the period of contractor its revision whichever is earlier.

7.2 Service Level Measurement

1) Bank has defined in-scope services in the RFP and corresponding SLAs below. Bank shall evaluate the performance of the Successful Bidder on these SLAs compliance as per the periodicity defined.

2) The Successful Bidder shall provide, as part of monthly evaluation process, reports to verify the Successful Bidder's performance and compliance with the SLAs. Automated data capturing and reporting mechanism will be used for SLA reporting. The bidder has to leverage existing EMS tools to monitor and manage the Solution
/ IT Infrastructure.

3) If the level of performance of Successful Bidder for a particular metric fails to meet the minimum service level for that metric, it will be considered as a Service Level Default.

4) The Bidder shall provide SLA Report on monthly basis and a review shall be conducted based on this report. A monthly report shall be provided to the Bank at the end of every month containing the summary of all incidents reported and associated Bidder performance measurement for that period. Performance measurements would be accessed through audits or reports, as appropriate to be provided by the Bidder.

5) The SLA will be applicable after a stabilization period of one month which will start from the date of Go-Live and sign off by the Bank for Phase 1.

6) However during this one month all SLA will not be applicable but the call response and Call resolution time and its related penalties will be applicable to reduce the business impact.

7) If bidder is not able to achieve the SLA due to the reason hardware, network, or any other component provided by the Bank then bidder needs to provide the justification to the Bank. However the final decision will be with Bank.

7.3 Uptime Rules for

Uptime

Uptime (Monthly)

Sl. No.	Category	Required uptime
1.	Hardware/ Software of all in-scope applications.	99.90%
2.	Various channels (interfaces)	99.90%

Uptime Rules

1) Wherever System Integrator monitors onsite, the downtime calculation starts from the time of hardware/ software failure leading to denial of service.

2) Wherever, Bank monitors, the downtime calculation starts from the time of reporting by the Bank.

3) The preventive or scheduled maintenance done without affecting the functioning of branches and delivery channels is not considered as downtime. The time lost due to any of the following reasons shall be taken into account while calculating the availability/ uptime requirement:
(a) Time lost and taken to recover due to power or environmental failures;
(b) Time lost due to damage or malfunction in the system or any units thereof due to causes attributable to Bank
(c) Time taken for scheduled maintenance/ troubleshooting, other than proposed Treasury & its associated applications, either for preventive purposes or improvement in function or other purposes;
(d) Time taken for reconfiguration or other planned downtime situations except for proposed Treasury & its associated applications;
(e) Scheduled shutdowns as required by Bank
(f) Time lost due to unavailability of links.

Call Response and Resolution Time during business hours

Sr. No.	Category	Response Time	Resolution Time
1	Severity 1 (Unavailability of any of the services (software/interfaces of all in-scope items) affecting all users)	5 mins	20 Min during Business Hours
2	Severity 2 (Unavailability of any of the services such as software and interface affecting any group of users from forex/money market/Equity/bonds – Front Office / Back Office)	5 mins	30 Min during Business Hours
3	Severity 3 (Unavailability of any of the services such as software and interface affecting any particular user from forex/money market/Equity/bonds – Front Office / Back Office	5 mins	2 Hour during Business Hours

7.4 SLA for Business Continuity and Uptime

S. No	Metric	Hours Availability	Baseline Performance	Details	Penalty (to be reviewed on Quarterly basis)	Monitoring Mechanism

1	System Availability- Uptime availabilit y of systems	24 x 7	99.90%	Measured Daily Calculate d Monthly	For each 0.25% drop in availability, impose a penalty of 1% of Quarterly Payment. For every further drop of 0.25% in the uptime, the penalty amount will be doubled.	EMS / Manual
2.	Average transaction response time- This is the time taken from submission of any request by end-user – to response of the request to the end- user	24 X 7	Average response time < 30 seconds Minimum Baseline monthly should be >99.90%	Sample each event averaged for half hour Measured daily Calculate d monthly	0.50% of Quarterly Payment. For every further delay of 2 Second in the response time, the penalty amount will be doubled.	Manually

3	Incident Managem ent Services	24 X 7	Call tickets per month resolved within the time lines as mentioned in the table in RFP divided by the total number of call tickets per month	Measured monthly	**Severity 1-** 99.90%, every drop of .25% penalty will be 50,000 **Severity 2-** 99.80%, every drop of .25% penalty will be 35,000 **Severity 3-** 99.50%, every drop of .25% penalty will be 25,000	EMS/ Manual
4	Hardwar e Utilization	24 X 7	if Hardware average daily utilization levels of CPU, RAM, NIC and hard disk etc. exceeds 70% at any given point of time during business hours	Measured monthly	99%, each .5 % drop in service level, penalty shall be INR 50,000	EMS / Manually
5	Storage Utilization	24 x 7	If any point of time during Contract period is storage sizing provided by bidder cross 80% utilization	Measured monthly	100% to be maintain, each .5 % drop in service level, penalty shall be INR 50,000	EMS / Manually
6	Patch managemen	24 X 7	All the regulatory and Issues patches	Measured monthly Dividing	99.00%, For each	EMS / Manually

	t		to be implemented	the total number of successful Patches applies by the total number of which was supposed to be applied	.5% drop in service level, penalty shall be INR 50,000	
7	RTO and RPO	24 X 7	RTO: - 120 mins	Measured Monthly	99.00%, For each .5% drop in service level, penalty shall be INR 50,000	Manually
			RPO: - 30 mins			
8	Change and Release Managem ent Services	Dividing the total number of successful l closure of change request tickets by the total number of change request tickets raised in the Helpdesk tool	0.99	Measured Monthly	For each .5% drop in service level, penalty shall be .10% of Quarterly Payment	EMS tool / Manually
9	IT Service Continuity & Disaster Recovery Services	No of times DR plan is tested in a year (as per Bank's policy)	100%	Measured Quarterly	Penalty shall be 0.10% of Quarterly Payment for each default.	Manually
10	VAPT /Audit	Dividing the total number of	100%	Measured Monthly	For each .5% drop	EMS tool/ Manually

		successful l closure of finding by the total number of Finding raised			in service level, penalty shall be .10% of Quarterly Payment	

Downtime for servicing: Each planned downtime for application like upgradation, bug fixing, patch uploads, regular maintenance etc. will not be more than 4 hours. This activity shall not be carried out during business hours subject to 98% monthly

7.5 SLA for Management, Governance and Reporting

S. No	Service Details	SLA Measurement	SLA	Penalty	Measurement tool	Remarks
1	Project initiation	The Successful Bidder is expected to mobilize the team as per commencement of work for this project. Commencement of work would mean reporting of Successful Bidder's resources at the designated Bank's locations for project.	Project Leads should be deployed as per the Timeline stated in the RFP After the due date stated in the RFP	No penalty	Manual	bidder shall initiate that Project Leads should be deployed within 1 weeks
				1 (one) percent of (Implementation, Application, Database cost) for every week of delay or part thereof	Manual	from the date of release of PO ProjectTeam should be deploy ed Within 2 weeks from the date of release of PO
2	Program Manager, Service delivery Manager, Domain in charge, SME, and Implementation team	No change in these resources for minimum 15 months from the contract date (*the Program Manager should not be rotated to other clients of the Service Provider under the contract period).	100%	Penalty shall be 0.10% of Quarterly Payment for each default beyond the agreed the threshold.	Manual	Bidder needs to deploy the same resource s or resource s with equivalent skill sets as per the terms and conditions of the RFP

#						
3	Staff transition period (Handover period)	As per below mentioningstaff transition period • Program Director / Manager, Project Managersand Service delivery manager-60 Days • All DomainIncharge-45days • Other staff-30days	100%	Program Manager/Delivery Manager-Penalty shall be INR 30,000 for each week of default or part thereof Domain In-charge-Penalty shall be INR 25,000 for each weekof default or part thereof Other Staff-Penalty shall be INR 10,000 for each week of default or part thereof	Manual	Bidder need tosubmit the Handover report every month with theresource mapping to their service area
4	Resource availability	Bidderneeds to maintain the attendance in each shift as per the BOM at any day of the contract and the same should not go below 90%	No of Shifts below minimum attendancelevel	Penalty shall be INR 25,000 for every 2% default or part thereof below the agreed threshold	Manual	Bidder has to submit the attendance every month end for each resourcee with their location and Service area

7.6 At Risk Amount

The monthly At-Risk Amount ('ARA') shall be 10% of the estimated monthly pay out of the respective month. The overall cap for penalties as per SLA and liquidity damages (mentioned later under clause 8) over the tenure of the contract will be 10% of the contract value. Bank will have right to recover the penalty amounts by any mode such as adjusting from any payments to be made to the selected bidder or from the Performance Bank Guarantee.

The onetime penalty for project initiation shall not be subject to the limit specified above on the At- Risk Amount('ARA').

7.7 Service Level Default Calculation

The Bidder's performance to Service Levels will be assessed against Service Level requirements for each criterion mentioned under section 7 above. The Bidder fails to meet Minimum Service Levels, as measured on a monthly basis, for a particular Service Level.

In the event of a Service Level Default, the Bidder shall pay the Bank a Service Credit that will be computed in accordance with the following formula:

Monthly Service Level Default = Minimum Service Level – Monthly Actual Service Level
Service Credit **=** Monthly Service level default X Associated Penalty

In the event that a Service Level Default has occurred for more than one service level requirement, the sum of the corresponding Service Credits shall be credited to the Bank

The Bidder shall review with the Bank, on a monthly basis from the start of Contract Execution, any entitlement of the Bank to a Service Credit.

The total amount of Service Credit that the Bidder is obligated to pay the Bank shall be reflected on the invoice provided to the Bank in the quarter after the quarter in which the Service Levels were assessed. The Bank shall be entitled to deduct the Service Credit amount from the amounts payable by the Bank to the Bidder as per the invoice.

In-case the Service Level default exceeds the Minimum Service Level by more than 1% for a particular Service Level, the Bank will apply a multiplication factor to the associated penalty for Service credit in line with the below table

S. No	Range	Penalty Factor
1	MSL- 1%	1.5 X associated Penalty
2	MSL -2%	2 X Associated Penalty
3	MSL -3% or more	2.5 Associated Penalty

Example 1

Assume for a particular service level requirement (e.g.: Availability of Critical solutions), the minimum service level is 99.9% During a Service Assessment period; the service level achieved is 99.5%:

The Service Credit due to the Bank would be computed as follows:

Minimum Service Level

Monthly Service Level Default = M1 = 99.9 - 99.5 = .4 Penalty =for each

0.25% drop in server availability, penalty shall be INR 2, 00,000

Availability Service Credit for M1 = 2x2, 00,000 = Rs.4, 00,000

Example 2

Assume for a particular service level requirement (e.g.: Availability of Critical Solutions), the minimum service level is 99.9% During a Service Assessment period; the service level achieved is 98.9%:

The Service Credit due to the Bank would be computed as follows:

Minimum Service Level

Monthly Service Level Default = M1 = 99.9 – 98.9 = 1% Penalty =for

each 0.25% drop in server availability, penaltyshall be INR 2, 00,000

Penalty factor = MSL-1%= 1.5 Xassociated Penalty Availability

Service Credit for M1 = 4x 2, 00,000X1.5 = Rs.12, 00,000

Penalties, if any shall be calculated for every quarter and recovered from theAnnual Technical Support/AMC/. For calculation of penalty during warranty period, ATS/AMC Cost will be considered which will be deducted from the payment being paid towards on-site support facility being availed during warranty period. Wherever applicable as stated above while effecting any payment, deduction towards LD payment will be made. Hence the bidder should raise the invoice deducting the penalty amount.

8. Liquidated Damages

Notwithstanding Bank's right to cancel the order, liquidated damages at 0.5% (One percent) of the price of undelivered portion/ not installed services will be charged for every month's delay in the specified delivery/services schedule subject to a maximum of 10% of the total cost of ownership. Bank will have right to recover these amounts by any mode such as adjusting from any payments to be made to the Bidder or from the performance Bank Guarantee. Liquidated damages will be calculated per week basis. Dispatch details shall be shared by the bidder regularly after handing over the consignment to the concerned Courier Agency/Indian Postal services. Bank may invoke the Bank Guarantee for further delay in delivery & migration.

9. Paying Authority

The payments which is/are inclusive of other taxes, fees etc. and exclusive of GST . as per the Payment Schedule covered herein above shall be paid by Department of Information Technology, UCO Bank, Head Office – Kolkata. However, Payment of the Bills would be released in INR only, on receipt of advice / confirmation /sign-off for delivery and commissioning as per the terms and conditions of RFP, live running and service report etc. after deducting all penalties. Also, the bidder has to submit the certificate of insurance covering all the risks during transit, storage, installation, commissioning, testing and handling including third party liabilities.

Following Documents are to be submitted for Payment:

- Invoice in Triplicate
- Duly receipted Delivery Challans
- Original Octroi Receipts, if any
- Installation Report, counter signed by an authorized official from the delivery site

10. Performance Bank Guarantee

The Vendor, within a period of fifteen (15) days from the date of Letter of Intent/Purchase Order, will have to furnish a Performance Bank Guarantee (Format as per Annexure – V of the RFP), issued by any scheduled commercial Bank (other than UCO Bank) equivalent to 3% of the Project Cost/Total Cost of Ownership (TCO) valid for a period of 63 months (60 months + claim period of 3 months) indemnifying any loss to the Bank.

The Performance Bank Guarantee shall act as a security deposit and in case the Vendor is unable to commence the Project within the stipulated timeframe or the commencement of the Project is delayed beyond the acceptable levels, the Bank shall be entitled to invoke the

Performance Bank Guarantee and forfeit the same, without notice or right of demur to the Vendor but only an intimation will be given to the vendor.

Further, the Bank reserves the right to invoke the Performance Bank Guarantee in case the Vendor is not able to fulfil any and all conditions specified in this Agreement or is unable to complete the Project within the stipulated timeframe and such breach remains uncured within such period as mentioned in the Order Cancellation (Termination) clauses. This is independent of the Bank's discretion to exercise the right of Liquidated Damages.

The Vendor shall be responsible for extending the validity date and claim period of the Performance Bank Guarantee as and when it is due on the account of non-completion of the project and warranty period.

In the event this Agreement/Contract is getting extended/renewed, the Vendor shall Have to extend the existing Performance Bank Guarantee equivalent to 3% of the Project Cost/Total Cost of Ownership (TCO) for that period of the Agreement/Contract extended/renewed with three (3) months additional claim period.

The Bank shall not pay any interest on the Performance Bank Guarantee.

11. Price Validity

The selected bidder will be required to keep the price valid for a period of **6 months**from the date of technical bid opening. There shall be no increase in price for anyreason whatsoever during the total contract period and Bank may place the additional Purchase Orders to the selected bidder for any or all of the services atthe agreed unit rate for line items as mentioned in the commercial format i.e. Annexure – XIX during the price validity period of 6 months.

12. Single Point of Contact

The selected bidder shall appoint a single point of contact, with whom Bank willdeal, for any activity pertaining to the requirements of this RFP.

13. Right to Alter Quantities

The Bank reserves the right to alter the number of hardware/software/licenses specified in the tender in the event of changes in plans of the Bank. Any decision of UCO BANK in this regard shall be final, conclusive and binding on the bidder. The bank reserves the right to place order for additional hardware/software/licenses at the agreed price during the contract period with the same terms and conditions. Banks is not obligate to purchase all the quantity of the hardware/software/licenses as mentioned above. Bank reserves the right to alter the quantities at any time not exceeding 10% of the total contract value without prior notice to the selected bidder(s).

14. Preliminary Scrutiny

UCO Bank will scrutinize the offers to determine whether they are complete, whetherany errors have been made in the offer, whether required technical documentation has been furnished, whether the documents have been properly signed, and whether all the necessary information supported by documentary evidences aresubmitted as per prescribed method. Offers not meeting the prescribed guidelines and or with incorrect information or not supported by documentary evidence, wherever called for, would summarily be rejected. However, UCO Bank, at its sole discretion, may waive any minor non-conformity or any minor irregularity in an offer.UCO Bank reserves the right for such waivers, and this shall be binding on all

vendors.

15. Award of Contract

The bidder who qualifies in the technical evaluation will qualify for techno- commercial evaluation. The bidder whose bid has been determined to be responsive and who quotes the lowest price will be treated as L1 Bidder. Any decision of UCO Bank in this regard shall be final, conclusive and binding upon thebidder(s).

16. Taxes

a. Bidder shall be solely liable for the payment of all taxes, duties, fines, penalties,etc., by whatever name called as may become due and payable under thelocal, state and/or central laws, rules and/or regulations as may be prevalentand as amended from time to time in relation to the services rendered pursuant to this agreement. The Bank may in its discretion, but without beingbound to do so, make payment of Taxes, duties as aforesaid and in the eventof such payment, Bank shall be entitled to deduct the payment so made fromthe payment due to Bidder in respect of Bills.

b. The Bank shall not be liable nor responsible for collection and / or payment ofany such taxes, duties, fines, penalties etc., by whatever name called, thatare due and payable by bidder, under the local, state and/ or central laws,rules and /or regulations as may be prevalent and as amended from time to time.

c. Nothing contained herein shall prevent the Bank from deducting taxes deductible at source as required by any law/s or regulation/s. Bidder shall beresponsible to report any non-receipt of certificate of taxes deducted at source within ninety (90) days of deduction of such taxes at source by theBank to bidder. The Bank will not issue any duplicate certificate for deductionof taxes at source unless such request is made within ninety (90) days of theclosure of the financial year.

d. Bidder shall co-operate fully in the defence of any claim/s by any local, state or union authorities against The Bank with respect to any taxes and/or dutiesdue and payable by bidder and /or individuals assigned by bidder under this agreement. Without limiting the generality of the foregoing bidder shall uponrequest by The Bank, give to The Bank all documents, evidences in a formsatisfactory to The Bank to defend such claim/s. Any claims filed against The Bank, the cost to be borne by the selected bidder. Any increase or decrease in the rates of the applicable GST on account of changes in law shall be to the account of the Bank.

e. The payments which is/are inclusive of other taxes, fees etc. and exclusive of GST as per the Payment Schedule covered herein above shall be paid by Department of Information Technology, UCO Bank, Head Office – Kolkata. However, Payment of the Bills would be released in INR, on receipt of advice / confirmation for delivery and commissioning as per the terms and conditions of RFP, live running and service report etc. after deducting all penalties.

f. The price would be inclusive of all applicable taxes under the Indian law like customs duty, freight, forwarding, insurance, delivery, etc., but exclusive of only applicable GST, which shall be paid/reimbursed on actual basis on production of bills with GSTIN. Any increase in GST will be paid in actuals by the Bank or any new tax introduced by the government will also be paid bythe Bank. The entire benefits/advantages, arising out of fall in prices, taxes, duties or any other reason, must be passed on to Bank. The price

quoted by the bidder should not change due to exchange rate fluctuations, inflation, market conditions, and increase in custom duty. The Bank will not pay any out of pocket expenses.

17. Confidentiality and Secrecy

The RFP document is confidential and is not to be reproduced, transmitted, or made available by the Recipient to any other party. The RFP document is provided to the Recipient on the basis of the undertaking of confidentiality given by the Recipient to Bank. Bank may update or revise the RFP document or any part of it. The Recipient acknowledges that any such revised or amended document is received subject to the same terms and conditions as this original and subject to the same confidentiality undertaking.

The Recipient will not disclose or discuss the contents of the RFP document with any officer, employee, consultant, director, agent, or other person associated or affiliated in any way with Bank or any of its customers, suppliers, or agents without the prior written consent of Bank.

The bidder/selected bidder must undertake that they shall hold in trust any Information received by them under the Contract/Service Level Agreement, and the strictest of confidence shall be maintained in respect of such Information. The bidder has also to agree:

- To maintain and use the Information only for the purposes of the Contract/Agreement and only as permitted by BANK;

- To only make copies as specifically authorized by the prior written consent of Bank and with the same confidential or proprietary notices as may be printed or displayed on the original;

- To restrict access and disclosure of Information to such of their employees, agents, strictly on a "need to know" basis, to maintain confidentiality of the Information disclosed to them in accordance with this Clause, and

- To treat all Information as Confidential Information.

- The selected service provider acknowledges and agrees that all tangible and intangible information obtained, developed or disclosed including all documents, data, papers, statements, any business/customer information, trade secrets and process of the UCO Bank relating to its business practices in connection with the performance of services under this Agreement or otherwise, is deemed by the UCO Bank and shall be considered to be confidential and proprietary information ("Confidential Information"), solely of the UCO Bank and shall not be used/disclosed to anybody in any manner except with the written consent of The UCO Bank.

- The selected service provider shall ensure that the same is not used or permitted to be used in any manner incompatible or inconsistent with that authorized by the UCO Bank. The Confidential Information will be safeguarded and the selected service provider will take all necessary action to protect it against misuse, loss, destruction, alterations or deletions thereof.

- **Conflict of interest:** The Vendor shall disclose to BANK in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for the Vendor or the Bidder's team) in the course of performing the Service(s) as soon as practical after it becomes aware of that conflict.

- **The successful Bidder is required to execute a Non-Disclosure Agreement to the Bank as per**

Bank's format before or at the time of execution of the Service Level Agreement.

18. Compliance with Laws

The Vendor shall undertake to observe, adhere to, abide by, comply with and notify the Bank about all laws in force or as are or as made applicable in future, pertaining to or applicable to them, their business, their employees or their obligations towards them and all purposes of this Contract and shall indemnify, keep indemnified, hold harmless, defend and protect the Bank and its employees/officers/staff/ personnel/representatives/agents from any failure or omission on its part to do so and against all claims or demands of liability and all consequences that may occur or arise for any default or failure on its part to conform or comply with the above and all other statutory obligations arising there from.

All the employees/operator deployed by the Vendor for the digitization activity must comply with government's rules and regulations like Minimum Wages Act, Provident Fund, Labour Law, ESIC facility standard, CVC / RBI guidelines.

This indemnification is only a remedy for the Bank. The Vendor is not absolved from its responsibility of complying with the statutory obligations as specified above. Indemnity would be limited to court awarded damages and shall exclude indirect, consequential and incidental damages. However indemnity would cover damages, loss or liabilities suffered by the Bank arising out of claims made by its customers and/or regulatory authorities.

The Vendor confirms to Bank that it complies with all Central, State, Municipal laws and local laws and rules and regulations and shall undertake to observe, adhere to, abide by, comply with and notify Bank about compliance with all laws in force including Information Technology Act 2000, as amended from time to time, or as are or as made applicable in future, pertaining to or applicable to them, their business, their employees or their obligations towards them and for all purposes of this Contract, and shall indemnify, keep indemnified, hold harmless, defend and protect Bank and its officers/staff/personnel/representatives/agents from any failure or omission on its part to do so and against all claims or demands of liability and all consequences that may occur or arise for any default or failure on its part to conform or comply with the above and all other statutory obligations arising therefrom.

The Vendor shall promptly and timely obtain all such consents, permissions, approvals, licenses, etc., as may be necessary or required for any of the purposes of this project (as applicable to its scope) or for the conduct of their own business under any applicable Law, Government Regulation/Guidelines and shall keep the same valid and in force during the term of the project, and in the event of any failure or omission to do so, shall indemnify, keep indemnified, hold harmless, defend, protect and fully compensate Bank and its employees/officers/staff/personnel/ representatives/agents from and against all claims or demands of liability and all consequences that may occur or arise for any default or failure on its part to conform or comply with the above and all other statutory obligations arising there from and Bank will give notice of any such claim or demand of liability within reasonable time to the Vendor.

The Vendor shall also provide a certificate from Statutory Auditor or Cost Auditor of the Company or from practising Cost Accountant giving the percentage local contents as defined in PPP order issued by GOI from time to time and applicable for the said procurement/project.

19. Force Majeure

Force Majeure is herein defined as any cause, which is beyond the control of theselected bidder or the Bank as the case maybe which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affect the performance, such as:

- Natural phenomenon, including but not limited to floods, droughts, earthquakes, epidemics/pandemics,
- Situations, including but not limited to war, declared or undeclared, priorities,quarantines, embargoes,
- Terrorist attacks, public unrest in work area,

Provided either party shall within ten (10) days from the occurrence of such a causenotify the other in writing of such causes. The Selected bidder or the Bank shall notbe liable for delay in performing his / her obligations resulting from any Force Majeure cause as referred to and / or defined above.

20. Completeness of the Project

The project will be deemed as incomplete if the desired objectives of the project as mentioned in Section "Scope of Work" of this document are not achieved.

21. Order Cancellation

The Bank reserves its right to cancel/terminate the Order/Agreement in the event of occurrence of one or more of the following circumstances, that are not occasioned due to reasons solely and directly attributable to the Bank alone:

The selected Bidder/Vendor commits a material breach of any of the terms and conditions of the Letter of Intent/Purchase Order/Agreement/ SLA;

Here "MATERIAL BREACH" means "any one or more events, conditions or circumstances which, in the opinion of the Bank, could reasonably be expected to adversely affect in any material respect implementation of CIGTMS and the ability of the Vendor to observe or perform any of its material obligations under RFP/agreement/contract or the legality, validity, enforceability, priority or effectiveness of any of the Obligations of the Bidder".

a) The selected Bidder/Vendor violates the Laws, Rules, Regulations, Bye-Laws, Guidelines, and Notifications etc.;

b) Serious discrepancy in the quality of service of selected Bidder/Vendor expected during the implementation, rollout and subsequent maintenance process;

c) The selected Bidder/Vendor goes into liquidation voluntarily or otherwise;

d) An attachment is levied or continues to be levied upon the selected Bidder/Vendor for a continuous period of 7 days upon the effects of the order;

e) The progress regarding execution of the order by the selected Bidder/Vendor is not as per the terms and conditions of the RFP;

f) Non-compliance by the selected Bidder/Vendor of the scope of the job;

g) Repetitive failure of the deployed personnel of the selected Bidder/Vendor to perform the job as per the terms and conditions of the RFP;

h) The selected Bidder/Vendor fails to complete the assignment as per the timelines prescribed in the Work Order/ said Agreement/Contract and the extension, if any allowed.

i) On the events of data piracy/privacy/system failures/security failures by the selected Bidder/Vendor.

j) If deductions on account of liquidated damages or SLA exceed more than 10% of the total order price.

In case of cancellation/termination of Order/Agreement due to the above stated situations, the following consequences will entail:

i. In case the selected Bidder/Vendor fails to deliver the ordered hardware, software, services, and FM resources as stipulated in the delivery schedule, UCO BANK reserves the right to procure these deliverables from alternate sources at the risk, cost and responsibility of the selected Bidder/Vendor with the capping of 10% of the original quoted cost for such deliverable.

ii. If the selected Bidder/Vendor does not perform as per the terms and conditions of RFP or delays in execution of contract, UCO Bank reserves the right to get the balance order executed by another party of its choice, in this event the selected Bidder/Vendor is bound to make good with the capping of 10% of the original quoted cost for such deliverable, which UCO Bank may have to incur in executing the balance order. This clause is applicable, if for any reason, the order is cancelled.

iii. UCO Bank reserves the right to recover any dues payable by the selected Bidder/Vendor under the contract from any amount outstanding to the credit of the selected Bidder/Vendor, including the bills and /or invoking the Performance Bank Guarantee under this Agreement.

iv. In case of cancellation of order, any advance payments (except payment against ATS) made by the Bank to the selected bidder/Vendor for implementation of project, would necessarily have to be returned to the Bank. If the selected Bidder/Vendor fails to return such payment within thirty (30) days, then the selected Bidder/Vendor have to return the amount to the Bank from the pending bills and payments or by any other means as would be notified by the Bank, further the selected Bidder/Vendor would also be required to compensate the Bank for any direct loss suffered by the Bank due to the cancellation of the contract/purchase order and any additional expenditure to be incurred by the Bank to appoint any other Vendor. This is after repaying the original amount paid.

v. The selected Bidder/Vendor shall be liable under this section if the contract/ purchase order has been cancelled in case the sum total of penalties and deliverables exceeds 10% of the TCO.

In case of order cancellation/termination, Bank will notify the selected Bidder/Vendor within Ninety (90) days' notice period inclusive of Thirty (30) days cure period before cancellation/termination of the Order/Agreement. However, it is clarified that the notice should specifically contain that the Ninety (90) days period for cancellation is inclusive of cure period of Thirty (30) days, if the selected Bidder/Vendor fails to cure within Thirty (30) days time the notice for cancellation will became absolute. For the sake of clarity, the period of 90 (Ninety) days will begin from the date of receipt of

termination/cancellation notice in accordance with the NOTICE Clause of this Agreement. Any other mode of communicating the termination/cancellation of the Agreement will be deemed to be invalid.

In the event of termination by the Bank the Bidder will paid as per the terms and conditions of the RFP and for the milestone which are achieved and sign off by the Bank till the date of the termination.

The rights of the Bank enumerated above are in addition to the rights/remedies available to the Bank under the law(s) for the time being in force.

22. Indemnity

Vendor shall indemnify, protect and save the Bank and hold the Bank harmless from and against all claims, losses, costs, damages, expenses, action suits and other proceedings, (including reasonable attorney fees), relating to or resulting directly or indirectly from

a) an act or omission of the Vendor and /or its employees, agents, subcontractors in performance of the obligations under this Contract; and/or

b) material breach of any of the terms of this Contract or breach of any representation or false representation or inaccurate statement or assurance or covenant or warranty of the Vendor under this Contract; and/or,

c) Bank's authorized/ bona-fide use of the deliverables and/or the services provided by the Vendor under this Contract; and/or

d) Infringement of any patent, trademarks, copyrights etc. or such other statutory infringements in respect of all components provided to fulfill the scope of this project applicable to Vendor's scope. Vendor shall further indemnify the Bank against any loss or damage to the Bank premises or property, loss of life, solely attributable, due to the acts of the Vendor's employees or representatives The Vendor shall further indemnify the Bank against any loss or damage arising out of claims of infringement of third-party copyright, patents, or other intellectual property, and third-party claims on the Bank for malfunctioning of the equipment or software or deliverables at all points of time, provided however,

i. The Bank notify the Vendor in writing immediately on becoming aware of such claim,

ii.the Vendor has sole control of defense and all related settlement negotiations,

iii.the Bank provides the Vendor with the assistance, information and authority reasonably necessary to perform the above, and

iv.The Bank does not make any statement or comments or representations about the claim without prior written consent of the Vendor, except under due process of law or order of the court. It is clarified that the Vendor shall in no event enter into a settlement, compromise or make any statement (including failure to take appropriate steps) that may be detrimental to the Bank (and/or its customers, users and service providers) rights, interest and reputation. Vendor shall be responsible for any loss of life, etc, due to acts of Vendor's representatives, and not just arising out of gross negligence or misconduct, etc, as such liabilities pose significant risk. Vendor should take full responsibility for its and its employee's actions. The Vendor should indemnify the Bank (including its employees, directors or representatives) from and against claims, losses, and liabilities arising from:

• Non-compliance of the Vendor with applicable Laws / Governmental Requirements to its

scope under this Contract, IP infringement ;

• Gross Negligence or willful misconduct attributable to the Vendor, its employees, and agents

• Material breach of any terms of this Contract, Representation or Warranty

• Act or omission in performance of service. Further,

i. Vendor's aggregate liability in connection with obligations undertaken as a part under this Contract regardless of the form or nature of the action giving rise to such liability (whether in contract, tort or otherwise), shall be at actual and limited to the Total Contract Value.

ii.Vendor's liability in case of claims against the Bank resulting from Willful Misconduct or Gross Negligence of Vendor, its employees and Subcontractors or from infringement of patents, trademarks, copyrights or such other Intellectual Property Rights or breach of confidentiality obligations shall be unlimited.

iii.Bank shall not be held liable for any responsibility or claim / litigation arising out of the use of any third party software or modules supplied by Vendor as part of procurement under this Contract.

iv.Under no circumstances bank shall be liable to the Vendor for direct, indirect, incidental, consequential, special or exemplary damages arising from termination of this Contract, even if UCO Bank has been advised of the possibility of such damages, such as, but not limited to, loss of revenue or anticipated profits or loss of business.

v. Subject to any law to the contrary, and to the maximum extent permitted by law Bank shall not be liable to Vendor for any consequential/ incidental, or indirect damages arising out of this Contract. Indemnity would be limited to court; tribunal or arbitrator awarded damages and shall exclude indirect, consequential and incidental damages. However indemnity would cover damages, loss or liabilities suffered by the Bank arising out of claims made by its customers and/or regulatory authorities.

The Vendor shall not indemnify the Bank for:

i. Any loss of profits, revenue, contracts, or anticipated savings or

ii. Any consequential or indirect loss or damage however caused, provided that indemnity would cover damages, loss or liabilities suffered by the Bank arising out of Claim made by Regulatory Authorities for reasons attributable to breach of services provided/ obligation under this Contract and by the Vendor.

Vendor shall be responsible for any loss of life or bodily injury, due to acts of Vendor's representatives, and not just arising out of gross negligence or misconduct, etc., as such liabilities pose significant risk.

Vendor should take full responsibility for its and its employee's actions. "Gross Negligence" means an indifference to, and a blatant violation of a legal duty with respect to the rights of others, being a conscious and voluntary disregard of the need to use reasonable care, which is likely to cause foreseeable grave injury or harm to persons, property, or both.

Gross negligence involves conduct that is extreme, when compared with ordinary negligence. A mere failure to exercise reasonable care shall not be a Gross negligence.

"Wilful Misconduct" means any act or failure to act with an intentional disregard of any

provision of this RFP/Contract, which a party knew or should have known if it was acting as a reasonable person, which would result in injury, damage to life, personal safety, real property, harmful consequences to the other party, but shall not include any error of

judgment or mistake made in good faith.

The Vendor should indemnify the Bank (including its employees, directors representatives) from and against third party claims of losses, and liabilities arising from non-compliance of the Vendor with Laws /Governmental Requirements applicable to its scope of work.

23. Publicity

Any publicity by the selected bidder in which the name of the Bank is to be usedshould be done only with the explicit written permission of the Bank. The Bidder shallnot make or allow making a public announcement or media release about any aspect of the Contract unless The Bank first gives the Bidder its prior written consent.

24. Privacy and Security Safeguards

The selected bidder shall not publish or disclose in any manner, without the Bank's prior written consent, the details of any security safeguards designed, developed,or implemented by the selected bidder under this contract or existing at any Bank location. The Selected bidder shall develop procedures and implementation plansto ensure that IT resources leaving the control of the assigned user (such as being reassigned, removed for repair, replaced, or upgraded) are cleared of all Bank Data and sensitive application software. The Selected bidder shall also ensure that all subcontractors who are involved in providing such security safeguards or part ofit shall not publish or disclose in any manner, without the Bank's prior written consent, the details of any security safeguards designed, developed, or implemented by the selected bidder under this contract or existing at any Bank location.

25. Technological Advancements

The Selected bidder shall take reasonable and suitable action, taking into account economic circumstances, at mutually agreed increase / decrease in charges, and

the Service Levels, to provide the Services to the Bank at a technological level thatwill enable the Bank to take advantage of technological advancement in the industry from time to time.

26. Guarantees

Selected bidder should guarantee that all the material as deemed suitable for thedelivery and management for the RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS). All hardware and software must be supplied with their original and complete printed documentation.

27. Exit Option and Contract Re-Negotiation

The Bank reserves the right to cancel the said Agreement/Contract in the event of happening one or more of the following conditions:

a) Failure of the selected bidder/Vendor to accept the Letter of Intent/Purchase Order and/or failure to furnish the Performance Bank Guarantee within a period of fifteen (15) days of receipt of Letter of Intent/Purchase Order;

b) Delay in offering on part of the vendor, as required under the Project;

c) Delay on part of the vendor in commissioning the Project beyond the specified period;

d) Delay on part of the vendor in completion of the commissioning /implementation and acceptance tests/ checks beyond the specified periods;

Bank will notify the selected bidder/Vendor with Ninety (90) days' notice inclusive of a cure period of thirty (30) days before cancellation/termination. However, it is clarified that the notice should specifically contain that the Ninety (90) days period for cancellation is inclusive of a cure period of thirty (30) days, if the Vendor fails to cure within thirty (30) days' time, then the notice for cancellation will became absolute. For the sake of clarity, the period of Ninety (90) days will begin from the date of receipt of termination/cancellation notice in accordance with the NOTICE Clause of this Agreement. Any other mode of communicating termination/cancellation of the Agreement will be deemed to be invalid. In the event of termination, the bidder will be paid as per the terms and conditions of the RFP and for the milestones achieved and sign off by the Bank.

In addition to the cancellation of Purchase Order/said Agreement/Contract, the Bank reserves the right to appropriate the damages through invocation of Performance Bank Guarantee furnished by the selected bidder/Vendor.

Notwithstanding the existence of a dispute, and/or the commencement of arbitration proceedings, the Vendor will be expected to continue the services. The Bank shall have the sole and absolute discretion to decide whether proper reverse transition mechanism over a period of six (6) to twelve (12) months, has been complied with. In the event of the conflict not being resolved, the conflict will be resolved through Arbitration.

The Bank and the Vendor shall together prepare the Reverse Transition Plan. However, the Bank shall have the sole decision to ascertain whether such Plan has been complied with.

Reverse Transition mechanism would typically include service and tasks that are required to be performed/ rendered by the Vendor to the Bank or its designate to ensure smooth handover and transitioning of Bank's deliverables, maintenance, and facility management.

The reverse transition period may or may not be within the contract period. In case the reverse transition period falls within the contract period, all the terms & conditions, scope of work mentioned in the contract will hold good along with smooth handover and transitioning of Bank's deliverables to the Bank or its designates/nominees and no extra payment shall be paid by the Bank for such reverse transition. The bidder will be paid as per the terms and conditions of the RFP and for the milestones achieved and sign off by the Bank.

However, if bidder and OEM both are different entity then, if the reverse transition mechanism to be adopted after the expiry of the contract period, the Bank and the Vendor shall together prepare the Reverse Transition Plan for smooth handover and transitioning of Bank's deliverables to the Bank or its designates/ nominees including maintenance and facility management. Though in such case the Bank shall have the sole authority to ascertain as to whether such Reverse Transition Plan has been complied with or not, but the payment for such reverse transition would be determined on pro-rata basis or on mutual consent of the Parties.

If bidder and OEM, both are same entity then in case of exit, all the Product IP will be

removed from the customer/ Bank and Bidder will provide the necessary support for the generation of extract and/or the entire data/information/Bank's specific customisation details in the specified format for the use in new application identified by Bank based on mutually agreed terms and conditions with relevant commercials.

28. Termination for Insolvency

The Bank may at any time terminate the Contract by giving written notice **(90 days"notice period)** to the Bidder, if the Bidder becomes Bankrupt or otherwise insolvent.In this event, termination will be without compensation to the Bidder, provided thatsuch termination will not prejudice or affect any right of action or remedy, which hasaccrued or will accrue thereafter to the Bank. In the event of termination, the bidder will be paid as per the terms and conditions of the RFP and for the milestones achieved and sign off by the Bank

29. Termination for Default

The Bank, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Vendor, may terminate this Contract in whole or in part, if the Vendor fails to perform any obligation(s) under the Contract which may lead to a material breach.

Here "MATERIAL BREACH" means "any one or more events, conditions or circumstances which, in the opinion of the Bank, could reasonably be expected to adversely affect in any material respect implementation of CIGTMS and the ability of the Vendor to observe or perform any of its material obligations under RFP/agreement/contract or the legality, validity, enforceability, priority or effectiveness of any of the Obligations of the Bidder".

In case of Termination for Default, Bank will provide notice period of Ninety (90) days inclusive of a cure period of Thirty (30) days. However, it is clarified that the notice should specifically contain that the Ninety (90) days period for cancellation is inclusive of a cure period of Thirty (30) days, if the Vendor fails to cure within Thirty (30) days' time, then the notice for cancellation will became absolute. For the sake of clarity, the period of 90 (Ninety) days will begin from the date of receipt of termination/cancellation notice in accordance with the NOTICE Clause mentioned under the RFP/Agreement. Any other mode of communicating termination/cancellation of the Agreement will be deemed to be invalid. In the event of termination, the bidder will be paid as per the terms and conditions of the RFP and for the milestones achieved and sign off by the Bank

30. Termination for Convenience

The Bank, by written notice for a maximum period of ninety (90) days, sent to the vendor, may terminate the Contract/SLA, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Bank 's convenience, the extent to which performance of work under the Contract is terminated and the date upon which such termination becomes effective. Bank will pay the bidder till termination date for all the milestone achieved as per the terms and conditions of the RFP.

31. Consequences of Termination

In the event of termination of the Contract due to any cause whatsoever, (whether consequent to the stipulated term of the Contract or otherwise), UCO Bank shall be entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective business continuity of the Service(s) which the Vendor shall be obliged to comply with and take all available steps to minimize loss resulting from that termination/breach, and further allow the next successor Vendor to take over the obligations of the erstwhile Vendor in relation to the execution / continued execution of the scope of the

Contract.

In the event that the termination of the Contract is due to the expiry of the term of the Contract, a decision not to grant any (further) extension by UCO Bank, the bidder herein shall be obliged to provide all such assistance to the next successor bidder or any other person as may be required and as UCO Bank may specify including training, where the successor(s) is a representative/personnel of UCO Bank to enable the successor to adequately provide the Service(s) hereunder, even where such assistance is required to be rendered for a reasonable period that may extend beyond the term/earlier termination hereof.

Nothing herein shall restrict the right of UCO Bank to invoke the Performance Bank Guarantee and other guarantees, securities furnished, enforce the Indemnity and pursue such other rights and/or remedies that may be available to UCO Bank under law or otherwise.

The termination hereof shall not affect any accrued right or liability of either Party nor affect the operation of the provisions of the Contract that are expressly or by implication intended to come into or continue in force on or after such termination.

32. Signing of Contract

The selected bidder(s) shall be required to enter into a service level agreement (SLA)with UCO Bank, within 15 days of the award of the Bid through a Letter of Empanelment or within such extended period as may be specified.

The SLA shall be based on the requirements of this RFP, the terms and conditions ofpurchase order, the letter of acceptance and such other terms and conditions asmay be determined by the Bank to be necessary for the proper performance of the work in accordance with the Bid and the acceptance thereof, with terms and conditions contained in a Memorandum of Understanding to be signed at the timeof execution of the Form of Contract.

The selected bidder will also sign a Non-Disclosure Agreement and Deed of Indemnity with the Bank on a format prescribed by the Bank.

33. Technical Inspection and Performance Evaluation

UCO Bank reserves its right to carry out a technical inspection and performanceevaluation (bench-marking) of the offered item(s). Bank may instruct eligible biddersto make technical presentation at Bank's Head Office, Kolkata for the proposedsolution / service. Bidders will have to make such presentation at their own cost.

34. Verification

UCO Bank reserves the right to verify any or all statements made by the vendor in the Bid document and to inspect the vendor's facilities at client side, if necessary, to establish to its satisfaction about the vendor's capacity to perform the job.
However, in case of purpose of visit to inspect the facilities where the proposed solution is running, if so required then it will be informed in advance.

35. Dispute Resolution Mechanism

a. The Bidder and The Bank shall endeavor their best to amicably settle all disputesarising out of or in connection with the Contract in the following manner:

   i. The Party raising a dispute shall address to the other Party a notice requesting an amicable settlement of the dispute within seven (7) days ofreceipt of the notice.

   ii. The matter will be referred for negotiation between Deputy General Manager of The Bank / Purchaser and the Authorised Official of the Bidder.The matter shall then

be resolved between them and the agreed course of action documented within a further period of 15 days.

b. In case any dispute between the Parties, does not settle by negotiation in the manner as mentioned above, the same may be resolved exclusively by arbitration and such dispute may be submitted by either party for arbitration within 20 days of the failure of negotiations. Arbitration shall be held in Kolkata and conducted in accordance with the provisions of Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof. Each Party to the dispute shall appoint one arbitrator each and the two arbitrators shall jointly appoint the third or the presiding arbitrator.

c. The "Arbitration Notice" should accurately set out the disputes between the parties, the intention of the aggrieved party to refer such disputes to arbitration as provided herein, the name of the person it seeks to appoint as an arbitrator with a request to the other party to appoint its arbitrator within 45 days from receipt of the notice. All notices by one party to the other in connection with the arbitration shall be in writing and be made as provided in this tender document.

d. The arbitrators shall hold their sittings at Kolkata. The arbitration proceedings shall be conducted in English language. Subject to the above, the courts of law at Kolkata alone shall have the jurisdiction in respect of all matters connected with the Contract/Agreement even though other Courts in India may also have similar jurisdictions. The arbitration award shall be final, conclusive and binding upon the Parties and judgment may be entered thereon, upon the application of either party to a court of competent jurisdiction. Each Party shall bear the cost of preparing and presenting its case, and the cost of arbitration, including fees and expenses of the arbitrators, shall be shared equally by the Parties unless the award otherwise provides.

e. The Bidder shall not be entitled to suspend the Service/s or the completion of the job, pending resolution of any dispute between the Parties and shall continue to render the Service/s in accordance with the provisions of the Contract/Agreement notwithstanding the existence of any dispute between the Parties or the subsistence of any arbitration or other proceedings. **Bidder will also continue to get paid till the services are rendered per the Payment defined in the RFP.**

36. Applicable Law and Jurisdiction of Court

The Contract with the Selected bidder shall be governed in accordance with the Laws of India for the time being enforced and will be subject to the exclusive jurisdiction of Courts at Kolkata (with the exclusion of all other Courts).

37. Limitation of Liability
   i. For breach of any obligation mentioned in this Contract, subject to point no. (iii), in no event Vendor shall be liable for damages to the Bank arising under or in connection with this Contract for an amount exceeding the total project cost/contract value.
   ii. Vendor will ensure Bank's data confidentiality and shall be responsible for liability arising in case of breach of any kind of security and/or leakage of confidential customer/Bank's related information to the extent of loss cause.
   iii. The limitations set forth in point no. 17.1 shall not apply with respect to:
      a. claims that are the subject of indemnification pursuant to Intellectual Property Rights and Ownership.

b. damages occasioned by the gross negligence or willful misconduct of Vendor.

c. damages occasioned by Vendor for breach of confidentiality obligations.

d. Regulatory or statutory fines imposed by the Government or Regulatory agency or non-compliance of statutory or regulatory guidelines applicable to Vendor's scope of work as identified in the project.

iv. The Vendor shall not be liable to the Bank for –

a. Any loss of profits, revenue, contracts, or anticipated savings or

b. Any consequential or indirect loss or damage however caused, provided that indemnity would cover damages, loss or liabilities suffered by the Bank arising out of claim made by Regulatory Authorities for reasons attributable to breach of services provided / obligation under this Contract and by the Vendor

38. Amendment(s) in the Contract/ Service Level Agreement

There shall be no variation(s) in or modification(s) in the terms of the Contract/Service Level Agreement save and except by a written mutual consent signed by both the Parties i.e. the Bank and Vendor. Bank shall have the discretion/liberty to give effect to any amendment, modification etc. in the Contract/Service Level Agreement, if so required by Bank, sequel to any amendment(s)/ modification(s)etc. in the applicable Laws/Statutes including but not limited to amendment(s)/modification(s) etc. in the existing Guidelines/ Instructions issued/to be issued by any Regulatory Authority.

39. Compliance with Applicable Laws of India

The Vendor shall undertake to observe, adhere to, abide by, comply with and notify the Bank about all laws in force or as are or as made applicable in future, pertaining to or applicable to them, their business, their employees or their obligations towards them and all purposes of this Contract and shall indemnify, keep indemnified, hold harmless, defend and protect the Bank and its employees/officers/staff/ personnel/ representatives/ agents from any failure or omission on its part to do so and against all claims or demands of liability and all consequences that may Occurs or arise for any default or failure on its part to conform or comply with the above and all other statutory obligations arising therefrom.

All the employees/operator deployed by the Vendor for the digitization activity must comply with government's rules and regulations like Minimum Wages Act, Provident Fund, Labour Law, ESIC facility standard, CVC / RBI guidelines.

This indemnification is only a remedy for the Bank. The Vendor is not absolved from its responsibility of complying with the statutory obligations as specified above. Indemnity would be limited to court awarded damages and shall exclude indirect, consequential and incidental damages. However indemnity would cover damages, loss or liabilities suffered by the Bank arising out of claims made by its customers and/or regulatory authorities.

The Vendor confirms to Bank that it complies with all Central, State, Municipal laws and local laws and rules and regulations and shall undertake to observe, adhere to, abide by, comply with and notify Bank about compliance with all laws in force including Information Technology Act 2000 as amended from time to time or as are or as made applicable in future, pertaining to or applicable to them, their business, their employees or their obligation's towards them and for all purposes of this Contract, and shall indemnify, keep indemnified, hold harmless, defend and protect Bank and its officers/staff/personnel/representatives/agents from any failure or omission on its part to do so and against all claims or demands of liability and all consequences that may occur or arise for any default or failure on its part to conform or comply with the above and all other statutory obligation's arising therefrom.

The Vendor shall promptly and timely obtain all such consents, permissions, approvals, licenses, etc., as may be necessary or required for any of the purposes of this project or for the conduct of their own business under any applicable Law, Government Regulation/Guidelines and shall keep the same valid and in force during the term of the project, and in the event of any failure or omission to do so, shall indemnify, keep indemnified, hold harmless, defend, protect and fully compensate Bank and its employees/officers/staff/personnel/ representatives (agents from and against all claims or demands of liability and all consequences that may Occurs or arise for any default or failure on its part to conform or comply with the above and all other statutory obligation's arising there from and Bank will give notice of any such claim or demand of liability within reasonable time to the Vendor.

The Vendor shall also provide a certificate from Statutory Auditor or Cost Auditor of the Company or from practicing Cost Accountant giving the percentage local contents as defined in PPP order issued by GOI from time to time and applicable for the said procurement/project

40. Severability

If any provision of this Agreement is held to be illegal, invalid, or unenforceableunder any Applicable Law, and if the rights or obligations of the Parties under this Contract/ Service Level Agreement will not be materially and adversely affectedthereby (a) such provision will be fully severable; (b) this Contract/Service LevelAgreement will be construed and enforced as if such illegal, invalid, or unenforceable provision had never been comprised a part hereof; and (c) the remaining provisions of this Contract/ Service Level Agreement will remain in full force and effect and will not be affected by the illegal, invalid, or unenforceableprovision or by its severance here from.

41. Training

The Bidder is responsible for providing training to UCO Bank Team that covers bothtechnical and functional spheres of the systems and solutions implemented.

- These representatives bring with them knowledge of existing applications, interfaces, constraints, information requirements, etc.

- Training needs of these team members (Technical & Operational Team and End User Team) will be in the following areas

  a. Report customization

  b. Coding and other techniques to extract data from the solutions for user- specific analysis

  c. Cover specific analytics concepts used in the models built such as hypothesisformation, profiling, sampling of data, various transformations of data sets, variable selection, model development, model validation, testing, results interpretation and recalibration steps and procedures so that they can refresh/recreate the models/analysis independently once the solution is inplace.

  d. Run through the metrics that measure model effectiveness to ensure UCOBank teams are aware of model scope and effectiveness (Goodness of fit,Chi- square tests, R-square, Gini Co-efficient, Information Value)

  e. Bidder needs to provide 8 Training Manual. Four for Treasury, One each for Singapore, Hongkong, HO International and HO DIT

Training Location

Training will be conducted at Kolkata/Mumbai in UCO Bank premises.

Mode of Training

The Bidder shall provide the trainings in classroom & hands-on mode.

Training Documents

Each implemented model must have a model document which explains the core functionality of the model and method used to develop the model.

The documentation needed in terms of methods followed across various steps ofmodelling hastobeprovidedinareadableandunderstandableformatandensurethat all the intricacies from data extract to model implementation are covered inthe trainings.

The Bidder will be responsible for preparation & submission to UCO Bank soft copiesof the training material and end user manuals. End user manuals should cover "howto use" concepts for all modules of the solution being implemented.

Training Effectiveness

UCO Bank will measure the effectiveness after the completion of the training through training feedback forms. The bidder should obtain training feedback after each session and address inadequacies if any.

42. Source Code

The source code /object code / executable code (for the purpose of this RFP maybe called as implementation code) and compilation procedures of the models/solutions and reporting solutions that the Vendor creates/uses as part of theimplementation for the purpose of this project should be provided to the Bank after successful UAT and escrow arrangement should be put in place as per the escrow clause mentioned in the RFP. All necessary documentation in this behalf should be made available to the Bank. Incase of Escrow arrangement, complete details and the location and the terms and conditions applicable for escrow must be

specified. Escrow arrangement of application software source code and for the modification done for the Bank should be provided. The Bank will pay 100% of the Escrow cost mentioned in bill of material directly to the Escrow vendor as per the payment terms.

- Any update or upgrade to source code should be informed and brought under Escrow or made available to the Bank.

- All the customization/development carried out by the vendor as bespoke development specifically for the Bank will be the property of the Bank.

43. Services

- All professional services necessary to successfully implement the proposed

- solution will be part of the RFP. These services include, but are not limited to, Project Management, Training, Deployment methodologies etc.

- The bidder should submit as part of technical Bid an overview of Project Management approach of the proposed solution.

- Bidder should ensure that vendor's key personnel with relevant skills are always available to the Bank.

- Bidder should ensure the quality of methodologies for delivering the services and its adherence to quality standard.

- Bidder should be willing to transfer skills to relevant Banking Personnel by means of training and documentation.

- For every change request Vendor should provide detail effort estimates to the Bank including the code change requirements, affected applications, resource requirements, testing requirement, time required to implement the changes etc.

- Bidder should provide and implement patches / upgrades / Software / OS / Tools / Middleware etc. as and when release by the Vendor/OEM or as per requirements of the Bank. Bidder should bring to notice of the Bank all release
/version change.

- Bidder should obtain a written permission from the Bank before applying any of the patches / upgrades / updates.

- Bidder has to support older versions of the software / OS/ Tools / Middleware etc in case the Bank chooses not to upgrade to latest version.

- Bidder should provide maintenance support for Software / Operating System/Tools / Middleware over the period of contract.

- All products updates, upgrades & patches should be provided by the Bidder/Vendor free of cost during support period.

- Bidder should provide legally valid software solution. The detail information on license count and type of licenses should also be provided to the Bank.

44. Blacklisting

GROUNDS FOR DISQUALIFICATION & BLACKLISTING

(A) Notwithstanding anything contained in this document, any Bidder/selected Vendor shall be disqualified when –

  I. any Bidder who have been black-listed or otherwise debarred by any Bank/Financial

Institution/Central Government/State Government/any Central or State Undertaking or Corporation/Reserve Bank of India or anyother Regulatory/Statutory Authority as on date of the publication of this Tender/Procurement;

(B) Further disqualification can be imposed by the Bank in accordance with the procedures established, which may include but not limited to the following grounds, either at the stage of Competitive Bidding or at the stage of implementation of the Contract: Commission of any act of:

i) submission of a bid, proposal or any other document that is known or should be known by the Bidder to be false, misleading or to contain false information or concealment of information which will influence the outcome of the eligibility screening/selection process;

ii) any documented unsolicited attempt by the Bidder to unduly influence the decision making process of the Bank while determining the eligibility screening/selection process in favour of the Bidder;

iii) unauthorized use of one's name or using the name of another for purpose of bidding;

iv) withdrawal of a bid, or refusal to accept an award, or enter into contract with Bank without any justifiable cause, after the Bidder had been adjudged as having submitted the lowest calculated Responsive Bid or highest rated Responsive Bid;

v) refusal or failure to furnish the required performance security within the prescribed time frame;

vi) that may tend to defeat the purpose of the competitive bidding, such as but not limited to; an eligible Bidder habitually withdrawing from bidding or submitting letter of non-participation for at least three (3) times within a year, except for valid reasons;

vii) lack of integrity or honesty or fraud, bribery, collusion or conspiracy;

viii) failure by the Bidder/Vendor to fully and faithfully comply with its contractual obligations without valid cause, or failure to comply with any written lawful instruction of the Bank or its representative(s) pursuant to the implementation of the Contract, which may include but not limited to the following:

a. Deployment of committed equipment, facilities, and

b. assignment and subcontracting the Contract or any part thereof or substitution of key personnel named in the proposal without prior written approval by the Bank.

(C) Any parameters described, *supra,* attributable to any Partner/Director shall beconstrued as disqualification for the Firm/Company, as the case may be.

(D) The Bank will have the discretion to disqualify the Bidder/Vendor and/or initiate the process for blacklisting the Bidder/Vendor and may also entail forfeiture ofperformance security furnished by the Bidder/Vendor.

45. Non-disclosure

By virtue of Contract, as and when it is entered into between the Bank and the bidder, and its implementation thereof, the bidder may have access to the confidential information and data of the Bank and its customers. The bidder willenter into a Non-Disclosure Agreement to maintain the secrecy of Bank's data asper following: -

a. That the bidder will treat the confidential information as confidential and shallnot disclose

to any third party. The bidder will also agree that its employees,agents, sub-contractors shall maintain confidentiality of the confidential information.

b. The survival confidentiality obligations shall be restricted for 3 years from the date of termination/expiration of the contract

c. That the bidder will agree that it shall neither use, nor reproduce for use in any way, any confidential information of the Bank without consent of the Bank. Thatthe bidder will also agree to protect the confidential information of the Bank withat least the same standard of care and procedures used by them to protect its own confidential Information of similar importance. Without limitation of theforegoing, the bidder shall use reasonable efforts to advise the Bank immediately in the event that the successful bidder learns or has reason to believe that any person who has had access to confidential information has violated or intends to violate the terms of the Contract to be entered into between the Bank and the bidder and will reasonably cooperate in seeking injunctive relieve against any such person.

d. That if the bidder hires another person to assist it in the performance of its obligations under the Contract or assigns any portion of its rights or delegates any portion of its responsibilities or obligations under the Contract to another person, it shall cause its assignee or delegate to be bound to retain the confidentiality of the confidential information in the same manner as the Bidder is bound to maintain the confidentiality. This clause will remain valid for 3 years even after the termination or expiry of this agreement.

e. That the bidder will strictly maintain the secrecy of Bank's data.

46. Notices

Notice or other communications given or required to be given under the contract shall be in writing and shall be faxed/e-mailed followed by hand-delivery with acknowledgement thereof or transmitted by pre-paid registered post or courier. Any notice or other communication shall be deemed to have been validly given on date of delivery if hand delivered & if sent by registered post than on expiry of seven days from the date of posting.

47. Non-Solicitation

Both the Parties agree not to hire, solicit, or accept solicitation (either directly, indirectly, or through a third party) for their employees directly involved in this Agreement/Contract during the period of the Agreement/Contract and one year thereafter, except as the Parties may agree on a case-by-case basis. The Parties agree that for the period of the Agreement/Contract and one year thereafter, neither Party will cause or permit any of its directors or employees who have knowledge of the said Agreement/Contract to solicit for employment directly or indirectly as the key personnel working on the project contemplated in this Agreement/Contract except with the written consent of the other Party. The above restriction would not apply to either Party for hiring such key personnel who (i) initiate discussions regarding such employment without any direct or indirect solicitation by the other Party (ii) respond to any public advertisement placed by either Party or its affiliates in a publication of general circulation or (iii) has been terminated by a Party prior to the commencement of employment discussions with the other Party.

48. Audit

The Vendor shall be subject to annual audit by internal/external 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 Vendor is required to submit such certification by such Auditors to the Bank.

The Vendor and or its /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 Vendor.

The Vendor shall, whenever required by the Auditors, furnish all relevant information, records/data to them. All costs for such audit shall be borne by the Vendor. Except for the audit done by Reserve Bank of India or any statutory/regulatory authority, the Bank shall provide reasonable notice not less than 2 days (two days) to the Vendor before such audit and the same shall be conducted during the normal business hours.

Where any deficiency has been observed during the audit of the Vendor on the risk parameters finalized by the Bank or in the certification submitted by the Auditors, the Vendor 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 Vendor shall require to be certified by the Auditors covering the respective risk parameters against which such deficiencies have been observed.

The Vendor further agrees that whenever required by the Bank, it will 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(ies). The Bank reserves the right to call for and/or retain any relevant information /audit reports on financial and security review with their findings undertaken by the Vendor. However, the Vendor shall not be obligated to provide records/data not related to the services provided under the said Agreement/Contract (e.g., internal cost breakup etc.).

49. Site Not Ready

Bank hereby agrees to make the site ready as per the agreed specifications, within the agreed timelines. Bank agrees that Bidder shall not be liable for any delay arising out of Bank's failure to make the site ready within the stipulated period, including but not limited to levy of liquidated damages for any delay in performance of Services under the terms of this Agreement.

50. Non-Assignment

The Vendor agrees that the Vendor shall not be entitled to assign any or all of its rights and or obligations under this Agreement to any entity including the Vendor's affiliate without the prior written consent of the Bank which consent shall not be unreasonably withheld by the Bank provided the assignee agrees to unconditionally accept the terms and conditions of the Agreement between Bank and the Vendor. Bank's consent is not necessary in case of assignment through merger , amalgamation etc. provided the new entity agrees to unconditionally accept the terms and conditions of the Agreement between Bank and the

Vendor.

If the Bank undergoes a merger, amalgamation, take-over, consolidation, reconstruction, change of ownership, etc., this Agreement/Contract shall be considered to be assigned to the new entity and such an act shall not affect the rights of the Vendor under this Agreement/Contract.

51. Intellectual Property Rights

i. All copyrights, trademarks, patent, trade secret design and other intellectual property rights existing prior to the "Effective Date" will belong to the party that owned such rights immediately prior to the Effective Date". All modifications and enhancements to, and derivative works from, pre-existing intellectual property rights will belong to the party that owned such pre-existing intellectual property rights.

ii. Neither party will gain by virtue of this Contract any rights of ownership of copyrights, patents, trade secrets, trademarks or any other intellectual property rights owned by the parties prior to the date of signing of this Contract, other than customized software made by Vendor for Bank during the contract period.

iii. Bank owns all right, title and interest in and to the Bank's intellectual property rights existing prior to the "Effective Date" and all modifications and enhancements to, and derivative works from, such pre-existing intellectual property rights (collectively, "Bank Intellectual Property"). Nothing in this Contract transfers any ownership or title in or to any Bank Intellectual Property to Vendor or any third party. Subject to the limitations set forth in this Clause, Bank would grant access specifically and exclusively for the limited purpose of implementation of the proposed comprehensive and integrated technology
solution to the Vendor to use of such of Bank Intellectual Property (excluding trade secrets, patents and trademarks) which may be reasonably necessary for the Vendor to perform its obligations under this Contract. Vendor hereby covenants with the Bank that the Vendor shall not use the same for any purpose other than the purpose for which the Bank will grant access to Vendor.

iv. The "Software" directly acquired by the Bank from a software original equipment manufacturer, as part of the Implementation Services described in the Statement of Work, the software original equipment manufacturer will own all right, title and interest in and to such software existing prior to the "Effective Date" and all modifications and enhancements to, and derivative works from, such software (collectively, the "Third Party Intellectual Property"). Nothing in this Contract transfers any ownership in or any title to any Third Party Intellectual Property to the Bank. Any issues arising out of third-party products or services shall be governed exclusively by the End User License Agreement and support agreement signed directly between the Bank and the original equipment manufacturer. Bank shall comply with the license terms, as may be specified by the respective licensors, applicable for the use of the Software provided under this Contract. Bank shall use such IP for its internal use only.

v. All intellectual property developed during the term of this Contract that is neither Bank Intellectual Property nor Vendor Intellectual Property nor Third Party Intellectual Property ("New Intellectual Property"), shall be owned by Vendor , as between the Bank and Vendor, Vendor hereby grants the Bank an irrevocable, non-exclusive, world-wide perpetual license to use, execute, reproduce, display, perform and distribute New Intellectual Property without payment of any further amount for use within the Bank's Enterprise.

vi. For the purpose of this Contract, "Enterprise" shall mean and include any legal entity in which the Bank holds/ will hold shares at least to the extent of fifty percent (50%). Subject to

Vendor having received the corresponding payment from the Bank, the Bank shall own all Intellectual Property Rights in all software and other materials (excluding any Vendor or third party products including any modifications, enhancements or customization made thereto) produced exclusively for the Bank by the Vendor pursuant to the project including any adaptations translations, derivative works and improvements that are developed by the Vendor, specifically and exclusively for the Bank whether protectable as a copyright, trademark, patent, trade secret and design or otherwise. The ownership of all Intellectual Property Rights in any information or materials provided to the Vendor by the Bank shall remain vested in the Bank. The ownership of all Intellectual Property Rights for any Bank customer information or materials provided to the Vendor by the Bank shall remain vested in the Bank.

vii. Nothing shall restrict either Party from the use of any ideas, concepts, knowhow, or techniques relating to data processing or network management, which either Party, individually or jointly, develops or discloses under this Contract, unless it is developed exclusively for the Bank use by the Vendor. The Vendor shall also at all point of time be under the obligations imposed under the terms of confidentiality while making use of such ideas, concepts, know-how or techniques. Also, such use shall not infringe either Party's patent rights or copyrights or a breach of confidentiality obligations. However, except for the licenses expressly granted by an agreement between the Bank and the Vendor, neither of the parties shall infringe on any patents or copyrights of the other Party.

viii. IPR in "software and other materials" made exclusively for the Bank shall vest with the Bank alone. Material specifically developed by the Vendor for the Bank are defined as "Bank Materials" and same shall be passed on by the Vendor during the contract period.

Annexure I - Tender Offer Forwarding Letter

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Dear Sir,

Sub: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

With reference to the above RFP, having examined and understood the instructions including all annexure, terms and conditions forming part of the Bid, we, the undersigned, hereby enclose our offer for "Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS)" mentioned in the RFP document forming Eligibility, Technical and Commercial Bids being parts of the above referred Bid.

In the event of acceptance of our Eligibility, Technical and Commercial Bids by the Bank, we undertake to Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) as per your purchase orders.

In the event of our selection by the Bank for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS), we will submit a Performance Guarantee for a sum equivalent to 3% of the Project Cost to be valid for a period of Five years in favour of UCO BANK effective from the month of execution of Service Level Agreement.

We agree to abide by the terms and conditions of this tender and our offer shall remain valid for 180 days from the date of commercial bid opening and it remain binding upon us which may be accepted by The Bank any time before expiry of 180 days.

Until a formal contract is executed, this tender offer, together with the Bank's written acceptance thereof and Bank's notification of award, shall constitute a binding contract between us.

We understand that The Bank is not bound to accept the lowest or any offer the Bank may receive.

We enclose the following:

1. DD No. _____Dated _____for Rs. 30,000/- (Rupees Thirty Thousand Only) as Cost of RFP Document &

2. BG No _____ Dated _____ for Rs 3,00,00,000/- (Rupees Three Crores Only) as EMD.

Dated this   day of   2022.

Signature: _____

(In the Capacity of) _____

Duly authorized to sign the tender offer for and on behalf of

Place:

Date:

Designation:

Authorized Signatory:

Name:

Annexure II - General Details of the Bidder

A. Profile of Bidder

1. Name of bidder:
2. Location
   i. Regd. Office:
   ii. Controlling Office:
3. Constitution
4. Date of incorporation & Date of Commencement of business:
5. Major change in Management in last three years:
6. Names of Banker /s:
7. Name and details (designation and Phone no.) of Authorized Signatory:
8. Share holding pattern:
9. Major change in Management in last three years

B. Financial Position of Bidder for the last three financial years

Particulars	2019-20	2020-21	2021-22
Profit after Tax			
Net Worth			
Turnover			

N.B. Enclose copies of Audited Balance Sheets along with enclosures

C. Proposed Service details in brief

- Description of service:

- Details of similar service provided to organization in India specifying the number of Banks and branches

Details of Experience in the field of (Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS))

Organization		
Name of Organization	Period	
	From	To

N.B. Enclose copies of Purchase Orders and references

Place:
Date:
Signature of Bidder:
Name:
Business Address:

Annexure III - Manufacturer Authorization form (MAF)
(Letter to be submitted by the OEM/ OSD on firm's official letter head)

To,
Deputy General Manager
DIT, UCO Bank, Head Office,
Department of Information Technology
7th Floor, 3&4, DD Block, Sector-I
Salt Lake, Kolkata -700064

Dear Sir,

Ref: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

MAF should broadly cover the following:

a. Registered office address of OEM
b. Authorizing bidder to participate in the tender and negotiate and conclude the contract with UCO BANK.
c. Confirm extension of full warranty and guarantee as per the terms and conditions of the tender and the contract for the solution, products/equipment and services including extension of technical support and updates / upgrades if contracted by the bidder
d. ensure all product upgrades including software upgrades and new product feature releases during the contract period.
e. And also confirm that such Products as UCO BANK may opt to purchase from the Supplier, provided, that this option shall not relieve the Supplier of any warranty obligations under the Contract.
f. In the event of termination of production of such Products:

i. advance notification to UCO BANK of the pending termination, in sufficient time to permit the UCO BANK to procure needed requirements; and
ii. Following such termination, furnishing at no cost to UCO BANK, the blueprints, design documents, operations manuals, standards and specifications of the Products, if requested.

g. Should also confirm to undertake, that in case if the bidder is not able to maintain the solution to the satisfaction of the Company as per the functional and technical specification of the bid, will replace the bidder with another bidder or OEM to maintain the solution till the contract period in this bid at no extra cost to the company.
h. In Case of software : The Proposed OEM/OSD products/tools should not have end of life/ end of support for next 8 years. We also undertake to supply and upgrade the proposed software over a period of 8 years and support for a period of minimum 8 years from the date of contract against the aforementioned RFP.

Yours Faithfully

Authorized Signatory

(Name: Phone No.   Fax: Email:)

Annexure IV - Format of Bank Guarantee (EMD)

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Dear Sir,
Ref: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

In response to your invitation to respond to your RFP Supply, Installation, Implementation, Post- Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering), M/s _____ having their registered office at (hereinafter called the 'Vendor') wish to respond to the said Request for Proposal (RFP) for Supply, Installation, Implementation, Post- Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) and to provide related services as listed in the RFP document.

Whereas the 'Vendor' has submitted the proposal in response to RFP, we, the _____ Bank having our Head office _____ hereby irrevocably guarantee an amount of ` _____/- (Rupees _____ only) as EMD as required to be submitted by the 'Vendor' as a condition for participation in the said process of RFP.

The EMD for which this guarantee is given is liable to be enforced/ invoked:

a. If the bidder withdraws its bid during the period of bid validity (180 days from the date of opening of bid).

b. If the bidder makes any statement or encloses any form which turns out to be false, incorrect and / or misleading at any time prior to signing of contract and/or conceals or suppresses material information; and / or

c. The selected bidder withdraws his tender before furnishing on unconditional and irrevocable Performance Bank Guarantee.

d. The bidder violates any of the provisions of the terms and conditions of this tender specification.

e. In case of the successful bidder, if the bidder fails:

 ➢ To sign the contract in the form and manner as per the terms and conditions of the RFP.

- To furnish Performance Bank Guarantee in the form and manner as per the terms and conditions of the RFP either at the time of or before the execution of Service Level Agreement (SLA).
- If the Vendor, having been notified of the acceptance of its proposal by the Bank during the period of the validity of the proposal fails or refuses to enter into the contract in accordance with the Terms and Conditions of the RFP

We undertake to pay immediately, on demand to UCO Bank, the said amount of Rupees _____ without any reservation, protest, demur, or recourse. The said guarantee is liable to be invoked / enforced on the happening of the contingencies as mentioned above and also other contingencies mentioned elsewhere in the RFP document and we shall pay the amount on any Demand made by UCO Bank which shall be conclusive and binding on us irrespective of any dispute or difference raised by the vendor.

Notwithstanding anything contained herein:

1. Our liability under this Bank guarantee shall not exceed ` _____ (Rupees ____ only).

2. This Bank guarantee will be valid up to ___; and

3. We are liable to pay the guarantee amount or any part thereof under this Bank guarantee only upon service of a written claim or demand by you on or before_____.

In witness whereof the Bank, through the authorized officer has sets its hand and stamp on this day of_____ at _____.

Yours faithfully,

For and on behalf of

_____ Bank

Authorised official

(NB: This guarantee will require stamp duty as applicable and shall be signed by the official whose signature and authority shall be verified. The signatory shall affix his signature, name and designation).

Annexure V - Proforma for Performance Bank Guarantee
(To be stamped in accordance with the stamp act)

1. In consideration of UCO BANK, a body corporate constituted under the Banking Companies (Acquisition & Transfer of Undertaking) Act, 1970, having its head office at 10 BIPLABI TRILOKYA MAHARAJ SARANI (BRABOURNE ROAD),Kolkata-700001 (hereinafter called "UCO BANK") having agreed to exempt M/s _____ , a Company incorporated under the Companies Act, 1956 having its registered office at (Address of the selected bidder company) (hereinafter called "the said SELECTED BIDDER") from the demand, under the terms and conditions of UCO BANK's purchase order/ Letter of Intent bearing no. ….dated…………………. issued to the Selected bidder and an Agreement to be made between UCO Bank and the Selected bidder for a period of ………………… In pursuance of Request For Proposal no……………….…..dated………………… , as modified, (hereinafter called "the said Agreement"), of security deposit for the due fulfillment by the said SELECTED BIDDER of the Terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs………………………(Rupees…………………………………Only).We,………………… …………………..[indicate the name of the Bank ISSUING THE BANK GUARANTEE] (hereinafter referred to as "the Bank") at the request of…………… ……………………. [SELECTED BIDDER] do hereby undertake to pay to UCO BANK an amount not exceeding Rs……………...against any loss or damage caused to or suffered or would be caused to or suffered by UCO BANK by reason of any breach by the said SELECTED BIDDER of any of the terms or conditions contained in the said Agreement.

2. We …………………………………………………… [indicate the name of the BANK issuing the bank guarantee] do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from UCO BANK stating that the amount claimed is due by way of loss or damage caused to or breach by the said SELECTED BIDDER of any of the terms or conditions contained in the said Agreement or by reason of the SELECTED BIDDER'S failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.…………………………

3. We undertake to pay to UCO BANK any money so demanded notwithstanding any dispute or disputes raised by the SELECTED BIDDER in any suit or proceeding pending before any court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment as made by us under this bond shall be a valid discharge of our liability for payment there under and the

SELECTED BIDDER for payment there under and the SELECTED BIDDER shall have no claim against us for making such payment.

4. We, ………………………………[indicate the name of the Bank ISSUING THE GUARANTEE] further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of BANK under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till UCO BANK certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said SELECTED BIDDER and accordingly discharged this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before ………………………….(Expiry of claim period), we shall be discharged from all liabilities under this guarantee thereafter.

5. We …………………………………… [indicate the name of Bank ISSUING THE GUARANTEE] further agree with UCO BANK that UCO BANK shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said SELECTED BIDDER from time or to postpone for any time, or from time to time any of the powers exercisable by UCO BANK against the said SELECTED BIDDER and to forebear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any variation, or extension being granted to the said SELECTED BIDDER or for any forbearance, act or omission on the part of UCO BANK of any indulgence by UCO BANK to the said SELECTED BIDDER or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the SELECTED BIDDER.

7. We, ………………………………… [indicate the name of Bank ISSUING THE GUARANEE] lastly undertake not to revoke this guarantee during its currency except with the previous consent of UCO BANK in writing.

   Notwithstanding anything contained herein:

a. Our liability under this Bank Guarantee shall not exceed Rs…….. (Rupees ………………………………………….) Only.
b. This Bank Guarantee shall be valid upto ....and
c. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or

before ....(date of expiry of Guarantee including claim period).

8. Dated the .... day of .... for .... [indicate the name of Bank]

Yours' faithfully,

For and on behalf of

Bank

Authorised Official

NOTE:

1. Selected bidder should ensure that the seal and CODE No. of the signatory is put by the Bankers, before submission of the Bank guarantee.
2. Bidder guarantee issued by Banks located in India shall be on a Non-Judicial Stamp Paper of requisite value as applicable to the place of execution.

यूको बैंक UCO BANK

Annexure VI - Undertaking For Non-Blacklisting / Non-Debarment Of The Bidder
(To be stamped as a declaration & duly attested by a notary)

Sub: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

1) I/We, Proprietor/Partner(s)/Director(s) of M/s ....hereby confirm that I/We have read and understood the eligibility criteria and fulfil the same.

2) I/We further confirm that all the information furnished by me/us, as per the requirement of the Bank, have been included in our bid.

3) I/We further hereby undertake and agree to abide by all terms and conditions and guidelines stipulated by the Bank. We understand that any deviation may result in disqualification of our bid.

4) *I/We further hereby declare that I/We have not been black-listed or otherwise debarred by any Bank/Financial Institution/Central Government/ State Government/any Central or State Undertaking or Corporation/ Reserve Bank of India or any other Regulatory Authority or any other Statutory Authority as on date of the publication of this Tender/Procurement.

(OR)

I/We further hereby declare that the Proprietorship Concern/Partnership Firm/Company/........ (if any other entity) namely M/s .... was blacklisted/debarred by....................................(Name of the Authority who blacklisted/debarred) from taking part in their Tender/Procurement for a period of ....years w.e.f. ....to...................... The period is subsisting/over on ....and now I/We is/are entitled to take part in Tender/Procurement.

5) I/We declare that no proceedings/inquiries/investigations have commenced/pending against me/us by any Statutory Authority/Regulatory Agency/Investigating Agency which may result in liquidation of company/ firm/proprietorship concern and/or may act as deterrent on the continuity of business and/or may hamper in providing the said services, as envisaged in this document.

6) I/We further agree that no legal action is pending against me/us for any cause in any legal jurisdiction which will affect my/our ability to carry out my obligations and perform my duties under the RFP and subsequent Contract/Agreement, if any

7) I/We undertake that adequate number of resources, if required by the Bank, will be deployed for the project to complete the assignment within the stipulated time.

*STRIKE OUT WHICH IS INAPPLICABLE

(Deviation to the above if any, the Bidder must provide details of such action(s))

Signature (1) .... (2) ....

(duly authorized to sign)

Name:.....................................

Capacity in which as executed:..............................

Name & registered address of the Bidder:...................

Seal of the Bidder to be affixed

Annexure VII - Undertaking to abide by all by-laws / rules / regulations

(TO BE EXECUTED ON NON-JUDICIAL STAMP PAPER OF REQUISITE VALUE)

To,
The Deputy General Manager,
UCO Bank, Head Office – II
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Sub: **Declaration-Cum-Undertaking regarding compliance with all statutory requirements**

In consideration of UCO Bank, a body corporate, constituted under Banking Companies (Acquisition & Transfer of Undertakings) Act, 1970 as amended from time to time having its Head Office at 10, Biplabi Trailokya Maharaj Sarani, Kolkata-700001 (hereinafter referred to as "Bank" which expression shall include its successors and assigns), we, M/s…………………., having its Registered Office at .... , do hereby, having examined the RFP including all Annexure, confirm and agree to comply with all Laws, Rules, Regulations, By-Laws, Guidelines, Notifications etc.

We hereby undertake and agree to abide by all the terms and conditions stipulated by the Bank in the RFP Ref. No: UCO/DIT/2241/2022-23 Date: 05/12/2022 including all annexure, addendum, corrigendum and amendments, if any. We certify that the services offered shall be in conformity with the terms & conditions and Scope of Work stipulated in the annexures of the said RFP.

We do also hereby irrevocably and unconditionally agree and undertake to save and keep the Bank, including its respective directors, officers, and employees and keep them harmless from and against any claim, demand, losses, liabilities or expenses of any nature and kind whatsoever and any damage caused from and against all suits and other actions that may be instituted taken or preferred against the Bank by whomsoever and all losses, damages, costs, charges and expenses arising out of non-compliance with or non-adherence to any statutory/regulatory requirements and/or any other law for the time being in force.

We also confirm that payment to the engaged employees shall be made in consonance with the Minimum Wages Act in vogue and their duty hours will also be as per applicable labour laws of country.

Dated this   day of   , 2022 .

Place:

For M/s ....[Seal and Signature(s) of the Authorized Signatory (s)]

Annexure VIII - Central Minimum Wages Act & Labour Laws
(Undertaking Letter on the bidder's letterhead for Central Minimum Wages Act & Labour Laws)

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Sir,

Sub: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

Further to our proposal dated ……………………….. in response to the Request for Proposal (Bank's tender No ....herein referred to as RFP) issued by Bank, we hereby covenant, warranty and confirm as follows:

In this regard we confirm that the employees engaged by our Company to carryout the services in your Bank for the above said contract are paid minimum wages / salaries as stipulated in the Government (Central / State) Minimum Wages / Salaries act in force. All the employees/operator deployed by the selected bidder for the digitization activity must comply with government's rules and regulations like minimum wages act, Provident Fund and ESIC facility standard. We also indemnify the Bank against any action / losses / damages that arise due to action initiated by Commissioner of Labour for non-compliance to the above criteria.

We further authorize the Bank to deduct from the amount payable to the Company under the contract or any other contract of the Company with the Bank if a penalty is imposed by Labour Commissioner towards non-compliance to the "Minimum Wages / Salary stipulated by government in the Act by your company.

(Proof of compliance and labour license needs to be submitted along with the quotation)

Yours faithfully,

Authorised Signatory Designation
Bidder's corporate name
Place: Date:

Annexure IX – Undertaking for GST Law
(Undertaking Letter on the vendor's letterhead for GST Law)

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Dear Sir,

Sub: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

Further to our proposal dated ...., in response to the Request for Proposal (Bank's tender No. ………………………………… hereinafter referred to as "RFP") issued by Bank, we hereby covenant, warrant and confirm as follows:

We, the bidder M/s …………………………, hereby agree to comply with all applicable GST Laws including GST Acts, Rules, Regulations, Procedures, Circulars & Instructions thereunder applicable in India from time to time and to ensure that such compliance is done.

Yours faithfully, For……………………………..

Designation:

(Signature and seal of authorized person)

Bidder's corporate name:

Place:

Date:

Annexure X – Undertaking for Price Validity & Acceptance of all terms & conditions of RFP

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Dear Sir,

Sub: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

We understand that Bank is not bound to accept the lowest or any bid received, and Bank may reject all or any bid. We shall keep the price valid for the entire contract period from the date of issuance of the first Work order.

If our bid is accepted, we are responsible for the due performance as per the scope of work and terms & conditions as per mentioned in RFP.

It is certified that the information furnished here in and as per the document submitted is true and accurate and nothing has been concealed or tampered with.

We have gone through all the conditions of bid and are liable to any punitive action for furnishing false information / documents.

Yours faithfully,

For…………………………..

(Signature and seal of authorized person) Place:

Date:

Annexure XI - Undertaking for No Deviation

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Dear Sir,

Sub: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

Further to our proposal dated ………………………………., in response to the Request for Proposal (Bank's tender No...hereinafter referred to as "RFP") issued by Bank, we hereby covenant, warrant and confirm as follows:

We hereby agree to comply with all the terms and conditions / stipulations as contained in the RFP and the related addendums and other documents including the changes made to the original tender documents if any, issued by the Bank. The Bank is not bound by any other extraneous matters or deviations, even if mentioned by us elsewhere either in our proposal or any subsequent deviations sought by us, whether orally or in writing, and the Bank's decision not to accept any such extraneous conditions and deviations will be final and binding on us.

We undertake to execute Non-disclosure Agreement & provide Performance Bank Guarantee as per the annexure enclosed in the RFP, in case of emergence as a successful bidder.

Yours faithfully,

For……………………………..

Designation:

(Signature and seal of authorized person)

Bidder's corporate name: Place: Date:

<u>Annexure XII - Certificate from Chartered Accountant</u>

(signed & stamped) showing company's financial position in last 3 years (annual turnover, profit / loss, net-worth etc.)

	2019-20	2020-21	2021-22
Turnover			
Profit / Loss			
Net worth			

यूको बैंक UCO BANK

Annexure XIII - Pre-Bid query format

Format of Pre-Bid Queries to be submitted by the Bidder(s)

To be e-mailed in excel format strictly

Name of the Bidder:

Name of the Contact Person of the Bidder:

Contact Number of the Contact Person: Email

id of the Contact Person:

RFP PageNo.	RFP Clause No.	Original RFP Clause	Query sought/ Suggestions of the Bidder

Annexure XIV - Pre-Contract Integrity Pact
(To be stamped as per the Stamp Law of the Respective State)

1. Whereas UCO Bank having its registered office at UCO BANK, a body corporate constituted under The Banking companies (Acquisition & Transfer Act of 1970), as amended by The Banking Laws (Amendment) Act, 1985, having its Head Office at 10, Biplabi Trailokya Maharaj Sarani , Kolkata-700001 acting through its Department of IT, represented by Authorised Signatory hereinafter referred to as the Buyer and the first party, proposes to Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) hereinafter referred to as Stores and / or Services.   And M/s _____having its registered office at _____represented by_____, Authorised signatory, (which term, unless expressly indicated by the contract, shall be deemed to include its successors and its assignee), hereinafter referred to as the bidder/seller and the second party, is willing to offer/has offered the Stores and / or Services.

2. Whereas the Bidder/Seller is a private company/public company/ /partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is a Public Sector Undertaking and registered under Companies Act 1956. Buyer and Bidder/Seller shall hereinafter be individually referred to as ―Party or collectively as the ―parties, as the context may require.

3. **Preamble**
   Buyer has called for tenders under laid down organizational procedures intending to enter into contract /s for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) and the Bidder /Seller is one amongst several bidders /Proprietary Vendor /Customer Nominated Source/Licensor who has indicated a desire to bid/supply in such tendering process. The Buyer values and takes primary responsibility for values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness / transparency in its relations with its Bidder (s) and / or Seller(s).

   In order to achieve these goals, the Buyer will appoint Independent External

Monitor(s) (IEMs) in consultation with Central Vigilance Commission, who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

4. **Commitments of the Buyer**

4.1 The Buyer commits itself to take all measures necessary to prevent corruption and fraudulent practices and to observe the following principles:-

(i) No employee of the Buyer, personally or through family members, will in connection with the tender, or the execution of a contract demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

(ii) The Buyer will during the tender process treat all Bidder(s) /Seller(s) with equity and reason. The Buyer will in particular, before and during the tender process, provide to all Bidder (s) /Seller(s) the same information and will not provide to any Bidders(s) /Seller(s) confidential /additional information through which the Bidder(s) / Seller(s) could obtain an advantage in relation to the process or the contract execution.

(iii) The Buyer will exclude from the process all known prejudiced persons.

4.2 If the Buyer obtains information on the conduct of any of its employees which is a criminal offence under the Indian Legislation Prevention of Corruption Act 1988 as amended from time to time or if there be a substantive suspicion in this regard, the Buyer will inform to its Chief Vigilance Officer and in addition can initiate disciplinary action.

5. **Commitments of the Bidder(s) /Seller(s):**

5.1 The Bidder(s)/ Seller(s) commit itself to take necessary measures to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

(i) The Bidder(s) /Seller(s) will not directly or through any other persons or firm, offer promise or give to any of the Buyer's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he / she is not legally entitled to, in order to obtain in

exchange any advantage during the tendering or qualification process or during the execution of the contract.

(ii) The Bidder(s) /Seller(s) will not enter with other Bidders / Sellers into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

(iii) The bidder(s) /Seller(s) will not commit any offence under the Indian legislation, Prevention of Corruption Act, 1988 as amended from time to time. Further, the Bidder(s) /Seller(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Buyer as part of the business relationship, regarding plans, technical proposals and business details, including information constrained or transmitted electronically.

(iv) The Bidder(s) /Seller(s) shall ensure compliance of the provisions of this Integrity Pact by its sub-supplier(s) / sub-contractor(s), if any, Further, the Bidder /Seller shall be held responsible for any violation/breach of the provisions by its sub-supplier(s) /Sub-contractor(s).

(v) Foreign bidders to disclose the name and address of agents and representatives in India and Indian Bidders to disclose their foreign principals or associates.

(vi) Bidders not to pass any information provided by the Principal as part of business relationship to others and not to commit any offence under PC/IPC Act.

(vii) Bidders to disclose the payments to be made by them to agents/brokers or any other intermediary.

(viii) For Joint Ventures (JV) entities, Integrity Pact should be signed by all partners.

(ix) In case of foreign contractor, details of their Indian counterpart should be submitted to Bank by the vendor.

5.2 The Bidder(s) /Seller(s) shall ensure compliance of the provisions of this Integrity Pact by its sub-supplier(s) / sub-contractor(s), if any, Further, the Bidder /Seller shall be held responsible for any violation /breach of the provisions by its sub-supplier(s)/sub-contractor(s).

5.3 The Bidder(s) /Seller(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

5.4 Agents / Agency Commission The Bidder /Seller confirms and declares to the Buyer that the bidder/Seller is the original manufacturer/authorized distributor / stockiest of original manufacturer or Govt. Sponsored /Designated Export Agencies (applicable in case of countries where domestic laws do not permit direct export by OEMS of the stores and /or Services referred to in this tender / Offer / contract / Purchase Order and has not engaged any individual or firm, whether Indian or Foreign whatsoever, to intercede, facilitate or in any way to recommend to Buyer or any of its functionaries, whether officially or unofficially, to the award of the tender / contract / Purchase order to the Seller/Bidder; nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The Seller / Bidder agrees that if it is established at any time to the satisfaction of the Buyer that the present declaration is in anyway incorrect or if at a later stage it is discovered by the Buyer that the Seller incorrect or if at a later stage it is discovered by the Buyer that the Seller/Bidder has engaged any such individual /firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this contract /Purchase order, the Seller /Bidder will be liable to refund that amount to the Buyer. The Seller will also be debarred from participating in any RFP / Tender for new projects / program with Buyer for a minimum period of five years. The Buyer will also have a right to consider cancellation of the Contract / Purchase order either wholly or in part, without any entitlement of compensation to the Seller /Bidder who shall in such event be liable to refund agents / agency commission payments to the buyer made by the Seller /Bidder along with interest at the rate of 2% per annum above LIBOR (London Inter Bank Offer Rate) (for foreign vendors) and Base Rate of SBI (State Bank of India) plus 2% (for Indian vendors). The Buyer will also have the right to recover any such amount from any contracts / Purchase order concluded earlier or later with Buyer.

6. **Previous Transgression**

   6.1 The Bidder /Seller declares that no previous transgressions have occurred in the last three years from the date of signing of this Integrity Pact with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify Bidder's /Seller's exclusion from the tender process.

   6.2 If the Bidder /Seller makes incorrect statement on this subject, Bidder /Seller can be disqualified from the tender process or the contract, if already

awarded, can be terminated for such reason without any liability whatsoever on the Buyer.

7. Company Code of Conduct

Bidders /Sellers are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behaviour) and a compliance program for the implementation of the code of conduct throughout the company.

8. Sanctions for Violation

8.1 If the Bidder(s) /Seller(s), before award or during execution has committed a transgression through a violation of Clause 5, above or in any other form such as to put his reliability or credibility in question, the Buyer is entitled to disqualify the Bidder(s) /Seller (s) from the tender process or take action as per the procedure mentioned herein below:

(i) To disqualify the Bidder /Seller with the tender process and exclusion from future contracts.

(ii) To debar the Bidder /Seller from entering into any bid from Buyer for a period of two years.

(iii) To immediately cancel the contract, if already signed /awarded without any liability on the Buyer to compensate the Bidder /Seller for damages, if any. Subject to Clause 5, any lawful payment due to the Bidder/Seller for supplies effected till date of termination would be made in normal course.

(iv) To encash Advance Bank Guarantees / Performance Bonds / Warranty Bonds, etc. which may have been furnished by the Bidder /Seller to the extent of the undelivered Stores and / or Services.

8.2 If the Buyer obtains Knowledge of conduct of Bidder /Seller or of an employee or representative or an associate of Bidder /Seller which constitutes corruption, or if the Buyer has substantive suspicion in this regard, the Buyer will inform to its Chief Vigilance Officer.

9. Compensation for Damages

9.1 If the Buyer has disqualified the Bidder(s) /Seller(s) from the tender process prior to the award according to Clause 8, the Buyer is entitled to demand and recover the damages equivalent to Earnest Money Deposit in case of open

tendering.

9.2 If the Buyer has terminated the contract according to Clause 8, or if the Buyer is entitled to terminate the contract according to Clause 8, the Buyer shall be entitled to encash the advance Bank guarantee and performance bond / warranty bond, if furnished by the Bidder / Seller, in order to recover the payments, already made by the Buyer for undelivered Stores and / or Services.

10. Independent External Monitor(s)

10.1 The Buyer has appointed independent External Monitors for this Integrity Pact in consultation with the Central Vigilance Commission (Names and Addresses of the Monitors are given in RFP).

10.2 As soon as the integrity Pact is signed, the Buyer shall provide a copy thereof, along with a brief background of the case to the independent External Monitors.

10.3 The Bidder(s) / Seller(s) if they deem it necessary, May furnish any information as relevant to their bid to the Independent External Monitors.

10.4 If any complaint with regard to violation of the IP is received by the buyer in a procurement case, the buyer shall refer the complaint to the Independent External Monitors for their comments / enquiry.

10.5 If the Independent External Monitors need to peruse the records of the buyer in connection with the complaint sent to them by the buyer, the buyer shall make arrangement for such perusal of records by the independent External Monitors.

10.6 The report of enquiry, if any, made by the Independent External Monitors shall be submitted to MD & CEO, UCO Bank, Head Office at 10, Biplabi Trailokya Maharaj Sarani, Kolkata-700001 within 2 weeks, for a final and appropriate decision in the matter keeping in view the provision of this Integrity Pact.

10.7 The word "Monitor" would include both singular and plural.

11. Law and Place of Jurisdiction

This Integrity Pact is subject to Indian Laws, and exclusive Jurisdiction of Courts at Kolkata, India.

12. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provision of the extant law in force relating to any civil or criminal proceedings.

13. Integrity Pact Duration.

13.1 This Integrity Pact begins when both parties have legally signed it. It expires of order / finalization of contract.

13.2 If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this Integrity Pact as specified above, unless it is discharged / determined by MD & CEO, UCO Bank.

13.3 Should one or several provisions of this Integrity Pact turn out to be invalid, the reminder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

14. Other Provisions

14.1 Changes and supplements need to be made in writing. Side agreements have not been made.

14.2 The Bidders (s)/ Sellers (s) signing this IP shall not initiate any Legal action or approach any court of law during the examination of any allegations/complaint by IEM and until the IEM delivers its report.

14.3 In view of nature of this Integrity Pact, this Integrity Pact shall not be terminated by any party and will subsist throughout its stated period.

14.4 Nothing contained in this Integrity Pact shall be deemed to assure the bidder / Seller of any success or otherwise in the tendering process.

15. This Integrity Pact is signed with UCO Bank exclusively and hence shall not be treated as precedence for signing of IP with MoD or any other Organization.

16. In the event of any contradiction between the Integrity Pact and its Annexure, the Clause in the Integrity Pact will prevail.

17. The Parties here by sign this Integrity Pact.

BUYER   BIDDER /SELLER
Signature: Signature:
Authorized Signatory   Authorized Signatory (*)
Department of IT

Place:
Date
Witness: Witness:
(Name & Address)   Name & Address

Annexure XV - Non-Disclosure Agreement

(Confirmation of format should be enclosed with technical bid. Agreement to be executed on non-judicial stamp paper of requisite value by the selected bidder only)

This Non-Disclosure Agreement is entered into on this .... day of........2022

BETWEEN

UCO Bank, a body corporate, constituted under the Banking Companies (Acquisition & Transfer of Undertakings) Act, 1970 as amended from time to time having its Head Office at No.10, BTM Sarani, Kolkata-700001 hereinafter referred to as "the Bank" (which expression shall unless excluded by or repugnant to the subject or context be deemed to mean and include its assigns, administrators and successors) of the **FIRST PART/ DISCLOSING PARTY**

AND

....(Which expression shall unless excluded by or repugnant to the subject or context be deemed to mean and include its assigns, administrator and successors) of the SECOND PART/ RECEIVING PARTY

(Each of Bank and the vendor is sometimes referred to herein as a "Party" and together as the "Parties").

WHEREAS the Vendor/Receiving Party is inter alia engaged for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) as per the terms and conditions specified in the RFP Ref. No: UCO/DIT/2241/2022-23 Date: 05/12/2022. The Vendor/Receiving Party would be the single point of contact for this project.

WHEREAS Bank/Disclosing Party is inter alia engaged in the business of Banking; and

WHEREAS the Parties presently desire to discuss and/or consult with each other's business for the purposes of entering into Agreements for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End

Comprehensive & Integrated Global Treasury Management Solution (CIGTMS)

WHEREAS the Parties recognize that each other's business involves specialized and proprietary knowledge, information, methods, processes, techniques and skills peculiar to their security and growth and that any disclosure of such methods, processes, skills, financial data, or other confidential and proprietary information would substantially injure a Party's business, impair a Party's investments and goodwill, and jeopardize a Party's relationship with a Party's clients and customers; and

WHEREAS in the course of consultation with respect to the potential business venture, the Parties anticipate disclosing to each other certain information of a novel, proprietary, or confidential nature, and desire that such information be subject to all of the terms and conditions set forth herein below;

NOW THEREFORE the Parties hereto, in consideration of the promises and other good and valuable consideration, agree such information shall be treated as follows:

Confidential Information. "Confidential Information" shall mean and include any information which relates to the financial and/or business operations of each Party, including but not limited to, specifications, drawings, sketches, models, samples, reports, forecasts, current or historical data, computer programs or documentation and all other technical, financial or business data, information related to each Party's customers, products, processes, financial condition, employees, intellectual property, manufacturing techniques, experimental work, trade secrets.

1. **Use of Confidential Information**. The Vendor/Receiving Party agrees not to use the Bank/Disclosing Party's confidential Information for any purpose other than for the specific consultation regarding the potential business venture. Any other use of such Confidential Information by the Receiving Party shall be made only upon the prior written consent from an authorized representative of the Disclosing Party which wishes to disclose such information or pursuant to subsequent agreement between the Parties hereto.

2. **Restrictions.** Subject to the provisions of paragraph 4 below, the Party receiving Confidential Information (the "Receiving Party") shall, for contract period of Three (3) years from the date of the last disclosure of Confidential Information made under this Agreement (except for personal customer data which shall remain confidential forever), use the same care and discretion to limit disclosure of such

Confidential Information as it uses with similar confidential information of its own and shall not disclose, lecture upon, publish, copy, modify, divulge either directly or indirectly, use(except as permitted above under clause (2) or otherwise transfer the Confidential Information to any other person or entity, including taking reasonable degree of care and steps to:

(a) Restrict disclosure of Confidential Information solely to its concerned employees, agents, advisors, consultants, contractors and /or subcontractors with a need to know and not disclose such proprietary information to any other parties; and

(b) **The survival confidentiality obligations shall be restricted for 3 years from the date of termination/expiration of the contract.**

(c) Advise all receiving Party's employees with access to the Confidential Information of the obligation to protect Confidential Information provided hereunder and obtain from agents, advisors, contractors and/or consultants an agreement to be so bound.

(d) Use the Confidential Information provided hereunder only for purposes directly related to the potential business venture.

3. Exclusions. The obligations imposed upon Receiving Party herein shall not apply to information, technical data or know how, whether or not designated as confidential, that:

(a) is already known to the Receiving Party at the time of the disclosure without an obligation of confidentiality;

(b) is or becomes publicly known through no unauthorized act of the Receiving Party;

(c) is rightfully received from a third Party without restriction and without breach of this Agreement;

(d) is independently developed by the Receiving Party without use of the other Party's Confidential Information and is so documented;

(e) is disclosed without similar restrictions to a third party by the Party owning the Confidential Information;

(f) is approved for release by written authorization of the Disclosing Party; or

_____

(g) is required to be disclosed pursuant to any applicable laws or regulations orany order of a court or a governmental body; provided, however, that the Receiving Party shall first have given notice to the Disclosing Party and made areasonable effort to obtain a protective order requiring that the Confidential Information and/or documents so disclosed be used only for the purposes forwhich the order was issued.

4. Return of Confidential Information. All Confidential Information and copies and extracts of it shall be promptly returned by the Receiving Party to the Disclosing Party at any time within thirty (30) days of receipt of a written request by the Disclosing Party for the return of such Confidential Information.

5. Ownership of Information. The Receiving Party agrees that all Confidential Information shall remain the exclusive property of the Disclosing Party and its affiliates, successors and assigns.

6. No License Granted. Nothing contained in this Agreement shall be construed as granting or conferring any rights by license or otherwise in any Confidential Information disclosed to the Receiving Party or to any information, discovery or improvement made, conceived, or acquired before or after the date of this Agreement. No disclosure of any Confidential Information hereunder shall be construed by the Receiving Party to be a public disclosure of such Confidential Information for any purpose whatsoever.

Mitu-Som

7. Breach. In the event the Receiving Party discloses, disseminates or releases any Confidential Information received from the Disclosing Party, except as provided above, such disclosure, dissemination or release will be deemed a material breach of this Agreement and the Disclosing Party shall have the right to demand prompt return of all Confidential Information previously provided to the Receiving Party and in such case, the Receiving party shall be bound to return all information within 30 days from the date of such demand. The provisions of this paragraphs are in addition to any other legal right or remedies, the Disclosing Party may have under the Law for the time being in force.

8. Arbitration and Equitable Relief.
(a) Arbitration. The Parties shall endeavor to settle any dispute/difference arising out of or relating to this Agreement through consultation and negotiation. In the event no settlement can be reached through such negotiation and consultation,

---

the Parties agree that such disputes shall be referred to and finally resolved by arbitration under the provisions of the Arbitration and Conciliation Act, 1996 and the rules made thereunder from time to time. The arbitration shall be held at city of Head Office of member Bank. The language used in the arbitral proceedings shall be English. The arbitration proceeding shall be conducted by a panel of three arbitrators, each party shall appoint his own arbitrator and the two appointed arbitrators shall appoint the third arbitrator who shall act as presiding Arbitrator.

(b) **Equitable Remedies.** The Parties agree that in event of breach of any of the covenants contained in this Agreement due to negligence/fault/lack of the Receiving Party, the Disclosing party shall have, in addition to any other remedy, the right:

i) To obtain an injunction from a court of competent jurisdiction restraining such breach or threatened breach; and

ii) To specific performance of any such provisions of this Agreement. The Parties further agree that no bond or other shall be required in obtaining such equitable relief and the Parties hereby consent to the issuance of such injunction and to the ordering of specific performance.

(c) **Legal Expenses:** If any action and proceeding is brought for the enforcement of this Agreement, or because of an alleged or actual dispute, breach, default, or misrepresentation in connection with any of the provisions of this Agreement, each Party will bear its own expenses, including the attorney's fees and other costs incurred in such action.

(d) **Indemnification:** The Receiving Party shall indemnify the Bank and hold the Bank harmless against any loss caused to it as a result of the non-performance or improper performance of this Agreement by the Receiving Party, or its servants or agents to perform any aspect of its obligations forming part of the subject matter of this Agreement.

9. Term: This Agreement may be terminated by either Party giving sixty (60) days' prior written notice to the other Party; provided, however, the obligations to protect the Confidential Information in accordance with this Agreement shall survive for a period of three (3) years from the date of the last disclosure of Confidential Information made under this Agreement, or from the date of expiry or termination of this Agreement, whichever date is later, (except for personal customer data which shall remain confidential forever).

10. No Formal Business Obligations. This Agreement shall not constitute create, give effect to or otherwise imply a joint venture, pooling arrangement, partnership, or formal business organization of any kind, nor shall it constitute, create, give effect to, or otherwise imply an obligation or commitment on the part of either Party to submit a proposal or to perform a contract with the other Party or to refrain from entering into an agreement or negotiation with any other Party. Nothing herein shall be construed as providing for the sharing of profits or loss arising out of the efforts of either or both Parties. Neither Party will be liable for any of the costs associated with the other's efforts in connection with this Agreement. If the Parties hereto decide to enter into any licensing arrangement regarding any Confidential Information or present or future patent claims disclosed hereunder, it shall only be done on the basis of a separate written agreement between them.

11. General Provisions.

(a) **Governing Law**. This Agreement shall be governed by and construed in accordance with the laws of India.

(b) **Severability**. If one or more of the provisions in this Agreement is deemed void by law, then the remaining provisions shall remain valid and continue in full force and effect.

(c) **Successors and Assigns**. This Agreement will be binding upon the successors and/or assigns of the Parties, provided however that neither Party shall assign its rights or duties under this Agreement without the prior written consent of the other Party.

(d) **Headings**. All headings used herein are intended for reference purposes only and shall not affect the interpretation or validity of this Agreement.

(e) **Entire Agreement**. This Agreement constitutes the entire agreement and understanding of the Parties with respect to the subject matter of this Agreement. Any amendments or modifications of this Agreement shall be in writing and executed by a duly authorized representative of the Parties.

(f) **Jurisdiction of Court**: All disputes under this Non-Disclosure Agreement are subject to the jurisdiction of Courts at City of Head office of Individual member Bank in India.

(g) Two original sets of Non-Disclosure Agreement are executed and retained by either parties, Bank and _____ (the selected vendor)

The Parties, by the signature of their authorized representatives appearing below, acknowledge that they have read and understood each and every term of this Agreement and agree to be bound by its terms and conditions.

यूको बैंक **UCO BANK**

For and on behalf of   **For and on behalf of**

…………………………   …………………………………………….

                                                     (The selected bidder)

Signature:_____   Signature:_____

Name:_____   Name:_____

Designation: _____   Designation: _____

Date: _____   Date: _____

Annexure XVI - Eligibility Compliance

Sl. No.	Criteria	Proof of documents to be submitted
1	Bidder should be a limited company (Public/Private) registered in India under the Companies Act, 1956/2013 for the last 3 years as on RFP issuance date Companies registered as MSME Entrepreneur & still categorized as MSME as on RFP submission date. Bidder/Partner/Investor must adhere cross border sharing/FDI/FEMA and other regulatory guidelines of Govt of India.	1. Certificate of Incorporation issued by Registrar of Companies along with 2. Copies of Memorandum of Association 3. Copies of Articles of Association 4. Shareholding pattern 5. PAN, TAN, GSTIN Certificate and any other tax related document if applicable is required to be submitted along with the eligibility bid. 6. Registration from DIC, KVIB, NSIC, KVIC, DIHH, UAA or any other body specified by Ministry of MSME.
2	The Bidder should have a minimum annual turnover of **Rs. 300 Crore** in each of the last three financial years i.e., 2019-20, 2020-21 and 2021-22.	Copy of the audited balance sheet, certificate from the Chartered Accountant as per Annexure XII (in case of Provisional Balance Sheet) of the company showing profit, net worth and turnover of the company for the consecutive last three financial years i.e. 2019-20, 2020-21, 2021-22 should be submitted.
3	The bidder should have positive Net Worth during the past 3 financial years i.e., 2019-20, 2020-21, 2021-22.	
4	The Bidder should have the experience of implementing the proposed Integrated Treasury solution with all three module (Front, Mid & Back) in last 10 years and providing Post Go-Live Support in any Bank, in India or abroad, which is having presence in India as Scheduled Commercial Bank and the solution is running as on bid submission date OR The OEM of the proposed Treasury Solution	Copy of purchase order along with Satisfactory Client Certificate /Reference Letter / Sign off from customer mentioning the Module and status of implementation of the project is to be submitted. In case OEM Experience is shown then Annexure XXXIII needs to be provided duly signed by the OEM which needs to be dully signed and

	should have the experience of implementing the proposed Integrated Treasury solution with all three module (Front, Mid & Back) in last 10 years in any Bank, in India or abroad, which is having presence in India as Scheduled Commercial Bank and the solution is running as on bid submission date	stamped by Both i.e OEM of treasury solution and the authorized signatory of the Bidder.
5	The Bidder should have a staff of minimum 50 (Fifty) people to support customization, installation, implementation, integration and periodic maintenance of the proposed solution	Self-declaration to this effect on company's letter head should be submitted which needs to be signed by the HR of the company
6	The bidder must be CMMI level 5 Certified Company, and the certificate should be valid as on date of bid submission	Copy of certification needs to be submitted
7	The bidder must have presence in India and have their own support center in Kolkata, Bangalore and Mumbai. **In case bidder does not have their own support centre at any of the above-mentioned cities, then they need to submit undertaking to open support centre in these cities within 60 days from the date of award of contract.**	Self-Declaration on Bidder's letter head signed by the authorized signatory and provide the GST Certification Detail of the support center
8	The bidder shall be the certified or authorized agent / reseller / partner of the offered hardware and software, or the OEM of the solution offered as on the RFP bid submission date.	MAF as per annexure III for Authorized partner. Self- declaration if the bidder is an OEM.
9	Bidder should not have been blacklisted by any Public Sector Bank/ Govt institution in India as on RFP Submission date. An undertaking to this effect must be submitted in their letter head.	Self-declaration to this effect on the company's letter head should be submitted as per format given as Annexure-VI singed by authorized signatory.

10	The service provider should ensure that there are no legal proceedings / inquiries / investigations have been commenced / pending / threatened against service provider by any statutory or regulatory or investigative agencies or any other for which performance under the contract will get adversely affected / may get affected.	Self-declaration to this effect on the company's letterhead should be submitted signed by authorized signatory.
11	As per the Government guidelines on Procurement bidder needs to submit the Annexure XXIII	Bidder needs to Submit Annexure XXIII on letter head dully signed by Authorized signatory
12	The third-party agency for Review of Configurations, Audit and Model Set-up should be CERT-in emplaned and should have experience of doing IS audit/ VAPT for a scheduled commercial bank in India Having more than 500 branches in India	Relevant Credential Letter from the Bank OR Copy of Purchase Order/Contract with completion certificate
OEM's Experience		
13	The Proposed Integrated Treasury Solution with all three modules (Front, Mid, Back office) should have been implemented in at least One Schedule Commercial Bank in India having more than 1500 Branches in India. And The proposed Integrated Treasury Solution should have been implemented abroad in at least One Commercial Bank having business mix (Deposits + Advance of schedule commercial Bank) during the last financial year (2021 - 2022) of Rs. 2,00,000 Crore.	Relevant Credential letter from the customer Or Bidder should provide Purchase Order(s) together with the project completion / installation report duly signed & sealed by the respective OEM's customer (The Purchase Orders & the installation /Project completion reports should have dates). Or Self-declaration from Company Secretary / authorized signatory signature (other than bid signatory) along with a reference call / a mail confirmation from the customer only in case of Global credentials.
14	As per the Government guidelines on Procurement all OEM needs to submit the Annexure XXIII	OEM needs to Submit Annexure XXIII on letter head dully signed by Authorized signatory

15	The proposed Backup software should have been implemented in at least one scheduled commercial Bank in India having more than 1500 branches.	Relevant Credential Letter from the Bank Or Copy of Purchase Order/Contract with completion certificate
16	The proposed Tape Library should have been implemented in at least one scheduled commercial Bank in India having more than 1500 branches.	Relevant Credential Letter from the Bank Or Copy of Purchase Order/ Contract with completion certificate
17	The OEM of Treasury Application must have presence and should have their own support center in India/Singapore/Hongkong from where OEM shall provide 24x7 application related support in addition to the proper qualified onsite L2 level (either OEM certified or directly under OEM payroll) FM support to implement, manage and maintain the proposed solution during the contract period at Bank's site in India.	A joint undertaking duly signed by the authorized signatory of bidder and OEM should be submitted to this effect along with the bid.
18	The Proposed OEM of treasury solution should have Net profit during the past 3 financial years i.e2019-20, 2020-21, 2021-22.	Copy of the audited balance sheet, certificate from the Chartered Accountant as per Annexure XII (in case of Provisional Balance Sheet) of the company showing profit, net worth and turnover of the company for the consecutive last three financial years i.e. 2019-20, 2020-21, 2021-22 should be submitted.
19	The Proposed OEM of treasury solution Should have a minimum annual turnover of **Rs.400** Crore in each of the last three financial years i.e. 2019-20, 2020-21, 2021-22.	

Note: In this tender process, either authorized representative / distributor in Indiaon behalf of Principal OEM (Original Equipment Manufacturer) or Principal OEMitself can bid but both cannot bid simultaneously. In such case OEM bid will only be accepted. If an agent / distributor submits bid on behalf of the Principal OEM, the same agent / distributor shall not submit a bid on behalf of another Principal OEM in the same tender for the same item or product.

Bidder must comply with all above-mentioned criteria. Non-compliance of any of the

Eligibility Criteria will entail rejection of the offer summarily. **Photocopies of relevant documents / certificates should be submitted as proof in support of the claims made.** UCO BANK reserves the right to verify /evaluate the claims madeby the vendor independently. Any decision of UCO BANK in this regard shall befinal, conclusive and binding upon the bidder.

- Bidders need to ensure compliance to all the eligibility criteria points.

- Purchase orders without relevant organization confirmation through a credential letter will not be considered as credentials.

- Proposed implementation experience need not be in the current product version proposed.

- Public Sector / scheduled commercial Banks do not include regional rural Banks and cooperative Banks.

- Public sector / scheduled commercial Banks refer to public sector / scheduled commercial Banks in India having minimum 1000 / 1500 branches (bricks & Mortar) on the date of RFP. Date of RFP will be the dateon which the bid is submitted

- Either the bidder representing a principal/OEM of the proposed solution or Principal/OEM itself can bid but both cannot bid simultaneously for the same product in this tender.

- If a bidder submits bid on behalf of the principal/OEM, the same biddershall not submit on behalf of another principal/OEM in this tender.

- The branches being considered in the criteria should be per Bank and not cumulative across Banks.

- In case of business transfer where bidder has acquired a Business from anentity ("Seller"), work experience credentials of the Seller in relation to theacquired Business may be considered.

In-case of corporate restructuring the earlier entity's incorporation certificate, financial statements, net-worth, Credentials, other certificates etc. may be considered.

Annexure XVII - Functional & Technical Specification

Format for Functional & technical Specifications is also attached as a separate file. Bidder is required to submit a dully signed and sealed copy of the same as partof Technical Bid.

Instructions of Filling up of Annexure XVII		
1	"SLNo." - Serial Number of the Requirement Provided by the bank. Bidder must not change any information in this column	
2	"System Requirement" - The detailed Requirement. Bidder must not change any information in this column.	
3	"Bidder Response (F/C)" - Bidder's Score – Bidder would be required to provide an appropriate score to each requirement requested for as per the following Table	
	BS	**Description**
	F	Functionality is readily available in the system or is configurable as per the Bank's requirement without any source code change or customization. The functionality will be available Out of Box of the application
	C	Functionality not available in the system but can be achieved through customization. The functionality will be customized and will be available before GO-Live
Notes		
1	Bidder has to compliance with all the requirement	
2	In case the Bidder fails to provide a " Bidder Response" against any of the line items the response would be considered as incomplete and may not be scored, at bank's discretion	
3	Bidder is expected to provide the response by filling up the columns "Bidder Response (F/C)" and "Bidder Clarifications / Comments" only. Bidder is advised not to make any changes to any information on the RFP documents for example insert a row or delete a row or modify any other information like change the functionality required, etc.	
4	Every requirement needs to be treated as an individual requirement and should not be clubbed with any other requirement and the Bidder needs to provide a "Bidder Response (F/C)" for that individual requirement, in case the Bidder clubs the requirements the response would be treated as incorrect .	
5	The Evaluation Committee decided by the bank would be marking this annexure already scored by the bidder and would be appropriately assigning the final marks. The bank will have the discretion to change the marks against the Bidder's scored line item if the bidder/OEM is not able to showcase the same in Presentation or during site visits.	
6	The marks allotted to the responses of the Bidder by the bank after carrying out the above steps above would be reduced to a scale proportionate to the marks allocated for the functional & technical evaluation for the respective module.	
8	The Regulatory & statutory authorities mentioned in the excel should be read as Regulatory and statutory authorities of India, Hongkong and Singapore	
9	All the Specifications mentioned in Annexure 9.10 are mandatory to be fulfill by the bidder and there is no scope of customization of any workaround in the Annexure.	
10	Following points shall be covered for delivering the reports - a. If all data points required for the report are part of Treasury system then report will be generate from the proposed Treasury system itself, and b. If not and also not after implementing the scope of work as per RFP, the proposed Treasury system will provide required data to the downstream system for further processing.	

	Annexure 9.1: Business process for ITMS		
Response	**Status as per RFP**	**Please populate only these two columns with your responses**	
F	Ready availability of the functionality		
C	Customization to be done		
SNo	**System Requirement**	**Bidder Response (F/C)**	**Bidder Clarifications / Comments**
9.1	**Business process for ITMS**	**N/A**	**N/A**
9.1.1	**General Points**	N/A	N/A
9.1.1.1	Multi-currency system: The system should have the ability to process, track and account for the necessary range of traded & non-traded currencies which includes INR,AED,AUD,CAD,CHF,EUR,GBP,JPY,HKD,SGD,USD etc. The system should also be able to process track & account for other currencies as & when they get added. It should be able to process transactions pertaining to any two of the above currencies in any order for e.g. EUR/JPY &JPY/EUR .		
9.1.1.2	Reference Data: The system should be able to capture & utilize static data associated with the Bank & counterparties & their ratings, script, products, accounts etc.		
9.1.1.3	Multiple levels: The system should be able to provide full support for multiple organizational levels & relationships. The hierarchies supported by the system should include branches, subsidiaries, agents & within each hierarchy the system should also support multiple access levels for different dealers, back office, mid-office, other departments & different levels of management with role based access along with SOL specific.		
9.1.1.4	System should support trading and EOD, Continuous processing, closings. It should be Global Deployment across different entities Time Zones, Financial Products & Roles. Work of Front-Office, Back-office & Mid-Office processing Independent from official P&L Closing. Global deployment refers to installation of the software module across jurisdictions and departments simultaneoulsy. Department level processing to be an ongoing process. No dependency to be there on the day end P&L closing process.		
9.1.1.5	System should have multiple folders within same category of investment, for e.g. within the AFS portfolio it should have the capability of opening separate folders depending upon the dealers & again within the same dealer folder, the system should be capable of entering multiple products like G-Sec, Corporate Bonds, equity etc. This logic is only an e.g., the logic of which should be extendable through multiple folder system across hierarchy & treasury products.		

9.1.1.6	Schemes & Products: The proposed solution should support setting up of different schemes and products within the same scheme, having functional features including but not limited to the following: a. Forex Products: Spot, FX Swap, Forward, Funding Swap, Vanilla and exotic options, Currency Futures b. Derivative Products: Swaps Options, Macroeconomic derivatives - Mainly inflation bonds, swaps & options c. Money Market Products d. Bond Market Products e. Capital Market Products f. Hybrid Products g. Commodities (including Gold, Silver loans & gold / silver import on consignment basis etc.) h. Credit: CDS - mandatory, (credit options, baskets etc., CDOs CLN - Optional) i. Currency SWAP, FX Retail, Interest Rate SWAP		
9.1.1.7	Issuances by the Bank namely Equity (FPO, QIP, Preferential Allotment, etc.), Bonds issuance (Tier I, Tier II, Hybrid, Infrastructure, etc.) and Certificate of Deposit (CD) shall be part of the software.		
9.1.1.8	Should allow concurrent use of the system without any drop in performance for all intraday activities across front, middle and back office functions		
9.1.1.9	The Proposed Solution should include accounting controls and checks as per industry best practices		
9.1.1.10	The Proposed solution should support generation of various MIS in Excel, PDF, xml, csv and ADF formats. System should have readily available MIS reports as per Industry Best Practices and capability to customize the reports for generation of various MIS.		
9.1.2	**Edit Check**	N/A	N/A
9.1.2.1	The system should be able to reject entries that cause edit errors. If all the mandatory fields are not captured, it should be rejected. Before rejection system should prompt user to do necessary rectification.		
9.1.2.2	The system should have the ability to over-ride edited errors by raising exception having role based override capacity		
9.1.3	**Date Processing**	N/A	N/A
9.1.3.1	Day Count basis: The system should be able to handle all types of day count basis Actual/360,Actual/365,Actual/ Actual, Actual/365 (Fixed), 30/360, staggered interest calculations.		
9.1.3.2	Business Day Convention: The system should be able to support International Swaps & Derivatives Association (ISDA)-defined business day conventions such as following FBD, MFBD, PBD and MPBD for Derivatives.		
9.1.3.3	Day count basis should support all kind of day counts, including 30/360 (both American and European options).		
9.1.4	**Holiday Calendar**	N/A	N/A
9.1.4.1	The system should allow calendar schedules to be set by users and through manual updates. Manual update only for local calendar.		

9.1.4.2	The system should allow currency calendar tables for entities, countries and Benchmark rates. Also through currencies pairs. Data feed by directly uploading from data aggregator.		
9.1.4.3	The system should allow users to input currency wise both manual & upload for minimum 10 years forward.		
9.1.4.4	The system should be able to edit & override global calendar & holiday tables. Restricted access with audit record.		
9.1.4.5	The system should be capable of adjusting Cash flows on account of change in the holidays on normal & sudden basis.		
9.1.4.6	The system should be capable of adjusting settlements on account of change in the holidays on normal & sudden basis as per the business requirements		
9.1.4.7	The system should be able to model cash flows &interest accruals based on holiday calendar and standard day roll conventions for all treasury products. It should also be able to reflect the same for all outstanding deals etc.		
9.1.4.8	The system should have the flexibility of entry/ modifications/ amendments/ cancellations/ authorizations at any user defined levels. Such parameters changes should be defined by the system administrator, only.		
9.1.4.9	Swift, CCIL and CLS and settlement message generation should be automatically adjusted on account of change in the Holidays without affecting the normal operation.		
9.1.4.10	The Proposed Solution should include all Products of ITMS approved by RBI		
9.1.4.11	The Proposed solution should be capable of posting equity orders / deals on real time basis. STP should be there compatible with multible vendors incuding NSE, BSE on real time basis.		
9.1.4.12	The Proposed solution should be capable of monitoring all the limits at unconfirmed order levels, i.e., before the deal is settled in the system. If deal exceed the limit then exception should be raised.		
9.1.4.13	The Proposed Solution should generate exception reports at the EoD		
9.1.4.14	The Proposed solution should have capability to handle various financial instruments / products, permitted by RBI, including those with non-linear cash flows		
9.1.4.15	The Proposed Solution should have multiple folders within same category of investment, for e.g. within the HFT portfolio it should have the capability of opening separate folders i.e., dealer-wise, security-wise, etc. & again within the same dealer folder, the system should be capable of entering multiple products like G-Sec, Corporate Bonds, equity etc., so as to enable portfolio / position output in any desired combination		
9.1.4.16	The Proposed solution should be able to generate stripping / reconstitution requests to be sent to RBI and generate necessary entries upon receipt of confirmation from RBI		

9.1.4.17	The Proposed solution should be able to undertake valuation of all types of securitities including those having irregular cash flows, embedded options (put, call, conversion, etc.) or of unlisted equity shares, VCFs, SRs and Mutual Funds.		
9.1.4.18	The Proposed solution should be capable of generating cash flows of all the requisite instruments, than can be auditable and can be interfaced with other software for their calculation purpose		
9.1.4.19	The Proposed solution should be able to account for different redemption methods in VCFs / SRs (ie., unit based and value based).		
9.1.4.20	The Proposed solution should be capable of automatic NPI marking, classification, provisioning and aging through interface with CBS		
9.1.4.21	The Proposed solution should have straight through processing capability (STP) with CCIL Platforms and CBS. input of vouchers / MoCs either in ITMS or CBS should be reflected in both, simultaneously. End to end STP of deals generated through various platforms like Reuters, Bloomberg, Barx, SCB, 360T, JPMorgan etc. and any other dealing platforms as and when available from time-to-time.		
9.1.4.22	The Proposed solution should have capability of complete integration with CBS, SWIFT and Risk Management Softwares or any other systems / softwares in place or to be implemented by the Bank with CCIL report browser		
9.1.5	**User Interface**	N/A	N/A
9.1.5.1	The system should be able to provide a consistent & user friendly Graphical User Interface, Short-cuts, smart tags, Blotters & other productivity features		
9.1.5.2	System should generate standard user definable error messages/pop-ups for breaches in limits /Rate/Tenor/Amount tolerances based on pre-defined parameters		
9.1.5.3	The system should be able to provide online and offline context sensitive help.		
9.1.6	**Currency Translation**	N/A	N/A
9.1.6.1	The system should be able to convert between currencies without manually converting to the home currency as an interim step in the process		
9.1.6.2	The system should be able to define home currency, Reporting Currency, wash currency & storing in any predefined currencies entity wise		
9.1.6.3	The Proposed system should be capable of doing the FX Netting and compression as and when required.		
9.1.7	**Product Set-up**	N/A	N/A
9.1.7.1	The system should allow for the creation of products and sub-products		
9.1.7.2	The systems should allow creation of product codes based on combination of Product and sub-product		
9.1.8	**Product Structuring and Fund Based Products**	N/A	N/A
9.1.8.1	Set-up of transaction types and associated codes which will be allowed		

9.1.8.2	Set-up of processing rules for each transaction type like accounting for Accrued Interest, booked interest and all other income and expense items, type of transactions allowed.		
9.1.8.3	Band Set-up (min & max days) on terms & conditions within which the user must operate		
9.1.8.4	Rules for workflow		
9.1.8.5	Rules for accounting based on transaction type		
9.1.9	**Transaction Tagging and Reporting**	N/A	N/A
9.1.9.1	All transactions should be tagged by product, Sub Product and Transaction codes		
9.1.9.2	Reporting should be facilitated on transactions on products and sub products on the following minimum parameters:	N/A	N/A
9.1.9.2.1	By product		
9.1.9.2.2	By Sub products		
9.1.9.2.3	By transaction (Debit or Credit)		
9.1.9.2.4	By status in the workflow process (Include category (for e.g. HFT/AFS/HTM) of investments or category of deal like Merchant, interbank etc.)		
9.1.10	**Books of Accounts**	N/A	N/A
9.1.10.1	The system should have the ability to maintain separate books of accounts		
9.1.10.2	The system should have the ability to define any currency as the Home currency, Reporting currency and prepare books of accounts in the required currencies		
9.1.10.3	The system should have the ability to maintain books of accounts in both home currency and a designated foreign currency		
9.1.11	**Accounting Standard**	N/A	N/A
9.1.11.1	The system should support AS-11 accounting standards for Forex Transactions & should be capable of migrating to IFRS as defined by RBI or other future requirements or any regulatory agencies of any country.		
9.1.11.2	The system should be parametric for enabling AS-11 accounting standard at individual product level.		
9.1.11.3	It should be possible to use either FEDAI Rate or Market Rate for AS-11 enabled transactions (also include FIMMDA, FBIL and any other approved agencies).		
9.1.11.4	The system should be parametric for enabling IAS39 accounting standard for Hedge accounting. Should have provision to apply multiple accounting standards ina single product.		
9.1.11.5	The system should support weighted average method, FIFO & LIFO of accounting policy. Multiple records of the same security in T-Bills/G-Sec & other SLR & Non-SLR securities shall be grouped together for the purpose of calculating holding cost		
9.1.11.6	Repo accounting as per RBI guidelines (incl. LAF,MSF, Reverse Repo & TREPS) and any other instrument as defined by RBI/MAS/HKMA.		
9.1.11.7	Provision for fair value accounting		

9.1.11.8	The System should also able to calculate profit and loss etc. according to INDAS through revaluation		
9.1.11.9	System should be able to handle deals with negative interest rate .		
9.1.11.10	System should have module for cross currency swaps(Reciprocal deposits).		
9.1.11.11	The Proposed solution should be Ind AS compliant. It should include, and not limited to, the following		
9.1.11.11.1	The proposed solution should have the capability to perform SPPI Testing (with template containing details which inter-alia includes details of conversion of securities, call put option details etc.) after integrating with IFRS system and the proposed solution should be able to provide necessary information and data required for SPPI testing as per Bank's specified format and through Bank's specified interface integration.		
9.1.11.11.2	The proposed solution should have the capability to perform Business Model Testing and Validation after integrating with IFRS system and the proposed solution should be able to provide necessary information and data required for SPPI testing as per Bank's specified format and through Bank's specified interface integration.		
9.1.11.12	System must support batch accounting, hedge accounting, mirror accounting, trade/value date wise accounting, amortization/accrual, deposit, withdrawal, revaluation etc. along with Negative interest and accrual thereon.		
9.1.11.13	System must support amortization of swap premium should happen using Internal Rate of Return (IRR) method. CIGTMS should support other methods as required by the Bank in future. Frequency of accounting should be user defined like daily, weekly, monthly, half yearly, yearly etc.		
9.1.11.14	The proposed solution should be compatible with IBAN and general accounting standards (International Financial Reporting Standards (IFRS), US Generally Accepted Accounting Principles (GAAP), Indian GAAP, International Accounting Standards, Indian Accounting Standards, etc.)		
9.1.12	**Miscellaneous**	N/A	N/A
9.1.12.1	BATCH & REAL TIME PROCESSING: The system should be able to send accounting information in batch and real-time mode		
9.1.12.2	Provision should be there for reporting platform for overseas branches . The same should be as per the local regulations of applicable countries		
9.1.13	**Reporting Platform**	N/A	N/A
9.1.13.1	The system should be able to settle corporate bond deals through NSCCL / ICCL		
9.1.13.2	The system should be able to report corporate bond deals to FIMMDA / NSE / BSE platforms		
9.1.13.3	The system should be able to report CD / CP deals to FIMMDA / NSE / BSE platforms (proposed)		
9.1.13.4	The system should be able to report corporate bond repo deals to FIMMDA/NSE/BSE platforms(proposed)		
9.1.13.5	Rupee Derivatives reporting on CCIL. All IFIN files should be reported through system to CCIL.		

9.1.13.6	CROMS, NDS-OMS, TREPS, ASTROIDS and any other CCIL dealing platforms should be available.		
9.1.13.7	OTC transactions through CCIL as per the new directives of CCIL / RBI		
9.1.13.8	Reporting platform should be as per the local regulations of the geography of that country		
9.1.13.9	The system should support tools like Scenario Analysis, Stress Testing What If analysis for regulatory reporting across all products		
9.1.14	**Clearing Agency**	N/A	N/A
9.1.14.1	The system should support settlement of Interbank Forex deals, reflecting any modifications for through CCIL and through outside CCIL		
9.1.14.2	The system should support settlement of Interbank Forex deals through CLS		
9.1.15	**General Processing Guidelines**	N/A	N/A
9.1.15.1	The system should allow for transaction entry, viewing of positions and MIS reports		
9.1.15.2	Ability to process and report on data in an online, real time mode		
9.1.15.3	All trades migrated from existing systems to the new one should also be maintained		
9.1.15.4	Ability to maintain online history of trade information for all trades		
9.1.15.5	The system should be able to handle multiple entities that Includes global, domestic, international branches, subsidiaries etc.		
9.1.15.6	The system should be able to consolidate data on the basis of Entity reports and combination of one or more entities.		
9.1.15.7	The system should allow for viewing of all data from the system which includes: Trade details, Static data (masters), Mark to market values, Accounting Entries etc.		
9.1.15.8	The system should allow for viewing of all data from the system for Current market information - Currency Rates		
9.1.15.9	The system should allow for viewing of all data from the system for Historical market information - Currency Rates		
9.1.15.10	The system should allow for viewing of all data from the system for Audit trails (Fx, MM, System, Derivative etc.)		
9.1.15.11	The system should be able to facilitate straight through processing by automatically forwarding transactions through the transaction chain from front office to middle and back office and to CBS and vice versa. If any deal which is modified & not flowing in STP process then the deal should be captured in exception reports. Provision should also be there in case of failure in STP.		
9.1.15.12	All internal processes from initiation through execution, confirmation, settlement and final document preparation should be streamlined		
9.1.15.13	The system should be able to generate accounting entries directly from the deal details as per the deal state.		
9.1.15.14	The system should be able to facilitate straight through processing of SWIFT messages, via integration with Core Banking System for auto-generation of all messages, emails , chasers and confirmations across all		

	asset classes.			
9.1.15.15	System should be capable of posting equity orders / deals on real time basis.			
9.1.16	**Documentation**		N/A	N/A
9.1.16.1	The system should be able to provide intuitive and current online documentation covering scope of application			
9.1.16.2	The system should have the ability to provide intuitive and current user manuals			
9.1.17	**Market data**		N/A	N/A
9.1.17.1	System should support real time market data feed and rating details & migration from feed providers (Reuters, Bloomberg, Cogencis, Newswire), CRISIL, ICRA, CARE & FITCH etc.			
9.1.17.2	System should support sanity checks for market data & failover capabilities			
9.1.17.3	System should support upload of market data from external sources e.g. Excel files.			
9.1.17.4	System should support error handling and notifications for market data errors.			
9.1.18	**Single View Access (Critical Requirement)**		N/A	N/A
9.1.18.1	System should provide single window access for deal entry, confirmation, settlement and any other part of the deal life cycle. All the mentioned functionalities to be available sequentially with a single entry point/ No requirement to log in various screens/modules for availaing these functionalities/ Data input to be done only once at the initial stage and can be accessed uniformly.			
9.1.18.2	Currently, the Bank is entering deals into various systems for FX, FI, MM, Derivatives, and these deals then flow into the Bank's existing accounting system. The proposed new System should allow for deal entry on all platforms used by the Bank such as Barx, D2, Bloomberg, etc, directly through the system itself, without the need to individually enter deals in these external platforms			
9.1.18.3	During opening of customer id, all customer related details should be fetched from CBS system and any changes made in the CBS should be reflected in Treasury system. This facility should be provided for the FOREX branches and for Treasury. Provision should be there to create counterparty Id and merchant Id at Treasury side only from front end only. FOREX branches should not be able to create any party's Id.			
9.1.19	**ADMIN User Maintenance**		#NA	#NA
9.1.19.1	**User Maintenance**		#NA	#NA
9.1.19.1.1	Addition			
9.1.19.1.2	Deletion/deactivation/disable			
9.1.19.1.3	Modification			
9.1.19.1.4	Maker-Checker			
9.1.19.1.5	Audit Log			
9.1.19.2	**User Role**		#NA	#NA

9.1.19.2.1	Addition		
9.1.19.2.2	Deletion/deactivation/disable		
9.1.19.2.3	Modification		
9.1.19.2.4	Maker-Checker		
9.1.19.2.5	Audit Log		
9.1.19.3	**Controls**	#NA	#NA
9.1.19.3.1	Maker-Checker		
9.1.19.3.2	Audit Trails		
9.1.19.3.3	Archival and Historical Data extract		
9.1.20	**Static Data needs to be integrated with proposed Treasury Solution**	#NA	#NA
9.1.20.1	Counter Party Details		
9.1.20.2	Counter Party LEI Code		
9.1.20.3	Counter Party KYC details		
9.1.20.4	Currency Maintenance		
9.1.20.5	Holiday Calendar		
9.1.20.6	Nostro Maintenance		
9.1.20.7	Product Maintenance		
9.1.20.8	Rate Maintenance - e.g.		
9.1.20.9	Closing Rates, LIBOR and other benchmark rates, FEDAI Rate, FIMMDA Valuations rates for G-Sec/Corporate Bonds, BHAV Copy for Equity, NAV from AMFI for Mutual Funds, NAV for Security Receipts, Card Rate, etc.		
9.1.20.10	Rates upload as well as manual update option to be provided		
9.1.20.11	Security Master		
9.1.20.12	Maintaining Standard Settlement Instructions for Counterparty or Product		
9.1.20.13	Yield Curve Maintenance		
9.1.20.14	Benchmark Rates for Float Rate interest Type - Add/Modify/Maintain/etc		
9.1.20.15	NDTL master for CRR and SLR		

Annexure 9.2: Back Office for ITMS

Response	Status as per RFP	Please populate only these two columns with your responses	
F	Ready availability of the functionality		
C	Customization to be done		
SNo	**System Requirement**	**Bidder Response (F/C)**	**Bidder Clarifications / Comments**
9.2.1	**Deal Verification**	**N/A**	**N/A**
9.2.1.1	Ability to provide configurable deal verification function by status & authority		
9.2.1.2	Ability to provide deal verification facility by exception i.e. exception rules should be configurable by Entity, Product, Counterparty, Dealer, Currency, Country, Location, Amount, Exchange Rate, Others etc.		
9.2.1.3	Configurable work flow engine to add or reduce multiple verification levels		
9.2.1.4	Ability to configure transaction data fields that can be amended during deal verification stage along with audit trail.		

9.2.1.5	Ability to amend or cancel a deal (e.g. incomplete deals) at deal verification stage, by authorized personnel along with maintaining of relevant audit trail		
9.2.1.6	Ability to append standard settlement instructions (SSIs) to deals. Customisable SSI should be enabled from front end along with audit trail.		
9.2.1.7	Ability to generate Exception Report		
9.2.1.8	Ability to configure bulk verification of deals by authorised user		
9.2.2	**Deal Confirmation**	N/A	N/A
9.2.2.1	Ability to generate and manage confirmations, including interfaces, for all products		
9.2.2.2	Ability to define the format and wordings of confirmation based on the characteristic of the product/ transaction		
9.2.2.3	Ability to format and maintain different formats for confirmation by: Product/instrument, payment type, counterparty and currency		
9.2.2.4	Ability to generate automatic confirmation letters for all transactions on contract date and also for Non-CCIL trades separately including SWIFT confirmation messages and e-mails.		
9.2.2.5	Ability to support automatic (through upload), sending of confirmations through structured messages by electronic media such as SWIFT (Applicable MT & MX series), e-mails and fax.		
9.2.2.6	Ability to auto match confirmations received from counterparties that should be automatically uploaded through the SWIFT interface		
9.2.2.7	Ability to generate automatic reminders for confirmations that have not been received in a predefined format & at pre-defined intervals		
9.2.2.8	Ability to suppress confirmations and payments relating to internal deals		
9.2.2.9	Ability to suppress confirmation for deals already confirmed but cancelled on the same day		
9.2.3	**Deal Settlement**	N/A	N/A
9.2.3.1	Ability to handle settlement splitting of one deal across multiple take ups (with or without residual amount), multiple settlement accounts & settlement of any residual amount on maturity date. This point is basically to handle a deal linked with multiple security and multiple settlement account		
9.2.3.2	Ability to allow the user to input different settlement instructions, which should be authorized at an appropriate level		
9.2.3.3	Ability to support aggregating multiple deals into one settlement		
9.2.3.4	Ability to allow the user to use default settlement instructions at the time of deal entry. The settlement instructions should also be allowed to be modified at the time of settlement by the authorised persons.		
9.2.3.5	Ability to automatically process all the transactions, for which settlement instructions have been defined		
9.2.3.6	Ability to generate due date diary for interest & redemption with adequate filters.		
9.2.3.7	Ability to generate settlement advice for all deals executed		

9.2.3.8	Ability to support automatic generation of payment and receivables list for user defined maturities and contract date and for specific counterparties		
9.2.3.9	Ability to allow part settlement of interest redemption		
9.2.3.10	Addition/ Deletion of charges in equity share deals on value date		
9.2.3.11	Addition/ Modification in equity share deals on value date after authorization with designated user with audit trail.		
9.2.3.12	Encryption of messages before interface with the SWIFT.		
9.2.3.13	Ability to allow modification of interest receivable amount on due date because many a times there is minor mismatch in actual interest received from issuer due to rounding off. Provision should be there to specify the reason of change along with audit trail.		
9.2.3.14	Ability to send amended messages to CCIL /CLS in case of any amendment made to the original deal as defined by the Workflow along with the amendments in the reporting files (IFIN files).		
9.2.3.15	Provision for interface with the SWIFT network both for Outward messages and Inward messages, Nostro activities report/statement of account, etc. Facility to upload data from SWIFT and do auto-matching online.		
9.2.3.16	Ability to settle the deals after netting the transactions, to arrive at the net position status by counter party, by products & by currency		
9.2.3.17	Ability to generate RTGS messages wherever applicable		
9.2.3.18	Ability to track call/ put options on securities held. Alert should be provided before CALL/PUT option maturity		
9.2.3.19	For some trading platforms, the Bank settles deals in advance of the settlement date (for example, settlement of a spot deal on the same day, instead of T+2). System should support this feature with proper contra accounting and reversal of the contra entry on value date.		
9.2.3.20	Creation of SWIFT message and transmission of the same to the counterparty from proposed treasury application after initiating the necessary transaction (NOSTRO Mirror account) in CBS system. This integration should be made on real time basis by generating ISO message directly from proposed treasury application during authorization of the forex deal and other domestic transactions related to RTGS/RBI/Security/Investment.		
9.2.4	**Transaction Handling**	N/A	N/A
9.2.4.1	Ability to monitor and report on a product/transaction throughout its life cycle until maturity/settlement		
9.2.4.2	Ability to provide an audit trail on the movement for each transaction until it matures / is settled even after maturity, as per business defined period/ workflow.		
9.2.4.3	Ability to allow user to trace transactions on a post date basis, by but not limited to Product/ Instrument, Dealer, Counter party, Customer, Deal Date, Maturity Date, Trade Date/Value Date, System Reference Number/ Amount etc.		
9.2.4.4	Capture of CBS Tranaction ID & date with other required details in ITMS.		

9.2.4.5	Ability to specifically monitor collateral in case of Collaterlized security transaction		
9.2.4.6	Ability to compute and automatically process clearing and agency fees for a particular product and system should allow matching of the same through CCIL report browser. Modification for fees should be allowed with retrospective effect for all service charges and brokerages with audit trail facility.		
9.2.4.7	Ability to generate statement of outstanding transactions (along with contract details) for counterparty on an ad-hoc basis		
9.2.5	**NOSTRO Handling**	N/A	N/A
9.2.5.1	Ability to support management of multiple Nostro accounts by currency		
9.2.5.2	Ability to set alerts by Nostro account to warn when agreed minimum balance is close to breach		
9.2.5.3	Ability to transfer funds between Nostro accounts automatically by using MT200 for settlement Settlements-Support for MT202, MT210, Local RTGS. IN SG & HK, the RTGS messages are being flown through SWIFT.		
9.2.5.4	Ability to calculate/monitor interest on Nostro accounts as per user defined parameters		
9.2.5.5	Ability to provide for Nostro balance projections on a real time basis that reflects the recent trades, cancellations and amendments		
9.2.5.6	Ability to provide predictions of expected movements in Nostro accounts. Priortisation of any settlements should be allowed or made and warning messages should be given if real time NOSTRO balance is inadequate for the remaining settlements.		
9.2.5.7	Ability to calculate interest (including currency wise negative interest) on back valued funds in the Nostro accounts: Nostro/Mirror – Transactions, Nostro/Mirror view, Nostro Statement Entry (Modify/Splitting), Nostro Statement Entry (Manual Input), Nostro Statement Clubbing.		
9.2.6	**Instrument Handling**	N/A	N/A
9.2.6.1	The system should facilitate administration, settlement, accounting and revaluation of the following FX Instruments.	N/A	N/A
9.2.6.1.1	Inter-bank FX a. Cash b. Tom c. Spot d. Forward e. Long Term Forward Above should be for standard currency pairs like US Dollar-Rupee / Euro-US Dollar / Pound-US Dollar / US Dollar-Swiss Franc, etc. and also cross currencies like Euro-Rupee / Pound- Rupee, Euro – JPY etc. The above should cover : Outright Buy, Outright Sell, Buy-Sell swaps, Sell-Buy swaps, Last Day Last Day, Delivery Options Value date messages must be released based on requirements on the day/days before the value date with proper contra accounting.		

9.2.6.1.2	Merchant FX a. Cash b. Tom c. Spot d. Forward e. Long Term Forward Above should be for standard currency pairs like US Dollar-Rupee / Euro-US Dollar / Pound-US Dollar / US Dollar-Swiss Franc, etc. and also cross currencies like Euro-Rupee / Pound-Rupee etc. The above should cover: Outright Buy, Outright Sell, Buy-Sell Swaps, Sell-Buy Swaps.		
9.2.6.1.3	Mirror and Foreign Asset and liability revaluation		
9.2.7	**Accounting**	N/A	N/A
9.2.7.1	Ability to develop a real time interface with other platforms like CBS-Finacle to transfer transaction level data through web-service or db-link or both.		
9.2.7.2	Ability to capture of all financial transactions concurrently for transaction currency, Local Currency, decomposition or wash currency		
9.2.7.3	The solution must be Ind-AS ,IFRS compliant. Thus though the actual accounting entries could be based on IAS, the software should be able to give balance sheet as per Ind-AS and IFRS also		
9.2.7.4	Ability to provide for maintaining and mapping transaction posting rules by entry, role, product, instrument, category, transaction type, currency etc.		
9.2.7.5	Ability to ensure automatic on-line generation/Posting of desired GL transaction posting based on defined transaction rules/work flow rules. Manual posting and EOD posting should be available		
9.2.7.6	Ability to maintain chart of account to assist in accounting of Treasury transactions		
9.2.7.7	Ability to provide portfolio accounting & GL processing/ interfacing without affecting operational availability/online access to transactional/ other data		
9.2.7.8	Ability to support concurrent use/application of different accounting practice (e.g. cash vs. accrual, expending vs. deferral etc.) for different nature of transactions to address to: Statutory requirements Internal management accounting policies International Accounting Standards		
9.2.7.9	Ability to conduct end of day or end of month processing without impacting online trading periods /days		
9.2.7.10	Ability to generate accounting entries on trade date and value date/settlement dates for, but not limited to Revaluation of Forex and Valuation of investments. Accruals, Provisions Blocked, Accounts, Suspense Accounts, Amortization of premium (On daily basis)		
9.2.7.11	Ability to provide refixing of Interest rate for Borrowing from overseas banks		
9.2.7.12	Ability to support ISDA defined business day conventions such as FBD, MFBD, PBD and MPBD for derivatives		

9.2.7.13	Ability to support AS-11 accounting standards for Forex transactions and should be capable of migrating to IFRS as defined by RBI and also as per MAS/HKMA or any regulatory authority.		
9.2.7.14	Ability to support P&L reporting across various entities across different time zones		
9.2.7.15	Ability to maintain more than one accounting standard for any entity, e.g. Ind AS, GAAP, etc		
9.2.8	**Other Processing Parameters**	N/A	N/A
9.2.8.1	The proposed solution should have provisions for adequately processing the following subject to market practice and regulatory guidelines: Short sale When issued bonds Corporate actions including bonus & share swap ratio calculation Dividend Splits Consolidation and/or merger of different entities, share swap ratio calculation Interest payments Staggered redemptions Final redemptions etc. Valuations Amortizations NPI (Non performing Investments), provisioning, valuation, reporting Earmarking for TREPS Transfer from HTM to AFS and vice versa as per the Banks requirement Position Transfer between Dealer / Desk Provision to make/alter the deal state on its maturity based on business requirement Provision to Amend the deals to differ Settlement Provision to block certain Accounting entries getting posted in CBS Limit of 5% sale from HTM within a financial year Trading of floating rate bonds and their valuation Both SLR & Non-SLR Broker wise limit in both SLR & NonSLR		
9.2.8.2	System should be able to support general and specific compliance to the local regulations of India, Hong Kong and Singapore and should be able to demonstrate the proof of compliance to the regulatory authorities, when demanded. The compliance is required in all areas of Treasury activities including the accounting processes, NPA & NPI recognition & treatment as well as the regulatory reporting requirements.		
9.2.8.3	Facility to capture Trades automatically		
9.2.8.4	Deal Booking & Reversal should generate correct & complete accounting entries at Treasury & respective branches		
9.2.8.5	Facility to put through transactions in Cross Currency deals for any deal type in merchant (FIR/FOR/FBP/Contracts etc.) & Interbank along with posting in CBS.		

9.2.8.6	The system should be able to generate a unique number for each deal created that should be system generated and non-editable.		
9.2.8.7	The system should be able to generate reports/ display of open Forex Currency wise positions at any point of time		
9.2.8.8	System should able to handle Interest reset and comprehensive cross currency swap module. Floating rate interest (MIBOR or other rates as applicable) should be accomodated in the currency swap module wherein MIBOR rates are to be taken from the FBIL/FIMMDA sites directly without any manual intervention.		
9.2.8.9	System should enable to do cross currency deals with any base currency for e.g. a JPY-US$ deal could be booked with JPY as base currency		
9.2.8.10	The system should be able to calculate underlying floating interest amount applicable in case of a floating rate Repo transaction		
9.2.8.11	System should allow users to save the card rates in a .txt format & share with the branches. This file should be as per our upload format as per CBS system/ other.		
9.2.8.12	System should allow users to define and modify card rates multiple times during the day. Any subsequent modification in Card Rate due to changes in market Rate should flow automatically at the time of processing in Inward/Outward Remittance txn.		
9.2.8.13	System should allow users to generate card rates based on user definable margins and market rate		
9.2.8.14	System should be able to capture Nostro Funds Transfer		
9.2.8.15	System should be capable of maintaining all historical internal as well as external rating migration records		
9.2.8.16	System should be able to upload FEDAI defined closing Forex rate (Translation Rate) at the end of day		
9.2.8.17	The system should automatically generate a Rate Scan Report on the basis of external rate feeds (from Bloomberg or Reuters) or manual feeds		
9.2.8.18	Most important point being that the system should be capable of carrying automatic validation of deal rates based on Tolerance Limit.		
9.2.8.19	Overnight open position to be computed in all currencies and the ability to convert to equivalent wash currency		
9.2.8.20	Intra-day Liquidity Management: Adequate funds maintenance at RTGS settlement A/c & RBI A/c by the funding desk (by verifying no availment of Intra-day liquidity). The system should have facility to accept feeds from RTGS system & RBI e-Kuber balances on specified time intervals during the day and at the end of day. The Bank wish to follow the latest RBI/ Basel Guidelines on Intraday Liquidity management. For Intraday liquidity treasury system should connect to E Kuber etc. System should be able to generate and provide all types of regulatory reports.		
9.2.8.21	Package to handle ISDA CSA deals for daily MTM postings of SWAPS and Derivatives		
9.2.8.22	Availability of Reciprocal deposit functionality in the module along with Support for negative interest rates.		

9.2.9	**Calculation Engine**	N/A	N/A
9.2.9.1	The system should be able to calculate MTM across all currencies. The revaluation rates should be taken/fetched from FEDAI sites without any manual intervention, by keeping audit trail, for calculation of MTM gain/loss at the end of the month. However, there should be a provision to upload rates manually in the middle of the month to assess expected MTM loss/gain.		
9.2.9.2	The system should be able to store historical revaluations for each transaction record		
9.2.9.3	The system should be able to compute interest & principal repayments for foreign currency loans & support the Interest Reset clause.		
9.2.9.4	The system should be able to store historical Forex rates for all currencies		
9.2.9.5	Facility to record counterparty confirmation for Interbank & money market deals including SWIFT confirmation.		
9.2.9.6	The system should be able to compare foreign currency forecasts from one time to another or to the actual numbers for the same period		
9.2.9.7	The system should be able to save foreign exchange rates within the system		
9.2.9.8	The system should be able to calculate commission on brokers, service tax etc & TDS as per applicable rates including service charges of CCIL, Reuters and other vendors as applicable from time-to-time with retrospective effect. The calculation of charges should be parameter based on the charge-parameter maintained for different types of charges of different vendors having the facility of maintaining the audit trail.		
9.2.9.9	The proposed Treasury solution should be capable enough to perform Data calculation for DSB Return as related to Treasury portfolio and should also be capable enough to provide all kind of information and data in such a way so that system should be able to perform Data calculation for DBS Return for the bank as a whole as per Bank's specified data format or through Bank's specified interface integration.		
9.2.9.12	Security affected while posting manual entry along with audit trail		
9.2.11	**Settlement Related Features**	N/A	N/A
9.2.11.1	Interbank deals should automatically come for settlement on due date after considering diffferent currency holidays.		
9.2.11.2	Mail Messaging System for customer should be provided		
9.2.11.3	The system should have the ability to create a queue for settlement of Interbank deals done through CLS and CCIL. The queue should be accomodated with priority set up facility. Customisable SSI should be enabled from front end along with audit trail.		
9.2.11.4	System should support split settlement of Interbank deals in case of different currency holidays		
9.2.12	**Data Capturing & Monitoring Facility for Specific Use Cases**	N/A	N/A
9.2.12.1	Due dates for realization		
9.2.12.2	Compare the actual date of realization with the due date and calculate late/early realization charges/ gains		

9.2.12.3	Provision to enter charges – system may deduct the amount and realized amount may be credited to branches.		
9.2.12.4	Forward contracts due dates/ delivery dates/ pickup prompts register		
9.2.12.5	Due dates for Crystallization /reversals		
9.2.12.6	Stock entry in NDS GILTS of new Subscription ALARM required through maker-checker concept with specific user.		
9.2.12.7	Alarm for breaches of limit as prescribed in investment policy to be maintained in the system.		
9.2.12.8	Consolidated dealer blotter for back office		
9.2.12.9	Alert for brokerwise limit breach		
9.2.13	**Mark to Market Features**	N/A	N/A
9.2.13.1	Capability to Mark to Market all positions and calculate the Profit & Loss at the pre defined closing/FEDAI rates by business.		
9.2.13.2	System should support Revaluation of Forward Position at user defined frequency and show accounting entries in simulated environment before generating the accounting entries on user acceptance		
9.2.13.3	System should support Revaluation of Nostro Mirror Balances at user defined frequency at FEDAI & show accounting entries in simulated environment before generating the accounting entries on user acceptance		
9.2.13.4	The system should be able to accommodate parallel shift/ non-parallel shift in FX-Spot/FX-Forward rates for stress testing		
9.2.13.5	The system should be able to do Stress test on daily/weekly/monthly/yearly basis for trading book [including AFS]		
9.2.13.6	FCNR Portfolio [Banks FC assets and liabilities] revaluation as per AS-11. The assets/liabilities pertaining to FCNR to be identified separately from exchange transactions. Amortisation of premiums received on surplus FCNR should be accounted for in the system.		
9.2.13.7	System should support AS-11 accounting and should generate the accounting entries as per the bank's policy		
9.2.13.8	System should generate MTM advice and send the same directly to Merchant via Email		
9.2.13.9	The system should enable segregation of profits:dealer wise and deal wise trading, merchant & arbitrage and also to report cost of carrying Money Market Swaps / Arbitrage Swaps taking user input rate for cost of funds.		
9.2.14	**Maintainence, recording and generation of key data**	N/A	N/A
9.2.14.1	Forex Turnover in multiple currencies equivalent to any particular currency.		
9.2.14.2	Open positions – Intra-day & Overnight		
9.2.14.3	Bills overdue for Delinking		
9.2.14.4	Currency pair wise Position Book		
9.2.14.5	Mark to Market of Net Open Positions		
9.2.14.6	Accounting Entries		
9.2.14.7	Funds Flow		
9.2.14.8	Gap Statement		
9.2.14.9	Nostro Ledger		

9.2.14.10	Deal Register		
9.2.14.11	Due Date Diary		
9.2.14.12	Outstanding Deal Register		
9.2.14.13	Deal Cancellation Register		
9.2.14.14	Unconfirmed Deal Register		
9.2.14.15	Overdue Contract Register		
9.2.14.16	Settled Deal Register		
9.2.14.17	Maturity Deal Listing		
9.2.14.18	Maturity list of Lending and Borrowing		
9.2.15	**Confirmation of Trades**	N/A	N/A
9.2.15.1	The system should be able to adopt standard confirmation procedures for all products		
9.2.15.2	The system should provide the flexibility to customize separation between the users of front office and back office		
9.2.15.3	The system should allow for viewing of queue of transactions pending confirmation		
9.2.15.4	The confirmations generated from the system should be possible for users to send hard copies to counterparties/brokers/issuers		
9.2.15.5	The system should have the ability to generate deal confirmation in a format specific to the type of instrument in hard copy as well as in electronic form including SWIFT (MT300, MT320) confirmations and e-mails		
9.2.15.6	The system should be able to assign tags (confirmed or verified) for trades based on User Access Level		
9.2.15.7	The system should provide ticker listing of all transactions pending settlement or confirmation		
9.2.15.8	System should have the ability to unmark deals marked for settlement through CCIL ,CLS for FX-Interbank/FX-Merchant Transactions. System should be able to mark a deal for CCIL, CLS and direct based on counterparty or currency or both.		
9.2.15.9	The system should be able to mark separately Trading Dealings, Merchant Deals, Funding Deals and Arbitrage Deals		
9.2.15.10	System should generate Broker note for Annual Charges		
9.2.15.11	System should have separate Menu for generation of CLS,CCIL MT300 and MT200,MT 202 etc		
9.2.16	**Settlement of Deals**	N/A	N/A
9.2.16.1	The system should have the ability to create a queue for a definable series for payment release for Securities Transactions		
9.2.16.2	The system should have the ability to create a table of standing instructions for settlements of foreign currency payments. SIs should be counterparty specific.		
9.2.16.3	The system should provide for free text fields to enter manual text for communication purposes between TFO and TBO		

9.2.16.4	The system should have the ability to allow back office users to update the standing instruction table & have changes reflected in all outstanding transactions or as defined by the Bank		
9.2.17	**Printing Facility**	N/A	N/A
9.2.17.1	The system should have the ability to print all transaction deal tickets		
9.2.17.2	Re-printing of transaction deal tickets		
9.2.17.3	Printing of all MIS reports		
9.2.18	**Confirmation Related Features**	N/A	N/A
19.2.18.1	The system should provide for recording of confirmations received in physical mode from counterparties and custodians		
19.2.18.2	The system should have the ability to accept confirmations from counterparties in all common electronic format. Additionally system should be allowed to mark any confirmation manually by the user with maker-checker having audit trail facility.		
19.2.18.3	The system should be able to reconcile the electronic confirmations received from counter parties for foreign currency denominated transactions including the SWIFT confirmations.		
19.2.18.4	System should segregate & send back to the dealer a particular deal that has not been confirmed for any reason		
19.2.18.5	System should report deals that are not confirmed. No unconfirmed deals should be made available for settlement except deals with CCIL.		
9.2.19	**Payments**	N/A	N/A
9.2.19.1	Ability to generate payment information		
9.2.19.2	The system should be able to automatically generate payment requests on or before the settlement date		
9.2.19.3	The system should record the relevant approvals for payments for completed deals for foreign currency transactions		
9.2.19.4	The system should have the ability to generate letters to counter parties and also should be able to send mail.		
9.2.19.5	The system should have the ability to compute brokerage payable based on the brokerage schedule input in the masters for Forex		
9.2.20	**FX BO Mandatory Reporting**	N/A	N/A
9.2.20.1	R-Returns: The consolidated R-Return for the Entire Bank is generated by designated branch (Head office Foreign Exchange Dept.) from CBS system after merging data of all the Forex branches (B Cat), along with treasury branch (A Cat) data(which is given manually to CBS at present). The R-Return for the Treasury branch must be generated and data must be integrated with CBS system for merging of data of all the Forex branches (B Cat), along with treasury branch (A Cat) and generation of consolidated R-Returns		
9.2.20.2	IC4, IC5, IC6		
9.2.20.3	Statement 5 (FCNR Deposits)		
9.2.20.4	Other Statutory Returns		
9.2.20.5	Overdraft in Nostro Accounts should be on realtime		
9.2.20.6	Excess/ overexposure Limit in Nostro Account		

9.2.20.7	Interbank Gap Analysis		
9.2.20.8	Due date diary of interbank deals		
9.2.20.9	Merchant due date diary		
9.2.20.10	Unconfirmed Interbank Contracts		
9.2.20.11	Currency wise position statement		
9.2.20.12	Currency wise outstanding in Investment		
9.2.20.13	Currency wise outstanding borrowing		
9.2.20.14	Maturity Profile of Deposits, Investments, Borrowings etc. in respective currencies		
9.2.20.15	Brokerage reports including the following		
9.2.20.16	Total trades broker wise (for committed and settled deals)		
9.2.20.17	Brokerage due/ payment reports		
9.2.20.18	Turnover status reports		
9.2.20.19	Positions reports – Deal wise, Currency wise, Counterparty wise, dealer wise		
9.2.20.20	Limits related report		
9.2.20.21	Separate Fund flow reports for Forex and domestic transactions		
9.2.20.22	Deal cancellation report		
9.2.20.23	Deal amendment report		
9.2.20.24	Breach reports		
9.2.20.25	Counter party wise analysis reports		
9.2.20.26	Instrument wise analysis reports		
9.2.21	**Data Storage**	N/A	N/A
9.2.21.1	Data should be stored by the system for at least 10 years		
9.2.21.2	Users should be able to recall data without any coding requirements		
9.2.21.3	Ability to maintain versions of every business objects (trade, payments, counterparties, etc) in the system throughout their entire life-cycle		
9.2.22	**Analytics on Market Information**	N/A	N/A
9.2.22.1	The system should allow users manually define yield curves		
9.2.22.2	The system should be able to model user-defined treasury curves		
9.2.23	**Computational Capabilities**	N/A	N/A
9.2.23.1	The system should be able to provide bond calculators to support pricing of bonds and other fixed income securities including NonSLR.		
9.2.23.2	The system should be able to track the strike dates in case of products with embedded call/put		
9.2.23.3	The system should be able to calculate interest for products sensitive to caps and floors		
9.2.23.4	The system should be able to calculate interest of Floating Rate Instruments recognizing reset dates/rates upon benchmark security		
9.2.23.5	The system should be capable of processing transactions both cum-interest and ex-interest basis		
9.2.23.6	The system should be able to compute brokerage by any of the following methods as part of deal entry:	N/A	N/A

9.2.23.7	Flat brokerage with slabs linked to notional amount / deal type [cash, spot, forward]		
9.2.23.8	Percentage rate		
9.2.23.9	In case of convertible debentures, the system should be able to update the position based on conversion of Debentures into Equity Shares or other instruments		
9.2.23.10	In case of FCCBs, ADRs, GDRs & other foreign currency instruments, the system should be able to capture the appropriate foreign exchange rate to reflect the fair value in rupees		
9.2.23.11	The system should be able to perform duration & convexity analysis		
9.2.23.12	The system should be able to categorize all securities into different categories for regulatory reporting/disclosure viz. Govt. Securities, Other Approved Securities, Shares, Debentures & Bonds, Subsidiaries / Joint ventures, commercial papers, zero coupon bonds, venture capital, IBPC, Mutual funds & Others		
9.2.23.13	The system should be able to categorize all securities into AFS,HTM & HFT & allow shifting between Categories through menu based options (not through fictitious sale/purchase)		
9.2.23.14	System should support valuations as per FIMMDA guidelines/ local regulatory guidelines		
9.2.24	**Master Data for Scrip**	N/A	N/A
9.2.24.1	Instrument Name		
9.2.24.2	ISIN		
9.2.24.3	Instrument type		
9.2.24.4	Issuer name/Company Name / State name & Details(Should also capture Unique Customer ID applicable in Banks)		
9.2.24.5	Industry		
9.2.24.6	Coupon Rate		
9.2.24.7	Issue date		
9.2.24.8	Maturity Date		
9.2.24.9	Interest frequency/Interest Reset Date		
9.2.24.10	Benchmark for interest reset for FRBs		
9.2.24.11	Interest convention		
9.2.24.12	Shut period (no. of days)		
9.2.24.13	Interest Payment Date		
9.2.24.14	Entry load		
9.2.24.15	Exit load		
9.2.24.16	Identification of Tier II Bonds		
9.2.24.17	Credit Rating & Agency, Date of rating/ internal rating, whether listed/unlisted		
9.2.24.18	Stock Exchange in which entity is listed		
9.2.24.19	Priority Sector/Non-Priority Sector Investment		
9.2.24.20	Book Classification (HFT / AFS / HTM)		
9.2.24.21	Exemption (Whether CDR based Investment or Not)		

9.2.24.22	Last Traded date & price		
9.2.24.23	Ceiling Price/Floor Price		
9.2.24.24	Target Price		
9.2.24.25	Corporate Actions & Related Activities etc.		
9.2.24.26	flexibility to add new fields		
9.2.24.27	In case of mutual funds/ETF whether the same is Equity Oriented/Debt Oriented		
9.2.24.28	Approved Security Status		
9.2.24.29	Physical/Demat Status		
9.2.24.30	Short Sale Indicator		
9.2.24.31	Repo Forward Status		
9.2.24.32	Redemption Schedule		
9.2.24.33	OMO Sale Indicator		
9.2.24.34	5% HTM Sale Indicator		
9.2.24.35	Subscription/Auction Indicator		
9.2.24.36	Investment Category		
9.2.24.37	Private/Public placement (NPI / Not NPI)		
9.2.24.38	Lien Marking Status		
9.2.24.39	SLR/NonSLR category		
9.2.24.40	Secured / Unsecured		
9.2.24.41	Industry		
9.2.24.42	Tax Free Status		
9.2.25	**Trade Capture**	N/A	N/A
9.2.25.1	The system should be able to give notifications in case of breach of stop loss/ take profit limits		
9.2.25.2	The system should be able to compute the exact stop loss and take profit based on pre-defined percentages		
9.2.25.3	System should be able to record a reverse trade from the take profit or stop loss notification. Reverse trade refers to trade made to bring the position at the initial level from where trade was started. System should be able to record such trades from the final profit or loss booked on the original trade.		
9.2.25.4	The system should permit entry of stop loss & take profit limits by deal type/deal size & also at portfolio level, and also to cap the limits for pre-defined periods (daily/monthly/quarterly/annually)		
9.2.25.5	System should be to able to handle changes in the approved prices		
9.2.25.6	Automatic deal entry for deals done through dealing systems		
9.2.25.7	Facility (option) to put through reverse deals in case of cancellations on the same day		
9.2.25.8	The system should allow for the different types of deal capture		
9.2.25.9	Manual deal entry for deals done through brokers and/or wherever, capturing possible, electronically upload the details		

9.2.25.10	The system should be able to compute script wise and bucket wise PVBP and monitor PVBP as a result of every deal at script level. Respective alert should be given.		
9.2.25.11	The system should be able to retrieve static data from masters at the time of deal entry		
9.2.25.12	The system should be able to highlight instances of short sale & covered deals		
9.2.25.13	The system should be able to stop entry of short sale of securities where such functionality is defined by the user. Short Sale should be limited as per the regulatory guidelines for outstanding stock of security.		
9.2.25.14	Ability to fix original trade number with the version number incremented each time the market events are performed		
9.2.26	**Short Sale**	N/A	N/A
9.2.26.1	System should allow the user to enter into short sale positions in specific instrument/security type (flag required at security/ instrument master level for short permitted which should be updated from FIMMDA automatically). Short sale position has to be shown separately. It can be recorded as separate portfolio within HFT Facility to record total outstanding of security & users should be able to change the same with date.		
9.2.26.2	Facility to define liquid securities for short sale & user should be able to change the status of security from liquid to non-liquid and vice versa		
9.2.26.3	Real time monitoring of regulatory limits & internal limits set by the Bank. Currently regulatory limit is 2.00% & 1.00% of the outstanding stock for liquid and illiquid securities respectively and the limit may be configured from time to time. User should be able to change the percentage as and when changed by RBI / the Bank.		
9.2.26.4	System should give a message /alert at the time of entering / saving the deal.		
9.2.26.5	The system should keep track of the maximum days where the position can be kept open & provide a report for the minimum short position to be covered at any point of time.		
9.2.26.6	Support of FIFO Based/average based profit policy-only for short sales Transactions		
9.2.27	**Settings and Monitoring Limits to Operations**	N/A	N/A
9.2.27.1	The system should be able to generate alerts in cases where limits are about to be breached based on certain user defined limit amount/trigger amount.		
9.2.27.2	System should give an option to front office users if they would like to continue with the deal or abort it.		
9.2.27.3	Counter party limits		
9.2.27.4	Issuer limits		
9.2.27.5	Currency limits		
9.2.27.6	Dealer limits		
9.2.27.7	Broker limits (only empanelled brokers to be permitted)		
9.2.27.8	Scrip wise limits		

9.2.27.9	Internal limits (Sector Limits, Category Limits etc.)		
9.2.27.10	Rating limits		
9.2.27.11	Instrument wise limits		
9.2.27.12	Stop loss limits		
9.2.27.13	Take profit limits		
9.2.27.14	Desk Wise Limits		
9.2.27.15	Customer limits for customer deals entered at the branch level, with reverse integration from the Bank's CBS data		
9.2.27.16	daylight		
9.2.27.17	overnight		
9.2.27.18	Dealerwise day light		
9.2.27.19	IGL		
9.2.27.20	AGL		
9.2.27.21	Daily Forex gap position		
9.2.27.22	overnight open exchange position		
9.2.28	**Support for Corporate Actions (Recognising and Recording Impact)**	N/A	N/A
9.2.28.1	Put /Call Pop-up		
9.2.28.2	Interest Payment and redemption.		
9.2.28.3	Change in Name /address		
9.2.28.4	Dividend		
9.2.28.5	Splits and consolidation		
9.2.28.6	Merger/Demerger		
9.2.28.7	Rights		
9.2.28.8	Bonus		
9.2.28.9	Coversion of Securities (Convertible debentures to preference share or equity & others)		
9.2.29	**Valuation, Amortisation and NPI Recognition**	N/A	N/A
9.2.29.1	System should calculate Mark-to-Market valuation of all securities in the HTM,HFT,AFS & the system should have provision for defining the sub-portfolio. System should have the provision for any add on Market/Credit Risk Charges for the purpose of Valuation		
9.2.29.2	System should calculate amortization of all securities in HTM based on Straight Line Method & Effective Yield Method concurrently on daily basis with facility to switchover from one method to another & automatically update Book Value when required & pass necessary accounting entries. System should amortize the securities purchased at premium & at discount be amortized even while following weighted average method of accounting as per RBI guidelines issued from time to time.		
9.2.29.3	Implementation of automated asset classification of investments as NPI (Non-Performing Investments) and subsequent up-gradation / down-gradation / reversal of unrealized interest in treasury system & marking thereof in CBS system and vice-versa by STP integration after considering all the facilities availed a customer and all the instruments of an entity where bank has made investments as per RBI guidelines.		

9.2.29.4	Posting of partial repayment received in matured accounts or NPI accounts after due date.		
9.2.29.5	Process to recognize NPI as per RBI Norms and Generate LiST /Desired File for integration with CBS		
9.2.30	**Tax Deducted at Source (TDS)**	N/A	N/A
9.2.30.1	System should be able to keep track of TDS certificates received & due to receive, within which CGST & IGST should be included		
9.2.30.2	System should generate Pop-up message for HFT securities on 80th day (should be user definable based on change in RBI guidelines or internal requirement) from the date of purchase and should repeat on daily basis with report generation		
9.2.30.3	System should be able to generate report on total TDS deducted & TDS Certificates due for receipt on monthly ,quarterly, Half-Yearly & Yearly basis		
9.2.31	**Dividend on Portfolio**	N/A	N/A
9.2.31.1	System should be able to record dividend declarations		
9.2.31.2	The system should be able to keep track of Dividend received & due to receive		
9.2.31.3	System should be able to generate report on total dividend received & dividend due for receipt on monthly, quarterly, Half-Yearly & Yearly basis		

Annexure 9.3: Front Office for ITMS

Response	Status as per RFP	Please populate only these two columns with your responses	
F	Ready availability of the functionality		
C	Customization to be done		
SNo	**System Requirement**	**Bidder Response (F/C)**	**Bidder Clarifications / Comments**
9.3	**Front Office for ITMS**	**N/A**	**N/A**
9.3.1	**Deal Execution and Capturing of Trades**	N/A	N/A
9.3.1.1	Deals capture facility including Manual, Auto Flow from Dealing platforms, copy, Replace, amendment, save & reversal/Deletion with audit trail		
9.3.1.2	System should capture pricing history of deals which is saved but not concluded for derivative deals		
9.3.1.3	Ability to seamless interface with dealing platforms of various desks. Also should be possible to download/upload deal transaction from external files		
9.3.1.4	Ability to offer quick entry of trades, capturing customer spreads and back-to-back cover with interbank desks.		
9.3.1.5	Ability to support strategy based deals which allows valuation & pricing of combination of derivatives		

9.3.1.6	System should have provision for Specific deals (Priority Sector Deals, CSA Deals etc.). System to be capable of identifying and recording specialised deals like Priority Sector Lending (as per RBI norms) or deals covered by Credit Support Annex (where terms of collaterals are defined) under the ISDA Master Agreement.		
9.3.1.8	Integration with trading/ dealing platforms in either way through input and output respectively..		
9.3.1.9	System should have user-wise auto refresh blotter functionality. The user specific blotter should not display the deals undertaken by other dealers.		
9.3.1.10	Ability to facilitate internal, inter-desk deals and transfer deals. System should compulsorily ask for reasons for internals deals		
9.3.1.11	Pre-deal all (Counterparty, Dealer, Currency Country etc) limit check and limit reservation facility.		
9.3.1.12	Handling of scheduled and unscheduled holidays across different countries, different centers and different product classes.		
9.3.1.13	Ability to amend or cancel a deal (e.g. incomplete deals) at deal verification stage by authorized personnel along with maintaining of relevant audit trail.		
9.3.1.14	CRITICAL REQUIREMENT: At the time of deal flow from any type of Trading platforms/terminals to the treasury system, the market rate prevalent should be part of the deal data, as per the time stamp of the transaction. Option should be there for illiquid instruments.		
9.3.1.15	CRITICAL REQUIREMENT: facility to enter simulated dummy deal which can be deleted or made final at EoD, to reflect intra-day merchant deals yet to be entered on any type of trading platform/terminal.		
9.3.1.16	CRITICAL REQUIREMENT: Branches should be able to enter merchant deals on behalf of the Bank's customers. They should also have the capability of entering draft deals, and deals where only the maturity can be modified after the deal is entered.		
9.3.1.17	Have the capability of showing alerts before the booking of deal if any exception is encountered towards limits and thresholds set in the system		
9.3.1.18	Have the ability to save/cancel/reversal of any deal through bulk authorisation functionality after displaying all the requisite details along with one-to-one facility.		
9.3.2	**Pre-deal and Post-deal Analytics**	N/A	N/A
9.3.2.1	Calculation of cost of carry and cost to close. Deal characteristics and other inputted parameters. Examples of calculation attributes are risk free rates, spreads, acquisition value, margin servicing, storage costs etc. For derivatives- spot price, futures price etc.		
9.3.2.2	Ability to offer multiple scenarios and simulations for analysis across different books		
9.3.2.3	Real time view of economic P&L (It is an estimation of profit or loss on closure of a deal on attaining estimated price)		

9.3.2.4	Portfolio level/desk level/dealer level P&L analytics with drill down functionality		
9.3.2.5	View volatility of all types viz. implied/realized for all products containing optionality		
9.3.2.6	Ability to access, receive and utilize real-time data feeds from all external information sources (e.g. Bloomberg, Reuters, Cogencis etc.)		
9.3.2.7	Real time view of PV01 and Greeks		
9.3.2.8	Ability to offer online statistics and graphics for all instruments including rates, availability & historical prices & volume		
9.3.2.9	Ability to capture MIS related to exceptions and breaches with specifically identification of the deal causing the breach.		
9.3.3	**Managing Positions and Cashflows**	N/A	N/A
9.3.3.1	Provide real-time view of trade positions Dealer wise , Trading Book-wise, client wise, client segment wise, counterparty wise, product type wise, issuer wise & currency-wise along with any other compounding parameter wise like dealer-wise-currency-wise etc. It should provide the available limit position for the same across the products.		
9.3.3.2	Provide real-time view of risk positions Dealer wise, Trading Book-wise, product wise, trader wise, desk wise, issuer wise, country wise, industry wise & also consolidated global risk position. It should provide the available limit position for the same across the products. The real-time view should be available based on multiple parameter-wise through drill down or any other way.		
9.3.3.3	Ability to provide position calculations for a period of one day and other defined periodicities.		
9.3.3.4	Ability to view positions on an individual book as well as consolidated portfolio basis		
9.3.3.5	Ability to view risk and positions across the portfolio by maturity, product and/or movements in underlying assets		
9.3.3.6	Ability to display and modify the screen set up by individual user to view positions in different perspectives.		
9.3.3.7	Ability to view all positions on a real time basis including P&L, duration & future equivalent on a conversion factor & modified duration basis.		
9.3.3.8	Ability to provide cash flow projections (i.e. history, current balance & future projection) of Nostro/Bank Balances on a real-time basis, reflecting recent trades, cancellations, and amendments for products including All Forex/ Money Market payments/receipts Bond coupons & maturities, Other instrument coupons & maturities, Forward value Bank Account/ Nostro Account transfers. Ability to display cash flows at any portfolio level.		
9.3.3.9	Ability to setup dynamic cash flow positions and its management across all treasury products (with ability to drill down deal wise, dealer wise, product wise, asset class wise etc.)		

9.3.3.10	System should be able to retain end of day nostro balances on daily basis for a certain historical period as mandated by the bank. Such retained data should be available to the bank users as dump for analysis, whenever required.		
9.3.4	**Pricing**	N/A	N/A
9.3.4.1	Ability to offer price and yield simulations functionality		
9.3.4.2	Ability to price options/derivatives via pricing calculators, with an option to consider user specific volatility		
9.3.4.3	Ability to offer predefined templates to facilitate pricing for primary and secondary traded products		
9.3.4.4	Ability to offer global pricing & pricing tool functionality with customization facility		
9.3.4.5	Ability to provide pricing functions and utilities integrated into the system to calculate instrument prices, Greeks, & position equivalents		
9.3.4.6	Ability to offer curve-based pricing capabilities		
9.3.4.7	Ability to provide different methods of calculation for pricing function. (Such as in case of illiquid securities, non-traded securities.). Deal characteristics and other inputted parameters. Eg. Mapping proxies (traded securities with comparable yields and features), applicable spread		
9.3.4.8	Ability to value positions through multiple methods: nominal, maturity and market		
9.3.4.9	Ability to provide customized pricing for swaps wherein benchmark and settlement frequency differ		
9.3.5	**Performance of Portfolios**	N/A	N/A
9.3.5.1	Ability to configure all existing parameters for a portfolio viz. Currency, Reference Currency, Security & User Profile, Display layout, Portfolio levels of detail etc.		
9.3.5.2	Ability to provide profit & loss computing functionality & drill down functionality over any portfolio by transaction, by currency, for realized/ unrealized, using funding cost and allocated cost both for any given time period.		
9.3.5.3	Ability to support mark-to-market/ NPV calculations/IRR/XIRR & RAROC		
9.3.5.4	Ability to support accrual/amortization calculations across different currencies as per different market conventions by keeping all bifuracation of the previous accrual/amortisation details.		
9.3.5.5	Ability to enable profit & loss as well as turnover calculation by choice of currency/product/asset class/dealer wise/counter-party wise or any other parameter wise as and when required.		
9.3.5.6	Ability to allow configuration of profit and business center hierarchies with the options of having all parameter based.		
9.3.6	**Derivatives**	N/A	N/A
9.3.6.1	Trade capture from NSE/MCX , any other exchanges		
9.3.6.2	Monthly Provision should be calculated and posted and reversed automatically		

9.3.6.3	Daily bench mark rate updating along with sources of data and audit trail		
9.3.6.4	Upload of exchange file and MTM process and posting		
9.3.6.5	All reports to be generated in all types of reporting format		
9.3.6.6	Mail to client on daily basis MTM, Contract Note, Quarterly Statement, Position Statement and any statement as and when required.		
9.3.6.7	Calculation of capital charge and CVA on a real time basis and at the time of pricing the product for concluding the deal		
9.3.6.8	Daily & Weekly MTM calculation and as and when required		
9.3.6.9	Generation of M-duration report (Origin & Intra-day) along with Portfolio wise M-Duration Required along with Total Portfolio M Duration.		
9.3.6.10	Generation of margin files to be uploaded in exchanges		
9.3.6.11	Alerts of reporting of required reports as per the frequency to be defined by the ADMIN user		
9.3.6.12	Margin alerts		
9.3.6.13	If counterparty Limit breach is above 80 %, the alert should be triggered and reported. Moreover, exposure should be generated on the previous day with previous limit		
9.3.6.14	Collateral limit accounts for tracking of replacing of securities		
9.3.6.15	Deal confirmation means for swaps (for pricing terms tec) or OTC deals covered by ISDA		
9.3.6.16	Reporting of MTM to client and branch on different intervals through Emails or any other electronic channels		
9.3.6.17	Generation of backdated PVO1 report		
9.3.6.18	Calculation of current exposure, potential future exposure, total exposure, etc. all on specified dates and as per maturity bucket		
9.3.6.19	Real time settlement.		
9.3.6.20	Updating of compliance officer particulars		
9.3.6.21	Calculation of Turnover fees transaction charges for various exchange		
9.3.6.22	Calculation of stamp duty of exchange transactions		
9.3.6.23	Generation of reports as per filter		
9.3.6.24	Exchange turnover contra entries to be posted automatically for Large OTC derivaties market Makers		
9.3.6.25	Shut Period Interest Calculation. 'Shut period' means the period for which the securities cannot be traded. During the period under shut, no trading of the security which is under shut is allowed. There are regulatory references to shut period treatment for which ineterest for the shut period may be needed.		
9.3.7	**Master Data Creation**	N/A	N/A
9.3.7.1	**Counter parties: The system should capture the following details**	N/A	N/A
9.3.7.1.1	Name		
9.3.7.1.2	Credit Rating		
9.3.7.1.3	Address		
9.3.7.1.4	Phone Number		
9.3.7.1.5	Status (Active/ Inactive)		

9.3.7.1.6	Limits		
9.3.7.1.7	Settlement instructions for Forex & derivatives transactions		
9.3.7.1.8	Foreign Currency Bank Accounts		
9.3.7.1.9	PAN		
9.3.7.1.10	GSTIN Details		
9.3.7.1.11	SWIFT Code		
9.3.7.1.12	RTGS- IFSC		
9.3.7.1.13	CCIL / CLS Code. System should be able to configure, identification of deals for CCIL or CLS or both or none based on multiple types of currency pair. Additionally, the user should be allowed to mark/unmark a deal from CCIL / CLS based on their requirement.		
9.3.7.2	Capture historical counterparty master data		
9.3.7.3	Brokers: The system should facilitates capturing the list of notified/approved brokers & should capture the following details for each broker. Broker wise transaction report and limits to be captured.		
9.3.7.3.1	Name		
9.3.7.3.2	Address		
9.3.7.3.3	Telephone Number		
9.3.7.3.4	Contact Persons		
9.3.7.3.5	Products handled		
9.3.7.3.6	Limits		
9.3.7.3.7	Agreed Brokerage rate		
9.3.7.3.8	Settlement instructions		
9.3.7.3.9	PAN		
9.3.7.3.10	GSTIN Details		
9.3.7.3.11	Fax No		
9.3.7.3.12	Email ID		
9.3.7.3.13	Complete Bank account detail with IFSC code		
9.3.7.3.14	DP ID		
9.3.7.3.15	DP Name		
9.3.7.3.16	Client ID		
9.3.7.3.17	Client Margin (Slab wise and currency wise)		
9.3.8	**Capturing Trades**	N/A	N/A
9.3.8.1	**The system should have the ability to allow capture and display of the following inputs**	N/A	N/A
9.3.8.1.1	Trade Date		
9.3.8.1.2	Value Date		
9.3.8.1.3	Trade time		
9.3.8.1.4	System generated deal number		
9.3.8.1.5	Deal originating entity & desk		
9.3.8.1.6	Dealer		
9.3.8.1.7	Transaction type		
9.3.8.1.8	SLR/ Non SLR		
9.3.8.1.9	Face value		

9.3.8.1.10	Traded price & yield		
9.3.8.1.11	Quantity of securities		
9.3.8.1.12	Currency		
9.3.8.1.13	Exchange Rate		
9.3.8.1.14	Reporting value in foreign currency		
9.3.8.1.15	Reporting value in INR		
9.3.8.1.16	Interest Rate,		
9.3.8.1.17	Interest Frequency		
9.3.8.1.18	Interest type (fixed/floating)		
9.3.8.1.19	Floor/Cap		
9.3.8.1.20	Tenor		
9.3.8.1.21	Securities name/code		
9.3.8.1.22	Counterparty		
9.3.8.1.23	Broker		
9.3.8.1.24	Principal amount		
9.3.8.1.25	Staggered Redemption on principal amount		
9.3.8.1.26	System should be able to handle cash flows with different interest payment & principal redemptions dates, Interest amount, Total consideration, Mode of delivery, Brokerage amount, etc		
9.3.8.1.27	Portfolio.		
9.3.8.2	The system should be able to alert the dealer and chief dealer/trading book parent holder in cases where dealer limits or various other limits if any are being exceeded at the time of deal entry. Notification should be in all standard forms like, system pop up, email, etc		
9.3.8.3	The system should permit entry of remarks/data in free text fields		
9.3.8.4	**The system should facilitate taking the following fields/values**	N/A	N/A
9.3.8.4.1	Price in decimals (minimum 6 decimal points) Rounding off product wise		
9.3.8.4.2	Yield in decimals (minimum 6 decimal points) Rounding off product wise		
9.3.8.4.3	Date of Issue, Type of instrument		
9.3.8.4.4	Security Code Number, ISIN Number		
9.3.8.4.5	Rating and Rating Date Listing		
9.3.8.4.6	Security Face Value		
9.3.8.4.7	Acquisition price		
9.3.8.4.8	Premium (Acquisition price less face value)		
9.3.8.4.9	Discount (Face value less Acquisition price)		
9.3.8.4.10	Residual period Coupon		
9.3.8.4.11	Coupon payment frequency		
9.3.8.4.12	Yield To Maturity		
9.3.8.4.13	Duration and modified duration		
9.3.8.4.14	Current Yield		
9.3.8.4.15	Interest payment date		
9.3.8.4.16	Broken period interest		
9.3.8.4.17	Credit rating / Rating Migration of the issuers and consequent diminution in the quality of assets		

9.3.8.4.18	Tax Status: Exempt from Income Tax		
9.3.8.4.19	Arranger		
9.3.8.4.20	Guaranteed by		
9.3.8.4.21	Others		
9.3.8.4.22	Capital Adequacy		
9.3.8.4.23	Issuer Group		
9.3.8.4.24	Eligible for Statutory Liquidity Ratio (SLR)		
9.3.8.4.25	Priority Sector–SLR and NON-SLR/ Public Sector/Private Sector		
9.3.8.4.26	Trust/Mutual Fund		
9.3.8.4.27	Mode of delivery: Physical/ Dematerialized/ Others		
9.3.8.4.28	**Options (for all types)**	N/A	N/A
9.3.8.4.28.1	Date of exercise		
9.3.8.4.28.2	Date of notice		
9.3.8.4.29	**Custodial status**	N/A	N/A
9.3.8.4.29.1	Agency (Code)		
9.3.8.4.29.2	Location		
9.3.8.4.29.3	Trustee		
9.3.8.4.29.4	Receipt of Trust deeds and follow-up of same		
9.3.8.4.29.5	Document Number		
9.3.8.4.29.6	Guaranteed by		
9.3.8.4.29.7	Redemption of premium		
9.3.8.4.29.8	Name		
9.3.8.4.29.9	Amount Guaranteed		
9.3.8.4.30	Provision to auto calculate and auto-fill data based on basic fields.		
9.3.8.4.31	The system should be able to allow the user from inputting past trade/back dated entries/trades as per the bank's defined workflow rules		
9.3.8.4.32	The system should be able to provide an audit trail for all transactions entered from trade date onwards & for exceptions		
9.3.8.4.33	The system should be able to accommodate the entry of forward value date transactions		
9.3.8.4.34	Deal Numbering: The unique trade identification number (which should be section wise, asset class wise, financial year wise) should be printed in the deal slip along with the other deal details		
9.3.8.4.35	System should be able to capture all flags necessary for LCR and NSFR purposes		
9.3.8.4.36	CRITICAL REQUIREMENT: System should be compatible with Basel 3 guidelines, especially for FRTB, out-of-the-box, and this compatibility should be part of the features included in the license provided to the Bank.		
9.3.9	**Deal Tickets**	N/A	N/A

9.3.9.1	The system should be able to ensure that the copies deal slips generated are seamlessly sent to Back Office for authorization, Mid-Office in respect of limit exception and further processing where ever necessary. Back-office should be allowed to do the settlement related changes viz. change of SSI, Change of Central Counter Party (CCP) based on requirement after verification or authorisation of the deal.		
9.3.9.2	The system should be able to isolate certain deals & not send them to the back office based on certain predefined system parameters. This applies to deals executed between inter desk i.e. trading and merchant desk wherein there is no settlement of deals but only the transfer of position from one desk to another		
9.3.9.3	The dealing system should be capable of seamless integration with Treasury front office & back office systems		
9.3.9.4	System should be in a position to integrate all white label products and surround applications seamlessly. White label products refer to those applications designed by 3rd parties for the Bank which Bank can purchase and rebrand as own inhouse applications.		
9.3.9.5	Provide interface with existing Dealing Systems		
9.3.9.6	Generate a report of all cancelled /modified /deleted deals with all details		
9.3.9.7	The system should preserve historical data of all deals		
9.3.9.8	Automatic generation, view, print & review of deal tickets as well as electronic deal pads reflecting the positions		
9.3.9.9	Should provide unique deal numbers for each deal ticket		
9.3.9.10	Generate multiple deal tickets for each transaction		
9.3.9.11	System should have the provision to store the pdf format of deal slip with retrieval and printing option		
9.3.9.12	Ability to route deal flow based on Deal IDs. Also, Routing has to be in FIFO Method		
9.3.10	**Deal Analytics**	N/A	N/A
9.3.10.1	**The system should be able to automatically calculate YTM for investment deals, product-wise, dealer-wise, portfolio wise & security wise that are entered for the purpose of pre-deal decision making Calculators**	N/A	N/A
9.3.10.1.1	Yield To Maturity/Price		
9.3.10.1.2	Current Yield		
9.3.10.1.3	Yield To Call		
9.3.10.1.4	Yield To Put		
9.3.10.1.5	Yield To Worst/Best Duration		
9.3.10.1.6	Modified Duration		
9.3.10.1.7	Zero Coupon		
9.3.10.1.8	Stripped G-Sec pricing		
9.3.10.1.9	Floating Rate Bonds		
9.3.10.1.10	Government Securities		
9.3.10.1.11	INBMK/INCMT/MIBOR/other benchmark linked bonds		
9.3.10.1.12	PV01		

9.3.10.1.13	Holding Period Returns		
9.3.10.1.14	Cross Currency Spot & Forward Calculation. (With a provision for calculating broken dates)		
9.3.10.1.15	Overnight Indexed Swaps,		
9.3.10.1.16	Interest Rate Swaps Cross Currency		
9.3.10.1.17	Swaps		
9.3.10.1.18	Swaptions		
9.3.10.1.19	Currency Options		
9.3.10.1.20	Black Scholes Model		
9.3.10.1.21	Garman Kohlhagen Model		
9.3.10.1.22	Monte Carlo Simulation Model		
9.3.10.1.23	Binomial Tree Model		
9.3.10.1.24	Interest Rate Caps/Floors		
9.3.10.1.25	Black's model		
9.3.10.1.26	support different interpolation techniques		
9.3.10.2	The system should provide for scenario analysis of the portfolio · Multi-dimension matrices/2-D/3-D etc. · User-defined and flexible shift on different market data inputs and horizon date · P&L and sensitivities outputs with multiple breakdown should be available		
9.3.10.3	The system should be able to retrieve stored deals that are in entered state, prior to confirmation		
9.3.10.4	The system should be able to display to a dealer the instrument-wise authorized limits		
9.3.10.5	The system should be able to update cash,Forex and security positions on a real time basis		
9.3.10.6	The system should be able to facilitate deal simulation before commitment and provide a warning if the deal results in a limit violation		
9.3.10.7	**The system should provide following information:**	N/A	N/A
9.3.10.7.1	Position Reports - Deal wise, Currency wise, counterparty wise, Dealer wise, Book wise etc. along with the availability of the report based on multiple parameter-wise (like dealer-wise-currency-wise etc.) through drill down or any other way.		
9.3.10.7.2	Profitability - Dealer wise, book wise, currency/pair wise, counter-party wise & consolidated along with the availability of the report based on multiple parameter-wise (like dealer-wise-currency-wise etc.) through drill down or any other way.		
9.3.10.8	**Fund Flow Statements (next week, next fortnight, from-date-to-date) for:**	N/A	N/A
9.3.10.8.1	Forex Operation - Merchant funds flow, Interbank Fund Flow (both inflow and outflow) and any other source of funds		

9.3.10.8.2	Money Market Operation - Repo, Reverse MSF/LAF, Market Repo/Rev Repos, TREPS, CROMS and other money market platforms, Call/Notice Money, Term, Depo Placements, CDs (both issuance and investment), Refinance (both lending and borrowing for all transactions), Debt Mutual Funds and any other instrument permitted by RBI		
9.3.10.8.3	Investment Operation - Category wise & consolidated		
9.3.10.8.4	Identification of the instrument/amount already Hedged		
9.3.10.8.5	Utilization of Contracts (Part/Full Utilization of Merchant Contracts with reference to the single original contract; Cancellation/Crystallization of Merchant contracts with reference to the single original contract)		
9.3.10.8.6	Holding Rates/Price		
9.3.10.8.7	System should enable calculation of forward Rate. The system should capture the real time market forward rate & record the rate for generating Rate Scan report for the required periodicity		
9.3.10.9	**The system should be able to pre-empt in case of possible violation of the following limits:**	N/A	N/A
9.3.10.9.1	Counter party limits,		
9.3.10.9.2	Counter party group credit limits		
9.3.10.9.3	Aggregate Gap Limit (AGL)/Intra Day Limit (IGL)		
9.3.10.9.4	Instrument-wise limits		
9.3.10.9.5	Broker limits		
9.3.10.9.6	Settlement & Clearing Agent Limits		
9.3.10.9.7	System should have provision for monitoring LER limits sanctioned which is captured from CBS for matching of merchant deals with equivalent entries by branches		
9.3.10.10	The system should be able to analyze the overall portfolio, or any user-defined portfolio by changing selected parameters		
9.3.10.11	The system should be able to estimate projected cash flows by currency		
9.3.10.12	The System should be capable of real-time portfolio management: · Flexible Risk / position / P&L viewer · Real-time monitoring · What-if analysis and hedging · P&L Variance · Extensive trade querying capability		
9.3.11	**FX Support**	N/A	N/A
9.3.11.1	Facility of netting of inter-bank forward deals for any particular date, in order to release counter-party limits (Bilateral netting) at the option of the user.		
9.3.11.2	All deals done in forex should be captured by Dealer's pad/individual deal blotter, time-wise, currency-wise, Book wise, counterparty-wise and dealer-wise		
9.3.11.3	Monitoring of tolerance limits while inputting the forex deals by the dealer. The system should alert the dealer/Chief Dealer in case of exceeding the limit		

9.3.11.4	Facility of inputting forex deals in different categories-Merchant, Trade, Money Market, FCNR funding, Arbitrage & Funding, Currency-future arbitrage, Vostro Funding etc. (all these categories can be defined as per user requirement if there is an efficient folder system structure)		
9.3.11.5	The facility of inter-dealer position transfer		
9.3.11.6	The facility of inter-bank netting of forward deals		
9.3.11.7	Provision of STP of deals done through Reuters, FXT,CCIL,IBS Net,360T,ICAP- EBS ,Autobahn ,Barx & other internet based trading platforms with bulk capture facility		
9.3.11.8	Special module required for enabling STP to CCIL retail platform customer deals		
9.3.11.9	STP should be end to end for Equity Dealing		
9.3.11.10	Generation of Gap statement (with resources/deployment in the respective bucket of maturity) – AGL & IGL, with auto matching of GL Codes from Trial Balance		
9.3.11.11	Facility of getting funds flow statement for a period with each day shown separately for forex deals, depo deals, merchant purchase and merchant sale deals or any one or combination of these types of deals from various source systems.		
9.3.11.12	Facility of auto populating of default values like Dept, sub type, Trading Book, Settlement Type (CCIL/ RTGS/SWIFT/CLS etc) as per the logged in dealer / from the trading platform as per the pre defined work flow rules		
9.3.11.13	Facility of getting a report of net USD/FCY purchase or sale under CCIL/CLS for each value date		
9.3.11.14	Maximum deal size ticket dealer wise in trading as per Bank's Policy		
9.3.11.15	Deal size population as per policy for approval of competent authority		
9.3.12	**Revaluation**	N/A	N/A
9.3.12.1	Facility of revaluation with the appropriate spot and forward rates by interpolating & extrapolating date wise, As per FEDAI & user defined inputs, the revaluation should be done as per gaps & individual deals. It should be product specific(outright/swap/long swap/ RBI deals) with flag available. The corresponding entries of profit/loss should be system generated. The system should have the capability to fetch the revaluation rates from the FEDAI sites without any manual intervention.		
9.3.12.2	Further, revaluation of all FX positions on basis of FEDAI-published EOM rate as per the FEDAI Guidelines. System should be capable of uploading FEDAI published rates		
9.3.12.3	The system should be capable of valuing all securities portfolios (SLR/NON-SLR) as per FIMMDA guidelines taking into account the credit spread structure by rating and by sector. (STP with FIMMDA platform for valuation.)		

9.3.12.4	System must be capable of valuation of all bond positions on basis of FIMMDA rates & any other agency like CRISIL, etc. or other user defined/ published prices and exchange prices for equity. STP with FIMMDA platform for valuation.		
9.3.12.5	Separate GAP/Revaluation facility for FCNR-B, Nostro, EEFC/ DRFC/ DDA related portfolio. The system should support GAP/ revaluation facility individually for respective exposures like FCNR-B, Nostro, EEFC/DRFC/DDA related portfolio based on Interpolation Method		
9.3.12.6	Separate GAP/Revaluation facility for individual portfolio along with bifurcation of Balance/off-Balance Sheet Items		
9.3.13	**System Support for Trades**	N/A	N/A
9.3.13.1	**Structuring Tools**	N/A	N/A
9.3.13.1.1	System should provide powerful pricing and structuring tool for all asset classes: · Payoffs across asset classes · On the fly structure or predefined structure (within or across asset classes: Straddle, Strangle, Currency Deposit). · 2-way pricing, sales margin and mark-up · Generic solving, Charts and graphs		
9.3.13.1.2	Web based Calculator to compute MTM of derivative product with the provision to provide access to the customers who are parties to the derivatives transactions.Access to be provided to the branch user only for onward submission of the data to the customer.		
9.3.13.2	The portfolio should show details including number of shares/bonds, BV, FV, Holding Rate, market closing rate for each security and portfolio as a whole for securities/bonds. Equity portfolio should show details including BV, FV, percentage exposure, holding rate, market closing rate, day high, day low, year high and year low for each stock and each sector		
9.3.13.3	AFS category in equities / bonds should be able to show sector wise distribution of each stock and sector wise exposure, stock wise exposure, Real time MTM and Beta for the sector as well as individual stocks. There should be provision to update P/E ratio for each stock & sector as well to be updated by linking with Reuters/ Bloomberg. Provision for manual intervention should be available		
9.3.13.4	System should create separate portfolio for AFS, HFT & HTM books, which should give real-time price changes by linking with Reuters/ Bloomberg/FIMMDA or any other agency like CRISIL etc. such that individual security/portfolio Mark to Market (MTM) value can be observed at any given time		
9.3.13.5	Deal slip should contain information of the underlying Deals		
9.3.13.6	Generation of deal slip & confirmation letter, interest rate reset notice, payment/settlement notice, option exercise notice, barrier trigger notice		

9.3.13.7	There should be provision to find broker wise volumes, brokerage etc. and percentage wise distribution of business to brokers with drill down to different levels like different asset class etc. for risk management purpose		
9.3.13.8	On a daily basis, once the total portfolio is authorized and updated, a record of the same should be saved in the system for that particular day which may be used as a historical record for future reference. There should be provision to extract historical records into excel sheets for use by management		
9.3.13.9	Back office should directly get an updated portfolio at the end of each trading day such that no separate manual record has to be generated by the front office		
9.3.13.10	There should be provision for entering bid submissions for auction in G-Secs and getting allotment details after cut-off declarations		
9.3.13.11	The fully updated portfolio should appear at the day end once all the deal tickets are generated and authorized such that manual intervention is not required. (There should be provision of manual intervention if required)		
9.3.13.12	In the case of equities, there should be provision for updating bonus declaration, share split up, dividend declaration, spin offs & mergers, or any other issue or aspect that affects the holding rate of the shares and affects the portfolio value.		
9.3.13.13	On a daily basis when all deals are entered for purchase & sale of securities/stocks, the portfolio should automatically get updated with appropriate holding rates in case of purchase / sale & profit figures in case of sale. Facility for short selling also to be provided		
9.3.13.14	A daily transaction report with filters should be generated by the system showing all purchase and sale details during a particular day. In the case of securities the same should include details like YTM at market and holding rates, running yield etc. The report should be generated after all deals are entered		
9.3.13.15	Profit & Loss Statement should be available for any specified period (daily, weekly, monthly, quarterly or any specified date range) – dealer wise, segment wise, currency wise, counter-party wise & consolidated.		
9.3.13.16	The system should be capable of doing scenario analysis at different yield levels		
9.3.13.17	There should be provision to find net profit from sale of shares		
9.3.13.18	The system should support various bucketing conventions including end-of-months bucketing, additionally system should allow various mode of position/risk split across bucket		
9.3.13.19	While creating security master, system should have capability of applying various price/yield convention for cash flows		
9.3.13.20	The system must be able to support cancellation of FX forward contracts, compute the Profit/Loss (pro rata if required), chargeable with margin and recover the same in INR. Additionally, the system should allow for the option to recover the Profit/Loss upfront with or without discounting		

9.3.13.21	System should support different trading calendars for government and corporate securities. Day count factor applicable for govt. & corporate securities for calculation of interest and accounting in the system. It should follow all applicable Regulatory guidelines		
9.3.13.22	The system should be capable of blocking the limits based on booking/entering of forward contracts at dealer level. It should also be capable of releasing limits on cancellation/utilization of forward contracts at dealer level		
9.3.13.23	Deals booked must impact the relevant allocated limits of the customers. In case of breaching past performance limit, the system should block the deal and in case of reaching 85% of limit, the dealer should be alerted		
9.3.13.24	The system should support the conversion of a spot deal to a forward deal. In case of error, system should allow to change the deal value date		
9.3.13.25	The system must be able to support the early utilization including calculation of outlay of funds of FX forward contracts by clients & create the swap position automatically for cover by the interbank desk		
9.3.13.26	System should support securities where final capital repayment follows preceding day/roll convention & interest payments follows or modified day/roll convention.		
9.3.13.27	System should support real-time or on-demand availability of various regulatory reports including FTD,NOOP, Day light, GAP,NDTL,SLR, dealer-wise limit etc or any similar types of internal reports		
9.3.13.28	System should support securities position bucketing by duration/maturity/yield/coupon/price (both book value and face value)/rating etc.		
9.3.13.29	System should support preferred margin pricing and time-to-next-coupon duration for floating securities		
9.3.13.30	System should support LAF & MSF repo & Term Repo, Reverse repo, TREPS, Call/Notice Money, Term, Depo Placements, CDs (both issuance and investment), Refinance (both lending and borrowing for all transactions) related transactions		
9.3.13.31	System should support pledging of securities for borrowings under LAF/TREPS/Default funds & for margin requirements with CCIL/ NSCCL/ MCX/USE; such pledged position must be removed from the dealer's saleable position & necessary adjustment should be done on SLR. System should be able to capture multiple collaterals for single repo/reverse repo deals		
9.3.13.32	System must support the linking of security transactions with its hedging transactions(such as futures, Swaps, IRF, OIS & SLR) & allow monitoring of the hedge effectiveness and overall risk. The linking should be flexible with deals being easy to add to and remove from the grouping		
9.3.13.33	Hedge effectiveness testing of derivatives deals with underlying assets / liabilities		

9.3.13.34	System should specifically tag underlying items with hedging instrument, to make available P/L or accrual comparison of underlying and hedging deals		
9.3.13.35	System must support easy to use functionality to split cross positions and transfer positions between portfolios		
9.3.13.36	System should support the transfer of FX position to the Money Market desk for funding		
9.3.13.37	System must support drill-down of position to deal level		
9.3.13.38	System should support booking FX swap against two different counterparts; this is in case of broker deals where different counterparts are assigned on the different legs of the same		
9.3.13.39	System should support FX curve construction using cross-currency basis swaps & must be capable of further separating FX basis risk from pure interest rate risk for risk management		
9.3.13.40	System must be capable of giving the average YTM on assets & liabilities on any books.		
9.3.13.41	System should support roll-over of positions daily and allows specification of the applicable roll-over rate. Any rollover position where the Bank may want to extend the settlement, can be forex rollover, derivatives rollover etc.		
9.3.13.42	System should support the conversion of P&L accumulated in non-INR currency to INR & transfer the arising FX position for covering in the interbank market. The P&L should move in respective INR folders		
9.3.13.43	System should enable Interbank matching for deals covered for in 2 legs i.e (EUR/INR interbank deal to be matched with EUR/USD and USD/INR) and reporting of profit after matching should be made available on currency pair wise		
9.3.13.44	System should support draw-down & partial draw-down on loans or deposits with proper handling of the accruals with Interest Resetting clause along with audit trail of any types of changes.		

9.3.13.45	System must be capable of supporting the switching of reference rate/underlying basis (e.g. from USD LIBOR/RFR 3M to USD LIBOR/RFR 6M) in loan/ deposit via a single action without needing the user to unwind and book a new deal. Such switching should not impact the past & should handle the accruals. It should also support the borrowings on Interest Resetting clause without forcing to close the deal & create a new deal. This should be accommodated with negative interest rates. System should be able to calculate Cash Flows of all SOFR linked future deals wherein calculation of interest is done on lookback method. Further it should be able to provide the appropriate Fallback Rates (SOFR or other RFR rates plus spread adjustment for credit risk and overnight compounding) for existing contracts linked with LIBOR. The system needs to do the appropriate MTM valuation for all Legacy contracts (Contracts Linked to LIBOR before 31.12.2021) and future contracts linked to SOFR or other RFRs post cessatin of LIBOR. It needs to accommodate any regulatory requirements in this regard without any change request. The regulatory authority also includes ISDA in this regard as well.		
9.3.13.46	System must be capable of handling alternative reference rates like interfacing to bring ARRs, creating yield curves term structure and spreads for ARRs, mapping of products to ARRs, ARR based pricing & valuation and creating separate MIS for such products.		
9.3.13.47	System must support Switch-in and Switch-out facility in case of products like Mutual Funds etc. This functionality enables traders to create on-the-fly structured products e.g. a zero coupon bond combined with a call option.		
9.3.13.48	System must support pricing structure trade builder. Complex derivatives when create a complex structure by combining call and future options.		
9.3.13.49	System must have real time analytical tool which facilitate the dealer of complex positions		
9.3.13.50	**Support for "When Issued" trades**	N/A	N/A
9.3.13.51	System should have facility to define When Issued [WI] securities. Separate Tradable position for When Issued has to be maintained		
9.3.13.52	System should facilitate capturing WI for "New" as well as "Existing" securities		
9.3.13.53	Real time monitoring of regulatory limits & internal limits set by the Bank. User should be able to change the same whenever required		
9.3.13.54	When issued deals should be allowed to be booked in a specific book only.		
9.3.13.55	Facility to roll over the – When Issued positions into regular positions without re-entering the Trade		
9.3.13.56	The system should keep track of the open-when-issued position and provide a report for the open when issued positions to be covered at any point of time.		

Annexure 9.4: Mandatory Coverage for Instruments and Products for ITMS

Response	Status as per RFP	Please populate only

SNo	System Requirement	Bidder Response (F/C)	Bidder Clarifications / Comments
F	Ready availability of the functionality	**these two columns with your responses**	
C	Customization to be done		
9.4	**Mandatory Coverage for Instruments and Products for ITMS**	**N/A**	**N/A**
9.4.1	**Domestic Investments**	N/A	N/A
9.4.1.1	The system should facilitate administration, settlement, accounting & revaluation of the following Domestic Investment Instruments automatically using FIMMDA/ CCIL/ NSE/Outside Agency/Broker QUOTES/FBIL/any other agency stipulated by the Regulator from time to time on daily basis. It has to take into account the Following:		
9.4.1.1.1	Government Securities: Central Government (including FRBs /IIBs/STRIPS) & State Government & TB/CMB a. Primary market auctions b. Secondary market operations(Buying & Selling) through NDS & NDS-OM systems c. Open Market Operations & Buy backs d. Redemption e. On Tap operations f. Central Government Special Securities, Central Govt. Guaranteed Securities, State Govt. Guaranteed Securities (Buying & Selling) g. When Issued/Short Sell h. Repo and reverse repo operations (both RBI and Market repo)		
9.4.2	**Non SLR Investments**	N/A	N/A
9.4.2.1	Non Government Securities [Non-SLR Securities] a. Primary market b. Secondary market operations I. Buying II.Selling c. Redemption (Part & Full) d. Interest payment pop-up, e. Put-Option alert date f. Call Option		
9.4.2.2	Non convertible Bonds & Debentures a. Secured b. Unsecured c. Rated d. Unrated e. Listed f. Unlisted g. Taxable h. Tax Free i. Subordinate Bonds (TIER I, TIER II) j. Zero Coupon k. Staggered Redemption Bonds		

	l. Call & Put Option		
9.4.2.3	Certificate of Deposits and Commercial Papers		
9.4.2.4	Mutual Fund investments (Debt/Equity Oriented) a. Subscription b. Redemption c. Switch-in & Switch-out		
9.4.2.5	Venture Capital Fund (VCF) investments		
9.4.2.6	Pass Through Certificates / Securitized Issuances/Security Receipts/Venture Capital/Bill Rediscounting etc. a. Secured b. Unsecured c. Cash Collaterals d. Guarantee e. Listed f. Unlisted g. Guarantee structures h. Staggered Redemption, Disbursement & Subscription/Buy Back/Change in Face Value i. Handling multi company trust. j. System should be capable of handling provisions &write offs/ closed down funds/ appreciation & premiums/capital gains in terms of security receipts k. Date of Acquisition & Date of Investment l. System should capture master data & valuation separately. Trust master should be linked with Security Master. The above function again divided into i. Subscription / Application / Allotment ii. Buying iii. Selling		
9.4.2.7	Equity shares / Preference Shares / Convertible Bonds / Warrants / Depository Receipts either: a. Listed b. Unlisted c. Quoted d. Unquoted e. Preference shares, f. Initial Public Offering (IPO) subscription and allotment g. Step Up/Step Down Dividend/Interest for Preference Shares h. Staggered Redemption, Disbursement & Subscription/Buy Back/Change in Face Value j. System should be capable of handling provisions &write offs/ closed down funds/ appreciation & premiums/capital gains k. Date of Acquisition & Date of Investment l. Valuation The above function again divided into i. Subscription / Application / Allotment ii. Buying iii. Selling iv. Commitment, Drawdown & Payouts for Venture Capital Investments v. Corporate actions: cash and shares, dividends, split and reverse split,		

	merger, spin off, rights offering.		
9.4.2.8	System should be capable of handling various exotic bonds traded in India-perpetual, step-up, callable &/or puttable, staggered maturity		
9.4.2.9	System should be capable of blocking bond deals settling within the lock-down period and roll the date to the next valid date.		
9.4.2.10	System should be capable for preparation of proposals for Primary investment & management of existing investment. Review and Renewal also as stipulated by Bank's Internal Policies.		
9.4.2.11	Primary Dealer Business of Government Securities/Treasury Bills		
9.4.2.12	Constituents' Subsidiary General (CSGL) Account operations Government Securities a. Secondary market operations I. Buying II. Selling b. Redemption		
9.4.3	**Foreign Currency Investments**	N/A	N/A
9.4.3.1	Inter-bank FX a. Cash b. Tom c. Spot d. Forward		
9.4.3.2	Merchant FX a. Cash b. Tom c. Spot d. Forward e. Long Term Forward f. Cancellation and re-booking and roll over g. Capturing of rating of customers as well as PAN Number/ GSTIN for forward contract. h. Customer wise limits assigned for booking of forward contracts i. Card Rate Fixing process j. Customer Profiling including monitoring of limits(contracted method & past performance method), margin, MTM margin for monitoring tools for contract cancelled under underlying/ others/ past performance with a trigger if breached the user defined limit. Above should be for standard currency pairs like US Dollar-Rupee/Euro-US Dollar/Pound-US Dollar/US Dollar-Swiss Franc etc. and also cross currencies like Euro-Rupee/Pound- Rupee etc. The above should cover: Outright Buy, Outright Sell Buy-Sell swaps, Sell-Buy swaps		
9.4.4	**Commodities**	N/A	N/A
9.4.4.1	System should be capable of handling Commodities buy/sell both from Customer and Commodities exchange and its accounting/reporting/holding positions/valuations etc		

9.4.5	**Other Deposits**	N/A	N/A
9.4.5.1	The system should provide facility for disbursement as well as maintain records of repayment along with interest payment details for deposits with RIDF Series, SIDBI, NHB and Others		
9.4.5.2	Twin Currency Option		
9.4.6	**Money Market**	N/A	N/A
9.4.6.1	Money Market Operation-Repo, Reverse Repo, Market Repo, TREPS, Call/Term/Notice Money, CDs, Commercial Papers, Term Repo/LAF Repo/ LAF Reverse Repo/Interbank Participation Certificates (both lending & borrowing for all transactions), Refinance deals (pertaining to all Financial Institutions) etc. On tap LTROs operations or similar instruments announced by RBI from time to time		
9.4.6.2	Ability to handle Retails Sale of CD's & G-Secs transaction originating from bank's Internet Platform		
9.4.7	**Equities**	N/A	N/A
9.4.7.1	Facility to handle various equity products: listed and unlisted which includes as per the acquisition type Market Purchase, Credit Conversion, and Written Down equities, mutual funds (debt/equity/ liquid schemes) preference shares, Initial Public Offering (IPO)/Qualified Institutional Placement (QIP)/Follow-on Public Offering (FPO) subscription and allotment, partly and fully paid venture capital funds, capital advancement and convertible debentures. System should be capable of handling provisions &write offs (For the purpose of written down, dummy sale & dummy purchase)		
9.4.8	**Other Features:**	N/A	N/A
9.4.8.1	System should have capability to handle various financial instruments / products including those with non-linear cash flows.		
9.4.8.2	System should have multiple folders within same category of investment, for e.g. within the HFT portfolio it should have the capability of opening separate folders i.e., dealer-wise, security-wise, etc. & again within the same dealer folder, the system should be capable of entering multiple products like G-Sec, Corporate Bonds, equity etc., so as to enable portfolio / position output in any desired combination. Profit and loss position also to be generated		
9.4.8.3	System should be able to generate stripping / reconstitution requests to be sent to RBI and generate necessary entries upon receipt of confirmation from RBI.		

Annexure 9.5: Derivatives for ITMS

Response	Status as per RFP	Please populate only these two columns with your responses	
F	Ready availability of the functionality		
C	Customization to be done		
SNo	**System Requirement**	**Bidder Response (F/C)**	**Bidder Clarifications / Comments**
9.5	**Derivatives for ITMS**	**N/A**	**N/A**
9.5.1	**Front Office Support**	N/A	N/A

9.5.1.1	System should maintain real-time currency position for each dealer		
9.5.1.2	System should maintain real-time currency position across dealers		
9.5.1.3	Facility to capture derivative deals through user friendly screens		
9.5.1.4	Facility to enter Swap deals in cryptic mode for quick capturing		
9.5.1.5	Standard Settlement Instructions should be automatically defaulted based on deal		
9.5.1.6	Facility to copy existing deal to generate new		
9.5.1.7	Facility to mirror existing deal to generate back to back deal.		
9.5.1.8	System should support generation of deal		
9.5.1.9	**Facility for stripping of currency options into multiple options (shortcut feature for deal definition) with change of:**	N/A	N/A
9.5.1.10	Strike Price		
9.5.1.11	Barrier Price		
9.5.1.12	expiry dates to exact month, quarter, semi-annual and annual		
9.5.1.13	Expiry dates to end of month, quarter, semi-annual and annual		
9.5.1.14	Definition of currency option strategies as templates which can be easily referenced for creation of strategies		
9.5.1.15	Calculation of Greeks for Currency Options		
9.5.1.16	System should support pricing of derivative deals at the time of deal entry		
9.5.1.17	System should provide standalone screen for pricing of derivative deals with provision to convert the entered parameters to a deal.		
9.5.1.18	Matching/ Un-matching of back to back Derivative Trades. System should support both full and partial matching of two or more deals.		
9.5.1.19	Facility to Terminate Derivative Deals. System should compute MTM with a facility to change the system computed MTM amount.		
9.5.1.20	Monitoring screen to monitor Barrier Currency Option Deals for Knock-In and Knock-Out		
9.5.1.21	Currency Option deals eligible for exercise or lapse should appear automatically on the screen along with important deal information.		
9.5.1.22	Facility to create structured product encompassing various Currency Option, Principal Swap, IRS & Forward Rate Agreement deals.		
9.5.1.23	There should be parametric facility for Front Office authorization.		
9.5.1.24	Computation of interest rate risk like PVBP for Swaps and FRA		
9.5.1.25	Approval hierarchy should be defineable as per the requirement of the Bank		
9.5.1.26	Computation of all like Delta, Gamma Theta, Vega & Rho etc. for Currency Options. It should have ability to include cash flows		
9.5.1.27	Facility to designate any of the above derivative in to hedge or trading.		
9.5.1.28	Facility for front office user to manually define the underlying. This should be through a field over and above the – Remarks field		
9.5.1.29	Generation of deal slip and confirmation letter (both physical and automated)		
9.5.1.30	Deal slip should contain information of the underlying asset		

9.5.1.31	Facility to support a wide range of forex option payoffs with advance model		
9.5.1.32	Facility to support Indian, Overseas FX listed		
9.5.1.33	Facility to build linear combined structure products with stripping and solver feature.		
9.5.1.34	Facility to handle FX option related market data, especially Fx smile interpolation		
9.5.1.35	Facility to monitor P&L position, Greeks and other unique measures natively and all dynamic ones		
9.5.1.36	Facility to manage FX option relevant events like exercise and barrier knock for bulk number of options		
9.5.1.37	Facility to manage the special events in Indian Forex Option Market, like bulk-modify the expiry/ settlement days due to sudden holiday, modify the settlement type at maturity		
9.5.1.38	Facility to handle commodity in native module instead of using other asset class proxies.		
9.5.1.39	Facility to manage different product/location/quality/units etc and aggregate/convert position accordingly		
9.5.2	**Mid Office Support**	N/A	N/A
9.5.2.1	Real time limits monitoring for Currency, Dealer, Counterparty based on Notional Principal, power deviation of the deal quantum, the stoploss and MTM of the deal slip		
9.5.2.2	System should generate alert to users on violation of limit		
9.5.2.3	Facility to authorize limit violations.		
9.5.2.4	System should generate exception report for limit violations.		
9.5.2.5	Facility to download and capture benchmarks		
9.5.2.6	Facility to download and capture currency exchange rates and yield curves.		
9.5.3	**Back Office Support**	N/A	N/A
9.5.3.1	System should support daily back office activities		
9.5.3.2	Facility for reset rate entry for Swap and FRA deals on reset date. System should by default display the applicable benchmark rate with provision to change the same before saving the record.		
9.5.3.3	Facility to change the settlement currency for FRA, Currency Options and Swap deal settlements		
9.5.3.4	Back-dated processing including interest accrual and settlement for back-dated Swaps.		
9.5.3.5	Facility to confirm a deal and print the confirmation letter. Ability to view the existing confirmed deals		
9.5.3.6	Facility to transfer complete deal wise portfolio position from one portfolio to another		
9.5.3.7	Ability to modify swap parameters like reset date, compounding date and coupon date defined as part of deal entry		
9.5.3.8	Facility to change settlement instructions		
9.5.3.9	Facility to change CCP		

9.5.3.10	System should support Forward Revaluation		
9.5.3.11	Facility to amortize the MTM in case of termination of deal in – Hedging portfolio		
9.5.3.12	Facility to view deal wise MTM across products with facility to view selected deals or portfolios		
9.5.3.13	Facility to view overall MTM across dealers/selected dealers by super users		
9.5.3.14	MTM Trend analysis for any product/deal – intraday as well as across dates		
9.5.3.15	System should have capabilities to calculate the following margins: a. Initial margin b. Extreme loss margin c. Calendar Spread margin d. Marked to market		
9.5.3.16	System should be able to match the daily margins maintenance form: a. Government securities b. Cash c. Other forms		
9.5.3.17	System should be able to link to the respective exchange platform systems: MCX —SX, NSE, BSE, USE, Others		
9.5.3.18	Novation and compression (whereever applicable) of OTC Derivative Contracts		
9.5.3.19	Ability to provide data to CCIL for Trade compression activity by CCIL for OTC IRS Trades		
9.5.4	**SWIFT related Support**	N/A	N/A
9.5.4.1	Generation of SWIFT confirmation messages for derivative deals		
9.5.4.2	MT305 – CO Plan Vanilla Confirmation		
9.5.4.3	MT306 – CO Single Barrier Confirmation		
9.5.4.4	MT340 – FRA Confirmation		
9.5.4.5	MT341 – FRA Settlement Confirmation		
9.5.4.6	All swift messages, tracers and follow up messages should be directly generated through TMS to swift server.		
9.5.4.7	System should support reconciliation of inward SWIFT confirmation messages for Derivative deals.		

**Annexure 9.6: Mid Office for ITMS**

Response	Status as per RFP	Please populate only these two columns with your responses	
F	Ready availability of the functionality		
C	Customization to be done		
SNo	System Requirement	Bidder Response (F/C)	Bidder Clarifications / Comments
9.6	**Mid Office for ITMS**	**N/A**	**N/A**
9.6.1	**Market Risk -General Requirements**	N/A	N/A
9.6.1.1	Online Real-time monitoring of all types of deals in bank's trading book		

9.6.1.2	System should be capable of all types of limit monitoring (at Scrip level, Security level, Dealer level, portfolio level, stop loss, risk limits, NOOP, Single Deal etc) as per Banks internal policy and as per regulatory requirements		
9.6.1.3	System should publish Daily Risk Report/Dashboard without manual intervention. The report may be restructured as per the requirement/scenarios e.g on addition of new asset class, interchangeability of limits etc.		
9.6.1.4	The system should enable tracking Duration, Modified Duration, Convexity, Holding Period, Entry Level Credit Rating Norms, Rating Migration etc. System should allow a functionality to monitor duration movement and currency composition of FCA and various portfolios to ensure that they are within prescribed limits.		
9.6.1.5	The system should be able to identify online breaching of limits on consolidated basis & segment basis and send alerts accordingly and also generate exceptional report.		
9.6.1.6	The system should permit entry of stop loss & take profit limits by deal type/deal size & also at portfolio level, and also to cap the limits for pre-defined periods (daily/monthly/quarterly/annually)		
9.6.1.7	The system should be able to compute the exact stop loss and take profit based on pre-defined percentages		
9.6.1.8	The system should be able to give notifications in case of breach of stop loss/ take profit limits		
9.6.1.9	The system should be able to compute script wise and bucket wise PVBP and monitor PVBP as a result of every deal at script level		
9.6.1.10	Daily Exposure Report for on balance sheet items plus off balance sheet items		
9.6.1.11	Daily country-wise exposure limit (indicating gross, net basis, short term and long term basis)		
9.6.1.12	The solution should support RBI's directives and guidelines issued from time to time pertaining to Treasury & Risk Management as per Bank's business location in India and abroad.		
9.6.2	**Value at Risk**	N/A	N/A
9.6.2.1	VaR Methodologies: The system should be able to generate VaR and provide Risk Measurements and Analytical Tools for different VaR Methodologies, for user defined confidence levels & holding periods for all asset classes. Facility to view the simulation numbers generated by system from front end based on Historical Simulaiton and other methods. System should provision that VaR shall be computable for the entire portfolio, specific portfolio, specific asset class or specific deal/instrument. Drilldown functionality must also be available at each level.		
9.6.2.2	System should support Market analysis in terms of VaR, performance analysis of the Bank's Foreign Currency Assets (FCA), liquidity at risk (LaR), yield spread analysis, etc should be supported by the CIGTMS.		

9.6.2.3	VaR to be computed using following methods:		
9.6.2.4	Historical Simulation		
9.6.2.5	Variance-covariance		
9.6.2.6	Monte Carlo Simulation		
9.6.3	Flexibility of defining confidence interval, sampling frequency, decay factor, time horizon, distribution assumption and other relevant parameters.		
9.6.4	The system should calculate individual Security wise, Asset Class wise, Portfolio wise VaR (for HFT as well as AFS) i.e. FX (Trading & Banking Book), commodities, Equity, MF Units, Interest Rate related instruments under normal & stress conditions with an option for scalability in regard to holding period/time horizon/VaR computation methodology under overlapping/non-overlapping basis. For VaR of (HFT+AFS) must be calculate on the monte carlo method and all the VaR on FIIs,FX, Derivatives,Equity the back testing shoulde be there,distribution of VaR across the following: Dealer wise VaR, Products wise VaR, Market wise VaR,Calculation of contribution of every dealer, desk, product & market towards the overall VaR numbers		
9.6.5	Provision for computing specific VaR, stressed VaR & incremental VaR, marginal VaR		
9.6.6	Risk Attribution of VaR numbers among various components of VAR like deal level, scrip level etc. Calculation of contribution of every dealer, product & market towards the overall VaR numbers		
9.6.7	The system shall have the ability to drill down VaR by various dimensions to cash flow levels		
9.6.8	Users should be able to view results of VaR in a graphical form including tail loss		
9.6.9	Distribution of VaR across the following: -	N/A	N/A
9.6.9.1	Dealer wise VaR		
9.6.9.2	Products wise VaR		
9.6.9.3	Market wise VaR		
9.6.10	Yield curve creation and its use in valuations and VaR		
9.6.11	Provision for attaching an yield curve to any product - Under Yield Curve provision should be available for selection of FIMMDA/NSE/CCIL/ Outside Agency/Broker Quotes / Security level valuation or user defined yield curve for valuation or VaR computation purpose. Facility to accommodate parallel shift/nonparallel shift in yield curve for revaluation and this on the OIS segment		
9.6.12	VaR - Back testing- As per Basel/RBI guideline and the best market practices available VaR Back Testing with exceptions across all the securities and all the segment(domestic, forex, equity , derivatives) as per current and FRTB norms, Back Testing as per current static method/dynamic with constant method/dynamic with moving method/actual method) and FRTB norms		
9.6.13	VaR - Stress testing- As per Basel/RBI guideline and the best market practices available		

9.6.14	Incremental Risk Charge (IRC), and Expected Shortfall		
9.6.15	**Valuations**	N/A	N/A
9.6.15.1	MTM and Revaluation: All valuations including India specific valuations like FIMMDA, FEDAI and any other valuation as specified by regulators should be in-built. Derivatives valuations to be supported as per industry best practices. Valuation methods as per prevailing and upcoming accounting standards (IND AS) should be fully supported for all the products including CDS. Support for all valuation techniques for Basel III and FRTB compliance. The systems should be capable of adapting to the new changes proposed by regulators from time to time basis by way of easy configuration through front end.		
9.6.15.2	The system should support accrual calculations. Inbuilt tools should be in place to compute daily P&L of all asset classes		
9.6.15.2.1	System as part of the performance analysis should compute returns including both realized as well as unrealized gains / losses for the Bank as well as benchmark portfolios. CIGTMS should calculate returns in line with the inputs (weights, currency wise benchmarks etc.) given by the users. It should also auto capture the benchmarks from various market data providers like Refinitiv (Thomson Reuters), Bloomberg, JPMorgan etc.		
9.6.16	Facility to download and capture benchmarks rates on realtime basis and should be store in the system for audit purpose.		
9.6.17	FX Swap/SPOT & Outright valuation, MTM realized P&L on a real time basis dealer wise & consolidated. Breaches should generate trigger mails/SMS		
9.6.17.1	The system should be able to generate, view and print positions reports on real time basis with fair market value provided by information feeds, Exposure monitoring branch wise,		
9.6.17.2	Position Tracking The system should be able to view positions for user defined portfolios. The system should be able to maintain real time exposures-Prudential exposures, Money Market Exposure, Non-SLR Exposures, Equity Exposure, Industry Exposures, Counter party exposures, along with Country exposure and capital market exposure etc. Also there has to be a provision in the System to enhance or reduce the counterparty limit during the day.		
9.6.17.13	The system should be able to online monitor Product type, Currency, Dealer & Counterparty-wise limits. Limits will include but not limited to Position, Loss. Exposure and Risk Limits e.g Trading Book limit, PV01 limit, NOOP Limit, VaR Issuer wise limits. Broker-wise Turnover limits, Stop Loss limits both deal-wise, along with Deal Size limit,Day light Limit, dealer wise limit,end of day limit on the turnover basis & on periodic basis.		
9.6.18	**Limit Monitoring**	N/A	N/A

9.6.18.1	Real time limits monitoring for Counterparty Credit Exposure & related limits for the Bank as a whole(overseas/domestic). In doing so, the proposed application may require to implement interface integration with other back-office system like CBS. Currently, the Overall functionalities and operational part related to risk and limits is required to be provided by Head Office, Risk Management department where the limit related to Bank specific, country specific (centre wise), counter party specific and customer specific should be covered. Related reports are also present in this regard.		
9.6.18.2	The system should be able to measure various exposure, monitor counterparties' credit exposure against authorized limits on a real-time basis. The credit exposure on off-balance sheet items (Derivatives) need to be arrived based on RBI specified Current Exposure method. The system should provide necessary flexibility to adopt to the latest regulatory guidelines in this regard like the SACCR method. System should fetch data on counterparties like their credit ratings, stock prices, CDS prices, etc. from various market data providers, and also have provision for manual entry/upload of the same. The application should support configuration of qualitative and quantitative parameters for evaluating/ measuring eligibility of counterparty and fixing their asset class wise limits. Review of counterparty limits at pre-defined frequency should be supported.		
9.6.18.2.1	The System should generate a report giving Asset class wise Total (Interest income + Other income) & Interest Expenditure of Treasury branch, Treasury average cost/yield based profit analysis at CO, after mapping Income and Expenditure Head of accounts.		
9.6.18.2.2	The system should be capable of monitoring of consolidated exposure from various systems at the time of deal booking and subsequent deal life cycles		
9.6.18.2.3	All market risk features like VAR (with back testing - FIIs, Fx, Equity, OIS), Scenario Analysis, Stress Testing, What-if Analysis, Capital Charge, Risk Weighted Asset, CRAR, Monitoring of Stop Loss Limits etc. should be in-built and should meet all regulatory requirements.		
9.6.18.2.4	System should provision for Counterparty and standard settlement instruction (SSI) management should be an integral part of the credit risk module. In this regard, CIGTMS should be able to fetch relevant counterparty and SSI details from the market data providers as well as allow manual creation of records. Further, the application should also capture and updating SSI details automatically when they are received via SWIFT messages	N/A	N/A
9.6.19	Issuer limit, settlement limit, desk & country limits on realtime basis and should be store in the system for audit purpose		
9.6.19a	Risk Distribution Analytics Tools, The system shall allow reports and results from the analytical tools to be exported to Excel or to be converted to an image file (i.e. jpeg or gif) , The solution should support RBI's directives and guidelines issued from time to time pertaining to Treasury & Risk Management as per Bank's business location in India and abroad.		

9.6.19.1	Real-time Rate scan provision ,		
9.6.20	Real time alerts and facility to authorize limit violations, Capability to exempt certain securities from stop loss monitoring		
9.6.21	Ability to scan and attach paper based notes during authorizations for future reference during audits and inspections		
9.6.21.1	The proposed solution should provide audit reports and Tools for the Bank's internal/concurrent/statutory/SEBI/CCIL/IDRBT/RBI audit/Inspections etc as per Bank's business location in India and abroad.		
9.6.21.2	The system should be capable of aligning with all applicable policies of the Bank like Exposure/Investment/Derivative etc. as per Bank's business location in India and abroad.		
9.6.22	Exception management (i.e. monitoring, flagging & reporting) for limit violation		
9.6.23	The system should allow for the measurement of the Counterparty credit risks for treasury which should be mapped with pre-settlement risk		
9.6.23.1	System should calculate credit risk Value at Risk (VaR) for all asset classes/products and generate economic capital framework (ECF) report in the format desired by the Bank.		
9.6.24	Facility to authorize limit violations.		
9.6.25	System should generate exception report for limit violations		
9.6.26	Market Risk Limits Monitoring - real-time monitoring of product-wise, currency-wise, counterparty-wise, dealer-wise, bucket-wise, country-wise limits including but not limited to the below mentioned limit type		
9.6.26.1	VaR Limit		
9.6.26.2	Sensitivity limits and Limit exceeded report		
9.6.26.3	Limits based on Greeks (Delta, Gamma, Vega, Rho, Phi etc for all kinds of derivatives) The system should enable tracking Delta, Gamma, Theta, Rho & Phi for Currency Options & Equity linked Convertible Bonds/Warrants/Depository Receipts		
9.6.26.4	Loss Limits (Stop Loss with various frequencies daily, monthly, annually etc.)		
9.6.26.5	Risk Limits, cut loss limit		
9.6.26.6	Position Limits		
9.6.26.7	Scrip-wise/Security-wise Limits		
9.6.26.8	Modified Duration/PV01 Limits along with introduction of Convexcity		
9.6.26.9	Single Deal Limit		
9.6.26.10	Day Light Limit		
9.6.26.11	Dealer wise		
9.6.26.12	NOOP Limit		
9.6.26.13	AGL/IGL Limit		
9.6.26.14	Exposure Limit		
9.6.26.15	Broker-wise Turnover		
9.6.26.16	Dealer wise Limit		

9.6.27	The system should track user-defined trading portfolio wise & dealer wise limits and provide viewing and reporting, The system should be able to issue a system notification to dealers that a limit is violated MAT (Management alternate trigger) should be there if the exposure near by 75% the trigger should come		
9.6.28	The system should be able to define and monitor limits at various levels in the hierarchy,		
9.6.29	The system should be able to issue a system notification to dealers that a limit is violated		
9.6.30	Overnight open position to be computed in all currencies and the ability to convert to equivalent wash currency Intra-day Open position computed real-time		
9.6.31	The system should enable querying of limits at an individual as well as aggregate level		
9.6.31.1	System should be capable of return attribution as part of performance analysis. It should calculate various performance ratios like Sharpe Ratio, Sortino Ratio, Tracking Error, Information ratio etc.		
9.6.31.2	System should support Credit Risk on the market related off- Balance sheet items on daily Basis		
9.6.31.3	The system should be able to produce daily online trade Blotter The system should be able to customize blotter views by user The system should be able to identify online breaching of limits on consolidated basis & segment basis and send alerts accordingly and also generate exceptional report		
9.6.32	**Exception Reporting**	N/A	N/A
9.6.32.1	Soft limits, hard limits (soft limits for management action trigger and hard limits for Limit breaches) & threshold limits The system shall allow users to customize triggers, alarms and thresholds (i.e. increase/decrease thresholds both at individual dealer level, class level or system level).		
9.6.32.2	Intra-day exceptions to be monitored on real time basis and on-line breach alerts should be generated at Mid Office with mandatory printing of the exception report with reasons, deal particulars, time etc. as & when such breaches occur		
9.6.32.3	End of Day Exception report should be generated mandatorily & no user should have the power to skip the same		
9.6.32.4	The system should be able to support warning messages and exception reporting for credit exposure limit violations		
9.6.32.5	The system shall have a means to automatically generate exception reports		

SNo	System Requirement		
9.6.32.6	The system shall have an automated monitoring & reporting of breach in exposure norms, limits (daylight/overnight/counterparty/IGL/AGL/pre-settlement/Settlement/ Issuer/Currency/Broker/Gap/ Authorization/Stop-Loss Limits etc.), duration, M-Duration, PV01 etc. System should have provisions for setting/configuring various types of limits like counterparty risk limit, pre-settlement limit, default risk limit, etc. Such limits can be defined for individual entity, group of entities etc. in percentages or in absolute numbers.		
9.6.32.7	The breach in exposure norms & limit as referred above must give alert messages (on-screen pop-ups) to back office, front-office & mid-office, & generate exception report & audit trail on daily basis.		

Annexure 9.7: Reports

Response	Status as per RFP	Please populate only these two columns with your responses	
F	Ready availability of the functionality		
C	Customization to be done		

SNo	System Requirement	Bidder Response (F/C)	Bidder Clarifications / Comments
9.7	**Reporting for ITMS**	**N/A**	**N/A**
9.7.1	**Forex**	N/A	N/A
9.7.1.1	Brokerage paid to Broker on period wise		
9.7.1.2	Broker Exposure Transaction wise		
9.7.1.3	Credit risk concentration in derivatives/ forex contracts – Top 10 customers		
9.7.1.4	Credit risk concentration in derivatives/ forex contracts – Top 10 inter bank		
9.7.1.5	Report on contracts Booked on behalf of SME/Non SME/Residents in a particular period. Report is also required for contracts cancelled, outstanding and utilized with MTM gain/loss		
9.7.1.6	Failed Trade entry detail report		
9.7.1.7	Outstanding Deals across asset class with Accruals		
9.7.1.8	Hedge Efficiency/Effectiveness Report in respect of all types of Derivative instruments used for Hedging purpose.		
9.7.1.9	Activity Forecast Register along with ability to compute coupon amount if the rates have been reset for the floating leg		
9.7.1.10	Total HEDGE REPORT		
9.7.1.11	Currency Futures Arbitrage Profit sheet generation		
9.7.1.12	IRF reports		
9.7.1.13	IRS client report		
9.7.1.14	Foreign Currency position-currency wise and summary		
9.7.1.15	Sources and uses of foreign Currency funds		
9.7.1.16	Cost & Yield on Sources and Uses – foreign. Currency		
9.7.1.17	Interest Arbitrage profit sheet generation		
9.7.1.18	Cost & Yield of outstanding BUY/SELL foreign. Currency resources swap. System should be able to price cross currency swaps and display it in a report format.		

9.7.1.19	SWAP Repo Format		
9.7.1.20	Generation of OTC data for CCIL		
9.7.1.21	Generation of Vouchers for Derivative MTM		
9.7.1.22	MTM transfer report for CSA deals		
9.7.1.23	Interest on Transfer of MTM under CSA		
9.7.1.24	Report for the MIBOR deals Accrual as on Date		
9.7.1.25	Deals Confirmations		
9.7.1.26	Interest Rate Reset Notice specifically with Benchmark spread		
9.7.1.27	Settlement Notice		
9.7.1.28	Currency SWAP Detail Report & Maturity Report & Outstanding Report (currency wise, counter party wise) specifically with benchmark spread		
9.7.1.29	Borrowing and lending maturity pattern -currency wise		
9.7.1.30	Nostro Balances based Funding Reports		
9.7.1.31	Interbank maturity register		
9.7.1.32	Interbank deal register		
9.7.1.33	Reporting of Trade to CCIL through file upload		
9.7.1.34	Inter Bank Deal Slip		
9.7.1.35	Internal Transfer Deal slip		
9.7.1.36	Settlement Register for all products		
9.7.1.37	Outstanding Register		
9.7.1.38	Swap Schedule Register		
9.7.1.39	Account Ledger Interbank maturity register with payment mode (Cash/Settlement(INR)-cross currency) along with CCP		
9.7.1.40	Deal settling outside CCIL thru RTGS (INR-Receivable) – INFLOWS		
9.7.1.41	Money Market Register for Interbank Desk		
9.7.1.42	cash Recon report		
9.7.1.43	DEPO deals outstanding positions as on date		
9.7.1.44	Turnover report & Special Margin Maintenance		
9.7.1.45	Contract Register		
9.7.1.46	Suspense early delivery register		
9.7.1.47	Forward contarct cancellation exchange Difference received /paid in a given period.		
9.7.1.48	Merchant Forward Contract Booking/ Cancellation / Modification Slip		

9.7.1.49	Nostro balances Ledger Statement of Matched Entries on particular day Mirror Balance Summary Reverse Reconciliation O/S Reconciliation entries based on the parameter filter selected by the user as on a particular date or range of a dates Nostro Tracer Letter Reconciliation statement Reminder letter to the branches for their credit and their debits by default Merchant txn for a day or range of a days Rates quoated and accepted/cancelled in a day Txn entered through Card rate Non-position trades undertaken in a day outstanding deals counter party wise/bucket wise/currency pair wise/Settlement CCP wise		
9.7.1.50	Inward Remittances Report		
9.7.1.51	Outward Remittances Report		
9.7.1.52	Outstanding merchant forward contracts		
9.7.1.53	Merchant Forward Contracts utilized between 2 dates		
9.7.1.54	Contract cancellation debit/credit advice and entries of loss / gain there on as per RBI norms.		
9.7.1.55	Transaction log		
9.7.1.56	Merchant Profitability Deal Wise		
9.7.1.57	Age wise Nostro entries		
9.7.1.58	Forward Profit& Valuation		
9.7.1.59	Mark to market for all deals		
9.7.1.60	Profit and Loss statements		
9.7.1.61	Deal wise Interest Accrual report		
9.7.1.62	FEDAI Revaluation (Daily/Monthly/Quarterly or as and when required)		
9.7.1.63	Consolidated Deal Details – Product-wise		
9.7.1.64	Total PRODUCT-WISE SALES P&L REPORT		
9.7.1.65	System Generated reporting (Closing, Sources & uses, Bought & Sold & ALE RBS)		
9.7.1.66	IC-5 – including net open position of foreign Currency and accrued interest on all kinds of lending & borrowing deals with daily frequency		
9.7.1.67	Deal Tickets		
9.7.1.68	Annexure - 2A is required for Capital Assessment under BASEL. It is a Reporting format for Bank Exposures not related to Loans & Advances.		
9.7.1.69	BAL statement is banking asset and liability statement (Annexure III) submitted to RBI Fortnightly. It contains Foreign Currency held Abroad in Non- Resident Rupee of Overseas Branch and correspondents		
9.7.1.70	OSMOS is Off- Balance Sheet Exposure Statement which contains Exposures due to derivatives like Exchange Rate Contracts and Interest Rate Contracts undertaken by Treasury.		

9.7.1.71	Country Exposure Statement, contains all the currency exposure to the correspondent Bank, Foreign Branches of Bank and our overseas branches.		
9.7.1.72	Bought & Sold Statement, contains the amount of Forward Exchange rate contract under merchant and InterBank segment.		
9.7.1.73	Asset Liability & Exposure, ALE statement submitted to RBI, contains the derivative deals and valuations details.		
9.7.2	**Domestic**	N/A	N/A
9.7.2.1	Shifting of securities as per RBI guidelines		
9.7.2.2	Monthly payment of brokerage for bond deals.		
9.7.2.3	Provision to generate report for ear-marking of securities in CSGL		
9.7.2.4	CD Daily Limit Utilisation		
9.7.2.5	Return on Short Term Investments/ Holding Period Return		
9.7.2.6	Return on Liquid Investments		
9.7.2.7	CD Maturity Report		
9.7.2.8	Buy Back Report		
9.7.2.9	Fortnightly cumulative Call Money Transaction Position		
9.7.2.10	Daily Call Report		
9.7.2.11	CALL-Daily Interest Banks and Others		
9.7.2.12	CD Holding/Outstanding Report		
9.7.2.13	Average Yield/Average Cost in Call Money		
9.7.2.14	Detail Short term Deposit		
9.7.2.15	Voucher (LAF/REPO)-For a Date		
9.7.2.16	CD Outstanding Report with YTM during the period		
9.7.2.17	CD Issued Report		
9.7.2.18	Brokerage Turnover report		
9.7.2.19	Current Yield on Portfolio		
9.7.2.20	Report on average Yield, portfolio-wise		
9.7.2.21	Dividend Summary		
9.7.2.22	Redemption Detail during a period Category wise		
9.7.2.23	Subscription during a Period Category wise		
9.7.2.24	CSGL Holding Statement		
9.7.2.25	CSGL Transaction Statement		
9.7.2.26	CSGL Daily Interest		
9.7.2.27	Securities Maturing during a period		
9.7.2.28	Subscription During a period		
9.7.2.29	Report on Non-Performing Investment with provisions on Daily basis		
9.7.2.30	Summary of NPI/Written off investments		
9.7.2.31	Report on average Investment – Scrip-wise, category wise, portfolio-wise		
9.7.2.32	HFT - Daily Purchase or Short Sale		
9.7.2.33	FRB Valuation		
9.7.2.34	OMOs Report- 5% of HTM Report		
9.7.2.35	Daily RBI/SBI/ any other regulatory balance (Centre wise)		
9.7.2.36	Customized statement of profit, i.e., portfolio-wise, category-wise, security-wise etc		

9.7.2.37	Fortnightly SLR / Non SLR Statement		
9.7.2.38	Security Classification - Secured - Tangible - Intangible / Unsecured		
9.7.2.39	Security Classification - Rated / Unrated		
9.7.2.40	Reports on Funds & Treasury Position-maintenance of CRR/SLR		
9.7.2.41	Maturity Pattern on residual basis		
9.7.2.42	HTM Sale During a Period with profit / loss		
9.7.2.43	Duration/Modified Duration (Any-prior-dated)		
9.7.2.44	Security-Holding (Detail) – Industry wise/Company wise		
9.7.2.45	Issue wise Exposure and Overdue (Any-Prior-Dated)		
9.7.2.46	Interbank Repo During a Period		
9.7.2.47	Reports which are required for daily monitoring purpose such as Holding position, Transaction Report category wise, profit position category wise, Trial Balance & other reports		
9.7.2.48	Report on Amortization Daily/Weekly/Monthly/Quarterly		
9.7.2.49	Mark-to-Market Provisioning requirement of Investment portfolio on Daily/Monthly /Quarterly/Half-yearly/Annual basis based upon group-wise netting as per RBI guidelines (all are ignoring appreciation) viz. a) Govt. Securities i.e. Central + State b) Other Approved Securities c) Bonds & Debentures i.e. PSU Bonds + Corporate Debentures d) Subsidiaries & Joint Ventures e) Shares i.e. Quoted & unquoted, Preference Shares, Equity based Mutual Funds, Venture Capital(Equity participation) etc. f) Others i.e. CP, CD, Priority Sector Deposits, Security Receipts etc		
9.7.2.50	System should be capable of forecast MTM value of Investments comprising dated securities (total as well as Script/ Category /portfolio wise) on deviation of YTM by user defined basis point change from the current level		
9.7.2.51	For the purpose of Income Tax Act as amended upto date valuation of securities at quarterly intervals taking into account least of book value/market value of each individual security		
9.7.2.52	Security Wise Transaction for a period (SGL)		
9.7.2.53	Consolidated CSGL Deal Report category wise, for Reconciliation & Settlement, and any vice-versa deal SGL & CGSL should be reported		
9.7.2.54	CSGL Monthly Statutory Reporting for CSGL		
9.7.2.55	Statutory Liquidity Requirement (STL) – to be generated for Treasury branch as a whole on daily basis		
9.7.2.56	Branch / DP wise Security Holding (Any-prior- dated)		
9.7.2.57	Report on Interest due as on any date (category wise & summary with age wise classification)		

9.7.2.58	Report on overdue redemption on any date (category wise & summary with age wise classification). Statement on Total Interest Income for the Qtr/Half year/Year – System should generate at quarterly interval a statement with following details a) Interest collected during the quarter/half-year/year b) Add – Interest earned on Sale of Securities during the quarter/half-year/year c) Less – Interest Paid on Purchase of security during the quarter/half-year/year d) Add – Interest Accrued on Investment upto the last date of the Quarter/Half-Year/Year e) Less – Interest accrued upto the last date of the previous Quarter/Half-Year/Year		
9.7.2.59	Monthly Reconciliation		
9.7.2.60	Online dealer-wise position of Held for Trade portfolio of all asset class with Stop-loss limits		
9.7.2.61	Duration, Modified Duration, Convexity, Current Yield, YTM, VaR etc, can be obtained security-wise, category-wise, Residual maturity Bucket wise, product wise & portfolio-wise, for the portfolio as on deal date as well as on value date		
9.7.2.62	Sensitivity & scenario analysis can be done		
9.7.2.63	Intraday Liquidity statement Fortnightly valuation of SLR securities		
9.7.2.64	Accounts Ledger		
9.7.2.65	Product wise – profitability report including money market swaps		
9.7.2.66	Security Ledger		
9.7.2.67	Daily return on Call, Notice, Term money, Repo transactions, TREPS		
9.7.2.68	Average outstanding and yield security / sector / portfolio wise		
9.7.2.69	Balance Report for any given day		
9.7.2.70	Subsidiary General Ledger (SGL)		
9.7.2.71	Funds Position As on any given date		
9.7.2.72	Report on Mutual Fund – Enter Portfolio, Scheme wise Return		
9.7.2.73	Interest Vouchers-For a Date		
9.7.2.74	Interest Ledger		
9.7.2.75	Accrued Interest for all interest bearing securities (Rating wise/Current Yield wise/YTM wise)		
9.7.2.76	Summary of Sale-Purchase Voucher for Equity Transactions		
9.7.2.77	Summary of Interest/Redemption Voucher		
9.7.2.78	Voucher(Sale/Purchase/Redemption) for Preference Shares, Venture Capital Funds		
9.7.2.79	Redemption Receivable During a period		
9.7.2.80	Dividend Ledger		
9.7.2.81	DSB in XBRL Format		
9.7.2.82	Daily SLR and Annexure B		
9.7.2.83	Purchase Register		
9.7.2.84	SALE REGISTER / Short Sale security wise.		

9.7.2.85	Domestic Exposure (For Dealing Room)		
9.7.2.86	Mandate for Sale/Purchase of SLR Securities		
9.7.2.87	Monthly reporting to RBI on short selling in GOI securities		
9.7.2.88	Portfolio Transfer Register		
9.7.2.89	CSGL Constituent list		
9.7.2.90	Money Market instruments, i.e. Call, TREPS, LAF, Refinance etc Interest accrual daily/monthly/quarterly/half yearly and also within a given period		
9.7.2.91	Consolidated Deal Details – Product-wise		
9.7.2.92	DEAL CONFIRMATION – CALL MONEY		
9.7.2.93	Deal Confirmation – Non SLR & Money Market		
9.7.2.94	Deal Confirmation of all deals of a day – Govt. Securities		
9.7.2.95	Profit Statement-As of Latest Deal		
9.7.2.96	Repo deals due date diary		
9.7.2.97	Repo deal register		
9.7.3	**Forex & Domestic**	N/A	N/A
9.7.3.1	Counter Party-wise Exposure		
9.7.3.2	Report on Fund Position		
9.7.3.3	Posting of Overdue interest during day end process at the time of quarterly/Half Yearly/Annual closing		
9.7.3.4	Arbitrage Report between forex and domestic market		
9.7.3.5	Daily report on trading profits – Dealer wise / Cy wise		
9.7.3.6	After hour trade		
9.7.3.7	Transaction Scroll		
9.7.3.8	Date-wise/Instrument-wise Profit During a period		
9.7.3.9	Category-wise Monthly Profit		
9.7.3.10	Cash flow statements – Daily/Weekly/ Monthly/Quarterly/ From date – to date, product wise		
9.7.4	**Front office**	N/A	N/A
9.7.4.1	Dealers Pad		
9.7.5	**Mid office and Risk Management**	N/A	N/A
9.7.5.1	New Consolidated deal details dealer-wise with day light limit for all asset class		
9.7.5.2	CDS		
9.7.5.3	The proposed Treasury solution should be capable enough to provide all kind of information and data for calculation of Liquidity Coverage Ratio (LCR) report as per Bank's specified data format or through Bank's specified interface integration.		
9.7.5.4	The proposed Treasury solution should be capable enough to provide all kind of information and data for calculation of Net stable funding Ratio(NFSR) as per Bank's specified data format or through Bank's specified interface integration.		
9.7.5.5	The proposed Treasury solution should be capable enough to provide all kind of information and data for calculation of Other liquidity statements like SLS AND IRS report as per Bank's specified data format or through		

	Bank's specified interface integration.		
9.7.5.6	Risk Sensitivity Report (Bucket wise/Curve wise PV01 distribution as on date)		
9.7.5.7	Acrrued Interest & NOOP		
9.7.5.8	Capital Market Exposure Report Net off		
9.7.5.9	Risk Weight Asset on trading book on daily basis		
9.7.5.10	Capital Market Exposure Statement		
9.7.5.11	Threshold limits (90% of the maximum limits) should be fixed and made available online		
9.7.5.12	Counter party exposure with back date report with detail break-up		
9.7.5.13	Currency wise gap scan		
9.7.5.14	Maturity mismatch currency wise and USD equivalent		
9.7.5.15	Summary of daily gaps, position and cash balances		
9.7.5.16	VAR for HFT as well as AFS as per IMA approach – Report frequency daily as well as user defined		
9.7.5.17	The proposed Treasury solution should be capable enough to provide all kind of information and data for generation of Structural liquidity report as per Bank's specified data format or through Bank's specified interface integration.		
9.7.5.18	The proposed Treasury solution should be capable enough to provide all kind of information and data for generation of ALCO Report as per Bank's specified data format or through Bank's specified interface integration.		
9.7.5.19	The proposed solution should be capable enough to provide all kind of information and data to compute Basel 2 and Basel 3 also as per new INDAS and Capital charge calculation as per new INDAS.		
9.7.5.20	Suspicious Transaction Report		
9.7.5.21	Position reports – Category wise as on any date, comparison between three given dates		
9.7.5.22	Entity wise (exposure to a company), Scrip-wise, portfolio-wise position as on any date		
9.7.5.23	Balance Sheet Disclosures related to Treasury portfolio		
9.7.5.24	The proposed Treasury solution should be capable enough to provide all kind of information and data for generation of LCR Summary REPORT for all products as per Bank's specified data format or through Bank's specified interface integration.		
9.7.5.25	Fx Gap report for audit, currency wise		
9.7.5.26	The system should be able to arrive net credit exposures on products by counterparty as well as country exposure should be monitored		
9.7.5.27	Category wise Return & Yield On Investment		
9.7.5.28	Daily Turnover for each parameter wise		
9.7.5.35	**Risk - Forex Reports**	N/A	N/A
9.7.5.35.1	Special Margin or Fine margin Reports to the approved or sanctioned Customer		

9.7.5.35.2	Nostro Overdraft Reports		
9.7.5.35.3	Arbitrage Operation Limits		
9.7.5.35.4	Reports on deals beyond prescribed normal trading timings		
9.7.5.35.5	Exception Reports on the Forex Limits Breaches		
9.7.5.35.6	Reports on the transaction with Non member of CCIL		
9.7.5.35.7	Calculation of Available Limit of the Forward Contract Customers (CEL-(PFE+CCE))		
9.7.5.35.8	Foreign currency Borrowing Limits		
9.7.5.36	**Risk - Domestic**	N/A	N/A
9.7.5.36.1	Duration/Modified Duration/Current Yield summary of Portfolio (Online)/ total		
9.7.5.36.2	Age-wise report in respect of HFT (to check 90 days defeasance period)		
9.7.5.36.3	Rating Migration Report on the weekly basis		
9.7.5.36.4	Rate Tolerance and Amount Tolerance Report		
9.7.5.36.5	Report on derivatives showing MTM, booked P&L, PVBP, Accrual, Notional Amount		
9.7.5.36.6	Sensitivity & scenario analysis can be done		
9.7.5.36.7	Reports Exceeding of vesting powers as per Investment Policy		
9.7.5.36.8	Held for trading Limit at end of Day		
9.7.5.36.9	A.) GOI/ State Govt Securities		
9.7.5.36.10	B.) PSUs Bonds		
9.7.5.36.11	C.) Debentures (Non PSUs)		
9.7.5.36.12	D.) MFs/Shares		
9.7.5.36.13	Deal Size Limit Reports		
9.7.5.36.14	A.) T -Bill /CMB		
9.7.5.36.15	B.) All G Secs		
9.7.5.36.16	C.) Non-SLR Bonds/ Debentures		
9.7.5.36.17	D.)For Equity		
9.7.5.36.18	E). For Mutual Funds		
9.7.5.36.19	STOP Loss Limit For HFT portfolio Fixed Income Securities		
9.7.5.36.20	A. On Long Position		
9.7.5.36.21	B.On Short Position		
9.7.5.36.22	Short sale Reports		
9.7.5.36.23	A.) Liquid Securities		
9.7.5.36.24	B.) Other Identified Securities		
9.7.5.36.25	STOP Loss Limit For Equity portfolio(HFT/AFS)		
9.7.5.36.26	Take Profit Limits for HFT and AFS on the Equity Portfolio		
9.7.5.36.27	INTRA DAY LIMIT (CAPITAL MARKET)		
9.7.5.36.28	COUNTERPARTY LIMIT		
9.7.5.36.29	Rating wise Investement ceiling in Non Slr		
9.7.5.36.30	Entity wise Exposure Limit in Non Slr		
9.7.5.36.31	D. Stess testing		
9.7.5.36.32	Rate scan Reports on Real Time basis		

9.7.5.37	**Risk - Fixing of Prudential Limits**	N/A	N/A
9.7.5.37.1	Bank's investment in unlisted non-SLR securities		
9.7.5.37.2	Bank's investment in unlisted non-SLR securities in securitization paper and reconstruction company set up under sarfaesi act		
9.7.5.37.3	Reports of Investment in Mutual fund (Equity oriented scheme in any Mutual fund)		
9.7.5.37.4	Reports of Investment in Mutual fund (100% Debt oriented scheme in any Mutual fund)		
9.7.5.37.5	Reports of Total Exposure in Mutual fund		
9.7.5.37.6	Reports of Equity(purchased from secondary market in single entity)		
9.7.5.37.7	Reports of Equity(purchased from primary market per issue basis)		
9.7.5.37.8	Exposure report on commercial paper in single entity of PSUs		
9.7.5.37.9	Exposure report on Certificate of deposit		
9.7.5.37.10	Exposure report on Venture capital fund		
9.7.5.37.11	Report of preference shares		
9.7.5.37.12	report of COMMERCIAL PAPER INVESTMENT LIMIT		
9.7.5.37.13	BROKER LIMIT REPORTED YEARLY(fixed income and equity)		
9.7.5.37.14	Report on Call Lending and Borrowing Limit (daily basis and fortnightly basis)		
9.7.5.37.15	HTM limit report as per RBI 22.00% of NDTL IN A DAY		
9.7.5.37.16	HTM sale report on daily basis		
9.7.5.37.17	Repo transaction Limit reports		
9.7.5.37.18	MSF BORROWING limit reports		
9.7.5.37.19	SDF limit reports		
9.7.5.37.20	Report On Equity Purchase From the Secondary Market in single entity		
9.7.5.37.21	Inter Bank Liability reports		
9.7.5.38	**Risk - Derivatives**	N/A	N/A
9.7.5.38.1	**Currency Futures**	N/A	N/A
9.7.5.38.1.1	Reports of counter party exposure on CURRENCY FUTURES IN A MONTH		
9.7.5.38.1.2	Margin reports on currency future transactions		
9.7.5.38.1.3	A)Report of initial margin/extreme loss margin/ calendar spread margin		
9.7.5.38.1.4	B)Daily mark to market report		
9.7.5.38.1.5	C)report margin for acting as a broker for clients and acting as clearing member		
9.7.5.38.1.6	market risk limit		
9.7.5.38.1.7	A)stop loss limit		
9.7.5.38.1.8	B)Gross notional limit		
9.7.5.38.1.9	C)capital charge Computation		
9.7.5.39	**RISK - OIS/IRS (Overnight Index Swap /Interest rate swap)**	N/A	N/A
9.7.5.39.1	**Hedging**	N/A	N/A
9.7.5.39.1.1	Report on OIS/IRS HEDGING LIMIT IN A DAY		
9.7.5.40	**RISK - Arbitrage**	N/A	N/A
9.7.5.40.1	Report on OIS/IRS ARBITRAGE LIMIT IN A DAY		
9.7.5.41	**RISK - Trading**	N/A	N/A

9.7.5.41.1	IRS TRADING LIMIT IN A DAY		
9.7.5.41.2	Market risk limit		
9.7.5.41.3	B)VaR report as well as VaR Back testing Reports		
9.7.5.41.4	C)stress testing report		
9.7.5.41.5	D)stop loss limit report for IRS/OIS		
9.7.5.41.6	f)gross position limit(bucket wise)		
9.7.5.41.7	G)net position limit(bucket wise)		
9.7.5.41.8	H)time gap limit(benchmark wise)		
9.7.6	**Regulatory Reports**		
9.7.6.1	Cash Reserves With RBI		
9.7.6.2	CRR Maintenance		
9.7.6.3	Fortnightly Average RBI Balance		
9.7.6.4	Statutory Liquidity Requirement		
9.7.6.5	Provisional data on maintenance of SLR. While calculating/computing total SLR everyday-system should take into, adjustments in the value of securities due to borrowings under LAF/MSF/MARKET REPO/TREPS. Securities placed with CCIL/ other exchanges for margin. MTM loss in AFS/HFT as per RBI guidelines.		
9.7.6.6	Off-Site Monitoring & Surveillance (OSMOS) - capable to generate report for Treasury portfolio as well as whatever data and information are required for various corporate dept, the proposed solution should be able to provide 82those data as per Bank's specified format or integrated through Bank's specified integration.		
9.7.6.7	R-Return		
9.7.6.8	Special fortnightly return for SLR purpose - capable to generate report for Treasury portfolio as well as whatever data and information are required for various corporate dept, the proposed solution should be able to provide those data as per Bank's specified format or integrated through Bank's specified integration.		
9.7.6.9	Return BSR V		
9.7.6.10	Form – VIII and CA 23		
9.7.6.11	SCHEDULE 57 and SCHEDULE 12		
9.7.6.12	Monthly reconciliation of SGL Account balances retrieved from E-Kuber with our portfolio		
9.7.6.13	Reporting for RBS Requirements for Investments		
9.7.6.14	STAT 5		
9.7.6.15	IC Report (Consolidated)		
9.7.6.16	RAQ Report; shifting of G-Sec Securities		
9.7.6.17	Cross Currency report to RBI		
9.7.6.18	Option weekly report to RBI		
9.7.6.19	DSB (All Return (DSB-I, DSB-III, ALE etc) related to Treasury portfolio as well as whatever data and information required, the proposed solution should be able to provide those data as per Bank's specified format.		
9.7.6.20	Investments in equity in the capital market by commercial banks		

9.7.6.21	Report on Capital Adequacy		
9.7.7	**Miscellaneous Report**		
9.7.7.1	Tenor wise distribution of Greeks		
9.7.7.2	Option Deal Documentation Tracker		
9.7.7.3	Acquisition Detail Report		
9.7.7.4	Proposal Report For Secondary Market (Daily Security Holdings for verification post Settlement) – (Purchase & Sale)		
9.7.7.5	Branch wise short term deposit (Outstanding)		
9.7.7.6	Maturity Profile (Call/Put)		
9.7.7.7	Interest letter to issuer		
9.7.7.8	Security List with call/put option		
9.7.7.9	Switch Report		
9.7.7.10	Key Parameters - Period-wise, Portfolio-wise, Category-wise, Security-wise		
9.7.7.11	Credit Rating Details		
9.7.7.12	Cost and Yield statements		
9.7.7.13	Position of investment portfolio should be available online clearly specifying exposure limits vis-a-vis actual maintenance		
9.7.7.14	List of un-rated and unlisted investments and illiquidity securities		
9.7.7.15	RBS Tranche Complete Data like hurdle rate data, Industry/sector Classification Data etc.		
9.7.7.16	First Information report .SLR NON SLR. Separate reports for HTM/AFS. In NON –SLR report in equity segment price, face value and number of shares. Holding cost & Market price in HFT outstanding category should be correctly averaged		
9.7.7.17	Cust Option postings		
9.7.7.18	Option Premium Report		
9.7.7.19	OPTION MATURITY REPORT		
9.7.7.20	TOTAL OPTIONS TRADING P/L		
9.7.7.21	Portfolio-wise Performance measurement report at user defined frequency or range of period		
9.7.7.22	Product specific interest rate forecasting		
9.7.7.23	Product wise/Portfolio wise Statistical analysis of past performance (Quarterly/Half yearly/Annual-at least corresponding periods)		
9.7.7.24	Statement of Term Dynamic Liquidity		
9.7.7.25	Charges statement		
9.7.7.26	Options Sales Activity Report		
9.7.7.27	Total OPTIONS SALES P&L REPORT		
9.7.7.28	TERM MONEY LEDGER		
9.7.7.30	Arbitrage Reports		
9.7.7.31	Total CLIENT REPORT		
9.7.7.32	Performance measurement – Dealer wise		
Annexure 9.8: General Technical and Functional Requirements for ITMS			
Response	**Status as per RFP**	**Please populate only**	
F	Ready availability of the functionality	**these two columns**	

C	Customization to be done	with your responses	
SNo	**System Requirement**	**Bidder Response (F/C)**	**Bidder Clarifications / Comments**
9.8	**General Technical and Functional Requirements for ITMS**	**N/A**	**N/A**
9.8.1	**Interfacing Requirement : The Bidder is required to meet all the Interface requirements as laid out in the below section. Notwithstanding any grouping that has been mentioned, the Bidder should facilitate sharing of information/data from the Treasury to the existing applications of the Bank like CBS, all internal applications and external application for treasury related operations. For any interfaces/integration requirements necessary for the functioning of the proposed application, should be factored by the Bidder. Bidder should gather all the interface requirements (as listed in Interfacing Requirements) and prepare list of interfaces to be implemented. Any suggestions from the Bank or any interface needs to be implemented during the contract period will have to be included by the Bidder. The Bidder will be responsible for developing, testing and maintaining the components/interfaces. The Bidder must ensure that all interfaces are automated with no manual intervention and facilitate Straight through Processing (STP).**	N/A	N/A
9.8.1.1	Core Banking Solution (Finacle at Present)		
9.8.1.2	Mercury FX		
9.8.1.3	Barx		
9.8.1.4	D2		
9.8.1.5	Reuters		
9.8.1.6	Bloomberg		
9.8.1.7	Platts		
9.8.1.8	Management Information system and Automated Data flow (Critical)		
9.8.1.9	SAS IRMS		
9.8.1.10	ALM & FTP System used by Bank		
9.8.1.11	SWIFT. Facility to generate & receive messages under MT & MX format as both may co-exist.		
9.8.1.12	Market pricing systems		
9.8.1.13	Cogencis		
9.8.1.14	IRMA from CRISIL		
9.8.1.15	FX-Clear		
9.8.1.16	FX-Swap		
9.8.1.17	Retail-FX		
9.8.1.18	FX-ALL		
9.8.1.19	Citi-Fx		
9.8.1.20	Barx		
9.8.1.21	Autobahn		
9.8.1.22	CCIL- TREPS		
9.8.1.23	CROMS		

9.8.1.24	ASTROID		
9.8.1.25	NDS-OM		
9.8.1.26	NDS-Call		
9.8.1.27	E-Kuber		
9.8.1.28	360T		
9.8.1.29	JP Morgan Fx		
9.8.1.30	BOLT		
9.8.1.31	Citi-Velocity		
9.8.1.32	SWIFT Nostro Reconciliation System		
9.8.1.33	MCX		
9.8.1.34	MSE		
9.8.1.35	XSTP (NSE)		
9.8.1.36	BSE (yet to live)		
9.8.1.37	Active Directory / Domain		
9.8.1.38	Business Intelligence		
9.8.1.39	Security Information and Event Management		
9.8.1.40	NSE-NOW		
9.8.1.41	All other trading platforms, not specified here, available to Bank from time-to-time as per Bank's location		
9.8.1.42	Anti Money Laundering System		
9.8.1.43	Any government / regulatory agency mandated for the Bank as per location of the Bank		
9.8.1.44	Settlement platforms applicable to Banks in India (for example, NSCCL) and any other location other than India		
9.8.1.45	NG-RTGS / NEFT through SFMS platform for India and through SWIFT platform or any other platform as per the regulatory requirement		
9.8.1.46	STP Gateway (Equity Trades)		
9.8.1.47	Merchant Transactions Platforms		
9.8.1.48	FIMMDA for valuation, FEDAI rates for Forex Valuation and SLV Valuation Methodologies (as per the latest guidelines sector wise)		
9.8.1.49	Reporting platforms like FIMMDA/ NSE/BSE, etc.		
9.8.1.50	E-Kuber for Auction & Open Market Operation (OMO) and any other activity		
9.8.1.51	All relevant clearing agencies CLS,CCIL		
9.8.1.52	Excel & Text Files (manual data)		
9.8.1.53	CCIL Report Browser		
9.8.1.54	SMS & E-Mail		
9.8.1.55	Uploading of Risk Free Rates through File based mechanism or Webservice based mechanism		
9.8.1.56	Domestic and Overseas Subsidiaries		
9.8.1.57	All Banking entities		
9.8.1.58	Capable to configure IBM MQ set up		
9.8.1.59	MEPS+, MEPS+ Nextgen Phase-1 & Phase-2 for Singapore		

9.8.1.60	Bank expects that the system provided by the vendor will provide a single front end for trading and settlement with all platforms mentioned above, except in cases where the third party platform does not permit this facility. In such cases, Bank will enter deals on third party platform, but bidder will still be expected to integrate the back end of the third party platform to the ITMS system to enable real time capture of trading and settlement information.		
9.8.2	**Application Features**	N/A	N/A
9.8.2.1	The proposed solution should support Multi-entity and multi-currency features and should have separate flow of information with role based access.		
9.8.2.2	The proposed system should support and provide Multi entity, Multi Currency balance sheet for the Bank as a whole.		
9.8.2.3	Consolidated multi entity /multi-currency position should be available from the system.		
9.8.2.4	The proposed solution should cater to the needs of Global Treasury [Domestic + Overseas Centers and GIFT City (Gujarat International Finance Tech-City)] requirements and other Statutory, and Regulatory requirements of both present and future.		
9.8.2.5	The proposed solution should have all Treasury modules including Market Risk on same technologies, database, platform. The proposed solution should have all the treasury related modules required for functioning of Treasury Front office, Mid office and Back Office requirements and meeting regulatory guidelines and settlement process in a single System. The Solution should have seamless interaction through the modules.		
9.8.2.6	Provision to introduce new products or modify the existing features of the treasury products as directed by regulators or as demanded by the business should be made available without any extra cost to bank.		
9.8.2.7	The proposed system should be flexible to cater to requirements by way of parameterization.		
9.8.2.8	Proposed system should provide for access control and user management functions.		
9.8.2.9	Seamless interaction across all its modules. Integration of downstream / upstream systems preferably through industry standard integration bus, which should be configurable through user friendly tools.		
9.8.2.10	The system should be capable of taking inputs from the dealing platforms		
9.8.2.11	It should have the facility for seamless data flow to downstream and upstream applications including CBS and all other standard reporting systems.		
9.8.2.12	Data flow between modules should be through features like seamless integrations or APIs and wherever not technically feasible then only through secure file transfer protocols.		
9.8.2.13	The proposed solution should have standard workflow tool and should be capable of defining and modifying workflow rules as per the Bank's requirement.		

9.8.2.14	The proposed solution should provide the real time collateral information from all the relevant source systems.		
9.8.2.15	The proposed solution should have Provision to introduce new products or modify the existing flavor of the products as directed by regulators or as demanded by the business.		
9.8.2.16	Solution should support and generate all industry specific standard formats i.e. SWIFT messaging formats etc.		
9.8.2.17	The solution should be capable of real time posting of accounting entries with an additional feature for manual posting, re-posting and correction/modification of entries along with audit trail		
9.8.2.18	The proposed solution should have cross reference feature to verify successful postings by way of transaction ID, UTR no., transaction no, etc.		
9.8.2.19	The solution should have provision to view (dashboard and report) real time funds position by considering latest NOSTRO balance along with current Inflow and Outflow		
9.8.2.20	Dashboards should contain graphical depictions that would reveal, for instance, number of deals and values in last three days with drill down facility up to dealer levels, Dealer wise position monitoring/dealer wise portfolio, cash-flow across various asset classes, portfolio/asset class wise holding of assets and variations week-over-week, etc. It should also contain other crucial information such as number of deals with manual interventions/ risk control breached over time, portfolio wise accrued income, income comparison, dealer performance like P/L for certain duration, etc.		
9.8.2.21	There should also be a dedicated portfolio level dashboard for showing real-time positions, risk and limits of the portfolio. Further, a dashboard should also allow a 'Group By' feature to let users view the portfolio according to currency, country, asset class, etc.		
9.8.2.22	All regulatory returns including ADF (Automatic Data Flow) reports should be available as a part of the application. The output should also be available in XBRL format or any other format as suggested by regulator. Provision to synchronize the master data with CBS for regulatory or MIS reporting should be available.		
9.8.2.23	Moving averages and ratio analysis with required KPI should be available on all crucial parameters		
9.8.2.24	The proposed solution should have the feature to synchronize the R-Returns especially the opening, closing balances and in/out flows.		
9.8.2.25	The proposed solution should have facility to send role based auto mails, SMSs and alerts and should be easily configurable.		
9.8.2.26	Update of holiday process and cash flow generation should be fully automated. This includes treatment for user modified cash flows.		
9.8.2.27	The proposed solution should have facility to integrate with Bank's base systems including Core Banking System for NPI management.		
9.8.2.28	Standard plug-ins for systems like Reuters, Bloomberg, CCIL and all trading platforms should be available.		

9.8.2.29	Should support deal capture facility for the authosed treasury desks		
9.8.2.30	Should support Indian Merchant business processes as a built-in feature. The life cycle of all Indian Merchant Forex transactions should be covered in the solution. The solution should have seamless integration capabilities with the internal and standard external systems. In similar way, it should support all other business locations of Bank.		
9.8.2.31	Standard plug-ins should be available for capturing market rate feeds and information from systems like Reuters, Bloomberg, Cogencis, etc.		
9.8.2.32	Standard plug-ins should be available for capturing market rates and information from other Regulatory agencies like RBI, FIMMDA and FEDAI etc. as per Bank's business location in India and abroad.		
9.8.2.33	Real time monitoring of Limits, Collateral and Exposure from all the connected core systems including CBS should be available in the proposed solution. Real time tools may be used to get the real time effect from core systems		
9.8.2.34	Should comply with past performance limit monitoring by simulating with source systems.		
9.8.2.35	System should be capable of monitoring all the limits at unconfirmed order levels, i.e., before the deal is settled in the system.		
9.8.2.36	System should support computation of Average Yield of various Instruments for a given period, Instrument wise Average Investment for a given period, reports for regulatory reporting viz. Short sale report, Investment Schedule, HTM sale report etc. and Option to enter value date deals for Auto Sweep Repo/MSF deals		
9.8.2.37	System must support revaluation of the entire foreign currency assets (FCA) and gold portfolio based on the rates/prices (auto-fetched from market data provider or regulatory bodies or manually entered) and computes the impact on portfolio/ balance sheets at configurable pre-defined periodicity along with daily basis.		
9.8.2.38	System should allow input of static details like haircut / margin rate, minimum transfer amount (MTA), timelines (regarding mark to market (MTM) and margin call), residual maturity accepted, pricing source, interest payments on cash margin, list of securities accepted, etc. as mentioned in a general master repurchase agreement (GMRA). It should use these details to trigger events like margin calls, check for eligible securities, valuation based on pricing source etc.		
9.8.2.39	System should also support four parts of a standard contract or master agreement developed by the International Swaps and Derivatives Association (ISDA) like credit support annex (CSA) document that defines the terms for the provision of collateral by the parties in derivatives transactions. The accounting of margin transfers on account of CSA agreement should also be considered into the framework.		
9.8.2.40	System must support functionalities like intimating process agent of GMRA agreement, defining base currency, computing gross/net exposure across counterparties, provision for settling forward repos, cancellation/rebooking/roll-over of repos, separate SSI details for repo and margin etc. should be supported.		

9.8.2.41	System should keep a check on the securities, currencies, issuers which can be accepted as margin collateral. The application should have provision for value free transfer (VFT) of securities for efficient margin management.		
9.8.2.42	System must ensure that CCIL Margin shortfall should be available on daily basis with the Gap amount		
9.8.2.43	System is expected to ensure potential margin call predictor based on interest rate movement.		
9.8.2.44	System must support Third party repo and sponsor repo.		
9.8.2.45	CIGTMS should allow users to send the calculated rate sheet to various entities. It should allow user to configure the Email id/Fax details of the entities, to which the computed rate sheets can be sent directly. Dynamic portfolio valuation for SLR/Non SLR/OIS.		
9.8.2.46	System must allow API and STP for auto generation of all deals.		
9.8.2.47	The system should be able to support simultaneous use of the system by multiple users		
9.8.2.48	The proposed solution should be able to increase or decrease processing resources as per business needs, without the necessity of re-writing code, or undertaking other major efforts		
9.8.2.49	The solution should support purely web-based/web-enabled 3-tier architecture.		
9.8.2.50	The solution should provide for Maker and Checker concept for transaction processing and authorization. Solution should also provide for a workflow to facilitate various levels of authorization. System should also have the capability to implement 6-eye or 8-eye mechanism of authorisation.		
9.8.2.51	The proposed solution should be flexible to provide for extensive parameterization.		
9.8.2.52	Proposed Solution should provide for access control and user management functions.		
9.8.2.53	Solution should support all industry specific standard format i.e. ISO 20022, ISO 8583, SWIFT messaging formats (inward/outward both).		
9.8.2.54	Solution should support approval hierarchy as defined by the Bank. All approvals should be system based.		
9.8.2.55	Solution should be capable of having workflows for the trade lifecycle, including approvals, for all instruments permissible for the Bank.		
9.8.2.56	The solution should support DR with proper replication.		
9.8.2.57	Closure of all VAPT / IS AUDIT observation within time frame stipulated by Bank without any additional cost to the Bank		
9.8.2.58	Ability to scale up the services at multiple centers in India		
9.8.2.59	The solution should come up with by default two factor authentication		
9.8.3	**Accounting and Settlement/ Reconciliation**	N/A	N/A
9.8.3.1	Seamless Integration of proposed solution with Bank's Core Banking Solution covering all Domestic, Foreign, Subsidiary branches with all necessary interfaces. The Bank in future may migrate its current CBS to Finacle 10.x Version, the seamless integration should support both 7.x and		

	10.x versions of Finacle.		
9.8.3.2	The proposed solution should have seamless connection with payment and settlement gateways and other connected systems.		
9.8.3.3	System should be capable of integrating with the Bank's Core Banking Solutions (compatible with the current and future versions, if any) to enable seamless to-and-fro transfer of data between the systems.		
9.8.3.4	The solution should be able to provide all sorts of Advanced Analytics and the result should be made available on all handheld devices also.		
9.8.3.5	System should support accounting based on primary conventions such as First in first out (FIFO), Last in first out (LIFO) and weighted average cost method.		
9.8.3.6	System should be compatible with the Standard/Latest features for systems like SWIFT, NEFT, RTGS, CCIL, CLS, Ekuber etc. and all other payment platforms according to the location of Bank's business in India and abroad.		
9.8.3.7	System should be capable of acknowledging the confirmation received from counterparties through systems like SWIFT etc. and mark the trade/deal as confirmed automatically.		
9.8.3.8	System should be able to parse various types of SWIFT messages and statements and on its basis, it should reconcile transactions, cash balances held in multiple accounts and securities kept with multiple custodians.		
9.8.3.9	System should be able to accurately compute interest on nostro balances by multiplying the relevant rates (positive, negative or zero) with the end of day (EOD) balances or other appropriate balances in the account parsed from the relevant SWIFT message. As different central banks send messages of interest/charge on different frequencies (weekly, monthly, etc.), the application should smartly reconcile them with the figures generated by it.		
9.8.4	**System Module for supporting concurrent audit (CA) functionality**	N/A	N/A
9.8.4.1	System should be designed in a manner that to the greatest extent possible, the system automatically matches and validates various transactions and only exceptions are flagged for a manual but concurrent audit. Hence, concurrent audit should largely be an automatic and a paperless process while allowing the concurrent auditor to check the deal status on a trade date. Nonetheless, there should be other standard functionalities in the application for assisting concurrent audit operations.		
9.8.4.2	The system should have a rate scan functionality that would review FIS, FX deals and other treasury products which are not done within the day's high and low rates/off-market rates. Rates should be fetched from market data providers and merchant deals should be present along with value date and timestamp.		
9.8.4.3	There should be module to tally/monitor the number of deals done on trading terminals with the deals actually flown/entered in the system.		

9.8.4.4	System should have enabling functionality/module to monitor various limits and other parameters like exposure limits, trading limits, open position limit including intraday breached, monthly/annual loss limit, Interbank Liabilities Limit, aggregate gap limit (AGL), individual gap limit (IGL), NOOP limit (on real time basis as per FEDAI w.e.f. 01.04.2019), dealer wise limit, cut loss, modified duration, residual maturity, deal size, country limits, portfolio duration, currency composition, liquidity position, FIIs limit including equity (Cut loss limit, Short Sale Position, Deal size limit, HFT Limit, Day limit, Take profit Limit, Dealer wise Limit), availability of the limit monitoring report ({CEL-(PFE+CCE)}] of customer booking of forward contract on daily basis etc. on real time basis. In the event of any breach, the application must trigger email notification to designated officials.		
9.8.4.5	System should have the capability to calculate opportunity cost. For instance, in case of swaps, net gain should be calculated keeping the opportunity cost of alternate risk-free investment as specified.		
9.8.4.6	System should facilitate CA officials to monitor deals done under overnight dealing arrangement and to check whether all the specified guidelines were followed or not.		
9.8.5	**System Module for External Asset Managers (EAM)**	N/A	N/A
9.8.5.1	Maintenance of EAM and custodians should be supported by the system. It should allow monitoring of EAMs using specified quantitative and qualitative parameters.		
9.8.5.2	Payment to and from global custodian (GC) with the generation of relevant SWIFT messages should be processed by the system.		
9.8.5.3	System should allow users to process fees, based on a defined policy and SWIFT messages/email correspondences received from EAM.		
9.8.5.4	Screen to capture (manually and via upload) net asset values (NAVs) of funds managed by EAM should be provided.		
9.8.5.5	System should have capability wherein performance of EAM can be monitored on various parameters like adherence to guidelines, comparison with benchmarks, other EAMs etc. based on reports submitted by EAMs and GC.		
9.8.5.6	System should allow processing/scrutiny of reports submitted by EAM, match transaction in CIGTMS with reports received from EAM/GC, maintain duration and currency composition, store reports sent by EAMs/GC, perform rate scan for the portfolio.		
9.8.5.7	System must allow revaluation of assets on marked to market basis.		
9.8.5.8	System should have the facility to upload and process asset-wise, currency-wise, EAM-wise asset/ liability / income and expenditure posting reported by GC.		
9.8.6	**Miscellaneous**	N/A	N/A

9.8.6.1	System should have the capability to support all the products as envisaged in Banking Regulation Act, 1949 and RBI Act, 1934 for foreign exchange reserve management, specially included in the sub-sections 17(12), 17(12A), 17(13) and 33(1) of the Reserve Bank of India Act, 1934. Even if some of the products included in the Reserve Bank of India Act, 1934 are not being used currently, the same should be available in a generic form, which would make customization easier at a later date.
9.8.6.2	In system, there should be facility of real time updation of portfolio as well as provision for creation and maintenance of tranches within the portfolio.
9.8.6.3	System should facilitate easy monitoring of various limits as defined, and in case of any breach/exceptions, there should be suitable alerts. Exception reports (Forex, Domestic, Derivatives etc.) must be available on the entire present treasury product as well as in futures any product introduce as per investment policy and derivatives policy. Exception Report should also be made available on the Booking and subsequent cancellation of Forward contract without utilization of the contract. There must also be a dashboard providing dynamic view of various limits configured by users.
9.8.6.4	System should have exception report and real-time message should be generated if any securities kept under the lien.
9.8.6.5	Reports pertaining to all the modules in user readable formats (pdf, xlsx, csv, txt, etc.) should be available in the system While there should be some standardized /canned reports, the application should also support a fully user configurable/query-based report generation system.
9.8.6.6	System should have a blotter for previewing SWIFT messages generated by it. No provision should exist to modify SWIFT message.
9.8.6.7	System capability to concurrently view deal details from deal slip generated by CIGTMS, deal ticket from trading terminal along with the counterparty confirmation as and when received.
9.8.6.8	System should be capable of generating/posting relevant accounting at pre-configured events.
9.8.6.9	Maker-Checker functionality should be supported. Whenever required another level of authorization should also be supported.
9.8.6.10	System should have a functionality to store historical performance analysis for at least 10 years for reporting purpose and also a facility to compute profit/loss on a daily, weekly, monthly, yearly or any periodicity defined by users.
9.8.6.11	A functionality to define various indices, benchmarks along with their constituents should be available in the System
9.8.6.12	Bidder should submit details regarding the comprehensive list of products supported, parameters on which what if analysis can be performed, various limits which can be monitored. Handling of failed settlements with penalties as applicable should be supported.

9.8.6.13	System should be able to incorporate the all the inward and outward payments from the MT940 and MT950 swift messages. The branches should be able to process the inward transaction picking the specific entry in the system transaction list. After processing the same should be auto reconciled. For outward transaction charges branch should be able regulatory requirements and Industry practices. Any regulatory requirements should be the part of Standard product and not to be included in the customization. To process the transaction through system for auto reconciliation.		
9.8.6.14	Initiate to create Non-Deliverable forward contract.		
9.8.6.15	Swaptions to hedge options positions on bonds, to aid in restructuring current positions, to alter a portfolio or to adjust a party's aggregate payoff profile.		
9.8.6.16	Incorporation of Forex Processing Centre and FX Retail by CCIL		
9.8.6.17	System should be able to process FX lending borrowing deals with negative interest rate along with generation of accounting entries.		
9.8.6.18	System should be able to process compression of portfolio of the outstanding positions across the segments.		
9.8.6.19	The proposed system shall support Treasury Services (forex remittances, derivatives trading etc.) to the Corporate Customers by Domestic & Overseas Centres through online facility.		
9.8.6.20	System shall be able to support the SWIFT Domestic messaging system, SWFT GPI payment system to enable the Bank to cater to internal Treasury operations as well as providing corporate customer services		
9.8.6.21	Ability to distinguish between realized and unrealized (customer wise and currency wise) gain/ loss		
9.8.6.22	The system should be able to support interest payments in advance and arrears for Interest Rate Swaps		
9.8.6.23	The system should be able to amortize financial instruments based on straight line method and effective Interest rate method for securities under HTM categories		
9.8.6.24	The system should have the ability to show changes due to exchange rate movements separate from changes in market value		
9.8.6.25	Daily report containing Resources position		
9.8.6.26	Automatic Confirmation, accounting & Reporting		
9.8.6.27	IFRS Reporting		
9.8.6.28	Valuation of contracts beyond 1 year		
9.8.6.29	Realtime Exception alerts/reports of all controlling limits		
9.8.6.30	All the regulatory/internal limits, on solo & gross basis can be fed into the system.		
9.8.6.31	Ability to generate an output of all accounting entries for a user specified period		
9.8.6.32	Deal Details-Security wise the bank require an online branch automation platform for customer FX trades		
9.8.7	**Module for processing bilateral deals/agreements**	N/A	N/A

9.8.7.1	System should have a functionality to account for receipt, restructuring and repayment of debt under any bilateral agreements.		
9.8.7.2	System should have the capability to maintain daily value of all specified currencies, monitor the same and generate alerts to pre-configured mailing list in case of change beyond a specified tolerance limit. It should allow manual rate modification.		
9.8.7.3	System should have the capability to generate reports on the Bilateral Netting of Qualified Financial Contract (Derivatives, Repo and reverse repo) and accounting thereof.		
9.8.8	**General Scope of Work in terms of Support**	N/A	N/A
9.8.8.1	End-to-end implementation support of proposed CIGTMS. The proposed solution should include Supply, Installation, Implementation, Customization, Integration, Migration, Testing, Training, tuning/optimization of proposed solution and post go-live support and Maintenance of all necessary Software, Hardware, database support and other utilities etc. at primary site, Disaster Recovery Site, Near DR site and UAT set up.		
9.8.8.2	Bidder has to study the requirements of UCO BANK to map their product offering and prepare the design document (HLD, LLD, SRS, Technical Mapping Document etc.) which will be signed off by UCO BANK's team. Provide complete documentation including logic used, empirical study done, methodology etc. as per regulatory and audit requirements.		
9.8.8.3	Post go-live onsite application support for roll out under Phase 1 shall be provided for 3 months at Mumbai Treasury Office, Singapore centre & Hongkong Centre during business hours and in case of emergency for extended hours also.		
9.8.8.4	Facility Management Support:		
9.8.8.5	Ø Bidder has to ensure Onsite Infrastructure maintenance support at primary site and DR site.		
	Ø The infrastructure maintenance support at Near DR site is required as and when required.		
	Ø Onsite helpdesk support is required to be continued for the Bank as a whole for the entire period of contract from the premises of UCO Bank, Treasury Office, Mumbai after 3 months of post go-live.		
	Ø Duties include day to day operation support, application maintenance including configuration changes, development of new components, change requests, bug fixing, patch management, upgradation, additions/ modifications in the application to cater to changes to data sources and/or new reporting requirements, setting up of environment, maintenance and monitoring of performances of each environment, instances, application & databases, DR drill, version upgrades, performance monitoring, trouble shooting and liaising with UCO Bank official for various support issues etc.		

9.8.8.6	The proposed system should support all treasury specific modules required for functioning and meeting all regulatory & statutory guidelines and settlement processes on a single platform. Provision to introduce new products or modify the existing features of the treasury products as directed by regulators or as demanded by the business should be available. Incorporate changes in the system arising on impact of amendments to regulator's direction at no additional cost and well within timeline stipulated by the regulator. Any types of regulatory compliance, solution should be provided as a part of product feature not as a part of customization feature.		
9.8.8.7	The proposed system should be flexible to cater to requirements by way of parameterization. Configure and parameterize the system for bank's legal entities, products, lines of businesses, processes, risk entities and any other dimension as applicable. Any customization, if a part of the requirements other than the functionality specified in the scope of RFP, especially when it concerns regulatory compliance, is the bidder's responsibility and required to be done at no additional cost to the bank.		

Annexure 9.9: Specifications Of the Technology Proposed by the Bidder for ITMS

Response	Status as per RFP	Please populate only these two columns with your responses	
F	Ready availability of the functionality		
C	Customization to be done		
SNo	System Requirement	Bidder Response (F/C/N)	Bidder Clarifications / Comments
9.9	**Specifications Of the Technology Proposed by the Bidder for ITMS**	**N/A**	**N/A**
9.9.1	**Back-up and Recovery**	N/A	N/A
9.9.1.1	Solution Should support online-real time replication of DC data on DRC servers. RTO = 2 Hr & RPO = 30 mins		
9.9.1.2	The solution should be compatible with all types of backup devices.		
9.9.1.3	The solution should support all backup application software		
9.9.1.4	Should support IP protocol		
9.9.1.5	Should support IP protocol		
9.9.1.6	System should support Online, Automated and manual backup modes		
9.9.1.7	System should support following Type of backup facility - Hot backup - Cold backup		
9.9.1.8	System should Allow the backup of - Whole system - Application program - Database		
9.9.1.9	System should have complete support for incremental back-up		
9.9.1.10	Average transaction response time- This is the time taken from submission of any request by end-user to response of the request to the end-user should be <30 Sec		
9.9.2	**Availability Parameters**	N/A	N/A

9.9.2.1	Should support load balancing in terms of system parameters (CPU, Hard Disk, memory, etc.)		
9.9.3	**Web Server**	N/A	N/A
9.9.3.1	The application should have the ability to support Apache, Netscape enterprise, Commerce server, Microsoft IIS, IBM websphere etc. as web servers		
9.9.3.2	The web server should have the capability of writing to multiple logs		
9.9.3.3	The web server should have the capability to support Virtual Servers		
9.9.3.4	Should support network monitoring agents like SNMP agent, etc.		
9.9.3.5	Should be able to support Integrated certificate server, SSL with 128 bit encryption mechanism or more		
9.9.3.6	Should be able to install on Windows platforms, UNIX flavors, etc (Operating systems).		
9.9.3.7	Should be hardened to disable unnecessary features and plug known security vulnerabilities		
9.9.3.8	Proposed architecture and product modules should support web browsers like Internet Explorer, Netscape Navigator, Chrome, Mozilla Firefox etc. Please also indicate the versions of different browsers best suited for the proposed architecture		
9.9.4	**Application Server**	N/A	N/A
9.9.4.1	The application should be able to support HTML, DHTML, etc. (Markup language)		
9.9.4.3	The application should support the application layer technologies like Java, C++, Netscape server application process interface, Internet server application process interface, etc.		
9.9.4.5	Support standard queuing engines (IBM MQ, MSMQ, etc.)		
9.9.4.7	The system should provide interface to standard firewalls (application proxy, stateful inspection and mix of both)		
9.9.4.9	Database Connectivity support should at a minimum be ODBC, JDBC, etc.		
9.9.4.11	Is the application RISC based		
9.9.5	**Interfacing**	N/A	N/A
9.9.5.1	The system should Seamlessly Integrate with Core Banking Solution (Finacle), bank existing Trade Finance solution and Mercury-FX solution etc. as mentioned in interfacing detail of this Annexure as well as RFP		
9.9.5.2	The Solution should interface seamlessly with individual modules and provide Straight Through Processing.		
9.9.5.3	The system should provide interface for generation of requisite data from database to other Applications/Processes (ASCII fixed length /delimited variable length record format, csv format ,excel format, xml format etc.) for other processes		
9.9.5.4	Provide support to latest ISO standards, XML, WAP, SMS, etc. standard messaging protocols for interfacing.		
9.9.5.5	The system should have the ability to rollback a transaction to a particular stage and restart, if required.		
9.9.5.6	Ability to integrate to support online , real time & batch operations		

9.9.5.7	Integrator's support for scheduling and defining of Jobs		
9.9.5.8	Application should handle automatic switchover in cluster environment		
9.9.6	**Data Management**	N/A	N/A
9.9.6.1	During exchange of information, the application should support Encryption of data.		
9.9.6.2	Remote Access: System should provide Security check while logging in, via: - User-id and password - Hardware device (smart card etc.) - Biometrics		
9.9.6.3	System should provide for the following facility on the user-id and password Creation: - Modification - Soft de-activate (marked for delete but not removed from the system) - Deactivate (de-activate in the system)		
9.9.6.4	The system should have flat file import/export functionality to export transaction data and static data in the following formats: - Microsoft Excel Format (.XLS/.XLSX) - Microsoft Word Format (.DOC/.DOCX) - Comma separated values (.CSV) - Text file (.TXT), PDF, XML etc		
9.9.6.5	Offered Storage array shall be able to support 3 Data center solution natively where Primary site shall be able to replicate synchronously to near-by / Bunker location and at the same time shall be able to replicate to Far location asynchronously.		
9.9.7	**Reports**	N/A	N/A
9.9.7.1	Flexible Report Builder for generating simple reports. The system should have a report writing wizard that provides users with step by step menus and allows them to draw up simple reports		
9.9.7.2	Drilling up/down of reports on the screen should be available.		
9.9.7.3	The system should allow users to print reports directly form the system. Option should be available to print reports in A4/Legal/A3 page using Inkjet/ Laser Printer. The default mode for printing of reports (bulk/volume) should be High Speed DMP/LMP		
9.9.7.4	Provision should be available for generating & printing any previous day's report i.e. backdated reports.		
9.9.7.5	Capability to format reports as Word, Excel, HTML,PDF or Acrobat files		
9.9.7.6	Ability to generate automatic reports and scheduling of reports		
9.9.7.7	Ability to automatically email reports to a mailing list, which is configured in the system.		
9.9.7.8	Ability to configure mailing lists for reports and warnings such as limit breaches, approaching breaches, security issues, etc.		
9.9.7.9	Generate reports using various fields as sorting-keys to sort in ascending and descending order		
9.9.7.10	Users have the option such as but not limited to – online viewing, hard copy generation, file creation etc.		

9.9.7.11	System should have the ability to process multiple reports concurrently.		
9.9.7.12	Ability to rapidly generate ad-hoc reports with an easy to use report writing Tool / wizard		
9.9.7.13	The system should have easy report writing facility (Report Writing Tool/Wizard), in the user defined format for generating MIS statements and other adhoc reports .For Internal adhoc MIS and reporting, Officers in the treasury branch should be trained to generate Simple reports.		
9.9.7.14	All exception reports (GBP - Global Business Position Report) to be generated at the EoD and at any time for any day end report as and when required.		
9.9.7.15	The system should be able to generate customized reports based on all available data at user level		
9.9.7.16	The system should allow reports to be exported into Microsoft Excel, Word, CSV, PDF, XML, XBRL, text format or any industry specific standard format		
9.9.7.17	The system should be able to provide context sensitive help to guide users		
9.9.7.18	The system should allow users to present outputs in the form of graphs, charts and other graphic representation		
9.9.7.19	The system should allow for sorting of data on trader workstation		
9.9.7.20	The system should have the ability to isolate and report errors and exceptions		
9.9.7.21	Ability to generate an output of all accounting entries for a user specified period		
9.9.7.22	Frequency of reports can be: Daily, Weekly, Fortnightly, Monthly, Quarterly, Half Yearly, Annual, For any given period		
9.9.7.23	The system should allow for generation of reports on real time basis		
9.9.7.24	Pre-defined reports should be generated with a minimum of user interference and should be available in user specified location. The generation should be as per the scheduled job/task defined by the user themselves		
9.9.7.25	The system should archive historical rates extracted from market information systems and should also allow for archiving of historical reports		
9.9.7.26	System must provide tools for reconciliation of data imported/exported from external systems		
9.9.7.27	Facility to download data from Integrated Treasury Package to Excel Form.		
9.9.7.28	Revaluation of FCNR /RFC should be calculated by the system and entries should also be passed by the system.		
9.9.7.29	All statutory and Regulatory reports need to be generated by the system which are related to Treasury and Risk		
9.9.8	**Audit Trail**	N/A	N/A
9.9.8.1	The proposed solution should maintain history of all additions, modifications, deletions and parameter changes etc. as Audit Trails.		

9.9.8.2	The proposed solution should provide audit reports and Tools for the Bank's internal/concurrent/statutory/SEBI/CCIL/IDRBT/RBI audit/Inspections etc.		
9.9.8.3	Date, time and user-stamped transaction list are generated for different transactions		
9.9.8.4	Transaction screens display system information including Processing Date, Current Time, Current User		
9.9.8.5	Daily activity reports are provided to highlight all the transactions being processed during the day		
9.9.8.6	Support for recording of Unsuccessful attempts to log-in to the system		
9.9.8.7	System to provide session log files. The user should be able to analyse the information (e.g., account id, session time etc.)		
9.9.8.8	System should provide tracking of the client's IP & Network Interface address		
9.9.8.9	The application should facilitate definition of user-defined log files for tracking sessions		
9.9.8.10	Daily activity reports are provided to highlight all the transactions being processed during the day		
9.9.8.11	Unsuccessful attempts to login to the system should be recorded		
9.9.8.12	Daily activities logs are merged into the history log files		
9.9.8.13	All actions and activities performed within the system should have a full audit trail		
9.9.8.14	There should also be proper audit trail of addition, deletion, modification, activation, deactivation etc. of users and their system rights.		
9.9.8.15	In addition there should also be proper audit trail of addition, deletion, modification, at the record level showing the changes, users, date and time stamp		

9.9.8.16	The system should have the ability to generate a detailed audit trail on a daily basis for the following minimum features for all the functionalities available in the product and customization solution a. Attempted unauthorized logins b. Time of login and logout c. Change of passwords d. Change of parameters e. The audit trail should be at a granular level, and track the user across each activity f. All transactions should be time stamped with user ID along with details of modification, if any. g. Details of databases accessed and modified by the users should be maintained by the system. h. The system should have the ability to store and track all system events, including corrections and cancellations by multiple criteria. i. The system should maintain an error log in case of missing and/or erroneous data. j. The system should maintain an error log in case of missing and/or erroneous data. k. Able to generate statement & reports on audit trail & logs as mentioned above		
9.9.9	**Network Capability and Access of Data**	N/A	N/A
9.9.9.1	Should be able to work on current network architecture of the Bank.		
9.9.9.2	Link from Excel & Other Applications		
9.9.9.3	Export of Reports & Inquiries into different formats like Word, Excel, PDF, Text & CSV etc.		
9.9.9.4	System should have capability to support various searching options viz., Full-text, keyword, wildcard, user defined ranges, query by SOL operators (=, <, >, null, not null, etc.), multiple conditional queries, etc.		
9.9.10	**Security**	N/A	N/A
9.9.10.1	System should support facility for operational security and to be able to restrict access through password at: - System level - Application level - Function level		
9.9.10.2	Proposed system should support: - Database level security - Application – Role based authorization (RBA) level security - Module level security - Field level security - User level security		
9.9.10.3	System should have capability to define any number of roles and flexibility to modify these roles.		
9.9.10.4	System should have ability to define security customers system administrators.		
9.9.10.5	The proposed application should provide complete logging and audit trails of activities performed by users.		

9.9.10.6	Security feature on the proposed system should be Encryption aware SSL aware , IPSEC		
9.9.10.7	System should have the ability to configure different users (employees, trainers, managers, admin, etc) at different levels of security based upon their job role		

Annexure 9.10: Specifications Of the Backup and Tape library

Response	Status as per RFP	Please populate only these two columns with your responses	
F	Ready availability of the functionality		
C	Customization to be done		
SNo	System Requirement	Bidder Response (F/N)	Bidder Clarifications / Comments
	Specifications Of the Tape Library and backup	**N/A**	**N/A**
1	The Offered Automated tape Library should be supplied with minimum 4x latest generation of LTO FC Tape drives and further scalable to 16 x latest generation LTO FC Tape Drives.		
2	The proposed backup software should be modular in architecture, allowing for components to be added and removed without requiring the backup system to be shutdown.		
3	The software should have web based Graphical User Interface (GUI) / Java so that all backup servers can be managed centrally, regardless of location.		
4	All backup/restore administration must be controlled by a centralized master system		
5	The master system must support Operating systems: Windows/ Linux/ Unix etc.		
6	Master system must maintain a database for all backup/restore metadata		
7	Easy to reconstruct against in the unlikely event of corruption.		
8	Easily protected with an integrated backup and recovery plugin for the database		
9	The software must provide flexibility to backup to different media. These include disk-to-tape, disk-to-disk and interoperability.	N/A	N/A
10	The proposed backup solution must be able to support raw device backup – on Windows, various Linux versions and Unix (IBM AIX, Sun Solaris, HP UX etc.)		
11	The proposed backup solution must be able to support consolidated (synthetic) backup – for file system data on all platforms.		
12	The proposed backup solution must have user level access control list security function. Each user has different permissions and privileges on the system.		
13	The proposed backup solution must be able to encrypt backup data at source and store with 128-bit or higher encryption.	N/A	N/A
14	Supported client systems include: Windows, Linux, CentOS, Solaris etc.		

15	Ability to configure automated backups for specific days and weeks within a month, while maintaining a simplified methodology for complex date scenarios.		
16	Software should have following reporting capabilities:		
17	a. Full job completion report. Overview of the full backup jobs that were successful, partially successful and failed for each day		
18	b. Full backup data volume report. Overview of the total data volumes that were backed up for each day		
19	c. Average tape utilization report. Listing of the average amount of data stored on each media		
20	Software should meet the following Media Management capabilities:		
21	a. Allow tape library sharing among master/media servers		
22	b. Allow individual tape drive sharing among media servers and allow for reconfiguration without rebooting media servers		
23	The software inbuilt reporting tool must have the ability to create customize reports without any additional purchase of another reporting module or 3rd party reporting module		
24	Tape media scanning should be quick and easy to perform to rebuild a lost index or reimport a tape with older backup data.		
25	The software must have the ability to provide disaster recovery of Window and Linux operating systems by use of a bare metal recovery technology.		
26	Must support storage protocols such as NDMP (version 3 & above). Capable of providing Check –Point Restart able Backup and Restore feature.		
27	Must support online backup of virtual machines on both VMware & Hyper-V plate forms.		
28	The software should support 32 bits and 64 bits operating systems, data bases and applications		
29	The backup software should support Image level backup of the Virtual machine(s)		
30	The backup software should allow single / granular file recovery of data from the image level backup		
31	The Backup software should include / add on licenses for Enterprise wide reporting from a single dashboard.		
32	The backup licenses should be capacity based/ Host based for the proposed solution for DC for the contract duration		
33	The Offered Tape Library must be with Minimum 3 Slots all activated and ready to use & further Scalable to 5 slots as and when required.		
34	The Tape Library must be Offered latest generation of LTO drive in the Library shall conform to the Continuous and Data rate matching technique for higher reliability.		
35	Offered latest generation of LTO drive shall support 300 MB/sec in Native mode and 750 MB/sec in 2.5:1 Compressed mode.		
36	The offered Tape Library must be offered with Redundant Power supply		
37	The Offered Tape Library shall provide 8Gbps native FC connectivity to SAN switches.		

38	Offered Tape Library must have partitioning support so that each drive can be configured in a separate partition. The Partitioning License should be provided along with the Library.		
39	Bidder must Supply 200 Blank- New Data cartridges & 2 Cleaning Cartridges with barcode labels.		
40	Tape Library shall provide web based remote management.		
41	The offered tape library must have a high reliability i.e. MSBF (Mean Swap Between Failures) greater than 2,000,000 cycles		
42	The offered tape Library must support encryption. The overall solution offered with the Tape Library should provide either AME or LME encryption key management. The necessary License required must be provided by the System integrator, to keep the Encrypted keys safe and secured		
43	Tape library shall support Barcode reader and min 3 mail slots- to deliver easy, secure access to individual tape		
44	cartridges without interrupting library operations.		
45	Tape Library shall have GUI Panel. Shall be rack (max 3.5KVA load per rack) mountable. The Tape library must Set alerts with respect to Tape library software and hardware		
46	Tape drive sharing must support both iSCSI and FC based connections.		

Annexure 9.11: Specifications Of the Market Risk & User defined customization

Response	Status as per RFP	Please populate only these two columns with your responses	
F	Ready availability of the functionality		
C	Customization to be done		
SNo	**System Requirement**	**Bidder Response (F/C)**	**Bidder Clarifications / Comments**
9.11.1	**IND AS/IFRS9**	N/A	N/A
9.11.1.1	Classification of Instruments as per Ind AS		
9.11.1.2	Identification of deal – wise, instrument – wise, category-wise and country - wise transaction costs		
9.11.1.3	Capturing of security – wise cash flows (including premium on redemption of securities)		
9.11.1.4	Calculation of Effective Interest Rate (EIR) - input for EIR calculation such as Cash flows of the securities, transaction costs etc. shall be required to be captured in Treasury Software		
9.11.1.5	Bifurcation of Treasury and Forex profit into Ind AS Classification		
9.11.1.6	Details of securities available for the instruments (secured / unsecured)		
9.11.1.7	Convertibility of Instrument/ Call or Put Option		
9.11.1.8	Provisioning for Original Rating, current reporting date rating and historical changes for at least the past 5 ratings for Instrument (Rating Movement: External and Internal Rating)		
9.11.1.9	Day past due (DPD) status of fixed income instrument		
9.11.1.10	Term sheet of instrument (soft copy/scanned copy) as an attachment		
9.11.1.11	Interest accrued detail instrument wise		

9.11.1.12	Fair value of Instrument along with Level of fair valuation wherever applicable		
9.11.1.13	Should have capability to provide all inputs for calculation of Expected Credit Loss (ECL) for Treasury Portfolio		
9.11.2	**User Defined Fields and Features**	N/A	N/A
9.11.2.1	**India Treasury**	N/A	N/A
9.11.2.1.1	**Foreign currency asset and liabilities portfolio**	N/A	N/A
9.11.2.1.1.1	Granular portfolio details (Account ledger replication) for Forex assets (like PCFC, FCTL, PSFC) and liability (like FCNR, EEFC, RFC, RFCTD) can be removed, if the proposed solution fetches and provides the GL level data of CBS for each Forex items along with accrued interest in all currency separately on daily basis . Such data is required for correct computation of Foreign exchange position in each currency. The system should have provision of DUAL currencies in which bank can maintain the base currency equivalent to all foreign currencies possessions, balances, transactions. However, such information is required for Foreign bill Module and Merchant forward contract with granular parameters and that should be part of the proposed Treasury solution.		
9.11.2.1.1.2	FC Borrowing and FC Lending initiated in Treasury system are required to be synchronized in CBS on real-time basis. This requirement is of Treasury lending and borrowing between financial institutions which is required to be accounted in CBS through STP.		
9.11.2.1.1.3	Granular portfolio details (Account ledger replication) for Forex assets (like PCFC, FCTL, PSFC) and liability (like FCNR, EEFC, RFC, RFCTD) can be removed, if the proposed solution fetches and provides the GL level data of CBS for each Forex items along with accrued interest in all currency separately on daily basis . Such data is required for correct computation of Foreign exchange position in each currency. The system should have provision of DUAL currencies in which bank can maintain the base currency equivalent to all foreign currencies possessions, balances, transactions. However, such information is required for Foreign bill Module and Merchant forward contract with granular parameters and that should be part of the proposed Treasury solution		
9.11.2.1.1.4	Facility for opening of Customer id shall be available in the proposed Treasury applications after complying with all KYC/e-KYC norms. For all kind of treasury related transactions the customer id of the related party/counter-party details should be fetched from the CBS system as the same would be required for special Fx margin maintenance, customer exposure, Request for Quote integration and Fx transaction turnover computation.		
9.11.2.1.1.5	Country wise/ currency wise/ Bank wise/ customer specific limit maintenance and monitoring of the same at Treasury system through STP mechanism which shall be in sync with CBS		
9.11.2.1.1.6	Capability of supporting negative interest rate		

9.11.2.1.1.7	There should be an interest register for PSFC loan for making Interest MOC in every quarter. There should be option for open PSFC in more than one notional rate at one time. There should be an extra column in Outstanding Purchase Suspense/PSFC & PCFC report showing extended due date of bill and separately original due date of bill. GL Handshake of accrued interest and normal interest booking to be done in each currency in treasury solution as and when same is posted in CBS.		
9.11.2.1.1.8	Capability of foreign exchange position handshake between two system for various Fx GL.		
9.11.2.1.2	**Inward forex Transaction**	N/A	N/A
9.11.2.1.2.1	Currently Branches manually monitors the Swift messages and once the inward forex transaction message is received , the branch initiates the transaction in CBS. They debit the treasury adjustment account of respective currency and credits the customer. Meanwhile they send a message to treasury software for debit of Mirror for reimbursement. On receipt of this message the treasury software generates STP accounting on real-time basis for mirror Accounting in CBS. Thus it debits the mirror to reimburse the branch intersol parking account . Thus both the currency position in treasury software and account balance in CBS is in Sync. It is desired that manual intervention at the branch for inward processing be removed by STP. (Proper STP workflow of fx rate booking and utilisation required between the CBS (where the fx assets and liability and accounting is managed) and treasury system . Once rate is booked, TMS should receive foreign exchange position updates so that treasury can monitor the FX position of the bank)		
9.11.2.1.2.3	Inward transaction include Foreign Documentary Bills Under Collection, Foreign Clean Bills Under Collection, Foreign Usance Bills Under Collection, Foreign TT Remittance, Foreign Cheque Collection, utilization of forward contract with swap.		
9.11.2.1.3	**Outward forex Transaction**	N/A	N/A
9.11.2.1.3.1	Currently the Branch initiates the outward transaction at the instance of the customer thereby debiting the customer account and releasing the SWIFT message to Correspondent Bank. Along with this a message is relayed by CBS to treasury software for accounting of outward swift in treasury software. Treasury software creates the accounting entry for credit of Mirror Account by debiting suspense account. The Branch credits the proceeds to treasury intersol parking account for offsetting the suspense entry. (Proper STP workflow of fx rate booking and utilisation required between the CBS (where the fx assets and liability and accounting is managed) and treasury system . Once rate is booked, treasury solution should receive foreign exchange position updates so that treasury can monitor the FX position of the bank)		
9.11.2.1.3.2	Foreign Outward Remittance includes Foreign Import Bill under Collection, Payment under LC, Foreign Telegraphic Transfers, Foreign Cheque issuance, Foreign Demand Drafts, Foreign Travelers Cheque and any other inward/ outward remittance like FCNR, EEFC, RFC		
9.11.2.1.4	**Trade finance bills transaction**	N/A	N/A

9.11.2.1.4.1	For early realization of bills, the system should invoke the Rate quote module/Chat for incorporating Swap points and spot rate. The same logic is also to be used while cancellation/early utilization of Forward Contract. This shall eliminate the manual EDC recovery which is presently done		
9.11.2.1.4.2	System Driven- Early/Late realization charges (swap cost) Collection module. System Driven- Merchant Forward Contract cancellation charges collection as per the exchange rate given by the dealer		
9.11.2.1.4.3	Provision of feeding of NTP in export bills with report showing due date .		
9.11.2.1.5	**These Customization needs to be done for below mentioned instruments**	N/A	N/A
9.11.2.1.5.1	Foreign Bills Purchase Clean Bills Foreign Bills Purchase, Usance Bills Foreign Bills Purchase, Sight Bills Foreign Bills negotiated. Foreign Usance Documentary Bills Discounted Merchant Trade Bills: Export/Import Crystallization of Export Bills Deemed Export Bills Diamond Dollar account Export Bill Rediscounted Packing Credit Foreign Currency Loans and Crystallization of PCFC/PSFC bills due date FC Bonds Any other future requirement similar to the above		
9.11.2.1.6	**Multicurrency GL**	N/A	N/A
9.11.2.1.6.1	50 paise in INR in CCIL gets converted in lower rupee instead on higher rupee		
9.11.2.1.6.2	Forward contracts getting overdue gets generated on the same day, Forward contract due between two given dates should get generated.		
9.11.2.1.6.3	Transfer entry of misc transactions should not be modified and verified by the same user		
9.11.2.1.6.4	Gain or loss on delivery of FCY by customer should be the calculated on the rate prevailing at the time the currency is delivered (and not on EoD or average day rate, for example). Rate is to be provided by dealing room as per prevailing market rates.		
9.11.2.2	**Hong Kong Treasury**	N/A	N/A
9.11.2.2.1	Foreign Inward & Outward Remittance: Hongkong centre requires a rate chat module , wherein the branch user can take the rates from treasury and once the rate is booked and accepted by the treasury , the same should flow to the CBS for utilization in the actual transaction controlled in CBS. Once rate is booked, updated positions will be interfaced to the proposed treasury solution. The CBS system that initiated the trade will continue to manage the customer account, compute interest, payment and accounting updates for the customer facing side of the trade. In case of Forward Contract , Booking utilization and outstanding position of forward contract to be maintained in Treasury Software.		

9.11.2.2.2	Account & customer details should be opened automatically by fetching data from CBS and vice versa facility should also be available. When a Branch user is taking rates on behalf of a customers in the rate chat module of Treasury software, such rates booked and accepted by Treasury has to be controlled in the name of respective customer. As such instead of creating separate customer profile in Treasury Module, the system should be integrated with CBS and should be able to fetch the customer details for controlling of rates, limits, exposures or transactions entered in Treasury Module on behalf of the customer.		
9.11.2.2.3	FCL - Foreign Currency Loan with monthly interest will be booked as a mirror to TMS along with resetting of interest rate in line with CBS system. However, FC borrowing and lending with interbank counterparties initiated in the dealing room for liquidity management will be noted in the TMS		
9.11.2.2.4	FC Borrowings (inter bank borrowings) along with accrual of interest including negative interest thereon should be controlled in the Treasury Software. However, FC borrowing and lending with interbank counterparties initiated in the dealing room for liquidity management will be noted in the TMS.		
9.11.2.2.5	Contract cancellation and exchange difference payable /receivable		
9.11.2.2.6	Multicurrency GL		
9.11.2.2.7	Forward contracts getting overdue gets generated on the same day, Forward contract due between two given dates should get generated.		
9.11.2.2.8	Interest Accrued, Booked & Paid amount should be fetched from CBS as mirror by Treasury system and same should be validated with CBS by providing report with details. Deposits other than HKD is Foreign Currency. Inter Bank Lending and Borrowing need to be controlled in Treasury Software.		
9.11.2.2.9	**These Customization needs to be done for below mentioned instruments**	N/A	N/A
9.11.2.2.9.1	Foreign Bills Purchase Clean Bills Foreign Bills Purchase, Usance Bills Foreign Bills Purchase, Sight Bills Foreign Bills negotiated. Foreign Usance Documentary Bills Discounted Merchant Trade Bills: Export/Import Crystallization of Export Bills Deemed Export Bills Diamond Dollar account Export Bill Rediscounted Invoice Financing Foreign Currency Loans and FC Bonds Any other future requirement similar to the above		
9.11.2.3	**Singapore Treasury**	N/A	N/A

9.11.2.3.1	Foreign Inward & Outward Remittance: Singapore centre requires a rate chat module , wherein the branch user can take the rates from treasury and once the rate is booked and accepted by the treasury , the same should flow to the CBS for utilisation in the actual transaction controlled in CBS. Once rate is booked, updated positions will be interfaced to the proposed treasury solution. The CBS system that initiated the trade will continue to manage the customer account, compute interest, payment and accounting updates for the customer facing side of the trade. In case of Forward Contract , Booking utilisation and outstanding position of forward contract to be maintained in Treasury Software.		
9.11.2.3.2	Deposits other than SGD in Foreign Currency. Inter Bank Lending and Borrowing need to be controlled in Treasury Software.		
9.11.2.3.3	Account & customer details should be opened automatically by fetching data from CBS and vice versa facility should also be available. When a Branch user is taking rates on behalf of a customers in the rate chat module of Treasury software, such rates booked and accepted by Treasury has to be controlled in the name of respective customer. As such instead of creating separate customer profile in Treasury Module, the system should be integrated with CBS and should be able to fetch the customer details for controlling of rates, limits, exposures or transactions entered in Treasury Module on behalf of the customer.		
9.11.2.3.4	Interest Accrued, Booked & Paid amount should be fetched from CBS as mirror by Treasury system and same should be validated with CBS by providing report with details.		
9.11.2.3.5	FCL - Foreign Currency Loan with monthly interest will be booked as a mirror to TMS along with resetting of interest rate in line with CBS system. However, FC borrowing and lending with interbank counterparties initiated in the dealing room for liquidity management will be noted in the TMS		
9.11.2.3.6	FC Borrowings (inter bank borrowings) along with accrual of interest including negative interest thereon should be controlled in the Treasury Software. However, FC borrowing and lending with interbank counterparties initiated in the dealing room for liquidity management will be noted in the TMS.		
9.11.2.3.7	Contract cancellation and exchange difference payable /receivable		
9.11.2.3.8	Multicurrency GL		
9.11.2.3.9	Forward contracts getting overdue gets generated on the same day, Forward contract due between two given dates should get generated.		
9.11.2.3.10	**These Customization needs to be done for below mentioned instruments**	N/A	N/A
9.11.2.3.10.1	Foreign Bills Purchase(Usance and Sight) Sight Bills Foreign Bills negotiated. Foreign Usance Documentary Bills Invoice Financing/Trust Receipt Financing. Syndication Loans, Term Loan.		
9.11.3	**Market Risk**	N/A	N/A
9.11.3.1	System should have capability to publish all the regulatory reports pertaining to TMO/Market risk functions.		

9.11.3.2	Risk Based Supervision –All the data points (DCTs) pertaining to derivative exposure, VaR, Beta, PV01, Option delta, gamma, vega, Horizontal and vertical disallowance, Zone wise Net PV01of trading book etc. should be system generated.		
9.11.3.3	The proposed Treasury solution should be capable enough to provide all kind of information and data for generation of Structural Liquidity Report as per Bank's specified data format or through Bank's specified interface integration. (Based on residual maturity for fixed/floating instruments and defeasance period wise for HFT portfolio to be generate along with other assets & liabilities components into RBI prescribed 10 buckets with a provision for splitting any bucket)		
9.11.3.4	The proposed Treasury solution should be capable enough to provide all kind of information and data for generation of Interest Rate Sensitive Report as per Bank's specified data format or through Bank's specified interface integration. (All investment segment wise/asset class wise are to be bucketed as per re-pricing (floating) or due date (fixed) for rate sensitive assets/liabilities and others would be placed under non-sensitive bucket as per extant RBI guidelines.)		
9.11.3.5	Duration Related Measures: Report on bucket wise (as per STL) investments/assets with weighted average Duration/M-Duration of such securities/assets for each buckets & consolidated portfolio as a whole		
9.11.3.6	Fx Limit (Overnight)/IGL/AGL portfolio wise: Actual utilization of various limits on a daily basis has to be captured & average utilization report on monthly/quarterly/annual basis with minimum & maximum utilization slabs.		
9.11.3.7	Capital Charge & Credit Risk computation on HTM Portfolio (On Balance Sheet items) & on market related off balance sheet items (FX, derivatives, gold etc.) Capital charge computation of AFS and HFT securities (SLR+ NON SLR) AND capital charge computation on Off balance sheet itms as per RBI Guidelines		
9.11.3.8	CAPITAL CHARGE for credit risk related to investments under Basel III		
9.11.3.9	CAPITAL CHARGE for market risk under Basel III		
9.11.3.10	CAPITAL CHARGE for market risk under IMA		
9.11.3.11	Capital charge calculation to be supported for current and future regulatory compliance for the duration of the contract under all regulators applicable to the Bank.		
9.11.3.12	Duration & PV01		
9.11.3.13	Convexity		
9.11.3.14	Scenario / Sensitivity Analysis		
9.11.3.15	Scenario / Sensitivity Analysis With correlation shifts		
9.11.3.16	Scenario / Sensitivity Analysis With parallel shift in yield curve, currencies and market prices		
9.11.3.17	Scenario / Sensitivity Analysis With non-parallel shift in yield curve, currencies and market prices		
9.11.3.18	The system shall allow users to print reports & results from analytical tools		
9.11.3.19	Fundamental review of the trading Book (FRTB) with existing/revised FRTB-SA/FRTB-IMA		

9.11.3.20	The system shall provide a means for users to readily view the formula that was followed to arrive at the metrics that are computed and displayed on the reports and analytical tools.		
9.11.3.21	Facility for a user configurable Dashboard for Risk Manager		
9.11.3.22	Duration Gap Analysis (for each asset and liability)		
9.11.3.23	Online Real time monitoring of stop loss/trailing stop limits in forex, equities, bonds etc. & online monitoring of stop loss/ profitability/yield of MMKT swaps with cost of funds and int earnings being put in manually		
9.11.3.24	Real-Time trading book monitoring/analysis		
9.11.3.25	Real-Time portfolio analysis – currency pair-wise trading profit and loss.		
9.11.3.26	Real-Time breaching of exposure on consolidated basis/segment-wise		
9.11.3.27	Exposure monitoring Bank wise for overseas Branches		
9.11.3.28	Provision should be there for calculating Exposure monitoring on Country wise for all overseas Branches		
9.11.3.29	Daily Forex gap position and overnight open exchange position		
9.11.3.30	Facility to view the simulation numbers generated by system from front end based on Historical Simulation method		
9.11.3.31	Back Testing as per current and FRTB norms		
9.11.3.32	Back Testing using Dynamic with Moving Method		
9.11.3.33	Back Testing using Basel, Actual Method		
9.11.3.34	Facility to view exceptions in back testing		
9.11.3.35	Kupiec Test and identification of zones as per BASEL II/III for Internal Model Hypothetical Testing – Identification of Correction Factor		
9.11.3.36	Daily HFT & AFS valuation reports along with all the risk parameters and limits		
9.11.3.37	Category-wise detailed Valuation Report with Summary Valuation Report		
9.11.3.38	Report on equity Portfolio Dividend Yield		
9.11.3.39	Report giving average cost of market borrowing for Treasury & yield on money market lending		
9.11.3.40	Report of outstanding money market swaps/profitability/yield taking manually input cost of funds on daily basis		
9.11.3.41	Report of cost of carrying money market swaps with options to input cost of funds on daily basis.		
9.11.3.42	Treasury average cost/yield based net-wise and profit analysis in the format provided by the bank		
9.11.3.43	Unrealized gains/loss in SLR/Non-SLR securities and equities. [This requires computation of MTM of various bonds]		
9.11.3.44	Defeasance period for HFT & AFS portfolio		
9.11.3.45	Peak & Average values of VaR, NOOP, AGL,IGL, PV01 as required per RBS data on periodic basis		
9.11.3.46	Merged VaR / Marginal VaR / Stressed VaR for the entire portfolio		
9.11.3.47	IC6 :IC 6 Report which provides currency wise maturity GAP data for each month/buckets		
9.11.3.48	NOP-INR: It will contain NOP-INR values as required per RBI guidelines		

9.11.3.49	Stress testing/Back Testing results on all asset classes as per latest RBI guidelines		
9.11.3.50	Interest Rate resilience report (both for domestic & forex portfolio) which includes bucket wise position of assets & liabilities, weighted (wtd) coupon, wtd m-duration as per RBI guidelines Data including coupon & yield on all instruments is required for preparation of Interest Rate sensitivity statement for Foreign Currency (Domestic Operations & Overseas operations) for preparation of SIR statement.		
9.11.3.51	Ability to support Credit Support Annex(CSA). Bank expects the ITMS solution to provide this information, as relates to the Treasury Portfolio		
9.11.3.52	Ability to handle Collateralization and Margining. Bank expects the ITMS solution to provide this information, as relates to the Treasury Portfolio		
9.11.3.53	Disclosure report quarterly statement containing bucket wise assets & liabilities as per RBI guidelines		
9.11.3.54	Potential future exposure (PFE), expected positive exposure (EPE), Maximum peak exposure (MPE), Effective expected positive exposure (EEPE). Bank expects the ITMS solution to provide this information, as relates to the Treasury Portfolio		
9.11.3.55	Basel III capital charge & Incremental Risk Charge (IRC) as per RBI guidelines for capital charge computation. Bank expects the ITMS solution to provide this information, as relates to the Treasury Portfolio		
9.11.3.56	CVA/Advanced CVA as per RBI guidelines for capital charge computation. Bank expects the ITMS solution to provide this information, as relates to the Treasury Portfolio		
9.11.3.57	Horizontal & vertical disallowance as per RBI guidelines for capital charge computation of market risk. Bank expects the ITMS solution to provide this information, as relates to the Treasury Portfolio		
9.11.3.58	System should support Future regulatory regulations such as FRTB & BCBS 239 etc. Bank expects the ITMS solution to provide this information, as relates to the Treasury Portfolio		
9.11.3.59	System should support the transition of the benchmarking from LIBOR based rates to other alternative rates and should be able to create curves based on standalone index rates.		
9.11.4	**BASEL III Capital Regulation**	N/A	N/A
9.11.4.1	Bilateral Netting of Counterparty exposure as well as bilateral netting of MTM values arising on account of derivative contracts		
9.11.4.2	Bilateral Netting of a group of transaction with a single counter party in terms of recognition for regulatory capital purpose		
9.11.4.3	System should be able to do sum of EADs (Exposure amount default) across all netting set with the counter party and credit valuation adjustment (CVA) for that counterparty, which has already been recognized by the bank as an incurred write-down (i.e. CVA loss)		
9.11.4.4	System should be able to inclusion of transactions of different product categories within the same netting set.		

9.11.4.5	System should be enable to treat the outstanding contract with effective bilateral netting and replacement cost will be replaced with Net Replacement Cost and any adjustment for add on also to be netted		
9.11.4.6	System should be able to calculate the mismatch between the collateral currency and settlement currency in terms of applying hair cut for currency risk		
9.11.4.7	The proposed Treasury solution should be capable enough to provide all kind of information and data in such a way so that System should be able to inculcate any change in procedure for Basel III Leverage ratio on account of applying cross product netting agreement, performing netting separately in each product category as per Bank's specified data format or through Bank's specified interface integration.		
9.11.4.8	**System should be able to calculate potential future credit exposure to a netting counterparty for forward foreign exchange contracts and other similar contracts in which the notional principle amount is equivalent to cash flow.**		
9.11.4.9	System should be able to recognize the Netting across positions in the banking and trading book when all transactions are MTM on daily basis and recognized the collateral instruments as eligible financial collateral.		
9.11.4.10	System should also have the ability to calculate the holding period of the haircut on the basis of change in frequency in margin also.		
9.11.4.11	receivables and payables from/to the same counterparty including that relating to a single derivative contract should be netted.		
9.11.4.12	System should be able to do MTM values arising on account of derivatives are permitted and for the purpose of capital adequacy it should be able to count gross MTM value of contracts.		
9.11.4.13	With reference to above changes we request to implement all possible changes in the system according to new prudential guidelines of RBI dated 30-03-2021 with Reference to "RBI/2020-21/115/DOR.CAP.51/21.06.201/2020-21" with the heading: Bilateral Netting of Qualified Financial Contracts"		
9.11.4.14	The Model should be validated by the Third party for which computation of VaR with back testing of (FIIs, Forex, Equity, aaDerivatives),Valuation of securities, capital charge computation for the market risk, capital charge computation for the credit risk on the off balance sheet items, and tools of Risk sensitivity tools.		
9.11.4.15	The proposed system should be capable handling exposure ceiling in automated way in line with RBI's Large Exposure framework (LEF) circular vide ref no. RBI/2018-19/196, DBR.No.BP.BC.43/21.01.003/2018-19 dated 03.06.2019. In doing so, if any interface connection needs to be done with CBS then the same should be introduced.		
9.11.5	**Branch Portal**	N/A	N/A
9.11.5.1	Rate Quote Module: Quoting of rate and capturing of all related details of CBS system into Treasury solution		
9.11.5.1.1	Branch user will enter into Treasury system and asked for providing rate through maker-checker concept.		

9.11.5.1.2	Once rate provided by Treasury, the same shall be accepted by respective branch only through maker-checker concept.		
9.11.5.1.3	once it is accepted, treasury solution will initiate the txn in CBS through webservice along with rate as a part of cross currency transaction in CBS.		
9.11.5.1.4	Once transaction initiated and acknowledged by Treasury solution, system should knock-off the rate		
9.11.5.1.5	Outward in foreign currency from these accounts should be supported by the system along with accounting of the same in CBS without any manual intervention.		
9.11.5.2	Limit Maintenance : Rate quote module requires the transaction margin data for each customer based on preset business rules and therefore the customer profile in CBS needs to be shared/replicated in treasury software so that the customer wise transaction have correct rate and data is captured appropriately.		
9.11.5.3	Branches should be able to enter merchant deals on behalf of the Bank's customers. They should also have the capability of entering draft deals, and deals where only maturity can be modified after deal is entered		
9.11.5.4	The branch automation platform should be able to capture all FX Transactions on behalf of customers		
9.11.5.5	Branch user should be able to input single or multiple transactions		
9.11.5.6	All relevant information should be captured at the time of entering the transactions		
9.11.5.7	The system should allow for automated upload of card rates		
9.11.5.8	The system should be able to fetch live rates from market data systems		
9.11.5.9	Bank should be able to define various transactions types as a configuration with the system being able to identify the side based on the transaction type captured		
9.11.5.10	The system should allow as a configuration to set a margin on live rates to arrive at the base rates		
9.11.5.11	The system should have the capability to define standard and preferred margins on base rates at customer, customer category, ticket size etc.		
9.11.5.12	The system should allow the merchant desk at the dealing room to override base rates before confirmation by dealing room		
9.11.5.13	An ack number should be generated every time the dealing room accepts all transactions		
9.11.5.14	The system should automatically aggregate total position and compute average holding rates at base rate level for dealing room		
9.11.5.15	The system should allow for definition of a lot size for an automated cover transfer to be put to the FX Trading desk with the ability for the merchant desk to trigger the transfer manually		
9.11.5.16	The system should be able to triangulate a cross currency rate i.e. JPY/INR etc. correctly based on the transactions type		
9.11.5.17	The system update and aggregate the positions not transferred to the trading desks at the defined close of dealing room operations		
9.11.5.18	The system should provide reports of all transactions reported at individual branch or at an aggregate level including providing average holding rate, average margin applied etc. and should also allow various		

	filters on rates quoted like non-standard margins, customer wise etc.		
9.11.5.19	System should interface with Treasury system to book all merchant transactions reported through it.		

<u>Annexure XVIII - Masked Commercial Bid</u>

Bidder is required to submit a masked copy of the Commercial bid along with the technical bid. Format for Masked Commercial Bid is same as attached commercial bid (attached as a separate file). The bidder has to mask the commercial field and submit the signed copy of the same with proper signatureand stamp.

Annexure XVIII - Masked Commercial Bid is attached at the end of this document.

Annexure XIX - Commercial Bid

Format for Commercial Bid is attached at the end of this document. Bidder is required tosubmit a copy of the Commercial bid along with the Commercial bid.

Annexure XX - Compliance Chart

Compliance chart for submitting Sub: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

Sl. No.	Particulars	Compliance Status (Yes / No)	Page No. Of the bid document submitted
1.	Are Technical & Commercial bid submitted under separate sealed envelopes?		
2	Is the Technical bid made in conformity with technical bid template as per Annexure XVII?		
3.	Is the Commercial bid made in conformity with Commercial template as Annexure XIX?		
4.	Are the Technical & Commercial Bids organized properly?		
5.	Are all the pages numbered properly and signed and stamped?		
6	Is EMD submitted?		
7	Duly signed Annexures **1 to 34** are enclosed		
8.	Is the softcopies of the response of Technical, Functional and Commercial RFP submitted in separate?		
9.	Are document in support of all eligibility criteria submitted?		
10.	Are your solution complied with all Scope of work?		
11.	Is the Manufacturer Authorization Form submitted?		

12.	Audited Balance Sheet and Profit & Loss Account documents for the last 3 years		
13.	Power of Attorney/Authority letter issued by the competent authority for signing the Bid document on behalf of the company.		

For……………………………..

(Signature and seal of authorized person)

Place: **Date:**

Annexure XXI - Undertaking for Bid Validity

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Sir,

Sub: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

Further to our proposal dated ...., in response to the Request for Proposal (Bank's tender No. ……………………….. here in after referred to as **"RFP"**) issued by UCO Bank, we hereby covenant, warrant and confirm as follows:

The soft-copies of the proposal submitted by us in response to the RFP and the related addendums and other documents including the changes made to the original tender documents issued by the Bank, conform to and are identical with the hard-copies of aforesaid proposal required to be submitted by us, in all respects.

The bid submitted herein shall be valid for a period of 180 days from the date of RFP response submission process closes.

Yours faithfully,

Authorized Signatory

Designation   **Bidder's corporate name**

Annexure-XXII - Local Content Certificate

(To be provided on Rs 100/- stamp paper)
Self-Certificate for Local Content on OEM letter head

Date:_/_/_____

I...............S/o, D/o, W/o............................resident of .... do hereby solemnly affirm and declare as under:

1) That I will agree to abide by the terms and conditions mentioned in the tender specification issued vide ref. no...................dated...................

2) That the information furnished hereinafter is correct to the best of my knowledge and belief and that I undertake to produce the relevant records before to any authority nominated by UCO Bank for the purpose of assessing the Local Content.

3) That the Local Content for all inputs which constitute the Goods .... (mention the procurement) has been verified by me and that I am responsible for the correctness and accuracy of the claims made therein.

4) That in the event of the Local Content mentioned herein is found to be incorrect and not meeting the prescribed norms of Local Content, based on the assessment of an authority so nominated by UCO Bank and that I will be liable as under Clause 9(f) of Public Procurement (Preference to Make in India) Order 2017, as amended.

5) That I agree to maintain all the information regarding my claim for Local Content in our records and that I shall make the requisite information available to UCO Bank as and when required.

6) That *I (name of Manufacturer) do hereby confirm in respect of quoted item(s) that the Local Content is equal to or more than 50% and come under 'Class-I Local Supplier' Category. As being 'Class-I Local Supplier', I am eligible for Purchase Preference under 'Make in India' Policy vide Government of India Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide Orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

OR

That *I (name of Manufacturer) do hereby confirm in respect of quoted item(s) that Local Content is more than 20% but less than 50% and come under 'Class-II Local Supplier' Category.

---

7) That I submit as under:

Name & Details of the Local Supplier (Regd. Office, Manufacturing Unit, Location, Nature of legalentity)	
Date on which this Certificate was issued	
Product for which the Certificate is issued	
Procuring Agency to whom the Certificate is furnished	
Percentage of Local Content claimed	
Name & details of the unit of the Manufacturer	
List of inputs used manufacture of the proposed Goods	
List of inputs which are locally sourced (Attach Certificates of Local Content from Local Suppliers, if the input isnot in-house)	
List which are imported (directly or indirectly)	
Any other Information	

8) That the details of the location(s) at which the local value addition made is/are as under:

Sl. No.	Product Details	Name of Place

For & on behalf of

Signature of the Authorised Signatory of the Bidder (insert name, designation &contact number)

Official Seal of the Bidder

Date:

* Strike out whichever is not applicable

यूको बैंक UCO BANK

Any other information	

9) That the details of the location(s) at which the local value addition made is/are as under:

Sl. No.	Product Details	Name of Place

For & on behalf of

Signature of the Authorised Signatory of the Bidder (insert name, designation &contact number)

Official Seal of the Bidder

Date:

* Strike out whichever is not applicable

Annexure – XXIII - Restriction on Procurement due to National Security

This Certificate should be submitted on the letterhead of the bidder duly signed by an authorized signatory

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Dear Sir,

Sub: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

1. "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country and is eligible to be considered."

2. "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, have been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority shall be attached.)"

Yours Faithfully,

Authorized signatory,
Name:
Designation:

Vendors Corporate Name:
Address:
Email: **Contact No.**

Annexure XXIV - Reference Details

#	Organization Name	Documentary Evidence Submitted (PO/ Invoice/ Call/ Email)

Annexure XXV - Sizing Adequacy letter

(Self-Declaration- Sizing of Hardware)

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Dear Sir,

Sub: Self Declaration – Sizing of Hardware

Ref: RFP for Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

We_____(Bidder Name & address) have reviewed the sizing submitted and in agreement with the proposed sizing to maintain the SLA for the contract duration . We confirm thatthe sizing is adequate and will meet the requirements of the UCO Bank as statedin the RFP.

However, in the instance of the solution not working as per the SLA and response time mentioned in the RFP, we will augment the solution at no additional cost to the UCO Bank.

Signature of Authorized Official

Name and Designation with Office Seal

Place:

Date:

Annexure XXVI - Resource Experience

Area	Role/ Description	Experience	Criteria
Governance	Program Manager	>12 years	• MBA/ Engineering/ Bachelor of Commerce(Hons) / Master of Commerce with PMI certification /Prince2 Certification • Should have experience AsProject Director in two TreasurySolution Project in one Scheduled Commercial Banks in India / outside India
	Project Manager	>10 years	• MBA/ Engineering/ Bachelor of Commerce(Hons) / Master of Commerce with P M I certification /Prince2 Certification • Should have experience asProject Manager in one treasury project in at least one Scheduled Commercial Banks in India / Outside India
Team lead -Infra	Team lead –Infra	>8 years	• MBA/ Engineer /Post Graduatewith first division / Graduate with first division/ Diploma Fromreputed college with first division • Experience in managing large teams/ projects and dealing with third party vendors Having Relevant experience in Proposed infra (for which the concerned resource is proposed as implementation lead) • Has worked as anImplementation lead having 2 years of experience in at least one Scheduled Commercial Banks in India / outside India as implementation lead for Treasury infra (server, storage, backup, database, OS)
Team Lead Treasury & Merchant Forex (Functional)	Team lead - Functional	>8 years	• MBA/ Engineer / Diploma / Master of Commerce / Chartered Accountant from reputed college with first division • Experience in managing large teams/ projects and dealing with Treasury & Merchant Forex (depending on for which application the resource is proposed as module lead) • Having Relevant experience of more than 8 years in the Proposed

			Treasury & Trade Finance Application for which name is proposed • Have worked as Team lead of application In at least one Scheduled Commercial Banks in India /outside India in Treasury
Team Lead Treasury & Merchant Forex (Technical)	Team Lead Technical	>7 years	• MBA / Engineer / Diploma / Master of Commerce From reputed college with first division • Experience in managing large teams/ projects and dealing with Treasury & Merchant Forex technical (depending on for which application the resource is proposed as module lead) • Having Relevant experience of more than 8 years in the Proposed Treasury & Trade Finance technical for which name is proposed • Have worked as Team lead of technical/application In at least one Scheduled Commercial Banks in India / outside India in Treasury.
Application L2	L2 Resource	>5 years	• Diploma/ EngineeringGraduate. If a science graduate is proposed, he/sheshould have passed with a first division • Should have more than five years of relevant experience in L2 Support and Customizationfor the respective in scope Application in at least onescheduled commercial Bank in India
Application L1	L1 Resource	>2 years	• Diploma/Engineering Graduate. If a science graduate is proposed, he/sheshould have passed with a first division • Should have more than two years of relevant experience in L1 Support and Customization for the respective in scope Application in at least onescheduled commercial Bank in India

Infrastructure/ Database and Integration L2	L2 Resource	>5 years	• Diploma/EngineeringGraduate. If a science graduate is proposed, he/sheshould have passed with a first division • Should have more than five years of relevant experience inL2 Support for the respective inscope Infrastructure in at least one scheduled commercial Bank in India
Infrastructure/ Database and Integration L1	L1 Resource	>2 years	• Diploma/Engineering Graduate. If a science graduate is proposed, he/sheshould have passed with a first division • Should have more than two years of relevant experience in L1 Support for the respective in scope Infrastructure in at least one scheduled commercial Bank in India
Banking & Treasury Domain Expert	Business Analyst	> 10 Years	• MBA / Engineering with PMI certification / Prince2Certification • Should have experience as Business Analyst in one treasury project in at least one Scheduled Commercial Banks in India / Outside India

Bidder needs to factor minimum below resources during Implementation Phase

Resource	Location	Min. No. of Resources
Program Manager	Bank head office / Mumbai Treasury as per Requirement	1
Project Manager (Infra & Application)	Infra at HO and Application at Mumbai Treasury	2
Banking & Treasury Domain Expert – Business Analyst	Mumbai Treasury	1
Financial Risk Management Analyst	Mumbai Treasury	1
Team Lead – Application – Techno Functional- Business Analyst	Mumbai Treasury	2
Team lead - Infra (Server, Storage, Backup, Tape	Bank head office	2

library, OS)		
Database Lead	Bank head office	2
Data Migration Lead	Bank head office	1
PMO Resources	One PMO resource should be deployed at Kolkata, Bank's Head office, from bidder's side who must be flexible to travel at Mumbai, Bangalore, Hongkong & Singapore location as and when required and asked by Bank without any intervention of bidder or OEM.	1
Treasury application OEM Resource	Mumbai Treasury during Stabilization and Roll Out Support i.e. for 3 months from Go-Live	1
Phase 1 UAT Period	2 resources at each site Mumbai, Singapore & Hongkong (certified by OEM or directly under OEM Payroll)	6
Post go-live onsite application support for roll out under Phase 1	1 resource at each site of Singapore & Hongkong for 3 months (certified by OEM or directly under OEM Payroll). Bidder should ensure the availability of at least one resource at the Singapore & Hongkong centre during the said period without any excuse.	2

Minimum Team Requirement during Sustenance Phase

Resource	Location	Min. No. of Resources across shift	No. of shifts	Service Windows	Total Min. Resources
Program Manager	Bank HO	1	1	General shift	1
L2 Server Management, Storage, Tape Library & Backup Management	DC	1	3	24x7x365	3
L1 Server Management, Storage, Tape Library & Backup Management	DC	1	3	24x7x365	3
L1 Server Management, Storage, Tape Library & Backup Management	DR	1	3	24x7x365	3
L2 DB Management	DC	1	3	24x7x365	3
L1 DB Management	DR	1	3	24x7x365	3
L2 Treasury Application team (certified by OEM or directly under OEM Payroll)	Mumbai Treasury	1	1	General Shift (10AM – 6PM)	1

L2 Treasury Application team (certified by OEM or directly under OEM Payroll)	Mumbai Treasury	2	3	24x7x365 (6:00 AM to 2:00 PM, 2:00 PM - 10PM, 10 PM – 6 AM)	6
Total number of Resources					23
Total Resources at DC					9
Total Resources at DR					7
Total Resources at Mumbai Treasury					7

Note: The bidder may be required to provide additional manpower under any of the above-mentioned line items at the quoted cost during the contract period. However, it will be at the sole discretion of the Bank. Any changes required by UCO Bank or the selected Bidder in the support window or resources deployment will be mutually discussed and finalized.

Annexure XXVII - Bio Data Format

(Bio Data Format for Resources to be deployed onsite)

#	Item	Details
1	Resource Name	
2	Specify Role to be played in the project	
3	Experience in Years (Provide details regarding name of organizations worked for, Designation, responsibilities, tenure etc.)	

Organization Name From Date To Date	From Date	To Date	Designation	Roles/ Responsibilities

#	Item	Details
4	Number of Years with the Current Organization	
5	Sum of Project Durations of similar projects executed	
6	Educational Background, Training / Certification * including institutions, % of marks, specialization areas etc.	

Degree Year of Award	Year of Award of Degree	University	% Of Marks

Annexure XXVIII - Resource Deployment

No of resources to be deployed on each phase of implementation to be mentioned in below format.

Profile	Requirement Gathering	Design	Implementation	Test	Deployment	Post Implementation
Project Manager						
Banking Domain Expert						
Financial Risk Management Analyst						
Techno-Functional Expert-Business Analyst						
Infra Lead						
Database Lead						
Database Migration						
QA Personnel						
Tester						
If any others, Please mention the profile						

Annexure XXIX - Current daily Transaction volumes & Future Projections

Type of trades/deals apart from any other activities on existing deals or on any fin/non-fin information	New trades/deals in a day	Year 1	Year 2	Year 3	Year 4	Year 5
Treasury Office Mumbai						
FX/SWAP Deal	1000	1500	2000	2500	3000	3500
Merchant Fx Txn	500	500	1000	1500	1500	2000
MM Borrowing / Lending	200	300	500	800	1000	1500
Bond Sale / Purchase	100	200	300	500	800	1000
Govt. Security	600	800	1000	1000	1000	1500
Any other type of trade	100	200	200	200	200	500
Total of India Treasury	**2500**	**3500**	**5000**	**6500**	**7500**	**10000**
Hongkong Centre						
FX/SWAP Deal (including Merchant Fx Txn)	60	300	400	500	700	1000
MM Borrowing /Lending	80	100	200	300	500	800
Bond Sale /Purchase	60	150	300	400	500	1000
Govt. Security	10	100	300	500	500	800
Any other type of trade	40	350	300	300	300	400
Total of Hongkong	**250**	**1000**	**1500**	**2000**	**2500**	**4000**
Singapore Centre						
FX/SWAP Deal (including Merchant Fx Txn)	60	300	400	500	700	1000
MM Borrowing /Lending	80	100	200	300	500	800
Bond Sale /Purchase	60	150	300	400	500	1000
MAS Bills/T Bills	10	100	300	500	500	800
Any other type of trade	40	350	300	300	300	400
Total of Singapore	**250**	**1000**	**1500**	**2000**	**2500**	**4000**

Type of Users	Current No. of Users	Year 1	Year 2	Year 3	Year 4	Year 5
Treasury Office Mumbai						
Debt Asset Class – Core Treasury user	8	8	8	8	10	15
EQ Asset Class – Core Treasury user	8	8	8	8	10	10
FX Asset Class – Core Treasury user	30	30	40	40	50	50
MM Asset Class – Core Treasury user	4	4	4	4	6	10
Admin / IT users from Treasury Branch	5	5	5	5	5	5
Audit users from Treasury branch	7	7	7	7	7	7
Other branch level users for Treasury/ Forex related operation (Not core Treasury user)	140	140	150	160	180	200
Total as of India Treasury	**202**	**202**	**222**	**232**	**268**	**297**
Hongkong Centre						
Forex	4	4	6	6	10	10
Trade	3	3	5	5	10	10
Retail	2	2	3	3	5	5
Admin	2	2	3	3	5	5
Audit	3	3	5	5	5	5
Other branch level users for treasury/ forex related operation (Not core Treasury user)	6	6	10	10	15	15
Total as of Hongkong	**20**	**20**	**32**	**32**	**50**	**50**
Singapore Centre						
Forex	6	6	10	10	15	15
Trade	5	5	10	10	15	15
Retail	5	5	5	5	5	5
Admin	3	3	5	5	5	5
Audit	5	5	5	5	5	5
Other branch level users for treasury/forex related operation (Not core Treasury user)	6	6	10	10	15	15
Total as of Singapore	**30**	**30**	**45**	**45**	**60**	**60**

Current Admin, Active (based on the teams/desk working) & Branch users of Domestic and Overseas Centers.

Type of Users	Current No. of Users	Year 1	Year 2	Year 3	Year 4	Year 5
Treasury Office Mumbai						
Debt Asset Class – Core Treasury user	8	8	8	8	10	15
EQ Asset Class – Core Treasury user	8	8	8	8	10	10
FX Asset Class – Core Treasury user	30	30	40	40	50	50
MM Asset Class – Core Treasury user	4	4	4	4	6	10
Admin/IT users from Treasury Branch	5	5	5	5	5	5
Audit users from Treasury branch	7	7	7	7	7	7
Other branch level users for treasury/forex related operation (Not core Treasury user)	140	140	150	160	180	200
Total as of India Treasury	202	202	222	232	268	297
Hongkong Centre						
Forex	4	4	6	6	10	10
Trade	3	3	5	5	10	10
Retail	2	2	3	3	5	5
Admin	2	2	3	3	5	5
Audit	3	3	5	5	5	5
Other branch level users for treasury/ forex related operation (Not core Treasury user)	6	6	10	10	15	15
Total as of Hongkong	20	20	32	32	50	50
Singapore Centre						
Forex	6	6	10	10	15	15
Trade	5	5	10	10	15	15
Retail	5	5	5	5	5	5

Admin	3	3	5	5	5	5
Audit	5	5	5	5	5	5
Other branch level users for treasury/forex related operation (Not core Treasury user)	6	6	10	10	15	15
Total as of Singapore	30	30	45	45	60	60

Annexure XXX - Stack Conformation form

(Note: - Bidder needs to submit this letter on their letter head sully signed andstamp by Authorized signatory)

Tender Reference No. RFP Ref. No: UCO/DIT/2241/2022-23 Date: 05/12/2022

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Dear Sir,

Sub: RFP For Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

We hereby confirm that we have proposed below mentioned stack and thereare no option quoted for any components

S.no	Component	OEM	Model / version
Treasury Application			
ALM			
Risk Management			
Testing agency			
Data Migration Agency			
3rd party Review Agency			
Backup software			
Tape Library			
Server			
Database			
Storage			
TOR Switch			
Virtualization			

Operating System			
Hyper visor			
If Any other			
If Any other			
If Any other			
If Any other			
If Any other			
If Any other			
If Any other			

Signature of Authorized Official

Name and Designation with Office Seal

Place:

Date:

Annexure XXXI – Hardware End of Life and Support Declaration

(This letter should be on the letterhead of the OEM duly signed by an authorized signatory)

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Sir,

Ref: Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

We _____(OEM & address) has supplied_____(Hardware & software Make / model and quantity). We confirm that the Supplied device/s will not be end-of-life / End-of-sale within 4 years from the date of delivery and will be under support from the date of Delivery of hardware to next 8 years. The bug/Patches/components/security patches and releases will be available to Bank for above mentioned 8 years duration, the same responsibility shall so survive even after termination or expiry of the contract.

Signature of Authorized Official

Name and Designation with Office Seal

Place:

Date:

Annexure XXXII – Hardware Baseline

(This letter should be on the letterhead of the bidder duly signed by an authorized signatory)

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Sir,

Ref: RFP For Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

We_____(Bidder Name & Address) has gone through the Annexure and while doing the sizing has consider the minimum baseline sizing and we adhere to the same. We shall supply, install and maintain hardware as per business data point mentioned in **Annexure XXIX**.

The proposed solution will be deployed by us in a highly available manner such that the failure of a single server/node will not interrupt the running application.

DR capabilities will be provided, allowing the entire environment to quickly be moved to a different physical location with a minimum of visible impact to end-users.

 DR site will also be deployed by us with same architecture and same capacity as of production DC site.
During the contract period all proposed hardware components resource utilization would be less than 70% and storage will be 80%.

 If any short fall/performance degradation/unable to get response time during the contract period is observed due to high utilization of hardware resources beyond 70% and storage beyond 80%, we, the selected bidder, _____ (Bidder's Name and address) will be liable to upgrade the said hardware component within 2 (two) month without any additional cost to the Bank.

We would also factor separate hardware for non-production environment.

Setup and maintenance of all the environments for the solution i.e. Production, DR, Development, Test & SIT, Training, etc. Bidder needs to note that the non-production environment shall be hosted at DR site.
- Production at DC should be deployed under highly available manner such that the failure of a single server/node will not interrupt the running application
- DR site will also be deployed with same architecture and same capacity as of production DC site.
- UAT 40% of production in non-HA
- Test & SIT - 20% of production in non-HA

- Development-20% of production in non-HA
- Training-20% of production in non-HA
- Report Environment at DR site - will be updated at T-1 frequency and will be used by the Bank for generating the reports from Treasury applications. Bidder needs to factor the required infra / Licenses in the bill of material. This reporting server will be standalone Database and no High Availability is required for this environment.

The sizing of the non-production environments (1. UAT, 2. Test & SIT, 3. Development, 4. Training) should be respectively of the size of the production as per the fifth-year sizing. However, the database server size will be similar to production database server size.

Note for Non – Production environments:
- If the bidder is proposing to supply physical servers, then selected bidder will be required to supply, install, and maintain hardware as per minimum sizing, configuration and business data point mentioned in RFP.
- If production is on physical machines, then non-production environment should also be on physical machines and If production is on VMs then non-production environment should also be on VMs.
- If any load balancer will be required for web & application layer bidder should factor same with solution. Load balancer should be physically separate appliance for each segment and should have HA.
- All servers should have min 6 no. of 10Gbps (Fibre SFP) and min 4 no. of 1Gbps (Copper) ports for network connectivity. All servers should fully be populated with fibre module.
- All servers should be minimum 2 no. of 32Gbps HBA port (with module) for SAN connectivity. At DR site, the same SAN switch shall be used for non-production environment also for the respective specific country.

Storage minimum requirement

S. No	Segment	Items	Min no. of node at DC	Min no. of node at DR	Usable capacity (RAID 6 or equivalent (TB) -	Min Port (32 GBPS or higher)
1	Domestic	Storage	1	1	20 – DC 30 – DR	8
		SAN fully populated with HBA module	2	2	NA	24
2	International Overseas Centre Singapore	Storage	1	1	10 – DC 20 – DR	8
		SAN fully populated with HBA module	2	2	NA	24
3	International Overseas centre Hongkong	Storage	1	1	10 – DC 20 – DR	8
		SAN fully populated with HBA module	2	2	NA	24

Note:
- In all proposed storage, effective usable capacity should NOT include effect of compression, de-duplication or thin provisioning for storage capacity and its scalability. The usable capacity should be clearly available for use.
- All storage should have minimum 512GB cache memory.

- Bidder should provide all NVME drives with minimum 100,000 IOPs.
- All proposed storage should have minimum upgradation facility up to 50 TB usable in RAID6 or Equivalent

Note for Non – Production environments, if bidder propose multi entity single instance setup or single entity single instance setup through virtual separation:
- If the bidder is proposing to supply physical servers, then selected bidder will be required to supply, install, and maintain hardware as per minimum sizing, configuration and business data point mentioned in RFP.
- If production is on physical machines, then non-production environment should also be on physical machines and If production is on VMs then non-production environment should also be on VMs.
- If any load balancer will be required for web & application layer bidder should factor same with solution. Load balancer should be physically separate appliance for each segment and should have HA.
- All servers should have min 2 no. of 10 Gbps (Fibre SFP) and 6 no. of 1 Gbps (Copper) ports for network connectivity. All servers should fully be populated with fibre module.
- All servers should be minimum 2 no. of 16 Gbps HBA port (with module) for SAN connectivity. At DR site, the same SAN switch shall be used for non-production environment also for the respective specific country.

Storage minimum requirement

S. No	Segment	Items	Min no. of node at DC	Min no. of node at DR	Usable capacity (RAID 6 or equivalent (TB)	Min Port (32 GBPS or higher)
1	Domestic, Singapore & Hongkong	Storage	1	1	40 – DC 70 – DR	24
		SAN fully populated with HBA module	2	2	NA	48- DC 72- DR

Note:
- In all proposed storage, effective usable capacity should NOT include effect of compression, de-duplication or thin provisioning for storage capacity and its scalability. The usable capacity should be clearly available for use.
- All storage should have minimum 512 GB cache memory.
- Bidder should provide all NVME drives with minimum 100,000 IOPs.
- All proposed storage should have minimum upgradation facility up to
  ➢ 100 TB usable in RAID6 or Equivalent

Signature of Authorized Official
Name and Designation with Office Seal
Place:
Date:

<u>Annexure XXXIII – Undertaking for OEM Implementation</u>

(This letter should be on the letterhead of the Proposed Treasury OEM duly signed by an authorized signatory of OEM as well as authorized signatory of Bidder)

To,
The Deputy General Manager,
UCO Bank, Head Office – II,
Department of Information Technology
7th Floor, 3 & 4 DD Block, Sector-I, Salt
Lake, Kolkata -700064

Sir,

Ref: Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

We_____(Treasury Solution OEM & Address) Confirm that the Bidder _____(Bidder Name & address) has back to back contract with us for end to end implementation of the treasury solution for all the in scope out of box treasury line item. We will also be part of the different stages of the Project as mentioned in the RFP clause "OEM Scope".

We also confirm that in case bidder is not able to provide L1 & L2 resources of treasury Application which are OEM certified then we as OEM of the Solution will provide the same.

Signature of Authorized Official

Name and Designation with Office Seal

Place:

Date:

Annexure XXXIV – Compute Virtualization : Hyper Visor

(This letter should be on the letterhead of bidder duly signed by an authorized signatory of Bidder)

Compute Virtualization for submitting Sub: RFP For Supply, Installation, Implementation, Post-Implementation Onsite Support of End-to-End Comprehensive & Integrated Global Treasury Management Solution (CIGTMS) (Re-tendering) RFP Ref No. UCO/DIT/2241/2022-23 Date: 05/12/2022

Component	Parameters	Compliance (Yes / No)	Reference (Doc. / Pg. No.)
Bare Metal Solution	Sits directly on the bare metal server hardware with no dependence on a general-purpose OS for greater reliability & security, with less than 500MB disk footprint.		
Guest OS Support	Windows client, Windows Server, Linux (at least Red Hat, SUSE, Ubuntu and CentOS) etc.		
Availability	Live migration of VM disk from one storage array to another without any VM downtime. Support this migration from one storage protocol to another e.g.: FC, NFS, iSCSI, DAS.		
	Proactive High availability capability that utilizes server health information and migrates VMs from degraded hosts before problem occurs.		
	It should support affinity and anti-affinity rules to set constraints that restrict placement of a virtual machine to a subset of hosts in a cluster and to keep virtual machines paired or separated.		
	Zero downtime, zero data loss and continuous availability for the applications running in virtual machines in the event of physical host failure, without the cost and complexity of traditional hardware or software clustering solutions.		
Performance	Add CPU, Memory & devices to virtual machines on the fly when needed, without disruption or downtime of working VMs for both windows and Linux based VMs.		

	Create a cluster out of multiple storage data stores and automate load balancing by using storage characteristics to determine the best place for a virtual machine's data to reside, both when it is created and when it is used over time.		
	Support for persistent memory, exposing it as block storage or as memory, to enhance performance for new as well as existing apps		
	Should support features like Dynamic Resource scheduling which run every minute and provides workload balancing.		
	Should support network and storage QoS to ensure performance on per VM basis		
Security	VM-level encryption with no modifications in guest OS to protects unauthorized data access both at-rest and live movement of application VMs.		
	Should support TPM 2.0 and secure boot which provides protection for both the hypervisor and guest operating system by ensuring images have not been tampered with and preventing loading of unauthorized components.		
Storage support	Support boot from iSCSI, FCoE, and Fibre Channel SAN. Integration with Storage API's providing integration with supported third-party data protection, multi-pathing, and disk array solutions.		
OEM Support	Direct OEM 24x7x365 days with unlimited incident support and 30mins or less response time including the unlimited upgrades and updates.		

Bidders need to submit this Annexure if Bidder Propose the Hypervisor Solution.

Bill of Materials - Instructions

S.No.	Instructions
I	**Overall**
1	The bidder is expected to quote the costs for all items required for fully complying with the requirements of the RFP and the addenda/corrigendum's in the respective sections of the price bid. The prices for the respective sections would be deemed to include all components required to successfully utilize the solution.
2	Bank is not responsible for any arithmetic errors in the commercial bid details sheet committed by the shortlisted bidders, however, if there are any computational errors the Bank will evaluate the Bid as per provisions contained under RFP document.
3	The bidder is expected to specify the type of licenses along with the details with respect to quantity/rate/etc, wherever applicable.
4	In case the bidder includes/combines any line item as part of any other line item in the commercial bid, then this has to be clearly mentioned in the description indicating the line item which contains the combination
5	The bidder has to quote for each line item. If any line item is part of the solution proposed in the RFP response, it has to be referenced. If it is not applicable, then the Bidder has to mention Not Applicable (NA).
6	The prices, once offered, must remain firm and must not be subject to escalation for any reason within the period of validity. All taxes, duties and levies of whatsoever nature excepting local entry taxes / octroi, if any.
	The price would be inclusive of all applicable taxes under the Indian law like customs duty, freight, forwarding, insurance, delivery, etc., but exclusive of only applicable GST, which shall be paid/reimbursed on actual basis on production of bills with GSTIN. Any increase in GST will be paid in actuals by the Bank or any new tax introduced by the government will also be paid by the Bank. The entire benefits/advantages, arising out of fall in prices, taxes, duties or any other reason, must be passed on to Bank. The price quoted by the bidder should not change due to exchange rate fluctuations, inflation, market conditions, and increase in custom duty. The Bank will not pay any out of pocket expenses.
	Necessary documentary evidence should be produced for having paid the customs / excise duty, sales tax, if applicable, and or other applicable levies along with the request for final payment.
	The price would be inclusive of freight, forwarding, insurance, delivery, etc.
7	The Bidder may insert additional line items as applicable based on the solution offered in the respective tabs
8	The Bidders should quote as per the format of Bill of Material ONLY and a masked replica of the Bill of Material should be enclosed in the technical bid
9	Bidder is required to cover component by component licensing details for each of the software components proposed to the Bank.
10	The masked Bill of Materials which would be submitted as part of the Technical Bid should contain "XX" for ALL the corresponding commercial values that will be present in the unmasked Bill of Material that will be part of the Commercial submission.
11	All amounts in the Bill of Material should be in INR
12	The Bidder should to the extent possible stick to the same structure of the Bill of Material. Hence the Bank does not expect the bidders to delete necessary rows.
II	**Application- License cost**
1	The bidder has to quote for each line item. If any line item is part of the solution proposed in the RFP response, it has to be referenced. If it is not applicable, then the Bidder has to mention Not Applicable (NA).
2	The Bidder can insert additional line items as applicable based on the solution offered in the various tabs
3	The license type has to be clearly described in the Type of License column
III	**Hardware, OS & DB**
1	Bidder is required to supply, implement and maintain the servers, storage , Operating system, database, cluster software etc required for the Scope of work mentioned in RFP. Bidder needs to Size, Supply, Implement, commisson and maintain the hardware and software.
2	Bank will only provide rack space, Power (3.5KVA load per Rack), network, bandwidth, cooling at DC, DR and NDR
3	All kind of databases (for production and non-production environment) should be quoted under Enterprise edition. Bank is already having ULA with ORACLE for the below components as mentioned in the RFP. Bidder who are proposing below components needs not to factor any amount for the same in bill of material however the sizing (no of Licenses) needs to be provided. The licenses for Oracle components as proposed by the bidder will be shared by the Bank. In case during contract period if bidder require a greater number of Licenses for these components Bidder needs to provide the same at no additional cost to Bank. In case if the proposed application is compatible with any other enterprise level database other than Oracle then the number of licenses and cost for the database license and ATS should be quoted in the commercial format in the respective fields.
IV	**Implementation**
1	Bidder shall comply with the Installation and implementation scope provided in the RFP documents.
2	Implementation cost should include all the costs associated with the complete implementation of the solution covering all the locations & implementation of associated components like software etc.
V	**Training**

1	Bidder needs to provide the required training as specified in the RFP to the designated officials of the Bank
2	The rates provided by the bidders should be applicable on any additional trainings that the Bank may require throughout the tenure of the contract.
VI	**ATS,AMC and Facility Management Services**
1	Bidder is expected to provide a detailed break up of all products and services that are under the scope as part of the technical bid, in the technical bill of materials i.e. the above format is expected to be replicated for each item to be covered under the scope of facilities management.
2	The AMC, ATS costs for the Production DC & DR, testing & development and training environments have to be quoted separately
3	The ATS cost for applications has to be quoted in separate line items in this section. The Bidder has to create additional line items in this section if required
4	Offsite L3 helpdesk support cost should be covered under ATS and no separate cost has to be included
5	Bidder needs to quote for 1000 Man days of efforts which will be utilize by Bank during contract period for any extra customization or change request. This rate will be valid for contract period and if durng contract period these 1000 Man days get utilized by bank then Bank will procure the same from bidder at the same rate.

UCO Bank   **Bill of Materials- Summary Sheet**

	Items	Y1	Y2	Y3	Y4	Y5	Total Amount (INR)
a.	Application Cost						
b	Database & Peripheral						
c	DC- DR Hardware						
d	Installation and Commission						
e	Implementation Cost						
f	AMC, ATS & Others						
G	FM - Manpower						
h	Training Cost						
e	Other Cost						
	Grand Total						

Production Enviornment

Software (license) Cost at DC	Description	YEAR 1 Quantity	Rate (INR)	Total Amount (INR)	YEAR 2 Quantity	Rate (INR)	Total Amount (INR)	YEAR 3 Quantity	Rate (INR)	Total Amount (INR)	YEAR 4 Quantity	Rate (INR)	Total Amount (INR)	YEAR 5 Quantity	Rate (INR)	Total Amount (INR)	Total Amount for 5 years (INR)
Treasury Solution (India)																	
Treasury Solution (Singapore)																	
Treasury Solution (Hongkong)																	
Backup Solution																	
Market Risk																	
Branch Portal																	
ALM																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Total Application Cost at DC (A1)																	
Software (license) Cost at DR (Production)	Description	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Total Amount for 5 years (INR)
Treasury Solution (India)																	
Treasury Solution (Singapore)																	
Treasury Solution (Hongkong)																	
Backup Solution																	
Market Risk																	
Branch Portal																	
ALM																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Total Application Cost at DR Production (B1)																	
Software (license) Cost at DR (Non Production)	Description	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Total Amount for 5 years (INR)
TEST & SIT																	
Treasury Solution (India)																	
Treasury Solution (Singapore)																	
Treasury Solution (Hongkong)																	
Market Risk																	
Branch Portal																	
ALM																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Total Application Cost at DR TEST & SIT (B2)																	
Development																	
Treasury Solution (India)																	
Treasury Solution (Singapore)																	
Treasury Solution (Hongkong)																	
Market Risk																	
Branch Portal																	
ALM																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	

Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Total Application Cost at DR Development (B3)		
Training		
Treasury Solution (India)		
Treasury Solution (Singapore)		
Treasury Solution (Hongkong)		
Market Risk		
Branch Portal		
ALM		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Total Application Cost at DR Training (B4)		
UAT		
Treasury Solution (India)		
Treasury Solution (Singapore)		
Treasury Solution (Hongkong)		
Market Risk		
Branch Portal		
ALM		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		
Any Other (Please specify)		

Locations / Environments / Solutions	Type - Processor Based, Core based, Server based, User Based, App Specific etc	Description along with the Version numbers of the licenses	Year 1			Year 2			Year 3			Year 4			Year 5			Total Amount
			Qty	Rate	Amount	Qty	Rate	Amount	Qty	Rate	Amount	Qty	Rate	Amount	Qty	Rate	Amount	
Datacenter (DC)																		
Datacenter Production environment																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Total Cost at DC (A1)																		
Disaster Recovery Site (DR)																		
Disaster Recovery Site Production																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Total Cost at DR Production (B1)																		
Non Production (DR)																		
Test & SIT																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Total Cost at DR Test & SIT (B2)																		
Development																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Total Cost at DR Development (B3)																		
Training																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		

Any Other (Please specify)																			
Any Other (Please specify)																			
Any Other (Please specify)																			
Any Other (Please specify)																			
Total Cost at DR Training (B4)																			
UAT																			
Treasury Solution (India)																			
Treasury Solution (Singapore)																			
Treasury Solution (Hongkong)																			
Market Risk																			
Branch Portal																			
ALM																			
Any Other (Please specify)																			
Any Other (Please specify)																			
Any Other (Please specify)																			
Any Other (Please specify)																			
Any Other (Please specify)																			
Any Other (Please specify)																			
Total Cost at DR UAT (B5)																			
Grand Total (A1+B1+B2+B3+B4+B5)											cffgng								

Locations / Environments / Solutions	Application Tier	Model	Make	Latest Release (Model)	Latest Release (Make)	Cluster type (Active Active/ Active-Passive/ Failover	No. of Cores/ node	No. of RAM/ node (GB)	Processor Qty/ Node	Processor Frequency (GHz)	Processor Cache Memory/ Processor (MB)	Hard Disk Quantity	Total Hard Disk Capacity (Raw GB)	Operating System	NIC quantity/ node	NIC Make	Total Cores	Total Memory (GB)	Other Critical Components	Year 1 Qty	Year 1 Rate (INR)	Year 1 Total Amt (INR)	Year 2 Qty	Year 2 Rate (INR)	Year 2 Total Amt (INR)	Year 3 Qty	Year 3 Rate (INR)	Year 3 Total Amt (INR)	Year 4 Qty	Year 4 Rate (INR)	Year 4 Total Amt (INR)	Year 5 Qty	Year 5 Rate (INR)	Year 5 Total Amt (INR)	Total Amount (INR)
Datacenter (DC)																																			
Datacenter Production environment																																			
Treasury Solution (India)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
	Any Other (Please specify)																																		
Treasury Solution (Singapore)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
	Any Other (Please specify)																																		
Treasury Solution (Hongkong)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
	Any Other (Please specify)																																		
Market Risk and ALM	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
	Any Other (Please specify)																																		
Backup Solution																																			
Tape library																																			
Storage																																			
Racks																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Total Cost at DC (A1)																																			
Disaster Recovery Site (DRC)																																			
Disaster Recovery Site Production																																			
Treasury Solution (India)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
	Any Other (Please specify)																																		
Treasury Solution (Singapore)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
	Any Other (Please specify)																																		
Treasury Solution (Hongkong)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
	Any Other (Please specify)																																		
Market Risk and ALM	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
	Any Other (Please specify)																																		
Backup Solution																																			
Tape library																																			
Storage																																			
Racks																																			
Branch Portal																																			
Reporting server																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Total Cost for Production DR (B1)																																			
Non Production (DR)																																			
Test & SIT																																			
Treasury Solution (India)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
Treasury Solution (Singapore)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
Treasury Solution (Hongkong)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
Market Risk and ALM	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
Branch Portal																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Any Other (Please specify)																																			
Total Cost for Production DR Test & SIT (B2)																																			
Development																																			
Treasury Solution (India)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
Treasury Solution (Singapore)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
Treasury Solution (Hongkong)	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
Market Risk and ALM	App																																		
	web																																		
	DB																																		
	Middleware																																		
	Any Other (Please specify)																																		
Branch Portal																																			

Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Total Cost for Production DR (Development) (B3)	

Training

Treasury Solution (India)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)

Treasury Solution (Singapore)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)

Treasury Solution (Hongkong)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)

Market Risk and ALM	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)

Branch Portal	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Total Cost for Production DR Training (B4)	

UAT

Treasury Solution (India)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)

Treasury Solution (Singapore)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)

Treasury Solution (Hongkong)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)

Market Risk and ALM	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)

Branch Portal	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Any Other (Please specify)	
Total Cost for Production DR UAT (B5)	
Grand Total (A1+B1+B2+B3+B4+B5)	0.00 0.00 0.00

UCO Bank   Implementation Cost

Solutions	Bidder Man Days Qty	Bidder Man Date rate (INR)	Total Bidder Amt (INR)	Total Amount (INR)
Datacenter (DC)				
Treasury Solution (India)				
Treasury Solution (Singapore)				
Treasury Solution (Hongkong)				
Backup Solution				
Tape Library				
Market Risk				
Branch Portal				
ALM				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Datacenter (DR)				
Treasury Solution (India)				
Treasury Solution (Singapore)				
Treasury Solution (Hongkong)				
Backup Solution				
Market Risk				
Branch Portal				
ALM				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Non Production				
Treasury Solution (India)				
Treasury Solution (Singapore)				
Treasury Solution (Hongkong)				
Market Risk				
Branch Portal				
ALM				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Total Cost				

UCO Bank   Implementation Cost

Solutions	OEM Man Days Qty	OEM Man Date rate (INR)	Total OEM Amt (INR)	Bidder Man Days Qty	Bidder Man Date rate (INR)	Total Bidder Amt (INR)	Total Amount (INR)
Datacenter (DC)							
Treasury Solution (India)							
Treasury Solution (Singapore)							
Treasury Solution (Hongkong)							
PMO Resources							
Market Risk							
User Defined Customization							
OEM Resources during GO Live support							
ALM							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Datacenter (DR)							
Treasury Solution (India)							
Treasury Solution (Singapore)							
Treasury Solution (Hongkong)							
Market Risk							
User Defined Customization							
OEM Resources during GO Live support							
ALM							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Non Production							
Treasury Solution (India)							
Treasury Solution (Singapore)							
Treasury Solution (Hongkong)							
Market Risk							
User Defined Customization							
OEM Resources during GO Live support							
ALM							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Total Cost							

	Year 1			Year 2			Year 3			Year 4			Year 5			Total Amount (INR)
	Base product cost	Percentage rate	Total Amt (INR)	Base product cost	Percentage rate	Total Amt (INR)	Base product cost	Percentage rate	Total Amt (INR)	Base product cost	Percentage rate	Total Amt (INR)	Base product cost	Percentage rate	Total Amt (INR)	
Application Software ATS at DC																
Solutions																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Backup Solution																
Market Risk																
Branch Portal																
ALM																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Total (Application Software ATS at DC Production) (A1)																
Database & OS ATS at DC																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Market Risk																
Branch Portal																
ALM																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Total (Database & OS ATS at DC Production) (A2)																
Application Software ATS at DR																
Solutions																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Backup Solution																
Market Risk																
Branch Portal																
ALM																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Total (Application Software ATS) (B1)																
Database & OS ATS at DR																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Market Risk																
Branch Portal																
Reporting server																
ALM																

Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Total (Database & OS ATS) (B2)																	
Total Cost ATS Cost G1 = (A1+A2+B1+B2)																	

Hardware AMC at DC

Solutions
Treasury Solution (India)
Treasury Solution (Singapore)
Treasury Solution (Hongkong)
Backup Solution
Tape Library
Market Risk
Branch Portal
ALM
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Total AMC Cost of DC (A1)

Hardware AMC at DR

Solutions
Treasury Solution (India)
Treasury Solution (Singapore)
Treasury Solution (Hongkong)
Backup Solution
Market Risk
Branch Portal
Reporting server
ALM
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Total AMC Cost of DR (B1)

Others	Year 1			Year 2			Year 3			Year 4			Year 5		
	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)
ESCROW															
Please specifiy if any other															
Total Cost															

Resources	Location	Y1				Y2				Y3				Y4				Y5				Total Amount (INR)
		Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	
Program Manager	Bank HO						1	1			1	1			1	1			1	1		
L1 Server Management, Storage, Tape Library & Backup Management	DC						1	3			1	3			1	3			1	3		
L1 Server Management, Storage, Tape Library & Backup Management	DR						1	3			1	3			1	3			1	3		
L2 Server Management, Storage, Tape Library & Backup Management	DC						1	3			1	3			1	3			1	3		
L1 DB Management	DR						1	3			1	3			1	3			1	3		
L2 DB Management	DC						1	3			1	3			1	3			1	3		
L2 Treasury Application (General Shift)	Mumbai Treasury						1	1			1	1			1	1			1	1		
L2 Treasury Application	Mumbai Treasury						2	3			2	3			2	3			2	3		
Please specifiy if any																						
Please specifiy if any																						
Please specifiy if any																						
Total Cost																						

Sl. No.	Training Type	Min. No. of Days per batch	Batches	No. of Trainees per batch	Rate per batch (INR)	Total Amt (INR)
1	Executive Awareness	1 day	1	15		
2	Core Team Training	15 days	5	10		
3	End User Training	5 days	10	15		
4	Technical User Training	15 days	2	15		
Total Training Cost						

S.No.	At Data Centre	Description	Year 1			Year 2			Year 3			Year 4			Year 5			Total Amount for 5 years (INR)
			Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	
1	Data migration audit	One time Cost	1															
2	External Agency UAT & Testing	One time Cost	1															
3	Quality Assurance	One time Cost	1															
4	3rd party Configuration Review	One time Cost																
5	1000 Mandays Effort cost		1000															
	Total Other Component Cost																	

1000 Mandays Effort Cost refers to Additional Customisation Effort - The Bidder has to provide the man-days rate applicable across the contract period . The Bidder has to provide pro-rata cost for any additional customisation that the bank may or may not undertake.

Bill of Materials - Instructions

S.No.	Instructions
I	**Overall**
1	The bidder is expected to quote the costs for all items required for fully complying with the requirements of the RFP and the addenda/corrigendum's in the respective sections of the price bid. The prices for the respective sections would be deemed to include all components required to successfully utilize the solution.
2	Bank is not responsible for any arithmetic errors in the commercial bid details sheet committed by the shortlisted bidders, however, if there are any computational errors the Bank will evaluate the Bid as per provisions contained under RFP document.
3	The bidder is expected to specify the type of licenses along with the details with respect to quantity/rate/etc, wherever applicable.
4	In case the bidder includes/combines any line item as part of any other line item in the commercial bid, then this has to be clearly mentioned in the description indicating the line item which contains the combination
5	The bidder has to quote for each line item. If any line item is part of the solution proposed in the RFP response, it has to be referenced. If it is not applicable, then the Bidder has to mention Not Applicable (NA).
6	The prices, once offered, must remain firm and must not be subject to escalation for any reason within the period of validity. All taxes, duties and levies of whatsoever nature excepting local entry taxes / octroi, if any.
	The price would be inclusive of all applicable taxes under the Indian law like customs duty, freight, forwarding, insurance, delivery, etc., but exclusive of only applicable GST, which shall be paid/reimbursed on actual basis on production of bills with GSTIN. Any increase in GST will be paid in actuals by the Bank or any new tax introduced by the government will also be paid by the Bank. The entire benefits/advantages, arising out of fall in prices, taxes, duties or any other reason, must be passed on to Bank. The price quoted by the bidder should not change due to exchange rate fluctuations, inflation, market conditions, and increase in custom duty. The Bank will not pay any out of pocket expenses.
	Necessary documentary evidence should be produced for having paid the customs / excise duty, sales tax, if applicable, and or other applicable levies along with the request for final payment.
	The price would be inclusive of freight, forwarding, insurance, delivery, etc.
7	The Bidder may insert additional line items as applicable based on the solution offered in the respective tabs
8	The Bidders should quote as per the format of Bill of Material ONLY and a masked replica of the Bill of Material should be enclosed in the technical bid
9	Bidder is required to cover component by component licensing details for each of the software components proposed to the Bank.
10	The masked Bill of Materials which would be submitted as part of the Technical Bid should contain "XX" for ALL the corresponding commercial values that will be present in the unmasked Bill of Material that will be part of the Commercial submission.
11	All amounts in the Bill of Material should be in INR
12	The Bidder should to the extent possible stick to the same structure of the Bill of Material. Hence the Bank does not expect the bidders to delete necessary rows.
II	**Application- License cost**
1	The bidder has to quote for each line item. If any line item is part of the solution proposed in the RFP response, it has to be referenced. If it is not applicable, then the Bidder has to mention Not Applicable (NA).
2	The Bidder can insert additional line items as applicable based on the solution offered in the various tabs
3	The license type has to be clearly described in the Type of License column
III	**Hardware, OS & DB**
1	Bidder is required to supply, implement and maintain the servers, storage , Operating system, database, cluster software etc required for the Scope of work mentioned in RFP. Bidder needs to Size, Supply, Implement, commisson and maintain the hardware and software.
2	Bank will only provide rack space, Power (3.5KVA load per Rack), network, bandwidth, cooling at DC, DR and NDR
3	All kind of databases (for production and non-production environment) should be quoted under Enterprise edition. Bank is already having ULA with ORACLE for the below components as mentioned in the RFP. Bidder who are proposing below components needs not to factor any amount for the same in bill of material however the sizing (no of Licenses) needs to be provided. The licenses for Oracle components as proposed by the bidder will be shared by the Bank. In case during contract period if bidder require a greater number of Licenses for these components Bidder needs to provide the same at no additional cost to Bank. In case if the proposed application is compatible with any other enterprise level database other than Oracle then the number of licenses and cost for the database license and ATS should be quoted in the commercial format in the respective fields.
IV	**Implementation**
1	Bidder shall comply with the Installation and implementation scope provided in the RFP documents.
2	Implementation cost should include all the costs associated with the complete implementation of the solution covering all the locations & implementation of associated components like software etc.
V	**Training**

1	Bidder needs to provide the required training as specified in the RFP to the designated officials of the Bank
2	The rates provided by the bidders should be applicable on any additional trainings that the Bank may require throughout the tenure of the contract.
VI	**ATS,AMC and Facility Management Services**
1	Bidder is expected to provide a detailed break up of all products and services that are under the scope as part of the technical bid, in the technical bill of materials i.e. the above format is expected to be replicated for each item to be covered under the scope of facilities management.
2	The AMC, ATS costs for the Production DC & DR, testing & development and training environments have to be quoted separately
3	The ATS cost for applications has to be quoted in separate line items in this section. The Bidder has to create additional line items in this section if required
4	Offsite L3 helpdesk support cost should be covered under ATS and no separate cost has to be included
5	Bidder needs to quote for 1000 Man days of efforts which will be utilize by Bank during contract period for any extra customization or change request. This rate will be valid for contract period and if durng contract period these 1000 Man days get utilized by bank then Bank will procure the same from bidder at the same rate.

	Items	Y1	Y2	Y3	Y4	Y5	Total Amount (INR)
a.	Application Cost						
b	Database & Peripheral						
c	DC- DR Hardware						
d	Installation and Commission						
e	Implementation Cost						
f	AMC, ATS & Others						
G	FM - Manpower						
h	Training Cost						
e	Other Cost						
	Grand Total						

Production Envionment

Software (license) Cost at DC	Description	YEAR 1			YEAR 2			YEAR 3			YEAR 4			YEAR 5			Total Amount for 5 years (INR)
		Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	
Treasury Solution (India)																	
Treasury Solution (Singapore)																	
Treasury Solution (Hongkong)																	
Backup Solution																	
Market Risk																	
Branch Portal																	
ALM																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Total Application Cost at DC (A1)																	
Software (license) Cost at DR (Production)	Description	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Total Amount for 5 years (INR)
Treasury Solution (India)																	
Treasury Solution (Singapore)																	
Treasury Solution (Hongkong)																	
Backup Solution																	
Market Risk																	
Branch Portal																	
ALM																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Total Application Cost at DR Production (B1)																	
Software (license) Cost at DR (Non Production)	Description	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Total Amount for 5 years (INR)
TEST & SIT																	
Treasury Solution (India)																	
Treasury Solution (Singapore)																	
Treasury Solution (Hongkong)																	
Market Risk																	
Branch Portal																	
ALM																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Total Application Cost at DR TEST & SIT (B2)																	
Development																	
Treasury Solution (India)																	
Treasury Solution (Singapore)																	
Treasury Solution (Hongkong)																	
Market Risk																	
Branch Portal																	
ALM																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	

Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Total Application Cost at DR Development (B3)				
Training				
Treasury Solution (India)				
Treasury Solution (Singapore)				
Treasury Solution (Hongkong)				
Market Risk				
Branch Portal				
ALM				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Total Application Cost at DR Training (B4)				
UAT				
Treasury Solution (India)				
Treasury Solution (Singapore)				
Treasury Solution (Hongkong)				
Market Risk				
Branch Portal				
ALM				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				
Any Other (Please specify)				

Locations / Environments / Solutions	Type - Processor Based, Core based, Server based, User Based, App Specific etc	Description along with the Version numbers of the licenses	Year 1			Year 2			Year 3			Year 4			Year 5			Total Amount
			Qty	Rate	Amount	Qty	Rate	Amount	Qty	Rate	Amount	Qty	Rate	Amount	Qty	Rate	Amount	
Datacenter (DC)																		
Datacenter Production environment																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Total Cost at DC (A1)																		
Disaster Recovery Site (DR)																		
Disaster Recovery Site Production																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Total Cost at DR Production (B1)																		
Non Production (DR)																		
Test & SIT																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Total Cost at DR Test & SIT (B2)																		
Development																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Total Cost at DR Development (B3)																		
Training																		
Treasury Solution (India)																		
Treasury Solution (Singapore)																		
Treasury Solution (Hongkong)																		
Market Risk																		
ALM																		
Branch Portal																		
Any Other (Please specify)																		
Any Other (Please specify)																		
Any Other (Please specify)																		

Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Total Cost at DR Training (B4)																	
UAT																	
Treasury Solution (India)																	
Treasury Solution (Singapore)																	
Treasury Solution (Hongkong)																	
Market Risk																	
Branch Portal																	
ALM																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Any Other (Please specify)																	
Total Cost at DR UAT (B5)																	
Grand Total (A1+B1+B2+B3+B4+B5)										cffgng							

Locations / Environments / Solutions	Application Tier	Model	Make	Latest Release (Model)	Latest Release (Make)	Cluster type (Active-Active/ Active-Passive/ Failover	No. of Cores/ node	No. of RAM/ node (GB)	Processor Qty/ Node	Processor Frequency (GHz)	Processor Cache Memory/ Processor (MB)	Hard Disk Quantity	Total Hard Disk Capacity (Raw GB)	Operating System	NIC quantity/ node	NIC Make	Total Cores	Total Memory (GB)	Other Critical Components	Year 1			Year 2			Year 3			Year 4			Year 5			Total Amount (INR)
																				Qty	Rate (INR)	Total Amt (INR)	Qty	Rate (INR)	Total Amt (INR)	Qty	Rate (INR)	Total Amt (INR)	Qty	Rate (INR)	Total Amt (INR)	Qty	Rate (INR)	Total Amt (INR)	

Datacenter (DC)

Datacenter/ Production environment

Treasury Solution (India)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Treasury Solution (Singapore)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Treasury Solution (Hongkong)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Market Risk and ALM	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Backup Solution
Tape library
Storage
Racks
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)

Total cost at DC (A1)

Disaster Recovery Site (DRC)

Disaster Recovery Site/ Production environment

Treasury Solution (India)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Treasury Solution (Singapore)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Treasury Solution (Hongkong)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Market Risk and ALM	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Backup Solution
Tape library
Storage
Racks
Branch Portal
Reporting server
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)

Total Cost for Production DR (B1)

Non Production (DR)

Test & SIT

Treasury Solution (India)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Treasury Solution (Singapore)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Treasury Solution (Hongkong)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Market Risk and ALM	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Branch Portal
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)
Any Other (Please specify)

Total Cost for Production DR Test & SIT (B2)

Development

Treasury Solution (India)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Treasury Solution (Singapore)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Treasury Solution (Hongkong)	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Market Risk and ALM	App
	web
	DB
	Middleware
	Any Other (Please specify)
	Any Other (Please specify)
Branch Portal

Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Total Cost for Production DR (Development) (B3)																											
Training																											
Treasury Solution (India)	App																										
	web																										
	DB																										
	Middleware																										
	Any Other (Please specify)																										
	Any Other (Please specify)																										
Treasury Solution (Singapore)	App																										
	web																										
	DB																										
	Middleware																										
	Any Other (Please specify)																										
	Any Other (Please specify)																										
Treasury Solution (Hongkong)	App																										
	web																										
	DB																										
	Middleware																										
	Any Other (Please specify)																										
	Any Other (Please specify)																										
Market Risk and ALM	App																										
	web																										
	DB																										
	Middleware																										
	Any Other (Please specify)																										
	Any Other (Please specify)																										
Branch Portal																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Total Cost for Production DR Training (B4)																											
UAT																											
Treasury Solution (India)	App																										
	web																										
	DB																										
	Middleware																										
	Any Other (Please specify)																										
	Any Other (Please specify)																										
Treasury Solution (Singapore)	App																										
	web																										
	DB																										
	Middleware																										
	Any Other (Please specify)																										
	Any Other (Please specify)																										
Treasury Solution (Hongkong)	App																										
	web																										
	DB																										
	Middleware																										
	Any Other (Please specify)																										
	Any Other (Please specify)																										
Market Risk and ALM	App																										
	web																										
	DB																										
	Middleware																										
	Any Other (Please specify)																										
	Any Other (Please specify)																										
Branch Portal																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Any Other (Please specify)																											
Total Cost for Production DR UAT (B5)																											
Grand Total (A1+B1+B2+B3+B4+B5)																			0.00		0.00					0.00		0.00

UCO Bank   Implementation Cost

Solutions	Bidder Man Days Qty	Bidder Man Date rate (INR)	Total Bidder Amt (INR)	Total Amount (INR)	
Datacenter (DC)					
Treasury Solution (India)					
Treasury Solution (Singapore)					
Treasury Solution (Hongkong)					
Backup Solution					
Tape Library					
Market Risk					
Branch Portal					
ALM					
Any Other (Please specify)					
Any Other (Please specify)					
Any Other (Please specify)					
Datacenter (DR)					
Treasury Solution (India)					
Treasury Solution (Singapore)					
Treasury Solution (Hongkong)					
Backup Solution					
Market Risk					
Branch Portal					
ALM					
Any Other (Please specify)					
Any Other (Please specify)					
Any Other (Please specify)					
Any Other (Please specify)					
Any Other (Please specify)					
Any Other (Please specify)					
Non Production					
Treasury Solution (India)					
Treasury Solution (Singapore)					
Treasury Solution (Hongkong)					
Market Risk					
Branch Portal					
ALM					
Any Other (Please specify)					
Any Other (Please specify)					
Any Other (Please specify)					
Any Other (Please specify)					
Any Other (Please specify)					
Total Cost					

Solutions	OEM Man Days Qty	OEM Man Date rate (INR)	Total OEM Amt (INR)	Bidder Man Days Qty	Bidder Man Date rate (INR)	Total Bidder Amt (INR)	Total Amount (INR)
Datacenter (DC)							
Treasury Solution (India)							
Treasury Solution (Singapore)							
Treasury Solution (Hongkong)							
PMO Resources							
Market Risk							
User Defined Customization							
OEM Resources during GO Live support							
ALM							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Datacenter (DR)							
Treasury Solution (India)							
Treasury Solution (Singapore)							
Treasury Solution (Hongkong)							
Market Risk							
User Defined Customization							
OEM Resources during GO Live support							
ALM							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Non Production							
Treasury Solution (India)							
Treasury Solution (Singapore)							
Treasury Solution (Hongkong)							
Market Risk							
User Defined Customization							
OEM Resources during GO Live support							
ALM							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Any Other (Please specify)							
Total Cost							

	Year 1			Year 2			Year 3			Year 4			Year 5			Total Amount (INR)
	Base product cost	Percentage rate	Total Amt (INR)	Base product cost	Percentage rate	Total Amt (INR)	Base product cost	Percentage rate	Total Amt (INR)	Base product cost	Percentage rate	Total Amt (INR)	Base product cost	Percentage rate	Total Amt (INR)	
Application Software ATS at DC																
Solutions																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Backup Solution																
Market Risk																
Branch Portal																
ALM																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Total (Application Software ATS at DC Production) (A1)																
Database & OS ATS at DC																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Market Risk																
Branch Portal																
ALM																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Total (Database & OS ATS at DC Production) (A2)																
Application Software ATS at DR																
Solutions																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Backup Solution																
Market Risk																
Branch Portal																
ALM																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Total (Application Software ATS) (B1)																
Database & OS ATS at DR																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Market Risk																
Branch Portal																
Reporting server																
ALM																

Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Total (Database & OS ATS) (B2)																
Total Cost ATS Cost G1 = (A1+A2+B1+B2)																

Hardware AMC at DC

Solutions																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Backup Solution																
Tape Library																
Market Risk																
Branch Portal																
ALM																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Total AMC Cost of DC (A1)																

Hardware AMC at DR

Solutions																
Treasury Solution (India)																
Treasury Solution (Singapore)																
Treasury Solution (Hongkong)																
Backup Solution																
Market Risk																
Branch Portal																
Reporting server																
ALM																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Any Other (Please specify)																
Total AMC Cost of DR (B1)																

Others	Year 1			Year 2			Year 3			Year 4			Year 5			
	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	
ESCROW																
Please specifiy if any other																
Total Cost																

| | | Sustenacne Period | | | | | | | | | | | | | | | | | | | Total Amount (INR) |
| | Location | Y1 | | | | Y2 | | | | Y3 | | | | Y4 | | | | Y5 | | | | |
		Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	Rate for 8 hour Shifts (per annum in INR)- a	No. of Personnel per shift - b	No. of Shifts - c	Total Amt (INR) = a x b x c	
Resources																						
Program Manager	Bank HO						1	1			1	1			1	1			1	1		
L1 Server Management, Storage, Tape Library & Backup Management	DC						1	3			1	3			1	3			1	3		
L1 Server Management, Storage, Tape Library & Backup Management	DR						1	3			1	3			1	3			1	3		
L2 Server Management, Storage, Tape Library & Backup Management	DC						1	3			1	3			1	3			1	3		
L1 DB Management	DR						1	3			1	3			1	3			1	3		
L2 DB Management	DC						1	3			1	3			1	3			1	3		
L2 Treasury Application (General Shift)	Mumbai Treasury						1	1			1	1			1	1			1	1		
L2 Treasury Application	Mumbai Treasury						2	3			2	3			2	3			2	3		
Please specifiy if any																						
Please specifiy if any																						
Please specifiy if any																						
Total Cost																						

Sl. No.	Training Type	Min. No. of Days per batch	Batches	No. of Trainees per batch	Rate per batch (INR)	Total Amt (INR)
1	Executive Awareness	1 day	1	15		
2	Core Team Training	15 days	5	10		
3	End User Training	5 days	10	15		
4	Technical User Training	15 days	2	15		
Total Training Cost						

S.No.	At Data Centre	Description	Year 1			Year 2			Year 3			Year 4			Year 5			Total Amount for 5 years (INR)
			Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	Quantity	Rate (INR)	Total Amount (INR)	
1	Data migration audit	One time Cost	1															
2	External Agency UAT & Testing	One time Cost	1															
3	Quality Assurance	One time Cost	1															
4	3rd party Configuration Review	One time Cost																
5	1000 Mandays Effort cost		1000															
	Total Other Component Cost																	

1000 Mandays Effort Cost refers to Additional Customisation Effort - The Bidder has to provide the man-days rate applicable across the contract period . The Bidder has to provide pro-rata cost for any additional customisation that the bank may or may not undertake.