UCO BANK

Department of Information Technology

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)

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

First Pre-Bid Responses / Amendments/ Addendums/ Corrigendum uploaded on 29.12.2022

CLARIFICATIONS:

Sr. No	RFP Page No	RFP Clause No.	Original RFP Clause	Query sought/Suggestions of the Bidder	Bank's Clarification
1	13	Part - 1 (3 - 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	CERT- in empanelment is for agencies involved in security testing / audit including VAPT. It is not applicable for review of configurations, audit and model Set-up of treasury solution which are separate type of activities conducted by companies having expertise in treasury domain. As such, we request to please modify this clause as - The third-party agency for Review of Configurations, Audit and Model Set-up should be ISO Certified, should have performed the activities, including developing Test Cases and performing User Acceptance Testing, for on Integrated Treasury Management Solution in a Bank in India	Please be guided by the RFP

2	13	Part - 1 (3 - 17)	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	We request Bidder should be allowed to bring more than one third party agency to meet the requirements on Review of Configurations, Audit and Model Set-up, Testing and Data Migration Audit, Quality assurance and IS audit / VAPT.	The eligibility criteria mentioned is for the 3rd party agency which is going to perform Review of configurations, Audit, IS audit/ VAPT and Model Set-up. Bidder needs to engage a different agency for Testing and Data Migration Audit, Quality assurance as per the scope and Qualification mentioned in the RFP for these areas.
3	13	Part - 1 (3 - 17)	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	Please clarify that this clause is applicable for main treasury application only and that OEM is expected to have support center in any of India/Singapore/ Hongkong	Please be guided by the RFP
4	13	Part - 1 (3)	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	Please clarify that criteria of min. 1000/1500 branches is not applicable to point 12 of eligibility criteria related to third party agency for which 500 branch criteria is defined	Please refer to corrigendum

5	29	Part III (3)	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	Integration of treasury solution with CBS is done for multiple purposes. We request to please modify this clause as - Proposed Treasury Solution Should be integrated with Finacle Core Banking Solution (version 10x) in a schedule Commercial Bank in India having more than 1500 Branches in India. If bank wants to link integration with CBS based on no. of forex branches, we request to please modify no. of forex branches to 40. Many banks of the total size close to UCO Bank have no. of forex branches within 40	Please refer to corrigendum
6	30	Part III (3)	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)	GDPR is linked to protection of individual data. Treasury operations are not at individual level. As such, GDPR may not apply to treasury solutions. We request to please delete requirement on GDPR compliance in this clause	Please refer to corrigendum

7	30	Part III (3)	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)	Bidder's experience of implementation and support of proposed solution in two scheduled commercial banks in India is itself a tough ask. Finding more than two references will be too difficult. We also request to please change total score on this parameter as 200, classified as below: i. 1 Client reference (120 Marks) ii. More than 1 client reference (200 Marks) Previous RFP had this criteria on suggested lines only	Please refer to corrigendum
8	30	Part III (3)	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.	annex IX is about Undertaking for GST Law. Please see is there is a change needed in definition of sub-annexures of annexure XVII in this clause. Pleased also define clearly sub annexures within annex XVII in which 100% compliance is expected. Please validate our understanding that response as F or C both will qualify as compliance in all the sub-annexures of annex XVII	Please refer to corrigendum
9	30	Part III (3)	Available of 80% (out of the box) of the functional requirement as per Annexure – XVII (Marks – 320) in the base product	Please clarify if 80/90/100% is to be considered of only sec 9.1 - 9.8 and not entire annex XVII	Please refer to corrigendum
10	31	Part III (3)	Technical Presentation and Product Demo	We request to please change max. scoring on Presentation as 50 and on Demo scripts as 150 which was also the construct in previous RFP. Total 100 marks to be reduced here may be added to criteria no. 2 in scoring table - Bidder's or OEM Capability and Experience (making max. score on this as 200 instead of 100)	Please be guided by the RFP
11	203	Annex XVII	Bidder Response (F, C, N)	Only sub-annexure 9.9 in annex XVII has given option of 'N' as bidder response besides F and C. Other sub-annexures do not have this option of N. Please validate our understanding that bidder response N indicates not	Please refer to corrigendum

12	203	Annex XVII	All the Specifications mentioned in Annexure 9.10 are mandatory to be fulfil by the bidder and there is no scope of customization of any workaround in the Annexure.	It is possible that proposed solution will need some customisation to meet all the requirements. We request to please accept F / C both as compliance in annex 9.9 - 9/11. Please also clarify if 100% compliance is expected only in sub-annex 9.10. Technical scoring table in Part-III (sec 3) mentions - Bidder has to fully comply with Annexure 9.9 to 9.11 from the proposed hardware / Software.	Please refer to corrigendum
13	83	2.31.1	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	We request that Bank should use cost of Oracle database at its end in the evaluation of bids proposing oracle database to normalise bids proposing Oracle and those proposing other databases	Please be guided by the RFP

14	71	2.24	Bidder needs to note that training need to be conducted by the bidder through automated tool as well as manual	Please clarify if this clause should be - • Bidder needs to note that ~~training~~ testing need to be conducted by the bidder through automated tool as well as manual. This sec is about testing. Training scope is defined in separate section. Can we use existing testing tool in bank	Please refer to corrigendum
15	71 72	2.24	Bidder or 3rd party are responsible for preparing detailed test cases including test data. Test Data preparation for all testing in scope	SIT and UAT should be done on bank data. We request bank to provide test data for SIT, UAT. Please modify the clause accordingly.	Please refer to corrigendum
16	74	2.26	It will be the responsibility of the bidder to extract the data from the legacy system	As legacy system is managed by existing vendor, its better they extract data from that system and provide in landing as files	Please be guided by the RFP
17	75	2.29	One dedicated PMO resource should be deployed at Kolkata	Please clarify if independent PMO needs to be from bidder payroll	Yes, your understanding is correct
18	87	2.34	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 Below mentioned activities are to mandatorily be done by the product OEM	With bidder having their own experience in implementation of proposed solution (which is ascertained by bank through eligibility and technical scoring criteria), adding 20% of OEM effort in addition to bidder's own implementation effort would substantially add to total cost and this puts the Bidder, who has implementation experience of Treasury solution in PSBs to disadvantage in a competitive bid like this. Bidder having experience in implementation can factor 'Check Point' services from OEM. We request to please leave it to bidders to decide on OEM effort.	Please be guided by the RFP

19	121	3	contract period will be for a period of five years (05) from the date of Issuance of Purchase order	Please modify this clause as - contract period will be for a period of five years (05) from the date of acceptance of Purchase order	Please be guided by the RFP
20	124	6	Phase 1 - sec 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	Does it mean all the functionalities / modules / instruments mentioned in sec A to be developed identical for each of India, HK, Singapore. Some functionalities / instruments may not be used in certain countries. As such, there may be no business requirement, test data to test and use of those functionalities / instruments in those countries.	Please refer to corrigendum
21	132	6	Delivery of Hardware & software at DC & DR in T+10 weeks	Looking at existing supply chain situation, it is possible this activity may take 14 weeks. Any such delay beyond bidder control will impact timelines of subsequent activities. We request bank to please consider this in the overall timeline.	Please be guided by the RFP
22	56	2.9	Multi Entity Risk Management for Mid office functionalities and other functionalities to Market Risk	Please clarify that requirements mentioned under Credit risk, Market risk, Liquidity risk, Operational risk, Value at risk in this clause are only for treasury portfolio of bank as per detailed requirements given in annex XVII. Proposed treasury solution is not expected to provide these capabilities at enterprise wide	Please refer to corrigendum
23	110 118	2.35.2.2 2.35.2.7	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 Bank also reserves the right to change the locations of helpdesks at its discretion	In a fixed price bid, scope needs to be firm. New requirements may be handled basis agreed change request mechanism. We request to please delete these clauses	Please be guided by the RFP
24	124	5	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	Please see if this clause needs to be deleted as there is no phase three defined	Please refer to corrigendum

			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		
25	181	Annex XI - Undertaking for No Deviation		A bid of this complexity is likely to have assumptions, suggested deviations. We request bank to please allow submission of those which can be discussed and mutually agreed with bank	Please be guided by the RFP
26	313	Annex XXVI	Having Relevant experience of more than 8 years in the Proposed Treasury & Trade Finance technical for which name is proposed	Total experience asked for Team Lead Treasury & Merchant Forex (Technical) is 7 years while in another cell more than 8 years experience is mentioned. Please modify as needed	Please refer to corrigendum
27	314	Implementation resources - Prog Manager	Bank head office / Mumbai Treasury as per Requirement	Please specify one location which helps is resource planning and estimate. Please clarify that no travel is needed by prog. Manager	Please be guided by the RFP
28	315	Implementation resources - Phase 1 UAT Period	2 resources at each site Mumbai, Singapore & Hongkong (certified by OEM or directly under OEM Payroll)	We request to please change resource requirement as 1 at each site as same would be sufficient. In UAT, other resources like Team leads, banking expert, financial risk management analyst, PMs are also involved. UAT effectively is to be done at Mumbai. 1 person at SGP/HK can help local bank teams there	Please refer to corrigendum
29		Annex XVIII - Bill of material	Implementation cost	There are two tables of implementation cost. Please clarify if first table is on hardware installation and commission	Tab d. Installation and Commission is for Hardware installation and commission Tab e. Implementation Efforts is for software implementation
30	1	Clause 5 - Payment terms	Payment Terms (Hardware & Software)	Bidder request to amend payment terms below - '- Hardware to be paid 100% after submission of BG towards 10% payment of balance stage after delivery	Please be guided by the RFP

31	2	Clause 5 - Payment terms	Payment Terms (Solution Implementation Cost)	Bidder request to amend payment terms below - Implementation milestones to be mutually agreed as currently they are much backloaded. Request below - Project Kickoff 10% - SRS Sign-off of respective application 45% - Development & Customization in UAT Environment - 20% - Go-live of applications falling under Phase 1 -15% - Go-live of applications falling under Phase 2 - 10%	Please be guided by the RFP
32	3	Clause 5 - Payment terms	Payment Terms (AMC/ ATS)	Hardware is to be provided with 5 year warranty then AMC payment terms are not required. Why is AMC payment terms given?	Please be guided by the RFP
33	3	Clause 5 - Payment terms	Payment Terms (Managed Services)	Bidder request to make payment for Managed services as monthly in arrears	Please be guided by the RFP
34	4	Clause 5 - Payment terms	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 request to amend the clause as 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.	Please be guided by the RFP
35	5	Clause 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	Bidder request to clarify as numbers and words do not match- 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	Please be guided by the RFP

			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.	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.	
36	6	Clause 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 over the tenure of the contract will be 10% of the contract value. The overall cap for the liquidity damages (mentioned later under clause 8) over the tenure of the contract will be 10% of the contract value.	Bidder request to amend the clause as The monthly At-Risk Amount (_ARA') shall be **5%** of the estimated monthly pay out of the respective month. The overall cap for penalties as per SLA over the tenure of the contract will be **5%** of the contract value. The overall cap for the liquidity damages (mentioned later under clause 8) over the tenure of the contract will be **5%** of the contract value.	Please be guided by the RFP
37	7	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.	Bidder request to amend the clause as 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 **Annual** Project Cost valid for 1 year and to be renewed every anniversary on the subsequent annual value	Please be guided by the RFP

38	8	21. Order Cancellation	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.	Bidder request to amend as below 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 **5%** 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 **5%** 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.	Please be guided by the RFP
39	9	Commercial Bid format Page 352 of RFP	Database cost	Bidder request to clarify why Year 4 has not been greyed out for DR in the commercial format?	Please refer to corrigendum
40	82	2.31.1	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	As per our understanding the DR drills are performed quarterly and NOT monthly. Please confirm.	As per guidelines it is mandate for doing a quarterly DR drills while it will at the discretion of the bank to do the same even in between also.

			made operational. Bidder should carry out DR drill on every month basis or as per Bank's policy.		
41	132	6. Schedule of Implement ation	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.	Please confirm that the milestones and timeline mentioned applies only to the scope contained in Phase 1, Section A. Text at the bottom refers to Phase 3 which is not defined earlier. Please confirm updated statement.	Please refer to corrigendum
42	135	7. Penalty & uptime	"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"	Regarding the Uptime Rules, please clarify whether listed instances would not be considered downtime	yes, your understanding is correct

43	19 and 147	PART-II: INVITATION FOR BIDS AND INSTRUCTIONS TO BIDDERS - 18	18. Cancellation of Tender Process 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. 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.	18. Cancellation of Tender Process 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.~~*i.e., intellectual property rights* by the vendor in respect of the products supplied / services offered. 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 *to the extent such compliance of laws/rules and regulations are applicable to the performance of the services in accordance with Vendor's IT services business.*	Please be guided by the RFP
44	27	PART-II: INVITATION FOR BIDS AND INSTRUCTIONS TO BIDDERS - 35	35. Other Terms and Conditions v. The bidder is solely responsible for any legal obligation related to third party licenses during contract period for the solution proposed and Bidder shall give indemnity to that effect.	35. Other Terms and Conditions v. The bidder is solely responsible for any legal obligation related to *third party* licenses during contract period for the solution proposed and Bidder shall give indemnity to that effect.	Please be guided by the RFP
45	150	PART-V - 22	22. Indemnity	Bidder request to have revised Indemnity clause as per 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) RFP Ref. No: UCO/DIT/774/2022-23 Date: 18/06/2022 Amendments, Addendums and Corrigendum's (12th August 2022)	Please refer to corrigendum

46	155	PART-V - 32	The selected bidder will also sign a Non-Disclosure Agreement and Deed of Indemnity with the Bank on a format prescribed by the Bank.	This clause in previous RFP was removed in corrigendum - [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) RFP Ref. No: UCO/DIT/774/2022-23 Date: 18/06/2022 Amendments, Addendums and Corrigendum's:] Please remove this requirement of deed of indemnity from this RFP.	Please refer to corrigendum
47	157	PART-V - 39	39. Compliance with Applicable Laws of India	This clause in previous RFP was removed in corrigendum - [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) RFP Ref. No: UCO/DIT/774/2022-23 Date: 18/06/2022 Amendments, Addendums and Corrigendum's:] Please remove this clause from this RFP.	Please refer to corrigendum
48	71	2.24	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	Please clarify if data assurance / audit scope is expected to only do data verification, completeness and accuracy	Please be guided by the RFP
49	73	2.24.1	Identify the critical fields (Up to 200) from CIGTMS solution for field level data migration testing in both pre and post migration environment	Please clarify that bank will be providing identification of critical fields and field mapping documents	Bidder needs to identify the critical fields and do the field mapping which will be reviewed by the bank and any suggestion from bank needs to be incorporated by the bidder. Bidder needs to note that the end to end migration and matching of fields is the responsibility of the bidder

50			Ability to match incoming /outgoing SWIFT messages as listed below	but these 3 relate to termination/ coupon events and not trade events like the rest. It's unusual to exchange SWIFT for these -> coupon/ interest is lower value and the schedule is well known in advance so a SWIFT is needed only when the SSI change -> termination usually has fees/ rescheduling of cashflows, is fairly complex and, at most customer sites, does not have high volumes for us to specify how to automate matching	Clause stands as per RFP
51			MT350 Advice of Loan/Deposit Interest Payment	It relates to coupon event and not trade event. It's unusual to exchange SWIFT for these. Coupon/ interest is lower value and the schedule is well known in advance, so a SWIFT is needed only when the SSI change	Clause stands as per RFP
52	58	2.11	MT364 Single Currency Interest Rate Derivative Termination/ Recouponing Confirmation	Termination usually has fees/ rescheduling of cash flows, is fairly complex and. Auto matching for this is not possible. We request to please delete this requirement	Clause stands as per RFP
53			MT365 Cross Currency Interest Rate Swap Termination/ Recouponing Confirmation		Clause stands as per RFP
54			Integration of MT392	This is a cancellation MT. We request bank to please describe a workflow where treasury uses this today and one where regular SWIFT can't be used with CANC in field 22	Shall be discussed with the selected bidder
55			Integration of MT096 (Fin T-Copy) and translation into underlying MT3/6xx	Please describe how this workflow is done by treasury department within TMS. When bank receives MTn95 messages, the workflow is to investigate these messages and take action. Usually, banks do it within their payments or CBS systems since, until the investigation, we don't even know if the message is about treasury (or loans, remittance or some other trade type outside treasury)	Clause stands as per RFP
56	60	2.11	Generation of messages – MT920	Sending a request is more a payments system requirement than TMS requirement – IT needs the payments system to have a list of bank accounts (bank wide, not only treasury) and the last received payment messages on that account so the user can decide to send a 920 requesting a message, if one has not already been received	Clause stands as per RFP

57	60	2.11	Integration of MT942 and intraday reconciliation with cash transfer	We can do EOD or T+1 reconciliation but not intraday reconciliation. The requirements below note EOD and T+1 and intraday reconciliation but it is more of a payments system requirement than a pure TMS requirement. We can update balances intraday at the frequency bank needs using automated or manual means. We request to please delete this requirement	Clause stands as per RFP
58	62	2.11	Corporate actions claim management	We can manage cash and inventory movement corporate actions, e.g. bonus/ dividend/ split and merger/ put and call. TMS is not the ideal place to do all corporate action (such as voting, rights offering and management, warrants management like conversion, liquidation ..). We request to please delete this requirement	Clause stands as per RFP
59	63	2.12	Analyze the current exposure to LIBOR and its cost benefit analysis for shifting to ARRs (Alternate Reference Rate) or RFRs (Risk Free Rates).	LIBOR is discontinued, so what does it mean to "analyse cost benefit of migration to RFR"? Effective Mar 2023, there is no LIBOR. As project is likely to start only after LIBOR ceases to exist, there is no point of this analysis in new system. Please delete this requirement	During go-live, if any such securities exist then this migration is required otherwise the same is not required.
60	64	2.12	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	We can do valuation on LIBOR and, if the deal is migrated to ARR, we can do valuation on ARR. What does it mean to value the same trade on both LIBOR and ARR? E.g. if a trade is currently using LIBOR, before we revalue the same trade using ARR, there would need to be a migration with its own terms and fees and in some cases, that migration needs to generate new deals. So, without any definition for those underlying terms and new deals, how does one compute a revaluation for the same trade	Please refer to corrigendum
61	62	2.12	Support for ESTRAVG index	Please help with full name and publisher for this index	Please refer to corrigendum
62	326		Note for Non – Production environments:	Apparently, this is a typographical mistake as there is separate Non-Production environment. It shall be " Note for Production Environment"	Yes, your understanding is correct.

63	287	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.	Please confirm whether LTO8 or LTO9 to be provided. We recommend LTO8 as LTO9 is having very high cartridge capacity	Please refer to corrigendum
64	288	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.	Please confirm whether LTO8 or LTO9 to be provided. We recommend LTO8 as LTO9 is having very high cartridge capacity	Please refer to corrigendum
65	289	39	Bidder must Supply 200 Blank-New Data cartridges & 2 Cleaning Cartridges with barcode labels.	We understand total 200 nos cartridges to be provided for DC and DR	Please refer to corrigendum
66	289	41	The offered tape library must have a high reliability i.e. MSBF (Mean Swap Between Failures) greater than 2,000,000 cycles	request you to change this clause as "The offered tape library must have a high reliability i.e. MSBF (Mean Swap Between Failures) minimum 2,000,000 cycles"	Please refer to corrigendum
67	289	46	Tape drive sharing must support both iSCSI and FC based connections.	please remove iSCSI as Tape drive is not available with iSCSI	Please refer to corrigendum
68	327		Storage minimum requirement 48- DC , 72- DR	Request you to change SAN Switch requirement to 24 port and more. Present RFP requirement is high	Please be guided by the RFP
69	12	Part - I 3. Eligibility Criteria #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	Our understanding is that only fresh/first time implementations are acceptable as a reference and not upgrades. Please confirm.	Yes, your understanding is correct

			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		
70	13	Part - I 3. Eligibility Criteria OEM's reference #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).	Our understanding is that only fresh/first time implementations are acceptable as a reference and not upgrades. Please confirm.	Yes, your understanding is correct
71	29	Part-III: Bid Opening and Evaluation Criteria Evaluation Parameter # 1	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	Our understanding is that only fresh/first time implementations are acceptable as a reference and not upgrades. Also in case OEM Experience is shown then Annexure XXXIII needs to be provided duly signed by the OEM which needs to be duly signed and stamped by Both i.e., OEM of treasury solution and the authorized signatory of the Bidder. Please confirm.	yes, your understanding is correct

| | | | 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).... 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... 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... | |

72		Part-III: Bid Opening and Evaluation Criteria Evaluation Parameter # 1	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…	Request to modify clause as below: 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 25 Nos of RBI approved Forex branches…	Please refer to corrigendum
73	29	Part-III: Bid Opening and Evaluation Criteria Evaluation Parameter # 1	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…	To ensure compliance to General Data Protection Rules and regulations of respective countries, we understand that the Bank expects replication of architecture at UCO Bank, of the referenced site. Please confirm.	Please refer to corrigendum
74	121	Part-V 5. Payment Terms	a. There will be no advance payments. There will be no interest on late payment.	Request the bank to consider interest for late payment at MIBOR + 100BPS post 30 day credit period.	Please be guided by the RFP
75	123	Part-V 5. Payment Terms	Bank shall pay each undisputed invoice raised in accordance with this RFP and subsequent agreement, within thirty (30) working Days after its receipt unless	Request the Bank to consider modification to 30 calendar days instead of working days.	Please be guided by the RFP

			otherwise mutually agreed in writing,		
76	331	Annexure XIX - Commercial Bid Bill of Materials - Instructions	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...	We understand that for any of the listed Oracle licenses, the bidder needs to provide only quantities and the cost will be filled in as INR 0 as the Bank has a ULA with Oracle in place. The TCO computation done by the Bank will also be taking the values as INR 0. Please confirm.	Yes, your understanding is correct. Bidder needs to note that Bank will provide only that quantity which is specified by the bidder during bid evaluation phase. If during contract period bidder require anything over and all the quantity mentioned by the bidder to maintain the SLA then bidder needs to provide the same at bidder's cost to UCO Bank.

CORRIGENDUM / ADDENDUM / AMENDMENT:

Srl	RFP Page No	RFP Clause No.	Original RFP Clause	Modified Clause
1	13	Part - 1 (3)	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	Public sector / scheduled commercial Banks refer to public sector / scheduled commercial Banks in India having minimum 1000 / 1500 / 500 branches (bricks & Mortar) on the date of RFP
2	29	Part III (3)	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	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 25 Nos of RBI approved Forex branches
3	30	Part III (3)	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)	The proposed integrated treasury solution with all three module (Front, Mid & Back) should have been implemented in any global Bank having presence in India as scheduled commercial Bank, Hongkong & Singapore (all three together) 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 Rules and Regulation of the respective country and their respective regulatory authority RBI, MAS & HKMA.

4	30	Part III (3)	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)	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. More than 1 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. More than 1 Client Reference (100 Marks) N.B. : Bidder / OEM needs to note that only first time installation / Fresh Installation will be considered as reference. Version Upgrade/Subsequent Integrations/any type of upgrade on base version will not be considered. Kindly also note that the same references shall be given under Part-I, Clause-3, Srl-4 of Eligibility Criteria to participate in bidding process.
5	30	Part III (3)	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.	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. Under Annexure-XVII, bidder has to score minimum 80% against all kind of mandatory functionalities/ requirements which are required from Day-1 and readily available in the proposed Treasury solution as out-of-the-box

6			The total marks of the Annexure will be scaled down on a scale of **400 marks** 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.** 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**. 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.	as mentioned under TAB-1, TAB-2, TAB-3, TAB-4, TAB-5 & TAB-6. No marks for the customizable & optional functionalities/ requirements. However, bidder should score 100% for other hardware/software items mentioned in Annexure-XVII under TAB-7 & TAB-8. The total marks of the Annexure will be scaled down on a scale of **400 marks** 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.** 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**. 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 declaration to be provided under Annexure – XVII, during submission of bid, shall be cross-checked/ validated/ complied with demo presentation.
6	71	2.24	Bidder needs to note that training need to be conducted by the bidder through automated tool as well as manual	Bidder needs to note that Testing need to be conducted by the bidder through automated tool as well as manual. All the tools / components needs to be factor by the bidder in the proposal.

7	71 72	2.24	Bidder or 3rd party are responsible for preparing detailed test cases including test data Test Data preparation for all testing in scope	Bidder needs to conduct SIT and UAT on manually created data at first followed by on Banks data in the Banks Environment
8	56	2.9	Multi Entity Risk Management for Mid office functionalities and other functionalities to Market Risk	Some of the multi entity risk management functionalities for treasury Portfolio 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-6
9	124	5	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.	Clause remain deleted
10	313	Annex XXVI	Having Relevant experience of more than 8 years in the Proposed Treasury & Trade Finance technical for which name is proposed	• Having Relevant experience of more than 7 years in the Proposed Treasury & Trade Finance technical for which name is proposed
11	315	Implementation resources - Phase 1 UAT Period	2 resources at each site Mumbai, Singapore & Hongkong (certified by OEM or directly under OEM Payroll)	1 resources at each site Mumbai, Singapore & Hongkong (certified by OEM or directly under OEM Payroll) during UAT period
12	132	6. Schedule of Implementation	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.	Clause stands deleted

13	27	PART-II: INVITATION FOR BIDS AND INSTRUCTIONS TO BIDDERS - 35	35. Other Terms and Conditions v. The bidder is solely responsible for any legal obligation related to third party licenses during contract period for the solution proposed and Bidder shall give indemnity to that effect.	Please be guided by the RFP
14	150	PART-V - 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 fulfil 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. |
|---|---|---|---|---|
| 15 | 155 | PART-V - 32 | The selected bidder will also sign a Non-Disclosure Agreement and Deed of Indemnity with the Bank on a format prescribed by the Bank. | The selected bidder 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 |
| 16 | 157 | PART-V - 39 | 39. Compliance with Applicable Laws of India | Clause stands deleted |

17	64	2.12	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	MTM valuation framework should be able to provide valuation of the outstanding deals based on the linked reference interest rate benchmark which may be LIBOR or ARR.
18	62	2.12	Support for ESTRAVG index	Support for ICE Risk Free Rate (RFR) Indexes - Intercontinental Exchange
19	74	2.26	It will be the responsibility of the bidder to extract the data from the legacy system.	It will be the responsibility of the bidder to extract All existing financial & non-financial data should be migrated from the legacy system and should be preserved without having any modification power but in view only format in the form of report as well as in the solution. In such case bidder may factor additional hardware if required. In all cases under Trade Migration Strategy, Market Data Migration Strategy, Operation Migration Strategy and Finance Migration Strategy -- Bank is of the view that in all of the cases for the purpose of audit and reference point of view, bank may require to enquire old data as well as to generate report. According Bank's data retention policy and as per regulatory guidelines - RBI - At least 8 years SG - At least up to 7 to 10 years HK - As long as customer exists
20	287	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.	The Offered Automated tape Library should be supplied with minimum 4x latest generation of LTO8 FC Tape drives and further scalable to 16 x latest generation LTO8 FC Tape Drives.
21	288	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.	The Tape Library must be Offered latest generation of LTO8 drive in the Library shall conform to the Continuous and Data rate matching technique for higher reliability.

22	289	39	Bidder must Supply 200 Blank- New Data cartridges & 2 Cleaning Cartridges with barcode labels.	Bidder must Supply 200 Blank- New Data cartridges & 2 Cleaning Cartridges with barcode labels.at each site
23	289	41	The offered tape library must have a high reliability i.e. MSBF (Mean Swap Between Failures) greater than 2,000,000 cycles	The offered tape library must have a high reliability i.e. MSBF (Mean Swap Between Failures) must be 2,000,000 cycles or higher
24	289	46	Tape drive sharing must support both iSCSI and FC based connections.	Tape drive sharing must support FC based connections.
25	29	Part-III: Bid Opening and Evaluation Criteria Evaluation Parameter # 1	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	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 25 Nos of RBI approved Forex branches
26	29	Part-III: Bid Opening and Evaluation Criteria Evaluation Parameter # 1	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.	The proposed integrated treasury solution with all three module (Front, Mid & Back) should have been implemented in any global Bank having presence in India as scheduled commercial Bank, Hongkong & Singapore (with all three together) 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 Rules and Regulation of the respective country and their respective regulatory authority RBI, MAS & HKMA.
27	143	Clause 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.	Notwithstanding Bank's right to cancel the order, liquidated damages at 1% (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.

28	12	Part-I, Clause-3, Eligibility Criteria, Srl-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	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. N.B. : Bidder / OEM needs to note that only first time installation / Fresh Installation will be considered as reference. Version Upgrade/Subsequent Integrations/any type of upgrade on base version will not be considered. Kindly also note that the same references shall be given under Bidder's or OEM Capability and Experience of Part-III, Clause-3, Srl-2 of Technical Evaluation.
29	82 106 138	2.31.1 2.35.1.6 7.4 srl#7	RTO – 120 mins, RPO – 30 mins	RTO – 90 mins, RPO – 30 mins
30	10	Bid Control Sheet	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.	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. Kindly note that tender fee, EMD and all the Annexures executed on non-judicial stamp paper must be submitted in hard-copy form on or before bid submission date at the address provided under Bid Control Sheet.

Schedule of Implementation, RFP Document Page – 124, Clause – 6

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. All the following functionalities/ requirements/ instruments/ securities/ asset classes should be made available for all three countries from day-1. 2. Though the same has been mentioned as country specific but all should be implemented for all three proposed treasury system of India, Hongkong & Singapore except those which are country / regulatory specific. 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 all kind of functionalities & necessary reports as either mentioned in RFP document or not mentioned under RFP document against all instruments/ securities/ asset classes mentioned hereunder without any difficulty from Day-1. 4. The sizing of the hardware should be based upon the asset classes mentioned under Section-A, Section-B of Phase-1 and monitoring of different activities from cyber	**Section – B** 1. These functionalities/ requirements/ instruments/ securities/ asset classes will be implemented later on, as and when required by Bank, on mutual terms and conditions and cost. 2. Bidder needs to consider the sizing of the hardware after considering the Section-B functionalities / modules /instruments. 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, as and when required by Bank, on mutual terms and conditions and cost.	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 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
		security point of view after installation of related tools/application as mentioned under RFP document.		
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- Security basket refers to basket of securities pledged before CCIL wherein funds can be borrowed against any of the security in that 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 - Security lending is same as Security Basket. Only difference is here the funds are borrowed or	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	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
		lent against a particular security unlike a basket of securities • 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/Security Receipts/IBPC (Interbank Participation Certificate)/PSLC (Priority Sector Lending certificate) • CSGL Module (Constituent) • Recap bonds issued by Govt of India **HK Specific:** • 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,	• CFD- Non Deliverable Forward 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	

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore	Phase 2
		• 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 - Both normal Interest Rate FRA and Bond 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 • Mark to Market Cross Currency Swap • Non-Deliverable Swap	

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
		• 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/InviTs • ETFs • Venture Capital • OTC Single –Stock and Basket options • Securities Lending- funds are borrowed or lent against a particular security unlike a basket of securities • 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/Dividend • Bonus Issue, Stock split , • Merger, Demerger • Conversion of debenture, preference	• 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) • Equity linked structured Notes & Swaps	• 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

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
		• share to equity **SG Specific:** • OTC Swaps-:Variance & Volatility • Correlation **HK Specific:** • OTC Swaps-:Variance & Volatility, Correlation		

FX Asset Class	FX Spot, FX Swaps/ Forwards, FX OTC Options, Warrants, Futures, Traded Options	1. IN, SG & HK:
		• Spot
		• Forward (Deliverable Window-NDF)
		• Swap (Deliverable / NDF)
		• Accruals (Cash payout, Fx accruals, fader option)
		• FX futures
		• Flexible Forward (Merchant FX)
		• Interbank Cash/Tom/Spot/Forward
		• Merchant Cash/Tom/Spot/ Forward
		• Long-term foreign exchange (LTFX)
		• Merchant Time Option
		• Currency Futures and Exchange Traded Currency Options / Listed FX options
		• Currency OTC Simple Option (American, European)
		• FX Option Strategies
		   • Risk Reversal
		   • Straddle
		   • Strangle
		   • Seagull
		   • Call Spread, Put Spread
			• Non deliverable Vanilla options
			• Binary / Digital Options
			• 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)
			• Barrier Options
			• Double Barrier Options
			• Barrier & Digital Swaps
			• Total return Swap	

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
		• Calendar Spread • Ratio Forward • Strip of Option Strategies • Non-Deliverable Strategies **2. IN Specific:** • Interest Rate Derivative • Vanilla options (OTC) • Vanilla options strategies • Resettable Cross-Currency IRS • Asset Swaps - It's a Swap exchanging a bond cash flows against floating rates flows. SG centre do repo transaction by pledging their bonds directly with bank. Unlike in India they don't have any counterparty like CCIL to settle transactions		
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		

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
		• Credit Facility **IN specific:** • Call & NDS Call • Cash Pay / Rec • Borrowings & Placements (TREPS, RIDF, CROMS) • Placement to NABARD/MUDRA/SIDBI • LAF • Standing Deposit Facility (SDF) • MSF • CP & CD (placement & Issuance Both)		
Credit Derivatives		• CDS: Index, Single Name, Forward, • Credit Linked Notes • Syndicated loans-(Consortium Loan)	Index Futures	• Managed CDO • 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

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
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, 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)

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore	Phase 2
			• 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 • OTC Swaptions • Commodity Futures(Futures, Index Futures, Futures Spread)

Asset Classes	Function-alities	Phase 1- Delivery for Treasury RFP of India, Hong Kong & Singapore		Phase 2
				• 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/ Private/ TFO/ Reverse • Wakala • Sukuk

Annexure XVII - Functional & Technical Specification

Bidder is required to submit a dully signed and sealed copy of the Annexure-XVII as part of Technical Bid. This functional & technical specification is required for technical scoring purpose and also for the purpose of implementation which will be required from Day-1. The implementation of these functionalities or modules or instruments is in continuation & part of the SOW mentioned under RFP document under PART-IV and revised Schedule of Implementation (ref: RFP Document Page – 124, Clause – 6) as mentioned above under this corrigendum.

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/N)" - 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
	N	Not Available (Not Applicable for Mandatory item which is required from Day-1)
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/N)" 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 fulfil 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.

TAB-1: Business process for ITMS				
Response	**Status as per RFP**			
F	Ready availability of the functionality		**Please populate only these two columns with your responses**	
C	Customization to be done			
N	Not Available (Not Applicable for Mandatory item which is required from Day-1)			
SNo	**System Requirement**	**Mandatory (M-Reqd from Day-1) / Optional (O)**	**Bidder's Response (F/C/N)**	**Bidder's Remarks / Clarification**
1.1	**Admin**	**N/A**	**N/A**	**N/A**
1.1.1	**User Maintenance**	**N/A**	**N/A**	**N/A**

1.1.1.1	Addition	M		
1.1.1.2	Deletion/deactivation/disable	M		
1.1.1.3	Modification	M		
1.1.1.4	Maker-Checker	M		
1.1.1.5	Audit Log	M		
1.1.2	**User Role**	**N/A**	**N/A**	**N/A**
1.1.2.1	Addition	**M**		
1.1.2.2	Deletion/deactivation/disable	**M**		
1.1.2.3	Modification	**M**		
1.1.2.4	Maker-Checker	**M**		
1.1.2.5	Audit Log	**M**		
1.1.3	**Controls**	**N/A**	**N/A**	**N/A**
1.1.3.1	Maker-Checker	M		
1.1.3.2	Audit Trails	M		
1.1.3.3	Archival and Historical Data extract	M		
1.2	**Static Data**	**N/A**	**N/A**	**N/A**
1.2.1	Counter Party Details - LEI Code, KYC details, Country, Contact details	**M**		
1.2.2	Counter Party Details - Currency wise settlement instructions (SSI)	**M**		
1.2.3	Counter Party Details - ISDA/ Variation Margin Maintenance	**M**		
1.2.4	Currency Maintenance	**M**		
1.2.5	Nostro Maintenance	**M**		
1.2.6	Product Maintenance	**M**		
1.2.7	Maintaining Standard Settlement Instructions for Product	**M**		
1.2.8	Benchmark Rates Maintenance	**M**		
1.2.9	Rate Maintenance - e.g. 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.	**M**		
1.2.10	Yield Curve Maintenance	**M**		
1.2.11	Security Master	**M**		

1.2.12	NDTL master for CRR and SLR	M		
1.2.13	Broker Management Module	M		
1.3	**Business process for ITMS**	**N/A**	**N/A**	**N/A**
1.3.1	**General Points - Features**	**N/A**	**N/A**	**N/A**
1.3.1.1	Support Standard Business Day Convention	M		
1.3.1.2	Edit Check- Validations	M		
1.3.1.3	Over-ride edited errors by raising exception having role based override capacity	M		
1.3.1.4	Early Currency Settlement functionality	M		
1.3.1.5	Product Setup - Product Creation/Structuring from	M		
1.3.1.6	Multi-currency system:	M		
1.3.1.7	Multiple levels: The system should be able to provide full support for multiple organizational levels & relationships and User roles.	M		
1.3.1.8	Generation of MIS in Excel, PDF, xml, csv and ADF formats	M		
1.3.1.9	Support Standard Business Day Convention , Day count Convention	M		
1.3.1.10	The system should be able to provide online and offline context sensitive help.	M		
1.3.1.11	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	M		
1.3.1.12	The system should have Short-cuts, smart tags, Blotters & other productivity features	M		
1.3.2	**Holiday Calendar**	**N/A**	**N/A**	**N/A**
1.3.2.1	The system should allow currency calendar tables for entities, countries and Currency pair	M		
1.3.2.2	Data feed by directly uploading from data aggregator.	M		
1.3.2.3	The system should be able to edit & override global calendar & holiday tables. Restricted access with audit record.	M		
1.3.2.4	Capability to adjust Cash flows , accruals, Settlement, message generation for holidays on normal & sudden basis.	M		
1.3.3	**Currency Translation**	**N/A**	**N/A**	**N/A**

1.3.3.1	The system should be able to convert between currencies without manually converting to the home currency as an interim step in the process	M		
1.3.3.2	The system should be able to define home currency, Reporting Currency, wash currency & storing in any predefined currencies entity wise	M		
1.3.3.3	The Proposed system should be capable of doing the FX Netting and compression as and when required.	M		
1.3.4	**Product Set-up**	**N/A**	**N/A**	**N/A**
1.3.4.1	The system should allow for the creation of products and sub-products	M		
1.3.4.2	The systems should allow creation of product codes based on combination of Product and sub-product	M		
1.3.4.3	Capability to view the portfolio based on various classification for MIS and valuation purpose. Dealerwise/ Investment classification/ Counterpartywise/Currecywise/Settlementwise .	M		
1.3.5	**Product Structuring and Fund Based Products**	**N/A**	**N/A**	**N/A**
1.3.5.1	Set-up of transaction types and associated codes which will be allowed	M		
1.3.5.2	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.	M		
1.3.5.3	Band Set-up (min & max days) on terms & conditions within which the user must operate	M		
1.3.5.4	Rules for workflow	M		
1.3.5.5	Rules for accounting based on transaction type	M		
1.3.6	**Transaction Tagging and Reporting**	**N/A**	**N/A**	**N/A**
1.3.6.1	All transactions should be tagged by product, Sub Product and Transaction codes	M		
1.3.6.2	Reporting should be facilitated on transactions on products and sub products on the following minimum parameters:	M		
1.3.6.3	By product	M		

1.3.6.4	By Sub products	M		
1.3.6.5	By transaction (Debit or Credit)	M		
1.3.6.6	By Counterparty for variation margin/valuation	M		
1.3.6.7	By status in the workflow process (Include category (for e.g. HFT/AFS/HTM) of investments or category of deal like Merchant, interbank etc.)	M		
1.3.7	**Documentation**	**N/A**	**N/A**	**N/A**
1.3.7.1	The system should be able to provide intuitive and current online documentation covering scope of application	M		
1.3.7.2	The system should have the ability to provide intuitive and current user manuals	M		
1.3.8	**Single View Access (Critical Requirement)**	**N/A**	**N/A**	**N/A**
1.3.8.1	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 availing these functionalities/ Data input to be done only once at the initial stage and can be accessed uniformly.	M		
1.3.8.2	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.	M		
1.3.8.3	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 either via Db link or web-service integration. 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.	M		
1.3.9	**Interfaces**	**N/A**	**N/A**	**N/A**
1.3.9.1	Rate feeds from systems like Tickerplant, Reuters, Bloomberg etc	M		

1.3.9.2	STP Deal flow from various trading platforms to Treasury System (CCIL/Reuters/Bloomberg/360T/FXALL etc.)	M		
1.3.9.3	STP for CCIL Reporting	M		
1.3.9.4	Accounting flow from Treasury to CBS (2 ways for success response)	M		
1.3.9.5	RTGS/NEFT message flow	M		
1.3.9.6	Swift messages flow (both ways for Ack/Nack)	M		
1.3.9.7	DC DR seamless Connectivity	M		
1.3.9.8	STP Data between Front Office, Mid Office & Back Office	M		
1.3.9.9	interface for generation of report from Treasury Database to other Applications/ Processes	M		
1.3.9.10	File formats supported for message based integration (XML,Text, flat file, csv format, excel)	M		
1.3.9.11	Provide support to standard messaging protocols for interfacing.	M		
1.3.9.12	The system should have the ability to rollback a transaction to a particular stage and restart, if required.	M		
1.3.9.13	Provide ability to define business rules for validation and translation of incoming messages	M		
1.3.9.14	Message formats supported by the application (ISO 8583, ISO 15022, ISO 20022 etc.)	M		
1.3.9.15	Integration with a Messaging Middleware like MQ Series, MS MQ, XML, etc.	M		
1.3.10	**Reporting Platform**	**N/A**	**N/A**	**N/A**
1.3.10.1	The system should be able to settle corporate bond deals through NSCCL / ICCL	M		
1.3.10.2	The system should be able to report corporate bond deals to FIMMDA / NSE / BSE platforms	M		
1.3.10.3	The system should be able to report CD / CP deals to FIMMDA / NSE / BSE platforms (proposed)	M		
1.3.10.4	The system should be able to report corporate bond repo deals to FIMMDA/NSE/BSE platforms(proposed)	M		
1.3.10.5	Rupee Derivatives reporting on CCIL. All IFIN files should be reported through system to CCIL.	M		

1.3.10.6	CROMS, NDS-OMS, TREPS, ASTROIDS and any other CCIL dealing platforms should be available.	M		
1.3.10.7	OTC transactions through CCIL as per the new directives of CCIL / RBI	M		
1.3.10.8	Reporting platform should be as per the local regulations of the geography of that country	M		
1.3.10.9	The system should support tools like Scenario Analysis, Stress Testing What If analysis for regulatory reporting across all products	M		
1.3.11	**Clearing Agency**	**N/A**	**N/A**	**N/A**
1.3.11.1	The system should support settlement of Interbank Forex deals, reflecting any modifications for through CCIL and through outside CCIL	M		
1.3.11.2	The system should support settlement of Interbank Forex deals through CLS	M		
1.3.12	**Market data**	**N/A**	**N/A**	**N/A**
1.3.12.1	System should support real time market data feed and rating details & migration from feed providers (Reuters, Bloomberg, Cogencis, Newswire), CRISIL, ICRA, CARE & FITCH etc.	M		
1.3.12.2	System should support sanity checks for market data & failover capabilities	M		
1.3.12.3	System should support upload of market data from external sources without manual intervention e.g. Excel files.	M		
1.3.12.4	System should support error handling and notifications for market data errors.	M		
1.3.13	**Exception Reporting**	**N/A**	**N/A**	**N/A**
1.3.13.1	Soft limits, hard limits & threshold limits at unconfirned and confirmed level	M		
1.3.13.2	Realtime alerts for Intra-day exceptions with reasons, deal particulars, time etc.	M		
1.3.13.3	End of Day Exception report	M		
1.3.13.4	Error messages/pop-ups for breaches in limits /Rate/Tenor/Amount tolerances based on pre-defined parameters	M		
1.3.14	**Books of Accounts**	**N/A**	**N/A**	**N/A**

1.3.14.1	The system should have the ability to maintain separate books of accounts	M		
1.3.14.2	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	M		
1.3.14.3	The system should have the ability to maintain books of accounts in both home currency and a designated foreign currency	M		
1.3.15	**General Processing Guidelines**	**N/A**	**N/A**	**N/A**
1.3.15.1	The system should allow for transaction entry, viewing of positions and MIS reports	M		
1.3.15.2	Ability to process and report on data in an online, real time mode	M		
1.3.15.3	All trades migrated from existing systems to the new one should also be maintained	M		
1.3.15.4	Ability to maintain online history of trade information for all trades	M		
1.3.15.5	The system should be able to handle multiple entities that Includes global, domestic, international branches, subsidiaries etc.	M		
1.3.15.6	The system should be able to consolidate data on the basis of Entity reports and combination of one or more entities.	M		
1.3.15.7	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.	M		
1.3.15.8	The system should allow for viewing of all data from the system for Current market information - Currency Rates	M		
1.3.15.9	The system should allow for viewing of all data from the system for Historical market information - Currency Rates	M		
1.3.15.10	The system should allow for viewing of all data from the system for Audit trails (Fx, MM, System, Derivative etc.)	M		
1.3.15.11	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.	M		

1.3.16	Accounting Standard	N/A	N/A	N/A
1.3.16.1	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.	M		
1.3.16.2	The system should be parametric for enabling AS-11 accounting standard at individual product level.	M		
1.3.16.3	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).	M		
1.3.16.4	The system should be parametric for enabling IAS39 accounting standard for Hedge accounting. Should have provision to apply multiple accounting standards ina single product.	M		
1.3.16.5	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	M		
1.3.16.6	Repo accounting as per RBI guidelines (incl. LAF,MSF, Reverse Repo & TREPS) and any other instrument as defined by RBI/MAS/HKMA.	M		
1.3.16.7	Provision for fair value accounting	M		
1.3.16.8	The System should also able to calculate profit and loss etc. according to IND AS through revaluation	M		
1.3.16.9	System should be able to handle deals with negative interest rate .	M		
1.3.16.10	System should have module for cross currency swaps(Reciprocal deposits).	M		
1.3.16.11	The Proposed solution should be Ind AS compliant. It should include, and not limited to, the following	M		
1.3.16.12	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	M		

	testing as per Bank's specified format and through Bank's specified interface integration.			
1.3.16.13	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.	O		
1.3.16.14	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.	M		
1.3.16.15	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.	M		
1.3.16.16	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.)	M		
1.3.16.17	As sub-ledger, generate accounting journals for trades/positions in scope following 3 set of accounting standard (IGAAP|Ind AS for India entity and IFRS|IGAAP|IndAs for SG and HK entities) - Journal for trades is to be generated at each component level - Position accounting for bonds & equity cash based on value(settlement) date recognition - Accounting rules that are used to generate accounting journals based on trade or position	M		

TAB-2: Fixed Income & Money Market for ITMS

Response	Status as per RFP	Please populate only these two columns with your responses	
F	Ready availability of the functionality		

SNo	System Requirement	Mandatory (M-Reqd from Day-1) / Optional (O)	Bidder Response (F/C/N)	Bidder Clarifications / Comments
C	Customization to be done			
N	Not Available (Not Applicable for Mandatory item which is required from Day-1)			
2.1	**Deal Verification**	N/A	N/A	N/A
2.1.1	Ability to provide configurable deal verification function by status & authority	M		
2.1.2	Configurable work flow engine to add or reduce multiple verification levels	M		
2.1.3	Ability to configure transaction data fields that can be amended during deal verification stage along with audit trail.	M		
2.1.4	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	M		
2.1.5	Ability to generate Exception Report - Failed Trades, Miscelleaneous losses, Ageing of unconfirmed trades, deals resulting in exceptional profit and losses	M		
2.1.6	Ability to configure bulk verification of deals by authorised user	M		
2.2	**Deal Confirmation**	N/A	N/A	N/A
2.2.1	Ability to generate and manage confirmations, including interfaces, for all products	M		
2.2.2	Ability to define the format and wordings of confirmation based on the characteristic of the product/ transaction	M		
2.2.3	Ability to format and maintain different formats for confirmation by: Product/instrument, payment type, counterparty and currency	M		
2.3	**Deal Settlement**	N/A	N/A	N/A
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 mutiple security and mutiple settlemnet account	M		

2.3.2	Ability to allow the user to input different settlement instructions, which should be authorized at an appropriate level	M		
2.3.3	Ability to support aggregating multiple deals into one settlement	M		
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 modifed at the time of settlement by the authorised persons.	M		
2.3.5	Ability to automatically process all the transactions, for which settlement instructions have been defined	M		
2.3.6	Ability to generate due date diary for interest & redemption with adequate filters.	M		
2.3.7	Ability to generate settlement advice for all deals executed	M		
2.3.8	Ability to support automatic generation of payment and receivables list for user defined maturities and contract date and for specific counterparties	M		
2.3.9	Ability to allow part settlement of interest redemption	M		
2.3.10	Addition/ Deletion of charges in equity share deals on value date	M		
2.3.11	Addition/ Modification in equity share deals on value date after authorization with designated user with audit trail.	M		
2.3.12	Encryption of messages before interface with the SWIFT.	M		
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. Provison should be there to specify the reason of change along with audit trail.	M		
2.3.14	Ability to settle the deals after netting the transactions, to arrive at the net position status by counter party, by products & by currency	M		
2.3.15	Ability to generate RTGS messages wherever applicable	M		
2.3.16	Ability to track call/ put options on securities held. Alert should be provided before CALL/PUT option maturity	M		
2.3.17	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.	M		

2.3.18	Calculation of interest and reset of floating(Mibor)/fixed leg on INR part for Interbank Currency Swap transaction	M			
2.4	**Transaction Handling**	N/A	N/A		N/A
2.4.1	Ability to monitor and report on a product/transaction throughout its life cycle until maturity/settlement	M			
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.	M			
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.	M			
2.4.4	Capture of CBS Tranaction ID & date with other required details in ITMS.	M			
2.4.5	Ability to specifically monitor collateral in case of Collaterlized security transaction	M			
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.	M			
2.4.7	Ability to generate statement of outstanding transactions (along with contract details) for counterparty on an ad-hoc basis	M			
2.7	**Accounting**	N/A	N/A		N/A
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.	M			
2.7.2	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	M			
2.7.3	Ability to provide for maintaining and mapping transaction posting rules by entry, role, product, instrument, category, transaction type, currency etc.	M			

2.7.4	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	M		
2.7.5	Ability to maintain chart of account to assist in accounting of Treasury transactions	M		
2.7.6	Ability to provide portfolio accounting & GL processing/ interfacing without affecting operational availability/online access to transactional/ other data	M		
2.7.7	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	M		
2.7.8	Ability to conduct end of day or end of month processing without impacting online trading periods /days	M		
2.7.9	Ability to generate accounting entries on trade date and value date/settlement dates	M		
2.7.10	Ability to support P&L reporting across various entities across different time zones	M		
2.7.11	Ability to maintain more than one accounting standard for any entity, e.g. Ind AS, GAAP, etc	M		
2.7.12	Ability to generate accounting entries on Trade date/value date for settlement transaction(SLR/Non SLR/Money market), accruals, amortization, dividend, interest receipt, redemption etc	M		
2.8	**Other Processing Parameters**	N/A	N/A	N/A

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	M		
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.	M		

2.8.3	Facility to capture Trades automatically	M		
2.8.4	Deal Booking & Reversal should generate correct & complete accounting entries at Treasury & respective branches	M		
2.8.5	The system should be able to generate a unique number for each deal created that should be system generated and non-editable.	M		
2.8.6	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.	M		
2.8.7	The system should be able to calculate underlying floating interest amount applicable in case of a floating rate Repo transaction	M		
2.8.8	System should be capable of maintaining all historical internal as well as external rating migration records	M		
2.8.9	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.	M		
2.8.10	The system should be able to store historical revaluations for each transaction record	M		
2.8.11	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.	M		

2.8.12	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.	O		
2.8.13	Security affected while posting manual entry along with audit trail	M		
2.9	**Data Capturing & Monitoring Facility for Specific Use Cases**	N/A	N/A	N/A
2.9.1	Stock entry in NDS GILTS of new Subscription ALARM required through maker-checker concept with specific user. Alert required for updation in NDS OM for new security deal flow from NDS OM.	M		
2.9.2	Alarm for breaches of limit as prescribed in investment policy to be maintained in the system.	M		
2.9.3	Consolidated dealer blotter for back office	M		
2.9.4	Alert for brokerwise limit breach	M		
2.10	**Mark to Market Features**	N/A	N/A	N/A
2.10.1	Capability to Mark to Market all positions and calculate the Profit & Loss at the pre defined closing/FEDAI rates by business.	M		
2.10.2	System should support AS-11 accounting and should generate the accounting entries as per the bank's policy	M		
2.10.3	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.	M		
2.11	**Maintainence, recording and generation of key data**	N/A	N/A	N/A
2.11.1	Accounting Entries	M		
2.11.2	Funds Flow	M		
2.11.3	Deal Register	M		
2.11.4	Due Date Diary for redemptions of SLR/Non SLR Securities	M		
2.11.5	Settled Deal Register	M		
2.11.6	Maturity Deal Listing	M		

2.11.7	Maturity list of Lending and Borrowing	M		
2.12	**Confirmation of Trades**	N/A	N/A	N/A
2.12.1	The system should allow for viewing of queue of transactions pending confirmation	M		
2.12.2	The confirmations generated from the system should be possible for users to send hard copies to counterparties/brokers/issuers	M		
2.12.3	The system should provide ticker listing of all transactions pending settlement or confirmation	M		
2.12.4	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.	M		
2.13	**Settlement of Deals**	N/A	N/A	N/A
2.13.1	The system should have the ability to create a queue for a definable series for payment release for Securities Transactions	M		
2.14	**Printing Facility**	N/A	N/A	N/A
2.14.1	The system should have the ability to print all transaction deal tickets	M		
2.14.2	Re-printing of transaction deal tickets	M		
2.14.3	Printing of all MIS reports	M		
2.15	**Confirmation Related Features**	N/A	N/A	N/A
2.15.1	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.	M		
2.15.2	System should segregate & send back to the dealer a particular deal that has not been confirmed for any reason	M		
2.16	**Payments**	N/A	N/A	N/A
2.16.1	Ability to generate payment information	M		
2.16.2	The system should be able to automatically generate payment requests on or before the settlement date	M		
2.16.3	Brokerage reports including the following	M		
2.16.4	Total trades broker wise (for committed and settled deals)	M		

2.17	**Data Storage**	N/A	N/A	N/A
2.17.1	Data should be stored by the system for at least 10 years as per regulatory requirement	M		
2.17.2	Users should be able to recall data without any coding requirements	M		
2.17.3	Ability to maintain versions of every business objects (trade, payments, counterparties, etc) in the system throughout their entire life-cycle	M		
2.18	**Analytics on Market Information**	N/A	N/A	N/A
2.18.1	The system should allow users manually define yield curves	M		
2.18.2	The system should be able to model user-defined treasury curves	M		
2.19	**Computational Capabilities**	N/A	N/A	N/A
2.19.1	The system should be able to provide bond calculators to support pricing of bonds and other fixed income securities including NonSLR.	M		
2.19.2	The system should be able to track the strike dates in case of products with embedded call/put	M		
2.19.3	The system should be able to calculate interest for products sensitive to caps and floors	M		
2.19.4	The system should be able to calculate interest of Floating Rate Instruments recognizing reset dates/rates upon benchmark security	M		
2.19.5	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	M		
2.19.6	The system should be able to perform duration & convexity analysis	M		
2.19.7	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	M		
2.19.8	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)	M		
2.19.9	System should support valuations as per FIMMDA guidelines/ local regulatory guidelines	M		

2.20	**Master Data for Scrip**	N/A	N/A	N/A
2.20.1	Instrument Name	M		
2.20.2	ISIN	M		
2.20.3	Instrument type	M		
2.20.4	Issuer name/Company Name / State name & Details(Should also capture Unique Customer ID applicable in Banks)	M		
2.20.5	Industry	M		
2.20.6	Coupon Rate	M		
2.20.7	Issue date	M		
2.20.8	Maturity Date	M		
2.20.9	Interest frequency/Interest Reset Date	M		
2.20.10	Benchmark for interest reset for FRBs	M		
2.20.11	Interest convention	M		
2.20.12	Shut period (no. of days)	M		
2.20.13	Interest Payment Date	M		
2.20.14	Entry load	M		
2.20.15	Exit load	M		
2.20.16	Identification of Tier II Bonds	M		
2.20.17	Credit Rating & Agency, Date of rating/ internal rating, whether listed/unlisted	M		
2.20.18	Stock Exchange in which entity is listed	M		
2.20.19	Priority Sector/Non-Priority Sector Investment	M		
2.20.20	Book Classification (HFT / AFS / HTM)	M		
2.20.21	Exemption (Whether CDR based Investment or Not)	M		
2.20.22	Corporate Actions & Related Activities etc.	M		
2.20.23	flexibility to add new fields	M		
2.20.24	In case of mutual funds/ETF whether the same is Equity Oriented/Debt Oriented	M		
2.20.25	Approved Security Status	M		
2.20.26	Physical/Demat Status	M		
2.20.27	Short Sale Indicator	M		

2.20.28	Repo Forward Status	M		
2.20.29	Redemption Schedule	M		
2.20.30	OMO Sale Indicator	M		
2.20.31	5% HTM Sale Indicator	M		
2.20.32	Subscription/Auction Indicator	M		
2.20.33	Investment Category	M		
2.20.34	Private/Public placement (NPI / Not NPI)	M		
2.20.35	Lien Marking Status	M		
2.20.36	SLR/NonSLR category	M		
2.20.37	Secured / Unsecured	M		
2.20.38	Industry	M		
2.20.39	Tax Free Status	M		
2.20.40	Field to capture CBS CIF ID	M		
2.20.41	Field to capture PAN number	M		
2.21	**Trade Capture**	N/A	N/A	N/A
2.21.1	The system should be able to give notifications in case of breach of stop loss/ take profit limits	M		
2.21.2	The system should be able to compute the exact stop loss and take profit based on pre-defined percentages	M		
2.21.3	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.	M		
2.21.4	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)	M		
2.21.5	System should be to able to handle changes in the approved prices	M		
2.21.6	Automatic deal entry for deals done through dealing systems	M		
2.21.7	Facility (option) to put through reverse deals in case of cancellations on the same day	M		
2.21.8	The system should allow for the different types of deal capture	M		

2.21.9	Manual deal entry for deals done through brokers and/or wherever, capturing possible, electronically upload the details	M		
2.21.10	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.	M		
2.21.11	The system should be able to retrieve static data from masters at the time of deal entry	M		
2.21.12	The system should be able to highlight instances of short sale & covered deals	M		
2.21.13	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.	M		
2.21.14	Ability to fix original trade number with the version number incremented each time the market events are performed	O		
2.22	**Short Sale**	N/A	N/A	N/A
2.22.1	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.	M		
2.22.2	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	M		
2.22.3	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.	M		
2.22.4	System should give a message /alert at the time of entering / saving the deal.	M		

2.22.5	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.	M		
2.22.6	Support of FIFO Based/average based profit policy-only for short sales Transactions	M		
2.23	**Settings and Monitoring Limits to Operations**	N/A	N/A	N/A
2.23.1	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.	M		
2.23.2	System should give an option to front office users if they would like to continue with the deal or abort it.	M		
2.23.3	Counter party limits	M		
2.23.4	Issuer limits	M		
2.23.5	Dealer limits	M		
2.23.6	Broker limits (only empanelled brokers to be permitted)	M		
2.23.7	Rating limits	M		
2.23.8	Instrument wise limits	M		
2.24	**Support for Corporate Actions (Recognising and Recording Impact)**	N/A	N/A	N/A
2.24.1	Put /Call Pop-up	M		
2.24.2	Interest Payment and redemption.	M		
2.24.3	Change in Name /address	M		
2.24.4	Dividend	M		
2.24.5	Splits and consolidation	M		
2.24.6	Merger/Demerger	M		
2.24.7	Rights	M		
2.24.8	Bonus	M		
2.24.9	Coversion of Securities (Convertible debentures to preference share or equity & others)	M		
2.25	**Valuation, Amortisation and NPI Recognition**	N/A	N/A	N/A
2.25.1	System should calculate Mark-to-Market valuation of all securities in the HTM,HFT,AFS & the system should have provision for defining the	M		

	sub-portfolio. System should have the provision for any add on Market/Credit Risk Charges for the purpose of Valuation				
2.25.2	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.	M			
2.25.3	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.	M			
2.25.4	Posting of partial repayment received in matured accounts or NPI accounts after due date.	M			
2.25.5	Process to recognize NPI as per RBI Norms and Generate LiST /Desired File for integration with CBS	M			
2.26	**Tax Deducted at Source (TDS)**	N/A		N/A	N/A
2.26.1	System should be able to keep track of TDS certificates received & due to receive, within which CGST & IGST should be included	M			
2.26.2	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	M			
2.26.3	System should be able to generate report on total TDS deducted & TDS Certificates due for receipt on monthly ,quarterly, Half-Yearly & Yearly basis	M			
2.27	**Dividend on Portfolio**	N/A		N/A	N/A

2.27.1	System should be able to record dividend declarations	M		
2.27.2	The system should be able to keep track of Dividend received & due to receive	M		
2.27.3	System should be able to generate report on total dividend received & dividend due for receipt on monthly, quarterly, Half-Yearly & Yearly basis	M		
2.28	**Reporting for ITMS**	**N/A**	**N/A**	**N/A**
2.28.1	**Domestic**	N/A	N/A	N/A
2.28.1.1	Shifting of securities as per RBI guidelines	M		
2.28.1.2	Monthly payment of brokerage for bond deals.	M		
2.28.1.3	Provision to generate report for ear-marking of securities in CSGL	M		
2.28.1.4	CD Daily Limit Utilisation	M		
2.28.1.5	Return on Short Term Investments/ Holding Period Return	M		
2.28.1.6	Return on Liquid Investments	M		
2.28.1.7	CD Maturity Report	M		
2.28.1.8	Buy Back Report	M		
2.28.1.9	Fortnightly cumulative Call Money Transaction Position	M		
2.28.1.10	Daily Call Report	M		
2.28.1.11	CALL-Daily Interest Banks and Others	M		
2.28.1.12	CD Holding/Outstanding Report	M		
2.28.1.13	Average Yield/Average Cost in Call Money	M		
2.28.1.14	Voucher (LAF/REPO)-For a Date	M		
2.28.1.15	CD Outstanding Report with YTM during the period	M		
2.28.1.16	CD Issued Report with yield, maturity etc	M		
2.28.1.17	Brokerage Turnover report	M		
2.28.1.18	Current Yield on Portfolio	M		
2.28.1.19	Report on average Yield, portfolio-wise	M		
2.28.1.20	Dividend Summary	M		
2.28.1.21	Redemption Detail during a period Category wise	M		
2.28.1.22	Subscription during a Period Category wise	M		
2.28.1.23	CSGL Holding Statement	M		

2.28.1.24	CSGL Transaction Statement	M		
2.28.1.25	CSGL Daily Interest	M		
2.28.1.26	Securities Maturing during a period	M		
2.28.1.27	Subscription During a period	M		
2.28.1.28	Report on Non-Performing Investment with provisions on Daily basis	M		
2.28.1.29	Summary of NPI/Written off investments	M		
2.28.1.30	Report on average Investment – Scrip-wise, category wise, portfolio-wise	M		
2.28.1.31	HFT - Daily Purchase or Short Sale	M		
2.28.1.32	FRB Valuation	M		
2.28.1.33	OMOs Report- 5% of HTM Report	M		
2.28.1.34	Daily RBI/SBI/ any other regulatory balance (Centre wise)	M		
2.28.1.35	Customized statement of profit, i.e., portfolio-wise, category-wise, security-wise etc	M		
2.28.1.36	Fortnightly SLR / Non SLR Statement	M		
2.28.1.37	Security Classification - Secured - Tangible - Intangible / Unsecured	M		
2.28.1.38	Security Classification - Rated / Unrated	M		
2.28.1.39	Reports on Funds & Treasury Position-maintenance of CRR/SLR	M		
2.28.1.40	Maturity Pattern on residual basis	M		
2.28.1.41	HTM Sale During a Period with profit / loss	M		
2.28.1.42	Duration/Modified Duration (Any-prior-dated)	M		
2.28.1.43	Security-Holding (Detail) – Industry wise/Company wise	M		
2.28.1.44	Issue wise Exposure and Overdue (Any-Prior-Dated)	M		
2.28.1.45	Interbank Repo During a Period	M		
2.28.1.46	Reports which are required for daily monitoring purpose such as Holding position, Transaction Report category wise, profit position category wise, Trial Balance & other reports	M		
2.28.1.47	Report on Amortization Daily/Weekly/Monthly/Quarterly	M		

2.28.1.48	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	M		
2.28.1.49	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	M		
2.28.1.50	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	M		
2.28.1.51	Security Wise Transaction for a period (SGL)	M		
2.28.1.52	Consolidated CSGL Deal Report category wise, for Reconciliation & Settlement, and any vice-versa deal SGL & CGSL should be reported	M		
2.28.1.53	CSGL Monthly Statutory Reporting for CSGL	M		
2.28.1.54	Statutory Liquidity Requirement (STL) – to be generated for Treasury branch as a whole on daily basis	M		
2.28.1.55	Branch / DP wise Security Holding (Any-prior- dated)	M		
2.28.1.56	Report on Interest due as on any date (category wise & summary with age wise classification)	M		

2.28.1.57	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	M		
2.28.1.58	Monthly Reconciliation	M		
2.28.1.59	Online dealer-wise position of Held for Trade portfolio of all asset class with Stop-loss limits	M		
2.28.1.60	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	M		
2.28.1.61	Sensitivity & scenario analysis can be done	M		
2.28.1.62	Intraday Liquidity statement Fortnightly valuation of SLR securities	M		
2.28.1.63	Accounts Ledger	M		
2.28.1.64	Security Ledger	M		
2.28.1.65	Daily return on Call, Notice, Term money, Repo transactions, TREPS	M		
2.28.1.66	Average outstanding and yield security / sector / portfolio wise	M		
2.28.1.67	Balance Report for any given day	M		
2.28.1.68	Subsidiary General Ledger (SGL)	M		
2.28.1.69	Funds Position As on any given date	M		
2.28.1.70	Report on Mutual Fund – Enter Portfolio, Scheme wise Return	M		
2.28.1.71	Interest Vouchers-For a Date	M		
2.28.1.72	Interest Ledger	M		

2.28.1.73	Accrued Interest for all interest bearing securities (Rating wise/Current Yield wise/YTM wise)	M		
2.28.1.74	Summary of Sale-Purchase Voucher for Equity Transactions	M		
2.28.1.75	Summary of Interest/Redemption Voucher	M		
2.28.1.76	Voucher(Sale/Purchase/Redemption) for Preference Shares, Venture Capital Funds	M		
2.28.1.77	Redemption Receivable During a period	M		
2.28.1.78	Dividend Ledger	M		
2.28.1.79	DSB in XBRL Format	M		
2.28.1.80	Daily SLR and Annexure B Regulatory returns	M		
2.28.1.81	Purchase Register	M		
2.28.1.82	SALE REGISTER / Short Sale security wise.	M		
2.28.1.83	Mandate for Sale/Purchase of SLR Securities	M		
2.28.1.84	Monthly reporting to RBI on short selling in GOI securities	M		
2.28.1.85	Portfolio Transfer Register	M		
2.28.1.86	CSGL Constituent list	M		
2.28.1.87	Money Market instruments, i.e. Call, TREPS, LAF, Refinance etc Interest accrual daily/monthly/quarterly/half yearly and also within a given period	M		
2.28.1.88	Consolidated Deal Details – Product-wise	M		
2.28.1.89	DEAL CONFIRMATION – CALL MONEY	M		
2.28.1.90	Deal Confirmation – Non SLR & Money Market	M		
2.28.1.91	Deal Confirmation of all deals of a day – Govt. Securities	M		
2.28.1.92	Profit Statement-As of Latest Deal	M		
2.28.1.93	Repo deals due date diary	M		
2.28.1.94	Repo deal register	M		
2.28.2	**Forex & Domestic**	N/A	N/A	N/A
2.28.2.1	Counter Party-wise Exposure	M		
2.28.2.2	Report on Fund Position	M		
2.28.2.3	Daily report on trading profits – Dealer wise / Cy wise	M		
2.28.2.4	After hour trade/ Exeption reports	M		

2.28.2.5	Category-wise Monthly Profit	M		
2.28.3	**Front office**	N/A	N/A	N/A
2.28.3.1	Dealers Pad	M		
2.28.3.2	Suspicious Transaction Report	M		
2.28.4	**Risk - Domestic**	N/A	N/A	N/A
2.28.4.1	Duration/Modified Duration/Current Yield summary of Portfolio (Online)/ total	M		
2.28.4.2	Age-wise report in respect of HFT (to check 90 days defeasance period)	M		
2.28.4.3	Rating Migration Report on the weekly/Monthly/quarterly basis	M		
2.28.4.4	Rate Tolerance and Amount Tolerance Report	M		
2.28.4.5	Report on derivatives showing MTM, booked P&L, PVBP, Accrual, Notional Amount	M		
2.28.4.6	Reports Exceeding of vesting powers as per Investment Policy	M		
2.28.4.7	Held for trading Limit at end of Day	M		
2.28.4.8	A.) GOI/ State Govt Securities	M		
2.28.4.9	B.) PSUs Bonds	M		
2.28.4.10	C.) Debentures (Non PSUs)	M		
2.28.4.11	D.) MFs/Shares	M		
2.28.4.12	Deal Size Limit Reports	M		
2.28.4.13	A.) T -Bill /CMB	M		
2.28.4.14	B.) All G Secs	M		
2.28.4.15	C.) Non-SLR Bonds/ Debentures	M		
2.28.4.16	D.)For Equity	M		
2.28.4.17	E). For Mutual Funds	M		
2.28.4.18	STOP Loss Limit For HFT portfolio Fixed Income Securities/ Defeasance limit alert (90Days)	M		
2.28.4.19	A. On Long Position	M		
2.28.4.20	B.On Short Position	M		
2.28.4.21	Short sale Reports	M		
2.28.4.22	A.) Liquid Securities	M		

2.28.4.23	B.) Other Identified Securities	M		
2.28.4.24	STOP Loss Limit For Equity portfolio(HFT/AFS)	M		
2.28.4.25	Take Profit Limits for HFT and AFS on the Equity Portfolio	M		
2.28.4.26	Rating wise Investement ceiling in Non Slr	M		
2.28.4.27	Entity wise Exposure Limit in Non Slr	M		
2.28.4.28	D. Stess testing	M		
2.28.4.29	Rate scan Reports on Real Time basis	M		
2.28.5	**Risk - Fixing of Prudentail Limits**	N/A	N/A	N/A
2.28.5.1	Bank's investment in unlisted non-SLR securities	M		
2.28.5.2	Bank's investment in unlisted non-SLR securities in securitization paper and reconstruction company set up under sarfaesi act	M		
2.28.5.3	Reports of Investment in Mutual fund (Equity oriented scheme in any Mutual fund)	M		
2.28.5.4	Reports of Investment in Mutual fund (100% Debt oriented scheme in any Mutual fund)	M		
2.28.5.5	Reports of Total Exposure in Mutual fund	M		
2.28.5.6	Reports of Equity(purchased from secondary market in single entity)	M		
2.28.5.7	Reports of Equity(purchased from primary market per issue basis)	M		
2.28.5.8	Exposure report on commercial paper in single entity of PSUs	M		
2.28.5.9	Exposure report on Certificate of deposit	M		
2.28.5.10	Exposure report on Venture capital fund	M		
2.28.5.11	Report of preferance shares	M		
2.28.5.12	report of COMMERCIAL PAPER INVESTMENT LIMIT	M		
2.28.5.13	BROKER LIMIT REPORTED YEARLY(fixed income and equity)	M		
2.28.5.14	Report on Call Lending and Borrowing Limit (daily basis and fortnightly basis)	M		
2.28.5.15	HTM limit report as per RBI 22.00% of NDTL IN A DAY	M		
2.28.5.16	Repo transaction Limit reports	M		
2.28.5.17	MSF BORROWING limit reports	M		
2.28.5.18	SDF limit reports	M		
2.28.5.19	Report On Equity Purchase From the Secondary Market in single entity	M		

2.28.5.20	Inter Bank Liability reports	M		
2.28.6	**Regulatory Reports**			
2.28.6.1	Cash Reserves With RBI	M		
2.28.6.2	CRR Maintenance	M		
2.28.6.3	Fortnightly Average RBI Balance	M		
2.28.6.4	Statutory Liquidity Requirement	M		
2.28.6.5	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.	M		
2.28.6.6	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.	M		
2.28.6.7	R-Return	M		
2.28.6.8	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.	M		
2.28.6.9	Return BSR V	M		
2.28.6.10	Form – VIII and CA 23(Regulatory report)	M		
2.28.6.11	SCHEDULE 57 and SCHEDULE 12 (Regulartory Report)	M		
2.28.6.12	Monthly reconciliation of SGL Account balances retrieved from E-Kuber with our portfolio	M		
2.28.6.13	Reporting for RBS Requirements for Investments	M		
2.28.6.14	RAQ Report; shifting of G-Sec Securities	M		
2.28.6.15	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.	M		

2.28.6.16	Investments in equity in the capital market by commercial banks	M		
2.28.6.17	Security List with call/put option	M		
2.28.6.18	Switch Report	M		
2.28.6.19	Key Parameters - Period-wise, Portfolio-wise, Category-wise, Security-wise	M		
2.28.6.20	Credit Rating Details	M		
2.28.6.21	Cost and Yield statements	M		
2.28.6.22	Position of investment portfolio should be available online clearly specifying exposure limits vis-a-vis actual maintenance	M		
2.28.6.23	List of un-rated and unlisted investments and iliquidity securites	M		
2.28.6.24	RBS Tranche Complete Data like hurdle rate data, Industry/sector Classification Data etc.	M		
2.28.6.25	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	M		
2.28.6.26	Portfolio-wise Performance measurement report at user defined frequency or range of period	M		
2.28.6.27	Product wise/Portfolio wise Statistical analysis of past performance (Quarterly/Half yearly/Annual-at least corresponding periods)	M		
2.28.6.28	TERM MONEY LEDGER	M		
2.28.6.29	Performance measurement – Dealer wise	M		
2.28.6.30	Master Balance Containing below details	M		
2.28.6.31	Security Code	M		
2.28.6.32	Security Name	M		
2.28.6.33	Instrument Name (CGS/SGS/TBILL/CP/CD/BON/EQN/PREF Shares/SR/VCF/Debentures etc)	M		
2.28.6.34	Category of investment (SLR/Non SLR)	M		
2.28.6.35	Portfolio (HFT/AFS/HTM)	M		
2.28.6.36	Face Value & Book Value	M		
2.28.6.37	No of Units	M		
2.28.6.38	Unit Face Value	M		

2.28.6.39	ISIN	M		
2.28.6.40	Issue date	M		
2.28.6.41	Maturity Date	M		
2.28.6.42	Weighted Avg Holding Price	M		
2.28.6.43	Market Price	M		
2.28.6.44	Holding Yield	M		
2.28.6.45	Market Yield	M		
2.28.6.46	App/Depn	M		
2.28.6.47	Coupon & Coupon frequency	M		
2.28.6.48	Rating details	M		
2.28.6.49	Indusry details	M		
2.28.6.50	Issuer name, issuer type	M		
2.28.6.51	Mduration	M		
2.28.6.52	Duration	M		
2.28.6.53	Valuation Report	M		
2.28.6.54	Detailed ie Security wise	M		
2.28.6.55	Summary ie Instrument wise	M		
2.28.6.56	Valuation Report must contain below details	M		
2.28.6.57	Security Code	M		
2.28.6.58	Security Name	M		
2.28.6.59	Instrument Name (CGS/SGS/TBILL/CP/CD/BON/EQN/PREF Shares/SR/VCF/Debentures etc)	M		
2.28.6.60	Category of investment (SLR/Non SLR)	M		
2.28.6.61	Portfolio (HFT/AFS/HTM)	M		
2.28.6.62	Face Value & Book Value	M		
2.28.6.63	No of Units	M		
2.28.6.64	ISIN	M		
2.28.6.65	Issue date	M		
2.28.6.66	Maturity Date	M		
2.28.6.67	Weighted Avg Holding Price	M		
2.28.6.68	Market Price	M		

SNo	System Requirement	Mandatory (M-Reqd from Day-1) / Optional (O)	Bidder Response (F/C/N)	Bidder Clarifications / Comments
2.28.6.69	Holding Yield	M		
2.28.6.70	Market Yield	M		
2.28.6.71	App/Depn	M		
2.28.6.72	Mduration	M		
2.28.6.73	Duration	M		
2.28.6.74	PV01	M		
2.28.6.75	BASE YIELD	M		
2.28.6.76	SPREAD	M		
2.28.6.77	Convexity	M		

		TAB-3- F: FOREX 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				
N	Not Available (Not Applicable for Mandatory item which is required from Day-1)				

SNo	System Requirement	Mandatory (M-Reqd from Day-1) / Optional (O)	Bidder Response (F/C/N)	Bidder Clarifications / Comments
3.1	**Deal Verification**	**N/A**	**N/A**	**N/A**
3.1.1	Ability to provide configurable deal verification function by status & authority	M		
3.1.2	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.	M		
3.1.3	Configurable work flow engine to add or reduce multiple verification levels	M		
3.1.4	Ability to configure transaction data fields that can be amended during deal verification stage along with audit trail.	M		
3.1.5	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	M		

3.1.6	Ability to append standard settlement instructions (SSIs) to deals. Customisable SSI should be enabled from front end along with audit trail.	M		
3.1.7	Ability to generate Exception Report - Failed Trades, Miscelleaneous losses, Ageing of unconfirmed trades, deals resulting in exceptional profit and losses	M		
3.1.8	Automatic validation of deal rates based on Tolerance Limit.	M		
3.1.9	Ability to configure bulk verification of deals by authorised user	M		
3.1.10	The system should be able to generate a unique number for each deal created that should be system generated and non-editable.	M		
3.2	**Deal Confirmation**	**N/A**	**N/A**	**N/A**
3.2.1	Ability to format and maintain different formats for confirmation by: Product/instrument, payment type, counterparty and currency	M		
3.2.2	Ability to auto match confirmations received from counterparties that should be automatically uploaded through the SWIFT interface	M		
3.2.3	Ability to generate automatic reminders for confirmations that have not been received in a predefined format & at pre-defined intervals	M		
3.2.4	Ability to suppress confirmations and payments relating to internal deals	M		
3.2.5	Ability to suppress confirmation for deals already confirmed but cancelled on the same day	M		
3.2.6	The system should allow for viewing of queue of transactions pending confirmation	M		
3.2.7	The System should be able to generate deal confirmation through Swift (MT/MX) , Email and hard copy	M		
3.2.8	System should be able to mark a deal for CCIL, CLS and direct based on counterparty or currency or both.	M		
3.2.9	System should be able to generate individual confirmation for deals to be settled through CCP in the specified format of CCIL	M		
3.2.10	The system should be able to reconcile the electronic confirmations received from counter parties for foreign currency denominated transactions including the SWIFT confirmations.	M		

3.2.11	System should be allowed to mark any confirmation manually by the user with maker-checker having audit trail facility.	M		
3.2.12	System should report deals that are not confirmed. No unconfirmed deals should be made available for settlement except deals with CCIL.	M		
3.3	**Deal Settlement**	**N/A**	**N/A**	**N/A**
3.3.1	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 modifed at the time of settlement by the authorised persons.	M		
3.3.2	Ability to generate settlement advice for all deals executed	M		
3.3.3	Ability to support automatic generation of payment and receivables Report for user defined maturities and contract date and for specific counterparties	M		
3.3.4	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. Provison should be there to specify the reason of change along with audit trail.	M		
3.3.5	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).	M		
3.3.6	Ability to settle the deals after netting the transactions, to arrive at the net position status by counter party, by products & by currency for deals being settled through QCCP	M		
3.3.7	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.	M		
3.3.8	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.	M		

3.3.9	Ability to effect the Early currency deal Settlement. System should support this feature with proper contra accounting and reversal of the contra entry on value date. System should support this feature with proper contra accounting and reversal of the contra entry on value date	M		
3.3.10	The system should have the ability to create a queue for a definable series for payment release for Securities Transactions	M		
3.3.11	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.	M		
3.3.12	Interbank deals should automatically come for settlement on due date after considering diffferent currency holidays.	M		
3.4	**Limits for Fx Operations**	**N/A**	**N/A**	**N/A**
3.4.1	Settings and Monitoring Limits for Fx Operations	M		
3.4.2	Generation of alerts in cases where limits are about to be breached based on certain user defined limit amount/trigger amount.	M		
3.4.3	System should give an option to front office users if they would like to continue with the deal or abort it.	M		
3.4.4	Counter party limits	M		
3.4.5	Dealer Currency limits	M		
3.4.6	Broker limits -	M		
3.4.7	Stop loss limits	M		
3.4.8	Customer limits for customer deals entered at the branch level, with reverse integration from the Bank's CBS data	M		
3.4.9	Currencywise daylight	M		
3.4.10	Dealerwise day light	M		
3.4.11	Daily Forex gap position - IGL, AGL, Total AGL	M		
3.4.12	overnight open exchange position	M		
3.4.13	Limit report (total limits, limit utilization, available limit)	M		
3.5	**NOSTRO Handling**	**N/A**	**N/A**	**N/A**

3.5.1	Ability to support management of multiple Nostro accounts by currency	M		
3.5.2	Ability to set alerts by Nostro account to warn when agreed minimum balance is close to breach	M		
3.5.3	Ability to transfer funds between Nostro accounts by using MT200 for settlement. Settlements-Support for MT202, MT210, Local RTGS. IN SG & HK, the RTGS messages are being flown through SWIFT.	M		
3.5.4	System should be able to capture Nostro Funds Transfer	M		
3.5.5	Ability to calculate/monitor interest on Nostro accounts as per user defined parameters	M		
3.5.6	Overdraft in Nostro Accounts	M		
3.5.7	Nostro inflow/outflow report	M		
3.5.8	Nostro Balances based Funding Reports	M		
3.5.9	NOSTRO reconciliation for treasury transactions should be automated and for forced matching there should be maker-checker concept	M		
3.6	**Accounting**	**N/A**	**N/A**	**N/A**
3.6.1	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.	M		
3.6.2	Ability to capture of all financial transactions concurrently for transaction currency, Local Currency, decomposition or wash currency	M		
3.6.3	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	M		
3.6.4	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	M		
3.6.5	Ability to maintain chart of account to assist in accounting of Treasury transactions	M		
3.6.6	Ability to provide portfolio accounting & GL processing/ interfacing without affecting operational availability/online access to transactional/ other data	M		

3.6.7	Ability to conduct end of day or end of month processing without impacting online trading periods /days	M		
3.6.8	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.	M		
3.6.9	Ability to monitor and report on a product/transaction throughout its life cycle until maturity/settlement	M		
3.6.10	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.	M		
3.6.11	Capture of CBS Tranction ID & date with other required details in ITMS.	M		
3.6.12	Ability to provide for maintaining and mapping transaction posting rules by asset Class, , currency etc.	M		
3.6.13	Deal Booking & Reversal should generate correct & complete accounting entries at Treasury & respective branches	M		
3.7	**Calculation Engine**	**N/A**	**N/A**	**N/A**
3.7.1	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.	M		
3.7.2	The system should be able to store historical revaluations for each transaction record	M		
3.7.3	The system should be able to compute interest & principal repayments for foreign currency loans & support the Interest Reset clause.	M		
3.7.4	The system should be able to store historical Forex rates for all currencies	M		

3.7.5	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.	M		
3.7.6	Should have a native uniform robust pricing engine that is used centrally in all risk/position/reporting/accounting across front-office, risk and back-office.	M		
3.7.7	Should provide flexibility for bank to easily deploy new pricing capabilities (whenever there are new enhancements to existing models/new models provided by vendor) without need for system upgrade	M		
3.7.8	Solution should support new RFR models	M		
3.7.10	Package to handle ISDA CSA deals for daily MTM postings of SWAPS and Derivatives	M		
3.8	**Mark to Market Features**	**N/A**	**N/A**	**N/A**
3.8.1	Capability to Mark to Market all positions and calculate the Profit & Loss at the pre defined closing/FEDAI rates by business.	M		
3.8.2	System should support Revaluation of Forward Position and Forex Asset and liability at user defined frequency and show accounting entries in simulated environment before generating the accounting entries on user acceptance	M		
3.8.4	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.	M		
3.8.5	Forward Profit& Valuation	M		
3.8.6	Mark to market for all deals	M		
3.8.8	MTM margin call maintenance for CSA deals	M		
3.8.9	Separate valuation/MTM of the deals under ISDA CSA deal to check the Margin calls	M		

3.8.10	Ability to support Credit Support Annex(CSA). Bank expects the ITMS solution to provide this information, as relates to the Treasury Portfolio	M		
3.8.11	Ability to handle Collateralization and Margining. Bank expects the ITMS solution to provide this information, as relates to the Treasury Portfolio	M		
3.9	**Position Management**	**N/A**	**N/A**	**N/A**
3.9.1	GL Handshake from CBS for FX Assets and liability like FCNR, EEFC, RFC, FCTL, PCFC for foreign exchange position	M		
3.9.2	Nostro balances	M		
3.9.3	Mirror Balance Summary	M		
3.9.4	Cost & Yield on Sources and Uses – foreign Currency	M		
3.9.5	Provide a real-time FX position blotter consolidated across all FX instruments and FX derivatives with ability to drill-down to deal level.	M		
3.9.6	Consolidated FX positions should also include any fees/premiums from FX OTC Options	M		
3.9.7	The system should be able to generate reports/ display of open Forex Currency wise positions at any point of time	M		
3.9.8	Position blotter must show at least the following real-time information - Currency/Pair - Portfolio/Folder - Tenor - Spot Rate - Breakeven Rate - Buy/Sell Amount for CCY1 and CCY2 - Cash of Carry - Realized/Unrealized PnL	M		
3.9.9	Position blotter must allow user to specify aggregation criterias - By Currency Pair / Basket - By Position Type (Spot/Swap/Options) - By Entity / Branch / Portfolio / Folder / Folder Group	M		

3.9.10	Position blotter must provide flexible tenor configuration - By Days, Weeks, Months, Quarters, Years	M		
3.9.11	Position blotter should allow user to perform real-time simulation with user-defined one or more market data sets across FX spot rates, points, curves, volatilities, etc)	M		
3.9.12	Ability to perform FX Spot/Swap position splits at folder level with user-define split spot rate and points and split amount	M		
3.10	**Interbank Reports**	**N/A**	**N/A**	**N/A**
3.10.1	Interbank deal Master register	M		
3.10.2	Interbank maturity register	M		
3.10.3	Outstanding Deal Register	M		
3.10.4	Deal Cancellation Register	M		
3.10.5	Unconfirmed Deal Register	M		
3.10.6	Settlement Register for all products	M		
3.10.7	Deal amendment report	M		
3.10.8	Failed trade Report	M		
3.10.9	Funds Flow for each currency	M		
3.10.10	CCP net setttlement.(Report) This report should include all the interbank deals which is settled through Central Counter Party	M		
3.10.11	Deals to be settled Bilaterally	M		
3.10.12	Forex Turnover in multiple currencies equivalent to any particular currency.	M		
3.10.13	Currency wise Summary outstanding in Investment and Borrowing With Accruals	M		
3.10.14	Maturity Profile of Deposits, Investments, Borrowings etc. in respective currencies	M		
3.10.15	Maturity Pattern Report – Bucket Wise	M		
3.10.16	Interest Rate Reset Notice specifically with Benchmark spread	M		
3.10.17	Activity Forecast Register along with ability to compute interest amount if the rates have been reset for the floating leg	M		
3.10.18	Deal wise Interest Accrual report	M		

3.10.19	Availability of Reciprocal deposit functionality in the module along with Support for negative interest rates.	M		
3.11	**Forex Limits Reports**	**N/A**	**N/A**	**N/A**
3.11.1	Open positions – Intra-day & Overnight With Mark to Market	M		
3.11.2	Gap Statement- AGL, IGL, and Total AGL	M		
3.11.3	Currency wise Position Book with all Forex asset and liability from CBS	M		
3.11.4	Nostro Ledger	M		
3.11.5	Positions reports – Deal wise, Currency wise, Counterparty wise, dealer wise	M		
3.11.6	Breach reports	M		
3.11.7	Counter party wise analysis reports	M		
3.11.8	QCCP Report- Exposure and Investment and Margin	M		
3.11.9	Country Exposure Report	M		
3.11.11	Real time interface for counter party exposure for limit monitoring	M		
3.11.12	Arbitrage Operation Limits	M		
3.11.13	Reports on deals beyond prescribed normal trading timings	M		
3.11.14	Exception Reports on the Forex Limits Breaches	M		
3.11.15	Reports on the transaction with Non member of CCIL	M		
3.11.16	Calculation of Available Limit of the Forward Contract Customers (CEL-(PFE+CCE))	M		
3.11.17	Foreign currency Borrowing Limits	M		
3.11.18	The system should automatically generate a Rate Scan Report on the basis of external rate feeds (from Bloomberg or Reuters) or manual feeds	M		
3.12	**Forex MIS Report**	**N/A**	**N/A**	**N/A**
3.12.1	Credit risk concentration in derivatives/ forex contracts – Top 10 customers	M		
3.12.2	Credit risk concentration in derivatives/ forex contracts – Top 10 inter bank	M		
3.12.3	Hedge Efficiency/Effectiveness Report in respect of all types of Derivative instruments used for Hedging purpose.	M		

3.12.4	Currency Futures Arbitrage Profit sheet generation	M		
3.12.5	Interest Arbitrage profit sheet generation	M		
3.12.6	Ineterest rate Future reports	M		
	India Treasury	**N/A**	**N/A**	**N/A**
3.13	**Broker Management Module**	**N/A**	**N/A**	**N/A**
3.13.1	Broker Turnover Report	M		
3.13.2	Total trades broker wise (for committed and settled deals)	M		
3.13.3	Brokerage due/ payment reports	M		
3.13.4	Brokerage paid to Broker on period wise	M		
3.13.5	Broker Exposure Transaction wise	M		
3.14	**Regulatory Reports**	**N/A**	**N/A**	**N/A**
3.14.1	**Daily**	M		
3.14.1.1	Forex Turnover Data (FTD)	M		
3.14.1.2	Gap Position Balances (GPB)	M		
3.14.2	**Weekly**	**N/A**	**N/A**	**N/A**
3.14.2.1	FCY Rupee Option transactions (Annex VIII)	M		
3.14.3	**Fortnightly**	**N/A**	**N/A**	**N/A**
3.14.3.1	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	M		
3.14.3.2	R-Returns: Support for Regulatory Prescribed R Return Data to CBS	M		
3.14.4	**Monthly**	**N/A**	**N/A**	**N/A**
3.14.4.1	Overseas Foreign Currency Borrowing (Annex IX)	M		
3.14.5	**Quarterly**	**N/A**	**N/A**	**N/A**
3.14.5.1	Reporting of suspicious transactions undertaken by non-resident importer / exporter (Annex XX)	M		

3.14.5.2	Annexure - 2A is required for Capital Assessment under BASEL. It is a Reporting format for Bank Exposures not related to Loans & Advances.	M		
3.14.5.3	OSMOS is Off- Balance Sheet Exposure Statement which contains Exposures due to derivatives like Exchange Rate Contracts and Interest Rate Contracts undertaken by Treasury.	M		
3.14.5.4	Country Exposure Statement, contains all the currency exposure to the correspondent Bank, Foreign Branches of Bank and our overseas branches.	M		
3.14.5.5	Bought & Sold Statement, contains the amount of Forward Exchange rate contract under merchant and InterBank segment.	M		
3.14.5.6	Asset Liability & Exposure, ALE statement submitted to RBI, contains the derivative deals and valuations details.	M		
3.14.5.7	IC-5 – including net open position of foreign Currency and accrued interest on all kinds of lending & borrowing deals with daily frequency	M		
3.14.5.8	Should provide Data for DSB Return as related to Treasury portfolio	M		
3.14.5.9	Should be capable to provide data to perform calculation for DBS Return for the bank as a whole as per Bank's specified data format or through Bank's specified interface integration.	M		
3.15	**Cash/Tom/Spot /Forward Contracts - Merchant**	**N/A**	**N/A**	**N/A**
3.15.1	Real time Forward Contract deal interface to/from Treasury system	M		
3.15.2	Merchant Special Margin Maintenance	M		
3.15.3	Booking/Utilization(Early-Late)/Cancellation of Contract	M		
3.15.4	Delivery Charges for Early/Late Utilization(Takeup)	M		
3.15.5	Past Performance Monitoring for Forward Contracts	M		
3.15.6	Exposure Calculation of the Merchant Book as per RBI Specified CEM Method	M		
3.15.7	MTM Advice for Merchant contract	M		
3.15.8	Merchant Contract Register	M		
3.15.9	Overdue Merchant Contract Register	M		
3.15.10	Annual Merchant Turnover report	M		

3.15.11	Merchant txn for a day or range of a days	M		
3.15.12	Contract cancellation debit/credit advice and entries of loss / gain there on as per RBI norms.	M		
3.15.13	Merchant Profitability Deal Wise	M		
3.15.14	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	M		
3.15.16	Rates quoted and accepted/cancelled in a day	M		
3.15.17	Txn entered through Card rate	M		
3.15.18	Non-exchange position transactions undertaken in a day from EEFC. FTL etc	M		
3.16	**Merchant Rate- CBS Interfacing**	**N/A**	**N/A**	**N/A**
3.16.1	Card Rate interface to Trade finance system/CBS	M		
3.16.2	The system should allow as a configuration to set a margin on live rates to arrive at the base rates	M		
3.16.3	Real time FX Utilization interface to/from Trade Finance/CBS	M		
3.16.4	Real time Forward Contract deal interface to/from Trade Finance	M		
3.16.5	Chat Module for Merchant Rates - Request quote, confirm quotes, confirm deal etc	M		
3.16.6	System should allow users to generate card rates based on user definable margins and market rate multiple times during the day as per our upload txt format as per CBS system/ trade finance system	M		
3.16.7	System should be able to upload FEDAI defined closing Forex rate (Translation Rate) at the end of day	M		
3.17	**Foreign currency asset and liabilities portfolio**	**N/A**	**N/A**	**N/A**
3.17.1	GL Handshake from CBS for FX Assets and liability like FCNR, EEFC, RFC, FCTL, PCFC for foreign exchange position determination for each currency on daily basis	M		
3.17.3	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.	M		

3.17.4	The system should have provision of DUAL currencies in which bank can maintain the base currency equivalent to all foreign currencies possessions, balances, transactions.	M		
3.17.5	Granular portfolio details required for Foreign bill Module and Merchant forward contract with granular parameters and that should be part of the proposed Treasury solution	M		
3.17.6	For Merchant 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.	M		
3.17.7	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	M		
3.18	**CBS Mirror Account Management**	**N/A**	**N/A**	**N/A**
3.18.1	**Inward forex Transaction**	**N/A**	**N/A**	**N/A**
3.18.1.1	Currently Branches process the inward forex transaction in CBS by debiting the adjustment account of respective currency and credits the customer. Meanwhile they send a trigger 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 / Batch Accounting 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. (Proper STP workflow of fx rate booking and utilisation required between the CBS 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.	M		
3.18.1.2	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.	M		

3.18.2	Outward forex Transaction	N/A	N/A	N/A
3.18.2.1	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 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	M		
3.18.2.2	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	M		
3.19	Trade finance bills transaction	N/A	N/A	N/A
3.19.1	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	M		
3.19.2	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	M		
3.19.3	Provision of feeding of NTP in export bills with report showing due date .	M		
3.19.4	Import export bill management	M		
3.19.5	Due dates for Bills realization	M		
3.19.6	Compare the actual date of Bills realization with the due date and calculate late/early realization charges/ gains	M		

3.19.7	Provision to enter charges – system may deduct the amount and realized amount may be credited to branches.	M		
3.19.8	Due dates for Crystallization /reversals	M		
3.19.9	These Customization needs to be done for below mentioned instruments 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	M		
3.20	**Branch Portal**	**N/A**	**N/A**	**N/A**
3.20.1	Rate Quote Module: Quoting of rate and capturing of all related details of CBS system into Treasury solution	M		
3.20.2	Branch user will enter into Treasury system and asked for providing rate through maker-checker concept.	M		
3.20.3	Once rate provided by Treasury, the same shall be accepted by respective branch only through maker-checker concept.	M		
3.20.4	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.	M		
3.20.5	Once transaction initiated and acknowledged by Treasury solution, system should knock-off the rate	M		

3.20.6	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.	M		
3.20.7	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.	M		
3.20.8	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	M		
3.20.9	The branch automation platform should be able to capture all FX Transactions on behalf of customers	M		
3.20.10	Branch user should be able to input single or multiple transactions	M		
3.20.11	All relevant information should be captured at the time of entering the transactions	M		
3.20.12	The system should allow for automated upload of card rates	M		
3.20.13	The system should be able to fetch live rates from market data systems	M		
3.20.14	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	M		
3.20.15	The system should allow as a configuration to set a margin on live rates to arrive at the base rates	M		
3.20.16	The system should have the capability to define standard and preferred margins on base rates at customer, customer category, ticket size etc.	M		
3.20.17	The system should allow the merchant desk at the dealing room to override base rates before confirmation by dealing room	M		
3.20.18	An ack number should be generated every time the dealing room accepts all transactions	M		

3.20.19	The system should automatically aggregate total position and compute average holding rates at base rate level for dealing room	M		
3.20.20	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	M		
3.20.21	The system should be able to triangulate a cross currency rate i.e. JPY/INR etc. correctly based on the transactions type	M		
3.20.22	The system update and aggregate the positions not transferred to the trading desks at the defined close of dealing room operations	M		
3.20.23	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.	M		
3.20.24	System should interface with Treasury system to book all merchant transactions reported through it.	M		
3.20.25	Rate Quote Module: Quoting of rate and capturing of all related details of CBS system into Treasury solution	M		
3.20.26	Branch user shall request and accept rate provided by Front Office in Treasury system's Chat Module	M		
3.20.27	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.	M		
3.20.28	Once transaction initiated and acknowledged by Treasury solution, system should knock-off the rate	M		
3.20.29	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.	M		
3.20.30	The system should have the capability to define standard and preferred margins on base rates at customer, customer category, ticket size etc.	M		

3.20.31	The system should allow the merchant desk at the dealing room to override base rates before confirmation by dealing room	M		
3.20.32	An ack number should be generated every time the dealing room accepts all transactions	M		
3.21	**User Defined Fields and Features**	N/A	N/A	N/A
3.21.1	**Hong Kong Treasury**	N/A	N/A	N/A
3.21.1.1	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 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.	M		
3.21.1.2	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.	M		
3.21.1.3	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	M		

3.21.1.4	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.	M		
3.21.1.5	Contract cancellation and exchange difference payable /receivable	M		
3.21.1.6	Multicurrency GL	M		
3.21.1.7	Forward contracts getting overdue gets generated on the same day, Forward contract due between two given dates should get generated.	M		
3.21.1.8	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.	M		
3.21.1.9	**These Customization needs to be done for below mentioned instruments**	N/A	N/A	N/A
3.21.1.10	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	M		
3.21.2	**Singapore Treasury**	N/A	N/A	N/A

3.21.2.1	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.	M		
3.21.2.2	Deposits other than SGD in Foreign Currency. Inter Bank Lending and Borrowing need to be controlled in Treasury Software.	M		
3.21.2.3	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.	M		
3.21.2.4	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.	M		
3.21.2.5	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	M		

SNo	System Requirement	Mandatory (M-Reqd from Day-1) / Optional (O)	Bidder Response (F/C/N)	Bidder Clarifications / Comments
3.21.2.6	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.	M		
3.21.2.7	Contract cancellation and exchange difference payable /receivable	M		
3.21.2.8	Multicurrency GL	M		
3.21.2.9	Forward contracts getting overdue gets generated on the same day, Forward contract due between two given dates should get generated.	M		
3.21.2.10	**These Customization needs to be done for below mentioned instruments**	N/A	N/A	N/A
3.21.2.10.1	Foreign Bills Purchase(Usance and Sight) Sight Bills Foreign Bills negotiated. Foreign Usance Documentary Bills Invoice Financing/Trust Receipt Financing. Syndication Loans, Term Loan.	M		

TAB-4: Front Office for ITMS

Response	Status as per RFP		
F	Ready availability of the functionality	Please populate only these two columns with your responses	
C	Customization to be done		
N	Not Available (Not Applicable for Mandatory item which is required from Day-1)		

SNo	System Requirement	Mandatory (M-Reqd from Day-1) / Optional (O)	Bidder Response (F/C/N)	Bidder Clarifications / Comments
9.3	**Front Office for ITMS**	**N/A**	**N/A**	**N/A**
4.1	**Deal Execution and Capturing of Trades**	N/A	N/A	N/A
4.1.1	Deals capture facility including Manual, Auto Flow from Dealing platforms, copy, Replace, amendment, save & reversal/Deletion with audit trail	M		
4.1.2	System should capture pricing history of deals which is saved but not concluded for derivative deals	M		

4.1.3	Ability to seamless interface with dealing platforms of various desks. Also should be possible to download/upload deal transaction from external files	M		
4.1.4	Ability to offer quick entry of trades, capturing customer spreads and back-to-back cover with interbank desks.	M		
4.1.5	Ability to support strategy based deals which allows valuation & pricing of combination of derivatives	M		
4.1.6	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.	M		
4.1.8	Integration with trading/ dealing platforms in either way through input and output respectively..	M		
4.1.9	System should have user-wise auto refresh blotter functionality. The user specific blotter should not display the deals undertaken by other dealers.	M		
4.1.10	Ability to facilitate internal, inter-desk deals and transfer deals. System should compulsorily ask for reasons for internals deals	M		
4.1.11	Pre-deal all (Counterparty, Dealer, Currency Country etc) limit check and limit reservation facility.	M		
4.1.12	Handling of scheduled and unscheduled holidays across different countries, different centers and different product classes.	M		
4.1.13	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.	M		
4.1.14	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.	M		
4.1.15	CRITICAL REQUIREMENT: facility to enter simulated dummy deal which can be deleted or made final at EoD, to reflect intra-day	M		

	merchant deals yet to be entered on any type of trading platform/terminal.			
4.1.16	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.	M		
4.1.17	Have the capability of showing alerts before the booking of deal if any exception is encountered towards limits and thresholds set in the system	M		
4.1.18	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.	M		
4.2	**Pre-deal and Post-deal Analytics**	N/A	N/A	N/A
4.2.1	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.	M		
4.2.2	Ability to offer multiple scenarios and simulations for analysis across different books	M		
4.2.3	Real time view of economic P&L (It is an estimation of profit or loss on closure of a deal on attaining estimated price)	M		
4.2.4	Portfolio level/desk level/dealer level P&L analytics with drill down functionality	M		
4.2.5	View volatility of all types viz. implied/realized for all products (Post Deal) containing optionality	M		
4.2.6	Ability to access, receive and utilize real-time data feeds from all external information sources (e.g. Bloomberg, Reuters, Cogencis etc.)	M		
4.2.7	Real time view of PV01 and Greeks	M		
4.2.8	Ability to offer online statistics and graphics for all instruments including rates, availability & historical prices & volume	M		
4.2.9	Ability to capture MIS related to exceptions and breaches with specifically identification of the deal causing the breach.	M		
4.3	**Managing Positions and Cashflows**	N/A	N/A	N/A

4.3.1	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.	M		
4.3.2	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.	M		
4.3.3	Ability to provide position calculations for a period of one day and other defined periodicities.	M		
4.3.4	Ability to view positions on an individual book as well as consolidated portfolio basis	M		
4.3.5	Ability to view risk and positions across the portfolio by maturity, product and/or movements in underlying assets	M		
4.3.6	Ability to display and modify the screen set up by individual user to view positions in different perspectives.	M		
4.3.7	Ability to view all positions on a real time basis including P&L, duration & future equivalent on a conversion factor & modified duration basis.	M		
4.3.8	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.	M		
4.3.9	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.)	M		

4.3.10	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.	M		
4.4	**Pricing**	N/A	N/A	N/A
4.4.1	Ability to offer price and yield simulations functionality	M		
4.4.2	Ability to price options/derivatives via pricing calculators, with an option to consider user specific volatility	M		
4.4.3	Ability to offer predefined templates to facilitate pricing for primary and secondary traded products	M		
4.4.4	Ability to offer global pricing & pricing tool functionality with customization facility	M		
4.4.5	Ability to provide pricing functions and utilities integrated into the system to calculate instrument prices, Greeks, & position equivalents	M		
4.4.6	Ability to offer curve-based pricing capabilities	M		
4.4.7	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	M		
4.4.8	Ability to value positions through multiple methods: nominal, maturity and market	M		
4.4.9	Ability to provide customized pricing for swaps wherein benchmark and settlement frequency differ	M		
4.5	**Performance of Portfolios**	N/A	N/A	N/A
4.5.1	Ability to configure all existing parameters for a portfolio viz. Currency, Reference Currency, Security & User Profile, Display layout, Portfolio levels of detail etc.	M		
4.5.2	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.	M		

4.5.3	Ability to support mark-to-market/ NPV calculations/IRR/XIRR & RAROC	M		
4.5.4	Ability to support accrual/amortization calculations across different currencies as per different market conventions by keeping all bifuracation of the previous accrual/amortisation details.	M		
4.5.5	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.	M		
4.5.6	Ability to allow configuration of profit and business center hierarchies with the options of having all parameter based.	M		
4.6	**Derivatives**	N/A	N/A	N/A
4.6.1	Trade capture from NSE/MCX , any other exchanges	M		
4.6.2	Monthly Provision should be calculated and posted and reversed automatically	M		
4.6.3	Daily bench mark rate updating along with sources of data and audit trail	M		
4.6.4	Upload of exchange file and MTM process and posting	M		
4.6.5	All reports to be generated in all types of reporting format	M		
4.6.6	Mail to client on daily basis MTM, Contract Note, Quarterly Statement, Position Statement and any statement as and when required.	M		
4.6.7	Calculation of capital charge and CVA on a real time basis and at the time of pricing the product for concluding the deal. Implement the PFE/CVA approach (historical) as per regulatory requirement.	M		
4.6.8	Daily & Weekly MTM calculation and as and when required	M		
4.6.9	Generation of M-duration report (Origin & Intra-day) along with Portfolio wise M-Duration Required along with Total Portfolio M Duration.	M		
4.6.10	Generation of margin files to be uploaded in exchanges	M		
4.6.11	Alerts of reporting of required reports as per the frequency to be defined by the ADMIN user	M		
4.6.12	Margin alerts	M		

4.6.13	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	M		
4.6.14	Collateral limit accounts for tracking of replacing of securities	M		
4.6.15	Deal confirmation means for swaps (for pricing terms tec) or OTC deals covered by ISDA	M		
4.6.16	Reporting of MTM to client and branch on different intervals through Emails or any other electronic channels	M		
4.6.17	Generation of backdated PVO1 report	M		
4.6.18	Calculation of current exposure, potential future exposure, total exposure, etc. all on specified dates and as per maturity bucket	M		
4.6.19	Real time settlement.	M		
4.6.20	Updating of compliance officer particulars	M		
4.6.21	Calculation of Turnover fees transaction charges for various exchange	M		
4.6.22	Calculation of stamp duty of exchange transactions	M		
4.6.23	Generation of reports as per filter	M		
4.6.24	Exchange turnover contra entries to be posted automatically for Large OTC derivaties market Makers	M		
4.6.25	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.	M		
4.7	**Master Data Creation (Superset of TAB-1 clause 1.2)**	N/A	N/A	N/A
4.7.1	**Counter parties: The system should capture the following details**	N/A	N/A	N/A
4.7.1.1	Name	M		
4.7.1.2	Credit Rating	M		
4.7.1.3	Address	M		
4.7.1.4	Phone Number	M		
4.7.1.5	Status (Active/ Inactive)	M		
4.7.1.6	Limits	M		
4.7.1.7	Settlement instructions for Forex & derivatives transactions	M		

4.7.1.8	Foreign Currency Bank Accounts	M		
4.7.1.9	PAN	M		
4.7.1.10	GSTIN Details	M		
4.7.1.11	SWIFT Code	M		
4.7.1.12	RTGS- IFSC	M		
4.7.1.13	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.	M		
4.7.2	Capture historical counterparty master data	M		
4.7.3	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.	M		
4.7.3.1	Name	M		
4.7.3.2	Address	M		
4.7.3.3	Telephone Number	M		
4.7.3.4	Contact Persons	M		
4.7.3.5	Products handled	M		
4.7.3.6	Limits	M		
4.7.3.7	Agreed Brokerage rate	M		
4.7.3.8	Settlement instructions	M		
4.7.3.9	PAN	M		
4.7.3.10	GSTIN Details	M		
4.7.3.11	Fax No	M		
4.7.3.12	Email ID	M		
4.7.3.13	Complete Bank account detail with IFSC code	M		
4.7.3.14	DP ID	M		
4.7.3.15	DP Name	M		
4.7.3.16	Client ID	M		
4.7.3.17	Client Margin (Slab wise and currency wise)	M		
4.7.3.18	Legal Entity Identifier	M		

4.8	Capturing Trades	N/A	N/A	N/A
4.8.1	The system should have the ability to allow capture and display of the following inputs	N/A	N/A	N/A
4.8.1.1	Trade Date	M		
4.8.1.2	Value Date	M		
4.8.1.3	Trade time	M		
4.8.1.4	System generated deal number	M		
4.8.1.5	Deal originating entity & desk	M		
4.8.1.6	Dealer	M		
4.8.1.7	Transaction type	M		
4.8.1.8	SLR/ Non SLR	M		
4.8.1.9	Face value	M		
4.8.1.10	Traded price & yield	M		
4.8.1.11	Quantity of securities	M		
4.8.1.12	Currency	M		
4.8.1.13	Exchange Rate	M		
4.8.1.14	Reporting value in foreign currency	M		
4.8.1.15	Reporting value in INR	M		
4.8.1.16	Interest Rate,	M		
4.8.1.17	Interest Frequency	M		
4.8.1.18	Interest type (fixed/floating)	M		
4.8.1.19	Floor/Cap	M		
4.8.1.20	Tenor	M		
4.8.1.21	Securities name/code	M		
4.8.1.22	Counterparty	M		
4.8.1.23	Broker	M		
4.8.1.24	Principal amount	M		
4.8.1.25	Staggered Redemption on principal amount	M		
4.8.1.26	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	M		

4.8.1.27	Portfolio.	M		
4.8.2	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	M		
4.8.3	The system should permit entry of remarks/data in free text fields	M		
4.8.4	**The system should facilitate taking the following fields/values**	N/A	N/A	N/A
4.8.4.1	Price in decimals (minimum 6 decimal points) Rounding off product wise	M		
4.8.4.2	Yield in decimals (minimum 6 decimal points) Rounding off product wise	M		
4.8.4.3	Date of Issue, Type of instrument	M		
4.8.4.4	Security Code Number, ISIN Number	M		
4.8.4.5	Rating and Rating Date Listing	M		
4.8.4.6	Security Face Value	M		
4.8.4.7	Acquisition price	M		
4.8.4.8	Premium (Acquisition price less face value)	M		
4.8.4.9	Discount (Face value less Acquisition price)	M		
4.8.4.10	Residual period Coupon	M		
4.8.4.11	Coupon payment frequency	M		
4.8.4.12	Yield To Maturity	M		
4.8.4.13	Duration and modified duration	M		
4.8.4.14	Current Yield	M		
4.8.4.15	Interest payment date	M		
4.8.4.16	Broken period interest	M		
4.8.4.17	Credit rating / Rating Migration of the issuers and consequent diminution in the quality of assets	M		
4.8.4.18	Tax Status: Exempt from Income Tax	M		
4.8.4.19	Arranger	M		
4.8.4.20	Guaranteed by	M		
4.8.4.21	Others	M		
4.8.4.22	Capital Adequacy	M		

4.8.4.23	Issuer Group	M		
4.8.4.24	Eligible for Statutory Liquidity Ratio (SLR)	M		
4.8.4.25	Priority Sector–SLR and NON-SLR/ Public Sector/Private Sector	M		
4.8.4.26	Trust/Mutual Fund	M		
4.8.4.27	Mode of delivery: Physical/ Dematerialized/ Others	M		
4.8.4.28	**Options (for all types)**	N/A	N/A	N/A
4.8.4.28.1	Date of exercise	M		
4.8.4.28.2	Date of notice	M		
4.8.4.29	**Custodial status**	N/A	N/A	N/A
4.8.4.29.1	Agency (Code)	O		
4.8.4.29.2	Location	O		
4.8.4.29.3	Trustee	O		
4.8.4.29.4	Receipt of Trust deeds and follow-up of same	O		
4.8.4.29.5	Document Number	O		
4.8.4.29.6	Guaranteed by	O		
4.8.4.29.7	Redemption of premium	O		
4.8.4.29.8	Name	O		
4.8.4.29.9	Amount Guaranteed	O		
4.8.4.30	Provision to auto calculate and auto-fill data based on basic fields.	M		
4.8.4.31	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	M		
4.8.4.32	The system should be able to provide an audit trail for all transactions entered from trade date onwards & for exceptions	M		
4.8.4.33	The system should be able to accommodate the entry of forward value date transactions	M		
4.8.4.34	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	M		
4.8.4.35	System should be able to capture all flags necessary for LCR and NSFR purposes for Treasury portfolio	M		

4.8.4.36	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. As prescribed by BIS guidelines and final guidelines issued by RBI.	M		
4.9	**Deal Tickets**	N/A	N/A	N/A
4.9.1	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.	M		
4.9.2	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	M		
4.9.3	The dealing system should be capable of seamless integration with Treasury front office & back office systems	M		
4.9.4	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.	O		
4.9.5	Provide interface with existing Dealing Systems	M		
4.9.6	Generate a report of all cancelled /modified /deleted deals with all details	M		
4.9.7	The system should preserve historical data of all deals	M		
4.9.8	Automatic generation, view, print & review of deal tickets as well as electronic deal pads reflecting the positions	M		
4.9.9	Should provide unique deal numbers for each deal ticket	M		
4.9.10	Generate multiple deal tickets for each transaction	M		
4.9.11	System should have the provision to store the pdf format of deal slip with retrieval and printing option	M		

4.9.12	Ability to route deal flow based on Deal IDs. Also, Routing has to be in FIFO Method	M		
4.1	**Deal Analytics**	N/A	N/A	N/A
4.10.1	**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	N/A
4.10.1.1	Yield To Maturity/Price	M		
4.10.1.2	Current Yield	M		
4.10.1.3	Yield To Call	M		
4.10.1.4	Yield To Put	M		
4.10.1.5	Yield To Worst/Best Duration	M		
4.10.1.6	Modified Duration	M		
4.10.1.7	Zero Coupon	M		
4.10.1.8	Stripped G-Sec pricing	M		
4.10.1.9	Floating Rate Bonds	M		
4.10.1.10	Government Securities	M		
4.10.1.11	INBMK/INCMT/MIBOR/other benchmark linked bonds	M		
4.10.1.12	PV01	M		
4.10.1.13	Holding Period Returns	M		
4.10.1.14	Cross Currency Spot & Forward Calculation. (With a provision for calculating broken dates)	M		
4.10.1.15	Overnight Indexed Swaps,	M		
4.10.1.16	Interest Rate Swaps Cross Currency	M		
4.10.1.17	Swaps	M		
4.10.1.18	Swaptions	M		
4.10.1.19	Currency Options	M		
4.10.1.20	Black Scholes Model	M		
4.10.1.21	Garman Kohlhagen Model	O		
4.10.1.22	Monte Carlo Simulation Model	M		
4.10.1.23	Binomial Tree Model	O		

4.10.1.24	Interest Rate Caps/Floors	O		
4.10.1.25	Black's model	O		
4.10.1.26	support different interpolation techniques	M		
4.10.2	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	M		
4.10.3	The system should be able to retrieve stored deals that are in entered state, prior to confirmation	M		
4.10.4	The system should be able to display to a dealer the instrument-wise authorized limits	M		
4.10.5	The system should be able to update cash,Forex and security positions on a real time basis	M		
4.10.6	The system should be able to facilitate deal simulation before commitment and provide a warning if the deal results in a limit violation	M		
4.10.7	**The system should provide following information:**	N/A	N/A	N/A
4.10.7.1	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.	M		
4.10.7.2	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.	M		
4.10.8	**Fund Flow Statements (next week, next fortnight, from-date-to-date) for:**	N/A	N/A	N/A
4.10.8.1	Forex Operation - Merchant funds flow, Interbank Fund Flow (both inflow and outflow) and any other source of funds	M		

4.10.8.2	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	M		
4.10.8.3	Investment Operation - Category wise & consolidated	M		
4.10.8.4	Identification of the instrument/amount already Hedged	M		
4.10.8.5	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)	M		
4.10.8.6	Holding Rates/Price	M		
4.10.8.7	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	M		
4.10.9	**The system should be able to pre-empt in case of possible violation of the following limits:**	N/A	N/A	N/A
4.10.9.1	Counter party limits,	M		
4.10.9.2	Counter party group credit limits	M		
4.10.9.3	Aggregate Gap Limit (AGL)/Intra Day Limit (IGL)	M		
4.10.9.4	Instrument-wise limits	M		
4.10.9.5	Broker limits	M		
4.10.9.6	Settlement & Clearing Agent Limits	M		
4.10.9.7	System should have provision for monitoring LER limits sanctioned which is captured from CBS for matching of merchant deals with equivalent entries by branches	M		
4.10.10	The system should be able to analyze the overall portfolio, or any user-defined portfolio by changing selected parameters	M		
4.10.11	The system should be able to estimate projected cash flows by currency	M		

4.10.12	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	M		
4.11	**FX Support**	N/A	N/A	N/A
4.11.1	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.	M		
4.11.2	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	M		
4.11.3	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	M		
4.11.4	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)	M		
4.11.5	The facility of inter-dealer position transfer	M		
4.11.6	The facility of inter-bank netting of forward deals	M		
4.11.7	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	M		
4.11.8	Special module required for enabling STP to CCIL retail platform customer deals	M		
4.11.9	STP should be end to end for Equity Dealing	M		
4.11.10	Generation of Gap statement (with resources/deployment in the respective bucket of maturity) – AGL & IGL, with auto matching of GL Codes from Trial Balance	M		

4.11.11	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.	M		
4.11.12	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	M		
4.11.13	Facility of getting a report of net USD/FCY purchase or sale under CCIL/CLS for each value date	M		
4.11.14	Maximum deal size ticket dealer wise in trading as per Bank's Policy	M		
4.11.15	Deal size population as per policy for approval of competent authority	M		
4.12	**Revaluation**	N/A	N/A	N/A
4.12.1	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.	M		
4.12.2	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	M		
4.12.3	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.)	M		
4.12.4	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.	M		

4.12.5	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	M		
4.12.6	Separate GAP/Revaluation facility for individual portfolio along with bifurcation of Balance/off-Balance Sheet Items	M		
4.13	**System Support for Trades**	N/A	N/A	N/A
4.13.1	**Structuring Tools**	N/A	N/A	N/A
4.13.1.1	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	M		
4.13.1.2	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.	O		
4.13.2	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	M		
4.13.3	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	M		

4.13.4	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	M		
4.13.5	Deal slip should contain information of the underlying Deals	M		
4.13.6	Generation of deal slip & confirmation letter, interest rate reset notice, payment/settlement notice, option exercise notice, barrier trigger notice	M		
4.13.7	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	M		
4.13.8	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	M		
4.13.9	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	M		
4.13.10	There should be provision for entering bid submissions for auction in G-Secs and getting allotment details after cut-off declarations	M		
4.13.11	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)	M		
4.13.12	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.	M		

4.13.13	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	M		
4.13.14	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	M		
4.13.15	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.	M		
4.13.16	The system should be capable of doing scenario analysis at different yield levels	M		
4.13.17	There should be provision to find net profit from sale of shares	M		
4.13.18	The system should support various bucketing conventions including end-of-months bucketing, additionally system should allow various mode of position/risk split across bucket	M		
4.13.19	While creating security master, system should have capability of applying various price/yield convention for cash flows	M		
4.13.20	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	M		
4.13.21	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	M		
4.13.22	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	M		

4.13.23	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	M		
4.13.24	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	M		
4.13.25	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	M		
4.13.26	System should support securities where final capital repayment follows preceding day/roll convention & interest payments follows or modified day/roll convention.	M		
4.13.27	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	M		
4.13.28	System should support securities position bucketing by duration/maturity/yield/coupon/price (both book value and face value)/rating etc.	M		
4.13.29	System should support preferred margin pricing and time-to-next-coupon duration for floating securities	M		
4.13.30	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	M		
4.13.31	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	M		

4.13.32	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	M		
4.13.33	Hedge effectiveness testing of derivatives deals with underlying assets / liabilities	M		
4.13.34	System should specifically tag underlying items with hedging instrument, to make available P/L or accrual comparison of underlying and hedging deals	M		
4.13.35	System must support easy to use functionality to split cross positions and transfer positions between portfolios	M		
4.13.36	System should support the transfer of FX position to the Money Market desk for funding	M		
4.13.37	System must support drill-down of position to deal level	M		
4.13.38	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	M		
4.13.39	System should support FX curve construction using cross-currency basis swaps & must be capable of further separating FX basis risk from pure interest rate for risk management	M		
4.13.40	System must be capable of giving the average YTM on assets & liabilities on any books.	M		
4.13.41	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.	M		
4.13.42	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	M		
4.13.43	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	M		

	USD/INR) and reporting of profit after matching should be made available on currency pair wise			
4.13.44	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.	M		
4.13.45	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 accomodated 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 accomodate any regulatory requirements in this regard without any change request. The regulatory authority also includes ISDA in this regard as well. 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 and as mentioned under RFP document part-IV	M		
4.13.46	System must be capable of handling alternative reference rates like interfacing to bring ARRs, creating yield curves term structure and	M		

	spreads for ARRs, mapping of products to ARRs, ARR based pricing & valuation and creating separe MIS for such products.			
4.13.47	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.	M		
4.13.48	System must support pricing structure trade builder. Complex derivatives when create a complex stucture by combining call and future options.	O		
4.13.49	System must have real time analytical tool which facilitate the dealer of complex positions	O		
4.13.50	**Support for "When Issued" trades**	N/A	N/A	N/A
4.13.51	System should have facility to define When Issued [WI] securities. Separate Tradable position for When Issued has to be maintained	M		
4.13.52	System should facilitate capturing WI for "New" as well as "Existing" securities	M		
4.13.53	Real time monitoring of regulatory limits & internal limits set by the Bank. User should be able to change the same whenever required	M		
4.13.54	When issued deals should be allowed to be booked in a specific book only.	M		
4.13.55	Facility to roll over the – When Issued positions into regular positions without re-entering the Trade	M		
4.13.56	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.	M		

TAB-5: Derivatives for ITMS

Response	Status as per RFP	
F	Ready availability of the functionality	**Please populate only these two columns with your responses**
C	Customization to be done	
N	Not Available (Not Applicable for Mandatory item which is required from Day-1)	

SNo	System Requirement	Mandatory (M-Reqd from Day-1) / Optional (O)	Bidder Response (F/C/N)	Bidder Clarifications / Comments
5	**Derivatives for ITMS**	**N/A**	**N/A**	**N/A**
5.1	**Front Office Support**	N/A	N/A	N/A
5.1.1	System should maintain real-time currency position for each dealer	M		
5.1.2	System should maintain real-time currency position across dealers	M		
5.1.3	Facility to capture derivative deals through user friendly screens	M		
5.1.4	Facility to enter Swap deals in cryptic mode for quick capturing	M		
5.1.5	Standard Settlement Instructions should be automatically defaulted based on deal	M		
5.1.6	Facility to copy existing deal to generate new	M		
5.1.7	Facility to mirror existing deal to generate back to back deal.	M		
5.1.8	System should support generation of deal	M		
5.1.9	**Facility for stripping of currency options into multiple options (shortcut feature for deal definition) with change of:**	N/A	N/A	N/A
5.1.10	Strike Price	M		
5.1.11	Barrier Price	M		
5.1.12	expiry dates to exact month, quarter, semi-annual and annual	M		
5.1.13	Expiry dates to end of month, quarter, semi-annual and annual	M		
5.1.14	Definition of currency option strategies as templates which can be easily referenced for creation of strategies	M		
5.1.15	Calculation of Greeks for Currency Options	M		
5.1.16	System should support pricing of derivative deals at the time of deal entry	M		
5.1.17	System should provide standalone screen for pricing of derivative deals with provision to convert the entered parameters to a deal.	M		
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.	M		
5.1.19	Facility to Terminate Derivative Deals. System should compute MTM with a facility to change the system computed MTM amount.	M		

5.1.20	Monitoring screen to monitor Barrier Currency Option Deals for Knock-In and Knock-Out	O		
5.1.21	Currency Option deals eligible for exercise or lapse should appear automatically on the screen along with important deal information.	M		
5.1.22	Facility to create structured product encompassing various Currency Option, Principal Swap, IRS & Forward Rate Agreement deals.	M		
5.1.23	There should be parametric facility for Front Office authorization.	M		
5.1.24	Computation of interest rate risk like PVBP for Swaps and FRA	M		
5.1.25	Approval hierarchy should be defineable as per the requirement of the Bank	M		
5.1.26	Computation of all like Delta, Gamma Theta, Vega & Rho etc. for Currency Options. It should have ability to include cash flows	M		
5.1.27	Facility to designate any of the above derivative in to hedge or trading.	M		
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	M		
5.1.29	Generation of deal slip and confirmation letter (both physical and automated)	M		
5.1.30	Deal slip should contain information of the underlying asset	M		
5.1.31	Facility to support a wide range of forex option payoffs with advance model	O		
5.1.32	Facility to support Indian, Overseas FX listed	M		
5.1.33	Facility to build linear combined structure products with stripping and solver feature.	M		
5.1.34	Facility to handle FX option related market data, especially Fx smile interpolation	M		
5.1.35	Facility to monitor P&L position, Greeks and other unique measures natively and all dynamic ones	M		
5.1.36	Facility to manage FX option relevant events like exercise and barrier knock for bulk number of options	O		
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	M		

5.1.38	Facility to handle commodity in native module instead of using other asset class proxies.	O		
5.1.39	Facility to manage different product/location/quality/units etc and aggregate/convert position accordingly	O		
5.2	**Mid Office Support**	N/A	N/A	N/A
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	M		
5.2.2	System should generate alert to users on violation of limit	M		
5.2.3	Facility to authorize limit violations.	M		
5.2.4	System should generate exception report for limit violations.	M		
5.2.5	Facility to download and capture benchmarks	M		
5.2.6	Facility to download and capture currency exchange rates and yield curves.	M		
5.3	**Back Office Support**	N/A	N/A	N/A
5.3.1	System should support daily back office activities	M		
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.	O		
5.3.3	Facility to change the settlement currency for FRA, Currency Options and Swap deal settlements	M		
5.3.4	Back-dated processing including interest accrual and settlement for back-dated Swaps.	M		
5.3.5	Facility to confirm a deal and print the confirmation letter. Ability to view the existing confirmed deals	M		
5.3.6	Facility to transfer complete deal wise portfolio position from one portfolio to another	M		
5.3.7	Ability to modify swap parameters like reset date, compounding date and coupon date defined as part of deal entry	M		
5.3.8	Facility to change settlement instructions	M		
5.3.9	Facility to change CCP	M		
5.3.10	System should support Forward Revaluation	M		

5.3.11	Facility to amortize the MTM in case of termination of deal in – Hedging portfolio	M		
5.3.12	Facility to view deal wise MTM across products with facility to view selected deals or portfolios	M		
5.3.13	Facility to view overall MTM across dealers/selected dealers by super users	O		
5.3.14	MTM Trend analysis for any product/deal – intraday as well as across dates	O		
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	M		
5.3.16	System should be able to match the daily margins maintenance form: a. Government securities b. Cash c. Other forms	M		
5.3.17	System should be able to link to the respective exchange platform systems: MCX —SX, NSE, BSE, USE, Others	M		
5.3.18	Novation and compression (whereever applicable) of OTC Derivative Contracts	M		
5.3.19	Ability to provide data to CCIL for Trade compression activity by CCIL for OTC IRS Trades	M		
5.4	**SWIFT related Support**	N/A	N/A	N/A
5.4.1	Generation of SWIFT confirmation messages for derivative deals	M		
5.4.2	MT305 – CO Plan Vanilla Confirmation	M		
5.4.3	MT306 – CO Single Barrier Confirmation	M		
5.4.4	MT340 – FRA Confirmation	M		
5.4.5	MT341 – FRA Settlement Confirmation	M		
5.4.6	All swift messages, tracers and follow up messages should be directly generated through TMS to swift server.	M		

SNo	System Requirement	Mandatory (M-Reqd from Day-1) / Optional (O)	Bidder Response (F/C/N)	Bidder Clarifications / Comments
5.4.7	System should support reconciliation of inward SWIFT confirmation messages for Derivative deals.	M		
5.4.8	All other SWIFT related details/functionalities/requirements mentioned under RFP document under Part-IV	M		

		TAB-6: Mid Office for ITMS		

Response	Status as per RFP		
F	Ready availability of the functionality	**Please populate only these two columns with your responses**	
C	Customization to be done		
N	Not Available (Not Applicable for Mandatory item which is required from Day-1)		

SNo	System Requirement	Mandatory (M-Reqd from Day-1) / Optional (O)	Bidder Response (F/C/N)	Bidder Clarifications / Comments
6	**Mid Office for ITMS**	**N/A**	**N/A**	**N/A**
6.1	**Market Risk -General Requirements**	N/A	N/A	N/A
6.1.1	Online Real-time monitoring of all types of deals in bank's trading book	M		
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	M		
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.	M		
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.	M		

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.	M			
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)	M			
6.1.7	The system should be able to compute the exact stop loss and take profit based on pre-defined percentages	M			
6.1.8	The system should be able to give notifications in case of breach of stop loss/ take profit limits	M			
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	M			
6.1.10	Daily Exposure Report for on balance sheet items plus off balance sheet items	M			
6.1.11	Daily country-wise exposure limit (indicating gross, net basis, short term and long term basis)	M			
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.	M			
6.2	**Value at Risk**	N/A	N/A		N/A
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.	M			
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.	M			

6.2.3	VaR to be computed (with all available prices in the market required for computation) using following methods:	M		
6.2.4	Historical Simulation	M		
6.2.5	Variance-covariance	M		
6.2.6	Monte Carlo Simulation	M		
6.3	Flexibility of defining confidence interval, sampling frequency, decay factor, time horizon, distribution assumption and other relevant parameters.	M		
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	M		
6.5	Provision for computing specific VaR, stressed VaR & incremental VaR, marginal VaR, Merged VaR	M		
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	M		
6.7	The system shall have the ability to drill down VaR by various dimensions to cash flow levels	M		
6.8	Users should be able to view results of VaR in a graphical form including tail loss	M		
6.9	Distribution of VaR across the following: -	N/A	N/A	N/A
6.9.1	Dealer wise VaR	M		
6.9.2	Products wise VaR	M		
6.9.3	Market wise VaR	M		

6.1	Yield curve creation and its use in valuations and VaR	M		
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	M		
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/actual method) and FRTB norms	M		
6.13	VaR - Stress testing- As per Basel/RBI guideline and the best market practices available	M		
6.14	Incremental Risk Charge (IRC), and Expected Shortfall	M		
6.15	**Valuations**	N/A	N/A	N/A
6.15.1	MTM and Revaluation: All valuations including India specific valuations like FBIL, 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.	M		
6.15.2	The system should support accrual calculations. Inbuilt tools should be in place to compute daily P&L of all asset classes	M		

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.	M		
6.16	Facility to download and capture benchmarks rates on realtime basis and should be store in the system for audit purpose.	M		
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	M		
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,	M		
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 povison in the System to enhance or reduce the counterparty limit during the day.	M		
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.	M		
6.18	**Limit Monitoring**	N/A	N/A	N/A

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 other backoffice 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.	M		
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.	M		
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.	M		
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	M		

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.	M		
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	M		
6.19	Issuer limit, settlement limit, desk & country limits on realtime basis and should be store in the system for audit purpose	M		
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.	M		
6.19.1	Real-time automated Rate scan with market feed data	M		
6.2	Real time alerts and facility to authorize limit violations, Capability to exempt certain securities from stop loss monitoring	M		
6.21	Ability to scan and attach paper based notes during authorizations for future reference during audits and inspections	M		
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.	M		
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.	M		
6.22	Exception management (i.e. monitoring, flagging & reporting) for limit violation	M		

6.23	The system should allow for the measurement of the Counterparty credit risks for treasury which should be mapped with pre-settlement risk	M		
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.	M		
6.24	Facility to authorize limit violations.	M		
6.25	System should generate exception report for limit violations	M		
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. 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.	M		
6.26.1	VaR Limit	M		
6.26.2	Sensitivity limits and Limit exceeded report	M		
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	M		
6.26.4	Loss Limits (Stop Loss with various frequencies daily, monthly, annually etc.)	M		
6.26.5	Risk Limits, cut loss limit	M		
6.26.6	Position Limits	M		
6.26.7	Scrip-wise/Security-wise Limits	M		
6.26.8	Modified Duration/PV01 Limits along with introduction of Convexcity 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	M		
6.26.9	Single Deal Limit	M		
6.26.10	Day Light Limit	M		

6.26.11	Dealer wise	M		
6.26.12	NOOP Limit	M		
6.26.13	AGL/IGL Limit	M		
6.26.14	Exposure Limit	M		
6.26.15	Broker-wise Turnover	M		
6.26.16	Dealer wise Limit	M		
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	M		
6.28	The system should be able to define and monitor limits at various levels in the hierarchy,	M		
6.29	The system should be able to issue a system notification to dealers that a limit is violated	M		
6.3	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	M		
6.31	The system should enable querying of limits at an individual as well as aggregate level	M		
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.	M		
6.31.2	System should support Credit Risk on the market related off- Balance sheet items on daily Basis	M		
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	M		
6.32	**Exception Reporting**	N/A	N/A	N/A

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).	M		
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	M		
6.32.3	End of Day Exception report should be generated mandatorily & no user should have the power to skip the same	M		
6.32.4	The system should be able to support warning messages and exception reporting for credit exposure limit violations	M		
6.32.5	The system shall have a means to automatically generate exception reports	M		
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.	M		
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.	M		
6.33	**REPORTS**	N/A	N/A	N/A
6.33.1	**Mid office and Risk Management**	N/A	N/A	N/A
6.33.1.1	New Consolidated deal details dealer-wise with day light limit for all asset class	M		
6.33.1.2	CDS	M		

6.33.1.3	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.	M		
6.33.1.4	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.	M		
6.33.1.5	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.	M		
6.33.1.6	Risk Sensitivity Report (Bucket wise/Curve wise PV01 distribution as on date)	M		
6.33.1.7	Acrrued Interest & NOOP	M		
6.33.1.8	Capital Market Exposure Report Net off	M		
6.33.1.9	Risk Weight Asset on trading book on daily basis	M		
6.33.1.10	Capital Market Exposure Statement	M		
6.33.1.11	Threshold limits (90% of the maximum limits) should be fixed and made available online	M		
6.33.1.12	Counter party exposure with back date report with detail break-up	M		
6.33.1.13	Currency wise gap scan	M		
6.33.1.14	Maturity mismatch currency wise and USD equivalent	M		
6.33.1.15	Summary of daily gaps, position and cash balances	M		
6.33.1.16	VAR for HFT as well as AFS as per IMA approach – Report frequency daily as well as user defined	M		
6.33.1.17	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.	M		
6.33.1.18	The proposed Treasury solution should be capable enough to provide all kind of information and data for generation of ALCO Report as per	M		

	Bank's specified data format or through Bank's specified interface integration.			
6.33.1.19	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.	M		
6.33.1.20	Suspicious Transaction Report	M		
6.33.1.21	Position reports – Category wise as on any date, comparison between three given dates	M		
6.33.1.22	Entity wise (exposure to a company), Scrip-wise, portfolio-wise position as on any date	M		
6.33.1.23	Balance Sheet Disclosures related to Treasury portfolio	M		
6.33.1.24	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.	M		
6.33.1.25	Fx Gap report for audit, currency wise	M		
6.33.1.26	The system should be able to arrive net credit exposures on products by counterparty as well as country exposure should be monitored	M		
6.33.1.27	Category wise Return & Yield On Investment	M		
6.33.1.28	Daily Turnover for each parameter wise	M		
6.33.1.35	**Risk - Forex Reports**	N/A	N/A	N/A
6.33.1.35.1	Special Margin or Fine margin Reports to the approved or sanctioned Customer	M		
6.33.1.35.2	Nostro Overdraft Reports	M		
6.33.1.35.3	Arbitrage Operation Limits	M		
6.33.1.35.4	Reports on deals beyond prescribed normal trading timings	M		
6.33.1.35.5	Exception Reports on the Forex Limits Breaches	M		
6.33.1.35.6	Reports on the transaction with Non member of CCIL	M		
6.33.1.35.7	Calculation of Available Limit of the Forward Contract Customers (CEL-(PFE+CCE))	M		
6.33.1.35.8	Foreign currency Borrowing Limits	M		
6.33.1.38	**Risk - Derivatives**	N/A	N/A	N/A

6.33.1.38.1	**Currency Futures**	N/A	N/A	N/A
6.33.1.38.1.1	Reports of counter party exposure on CURRENCY FUTURES IN A MONTH	M		
6.33.1.38.1.2	Margin reports on currency future transactions	M		
6.33.1.38.1.3	A)Report of initial margin/extreme loss margin/ calendar spread margin	M		
6.33.1.38.1.4	B)Daily mark to market report	M		
6.33.1.38.1.5	C)report margin for acting as a broker for clients and acting as clearing member	M		
6.33.1.38.1.6	market risk limit	M		
6.33.1.38.1.7	A)stop loss limit	M		
6.33.1.38.1.8	B)Gross notional limit	M		
6.33.1.38.1.9	C)capital charge Computation	M		
6.33.1.39	**RISK - OIS/IRS (Overnight Index Swap /Interest rate swap)**	N/A	N/A	N/A
6.33.1.39.1	**Hedging**	N/A	N/A	N/A
6.33.1.39.1.1	Report on OIS/IRS HEDGING LIMIT IN A DAY	M		
6.33.1.40	**RISK - Arbitrage**	N/A	N/A	N/A
6.33.1.40.1	Report on OIS/IRS ARBITRAGE LIMIT IN A DAY	M		
6.33.1.41	**RISK - Trading**	N/A	N/A	N/A
6.33.1.41.1	IRS TRADING LIMIT IN A DAY	M		
6.33.1.41.2	Market risk limit	M		
6.33.1.41.3	B)VaR report as well as VaR Back testing Reports	M		
6.33.1.41.4	C)stress testing report	M		
6.33.1.41.5	D)stop loss limit report for IRS/OIS	M		
6.33.1.41.6	f)gross position limit(bucket wise)	M		
6.33.1.41.7	G)net position limit(bucket wise)	M		
6.33.1.41.8	H)time gap limit(benchmark wise)	M		
6.34	**MARKET RISK FEATURE OF TREASURY PORTFOLIO**	N/A	N/A	N/A
6.34.1	**IND AS/IFRS9**	N/A	N/A	N/A
6.34.1.1	Classification of Instruments as per Ind AS	M		

6.34.1.2	Identification of deal – wise, instrument – wise, category-wise and country - wise transaction costs	M		
6.34.1.3	Capturing of security – wise cash flows (including premium on redemption of securities)	M		
6.34.1.4	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	M		
6.34.1.5	Bifurcation of Treasury and Forex profit into Ind AS Classification	M		
6.34.1.6	Details of securities available for the instruments (secured / unsecured)	M		
6.34.1.7	Convertibility of Instrument/ Call or Put Option	M		
6.34.1.8	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)	M		
6.34.1.9	Day past due (DPD) status of fixed income instrument	M		
6.34.1.10	Term sheet of instrument (soft copy/scanned copy) as an attachment	M		
6.34.1.11	Interest accrued detail instrument wise	M		
6.34.1.12	Fair value of Instrument along with Level of fair valuation wherever applicable	M		
6.34.1.13	Should have capability to provide all inputs for calculation of Expected Credit Loss (ECL) for Treasury Portfolio	M		
6.34.2	**Market Risk**	N/A	N/A	N/A
6.34.2.1	System should have capability to publish all the regulatory reports pertaining to TMO/Market risk functions.	M		
6.34.2.2	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.	M		
6.34.2.3	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	O		

	portfolio to be generate along with other assets & liabilities components into RBI prescribed 10 buckets with a provision for splitting any bucket)			
6.34.2.4	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.)	O		
6.34.2.5	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 item as per RBI Guidelines	O		
6.34.2.6	CAPITAL CHARGE for credit risk related to investments under Basel III	O		
6.34.2.7	CAPITAL CHARGE for market risk under IMA	O		
6.34.2.8	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.	O		
6.34.2.9	Convexity	M		
6.34.2.10	Scenario / Sensitivity Analysis (Related to Front Office)	M		
6.34.2.11	Scenario / Sensitivity Analysis With correlation shifts (Related to Front Office)	M		
6.34.2.12	Scenario / Sensitivity Analysis With parallel shift in yield curve, currencies and market prices (Related to Front Office)	M		
6.34.2.13	Scenario / Sensitivity Analysis With non-parallel shift in yield curve, currencies and market prices (Related to Front Office)	M		
6.34.2.14	The system shall allow users to print reports & results from analytical tools	M		

6.34.2.15	Fundamental review of the trading Book (FRTB) with existing/revised FRTB-SA	M		
6.34.2.16	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.	M		
6.34.2.17	Facility for a user configurable Dashboard for Risk Manager	M		
6.34.2.18	Duration Gap Analysis (for each asset and liability related to Treasury)	M		
6.34.2.19	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	M		
6.34.2.20	Real-Time trading book monitoring/analysis	M		
6.34.2.21	Real-Time portfolio analysis – currency pair-wise trading profit and loss.	M		
6.34.2.22	Real-Time breaching of exposure on consolidated basis/segment-wise	M		
6.34.2.23	Exposure monitoring Bank wise for Treasury as well as overseas Branches	M		
6.34.2.24	Provision should be there for calculating Exposure monitoring on Country wise for all overseas Branches/treasury	M		
6.34.2.25	Facility to view the simulation numbers generated by system from front end based on Historical Simulation method	O		
6.34.2.26	Kupiec Test and identification of zones as per BASEL II/III for Internal Model Hypothetical Testing – Identification of Correction Factor	O		
6.34.2.27	Daily HFT & AFS valuation reports along with all the risk parameters and limits	M		
6.34.2.28	Category-wise detailed Valuation Report with Summary Valuation Report	M		
6.34.2.29	Report on equity Portfolio Dividend Yield	M		
6.34.2.30	Report giving average cost of market borrowing for Treasury & yield on money market lending	M		
6.34.2.31	Report of outstanding money market swaps/profitability/yield taking manually input cost of funds on daily basis. (Related to Back Office and simultaneouslu=y accessable to Mid Office also)	M		

6.34.2.32	Report of cost of carrying money market swaps with options to input cost of funds on daily basis. (Related to Back Office and simultaneouslu=y accessable to Mid Office also)	M		
6.34.2.33	Treasury average cost/yield based net-wise and profit analysis in the format provided by the bank (Related to Back Office and simultaneouslu=y accessable to Mid Office also)	M		
6.34.2.34	Unrealized gains/loss in SLR/Non-SLR securities and equities. [This requires computation of MTM of various bonds]	M		
6.34.2.35	Defeasance period for HFT & AFS portfolio	M		
6.34.2.36	IC6 :IC 6 (IGL) Report which provides currency wise maturity GAP data for each month/buckets	M		
6.34.2.37	NOP-INR: It will contain NOP-INR values as required per RBI guidelines	M		
6.34.2.38	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.	M		
6.34.2.39	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	M		
6.34.2.40	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	M		
6.34.2.41	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	M		
6.34.2.42	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	M		

6.34.2.43	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	O		
6.34.3	**BASEL III Capital Regulation**	N/A	N/A	N/A
6.34.3.1	Bilateral Netting of Counterparty exposure as well as bilateral netting of MTM values arising on account of derivative contracts (Operational requirement in terms of managing the exposure)	M		
6.34.3.2	Bilateral Netting of a group of transaction with a single counter party in terms of recognition for regulatory capital purpose (Operational requirement in terms of managing the exposure)	M		
6.34.3.3	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)	M		
6.34.3.4	System should be able to inclusion of transactions of different product categories within the same netting set. (Operational requirement in terms of managing the exposure)	M		
6.34.3.5	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	M		
6.34.3.6	System should be able to calculate the mismatch between the collateral currency and settlement currency in terms of applying hair cut for currency risk	M		
6.34.3.7	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.	O		
6.34.3.8	System should also have the ability to calculate the holding period of the haircut on the basis of change in frequency in margin also.	O		

SNo				
6.34.3.9	receivables and payables from/to the same counterparty including that relating to a single derivative contract should be netted.	O		
6.34.3.10	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.	M		
6.34.3.12	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"	M		
6.34.3.13	The Model should be validated by the Third party for which computation of VaR with back testing of (FIIs,Forex,Equity,Derivatives),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.	M		
6.34.3.14	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.	M		
TAB-7: Specifications Of the Technology Proposed by the Bidder for ITMS				

SNo	System Requirement	Please populate only these two columns with your responses		
		Bidder Response Complied (Y - Yes/ N-No)	**Bidder Clarifications / Comments**	
7	**Specifications Of the Technology Proposed by the Bidder for ITMS**	**N/A**	**N/A**	
7.1	**Back-up and Recovery**	N/A	N/A	
7.1.1	Solution Should support online-real time replication of DC data on DRC servers. RTO = 90 MINS & RPO = 30 mins			

7.1.2	The solution should be compatible with all types of backup devices.			
7.1.3	The solution should support all backup application software			
7.1.4	Should support IP protocol			
7.1.5	Should support IP protocol			
7.1.6	System should support Online, Automated and manual backup modes			
7.1.7	System should support following Type of backup facility - Hot backup - Cold backup			
7.1.8	System should Allow the backup of - Whole system - Application program - Database			
7.1.9	System should have complete support for incremental back-up			
7.1.10	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			
7.2	**Availability Parameters**	N/A	N/A	
7.2.1	Should support load balancing in terms of system parameters (CPU, Hard Disk, memory, etc.)			
7.3	**Web Server**	N/A	N/A	
7.3.1	The application should have the ability to support Apache, Netscape enterprise, Commerce server, Microsoft IIS, IBM websphere etc. as web servers			
7.3.2	The web server should have the capability of writing to multiple logs			
7.3.3	The web server should have the capability to support Virtual Servers			
7.3.4	Should support network monitoring agents like SNMP agent, etc.			
7.3.5	Should be able to support Integrated certificate server, SSL with 128 bit encryption mechanism or more			
7.3.6	Should be able to install on Windows platforms, UNIX flavors, etc (Operating systems).			
7.3.7	Should be hardened to disable unnecessary features and plug known security vulnerabilities			

7.3.8	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			
7.4	**Application Server**	N/A	N/A	
7.4.1	The application should be able to support HTML, DHTML, etc. (Markup language)			
7.4.3	The application should support the application layer technologies like Java, C++, Netscape server application process interface, Internet server application process interface, etc.			
7.4.5	Support standard queuing engines (IBM MQ, MSMQ, etc.)			
7.4.7	The system should provide interface to standard firewalls (application proxy, stateful inspection and mix of both)			
7.4.9	Database Connectivity support should at a minimum be ODBC, JDBC, etc.			
7.4.11	Is the application RISC based			
7.5	**Interfacing**	N/A	N/A	
7.5.1	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			
7.5.2	The Solution should interface seamlessly with individual modules and provide Straight Through Processing.			
7.5.3	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			
7.5.4	Provide support to latest ISO standards, XML, WAP, SMS, etc. standard messaging protocols for interfacing.			
7.5.5	The system should have the ability to rollback a transaction to a particular stage and restart, if required.			
7.5.6	Ability to integrate to support online , real time & batch operations			
7.5.7	Integrator's support for scheduling and defining of Jobs			

7.5.8	Application should handle automatic switchover in cluster environment			
7.6	**Data Management**	N/A	N/A	
7.6.1	During exchange of information, the application should support Encryption of data.			
7.6.2	Remote Access: System should provide Security check while logging in, via: - User-id and password - Hardware device (smart card etc.) - Biometrics			
7.6.3	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)			
7.6.4	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			
7.6.5	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.			
7.7	**Reports**	N/A	N/A	
7.7.1	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			
7.7.2	Drilling up/down of reports on the screen should be available.			

7.7.3	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			
7.7.4	Provision should be available for generating & printing any previous day's report i.e. backdated reports.			
7.7.5	Capability to format reports as Word, Excel, HTML,PDF or Acrobat files			
7.7.6	Ability to generate automatic reports and scheduling of reports			
7.7.7	Ability to automatically email reports to a mailing list, which is configured in the system.			
7.7.8	Ability to configure mailing lists for reports and warnings such as limit breaches, approaching breaches, security issues, etc.			
7.7.9	Generate reports using various fields as sorting-keys to sort in ascending and descending order			
7.7.10	Users have the option such as but not limited to – online viewing, hard copy generation, file creation etc.			
7.7.11	System should have the ability to process multiple reports concurrently.			
7.7.12	Ability to rapidly generate ad-hoc reports with an easy to use report writing Tool / wizard			
7.7.13	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.			
7.7.14	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.			
7.7.15	The system should be able to generate customized reports based on all available data at user level			

7.7.16	The system should allow reports to be exported into Microsoft Excel, Word, CSV, PDF, XML, XBRL, text format or any industry specific standard format			
7.7.17	The system should be able to provide context sensitive help to guide users			
7.7.18	The system should allow users to present outputs in the form of graphs, charts and other graphic representation			
7.7.19	The system should allow for sorting of data on trader workstation			
7.7.20	The system should have the ability to isolate and report errors and exceptions			
7.7.21	Ability to generate an output of all accounting entries for a user specified period			
7.7.22	Frequency of reports can be: Daily, Weekly, Fortnightly, Monthly, Quarterly, Half Yearly, Annual, For any given period			
7.7.23	The system should allow for generation of reports on real time basis			
7.7.24	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			
7.7.25	The system should archive historical rates extracted from market information systems and should also allow for archiving of historical reports			
7.7.26	System must provide tools for reconciliation of data imported/exported from external systems			
7.7.27	Facility to download data from Integrated Treasury Package to Excel Form.			
7.7.28	Revaluation of FCNR /RFC should be calculated by the system and entries should also be passed by the system.			
7.7.29	All statutory and Regulatory reports need to be generated by the system which are related to Treasury and Risk			
7.8	**Audit Trail**	N/A	N/A	
7.8.1	The proposed solution should maintain history of all additions, modifications, deletions and parameter changes etc. as Audit Trails.			

7.8.2	The proposed solution should provide audit reports and Tools for the Bank's internal/concurrent/statutory/SEBI/CCIL/IDRBT/RBI audit/Inspections etc.			
7.8.3	Date, time and user-stamped transaction list are generated for different transactions			
7.8.4	Transaction screens display system information including Processing Date, Current Time, Current User			
7.8.5	Daily activity reports are provided to highlight all the transactions being processed during the day			
7.8.6	Support for recording of Unsuccessful attempts to log-in to the system			
7.8.7	System to provide session log files. The user should be able to analyse the information (e.g., account id, session time etc.)			
7.8.8	System should provide tracking of the client's IP & Network Interface address			
7.8.9	The application should facilitate definition of user-defined log files for tracking sessions			
7.8.10	Daily activity reports are provided to highlight all the transactions being processed during the day			
7.8.11	Unsuccessful attempts to login to the system should be recorded			
7.8.12	Daily activities logs are merged into the history log files			
7.8.13	All actions and activities performed within the system should have a full audit trail			
7.8.14	There should also be proper audit trail of addition, deletion, modification, activation, deactivation etc. of users and their system rights.			
7.8.15	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			

7.8.16	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				
7.9	**Network Capability and Access of Data**	N/A	N/A	
7.9.1	Should be able to work on current network architecture of the Bank.				
7.9.2	Link from Excel & Other Applications				
7.9.3	Export of Reports & Inquiries into different formats like Word, Excel, PDF, Text & CSV etc.				
7.9.4	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.				
7.1	**Security**	N/A	N/A	

SNo	System Requirement		
7.10.1	System should support facility for operational security and to be able to restrict access through password at: - System level - Application level - Function level		
7.10.2	Proposed system should support: - Database level security - Application – Role based authorization (RBA) level security - Module level security - Field level security - User level security		
7.10.3	System should have capability to define any number of roles and flexibility to modify these roles.		
7.10.4	System should have ability to define security customers system administrators.		
7.10.5	The proposed application should provide complete logging and audit trails of activities performed by users.		
7.10.6	Security feature on the proposed system should be Encryption aware SSL aware , IPSEC		
7.10.7	System should have the ability to configure different users (employees, trainers, managers, admin, etc) at different levels of security based upon their job role		
TAB-8 : Specifications Of the Backup and Tape library			
SNo	**System Requirement**	**Please populate only these two columns with your responses**	
		Bidder Response Complied (Y - Yes/ N-No)	**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 LTO8 FC Tape drives and further scalable to 16 x latest generation LTO8 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 LTO8 drive in the Library shall conform to the Continuous and Data rate matching technique for higher reliability.			
35	Offered latest generation of LTO8 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 at each site			
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) must be 2,000,000 cycles or higher			

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 FC based connections.			

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<u>NOTICE TO THE BIDDERS</u>

29.12.2022

Sub: Extension of Bid Submission date in respect of "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). RFP Ref. No: UCO/DIT/2241/2022-23 Date: 05/12/2022".

The last date for submission of bid documents for "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)" which has been scheduled on **05.01.2022** is hereby extended **up to 10.01.2022 (4:00 PM)**. Technical bids will be opened on **10.01.2022 at 4:30 PM.**

Department of Information Technology
Head Office, Kolkata