



Tender Document

Tender Reference Number:

CO: ITB: 2011-12:120

Request for Proposal

For

***Implementation of Advanced Software Solution for
Integrated Treasury Operations of the Bank***

Fees for RFP Rs.10,000/-

TABLE OF CONTENTS

SR.NO.	CONTENTS	PAGE NO.
1	Invitation for Tender Offers	3
2	Background	4
3	Scope of the Job	5
4	Eligibility Criteria of Vendors	5
5	Terms and conditions	6
5.1	Two Bid System	6
5.2	Date of Submission	7
5.3	Liabilities of Bank	7
5.4	Proposal Process Management	7
5.5	Date of Bid Expiration	7
5.6	Bidder Indication of Authorization to Bid	7
5.7	RFP Ownership	8
5.8	Proposal Ownership	8
5.9	Bid Pricing Information	8
5.10	Bidder Status	8
5.11	Confidentiality	8
5.12	Bid Security	8
5.13	Disclaimer	9
5.14	Right to Reject	9
5.15	Other General Conditions	9
5.16	Payment Terms	10
5.17	Project Completion Time	10
5.18	Customization of the Software	10
5.19	User Acceptance Test of software	11
5.20	Penalty Clause	11
5.21	Performance bank guarantee	11
5.22	Non Disclosure Agreement	11
5.23	Cancellation of Order	11
5.24	Force Majeure	12
5.25	Clarifications and amendments of RFP Document	12
5.26	Training	12
5.27	Warranties	13
5.28	Maintenance Support	13
5.29	On-site support	13
5.30	Project Review	14
5.31	Repairs and Maintenance	14
5.32	Insurance	14
5.33	Guarantees on Software and Hardware	14
5.34	Guarantees On Response Time To Errors	14
5.35	Guarantees on System Up-Time	15
5.36	Confidentiality	15
5.37	Security	15
5.38	Non-Disclosure Agreement/Service Level Agreement (SLA	16
5.39	Resolution of Dispute	16
5.40	Sub Contracting	16
5.41	Project Management	16
5.42	Intellectual Property Rights	16

5.43	ESCROW	16
5.44	License	17
5.45	Hardware Sizing	17
5.46	Disaster Recovery Setup	17
5.47	Monitoring & Audit	18
5.48	Indemnity	18
5.49	termination for default	18
5.50	Acceptance of Terms and Conditions	18
6	Technical bid – General information	19
7	Commercial bid	21
8	Evaluation process	24
9	Technical requirements	26
10	Functional requirements	27
11	Covering letter	95
12	Acceptance letter to be given by vendor	96
13	Proforma for performance bank guarantee	97
14	Non-disclosure agreement	99

1. Invitation for Tender Offers

Central Bank of India invites sealed tender offers (technical offer and commercial offer) from the eligible vendors for implementation of advanced Treasury solution for integrated treasury operations of the Bank. The Tender document can be downloaded from Bank's website mentioned below. Bid related details are given below :

Tender Reference	CO:DIT:PUR:2011-12:120	
Fees for RFP Document (non-refundable)	Rs.10,000/- (Rs. Ten Thousand only)	
Earnest Money Deposit	Rs.20,00,000/- (Rs.Twenty Lacs only)	
Availability of RFP document for downloading from the Bank's website	From 26/03/2012	
Date, Time and Venue of Pre-bid meeting	03/04/2012 at 15.00 Hrs Central Bank of India, Integrated Treasury Branch, 5 th Floor, Chander Mukhi, Nariman Point, Mumbai-400021	
Last Date, Time & Place for receipts of tender offers	09/05/2012 latest by 14.30 Hrs. at above mentioned address	
Date & Time of Technical Bid Opening	09/05/2012 at 15.00 Hrs	
Address for Communication	Dy. General Manager (Treasury) Central Bank of India, Integrated Treasury Branch, 5 th Floor, Chander Mukhi, Nariman Point, Mumbai-400021.	Dy. General Manager (DIT), Central Bank of India, Plot No.26, Sector 11, Opp. Railway Station, CBD Belapur, Navi Mumbai-400614.
Contact Telephone Numbers	022-66387790	022-27576304
Email Id:	dgmtreasury@centralbank.co.in	dgmdit@centralbank.co.in
Website:	www.centralbankofindia.co.in	

It is essential that all clarifications / queries be submitted to Dy. General Manager (Treasury), Central Bank of India at least two days before the date of the Pre-bid meeting, otherwise vendors may send a mail and the clarifications will be mailed back. Vendors who furnish the Tender Fees of RFP Document before pre-bid meeting, will be eligible to participate in the pre-bid meeting.

Fees for RFP document Rs.10,000/- to be paid in the form of Demand Draft issued by a Scheduled Commercial bank in favour of “Central Bank of India” payable at Mumbai and the DD should be submitted prior to the pre bid meeting.

Earnest Money Deposit of Rs.20,00,000/- must accompany all tender offers (as specified in this tender document).

Tender offers (Technical) will be opened, in the presence of the tenderer’s representatives who choose to attend the opening of tender.

K. Eswar
Dy. General Manager-Treasury

2. Background

Central Bank of India, established in 1911, was nationalized in the year 1969 and today is a leading public sector undertaking listed in BSE/NSE.

The organizational structure of the Bank consists of four tiers viz., Central Office (CO), Zonal Offices (ZO), Regional Offices (RO) and Branches. CO, consisting of various functional departments deals with mainly policy formulation, setting of targets and monitoring of performance. The Bank has set up 16 Zonal Offices to exercise immediate supervision and control over the 74 Regional Offices, which in turn supervise the branches under their jurisdiction. The Bank has a network of 3800 plus branches and 35 extension counters, spread across the length and breadth of the country with presence in all the States and Union Territories. The Bank has also established its Wide Area Network at 4000 plus locations all over India covering administrative and branch offices and is planning to enlarge it during the current year.

The Bank also has specialized branches catering to the specific needs of Retail customers, Industrial units, corporate clients, Forex dealers, Exporters and Importers, Small Scale Industries and Agricultural sector. The Bank has sponsorship in 7 Regional Rural Banks (RRB).

Bank has implemented Core banking Solution B@ns24 in all branches, from Tata Consultancy Services Limited and Core Banking solution of Finacle (from Infosys) for RRBs covering 1700 plus branches.

Presently bank is using the following systems:

Sr.	Name	Particulars
1	B@ncs24	CBS solution from TCS- Unix/Oracle based. This include a lot of other integrated applications- Oracle Applications for General Ledger, Channel G application for Government business, e-Credit for credit appraisal system and AML for Anti Money Laundering, EXIMBILLS from China system
2	Payment Systems	RTGS/NEFT systems
3.	IBR	Inter-branch Reconciliation System from TCS for IBR department
4.	HRMS	People Soft HRMS being implemented by IBM
5.	CMS	Cash Management System– Linux/Oracle M/s Laser Soft
6.	Data Ware House	From IBM

Existing Applications in Treasury Operations of the Bank

Currently Bank is using the following applications in its treasury operations:

1. Application Name : e-Treasury
Implementer : TCS
Data Base : Oracle

The existing treasury application is interfaced with the following other systems :

- Core Banking Solution for Forex Merchant transactions
- GL Interface with CBS
- Reuters
- CCIL's FX-Clear
- FX-All
- Barx
- STP Gateway (Equity Trades)
- NDS-OM
- PDO-NDS

3. Scope of the Job

Central Bank of India intends to procure an “Advanced Software Solution for Integrated Treasury Operations . The solution must have compatibility with Core Banking Solution (B@ncs24) of the Bank and would include installation, implementation & maintenance of all necessary Hardware and Software.

The detailed functional requirements of the solution are specified in point no-11

4. Eligibility Criteria of Vendors

(All documentary proof to be attached)

A bidder should be required to satisfy the following requirements for being eligible for participation in the bidding process.

- 4.1 The proposed solution should be a web based solution only.
- 4.2 The proposed web based application software should be in operation in a Public/Private Sector Banks in India. Documentary evidence for the same has to be submitted by the bidder.
- 4.3 The bidder should be in existence for a minimum period of 3 (three) years as on 31.03.2011.
- 4.4 The bidder should be in the similar line of activity and should have executed similar projects in Public/Private sector banks in India.
- 4.4 The bidder must be the System Integrator with suitable tie-ups, back-to-back support relationship with the OEM (Original Equipment Manufacturer) and shall be a single point of contact for Central Bank of India.
- 4.5 The solution/product offered should be compatible with all the guidelines issued by regulatory/government bodies. A self declaration to this effect should be submitted by the vendor.
- 4.6 The bidder should be a profit making for the last three years and financially sound company. Annual turnover of the company should be a minimum of Rs.50 crores. (Audited Financial statement for last three years is to be submitted).
- 4.7 The bidder should have capability to execute the work with respect to personnel & technical Competence.

5. Terms and Conditions

Central Bank of India invites the Vendor's attention to the following terms and conditions which underline this RFP and which provide a statement of understanding between the interested parties.

5.1 Two Bid System

Separate Sealed Envelopes Containing Technical Proposal (Technical Bid) and Commercial Proposals (Commercial Bid) should be clearly super scribed as “**Technical Bid – RFP for Integrated Treasury Solution**” and “**Commercial Bid - RFP for Integrated Treasury Solution**” respectively and should be addressed to and submitted at : -

Dy. General Manager (Treasury),
Central Bank of India,
Integrated Treasury Branch,
5th Floor, Chander Mukhi,
Nariman Point,
Mumbai – 400 021.

Technical Bid :

- I. The technical bid will be evaluated for technical suitability as well as for other terms and conditions as mentioned in Point No.6 on Page No.19 & 20.
- II. It is mandatory to provide the functional & technical details in the exact format as given in the RFP. Correct functional & technical information of the solution being offered must be provided in the structured format. The offer may not be evaluated by Bank in case of non adherence to the format or partial submission of technical details.
- III. It should include Fees for tender document and EMD amount in the form of Demand Draft.
- IV. It should include “Authorization Letter” from OEMs (Original Equipment Manufacturers) of the quoted products, in case of 3rd party products.
- V. It should include detailed technical specifications of the proposed hardware, OS, Data base or other software utility.
- VI. It should include details of server / Processor / Client licenses requirement for proposed components.
- VII. It should include compliance with all functional requirements
- VIII. It should include compliance with technical requirements
- IX. It should include detailed architecture of the proposed solution with various features / functioning of the system / sub-system including fail over methodology / strategy at both Primary & DR site.
- X. It should include Future Road map on scalability, version upgrade / releases of integrated treasury solution and up gradation of interface in case of version upgrade in bank's CBS as well changes in regulatory / statutory requirements from time to time.
- XI. It should include details of service support infrastructure of proposed solution.
- XII. It should include Bill of material without price information.

Commercial Bid (refer Point No.7 on page No.21 to 23)

- I. The commercial bid should give all relevant price information and should not contradict the Technical bid in any manner. All prices should be quoted in Indian Rupees only.
- II. Commercial bid should include the Annual Maintenance charges for next 4 years after expiry of one year warrantee period. Future releases / patches for statutory / regulatory changes as required under the directives of Government of India, Reserve Bank of India, SEBI, CCIL etc. should be free of cost and for implementing changes in existing regulatory guidelines, no additional charges will be paid for next 5 years.
- III. It is absolutely essential for the bidders to quote the lowest price for the hardware & software in their own interest.
- IV. Quoted price should include all charges except sales Tax / VAT/ Service Tax and Octroi, which will be paid as per actuals.
- V. Commercial prices should be fixed price and do not vary with fluctuation in other currency.
- VI. In case of any anomalies between Unit Price and Total Price, The Unit Price will prevail.
- VII. In case of any difference between amount written in figures and word, the amount given in words will be final.
- VIII. Bank will not pay any traveling charges / visit charges / hotel stay for any traveling / training undertaken by the Bidder staff / personnel for the project

5.2 Date of Submission

The proposal should be prepared in English and should reach the Bank on or before date and time mentioned above. The proposals received later than the above scheduled date and time will not be accepted. The e-mail address and phone/fax numbers of the vendor should also be indicated on the sealed cover. The details in both the Bids should be exactly as stipulated and otherwise the offer is liable to be rejected.

5.3 Liabilities of Bank

This RFP is not an offer by Bank, but an invitation for Vendor responses. No contractual obligation on behalf of Bank whatsoever shall arise from the RFP process unless and until a formal contract is signed and executed by duly authorized officials of Bank and the Vendor(s).

5.4 Proposal Process Management

Bank reserves the right to accept or reject any and all proposals, to revise the RFP, to request one or more re-submissions or clarifications from one or more Vendors, or to cancel the process in part or whole. No Vendor is obligated to respond to or to continue to respond to the RFP. Additionally, Bank reserves the right to alter the requirements, in part or whole, during the RFP process, and without re-issuing the RFP. Each party shall be entirely responsible for its own costs and expenses that are incurred while participating in the RFP and subsequent presentations and contract negotiation processes. Bank has every right to award the contract even if two bids are eligible after technical evaluation.

5.5 Date of Bid Expiration

Proposals must be valid for a minimum of 180 days from the date of technical bid submission. Responses must clearly state the validity of the bid and its explicit expiration date.

5.6 Bidder Indication of Authorization to Bid

Responses submitted by a Vendor to this RFP (including response to functional and technical requirements) represent a firm offer to contract on the terms and conditions described in the Vendor's response. The proposal must be signed by an official authorized to commit the bidder to

the terms and conditions of the proposal. Vendor must clearly identify the full title and authorization of the designated official and provide a statement of bid commitment with the accompanying signature of the official and submit the copy of power of attorney / authority letter authorizing the signatory to sign the bid.

5.7 RFP Ownership

The RFP and all supporting documentation/templates are the sole property of Central Bank of India and should NOT be redistributed, either in full or in part thereof, without the prior written consent of Bank. Violation of this would be a breach of trust and may, inter alia cause the Vendor to be irrevocably disqualified. The aforementioned material must be returned to Bank when submitting the Vendor proposal, or upon request. In case the Vendor is not interested in responding to the RFP, the RFP documents and any appendices must be returned to Bank immediately.

5.8 Proposal Ownership

The proposal and all supporting documentation submitted by the Vendor shall become the property of Central Bank of India .

5.9 Bid Pricing Information

By submitting a signed bid, the Vendor certifies that:

The Vendor has arrived at the prices in its bid without agreement with any other bidder of this RFP for the purpose of restricting competition. The prices in the bid have not been disclosed and will not be disclosed to any other bidder of this RFP. No attempt by the Vendor to induce any other bidder to submit or not to submit a bid for restricting competition has occurred.

5.10 Bidder Status

Each Vendor must indicate whether or not they have any actual or potential conflict of interest related to contracting services with Central Bank of India.

5.11 Confidentiality

This document contains information confidential and proprietary to Central Bank of India. Additionally, the Vendor will be exposed by virtue of the contracted activities to internal business information of Bank, affiliates, and/or business partners. Disclosure of receipt of any part of the aforementioned information to parties not directly involved in providing the services requested could result in the disqualification of the Vendor, pre-mature termination of the contract, or legal action against the Vendor for breach of trust.

No news release, public announcement, or any other reference to this RFP or any program there under shall be made without written consent from Bank. Reproduction of this RFP, without prior written consent of Bank, by photographic, electronic, or other means is strictly prohibited.

5.12 Bid Security

The Vendor is required to submit an interest free deposit towards bid security amount (EMD) by way of a Demand Draft issued by a Scheduled Commercial bank, in favor of “**CENTRAL BANK OF INDIA**” as a part of the proposal.

The said bid security amount (EMD) will be forfeited, if the vendor withdraws his proposal during the period of the proposal validity; or if the vendor, having been notified of the acceptance of its proposal by the purchaser during the period of validity of the proposal fails or refuses to execute the contract in accordance with the RFP.

The Demand Draft towards bid security amount (EMD) of the unsuccessful vendor(s) will be returned after completion of tendering process. However the EMD of successful vendor will be returned after submission of Performance Bank Guarantee (PBG) as mentioned under Point No.5.21 on page No.11.

5.13 Disclaimer

The Bank and/or its officers, employees disown all liabilities or claims arising out of any loss or damage, whether foreseeable or not, suffered by any person acting on or refraining from acting because of any information including statements, information, forecasts, estimates or projections contained in this document or conduct ancillary to it whether or not the loss or damage arises in connection with any omission, negligence, default, lack of care or misrepresentation on the part of Bank and/or any of its officers, employees.

5.14 Right to Reject

Central Bank of India reserves the right to Reject any or all proposals received in response to the RFP without assigning any reasons thereof.

Bank reserves the right, to waive or modify any formalities, irregularities, or inconsistencies in the bid, which does not prejudice or affect the relative ranking of any bidder, which shall be binding on all bidders.

5.15 Other General Conditions:

- All responses received after the due date/time would be considered late and would not be accepted.
- All responses should be in English Language. All responses by the vendors to this RFP document shall be binding on such vendors for a period of 180 days after the submission of the technical bids.
- Any additional or different terms and conditions proposed by the vendor would be rejected unless expressly assented to in writing by the bank.
- Bank reserve the absolute right to reject the offer if it is not in accordance with its requirements and no further correspondence, whatsoever, will be entertained by the Bank in the matter
- Any technical or commercial bid, submitted cannot be withdrawn/modified after the last date for submission of the bids
- Each offer should specify only a single solution which is cost- effective and meet the tender specifications and should not include any alternatives.
- The bidder shall bear all costs associated with the preparation and submission of its bid, attending pre-bid meeting or arranging Product Walk through and Bank will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
- The vendor shall also indemnify Bank against all third party claims of infringement of patent, trademark or industrial design rights arising from use of the goods, software(s), hardware(s) or any part thereof in India and abroad.
- To assist in the scrutiny , evaluation and comparison of offers Bank may , at its discretion, ask some or all bidders for clarification of their offer. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.
- In the event of any claim asserted by the third party of infringement of copyright, patent, trademark or industrial design rights arising from the use of the Goods or any part thereof in India, the vendor shall act expeditiously to extinguish such claims. If the vendor fails to comply and Bank is required to pay compensation to a third party resulting from such infringement, the vendor shall be responsible for the compensation including all expenses, court costs and lawyer fees. Bank will give notice to the vendor of such claims, if it is made, without delay by fax/e-mail/registered post.

5.16 Payment Terms

The Bank shall make payments as follows :

- 5.16.1 Cost of Hardware
 - 5.16.1.1 30% after Delivery of complete hardware
 - 5.16.1.2 60% after installation of complete hardware
 - 5.16.1.3 10% after UAT sign off
- 5.16.2 Cost of Software
 - 5.16.2.1 40% after Delivery and Installation of all deliverables as per RFP
 - 5.16.2.2 40% after UAT Sign Off
 - 5.16.2.3 20% after 30 days of full go live as per RFP
- 5.16.3 Cost of Implementation – Primary Site
 - 5.16.3.1 40% after UAT Sign Off
 - 5.16.3.2 40% After full go live
 - 5.16.3.3 20% after 90 days of full go live
- DR Site**
 - 5.16.3.4 50% on completion of implementation and acceptance at the site
 - 5.16.3.5 50% after successful completion of two DR drill
- 5.16.4 Cost of Interface
 - 5.16.4.1 80% after successful implementation of Interface
 - 5.16.4.2 20% after 30 days of successful implementation of interface
- 5.16.5 Payment of AMC/ATC Charges (post warranty)
AMC/ATS amount will be paid in advance on half yearly basis.

AMC will start after expiry of warranty and warranty will start from date of full go live .

The Vendor must accept the payment terms proposed by the Bank. The financial bid submitted by the vendor must be in conformity with the payment terms proposed by the bank. Any deviation from the proposed payment terms would not be accepted.

The bank shall have the right to withhold any payment due to the vendor, in case of delays or defaults on the part of the vendor. Such withholding of payment shall not amount to a default on the part of the bank.

The payment terms need to be read in conjunction with the price bid.

5.17. Project Completion Time

The schedule of activities towards completion of the project is given below:

- One month for preparation of System Requirement Specification (SRS) from the date of purchase order.
- 4 months for customization / parameterization
- 3 months for UAT and going live including data migration and interface development only

5.18 Customization of the Software

On awarding the contract, the vendor should discuss with core users of the Bank for understanding the functioning of the existing system and gap analysis. He shall prepare a customization document based on the gap analysis and other requirements of the RFP. The vendor shall undertake to obtain Bank's approval of the customization documentation and associated project plans before software customization work commences. The customization document should provide the plan in detail based on the criticality of the requirements.

5.19 User Acceptance Test of software

The Bank conducts 'User Acceptance Test' (UAT) for the treasury solution to ensure that all the functional requirements are available & functioning as per RFP. It will be the vendor's responsibility to create the testing environment, test plan and share possible test cases for the Bank's users for testing the product features and the vendor will be required to assist the Bank in the entire testing phase. The BANK will accept the developed/ customized software only after implementation of the software with successful conduct of acceptance testing by users. Software will be considered to **be accepted only after the BANK issues an acceptance letter to the vendor. New Software may be audited for risk analysis and security features by Bank's IS Audit team or a third party vendor appointed by the BANK, if so desired by the BANK.**

5.20 Penalty Clause

The vendor must strictly adhere to the schedules for completing the assignments. Failure to meet these Implementation schedule , unless it is due to reasons entirely attributable to the bank, may constitute a material breach of the vendor's performance. In the event that the Bank is forced to cancel an awarded contract (relative to this RFP) due to the vendor's inability to meet the established delivery dates, the bank may take suitable penal actions as deemed fit.

Penalties:

The vendor shall agree to a penalties structure in accordance with the following:

- For delayed beyond the implementation schedule :

The Bidder shall be liable to forfeit up to 2% of the project cost if the project is delayed beyond the implementation schedule every month subject to maximum of 10% and the delay was solely the Bidder fault and reasons not attributable to Central Bank of India.

5.21 Performance bank guarantee

- a) The successful bidder should provide a performance bank guarantee for a period of 5 years for an amount equivalent to 10% of the total order value from a Nationalized / PSU Bank in the format specified by the bank within 30 days from the date of purchase order. The Proforma for Performance Bank Guarantee is attached.
- b) In the event of non performance of obligation or failure to meet the terms / requirements of the RFP, bank shall be entitled to invoke the performance guarantee without notice or right of demur to the bidder.

Bank reserves its right to invoke the Performance Bank Guarantee besides cancellation of the entire Purchase Order in the event of breach and/or nonobservance of any of guaranteed performance

5.22 Non Disclosure Agreement

The Bidder will have to sign a Non-disclosure agreement with the Bank as per the format enclosed.

5.23 Cancellation of Order

The Bank reserves its right to cancel the Purchase Order at any time, in the event of delay in project beyond the specified period or non-compliance of the RFP terms or non-fulfillment of RFP functional requirements or severe bugs in the application or proposed system performance is not satisfactory. In addition to the cancellation of Purchase order, the Bank reserves the right to invoke the Bank Guarantee given by the Bidder to recover the damages.

5.24 Force Majeure

The vendor shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if any to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.

For purposes of this Clause, "Force Majeure" means an event explicitly beyond the control of the vendor and not involving the vendor's fault or negligence and not foreseeable. Such events may include, Acts of God or of public enemy, acts of Government of India in their sovereign capacity and acts of war.

If a Force Majeure situation arises, the vendor shall promptly notify the Bank in writing of such conditions and the cause thereof within fifteen calendar days. Unless otherwise directed by the Bank in writing, the vendor shall continue to perform his obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

In such a case the time for performance shall be extended by a period (s) not less than duration of such delay. If the duration of delay continues beyond a period of three months, the Bank and the vendor shall hold performance in an endeavor to find a solution to the problem.

Notwithstanding the above, the decision of the Bank shall be final and binding on the Vendor.

5.25 Clarifications and amendments of RFP Document

RFP Clarifications

During Technical Evaluation of the proposals Bank may, at its discretion, ask bidders for clarifications on their proposal. The bidders are required to respond within the prescribed time frame.

Amendments in RFP

At any time prior to deadline for submission of proposal, Bank may for any reason, modify the RFP. The prospective bidders having received the RFP shall be notified of the amendments through website and/or newspapers and such amendments shall be binding on them.

5.26 Training

Training: Bidder shall organize for training (familiarization) to the Bank's team as follows :

- 7 working days training to Bank's Core Team is to be imparted before UAT.
- Training of IT team, Front Office Users – Forex & Investment, Back office, Forex Users & Domestic Treasury, Risk Management users to be provided separately in different batches in Modular form. At least 7 full days training is to be given to the users.
- Before going Live, 1 day's hands on training to the forex dealing officers of B Category branches should be provided in 4 batches of 30 each at our Training Centre in Mumbai or at different locations.
- Module wise Job cards to be provided (both in Hard and soft copies) to all the trainees along with accounting entry illustrations for each type of transactions, including relevant system generated transactions.

- **Training to the IT Team of around 5 officers should cover system administration, viz.**
 - User management,
 - Management of server,
 - Management of Operating System,
 - Management of Database,
 - Management of Application software
 - Report writing
 - Security & Network management;
 - Backup & Recovery Operations
 - Disaster Recovery Operations
 - Day End/Day begin process
 - Troubleshooting etc.

- **Training to the User Groups of around 40 engaged with various domains of bank's treasury operations. About :**
 - Functionality available in the Module
 - Details of Accounting entries, including relevant system generated entries
 - Parameterization
 - Use of different analytical tools
 - Auditing Techniques
 - Report Generation etc.

5.27 Warranties

Vendor shall provide maintenance and support under warranty, without any extra cost, for a period of one year for hardware, software, OS, data base, any 3rd party utilities . Warranty (for Software, Hardware, OS and Database etc.) shall start from the date of full go live of the solution. During the warranty period, vendor is required to deploy at least two, level 1 resource at Bank's Treasury Department in Mumbai to support the application.

5.28 Maintenance Support

The Bidder must provide uninterrupted availability of the system and ensure that the problem is resolved within the time schedule as prescribed in the Service Level Agreement (SLA). For any major break down such as crash, the Bidder must arrange for immediate on site support for recovery and resumption of operations. The re-installation of the software and RDBMS if required is the sole responsibility of the Bidder, which should be treated as service provided under Warranty/AMC. Maintenance support will also include installation of system updates and upgrades, providing corresponding updated manuals, and follow-up user training. During the AMC period, all upgrades should be free and all regulatory / statutory changes should be done without any additional cost to the Bank.

5.29 On-site support

There should be at least 2 technical experts through out the project period to be provided for on-site support. On-site support should be provided by technical experts conversant with forex and domestic treasury along with market risk management. The on-site support should extend services like helpdesk, data backup, user management, database management/ maintenance, updation of data, maintaining integrity of data, loading application upgrades, technical support for adhoc queries, archival of data etc.

5.30 Project Review

Vendor has to engage an experienced on-site Project Manager for this assignment who should have direct experience of successful implementation/ management of one large integrated treasury project for a banking/ financial organization in last 2 years

Detail Project review must be conducted during project execution at no additional cost. These reviews are required weekly with the project leaders/ project manager or steering Committee level (of vendor and the Bank) respectively. The review will be in order to monitor progress of the project and take necessary corrective action, if required. The vendor will submit weekly reports regarding the progress of work along with the corrective actions/ suggestions and risk management plan. Any document submitted by the vendor should be properly backed up by quality review documents

5.31 Repairs and Maintenance

During the terms of this agreement the vendor agrees to maintain the Hardware, OS, Data Base, Application Software, Interfaces and other 3rd party utilities supplied with the proposed solution

5.32 Insurance

The Hardware to be supplied will be insured by the vendor against all risks of loss or damage from the date of shipment till such time it is installed at the Bank's site. Certificates of the "Comprehensive Insurance Cover" will be submitted to the Bank for verification/examination and record. The vendor shall take the insurance cover from an IRDA recognized insurance company only.

5.33 Guarantees on Software and Hardware

The vendor shall guarantee that the Hardware Systems delivered to the Bank are brand new, including all components. The vendor shall guarantee that the software / hardware / RDBMS / Other related suits supplied to the Bank are licensed, legally obtained and will not require any further licensing costs, other costs or any other software/hardware purchase to meet the above mentioned guarantees.

5.34 Guarantees On Response Time To Errors

The Bank will classify all errors in to three categories:

- (I) **Critical errors** defined as the Errors that require/cause the Bank to shutdown the production server or stop all services through the server and the application working is stopped immediately.
- (II) **Medium Level Errors** defined as those errors that are not the Critical Errors as defined above but cause great inconvenience or operational difficulties to the Bank
- (III) **Low Level Errors** defined as those other errors that are not the Critical errors or the Medium Level Errors as defined above

The Vendor undertakes and guarantees that all the Critical Errors will be resolved in the production environment within two hours of the Bank intimating the same through writing, telephone or fax.

In case the Critical Errors are not resolved within the stipulated time as above, there shall be a penalty of Rs.10,000/- (Rupees Ten thousands only) per hour exceeding above said 2 hours resolution time apart from replacement of the respective hardware/software at vendor's own cost for solving the errors. In case the error is not resolved within 4 hours from the time of reporting of the error by the Bank, the vendor shall be liable to pay a penalty of 0.25% of the total value of the above said purchase order. Such penalty shall be adjusted as maintenance credit against the AMC payable by the Bank to the vendor.

The Vendor undertakes and guarantees that all the Medium Level Errors will be resolved in the production environment within one day of the Bank intimating the same through writing, telephone or fax.

In case the Medium Level Errors are not resolved within the stipulated time as above, there will be a penalty of Rs. 50,000/= (Rupees Fifty thousands only) per day exceeding the above said one day resolution time apart from replacement of the respective hardware/software at the vendor's own cost for solving such errors. In case the error is not resolved within 4 days from the time of reporting of the error by the Bank, the vendor shall be liable to pay a penalty of 0.25% of the total value of the above said purchase order. Such penalty shall be adjusted as maintenance credit against the AMC payable by the Bank to the vendor.

The vendor undertakes and guarantees that all the Low Level Errors will be resolved in the production environment within seven days of the Bank intimating the same through writing, telephone or fax.

In case the Low Level Errors are not resolved within the stipulated time as above, there shall be a penalty of Rs.1000/-(Rupees One thousands only) per day exceeding the above said seven days' resolution time apart from replacement of the respective hardware/software at the vendor's own cost for solving such errors. In case the error is not resolved within 10 days from the time of reporting of the error by the Bank, the vendor shall be liable to pay a penalty of 0.25% of the total value of the above said purchase order. Such penalty shall be adjusted as maintenance credit against the AMC payable by the Bank to the vendor.

5.35 Guarantees on System Up-Time

The combined Up-Time of the hardware and software provided by the vendor relating to the advanced software solution should provide continuous and guaranteed level of service and functionality as defined in this document (except the down-time due to the Bank's network or UPS failure). The vendor undertakes and guarantees a system Up-Time of 99.8% during the period of warranty and AMC with the Bank is in force.

The vendor is liable for a penalty of Rs. 100,000/- (Rupees One Lac only) per day when system availability falls below the expected availability of 99.8%, subject to a maximum of 1% of the above said purchase order value per month, apart from replacement of the respective hardware/software at vendor's own cost for ensuring system availability. Such penalty shall be adjusted as maintenance credit against the AMC payable by the Bank to the vendor.

5.36 Confidentiality

This document contains information confidential and proprietary to the Bank. Additionally, the vendors will be exposed by virtue of the contracted activities to internal business information of the Bank, affiliates, and/or business partners. Disclosure of receipt of this tender or any part of the aforementioned information to parties not directly involved in providing the services requested could result in the disqualification of the vendors, pre-mature termination of the contract, or legal action against the vendors for breach of trust.

No news release, public announcement, or any other reference to this tender or any program there under shall be made without written consent from the Bank. Reproduction of this tender, without prior written consent of the Bank, by photographic, electronic, or other means is strictly prohibited.

5.37 Security

The vendors' proposal must include a plan to safeguard the confidentiality of the Bank's business information, legacy applications and data.

5.38 Non-Disclosure Agreement/Service Level Agreement (SLA)

The selected vendor shall be required to sign Service Level Agreement (SLA) covering all terms and conditions of this tender and Purchase Order confidentiality and non-disclosure clauses with in 30 days from the date of issuing the purchase order.

5.39 Resolution of Dispute

All disputes and differences of any kind whatsoever, arising out of or in connection with this Offer or in the discharge of any obligation arising under this Offer (whether during the course of execution of the order or after completion and whether before or after termination, abandonment or breach of the Agreement) shall be resolved amicably. In case of failure to resolve the disputes and differences amicably the matter may be referred to a sole arbitrator mutually agreed upon after issue of at least 30 days notice in writing to the other party clearly setting out therein the specific disputes. In the event of absence of consensus about the single arbitrator, the dispute may be referred to joint arbitrators, one to be nominated by each party, and the said arbitrators shall appoint a presiding arbitrator. The provisions of the Indian Arbitration and Conciliation Act, 1996, shall govern the arbitration. The venue of the arbitration shall be Mumbai.

5.40 Sub Contracting

The vendor will not subcontract or delegate or permit anyone other than the vendor personnel to perform any of the work, service or other performance required of the vendor at Primary site, DC & DR sites under this agreement without the prior written consent of the Bank.

5.41 Project Management

The vendor is required to propose a project team including Project Manager, This team should have experience of a similar system implementation.

From the Bank 's side, Project Management Office will be established at Chandermukhi Building, Nariman Point Office. However, Primary Site hardware(s) will be installed at CBD Belapur, Navi Mumbai and DR set up will be established at Hyderabad.

5.42 INTELLECTUAL PROPERTY RIGHTS

While the vendor shall retain the intellectual property rights for the software, it is desired that vendor will grant the license for the Bank's exclusive use. Vendor shall place the source code (and the procedures necessary to build the source code into executable form) for the application software, in escrow with a reputable agency (preferably a bank or established software escrow firm in India) acceptable to the Bank during the duration of warranty and maintenance periods. The cost shall be included in the commercial bid.

5.43 ESCROW

The Bank and the vendor shall agree to appoint an escrow agent to provide escrow mechanism for the deposit of the source code for the Treasury software product supplied/procured by the vendor to the Bank in order to protect its interests in an eventual situation. The Bank and the vendor shall enter into a tripartite escrow agreement with the designated escrow agent, which will set out, interalia, the events of the release of the source code and the obligations of the escrow agent. Costs for the Escrow will be borne by the vendor. As a part of the escrow arrangement, the final selected vendor is also expected to provide a detailed code documentation of the Treasury solution which has been duly reviewed by an external independent organization/consultant of the bank. The Escrow arrangement suggested by the vendor shall not be binding on the Bank. The Bank reserves the right

to explore alternate escrow mechanisms based on the Bank's existing practices. The Bank and the vendor may enter into such escrow arrangement that is mutually agreed upon by the two parties.

The escrow will be released to and become the property of the Bank in the event that the agreement is terminated for either default or insolvency or should the vendor cease, or give notice of intention to cease to provide maintenance or technical support service for the software as required by the agreement.

5.44 LICENSE

The Bidder has to provide 40 concurrent perpetual user licenses for Advanced Software Solution for Integrated Treasury operations which will be used for both Primary Site & DR Site. Accordingly all necessary licenses for the OS, and environmental software including RDBMS has to be provided by the vendor for both Primary & DR Site. The vendor has to quote for all software license requirements for DR implementation in their commercial Bid. Specification for OS and Hardware required at DR has also to be mentioned in the technical bid. The Bidder will furnish all the software licenses in the light of Bank's requirement for unlimited period and usages for implementation of the solution.

Initially proposed application will be accessed only from Central Office, Mumbai. The Bank is in the process of opening offices in other countries. After opening of offices in other countries, the application will be accessed from there also.

5.45 HARDWARE SIZING

The vendor must propose for the optimal size of the Hardware, Operating System, Database, Middle ware etc. keeping in view the number of users, number of concurrent users, current average and peak volume of transactions and to extrapolate the same for the full TCO period (i.e. 5 years). The basic parameters for sizing are given herein under.

- No of concurrent users - **40**
- Number of transactions per day – 2500-3000
- Projected Growth in transactions- 20%
- System Uptime per day – 99.8 %

The system should be capable of keeping on line data at least for 10 years. Thereafter the system should provide purging & archival of data. The response time at client end should be always less than 3 second. During the agreement period, if at any stage, it is found that the solution provided by the bidder is not able to give the requisite performance as per the sizing parameters (i.e. up time above 99.8% and response time < 3 second) the bidder shall have to provide additional hardware, software without any additional cost to the Bank. The hardware proposed for the solution as part of this RFP) should not exceed 70% of CPU(s), Memory(s), Hard Disk(s) utilization levels at any given point in time during the TCO Period.

5.46 Disaster Recovery Setup

Vendor is required to establish the Disaster Recovery(DR) set up for the proposed solution at Hyderabad. DR set up will be mirror image of the Primary setup and will be in active → Active mode. The Data replication should happen from Primary site to DR site after every 15-30 minutes to keep them in sync.

Recovery Time Objective (RTO) – 60 Minutes

Recovery Point Objective (RPO) - 30 Minutes

Vendor is also required to conduct at least one DR drill in a quarter.

5.47 MONITORING & AUDIT

Compliance with security best practices may be monitored by periodic computer security audits / Information Security Audits performed by or on behalf of the Bank. The periodicity of these audits will be decided at the discretion of the Bank. These audits may include, but are not limited to, a review of: access and authorization procedures, backup and recovery procedures, network security controls and program change controls. The vendor must provide the Bank access to various monitoring and performance measurement systems. The vendor has to remedy all discrepancies observed by the auditors at no additional cost to the bank.

For service level measurement, as defined in SLA, data recording is to be captured by the industry standard tools implemented by the Vendor. These tools should be a part of the proposed solution.

5.48 INDEMNITY

The bidder will indemnify the Bank against all actions, proceedings, claims, suits, damages and any other expenses for causes attributable to the Bidder. The total liability of the selected bidder under the agreement will not exceed the total cost of the project.

5.49 TERMINATION FOR DEFAULT

Bank may, without prejudice to any other remedy for breach of agreement, by written notice of default sent to the selected vendor, terminate the agreement in whole or in part:

- If the Bidder fails to deliver any or all of the Goods and Services within the time period(s) specified in the agreement, or within any extension thereof granted by Bank or
- If the Bidder fails to perform any other obligation(s) under the agreement.
- If the Bidder, in the judgment of Bank has engaged in corrupt or fraudulent practices in competing for or in executing the agreement.

In the event Bank terminates the agreement in whole or in part, Bank may procure, upon such terms and in such manner, as it deems appropriate, Goods and services similar to those undelivered and the selected vendor shall be liable to Bank for any excess costs for such similar Goods and/or Services. However, the selected vendor shall continue performance of the agreement to the extent not terminated. The notice period will be 4 months .

5.50 Acceptance of Terms and Conditions:

The vendors participating in the tender process should give an Acceptance Certificate for all the points mentioned in the tender. Otherwise their offers are liable to be rejected.

Proposal Formats:

6. TECHNICAL BID – GENERAL INFORMATION

GENERAL INFORMATION

No.	Particulars	To be furnished by the Vendor
1	Name and address of the Vendor	
2	Year of establishment and constitution	
3	Telephone no., Fax no. and E-mail-id	
4	Name and designation of the personnel authorized to take decisions on behalf of the Vendor and can make commitments to the Bank	
5	The details of the Head with professional qualifications and experience	
6	Description of area of activity Service profile Domestic & International exposure Alliance and joint ventures Client profile	
7	Profile of key personnel involved in the Project (domain specific and others) with their CVs (Information in respect of skill and expertise specifying technical and banking knowledge/solutions should be mentioned) Service/support for similar project assignment by the personnel Track record	
8.	Total revenues (not of the group) During the financial year 2008-09 During the financial year 2009-10 During the financial year 2010-11	
9.	Net profit (not of the group) During the financial year 2008-09 During the financial year 2009-10 During the financial year 2010-11	
10.	Details of integrated treasury software solutions implemented	

	<p>in Banks / Financial institutions :</p> <p>Name of the Bank/Institution</p> <p>Location of Head Office</p> <p>No. of branches/sites under coverage</p> <p>Specific area of involvement</p> <p>Functionalities implemented</p> <p>Start Date of the Project</p> <p>Present Status of the Project</p>	
11.	<p>Present projects on hand:</p> <p>Name of the Bank/Institution</p> <p>Location of Head Office</p> <p>No. of branches/sites under coverage</p> <p>Specific area of involvement</p> <p>Functionalities implemented</p> <p>Start Date of the Project</p> <p>Present Status of the Project</p>	
12.	<p>Details of the Team proposed (along with their previous treasury experience) for proposed Solution implementation in Central Bank Of India</p>	

7. COMMERCIAL BID

(To be submitted as per this format only)

This bill of material must be attached in Technical Offer as well as commercial offer. The format will be identical for both technical and commercial versions, except that the **technical version will not contain any price information**. Technical offers without the bill of material are liable for rejection. If the vendor does not submit commercial proposal in the proper format, the bid is liable to be rejected.

The vendor can also mention any other component(s) that are required for their solution implementation.

The vendor must take care in filling price information in the commercial version, to ensure that there are no typographical or arithmetic errors. All fields must be filled up correctly. Please include the cost of all components like Rack , Patch Cord, utilities(s) , Anti-virus, Back-up software and medium etc. required for making the delivered hardware(s), software(s) fully functional.

Price Schedule / Bill of Material

A. Cost of Application , Customization, Interface, Implementation

Sr. No.	Item	Unit Price	No. of Units Required	Total Cost
1	Cost of Treasury Application		40	
2	Implementation Charge (installation, configuration, Customization, Testing, Acceptance)			
3	Cost of Training			
4	Cost of interface with CBS			
5	Cost of Data Migration			
6.	Cost of Other Interfaces as per RFP			
7	Any other licensed Software, Please specify			
8.	Any other cost, Please specify			
9	Total			

B. Cost of Primary Site Hardware(s), System Software(s), Data Base etc.

Sr. No.	Item	Unit Price	No. of Units Required	Total Cost
1	Cost of Primary Site hardware(s), Please give details like Make, Model No, Technical specifications like No. of processors, and cores etc.			
2	Cost of Data Base (please give brief details like Name and Version no.))			
3	Cost of System Software(s) like Operating System etc. (Please give brief details like Name, Version no. etc)			
4	Any Other Cost, please give brief details			
5	Total			

C. Cost of DR Setup

Sr. No.	Item	Unit Price	No. of Units Required	Total Cost
1	Cost of application license & other dependent software for DR instance, if any			
2	Cost of RDBMS license for DR			
3	Cost of DR set up & other related DR services for DR setup, commissioning and maintenance			
4.	Cost of DR hardware(s) . Please give brief details like Make, Model etc.			
5.	Cost of DR Implementation			
6.	Any Other Cost, Please specify			
7.	Total Cost			

D. Cost of AMC / ATS post Warranty for Primary Site

Sr. No.	Item	Unit Price	No. of Units Required	Total Cost
1	Cost of AMC for Advanced Treasury solutions including dependent suite for next four years after expiry of warranty			
2	Cost of ATS & AMC of RDBMS for 4 years			
3	Cost of AMC of Production Hardware(s), System Software for Treasury Solution Primary Site Setup for 4 years			
4	Cost of AMC of Any other licensed software (if required, please indicate separately) for 4 years			
5	Cost of onsite support (after the expiry of warranty period)			
6	Total AMC cost for 4 years after expiry of warranty			

E. Cost of AMC/ATS Post Warranty for DR Site

Sr. No.	Item	Unit Price	No. of Units Required	Total Cost
1	Cost of AMC for Advanced Treasury solutions including dependent suite for next four years after expiry of warranty			
2	Cost of ATS & AMC of RDBMS for 4 years			
3	Cost of AMC of Hardware(s), System Software for Treasury DR setup for 4 years			
4	Cost of AMC of Any other licensed software (if required, please indicate separately) for 4 years			
5	Total AMC cost for 4 years after expiry of warranty			

Total Cost of Ownership (TCO) = Table-A+ Table-B+Table-C+Table-D+Table-E

F. Future Customization:

Sr.No.	Particulars	Unit cost (Rs)
1.	Cost per man day for additional customization for future	

PRICE STATEMENT

Grand Total for Central Bank of India Offer requirement, for price comparison purpose:

5 years Total Cost of Ownership (TCO) for Advanced Software Solution for Integrated treasury operations arrived at adding 1 year comprehensive warranty price plus 4 years comprehensive AMC charge (excluding Vat / Sales Tax / Service Tax and Octroi) is Rs. _____ (in figures) Rupees _____ (in words)

Signature _____

Name _____

on behalf of _____

(Name of the vendor)

8. EVALUATION PROCESS

The Bank will evaluate the technical response to the RFP of bidder who are found eligible as per the eligibility criteria mentioned in the RFP. **There will be no scoring involved in the eligibility evaluation.** The evaluation will be based on the following parameters :

- a) Completeness of the Technical bid in all respects and availability of all information/details asked for.
- b) Capabilities of the solution to meet the functional specifications & Technical specifications prescribed.
- c) Point to point conformity of the functionality offered as against the required **Functional specifications** (Point No.10 from Part 1 to 9). Marks will be awarded on the following basis-

Unit Response	Marks
“RA” If the functionality is readily available in the solution	: 5
“CU” If the functionality requires customization (without additional cost)	: 4
“AF” If alternate of the functionality is available	: 2
“NR” If the functionality included in the next version / release	: 1
“UA” The functionality can not be provided	: 0

(Note : Filling of the information using terms other than RA/CU/AF/NR/UA such as “OK”, “Accepted”, “Noted”, “Compliance” etc. will be treated as noncompliance and no marks will be allotted for such responses during technical evaluation .

- d) Point to point conformity of the **technical specifications** as against the required Technical specifications. Mark will be awarded on the following basis-

Unit Response	Marks
“S” the feature is available	: 1
“U” the feature is unavailable	: 0

- e) The responses given by the bidder would be validated by a Team nominated by the Bank during the course of a Product Walk through to be arranged by the bidder in a simulated “near to life” environment at the bank’s site.
- f) The marks allotted to the responses of the bidder after validation by the bank’s team in functional requirements and technical requirement will be reduced to a scale of 1 to 100 as under:

$$\text{Functional Requirement} = \frac{\text{Total Marks obtained}}{\text{Maximum Possible Marks}} \times 30$$

$$\text{Technical Requirement} = \frac{\text{Total Marks obtained}}{\text{Maximum Possible Marks}} \times 10$$

Bank’s decision in respect to evaluation methodology and short-listing bidders will be final and no claims whatsoever in this respect will be entertained.

- g) The Bank will contact the reference sites, (where the solution have been implemented by the bidder), independently to obtain required information and feedback. Bidders will co-ordinate with the reference sites and arrange the visits as per request from the Bank. The costs incurred for the reference site visits by the team representing the Bank, will be borne by the vendor.

Response on Site Visit/Reference Site visit will carry a weight age of 20 marks on Bidder's delivery capability.

Final Technical Scoring will be finalized as under:

Sl.No.	Evaluation Criteria	Max. Score
1	Technical Architecture	10
2.	Functional Requirements	30
3.	Technical Requirements	10
4.	Product Walk Through quality and features demonstrated	20
5.	Site Visit / Reference site	15
6.	Project support infrastructure in Mumbai / Navi Mumbai	10
7.	Team Proposed	5
8.	Total	100

Only those bidders who secure minimum 60% score will be allowed to participate in Product Walkthrough.

This will be a Techno-commercial and accordingly the Technical evaluation will have 70% and the Commercial evaluation shall have 30% weight-age. This weight-age shall be taken into consideration for arriving at the Successful Bidder. The evaluation methodology vis-à-vis the weight-ages are as under:

The Scoring methodology adopted will be as under

C : stands for commercial bid price of the bidder;

C_{low} : stands for the lowest commercial bid price amongst all bidders;

T : stands for technical evaluation score of the bidder and

T_{high} : stands for highest technical evaluation score amongst all bidders.

#	Bidder	Technical Evaluation Score (T)	Commercial Bid Price (C)	$(T / T_{high}) * 0.70$	$(C_{low} / C) * 0.30$	Score (S)
1	ABC	95	71	$1.00 * 0.70 = 0.70$	$0.845 * 0.30 = 0.253$	0.953
2	XYZ	85	65	$0.894 * 0.70 = 0.626$	$0.923 * 0.30 = 0.276$	0.902
3	UVW	80	60	$0.842 * 0.70 = 0.589$	$1.00 * 0.30 = 0.30$	0.889

In the above example, C_{low} is 60 and T_{high} is 95.

In the above example, ABC, with the highest score becomes the successful bidder.

Bank reserves the right to negotiate the price with the **finally** short listed bidder before awarding the contract. It may be noted that Bank will not entertain any price negotiations with any other bidder. The minimum qualifying score for the technical evaluation will be 70%. Even if two bidders qualify in the technical evaluation, Bank will go ahead with these two bidders for opening of commercial bids.

9. TECHNICAL REQUIREMENTS

Prospective bidders are required to submit their response against each requirement as follows in the column “Vendor Response”:

“S” : If feature is readily available

“U” : If features can not be provided

Sl. No.	Particulars	Vendor's Response (S/U)
1.	Integration Application Requirements	
1.1	Ability to integrate to support online, real time and batch operation	
1.2	Integrator's support for scheduling and defining of jobs	
1.3	Application should handle automatic switchover in cluster environment	
2.	Database requirements	
2.1	Ability to Patch management / up gradation of database	
2.2	Ability to support online replication	
2.3	Ability to implement SANs for data storage in the architecture	
3.	Hardware & Operating System	
3.1	Should be able to support different protocols (TCP/IP, IPX etc.)	
3.2	Implement patches / upgrades on all software, firmware	
3.3	Hardware Equipment should be scalable to support futuristic requirements of the Bank during Project period.	
3.4	Hardware(s) should have built –in redundancy features dual power supply, dual NIC etc. .	
3.5	The hardware components should be hot swappable.	
4.	Backup & Recovery	
4.1	The backup success rate should be 99.8% at all times for integrated treasury solution	
4.2	Should support on-line replication to backup site Should be capable of automating the backup processes for all the applications / databases in Primary and Disaster Recovery sites	
4.3	Should support load balancing in terms of system parameters (CPU, Hard Disk, Memory etc.)	
5.	General IT related Requirements	
5.1	Day/month/quarter end/half .year end/year begins and end process should be menu driven. audit trail of the same should be maintained	
5.2	System should tracking of the client's IP and Network interface address	
5.3	Export of reports and inquiries into different formats like Word, Excel, PDF, Text, CSV etc.	
5.4	Application Should be Web Based only	
5.5	The solution should have the capability to archive the data on HDD/ Peripherals and retrieve from the above for the purpose of processing.	
5.6	The solution should provide user defined backup/retrievals (Automated/ Scheduled/Manual).	
5.7	The details of support for Backup/Retrieval of database and applications shall be furnished	
5.8	Support for integration with packages like chart generators, Statistical/ Financial DLLs, MS Office Components, Popular Case Tools etc.	

5.9	Type of import and export capabilities available for creating customized data feeds.	
5.10	Day/Month/Qtr. end/Half year end/Year Begin and end Reports should be defined and printed/generated immediately after day Begin and End. No user intervention is required.	
5.11	SDR Project of the bank	
5.11.1	Data dictionary be provided to the bank without any additional cost.	
5.11.2	The vendor to help Bank in extracting the data required for SDR Project or for other project of the Bank from the Treasury application without any additional cost.	
5.11.3	Any other information required to be shared with bank for extraction of data in respect of SDR Project or for other project of the Bank i.e. un compression logic, decoding the data, de-encryption etc without any additional cost.	
5.12	Data migration from E treasury should be the sole responsibility of the new vendor. No manual data entry of master and transaction records should be done by the users. Information not available in the existing software should be uploaded in the new application.	
6.	Security / Audit Trail	
6.1	The system should enable profiling of users and definition of control levels and passwords	
6.2	All Error messages must be logged. It should be possible to look up on-line (by error message number or by alphabetical list) all error messages reported by the system, to determine their meaning and the appropriate corrective course of action. Error messages or events of a certain severity level should be immediately notified to the System Administrator's Group and actual user.	
6.3	System should provide auditable management of User-ids, access rights and passwords, logins, activities etc	
6.4	Maintenance of a secure, auditable log of access to the system, identifying user-id, date, time, functions accessed, operations performed.	
7.	Ability to provide comprehensive Audit trail features such as :	
7.1	Daily activities log merged into the history log file/s	
7.2	Date, time and User stamped process list for different processes.	
7.3	Provision for daily activity report/s to highlight all the processes invoked	
7.4	Provision for recording of all unsuccessful login attempts	

10. FUNCTIONAL REQUIREMENTS

Prospective bidders are required to submit their response against each functionality mentioned here under (from Part 1 to Part 9), in the column “Vendor Response” as follows:

RA– If the functionality is readily available in their solution

CU - The functionality requires customisation (without additional cost)

AF - If alternate of the functionality is available

NR - If the functionality included in the Next version/release

UA – The functionality cannot be provided

PART 1: GENERAL REQUIREMENTS

1.1	GENERAL REQUIREMENTS	Vendor Response
1.1.1	The proposed solution should be a web based solution. The solution needs to be web based to enable access to the system at multiple locations.	
1.1.2	The system should be able to handle multiple entities that includes branches, subsidiaries etc.	
1.1.3	The system should be able to create physical segregation of data by entities	
1.1.4	The proposed solution should support setting up of different schemes and products within the same scheme, having functional features including but not limited to the following:	
1.1.4.1	Forex Products	
1.1.4.2	Derivative Products	
1.1.4.3	Money Market Products	
1.1.4.4	Bond Market Products	
1.1.4.5	Capital Market Products	
1.1.4.6	Hybrid Products	
1.1.5	<p>Multiple levels: The system should be able to provide full support for multiple organizational levels and relationships. The hierarchies supported by the system should include branches, subsidiaries, and agents and within each hierarchy the system should also support multiple access levels for different dealers, back office, mid office, other departments and different levels of Management.</p> <p>System should have multiple folders within same category of investment, for e.g. within the AFS portfolio it should have the capability of opening separate folders depending upon the dealers & again within the same dealer folder, the system should be capable of entering multiple products like G-Sec, Corporate Bonds, equity, etc. This logic is only an e.g., the logic of which should be extendable through multiple folder system across hierarchy & treasury products.</p>	
1.1.6	Day Count basis: The system should be able to handle all types of day count basis including 30/360, ctual/360,Actual/365, Actual/Actual, Actual/365 (Fixed)	
1.1.7	The system should be able to support International Swaps and Derivatives Association (ISDA) -defined business day conventions such as following FBD, MFBD, PBD and MPBD for Derivatives.	
1.1.8	The system should be able to provide a consistent and user-friendly Microsoft Windows based Graphical User interface	
1.1.9	The system should support Export & import of data from MS-Excel.	
1.1.10	The system should be able to convert between currencies without manually converting to the home currency as an interim step in the process	
1.1.11	The system should be able to define home currency and wash currency.	

1.1.12	The system should allow for the creation of products and sub products	
1.1.13	The system should allow for creation of product codes	
1.1.14	All transactions should be tagged by product and transaction codes	
1.1.15	Reporting should be facilitated on transactions on products by products, by transaction, by status	
1.1.16	All incomes & expenses should by default be system calculated, and the system should not complete the transaction unless any modifications to the default value are duly authorized.	
1.1.17	The system should allow for profitability reporting by product as specified in respective chapters	
1.1.18	Products should support multi-currency features proposed in the GL	
1.1.19	The system should support AS-11 accounting standards for Forex transactions and should be capable of migrating to IFRS as defined by RBI or other future requirements	
1.1.20	The system should be parametric for enabling AS-11 for forex transaction and other applicable accounting standard issued by the Institute of Chartered Accountants of India ,at individual product level.	
1.1.21	It should be possible to use either FEDAI Rate or Market Rate for AS-11 enabled transactions	
1.1.22	The system should support weighted average method 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	
1.1.23	The system should support settlement of Inter bank Forex deals through CCIL	
1.1.24	The system should support settlement of Inter bank Forex deals through CLS	
1.1.25	The system should also support bilateral netting of Inter bank deals	
1.1.26	The system should be able to settle corporate bond deals through NSCCL / ICCL	
1.1.27	The system should be able to report corporate bond deals to FIMMDA / NSE / BSE platforms	
1.1.28	The system should be able to report CD / CP deals to FIMMDA / NSE / BSE platforms	
1.1.29	The system should be able to report corporate bond repo deals to FIMMDA / NSE / BSE platforms	
1.1.30	Rupee Derivatives reporting on CCIL	
1.1.31	The system should allow calendar schedules to be set by users and through manual updates	
1.1.32	The system should be able to edit and over ride global calendar and holiday tables	
1.1.33	The system should be able to move value dates based on holidays declared at the last moment	
1.1.34	The system should have the flexibility to define settlement instructions based on emergency holidays from next day	
1.1.35	The system should be able to process and report on data in an online, real	

	time mode	
1.1.36	The system should be able to maintain online history of trade information for all trades	
1.1.37	All trades migrated from legacy systems to the new one should also be maintained	
1.1.38	The system should be able to support simultaneous use of the system by multiple users without significant performance and integrity issues.	
1.1.39	The system should have flat file export functionality to export transaction data and static data in the following formats:	
1.1.39.1	Comma separated values (.csv)	
1.1.39.2	Text file (.txt)	
1.1.39.3	Microsoft Excel Format (.xls)	
1.1.39.4	Microsoft Word Format (.doc)	
1.1.39.5	PDF (.pdf)	
1.1.40	Reports should be available in XML format also as some of the data on FTD, GPB, BAL are to be sent to RBI in these format.	
1.1.41	Since most of the reports required by front office are needed by back office as well, User access to reports of front office should be given to users of back office	
1.1.42	Trial Balance: Daily closing balance of all heads of accounts to be generated in INR on daily basis. Provision for multicurrency, if available.	
1.1.43	Balance Sheet: To be generated for Forex/Domestic separately and/or consolidated.	
1.1.44	Profit/Loss statements: to be generated for Forex/Domestic separately and/or consolidated.	
1.1.45	Provision to generate data meeting requirements of Basel-II norms, RBI Guidelines.	
1.2	USER RELATED	
1.2.1	Password maintenance should adhere to the information security policy of the bank. Forced password change should be available.	
1.2.2	Multiple login to a single user should not be allowed	
1.2.3	The system should have capability to lock the screen if the system is left unattended for a parameterized time and facility should be provided to either logout of system or logged in user to enter password and re-activate the screen.	
1.2.4	The duties of System administrators, Security administrators, User Groups should be clearly segregated.	
1.2.5	The system should be able to define different level for different type of users. E.g.: Dealer, front office user, back office user, mid office user	
1.2.6	Maker/checker concept is required for all the transactions.	
1.2.7	The system should disable the user on three unsuccessful attempts to login	
1.2.8	The Password history shall be maintained and user shall not be allowed to reuse any of the 3 previously used password/s.	
1.2.9	Password shall be encrypted over WAN, Internet/ Database, any	

	initialization files being used, Registry. The password is usable form shall not be displayed/ printed. The system should facilitate password protection by way of Password encryption and safety controls	
1.2.10	The System should automatically disable a User ID if the User ID is not logged into the system for a parameterized period.	
1.2.11	Admin user should be a normal user and assigned admin role so that he can do admin related work only. No other work should be permitted to be carried out by admin user, like entry and authorization of any transaction	
1.3	Interfacing and Deal processing	
1.3.1	The system should be able to interface with other solutions for receiving inputs and sending outputs, automatically without any manual intervention:	
1.3.1.1	Reuters Rates & Deal Pickup & Bloomberg for Forex & Govt. Securities	
1.3.1.2	CCIL's FX-Clear, Citi-Fx, FX-Swap, FX-all, Barx, Autobahn, JP Morgan, IBS & D2, RMDS, RTFX, 360T, ICAP	
1.3.1.3	SWIFT	
1.3.1.4	RTGS / NEFT	
1.3.1.5	NDS-OM	
1.3.1.6	NDS Call	
1.3.1.7	NDS Auction	
1.3.1.8	STP Gateway (Equity Trades)	
1.3.1.9	CCIL- CBLO	
1.3.1.10	CCIL Chromes	
1.3.1.11	CCIL-CLS	
1.3.1.12	CCIL-USD/INR	
1.3.1.13	CCIL-FORWARD	
1.3.1.14	AMFI for Mutual Funds	
1.3.1.15	Risk Management Software(SAS)	
1.3.1.16	BSE/NSE/MCX/USE Bhav/Bilav files for price upload	
1.3.1.17	FEDAI/FIMMDA for valuation (as per the latest guidelines sector wise)	
1.3.1.18	NSE / MCX / USE Futures trading & risk management platform	
1.3.1.19	Online Trading platform for merchant transactions(proposed)	
1.3.1.20	Any other exchange platform	
1.3.2	The system should have complete interface with SWIFT for sending payment instructions, receiving confirmation so as to avoid risks of manual errors & omissions	
1.3.3	System should automatically generate SWIFT confirmation slips & confirmation letter. System should also be able to handle automatically MODIFICATION / AMENDEMENT /CANCELLATION of SWIFT messages.	

1.3.4	System should match SWIFT confirmation(MT-300) and should generate a report for the unmatched items.	
1.4	CBS INTERFACE	
1.4.1	The system should be interfaced with the bank's CBS system for Ready/Forward/EEFC/PCFC/FCL/FCNR/DDA/Forex merchant transactions and other transactions as specified by the bank from time to time.	
1.4.2	The system should make available all the unutilized deals/contracts to the CBS branches through the interface.	
1.4.3	The ready deals/merchant contracts utilized by the branches should be updated on real-time basis.	
1.4.4	The mirror entries should be generated for interface transactions on real time basis	
1.4.3	The un-reconciled entries of Nostro accounts should be made available to all the forex branches THROUGH the interface	
1.4.4	The system should automatically generate the mirror entries for the interface transactions without any manual intervention.	
1.4.5	The system should be interfaced with Bank's CBS for GL accounting	
1.4.6	The system should be interfaced with the Funds Management Department(Part of ITB, which is on CBS platform) for GL accounting	
1.5	ELECTRONIC TRADING PLATFORM FOR MERCHANT TRANSACTIONS	
1.5.1	Real Time rates to be quoted at the front end.	
1.5.2	Screen creation with currency pairs for real time rate monitoring at branches, customers and the dealing room.	
1.5.3	Rate monitoring and trade execution by Branch/customers	
1.5.4	Ability to preset margins by the dealing room per customer per branch	
1.5.5	Ability to lock the margin resetting by a dealer	
1.5.6	Online Deal to be generated at the customer end, branch end and at front office/back office	
1.5.7	Position keeping as all customer transaction needs to be covered simultaneously	
1.5.8	Ability to modify and cancel deal	
1.5.9	MIS generation	

PART 2: FOREX FRONT OFFICE REQUIREMENTS

2.1	DEAL PROCESSING	Vendor Response
2.1.1	Merchant Deals: To provide interface to capture merchant deals directly from B category CBS Branches.	
2.1.2	To enter Forward Contracts and to cancel the same as per Branch Request.	
2.1.3	To calculate Forex Gain or Loss on cancellation of Contracts	
2.1.4	To crystallize Bills Purchased and calculate Crystallization charges Payable or receivable	
2.1.5	The position Register to be updated on entry, cancellation of deal	
2.1.6	The deal ticket should capture the source of the dealing system like Reuters, FX Clear etc elsewhere listed	
2.1.7	The deal ticket should capture the actual time of deal captured in the original system.	
2.1.8	The system should automatically pick up the date and calculate the value and maturity dates referring to the calendar for holidays.	
2.1.9	Deal rate should be within preset range defined by back office from time to time (tolerance check) If the rates vary from permissible band, display caution on the screen and should be reported in exception reports.	
2.1.10	Value date (To be defaulted - calculated by the system based on deal date, Delivery type, Holidays for the currencies involved) and there should be provision to modify at user level.	
2.1.11	Both the legs of swap deals should be interlinked and made available at any point of time. in case of arbitrage / firm swap deals separate flag need to be provided and valuation, accounting to be done separately	
2.1.12	The system should provide for quick deal entry mode like M-Million K-Thousand etc for deal entry for all types like FX, Depo, and Borrowals. If multiple systems are offered, same code should be providing in all systems.	
2.1.13	To capture the USD/INR deals and Cross currency Inter bank Deals from Reuter and other platforms like CCIL, BARX etc. and updating the Position register.	
2.1.14	Inter Bank Deals: To enter Inter Bank deals done through Brokers. Provision to modify /And cancel the deals in case of errors. Suitable audit report to be Generated. To mark the trading deals and merchant cover deals	
2.1.15	IRS, Cross- Currency Swaps, IRF and Other Derivative Deals: Deal Capturing, Portfolio Analysis, Daily MTM, PVBP (PV01), Deal classification, provisioning statements, Credit Risk Statements (Deal Wise /Portfolio wise)	
2.1.16	The system at deal entry stage to have alerts on breaching of various trade limits like Deal Size Limit, Day Light Limit, Overnight Limit, Counter party exposure Limit, Gap Limit, Stop Loss Limit(The system should show the limits on on-line basis/ live basis)	
2.1.17	The system should allow entry of deals on a backdated basis with the proper approval or authority. Current position/ back value dated position should be affected as per requirement of user.	
2.1.18	Regeneration of Position and other limits as per Back Dated Entries and also necessary related reports including regulatory requirements	

2.1.19	Single screen to be used for keying in inter bank and merchant forward deals/contracts	
2.1.20	In case of broker deals where counterparty is not disclosed initially, the system should allow the deal to be entered first, with the facility for updating the counterparty information later.	
2.1.21	Update of additional details for deals already keyed in for position with the help of broker / counterparty Fax, Reuter's conversation etc.	
2.1.22	In case of manual input/file upload, merchant desk in dealing room should have manual control on updating records as well as currency position at periodic intervals.	
2.1.23	Verification of the deal with the broker / counterparty telex/note, Reuters confirmations, Telex etc.	
2.1.24	Historical data base of all deals with details (date wise, Dealer wise, Currency wise, counter party wise, country wise etc) to be available.	
2.1.25	List of deals pending for authorization to be provided	
2.1.26	System should throw caution before breaching of current limits and availability of limit of next hierarchy	
2.1.27	Once the Limit is breached, a pop up should appear both in screens of dealer and the next level of designated authority	
2.1.28	Limits should be calculated like FIFO, LIFO, different type of Weighted average etc as prescribed by bank	
2.1.29	Holding cost, Maturity pattern and holdings should be available.	
2.1.30	All types of positions and maturities including over dues should be available. Should also take into consideration forwards contracts & Bills maturing on that day, borrowal and placements; and provision for keying in accruals in Nostro.	
2.1.31	Various limits should be available on the screen :	
2.1.31.1	Counter party wise limits	
2.1.31.2	Country-wise limits	
2.1.31.3	Facility-wise limits	
2.1.31.4	Intra-day limits	
2.1.31.5	Over night limits	
2.1.31.6	Gap limit	
2.1.31.7	Stop loss limit & take profit limit	
2.1.31.8	Currency limit	
2.1.31.9	Single deal limit	
2.1.31.10	Authority /designation wise limit	
2.1.32	The system should have the option of allowing entry of deal in case of a new counterparty.(Authority required in such cases). However, Day-end should not be permitted without completing the entry and report should be provided for deals done with such counterparties.	
2.1.33	The system should send the deal to the authorizing entity for authorization seamlessly.	
2.1.34	The authorization request should automatically be prompted on the screen of the authorizing entity	
2.1.35	System should have an option of allowing authorization of limit breaches however the same to be authorized by the next higher authority. They should be available in Exception reports. The system should have a straight through processing capability to send the valid deals to the back office after	

	authorization of breach	
2.1.36	If the settlement falls on a known holiday (if holiday is known during trade date) then system must not allow the deal to go through. Changing value date in case of unknown holidays with maker checker concept as per FEDAI guideline	
2.1.37	System should not allow EOD process with deals pending for authorization.	
2.1.38	System should have EOD checks menu to enable the users to know the pending authorization/deals etc	
2.2	There should be provision in the system to generate the following reports for any date/range of dates and view/print them:	
2.2.1	Deal Slip –View: Deal ticket containing all details	
2.2.2	Position Ledger - Daily : Currency wise position containing deals details of opening balance, buy/sale and closing balance for any day	
2.2.3	Position Summary - Daily: Summary of Currency wise position containing deals details of opening balance, buy/sale and closing balance for any day.	
2.2.4	Position Ledger - Range Dates: Currency wise position containing deals details of opening balance, buy/sale and closing balance for any period.	
2.2.5	Position Balance - Any Date: Closing position balance under each currency for any day.	
2.2.6	Report containing data on various info like currency wise opening position, overall day light position, day light/over night cross currency position, over all o/n position, Nostro position for a given day.	
2.2.7	Net over bought. Over sold position currency wise containing no. of deals, turn over under merchant, rupee funding, inter bank and overseas deal totals under purchase/sale and totals.	
2.2.8	Details of exceeding of intraday/over nights limits in USD terms.	
2.2.9	All individual Inter market depo and borrowals.	
2.2.10	Exceeding in stop loss limits.	
2.2.11	Major rate movements if any with details of open, close, low, high levels for USD/INR	
2.2.12	Individual deal info for high value transactions for a given amount say USD 5 million and above. Needs parameterization.	
2.2.13	VaR exceeding.	
2.2.14	RBI reference rate	
2.2.15	Market levels for major currencies with opening and closing rates.	
2.2.16	USD Fed rates and GBP base rates	
2.2.17	LIBOR rates for USD,GBP	
2.2.18	USD/INR Forward rates in Rupee terms and annualized %	
2.2.19	Major merchant transactions (Over USD 100,000 or equivalent)	
2.2.20	IC - 5: Daily currency position report containing details of daylight limit, maximum day light during the day, overnight limits and existing position under each currency. USD/INR conversion should be done with FEDAI rate.	
2.2.21	List of counter parties	
2.2.22	Currency wise holding cost for cross currency deals.	
2.2.23	Profit Evaluation - cross Currency initiated: Market to Market of cross currency deals.	
2.2.24	Currency wise closing position for cross currency deals.	
2.2.25	The following swap reports to be generated for all future maturities/	

	maturing on a particular date :	
2.2.25.1	INR swaps	
2.2.25.2	Cross currency swaps	
2.2.25.3	Cross currency swaps+ INR swaps	
2.2.25.4	Provision to generate swap reports including/excluding merchant transactions.	
2.2.26	Swaps Maturity-As on Current date: Maturity profile of swap deals as on current date	
2.2.27	Swaps Maturity-As on Past Date :Maturity profile of swap deals as on any specific date	
2.2.28	Outstanding Contracts - Group: Individual details of outstanding deals of a particular group of counter party. It should user defined. Counter party ground, date range, price range, amount wise etc.	
2.2.29	Outstanding Contracts - Branch: Individual details of outstanding deals of a particular branch of counterparty. Also in case of merchant deals, for any branch of our bank.	
2.2.30	Exposure Limit-Current Day Ending	
2.2.31	Exposure Limit-Any Day Ending	
2.2.32	Trading - Turnover - Daily	
2.2.33	Exception Report: Exceptions like change in trade status, cancellation of deals, time difference, and exceeding of chief dealer limit.	
2.2.34	Exception Report - To Chief Dealer :Exceptions of various limit exceeding	
2.2.35	Stop/Loss Details (Daily)	
2.2.36	Branch's Forex Monthly Turnover	
2.2.37	Dealers Pad (With Swap Consol.)	
2.2.38	Swap Deal Pad	
2.2.39	Trading Deal Pad.	
2.2.40	Cross Cur. Position. Initiated Pad	
2.2.41	Product wise deal pad for derivatives	
2.2.42	Main Deal Pad with Swap Deals.	
2.2.43	Dealer wise Deal pad	
2.2.44	Reports – Depos/Borrowals : There should be provision in the system to generate the following reports for any date/range of dates and view/print them :	
2.2.44.1	Depo - Auth Status	
2.2.44.2	Outstanding Depos - Display /print	
2.2.44.3	Interest Liability - Display /print	
2.2.44.4	Average Holding Cost of Depos and borrowals	
2.2.44.5	Depos Maturing Bet. Two Dates	
2.2.45	The system should generate a report of deals under (a) various categories like merchant, overseas, inter bank etc, (b) various maturities, © cash flows, (d) sub day sheets for deals booked/reversed for a day/for specific period defined by user	
2.2.46	Balancing ledger of currency wise, nostrowise reconciliation containing our debit/credits and their debit/credits.	
2.2.47	ALM Summary	

PART 3: FOREX BACK OFFICE REQUIREMENTS

3.1	GENERAL REQUIREMENT	Vendor Response
3.1.1	Inter-bank FX The system should facilitate administration, settlement, Accounting and revaluation of the following FX Instruments :	
3.1.1.1	Cash	
3.1.1.2	Tom	
3.1.1.3	Spot	
3.1.1.4	Forward	
3.1.1.5	Long Term Forward	
3.1.2	Above should be for standard currency pairs like U.S. Dollar – Rupee / Euro - U.S. Dollar / Pound – U.S. Dollar / U.S. Dollar – Swiss Franc, etc. and also cross Currencies like Euro – Rupee / Pound – Rupee, etc. and should cover the followings :	
3.1.2.1	Outright Buy	
3.1.2.2	Outright Sell	
3.1.2.3	Buy-Sell swaps	
3.1.2.4	Sell-Buy swaps	
3.1.2.5	Last Day Last Day	
3.1.2.6	Delivery Options	
3.1.3	Merchant FX	
3.1.3.1	Cash	
3.1.3.2	Tom	
3.1.3.3	Spot	
3.1.3.4	Forward	
3.1.3.5	Long Term Forward	
3.1.4	Above should be for standard currency pairs like U.S. Dollar – Rupee / Euro – U.S. Dollar / Pound – U.S. Dollar / U.S. Dollar – Swiss Franc, etc. and also cross Currencies like Euro – Rupee / Pound – Rupee, etc and should cover the followings :	
3.1.4.1	Outright Buy	
3.1.4.2	Outright Sell	
3.1.4.3	Buy-Sell swaps	
3.1.4.4	Sell-Buy swaps	
3.2	Deal Amendment	
3.2.1	The workflow in the system should be user definable. Single authorizer for current deals/ amended past dated deals and two authorizers for releasing past dated deals.	
3.2.2	The system should allow amendments/ cancellation of past dated deals by two persons in dealings after deal being released by back office.	
3.2.3	The system should allow amendments and deletion of current deals by one person in dealings after deal being released by back office with proper authority.	
3.2.4	The deal number for all such amended deals should be the same and should not be changed.	
3.2.5	The amendments and deletions should generate the appropriate accounting entries, and update current positions, limits and P&L. Should	

	also generate vouchers for manual signatures.	
3.2.6	The system should allow amendments only in select fields like value date, rate, counterparty name, purchase/sale, currency, amount etc even after authorization stage, on proper authority.	
3.2.7	Provision for changing the deals from one category to another like CCIL to CLS etc, CCIL to RTGS, RTGS to CCIL etc.	
3.2.8	Provision to modify value date in batch mode for existing deals on account of subsequent declaration of holiday.	
3.2.9	System should have a provision for changing from one deal type to another like Arbitrage to Non-Arbitrage etc	
3.3	Deal Realization/Reversals	
3.3.1	The system should allow for manual realization of the merchant deals	
3.3.2	The system should have functionality for capturing the manifold (Credit/Debit note) details for non interface transactions.	
3.3.3	The system should have functionality for capturing the manifold details of non interface transactions from MS Excel file.	
3.3.4	The system should provide an enquiry option on the Manifold details.	
3.3.5	The system should generate the Daily Agency Statement Based on the manifold details captured.	
3.3.6	The system should allow part utilization of forward contracts by booking various deliveries at different times. System should provide details of deliveries reported, reversals, and balance out standings for a contract at any point of time.	
3.3.7	The system should also be able to calculate receivables/payables including exchange difference / swap charges etc. in case of early/late utilization of bills/contracts and merchant forward cancellation.	
3.3.8	Provision for viewing part delivery reported and reversed .	
3.4	SETTLEMENT AND CONFIRMATION	
3.4.1	Inter bank deals should automatically come for settlement on value date	
3.4.2	System should support split settlement of Inter bank deals in case of different currency holidays	
3.4.3	The system should have the ability to create a queue for settlement of Inter bank deals done through CCIL	
3.4.4	The system should have a facility of generating confirmations with upload to Mail/Swift.	
3.4.5	The system should be able to generate confirmations at user defined time periods.	
3.5	OTHER PARAMETERS	
3.5.1	Facility to put through transactions in Cross Currency deals for any deal type in merchant (FIR/FOR/FBP/Contracts etc.) & Inter bank	
3.5.2	System should enable to do cross currency deals with any base currency for e.g. a JPY-US\$ deal could be booked with JPY as base currency	
3.5.3	The system should be able to generate a unique number for each deal created	
3.5.4	The system should be able to generate reports of open Forex Currency wise positions at any point of time	
3.5.5	The system should be able to calculate underlying floating interest	

	amount applicable in case of a floating rate Depo transaction	
3.5.6	System should be able to capture Nostro Funds Transfer	
3.5.7	System should allow users to generate card rates based on User definable margins and market rate.	
3.5.8	The system should generate card rate file in the CBS format. The same has to be uploaded in CBS.	
3.5.9	System should allow users to define and modify card rates multiple times during the day	
3.5.10	The system should automatically generate a Rate Scan Report on the basis of external rate feeds or manual feeds	
3.5.11	The system should be capable of carrying automatic validation of deal rates based on Tolerance Limit	
3.5.12	System should be able to upload FEDAI defined closing Forex rate (Translation Rate) at the end of day into CBS for AS-11 purpose	
3.6	CALCULATIONS AND COMPUTATIONS	
3.6.1	The system should be able to calculate MTM across all currencies	
3.6.2	The system should be able to store historical revaluations for each transaction record	
3.6.3	The system should be able to store historical Forex rates for all currencies	
3.6.4	The system should be able to compute interest and principal repayments for foreign currency loans	
3.6.5	The system should be able to compare foreign currency forecasts from one time to another or to the actual numbers for the same period	
3.6.6	The system should be able to save foreign exchange rates within the system	
3.6.7	Facility to record counterparty confirmation for Inter bank and money market deals	
3.7	MARK TO MARKET AND FEDAI REVALUATION:	
3.7.1	System should support FEDAI Revaluation(or any other method of revaluation proposed by the bank) of Forward Position at user defined frequency and show accounting entries in simulated environment before generating the accounting entries on user acceptance. System should do calculation and posting of FEDAI Revaluation of outstanding forward contracts/deals on a monthly basis or at the intervals specified by the bank from time to time.	
3.7.2	System should support FEDAI Revaluation (or any other method of revaluation proposed by the bank) of Nostro Balances at user defined frequency and show accounting entries in simulated environment before generating the accounting entries on user acceptance. System should do calculation and posting of Revaluation of Nostro mirror and outstanding forward contracts on a monthly basis or at the intervals specified by the bank from time to time.	
3.7.3	System should support FEDAI Revaluation(or any other method of revaluation proposed by the bank) of EEFC/FCNR/DDA/FCL/PCFC/RFC accounts at user defined frequency and show accounting entries in simulated environment before generating the accounting entries on user acceptance. System should do calculation and posting of FEDAI Revaluation (or any other	

	method of revaluation proposed by the bank) of EEFC/FCNR/DDA/FCL/PCFC/RFC on a monthly basis or at the intervals specified by the bank from time to time.	
3.7.4	The system should be able to accommodate parallel shift/non-parallel shift in spot Fx/forward rates for stress testing	
3.7.5	System should support AS-11 accounting and should generate the accounting entries as per the bank's policy	
3.7.6	The system should enable segregation of profits-dealer wise ,trading, merchant & arbitrage	
3.8	Others	
3.8.1	Modification of Deals: In case of wrong entries / discrepancies deals to be modified for rectification. Suitable audit trial report to be generated	
3.8.2	Modules on Overseas Investment, Overseas Borrowing: The overseas Investments, Borrowings done are to be vouched properly at market rate to the debit of Mirror account / Overseas Investment account and Overseas Line of Credit/Mirror Account. The holding cost of Borrowing (Swap cost and Borrowing cost) and Yield on Investment (Swap Gain and Interest on Investment)	
3.8.3	Generating fwd Contract /merchant deal confirmations. The system should generate the Fwd contract/merchant deal confirmations on a daily basis. The system should have the capability of mailing the merchant contract confirmations directly to the respective B category branches automatically without manual intervention.	
3.8.4	Generating Inter Bank Deal confirmation / Contract confirmations	
3.8.5	To generate individual deal confirmations AND send by mail to counter parties.	
3.8.6	Generation of MT 202 file: For sending inter bank payments through SWIFT	
3.8.7	Generation of MT300 file: For generation of Deal Confirmations Matching of inward and outward MT 300 and report if there is anomaly.	
3.8.8	Generation of MT15: For transmitting USD/INR deals for settlement through CCIL.	
3.8.9	The system should generate reminders for overdue contracts/deals and at user defined intervals and should mail the same to the respective B category branches	
3.9	RECORDS	
3.9.1	The system should be able to maintain at least the following records & generate reports accordingly :	
3.9.1.1	Open positions – Intra-day & overnight.	
3.9.1.2	Currency pair wise Position Book.	
3.9.1.3	Accounting Entries	
3.9.1.4	Funds Flow	
3.9.1.5	Gap Statement	
3.9.1.6	Nostro/Mirror Ledger	
3.9.1.7	Deal Register.	
3.9.1.8	Due Date Diary	
3.9.1.9	Outstanding Deal Register (should include Outstanding forward contract deals, Outstanding Merchant deals and Outstanding inter bank deals)	
3.9.1.10	Deal Cancellation Register	

3.9.1.11	Unconfirmed Deal Register	
3.9.1.12	Overdue Contract Register	
3.9.1.13	Settled Deal Register	
3.9.1.14	Maturity Deal Listing	
3.9.1.15	Maturity list of Lending and Borrowing.	
3.9.1.16	Mark to market of net open positions	
3.10	Nostro Reconciliation	
3.10.1	The system should be able to capture all the entries in Nostro statement / data transmitted by SWIFT. (Interface with inward SWIFT messages such as MT 940/950	
3.10.2	Provision to provide unique continuous number for each entry available in MT 940/950	
3.10.3	The system to generate currency wise, nostro-wise mirror statements with all details including FC, INR amount on daily basis. Closing balance also should be made available.	
3.10.4	Auto reconciliation of the Inter Bank deals with the Nostro statements (additional use of swift deal confirmations received may be taken into account). Provision to view; modify selected matched items by users.	
3.10.5	The system should be able to auto match one to many transactions and many to one transaction.	
3.10.6	List of un-reconciled merchant entries should be generated branch wise and nostro wise and a follow up Letter to be printed out for mailing to Branches	
3.10.7	The system should auto generate SWIFT query messages to the respective Nostro's for un-reconciled entries.	
3.10.8	In case of EEFC/FCNR entries system should be capable of handling auto reconciliation.	
3.10.9	Rules Creation for manual reconciliation/forced matching	
3.10.10	The system should give details of the entries reconciled/un-reconciled. it should provide the following details:	
3.10.10.1	Value date	
3.10.10.2	Transaction amount in foreign currency	
3.10.10.3	Remaining amount of foreign currency	
3.10.10.4	Branch reference	
3.10.10.5	Agent reference	
3.10.10.6	Branch details(Branch Number, Branch Name)	
3.10.10.7	In case of reconciled entry, by whom it was reconciled	
3.10.10.8	field 86 of the swift message	
3.10.11	Absorption of small outstanding into P&L by user input and relevant report should be generated.	
3.10.12	Weekly outstanding list to be generated for follow-up and for Submission to Higher Authorities.	
3.10.13	Provision to view nostro records by various parameters like date, value date, name, nostro bank, amount, reference no etc. Also it should allow wild card search.	
3.10.14	Provision for generation of balancing report for currency and nostro containing outstanding debits/credits from mirror and nostro records at periodic intervals.	
3.10.15	Exception report should be available for unidentified and outstanding	

	debit entries in nostro and mirror at user defined interval.	
3.11	Reports for Back Office : The following reports to be generated as PDF/XL and printed out	
3.11.1	Position Register: to report position deal register currency wise including all pipeline transactions	
3.11.2	Position Consolidation Register: Segment wise Break up like Inter bank, Fwd Contract , Mirror Balance, Position, Holding Rate of various segments	
3.11.3	Mirror Ledger: The daily mirror ledgers of all the accounts in XL Format	
3.11.4	Outstanding overdue bills, Merchant Contracts, Overdue Contracts currency wise, branch wise , and due date wise	
3.11.5	Outstanding Inter Bank contracts	
3.11.6	Age wise position of Inter Bank Deals	
3.11.7	Report on Forward Contract cancellation – Exchange Losses to be recovered. A running ledger and the outstanding entries as on a date.	
3.11.8	Report on Forward Contract Cancellation: Exchange Gain to be Payable. And Outstanding Fwd Payable List as on a date.	
3.11.9	Report on Crystallization Difference; The details of charges to be recovered or gain to be paid - Branch wise outstanding and running ledger and Outstanding Crystallization List	
3.11.10	Report on Inter Bank Deals maturing on a date.	
3.11.11	Report on Merchant Contracts Maturing on a date.	
3.11.12	Report on Merchant Contracts Booked	
3.11.13	Contract cancellation debit/credit advice	
3.11.14	Merchant forward Contract early delivery o/s	
3.11.15	Merchant forward contracts due within spot date	
3.11.16	Merchant forward contract register between 2 dates	
3.11.17	Merchant forward contract summary	
3.11.18	Merchant contracts overdue	
3.11.19	Contracts cancelled	
3.11.20	Contract Register	
3.11.21	Report Bills Crystallized.	
3.11.22	Bills to be crystallized	
3.11.23	Early Delivery Charges: Report on Swap Charges to be realized and the outstanding entries.	
3.11.24	Report on Service Tax to be recovered in respect of Inter Bank Contracts	
3.11.25	Report of Forex Turnover.	
3.11.26	Generation of vouchers for all entries.	
3.11.27	Daily Agency Statement to be submitted to IBR Department. (the system should generate both print and data format)	
3.11.28	Account Ledger Inter bank maturity register with payment mode (Cash/Settlement (INR)-cross currency	
3.11.29	Profit and Loss statements	
3.11.30	Nostro balances (for any date)	
3.11.31	Age wise nostro entries	
3.11.32	Age wise analysis of un-reconciled entries	
3.11.33	Reconciliation of o/s nostro entries	
3.11.34	Outstanding FCNR as on a particular date	

3.11.35	Outstanding RFC as on a particular date	
3.11.36	Outstanding DDA (Diamond Dollar Accounts)as on a particular date	
3.11.37	Outstanding FCL as on a particular date	
3.11.38	Outstanding PCFC loans as on a particular date	
3.11.39	EEFC ledger branch wise/customer wise/currency wise	
3.11.40	RFC ledger branch wise/;customer wise/currency wise	
3.11.41	Provision for interest accrued –FCNR/RFC	
3.11.42	Profit and Loss statements	
3.11.43	Realized Profit and loss	
3.11.44	Broker Exposure Transaction wise	
3.11.45	Brokerage Paid During a Period-Broker wise	
3.11.46	Broker-wise reports (stating the % of business done)	
3.11.47	FEDAI Revaluation (Monthly)	
3.11.48	Inter bank deal register	
3.11.49	Depo deal register	
3.11.50	Depo deals due date diary	
3.11.51	Nostro progress report-Daily	
3.11.52	FI Committee report in XI	
3.11.53	Card rate deals in a day(daily)	
3.11.54	Account ledger statement	
3.11.55	Statement of Forward Contracts - Trading & Initiation DEALS: MONTHLY report on Trading & Initiation deals outstanding based on residual maturity buckets bifurcated into Merchant, Inter bank and Overseas purchase/sale contracts. (in INR)	
3.11.56	Statement of Forward Contracts outstanding: Monthly report on outstanding forward contracts based on residual maturity buckets bifurcated into Merchant, Inter bank and Overseas purchase/sale contracts. (in INR)	
3.11.57	Statement of Forward Contracts outstanding - Monthly report on outstanding arbitrage deals done with domestic treasury based on residual maturity buckets bifurcated into Inter bank and Overseas purchase/sale contracts. (In INR).	
3.11.58	Report of all outstanding derivatives: All outstanding derivatives product-wise with deal no., counterparty, amt, rates, start date, end date, rupee equivalent, etc.	
3.11.59	Forward Contracts booked – Turnover : Details of forward contracts booked during the year - month wise, purchase/sales, merchant/inter market, no. of items and amount in INR, etc. (USD/INR, Cross currency	
3.11.60	Forward Contracts cancelled: Details of forward contracts - (merchant) cancelled during the year - full details of booking rate, cancellation rate, difference in exchange, counterparty, date of booking, date of cancellation, etc. USD/INR, Cross currency)	
3.11.61	Overdue Forward Contracts as at year end: Details of forward contracts which stands matured up to 31st March, but not delivered/cancelled, etc	
3.11.62	List of Corporates who have booked Forward Contracts: List of Corporates who have booked forward contracts during the year with details like branch, FCY, amount (in FCY/INR	
3.11.63	Derivatives entered into during the year: Details of all derivatives done	

	during the year product-wise	
3.11.64	Quarterly statement on Premium received/paid on arbitrage swaps: Quarterly statement on Premium received/paid arbitrage on swaps	
3.11.65	Details of arbitrage deals done on OTC vis-à-vis currency futures	
3.11.66	Currency Futures: Provide list of deals done for Trading & Arbitrage on currency futures	
3.11.67	Early/late delivery charges report	
3.11.68	Cancellation charges report	
3.11.69	Forward contract utilized/cancellation report	
3.11.70	EEFC/DDA/PCFC/FCL account ledger	
3.11.71	Mirror credit/debit entries for a particular day/range of days with amount filter	
3.11.72	Outstanding merchant contracts/deals report: The system should generate the outstanding merchant contracts/deals report on a daily basis. The same should be mailed to the B Category branches automatically.	
3.12	PCFC MODULE/FCNR B LOAN MODULE	
3.12.1	All PCFC transactions(INR Leg) Suitable option should be provided either to select Central Office Account or IBIT-Lending to Branches Account	
3.12.2	Customer wise total PCFC outstanding on any day should be available.	
3.12.3	Interest calculation for the month should be available	
3.12.4	Interest accrued on daily basis should be available for calculating Net Open Position as advised by RBI Inspector.	
3.12.5	Balance outstanding should be revalued @ Fedai rate; initially on a monthly basis and later on, on daily basis.	
3.12.6	Similar facilities are required for FCNR B Loans also.	
3.13	Notional rate maintenance	
3.13.1	The system should maintain the notional rate for the non position transactions currency wise.	
3.13.1	The history of the notional rate should also be maintained by the system.	
3.13.2	Whenever the notional rate is revised by the bank, the system should do the notional rate revaluation automatically and post the INR difference in the respective accounts automatically. The system should also generate a report for the same.	
3.14	Reports to be submitted to RBI/Other regulators	
3.14.1	GPB report	
3.14.2	FTD report	
3.14.3	TRADE CREDIT (TC I & II)	
3.14.4	STAT- 8	
3.14.5	GOLD IMPORT AGAINST L/C	
3.14.6	FOREIGN CURRENCY BORROWINGS	
3.14.7	SFR VIII	
3.14.8	Fortnightly statement of Export Credit Outstanding	
3.14.9	STAT-5	
3.14.10	STAT-9	

3.14.11	Import of Gold by EOUs Units in SEZ/ EPZ, Nominated Agencies	
3.14.12	Import of Gold/Silver/Platinum by Bank	
3.14.13	“E” Statement	
3.14.14	NOSTRO-VOSTRO BAL-ANNEX-III	
3.14.15	BAL STMENT-ANNEX II-ORFS	
3.14.16	Cross-Currency Derivative Transactions statement	
3.14.17	Approval, Disbursement, Utilization & Debt Servicing of Trade Credits	
3.14.18	Export Credit Data –C form	
3.14.19	FC-TRS-For. I/W remittance-Shares	

PART 4: DERIVATIVE PRODUCTS/ INSTRUMENTS

4	Range of Derivative Products/ Instrument to be Covered :	Vendor Response
4.1	Currency Options :	
4.1.1	European Options	
4.1.2	American Options	
4.1.3	Plain Vanilla	
4.1.4	Multiple options	
4.1.5	Zero Cost Option structures	
4.1.6	Any Derivative strategies like Ratio Range, Forward Extra, Seagull, Straddle, Butterfly among others	
4.1.7	Greeks – Plain vanilla	
4.2	Interest Rate Swaps	
4.2.1	Plain Vanilla	
4.2.2	Basis Swap	
4.2.3	Overnight Indexed swap	
4.2.4	Amortizing swap	
4.2.5	Accretion Swap	
4.2.6	In Advance / In Arrears	
4.2.8	Interest Rate Caps / Floors / Collars	
4.2.9	Roller-Coaster Swaps	
4.2.10	Range-accrual Swaps	
4.2.11	Delayed Amortizing Swap	
4.2.12	Swaps with Moratorium	
4.2.13	Swaps with Bermuda	
4.3	Cross Currency Swap	
4.3.1	Plain Vanilla	
4.3.2	Basis Swap	
4.3.3	Principal Only Swaps	
4.3.4	Coupon only Swap	
4.3.5	Principal + Interest	
4.3.6	Exchange at	
4.3.7	Start	
4.3.8	End	
4.3.9	Both	
4.3.10	Intermediary	
4.3.11	Amortizing swap	
4.3.12	Accretion Swap	
4.3.13	Range-accrual Swaps	
4.3.14	Swaps with Moratorium	
4.4	Forward Rate Agreements and Credit default swap/other derivative products	
4.4.1	Pay Fixed	
4.4.2	Pay Floating	
4.4.3	Settlement at Start	
4.4.4	Settlement at End	
4.4.5	Credit Default Swap : Pricing, Valuation, Risk parameters, uploading of FIMMDA curves, Requisite RBI reporting, Various limits with respect to Credit & Market Risk, MTM margin calculation & Margin pay out/ receipt, hedge report.	

4.4.6	Any Exchange traded derivatives like Currency future, Currency Option, T. Bill Future and Interest Rate Future	
4.4.7	Synthetic deal of exchange product, OTC market in spot & Forward their Integrated P & L, Gap, Open position & Margin requirement.	
4.4.8	Enhancements in the system as per change required by RBI/Other regulator with respect to existing/new derivative product (both Generic & Structured).	
4.5	FRONT-OFFICE ACTIVITIES TO BE SUPPORTED	
4.5.1	System should maintain real-time currency position for each dealer.	
4.5.2	System should maintain real-time currency position across dealers.	
4.5.3	Facility to capture derivative deals through user friendly screens.	
4.5.4	Facility to enter Swap deals in cryptic mode for quick capturing	
4.5.5	Standard Settlement Instructions should be automatically defaulted based on deal parameters.	
4.5.6	Facility to copy existing deal to generate new deal.	
4.5.7	Facility to mirror existing deal to generate back to back deal.	
4.5.8	System should support generation of deal tickets.	
4.5.9	Facility for stripping of currency options in to multiple options (shortcut feature for deal definition) with change of	
4.5.9.1	- strike price and	
4.5.9.2	- barrier price and	
4.5.9.3	- expiry dates to exact month, quarter, semi-annual and annual or	
4.5.9.4	- expiry dates to end of month, quarter, semi-annual and annual	
4.5.10	Definition of currency option strategies as templates which can be easily referenced for creation of strategies	
4.5.11	Calculation of Greeks for Currency Options	
4.5.12	System should support pricing of derivative deals at the time of deal entry.	
4.5.13	System should provide standalone screen for pricing of derivative deals with provision to convert the entered parameters to a deal.	
4.5.14	Matching/ Un-matching of back to back Derivative Trades. System should support both full and partial matching of two or more deals.	
4.5.15	Facility to Terminate Derivative Deals. System should compute MTM with a facility to change the system computed MTM amount.	
4.5.16	Monitoring screen to monitor Barrier Currency Option Deals for Knock-In and Knock-Out events.	
4.5.17	Currency Option deals eligible for exercise or lapse should appear automatically on the screen along with deal important deal information.	
4.5.18	Facility to create structured product encompassing various Currency Option, Principal Swap, IRS and Forward Rate Agreement deals.	
4.5.19	There should be parametric facility for Front Office authorization.	
4.5.20	Computation of interest rate risk like PVBP for Swaps and FRA	
4.5.21	Computation of Delta, Gamma Theta & Rho for Currency Options	
4.5.22	Facility to designate any of the above derivative in to hedge or trading	
4.5.23	Facility for front office user to manually define the underlying. This should be through a field over and above the "Remarks" field.	
4.5.24	Generation of deal slip and confirmation letter	
4.5.25	Deal slip should contain relevant information of the underlying instruments	
4.6	MIDDLE OFFICE ACTIVITIES TO BE SUPPORTED	
4.6.1	Real time limits monitoring for Currency, Dealer and Counterparty based on Notional Principal.	
4.6.2	System should generate alert to users on violation of limit.	

4.6.3	Facility to authorize limit violations.	
4.6.4	System should generate exception report for limit violations.	
4.6.5	Facility to download and capture benchmarks rates.	
4.6.6	Facility to download and capture currency exchange rates.	
4.7	BACK OFFICE ACTIVITIES TO BE SUPPORTED	
4.7.1	System should support back office for deal authorization/ modification/ cancellation and settlement of authorized deals on respective settlement dates.	
4.7.2	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.	
4.7.3	Facility to change the settlement currency for FRA, Currency Options and Swap deal settlements.	
4.7.4	Backdated processing including interest accrual and Settlement for back dated swaps.	
4.7.5	Facility to confirm a deal and print the confirmation letter. Ability to view the existing confirmed deals & classification of deals.	
4.7.6	Facility to transfer complete deal wise portfolio position from one portfolio to another	
4.7.7	Ability to modify all the swap parameters like Notional amount, reset date, compounding date and coupon date & category of deals defined as part of deal entry.	
4.7.8	System should have the provision for any add on Market/Credit Risk Charges for the purpose of Valuation & preparation of credit risk statement for derivative exposure.	
4.7.9	Necessary contra accounting has to be passed for net amount in the system reversing the individual contra entries.	
4.7.10	Facility to change settlement instructions	
4.7.11	Model cash flows and interest accruals of all the individual deals in the portfolio & overall (gross/net) cashflow for the day, based on holiday calendar and standard day roll conventions on daily basis.	
4.7.12	System should support Valuation of all outstanding derivative contracts for any given period/dates. The valuation of all the deals should be done Category wise i.e maturity bucket, hedging/ trading etc.	
4.7.13	Facility to amortize the MTM gains/losses in case of termination of deal in "Hedging" portfolio	
4.7.14	Facility to view deal wise MTM & PVBP across products with facility to view selected deals or portfolios	
4.7.15	Facility to view overall MTM & PVBP across dealers/ selected dealers by super users	
4.7.16	MTM & PVBP Trend analysis & scenario analysis for any product/ deal - intra day as well as across dates	
4.7.17	System should have capabilities to calculate the following margins :	
4.7.17.1	Initial margin	
4.7.17.2	Extreme loss margin	
4.7.17.3	Calendar Spread margin	
4.7.17.4	Marked to market	
4.7.18	System should be able to tally daily margins maintenance form:	
4.7.18.1	Government securities	
4.7.18.2	Cash	
4.7.18.3	Other forms	

4.7.19	System should be able to link to the respective exchange platform systems:	
4.7.19.1	MCX-SX	
4.7.19.2	NSE	
4.7.19.3	BSE/USE	
4.7.19.4	Others	
4.8	SWIFT CAPABILITIES	
4.8.1	System should generate SWIFT confirmation messages for following Derivative deals :	
4.8.1.1	MT305 - CO Plan Vanilla Confirmation	
4.8.1.2	MT306 - CO Single Barrier Confirmation	
4.8.1.3	MT340 - FRA Confirmation	
4.8.1.4	MT341 - FRA Settlement Confirmation	
4.8.2	System should support reconciliation of inward SWIFT confirmation messages for Derivative deals.	
4.9	REPORTS	
4.9.1	All reports to be submitted to RBI / Other Regaulatories / Top Management on a particular date or for a specific period.	
4.9.2	Total Swap Trading P/L	
4.9.3	Risk Sensitivity Report (Bucket-wise / Curve-wise PV01 distribution as on date)	
4.9.4	Gap Report, Interest Rate Gap Report (Currency wise – bucket-wise)	
4.9.5	Total Options Trading P/L	
4.9.6	RISK SENSITIVITY REPORT (Option Greeks, Tenor wise Distribution of Greeks, Simulation, VaR)	
4.9.7	Swaps Sales Activity Report	
4.9.8	Credit Utilisation Report	
4.9.9	Total Swaps Sales P&L Report	
4.9.10	Total product-wise Sales P&L Report	
4.9.11	Report of Top Clients	
4.9.12	Total Product wise Sales P/L	
4.9.13	Total Hedge Report	
4.9.14	Options Sales Activity Report	
4.9.15	Credit Utilisation Report	
4.9.16	Total Options Sales P&L Report	
4.9.17	Total Product-wise Sales P&L Report	
4.9.19	Total Options Sales P/L	
4.9.20	Total Product Wise Sales P/L	
4.9.21	Total Client Report	
4.9.22	Top 10 Swap Clients	
4.9.23	Option Maturity Report	
4.9.24	Hedge Efficiency / Effectiveness Report	
4.9.25	Reports for Derivatives Deals :	
4.9.25.1	Deals Slips	
4.9.25.2	Deals Confirmations	
4.9.25.3	Interest Rate Reset Notice	
4.9.25.4	Settlement, Interest inflow/outflow Notice	
4.9.25.5	Barrier Trigger Notice	

PART 5: DOMESTIC TREASURY FRONT OFFICE REQUIEEMENTS

5	INVESTMENT DOMESTIC : The system should facilitate administration, settlement, accounting and revaluation of the following Domestic Investment Instruments automatically using FIMMDA / CCIL / NSE / BSE/Outside Agency / Broker QUOTES on daily basis. It has to take into account the staggered payment of the securities, if any	Vendor Response
5.1	Government Securities	
5.1.1	Central Government & State Government :	
5.1.1.1	Primary market auctions :	
5.1.1.1.1	Buying through NDS & NDS-OM / PDO NDS systems	
5.1.1.1.2	Selling through NDS & NDS-OM / PDO NDS systems	
5.1.1.2	Secondary market operations :	
5.1.1.1.1	Buying through NDS & NDS-OM / PDO NDS systems	
5.1.1.1.2	Selling through NDS & NDS-OM / PDO NDS systems	
5.1.1.3	Open Market Operations & Buy backs	
5.1.1.4	On Tap Operations	
5.1.2	Central Government Special Securities :	
5.1.2.1	Buying	
5.1.2.2	Selling	
5.1.3	Central Govt. Guaranteed Securities :	
5.1.3.1	Buying	
5.1.3.2	Selling	
5.1.4	State Govt. Guaranteed Securities :	
5.1.4.1	Buying	
5.1.4.2	Selling	
5.2	Non Government Securities	
5.2.1	Non convertible Bonds & Debentures :	
5.2.1.1	Secured	
5.2.1.2	Unsecured	
5.2.1.3	Rated	
5.2.1.4	Unrated	
5.2.1.5	Listed	
5.2.1.6	Unlisted	
5.2.1.7	Taxable	
5.2.1.8	Tax Free	
5.2.1.9	Subordinate Bonds (TIER I, TIER II)	
5.2.2	Mutual Fund investments (Debt/Equity Oriented) :	
5.2.2.1	Subscription	
5.2.2.2	Redemption	
5.2.3.1	Pass Through Certificates / Securitized Issuances :	
5.2.3.1.1	Secured	
5.2.3.1.2	Unsecured	
5.2.3.1.3	Cash Collaterals	
5.2.3.1.4	Guarantee	
5.2.3.1.5	Listed	
5.2.3.1.6	Unlisted	

5.2.3.1.7	Guarantee structures	
5.2.3.2	The above function again divided into :	
5.2.3.2.1	Subscription / Application / Allotment	
5.2.3.2.2	Buying	
5.2.3.2.3	Selling	
5.2.4	Equity	
5.2.4.1	Equity shares / Preference Shares / Convertible Bonds / Warrants/ Depository Receipts /Security receipts :	
5.2.4.1.1	Listed	
5.2.4.1.2	Unlisted	
5.2.4.1.3	Quoted	
5.2.4.1.4	Unquoted	
5.2.4.2	The above function again divided into	
5.2.4.2.1	Subscription / Application / Allotment	
5.2.4.2.2	Buying	
5.2.4.2.3	Selling	
5.2.4.2.4	Commitment, Drawdown & Payouts for Venture Capital Investment	
5.2.4.2.5	IBPC	
5.2.4.2.6	RIDF investments	
5.2.4.2.7	Investment in Certificate of Deposits/ Commercial papers	
5.2.5	MONEY MARKET	
5.2.5.1	Call money, notice money, short-term borrowing/lending	
5.2.5.2	Borrowing through Certificate of Deposits.	
5.2.5.3	Borrowing, Lending, Rollover , final settlement, interest calculations, interest provision, limit capturing and updation of CDs / CPs	
5.2.5.4	Online monitoring of Counter party exposures, surplus funds for deployment	
5.2.5.5	Online monitoring of Statutory Reserve Ratios	
5.2.6	SECURITIES MANAGEMENT	
5.2.6.1	The system should be able to store detail information of the securities and it should provide on line information of the entire portfolio to facilitate dealing and Back Office operations. It should be possible to classify the securities according to the following parameter (or <u>any other user defined parameter</u>) in a user friendly category, group, (e.g. SLR/NON SLR, HFT, AFS, HTM etc..), issuer (Central, State Govt., Electricity Boards etc..) purchase/sale of securities in primary issues maturity slots, coupon, alphabetical order, Exemption from tax under different sections, Exemption from Capital Adequacy Norms, Priority Sector Status, state, industry and other classification as required by RBI (Ex Statistical Return – BRS 5)	
5.2.6.2	Form of Delivery e.g. Physical, D-Materialized., Allotment letter etc.	
5.2.6.3	Status of subscriptions and follow-ups	
5.2.6.4	Custodial location & Interest paying office	
5.2.6.5	Price/Yield	
5.2.6.6	Investment Period-wise	
5.2.6.7	Industry	
5.2.6.8	Lock-in-period	
5.2.6.9	Default /delinquency in repayment/servicing	
5.2.6.10	Past dues	
5.2.6.11	Rating (External & Internal)	

5.2.6.12	The system should also provide on-line information of the Clear balance taking account of Repo/CBLO operation and account balance of all the securities indicating its eligibility to trade, Current Statutory requirement (Cash Reserve Ratio and Statutory Liquidity Ratio) vis-à-vis the current actual balances maintained, Management of Refinance facility – On line status – available, availed, repaid etc	
5.2.7	CRR/SLR Module	
5.2.7.1	Capturing of daily balances at various centre	
5.2.7.2	Capturing of projected cash inflows and outflows	
5.2.7.3	Data Capture and updation module for Preferential Deposits (PDs) for capturing projected outflows on PDs, Average Cost of PDs and related MIS and Reports as required	
5.2.7.4	CRR/SLR Computations & NDTL data download	
5.2.7.5	CRR Interest Provision and Claims	
5.2.7.6	All Statutory Reports required for CRR/SLR (including Form X)	
5.3	Others : The system should provide facility for disbursement as well as maintain records of repayment along with interest payment details for deposits with :	
5.3.1	RIDF Series	
5.3.2	SIDBI/ NABARD	
5.3.3	NHB	
5.3.4	CGSL transactions	
5.3.5	SGL Reconciliation: Reconciliation Report based on comparison between SGL securities balances and excel file downloaded from PDO NDS system (path and name of the file to be accepted from the User) and generation of report showing Balances tallied, balances untallied constituent wise security-wise. The system should generate certificate as regards confirmation of balances to RBI if there are no reconciliation differences.	
5.4	MASTER DATA CAPTURE	
5.4.1	Counter parties: The system should be able to capture the following details for counter parties	
5.4.1.1	Name	
5.4.1.2	Address	
5.4.1.3	Status – Active/ Inactive	
5.4.1.4	Limits	
5.4.1.5	Settlement instructions for Forex and derivatives transactions	
5.4.1.6	Foreign Currency Bank accounts	
5.4.1.7	PAN	
5.5	Brokers: The system should facilitates capturing the list of notified/ approved brokers and should capture the following details for each broker	
5.5.1	Name	
5.5.2	Address	
5.5.3	Products handled by broker	
5.5.4	Limits	
5.5.5	Brokerage rate	
5.5.6	Settlement instructions	
5.5.7	PAN	
5.5.8	Telephone number	
5.5.9	Fax	

5.5.10	e-mail ID	
5.5.11	Bank account number	
5.5.12	DP ID	
5.5.13	DP Name	
5.5.14	Client ID	
5.6	DEAL CAPTURING	
5.6.1	The system should have the ability to allow capture and display of at least the following inputs:	
5.6.1.1	Trade date	
5.6.1.2	Value date	
5.6.1.3	Time of trade	
5.6.1.4	System generated deal number	
5.6.1.5	Deal originating entity and desk	
5.6.1.6	Dealer	
5.6.1.7	Transaction type	
5.6.1.8	Face value of security	
5.6.1.9	Quantity of securities	
5.6.1.10	Reporting value in INR	
5.6.1.11	Interest rate	
5.6.1.12	Interest frequency	
5.6.1.13	Interest type (fixed/ floating) for MM transactions	
5.6.1.14	Floor/ Cap for MM Transactions	
5.6.1.15	Tenor	
5.6.1.16	Securities name/ code	
5.6.1.17	Name of counter party	
5.6.1.18	Name of broker	
5.6.1.19	Principal amount	
5.6.1.20	Staggered Redemption on principal amount	
5.6.1.21	System should be able to handle cash flows with different interest payment & principal redemptions dates	
5.6.1.22	Interest amount	
5.6.1.23	Total consideration	
5.6.1.24	Mode of delivery	
5.6.1.25	Brokerage amount / Securities Transaction Tax	
5.6.2	The system should be able to alert the dealer in cases where dealer limits are being exceeded at the time of deal entry	
5.6.3	The system should permit entry of remarks in free text fields	
5.6.4	The system should facilitate the following types of price quotes:	
5.6.4.1	Price in decimals (minimum 4 decimal points)	
5.6.4.2	Yield in decimals (minimum 4 decimal points)	
5.6.4.3	Date of Issue	
5.6.4.4	Type of instrument	
5.6.4.5	Security Code Number	
5.6.4.6	ISIN Number	
5.6.4.7	Rating	
5.6.4.8	Listing	
5.6.4.9	Security	
5.6.4.10	Face Value	

5.6.4.11	Acquisition price	
5.6.4.12	Premium (Acquisition price less face value)	
5.6.4.13	Discount (Face value less Acquisition price)	
5.6.4.14	Residual period	
5.6.4.15	Coupon	
5.6.4.16	Coupon payment frequency	
5.6.4.17	Yield To Maturity	
5.6.4.18	Current Yield	
5.6.4.19	Interest payment date	
5.6.4.20	Broken period interest	
5.6.4.21	Credit rating / Rating Migration of the issuers and consequent diminution in the quality of assets	
5.6.4.22	'Put' Option	
5.6.4.23	Date of exercise	
5.6.4.24	Date of notice	
5.6.4.25	'Call' Option	
5.6.4.26	Date of exercise	
5.6.4.27	Date of notice	
5.6.4.28	Convertibility Option	
5.6.4.29	Date of exercise	
5.6.4.30	Date of notice	
5.6.4.31	Tax Status	
5.6.4.32	Exempt from Income Tax	
5.6.4.34	Arranger	
5.6.4.35	Guaranteed by	
5.6.4.36	Others	
5.6.4.37	Capital Adequacy	
5.6.4.38	Others	
5.6.4.39	Issuer Group	
5.6.4.40	Eligible for Statutory Liquidity Ratio (SLR)	
5.6.4.41	Priority Sector – SLR and NONSLR	
5.6.4.42	Sub classification of Housing and Agriculture	
5.6.4.43	Public Sector	
5.6.4.44	Private Sector	
5.6.4.45	Trust / Mutual Fund	
5.6.4.46	Others	
5.6.4.47	Mode of delivery	
5.6.4.48	Physical	
5.6.4.49	Dematerialized	
5.6.4.50	Others	
5.6.4.51	Custodial status	
5.6.4.52	Agency (code)	
5.6.4.53	Location	
5.6.4.54	Trustee, Receipt of Trust deeds and follow-up of same	
5.6.4.55	Document (No.)	
5.6.4.56	Guarantor	
5.6.4.57	Redemption of premium	
5.6.4.58	Name	

5.6.4.59	Amount guaranteed	
5.6.4.60	Industry/Sector	
5.6.4.61	Private placement/IPO/FPO	
5.6.4.62	Rated/Unrated	
5.6.5	The system should permit and putting past trade dated entries for investments	
5.6.6	The system should be able to provide an audit trail for all transactions entered.	
5.6.7	The system should be able to accommodate the entry of forward value date transactions	
5.6.8	Deal numbering : The unique trade identification number should be printed in the deal slip along with the other deal details	
5.6.9	Deal tickets	
5.6.9.1	The system should be able to automatically generate, view, print and review of deal tickets	
5.6.9.2	The system should be able to provide unique deal numbers for each deal ticket	
5.6.9.3	The system should be able to generate multiple deal tickets for each transaction	
5.6.9.4	The system should be able to print separate deal tickets for internal and external purposes	
5.6.9.5	The system should have the ability to route deal flow based on Deal Ids	
5.6.9.6	The system should preserve historical data of all deals	
5.6.9.7	The system should be able to generate a report of all cancelled/rejected deals.	
5.6.9.8	The proposed solution should be able to provide Automatic Dealing System which will replace the conventional dealing by telephone/fax.	
5.6.9.9	The system should have chatting facility for quoting and confirming special rates.	
5.7	DECISION SUPPORT TOOLS	
5.7.1	The system should be able to automatically calculate YTM for investment deals that are entered for the purpose of pre-deal decision making	
5.7.1.1	Calculators:	
5.7.1.1.1	Yield To Maturity, Current Yield, Yield To Call, Yield To Put, Yield to Worst/Best	
5.7.1.1.2	Zero Coupon / Stripped G-Secs pricing	
5.7.1.1.3	Floating Rate Bonds	
5.7.1.1.4	Government Securities	
5.7.1.1.5	MIBOR / other benchmark linked bonds / Overnight Indexed Swaps / Interest Rate Swaps	
5.7.1.1.6	Holding Period Returns	
5.7.1.2	In the above pricing & calculation models, the system should be able to support the following interpolation techniques:	
5.7.1.2.1	Linear	
5.7.1.2.2	Log linear	
5.7.1.2.3	Nelson Siegal	
5.7.1.2.4	NELSON SIEGAL SVENSSON Cubic Splines	
5.7.1.2.5	Cubic Splines	
5.7.2	The system should provide for scenario analysis of the portfolio	

5.7.3	The system should be able to retrieve stored deals that are in entered state, prior to confirmation	
5.7.4	The system should be able to display to a dealer the instrument-wise authorized limits	
5.7.5	The system should be able to update cash and security positions on a real time basis	
5.7.6	The system should be able to facilitate deal simulation before commitment and provide a warning if the deal results in a limit violation	
5.7.7	The system should provide following information :	
5.7.7.1	Position Reports – Deal wise, Currency wise, counterparty wise	
5.7.7.2	Profitability – Dealer wise & consolidated	
5.7.7.3	Fund Flow Statements (next week, next fortnight, from-date – to-date) for :	
5.7.7.4	Money Market Operation– Repo, CBLO, Call/Notice Money, CD borrow.	
5.7.7.5	Investment Operation – Category wise & consolidated	
5.7.7.6	Holding Rates	
5.7.7.8	The system should be able to pre-empt in case of possible violation of the following limits:	
5.7.7.9	Instrument-wise limits	
5.7.7.10	Broker limits	
5.7.7.11	The system should be able to analyze the overall portfolio, or any user-defined portfolio by changing select variables and assessing the impact on the portfolio	
5.7.7.12	The system should be able to estimate projected cash flows by currency	
5.8	SYSTEM SUPPORT FOR G-SEC, MONEY MARKET, EQUITIES AND DERIVATIVE TRADES	
5.8.1	System should create separate portfolio for AFS, HFT & HTM books, which should give real-time price changes by linking with Reuters/berg/FIMMDA such that individual security/portfolio Mark to Market (MTM) value can be observed at any given time.	
5.8.2	AFS category in equities 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 and sector as well to be updated by linking with Reuters/Bloomberg. Provision for manual intervention should be available.	
5.8.3	The portfolio should show details including BV, FV, Holding Rate, market closing rate for each security and portfolio as a whole for securities. 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.	
5.8.4	A daily transaction report 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.	
5.8.5	On a daily basis when all deals are entered for purchase and sale of securities/stocks, the portfolio should automatically get updated with appropriate holding rates in case of purchase and profit figures in case of sale. Facility for short selling also to be provided.	

5.8.6	In the case of equities, there should be provision for updating bonus declaration, share split up, dividend declaration, spin offs and mergers, or any other issue or aspect that affects the holding rate of the shares and affects the portfolio value.	
5.8.7	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 as long as system is in testing stage).	
5.8.8	There should be provision for entering bid submissions for auction in G-Secs and getting allotment details after cut-off declarations.	
5.8.9	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.	
5.8.10	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.	
5.8.11	There should be provision to find brokerage details and percentage wise distribution of business to brokers for risk management purpose.	
5.8.12	Profit and Loss Statement should be available for any specified period (Daily, weekly, monthly, quarterly or any specified date range) – dealer wise, segment wise & consolidated.	
5.8.13	The system should be capable of doing scenario analysis at different yield levels.	
5.8.14	There should be provision to find net profit from sale of shares acquired through primary market / IPO/FPO etc.	
5.9	Front Office Reports	
5.9.1	Online Dealers Pad	
5.9.2	Online Portfolio	
5.9.3	Deal Note	
5.9.4	Deal Note-Equity	
5.9.5	Deal Notes For a Day	
5.9.6	Deal Tickets	
5.9.7	Deal Ticket – Equity	
5.9.8	Deal Tickets for a date	
5.9.9	Deal Detail-Date wise	
5.9.10	Deal Details-Counter Party wise	
5.9.11	Deal Details-Security wise	
5.9.12	Consolidated Deal Details	
5.9.13	Deal Detail Between Two Dates	
5.9.14	Deal Details Value date wise Between Two Dates	
5.9.15	New Consolidated Deals DTLS	
5.9.16	New Consolidated Deal Details dealer wise	
5.9.17	Deal Confirmation – Call Money	
5.9.18	Deal Confirmation - Non SLR	
5.9.19	Deal Confirmation of all deals of a day - Govt. Securities	
5.9.20	Statement of deal details with profits	
5.9.21	Category-wise Monthly Profit/Daily profit	

5.9.22	Closing stock and security holding	
5.9.23	Category Wise Holding Summary	
5.9.24	Borrower wise investment in Bonds & Debentures	
5.9.25	Statement of average investment(Average, yield ,income)	
5.9.26	Domestic Exposure (For Dealing Room)	
5.9.27	Details of investment balances date wise	
5.9.28	Valuation Sheet-Equity, GL Wise	
5.9.29	Miscellaneous Voucher	
5.9.30	Daily SLR	
5.9.31	SLR ACTUALLY INVESTED	
5.9.32	Summary Transactions Sheet	
5.9.33	Daily statement of transactions (Purchase) in SLR Securities	
5.9.34	Daily statement of transactions (Purchase) in Non- SLR Securities	
5.9.35	Daily statement of transactions (Sale) in SLR Securities	
5.9.36	Daily statement of transactions (Sale) in Non- SLR Securities	
5.9.37	Mandate for Sale/Purchase of SLR Securities	
5.9.38	Daily Report on short selling in GOI Securities	
5.9.39	Monthly reporting to RBI on short selling in GOI securities	
5.9.40	Inter Bank Deal Slip	
5.9.41	Internal Transfer Deal slip	
5.9.42	Deal Register	
5.9.43	Termination Register	
5.9.44	Settlement Register	
5.9.45	Portfolio Transfer Register	
5.9.46	Match Register	
5.9.47	Event letter	
5.9.48	MTM Report	
5.10	REPORTS FOR SWAP DEALS	
5.10.1	Deal Register	
5.10.2	Outstanding Register	
5.10.3	Swap Schedule Register	
5.10.4	Match Register	
5.10.5	Termination Register	
5.10.6	Settlement Register	
5.10.7	Interest Accrual	
5.10.8	Reset Advice	
5.10.9	Mark to market	
5.10.10	Cash flow	
5.10.11	Reset Rate Register	

PART 6 : DOMESTIC TREASURY BACK OFFICE REQUIREMENTS

6	PRODUCT COVERAGE: The system should have the ability to capture the following products:	Vendor Response
6.1	Government of India securities	
6.2	Floating rate bonds/ notes with proper re-pricing & interest accrual	
6.3	Fixed rate bonds	
6.4	Treasury bills	
6.5	Cash Management Bills	
6.6	State Government securities (fixed and floating)	
6.7	Corporate Bonds (fixed ,floating, Zero coupon)	
6.8	Corporate Debentures (Convertible & Non-Convertible)	
6.9	Inter-corporate deposits	
6.10	Equity shares	
6.11	Depository Receipts	
6.12	IBPC/RIDF	
6.13	Preference shares	
6.14	Warrants	
6.15	Equity linked derivatives and other derivative products likely to be allowed / to be used in future by banks	
6.16	Mutual fund products :	
6.16.1	Debt funds (growth, dividend, dividend reinvestment)	
6.16.2	Gilt funds	
6.16.3	Equity funds	
6.16.4	Equity diversified	
6.16.5	Growth funds	
6.17	Certificate of deposit	
6.18	Money market instruments :	
6.18.1	Call / Notice / Term Money	
6.18.2	CBLO Trades	
6.18.3	Liquidity adjustment facility - Repo/ Reverse Repo	
6.18.4	Market Repo	
6.18.5	Commercial Paper/CD borrowings	
6.19	Bonds with Cap/ Floor	
6.20	Bonds with Call and Put Option	
6.21	Bonds with Staggered Redemption	
6.22	Stub Bonds	
6.23	Convertible Bonds	
6.24	Multi Currency Bonds	
6.25	Inverse Floaters	
6.26	Securitized Bonds (ABS/MBS/PTC)	
6.27	Security Receipts	
6.28	Venture Capital	
6.29	PRE-TRADE ANALYTICS	

6.29.1	Yield analysis	
6.29.2	Duration analysis	
6.29.3	Convexity analysis	
6.29.4	PVBP / PV01	
6.30	MARKET DATA ANALYTICS	
6.30.1	The system should allow users manually define yield curves	
6.30.2	The system should be able to model user-defined treasury curves	
6.30.3	The system should be able to provide trend analysis for market prices of securities (Remark : Historical prices are available in the system. A report can be developed to provide the analysis.)	
6.31	COMPUTATIONS AND CALCULATIONS (refer to the calculators section above)	
6.31.1	The system should be able to provide bond calculators to support pricing of bonds and other fixed income securities	
6.31.2	The system should be able to track the strike dates in case of products with embedded call/put options	
6.31.3	The system should be able to calculate interest for products sensitive to caps and floors	
6.31.4	The system should be able to calculate interest of Floating Rate Instruments recognizing reset dates/rates	
6.31.5	The system should be capable to processing transactions both cum-interest and ex-interest basis	
6.31.6	The system should be able to compute brokerage/STT by any of the following methods as part of deal entry:	
6.31.6.1	Flat brokerage/ flat STT	
6.31.6.2	Percentage rate	
6.31.7	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	
6.31.8	In case of FCCBs, ADRs, GDRs and other foreign currency instruments, the system should be able to capture the appropriate foreign exchange rate to reflect the fair value in INR terms	
6.31.9	The system should be able to perform duration and convexity analysis	
6.31.10	The system should be able to categorize all securities into 6 categories for regulatory reporting/disclosure viz. Govt. Securities, Other Approved Securities, Shares, Debentures & Bonds, Subsidiaries/ Joint ventures & Others	
6.31.11	The system should be able to categorize all securities into AFS, HTM and HFT and allow shifting between Categories through menu based options (not through fictitious sale/purchase)	
6.31.12	System should support valuations as per FIMMDA guidelines	
6.32	SCRIP MASTER DATA : The system should be able to store at least the following fields for different instruments	
6.32.1	Instrument name	
6.32.2	ISIN	
6.32.3	Instrument type & Instrument category	
6.32.4	Issuer name/ company name	
6.32.5	Coupon rate	
6.32.6	Maturity date	

6.32.7	Interest frequency/ Interest reset date	
6.32.8	Interest Payment Date-Last interest date and next interest date	
6.32.9	Entry load	
6.32.10	Exit load	
6.32.11	Identification of Tier I/II bonds	
6.32.12	Credit rating and agency	
6.32.13	Whether listed / unlisted	
6.32.14	Stock exchange listed on	
6.32.15	Whether investment is in priority sector / not	
6.32.16	In case of mutual funds whether the same is equity oriented / debt oriented	
6.32.17	Approved Security Status(SLR/NON SLR)	
6.32.18	Physical / Demat status	
6.32.19	Short Sale Indicator – flag required at security	
6.32.20	Repo forward status	
6.32.21	Redemption Schedule including staggered redemption	
6.32.22	Industry/sector/borrower indicator – flag required at security	
6.32.23	Guaranteed by State/Central Govt.	
6.32.24	Encumbered securities - flag required at security	
6.32.25	Floating Rate Bond/Infrastructure Bond/Tax free / Zero coupon bond - flag required at security	
6.32.26	Rating	
6.32.26	Corporate Action – Interest / Repayment.	
6.33	DEAL CAPTURE	
6.33.1	The system should permit entry of stop loss and take profit limits at portfolio level	
6.33.2	System should be able to record a reverse trade from the take profit or stop loss notification	
6.33.3	The system should be able to compute the exact stop loss and take profit based on pre-defined percentages	
6.33.4	The system should be able to give notifications in case of breach of stop loss/ take profit limits	
6.33.5	The system should be able to compute scrip wise and bucket wise PVBP and monitor PVBP as a result of every deal at scrip level	
6.33.6	The system should be able to retrieve static data from masters at the time of deal entry	
6.33.7	The system should be able to highlight instances of short sale	
6.33.8	The system should be able to stop entry of short sale of securities where such functionality is defined by the user	
6.33.9	The system should allow for the following different types of deal capture:	
6.33.10	Manual deal entry for deals done through brokers	
6.33.11	Automatic deal entry for deals done through dealing systems/STP	
6.33.12	Facility (option) to put through reverse deals in case of cancellations on the same day	
6.34	SHORT SALE	
6.34.1	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). Short sale position has to be shown	

	separately. It can be recorded as separate portfolio	
6.34.2	Facility to define liquid securities (liquid flag at security master level).	
6.34.3	Real time monitoring of regulatory limits. Currently it is 0.50% and 0.25% of the outstanding stock for liquid and illiquid securities respectively. User should be able to change the percentage as and when changed by RBI.	
6.34.4	System should give a message /alert at the time of entering / saving the deal.	
6.34.6	Support of FIFO Based profit policy-only for short sales transactions	
6.34.7	Maturity days falling on Sunday/holidays: The system should automatically pick up the date and calculate the value and maturity dates referring to the calendar for holidays.	
6.34.8	The system should allow entry of deals on a backdated basis with the proper approval or authority. Current position/ back value dated position should be affected as per requirement of user. Regeneration of Position and other limits as per Back Dated Entries and also necessary related reports including regulatory requirements	
6.35	WHEN ISSUED	
6.35.1	System should have facility to define When Issued securities. Separate Tradable position for When Issued has to be maintained.	
6.35.2	System should facilitate capturing WI for "New" as well as "Existing" securities	
6.35.3	Real time monitoring of regulatory limits. Long Position, not exceeding 5 per cent of the notified amount	
6.35.4	When issued deals should be allowed to be booked in a specific book only.	
6.35.5	Facility to roll over the When Issued positions into regular positions.	
6.35.6	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.	
6.36	LIMITS TO MARKET OPERATIONS	
6.36.1	The system should be able to set and monitor limits based on the following parameters:	
6.36.1.1	Counter party limits	
6.36.1.2	Issuer limits	
6.36.1.3	Currency limits	
6.36.1.4	Dealer limits	
6.36.1.5	Broker limits (only empanelled brokers to be permitted)	
6.36.1.6	Scrip wise limits	
6.36.1.7	Internal limits	
6.36.1.8	Rating limits	
6.36.1.9	Instrument wise limits	
6.36.1.10	Stop loss limits	
6.36.1.11	Take profit limits	
6.36.2	The system should be able to prevent deal capture in cases where limits have been breached	
6.36.3	The system should be able to generate alerts in cases where limits are about to be breached based on certain user defined limit amount	

6.36.4	System should give an option to front office users if they would like to continue with the deal or abort it.	
6.37	CORPORATE ACTIONS : System should support following corporate actions:	
6.37.1	Bonus	
6.37.2	Rights	
6.37.3	Dividend	
6.35.4	Splits and consolidation	
6.35.5	Merger/De merger	
6.37.6	Change in Name /address	
6.37.7	Interest payment	
6.37.8	Redemption Payment/ Part redemption	
6.38	VALUATION & AMORTIZATION	
6.38.1	System should calculate Mark to market valuation of all securities in the HFT, AFS &HTM portfolio. System should have the provision for any add on Market/Credit Risk Charges for the purpose of Valuation.	
6.38.2	System should calculate amortization of all securities in HTM based on Straight Line Method & Effective Interest Method (daily compounding) concurrently with facility to switchover from one method to another	
6.39	TAX DEDUCTED AT SOURCE	
6.39.1	The system should be capable of handling information regarding TDS certificate details(TAN No, date of receipt etc)	
6.39.2	The System should be able to keep track of TDS certificates received & due to receive	
6.39.3	System should be able to generate report on total TDS deducted & TDS Certificates due for receipt on monthly, quarterly, Half-Yearly & Yearly basis	
6.39.4	The system should generate the file in ETDS format of income tax department.	
6.40	DIVIDEND ON EQUITY / PREFERENCE SHARES / MUTUAL FUND	
6.40.1	System should be able to record dividend declarations	
6.40.2	The System should be able to keep track of Dividend received& due to receive	
6.40.3	System should be able to generate report on total dividend received & dividend due for receipt on monthly, quarterly, Half- Yearly & Yearly basis	
6.41	Reports for Back Office-Investment The system should have easy report writing facility (Report Writing Tool/Wizard), in the user defined format for generating the following MIS statements and other Adhoc reports. For Internal Adhoc MIS and reporting, Officers in the treasury branch should be trained to generate Simple reports. Further, facility to download data from Integrated Treasury Package to Excel Form. Soft copy of the following reports should be generated in .xls/ .doc/ .pdf formats :	
6.41.1	Daily RBI balance (Centre wise)	
6.41.2	Reports on Funds & Treasury Position-maintenance of CRR/SLR	

6.41.3	Interest on CRR	
6.41.4	Daily-Fortnight Position	
6.41.5	Fortnightly call Lending - Annexure C	
6.41.6	Call Borrowing Details - Annexure C	
6.41.7	Fortnightly cumulative Call Money Transaction Position	
6.41.8	Institute wise/Center wise Call Details (Lending/ Borrowing)	
6.41.9	CSGL statement – constituent wise	
6.41.10	Transfer price mechanism.	
6.41.11	Money market transaction – Avg. Cost of borrowing	
6.41.12	Outstanding Money Market Transactions.	
6.41.13	Call Money Transaction (Borrowing/Lending) For a period	
6.41.14	Average Rate of Call Lending/ Borrowing	
6.41.15	Short Term Dynamic Liquidity.	
6.41.16	Call-Per day Lending Average (Banks/Others)	
6.41.17	Call-Per day Borrowing Average (Banks/Others)	
6.41.18	Daily Call Report	
6.41.19	CALL-Daily Interest Banks and Others	
6.41.20	Average Yield/Average Cost in Call Money Market/CBLO/Repo	
6.41.27.	Detail Short term Deposit(Call money/Term money)	
6.41.22	Counter Party-wise Exposure (Short term Deposit Outstanding)	
6.41.23	Voucher (LAF/REPO)-For a Date	
6.41.24	Summary of LAF/Repo Voucher	
6.41.25	RBI LAF/ Repo During a Period	
6.41.26	Report on Repo Transactions on monthly/quarterly/half- yearly & yearly basis as per RBI requirements	
6.41.27	Details of Funds invested in Debt Oriented / Equity oriented MF	
6.41.28	Summary of Deployment of Liquid Funds and equity oriented MF	
6.41.29	Security Holding SGL/ Demat/ Physical Detailed	
6.41.30	Security Holding HTM/AFS/HFT	
6.41.31	Security Holding Credit Rating wise Summary and Details	
6.41.32	Security Holding Credit Rating wise Detail	
6.41.33	Security Holding Sector/Industry Summary/Detail as per RBI Format	
6.41.34	Security Holding SLR/Non SLR/Recap Bonds	
6.41.35	State wise Security Holding Summary	
6.41.36	Category wise Security Holding	
6.41.37	Report on the investment in G-Sec	
6.41.38	Report on the investment in State Development Loans	
6.41.39	Report on the investment in Other Approved Securities	
6.41.40	Report on the investment in Tier-I/II capital of other Banks	
6.41.41	Report on the investment in Bonds & Debentures	
6.41.42	Report specifying the investments with “Call” or “Put” Option	
6.41.43	Report with regard to the exposure in Capital Market	
6.41.44	Report with regard to Investment in Venture Capital Fund /Security Receipts	
6.41.45	Details of Investments and summary of investments	
6.41.46	Capital Market Exposure Report Net of Exemption	
6.41.47	Maturity Bucket wise classification of investment -SLR/NSLR-Portfolio wise(AFS/HFT/HTM)	

6.41.48	Age-wise report in respect of HFT (to check 90 days defeasance period) -90 days defeasance period flash report (HFT Securities)s	
6.41.49	Statement of future inflow for the period(Repayment/interest receivable)	
6.41.50	Daily feedback report for Chairman/executives	
6.41.51	Mark to Market report for the portfolio (Product-wise & Category-wise)	
6.41.52	Rating Migration Report	
6.41.53	Issuer wise Investment Transaction During a Period	
6.41.54	Issuer wise Exposure and Overdue (Category wise)	
6.41.55	Sector-wise Investment Report	
6.41.56	Report on Quoted/Unquoted, Rated/Unrated, borrower wise Securities	
6.41.57	Report on Non-Performing Investment	
6.41.58	Summary of NPA accounts	
6.41.59	Report on average Investment – Scrip-wise, category- wise, portfolio-wise	
6.41.60	Duration/Modified Duration/C. Yield Summary of Portfolio(Online)	
6.41.61	Volume and turnover status reports	
6.41.62	Daily Turnover	
6.41.63	Security Wise Turnover	
6.41.64	Interest Forecast Report	
6.41.65	Cash flow statements - Daily/Weekly/Monthly/Quarterly/ From date – to – to date	
6.41.66	Summary of investment	
6.41.67	HTM Sale During a Period	
6.41.68	HTM Redemption During a Period	
6.41.69	HFT Revaluation	
6.41.70	Category wise Yield On Investment considering sale/ purchase interest income. Details and Summary of :	
6.41.70.1	Excluding MF, Trading profit and IBPC	
6.41.70.2	Including Trading Profit, MF	
6.41.71	Current Yield on Portfolio- SLR/NON-SLR	
6.41.72	Report on average Yield, portfolio-wise	
6.41.73	Report on Equity portfolio Dividend Yield including trading profit	
6.41.74	Report on Mutual Fund including dividend yield/trading profit	
6.41.75	Dividend Received	
6.41.76	Category wise Yield On Investment excluding Trading Profit and sale/purchase/interest income-Details/Summary	
6.41.77	Interest Vouchers-For a Date	
6.41.78	Securities Maturing during a period	
6.41.79	Redemption Detail during a period(category wise)	
6.41.80	Redemption SLR/Non SLR during a period	
6.41.81	Redemption Overdue	
6.41.82	Redemption Overdue Letter to Institution	
6.41.83	Securities redeemed but payment not received(Details and summary)	
6.41.84	Valuation Detail & Summary	
6.41.85	Outright Purchase Detail (including yield) during a Period(Details and summary)	
6.41.86	Subscription during a period(Details and summary)	
6.41.87	Investment Data –RBI Format	

6.41.88	Overdue Interest and principal with breakup(Bank's board format)	
6.41.89	Risk Weight age Inv/Acc/Overdue	
6.41.90	Statement of overdue interest and principal- SLR bonds.	
6.41.91	Accrued interest Central/State/Other Approved Securities, Bonds & Debentures category wise)-Details and summary	
6.41.92	Summary of Sale-Purchase Voucher	
6.41.93	Summary of Interest/Redemption Voucher	
6.41.94	Accretion Report CP/CD/T bills/Zero coupon bond	
6.41.95	Voucher Money Market	
6.41.96	Details of guarantees invoked/amount received and outstanding	
6.41.97	Voucher (Sale/Purchase/Redemption) - For a Date	
6.41.98	Summary of Interest Receivable During a Period –Details/summary	
6.41.99	Summary of redemption Receivable During a Period	
6.41.100	Credit Rating Details	
6.41.101	Security Holding Summary (Any-prior-dated)	
6.41.102	Duration/Modified Duration of portfolio/category wise (Any-prior-dated)	
6.41.103	Security-Holding (Detail) – Industry wise/sector wise	
6.41.104	Issue wise Exposure and Overdue (Any-Prior-Dated) (group wise exposure generated)	
6.41.105	Summary Of Accrued Interest On the Portfolio category wise	
6.41.106	Tax free Security List	
6.41.107	Redemption/ interest Receivable During a period	
6.41.108	Security wise ledger for a period	
6.41.109	Interest income on securities guaranteed by State/Central Govt.	
6.41.110	Interest Income On Sale/Purchase – Category wise	
6.41.111	Security Holding (Detail) - Security Name Wise	
6.41.112	Valuation of securities – category wise - Detail and Summary	
6.41.113	Summary Sheet - MM Vouchers	
6.41.114	Status of Overdue Interest of a Past Date	
6.41.115	Security Wise Transaction for a period (SGL)	
6.41.116	Daily valuation of Equity Shares and Mutual Fund – Details & Summary	
6.41.117	Valuation Detail & Summary (Normal)	
6.41.118	Inter bank Repo During a Period	
6.41.119	Dividend Summary	
6.41.120	Detailed Security Holding (Quoted/Not Quoted)	
6.41.121	Overdue Interest Not Booked As Income – No of Months	
6.41.122	Overdue Interest Booked as Income – No of Months	
6.41.123	Average Securities (Monthly)	
6.41.124	Subscription during a Period Category wise	
6.41.125	Board Note Annexure Category wise	
6.41.126	Interest From Tax free Bonds	
6.41.127	Account Ledger (Date wise Breakup)	
6.41.128	Branch wise Security Holding with BV (Any prior dated)	
6.41.129	Report on NON SLR investments for exposure(for chairman)	
6.41.130	Trial Balance	
6.41.131	Maturity Profile (Call/Put)	
6.41.132	Interest letter to issuer	
6.41.133	Investment Interest A/C Collection (portfolio wise)	

6.41.134	Board Note Annexure for Sale/Purchase	
6.41.135	Report accrual interest posted during day end process at the time of monthly/ quarterly/Half Yearly/Annual closing	
6.41.136	There should be segregation between overdue investment & NPI INVESTMENT.	
6.41.137	In case of PTCs & other similar instruments, the cash flow generation, payment of interest cannot be defined at the time of creation of instrument. Such facilities should be made available	
6.41.138	While verifying history of any securities such as interest received date wise, redemption received date wise present outstanding is not available in one report.	
6.41.139	Reports which are required for daily monitoring purpose such as Holding position, Transaction Report category wise, profit position category wise, Trial Balance & other reports.	
6.41.140	Report on Amortization Daily/Weekly/Monthly/Quarterly	
6.41.141	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 viz. :	
6.41.141.1	Govt. Securities i.e. Central + State (ignoring appreciation) including GOI special bonds	
6.41.141.2	Other Approved Securities (ignoring appreciation)	
6.41.141.3	Bonds & Debentures i.e. PSU Bonds + Corporate Debentures (ignoring appreciation)	
6.41.141.4	Subsidiaries & Joint Ventures (ignoring appreciation)	
6.41.141.5	Shares i.e. Quoted & unquoted, Preference Shares, Equity based Mutual Funds, Venture Capital (Equity participation) etc. (ignoring appreciation)	
6.41.141.6	Others i.e. CP, CD, Priority Sector Deposits, Security Receipts etc (ignoring appreciation) and PTC	
6.41.142	System should be capable of forecast MTM value of Investments comprising dated securities (total as well as Scrip / Category / portfolio wise) on deviation of YTM by user defined basis point change from the current level	
6.41.143	For the purpose of Income Tax Act as amended up to date valuation of securities at quarterly intervals taking into account least of book value/market value of each individual security.	
6.41.144	Profit and Loss statements(Details and summary-Portfolio wise)	
6.41.145	Sale of SLR securities	
6.41.146	Redemption of SLR Securities	
6.41.147	Sale of Shares	
6.41.148	Sale of mutual funds	
6.41.149	Sale of Bonds and debentures	
6.41.150	Loss on redemption of SLR securities	
6.41.151	Loss on redemption of Non-SLR securities	
6.41.152	Summary of Trading Profits	
6.41.153	Projected Interest Accrual based on current portfolio	
6.41.154	Report on sale of HTM securities for the user defined period	
6.41.155	Accrued Interest Report as of any date. The report should provide following information :	
6.41.155.1	Name of Security ,category	

6.41.155.2	Rate of Interest, maturity date	
6.41.155.3	Last Interest Date	
6.41.155.4	Frequency of Interest payment	
6.41.155.5	Day count convention (Actual/Actual, Actual/365,30/360, A/365 (Fixed) etc)	
6.41.155.6	Daily Accrual	
6.41.155.7	Cumulative accrual up to date	
6.41.155.8	Face Value ,Book value, accrued interest	
6.41.155.9	Guarantor	
6.41.156	Report on Interest due as on any date (category wise & summary with age wise classification)	
6.41.157	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 :	
6.41.158	Interest collected during the quarter/half-year/year – income statement	
6.41.158.1	Add - Interest earned on Sale of Securities during the quarter/half-year/year	
6.41.158.2	Less – Interest Paid on Purchase of securities during the quarter/half-year/year	
6.41.158.3	Add – Interest Accrued on Investment up to the last date of the Quarter/Half-Year/Year	
6.41.158.4	Less – Interest accrued up to the last date of the previous Quarter/Half-Year/Year	
6.41.158.5	Add – Overdue Interest on Investment up to the last date of the Quarter/Half-Year/Year	
6.41.158.6	Less – Overdue Interest up to the last date of the previous Quarter/Half-Year/Year	
6.41.159	Report on Record Dates falling due in subsequent month	
6.41.160	Reports on benefits like bonus/split/conversion/preferential allotment between user defined periods	
6.41.161	Percentage wise distribution of business to brokers on Monthly, Quarterly, Half Yearly & Yearly basis	
6.41.162	Transaction Summary Report of Investment activity (Both Sale & Purchase) on Daily/Weekly/Monthly Basis	
6.41.163	Market-wise report on Transactions (Primary/Secondary Market, Money Market, Equity Market etc) with Trading profit/loss for the day/for the week/for the month/for the quarter (cumulative position)	
6.41.164	System should exhibit true turnover statement excluding data-take-on entries i.e. fictitious sale/purchase(i.e. system should exclude rectification entries)	
6.41.165	Report on balances constituent-wise, security-wise	
6.41.166	TDS Details (Received/Non Receipt), Fortnight Report, Monthly Report	
6.41.167	TDS On Investment	
6.41.168	TDS On Investment Category wise	
6.41.169	TDS Details Issuer wise	
6.41.170	Report on total TDS deducted, TDS Certificates received & TDS certificates due for receipt on monthly, quarterly, Half-Yearly & Yearly basis	

6.41.171	Details of TDS certificates for Tax Refund	
6.41.172	Detailed Report on category wise Net interest, TDS, gross	
6.41.173	System generated maturity reminders between two user defined dates	
6.41.174	Broker Exposure Transaction wise	
6.41.175	Brokerage Paid During a Period- Broker wise	
6.41.176	Broker-wise reports (stating the % of business done)	
6.41.177	Risk reporting (Industry-wise, Sector-wise, maximum exposure to each issue, CP as % of the institutions net worth etc.)	
6.41.178	Counter-party wise & Category-wise borrowing/lending reports	
6.41.179	Bucket-wise mark to market of all securities in the portfolio at daily/weekly /monthly/quarterly/Half- Yearly/Yearly interval	
6.41.180	Coupon wise bucket wise maturity pattern.	
6.41.181	Brokerage Paid During a Period-Broker wise	
6.41.182	Brokerage Exposure Statement Broker wise	
6.41.183	Risk Weight Assets & Exposures (Domestic)	
6.41.184	Duration, Modified Duration, Convexity, Current Yield, YTM, VaR etc, can be obtained security-wise, category- wise & portfolio wise.	
6.41.185	Valuation of securities can be obtained online	
6.41.186	Sensitivity & scenario analysis to be done	
6.41.187	Online dealer-wise position of Held For Trade portfolio with cut-loss limits should be made available	
6.41.188	Only empanelled brokers should be marked active. Broker wise turnover (amount and percentage vis-à-vis total brokers' turn-over) for the financial year should also be provided online	
6.41.189	Position of investment portfolio should be available online clearly specifying exposure limits vis-à-vis actual maintenance	
6.41.190	List of un-rated and unlisted investments can be obtained-Details/summary	
6.41.191	Threshold limits (90% of the maximum limits) should be fixed and made available online	
6.41.192	Cost and yield statements	
6.41.193	Statement of distressed assets	
6.41.194	Structural liquidity report	
6.41.195	Daily report on trading profits - Dealer wise / Cy wise	
6.41.196	Simulation Report – Investments	
6.41.197	Statutory Liquidity Requirement (STL) – to be generated for Treasury branch as a whole on daily basis	
6.41.198	Interest Rate Sensitivity Report – to be generated for Treasury branch as a whole on daily basis	
6.41.199	Bucket wise Report of Certificate of Deposits	
6.41.200	Statement of reconciliation on investment	
6.41.201	Statement of Amt o/s in S/L Application money.	
6.42	Statutory Reports (Regulatory)	
6.42.1	Cash Reserves With RBI	
6.42.2	CRR Maintenance FORM A.	
6.42.3	Fortnightly Average RBI Balance	
6.42.4	Statutory Liquidity Requirement	
6.42.5	Provisional data on maintenance of SLR	
6.42.6	DSB_I Return	

6.42.7	DSB Return - Section 8 (Other Details of Non-SLR Securities)	
6.42.8	DSB Return - Section 1 (Portfolio Analysis)	
6.42.9	DSB Return - Section 2 (Part B - Other risk assets & exposure)	
6.42.10	DSB Return - Section 6 (Quality of Investment Portfolio)	
6.42.11	DSB Return - Section A (Earnings Before Provisions & Taxes)	
6.42.12	Investments in equity in the capital market by commercial banks	
6.42.13	Report on Capital Adequacy	
6.42.14	MIS – I statement - daily	
6.42.15	MIS – part 2 – SLR position	
6.42.16	State wise classification of Securities.	
6.42.17	Return BSR-V	
6.42.18	Assets & Liability – RBI - MIS	
6.42.19	Form – VIII	
6.42.20	Off-Site Monitoring & Surveillance (OSMOS)	
6.42.21	Report on Asset quality	
6.42.22	Annexure II - B : RBI Return	
6.42.23	Special fortnightly return III – Part E	
6.42.24	Special fortnightly return III – Part B	
6.42.25	Special fortnightly return III – Part F	
6.43	Accounting	
6.43.1	Accounts Ledger	
6.43.2	Security Ledger	
6.43.3	Subsidiary General Ledger (SGL)	
6.43.4	Interest Ledger	
6.43.5	Dividend Ledger	
6.43.6	TERM MONEY LEDGER	
6.43.7	Purchase Register	
6.43.8	SALE REGISTER	
6.43.9	Day Book	
6.43.10	Transaction Scroll	
6.43.11	Long Book	
6.43.12	Deal Cancel Register	
6.43.13	Deal Reversed Register	
6.44	Profitability	
6.44.1	Performance measurement – Dealer wise	
6.44.2	Product – profitability report	
6.44.3	Date-wise/Instrument-wise Profit During a Period	
6.44.4	Portfolio wise Performance measurement report at user defined frequency or range of period	
6.44.5	Category wise interest rate forecasting	
6.44.6	Category wise/ Portfolio wise Statistical analysis of past performance (Quarterly/Half yearly/Annual - at least 3 corresponding periods)	
6.44.7	Daily return on Call, Notice, Term money, Repo transactions	
6.45	Miscellaneous	
6.45.1	Balance sheet value of all securities based on the following classifications: Held to maturity, Held for trading, Available for sale	
6.45.2	Position reports – Category wise as on any date, comparison	

	between three given dates	
6.45.3	Entity wise (exposure to a company), Scrip-wise, portfolio-wise position as on any date	
6.45.4	Balance Report – Closing Stock for any given day	
6.45.5	Funds Position As on	
6.45.6	Weekly statement of Transactions	
6.45.7	Transaction During a Period	
6.45.8	Statement of Short Term Dynamic Liquidity as on	
6.45.9	State wise Exposure Report	
6.45.10	CD borrowing – Annexure IV	
6.45.11	Data in equity investment of bank in Capital market	
6.45.12	Exchange Traded Interest rate future	
6.45.13	Reconciliation of Government borrowings(PDO Statement)	
6.45.14	Review of investment	
6.45.15	Risk bases supervision	
6.45.16	Review of investment	
6.45.17	Maturity pattern of investments – SLR/NSLR, AFS/HFT/HTM Category wise	
6.45.18	M-Duration(RBI Disclosure) – Portfolio wise / category wise	
6.45.19	Resource management report	
6.45.20	Investment portfolio(Closing figures)	
6.45.21	Information for Board Note	
6.45.22	Information for RBI(Investments)	
6.45.23	Risk profile template	
6.45.24	Risk weighted Asset-Basle I & Basle II(Domestic &Consolidated)	
6.46	CHARGES STATEMENT	
6.46.1	Exceptions Reports During a Day – Grouped for every function	
6.47	Scheduling of reports :	
6.47.1	Allow for generation of pre-defined end-of-day, end-of week and end-of month reports	
6.47.2	pre-defined reports should be generated with a minimum user interference	
6.47.3	ability to define a schedule for reports and reports should be generated in as per the frequency defined by the Bank	
6.47.4	Allow defining users to whom reports can be automatically sent	
6.48	Archiving of reports	
6.48.1	archiving historical reports	
6.48.2	archive historical rates extracted from market information systems	
6.48.3	archiving of reports in the following formats: Adobe PDF, Microsoft Excel, Microsoft Word, Microsoft Access, Comma separated values (CSV)	
6.48.4	archiving of circulars, notifications and other communication received from regulators	

PART: 7 Market Risk Measurement System

A) System Requirements

7. Functional Requirements

Market Risk Measurement – Standardized Approach

The system should comply with the following requirements:

7.1	Market Risk Measurement – Standardised Approach	Vendor Response
7.1.1	capture all the product, counterparty types, turnover information, exposure, and should be able to classify/categorize them as per RBI guidelines on new capital adequacy framework	
7.1.2	provide the flexibility to the business user to define/modify the customer type, product type etc.	
7.1.3	facilitate application of appropriate risk weights for specific issues, short term and long-term facilities, domestic and foreign currency facilities etc.	
7.1.4	support modification of the rating and rating agency details	
7.1.5	apply risk weights to claims on banks, corporate, multilateral agencies, sovereign, state govt. etc. as per RBI guidelines	
7.1.6	capture the aggregate exposure for counterparties, and the risk weight should be assigned as per RBI guidelines	
7.1.7	capture and compute capital for non performing investments	
7.1.8	calculate the assigned horizontal and vertical disallowance and accordingly calculate capital as per the duration method and provide flexibility to the business user to define/modify them	
7.1.9	compute capital for exposure with proportional and tranching covers	
7.1.10	provide extensive simulation tools to handle scenario analysis to visualize the effects on RWAs	
7.1.11	provide capital computation as per Standardized Approach for Basel II and provision for comparison with previous quarters	
7.1.12	calculate and report the capital charge on account of specific risk and on account of general market risk under interest rate, equity and foreign exchange and gold	
7.1.13	capture the rating to risk weight mapping and perform capital calculation as prescribed by the host supervisor for the claims in the books of the foreign branches	
7.1.14	provision to mark the securities as illiquid and calculate amount of reduction to be applied under the Tier 1 capital as per the RBI guidelines	
7.1.15	account for deductions from the tier I and tier II capital as per RBI guidelines, while arriving at the capital charge.(for e.g. if capital is already deducted for investment in subsidiary the same may not be considered for calculation of capital charge)	
7.1.16	flexibility to support multiple regulatory regimes	

7.2 Market Risk Measurement – Internal Models Approach

7.2	System Requirements - Market Risk Measurement – Internal Models Approach	
7.2.1	VaR Techniques	
7.2.1.1	Parametric/Variance-Covariance Approach	
7.2.1.1.1	calculate VaR using industry standard Risk Metrics™ methodology and other proprietary models	
7.2.1.1.2	provide flexibility to set parameters to: incorporate volatilities and correlations data sets from external source, calculate volatilities and correlations based upon selected historical periods and industry methods	
7.2.1.1.3	calculate volatilities using: relative price changes, absolute price changes and logarithmic price changes	
7.2.1.1.4	apply different volatility estimators and models: moving averages, exponential with definition of Decay Factor, GARCH and Stochastic Volatility estimates.	
7.2.1.1.5	calculate undiversified / diversified / partially diversified VaR to allow for risk factors correlations contribution	
7.2.1.1.6	allow selection of type of interest rate sensitivities to be used ("par" rates, zero coupon rates)	
7.2.1.2	Historical Valuation	
7.2.1.2.1	In addition to the above, the system should support multiple historical "look back" periods (e.g. 300 days) and sampling windows	
7.2.1.3	Monte Carlo Approach	
7.2.1.3.1	provide flexibility in parameters definition	
7.2.1.3.2	include standard processing methodologies for run time performance enhancement, (e.g. Distributed / parallel processing)	
7.2.1.3.3	provide variance-reduction techniques	
7.2.1.3.4	provide multi-step processes (i.e. to define the length of Monte Carlo steps, the mean reversion and standard deviation of the steps and models used to describe risk factors relationships)	
7.2.1.3.5	provide multi-currency simulation	
7.2.1.3.6	display Monte Carlo price paths leading to losses greater than a certain amount (user definable) in order to provide a better understanding / interpretation of the market conditions that could generate such losses.	
7.2.1.4	Incremental/conditional and marginal VaR	
7.2.1.4.1	Capable of computing Incremental, conditional and marginal VaR	
7.2.2	Generation of Term Structures	
7.2.2.1	Yield curve generation	
7.2.2.1.1	define an unlimited number of term structures for a satisfactory coverage of the various markets within a specific currency (libor, bond, swap, etc.)	
7.2.2.1.2	user can choose, assign, combine and link on the term structure the benchmark instruments quoted on the market for various product types	
7.2.2.1.3	incorporate industry standard calculation methods in yield curve generation functionality(e.g. : implied from FX spot-forward structure)	
7.2.2.1.4	ability to choose industry standard yield curve bootstrapping types: zero coupon, forwards, proprietary	
7.2.2.1.5	user should be able to view/modify the yield curve parameters and sources	
7.2.2.1.6	define term structure points as a spread over any of the benchmark instruments	

7.2.2.2	Volatility Curves Generation	
7.2.2.2.1	define an unlimited number of term structures for a satisfactory coverage of the various markets across all currencies, product types, tenors, strikes to include smile effect and interest rate volatility structures	
7.2.2.2.2	choose, assign and combine on the term structure the benchmark instruments quoted on the market	
7.2.2.2.3	incorporate industry standard calculation methods in volatility curve generation functionality	
7.2.2.2.4	choose industry standard bootstrapping methodology	
7.2.2.2.5	configurable interpolation methodology: Linear or proprietary	
7.2.2.2.6	ability to upload pre-calculated values from external applications	
7.2.2.3	Other term structures requirements	
7.2.2.3.1	quote and use Bid, Mid and Offer rates using both real time feed and manual input	
7.2.2.3.2	define/assign separately Discount Yield Curve and Forward Estimation Yield Curve for structured product pricing	
7.2.2.3.3	handle negative rates	
7.2.2.3.4	allow basic graphical term structures analysis for better understanding of market conditions	
7.2.3	VaR Engine Types / Functionalities	
7.2.3.1	calculate and report the total amount of the previous day interest rate risk VaR, equity risk VaR, exchange risk VaR, commodity risk VaR, etc. for vanilla and derivative instruments at different confidence intervals	
7.2.3.2	calculate and report the total VaR for all of the bank's portfolios for internal reporting without recognition of correlation effects across those portfolios	
7.2.3.3	calculate and report the total amount of the previous day VaR, including any correlation benefits that come from incorporating empirical correlations across risk factors	
7.2.3.4	calculate and report the 60 business-day average modeled VaR for all of the bank's portfolios those portfolios	
7.2.3.5	capable of scaling up the VaR to a higher number of days for both linear and non-linear products	
7.2.3.6	capable of generating simulated scenarios (both historical simulation and Monte Carlo simulations) for various risk factors and should be able to calculate and report the risk and the capital charge requirement accordingly	
7.2.3.7	capture the non-linearity's of options and other relevant products (e.g. mortgage-backed securities, tranching exposures or nth-to-default credit derivatives)	
7.2.4	VaR engine architecture	
7.2.4.1	Open architecture to allow link to external proprietary VaR engines.	
7.2.4.2	Allow user-defined scenarios to override-adjust historical pattern assumptions (e.g. special events)	
7.2.4.3	Allow combination of analytical and simulation methods based on product type for performance enhancement	
7.2.5	Specific Risk VaR	
7.2.5.1	isolate spread risk, event and default risk for estimation of specific risk	
7.2.5.2	report the amount of the incremental risk capital charge (IRC) not	

	only with confidence interval of 99.9 percent but also with confidence interval other than 99.9 percent as per RBI guidelines. It should be capable of generating and reporting the default risk and credit migration risk separately	
7.2.6	Stressed VaR	
7.2.6.1	generate stressed scenarios and calculate and report the stressed Value at Risk (sVaR) as per RBI guidelines. The scenarios should address concentration risk, illiquidity of markets in stressed market conditions, one way markets, event and jump to default risks, non-linearity of products, deep out of the money positions, positions subject to the gapping of prices and other risks that may not be captured appropriately in the VaR model (e.g.: recovery rate uncertainty, implied correlations and skew risk). The scenarios should reflect the stresses experienced by banks' portfolios mainly in Indian markets except in the case of foreign operations where the local stress periods would be applicable	
7.2.7	Back Testing	
7.2.7.1	The model must be capable of back testing VaR model (using both actual and hypothetical P&L) and also should be capable of calculating the exceptions and accordingly apply the "plus" or add-ons to the calculation of capital charge as per the RBI guidelines.	
7.2.7.2	capable of excluding / including new, voided, amended trades	
7.2.7.3	capable of configuring interval periods for comparing P&L and VaR	
7.2.7.4	test parameters by simulating VaR on historical portfolios and/or rates	
7.2.7.5	capture all the bank customer types and bank product types and should be able to reclassify/categorize them as Basel customer and product types (corporate, sovereign, bank, corporate etc.)	
7.2.7.6	support multiple regulatory regimes	
7.2.7.7	Provide the flexibility to choose between standardized and IMA approaches across all Investment classes (Domestic / FX) and across different books.	
7.2.7.8	store the data for at least ten years at an account/transaction level to perform	
7.2.8	Scenario Analysis and Stress Testing	
7.2.8.1	capture the changes in parallel and non-parallel shifts in the spot rates, changes in convexity of the curves, changes in basis, etc.	
7.2.8.2	support stress tests at multiple levels e.g. Both firm level and portfolio levels – Domestic / FX	
7.2.8.3	simulate parallel and non-parallel shifts at trade and portfolio level	
7.2.8.4	support shifts in Market Structures: Yield curves, Volatility curves, FX – Spot, FX – Forward structure, FX Volatility, Commodity curves (model contango and backwardation), Equity Indexes	
7.2.8.5	support shift in other calculation parameters: horizon (evaluation date), spreads over benchmark curves and between market curves., volatilities and correlations	
7.2.8.6	shifts can be expressed as: percentage, absolute, custom formula	
7.2.8.7	model correlations between risk factors and between scenarios	
7.2.8.8	configurable scenario building	
7.2.8.9	display results using drill down capabilities	
7.2.8.10	display graphic representation of scenarios results	
7.2.8.11	name and save sets of standard scenarios for easy retrieval	

7.2.9	Historical Information Management	
7.2.9.1	The system should store on a daily basis the following information:	
7.2.9.1.1	Market structures (yield curves, volatility curves, FX Spot-Forward , FX volatilities)	
7.2.9.1.2	Market prices (for quoted instruments)	
7.2.9.1.3	Net Present Values and Greeks at transaction level	
7.2.9.1.4	Value-at-Risk at transaction level	
7.2.9.1.5	Scenario Results at transaction level	
7.2.9.1.6	Profit & Loss results at transaction level	
7.2.9.2	ability to import historical market prices files from external vendors for volatilities and correlations calculations for transactions on new markets	
7.2.9.3	store historical market rates information through automatic end-of-day procedures and historical VaR results for at least 2 years	
7.2.10	Data Feed Functionality	
7.2.10.1	retrieve prices feed from different market data providers	
7.2.10.2	configurable tolerance percentage, price feed timing, continuous update, timed update, feed snapshot	
7.2.10.3	support upload and download of data	
7.2.10.4	store market rates, yield curve rates, assumptions made and maintain audit trail	
7.2.10.5	maintain instrument wise product profiling	
7.2.10.6	allow data correction	
7.2.10.7	support user defined reprising	
7.2.11	Profit & Loss Attribution	
7.2.11.1	decompose P&L into the constituent risk factors responsible for the net portfolio value change: IR Delta P&L, IR Gamma P&L, FX Vega P&L, IR Vega P&L, IR Time Decay (Theta), Trade events , New trades, Amended trades, Void trades	
7.2.11.2	display and report Profit & Loss attribution using drill down capabilities	
7.2.11.3	display and report Profit & Loss attribution using graphic capabilities	
7.2.12	Drill Down Functionality	
7.2.12.1	aggregate / breakdown information at any level based on static information (i.e. trades attributes). including but not limited to: currency, counterparty, instrument type, book, trader, user-definable attribute, branch, regions, asset/liability type, zone,	
7.2.12.2	aggregate / breakdown information at any level based on dynamic information (results categories) including but not limited to: NPV, delta, VaR	
7.2.12.3	aggregate / breakdown any combination of static and dynamic information.	
7.2.12.4	display results in a multi-dimensional format (e.g. excel pivot tables)	
7.2.13	Portfolio Capabilities	
7.2.13.1	flexibility to create, save and load portfolios	
7.2.13.2	automatically recalculate the portfolio value if (relevant) market rates changes are detected	
7.2.13.3	support different types of recalculation (and combinations): marginal, full, no recalculation, manual, timed (i.e. every 10 minutes, batch), use current market rates, freeze current market rates (snapshot)	
7.2.13.4	user should be able to specify if portfolio should be loaded as of a specific date in the past	

7.2.13.5	select Position / Price / Liquidation methodology for aggregated positions: Average Cost, LIFO, FIFO, Max Profit, Least Profit, User defined	
7.2.13.6	display information at trade and portfolio levels	
7.2.13.7	display valuation results using drill down capabilities in: Local Currency, Base Currency, Reference Currency, User's choice currency	
7.2.13.8	display portfolio results, where possible, by a user definable maturity grid	
7.2.13.9	bucket portfolio results into the maturity grid using industry standard methodologies: Previous Bucket Point, Following Bucket Point, Proportional , Nearest, Delta Equivalent, Proprietary,	
7.2.13.10	create, name, save and load portfolio 'views' as result of the previous choices	
7.2.14	Pricing Engine Functionality	
7.2.14.1	support pricing of wide array of products including structured products, derivatives and exotics	
7.2.14.2	flexible design to accommodate new instruments	
7.2.14.3	ability to configure and customize instrument parameters at the cash flow level	
7.2.14.4	ability to define a new instrument by inheriting the logic of its constituent instruments	
7.2.14.5	conform to accrual and other accounting revaluation methodologies like: Net present value, Equity Models, Marked To Market, Incorporation of common optional models, Binomial, Trinomial, Monte Carlo, Black – Scholes (BS), Cox – Ross – Rubenstein, Cox - Ingersoll – Ross, Hull – White, Garman – Kohlhagen, Black – Derman – Toy, Heath – Jarrow – Morton, Black – Karasinski, Exotic Options, Digitals (modified BS and Term Structure Models), Barriers(Lehland-O'Brien- Rubenstein, Monte Carlo, trinomial Tree), Multiple Underlying(BS , Term Structures), Bond Index(BS integral)	
7.2.15	Interfacing for Pricing	
7.2.15.1	interface with external third party pricing systems that are most common in the market place	
7.2.15.2	display partial calculations results for reconciliation and model risk analysis	
7.2.16	Other Risk Measures	
7.2.16.1	support relevant risk measures for every asset class including : PV01, duration, modified duration, delta, gamma, vega	
7.2.17	IMA Capital Computation	
7.2.17.1	compute capital charge under IMA	

7.3 Market Risk Measurement - Other Risks

7.3	Other Risks	
7.3.1	Counterparty credit risk : configure/interface with front office data, back office (for counterparty hierarchies, netting, collateral, margins, limits) and correlations and volatility data	
7.3.2	Compute exposure measures like PFE, EPE, MPE, EEPE etc	
7.3.3	Computation of CVA	
7.3.4	measure concentration risk in the trading book and banking book	

7.4 Reporting Requirements

7.4.1	Market Risk Management Reporting	
7.4.1.1	Risk Reporting : At a minimum the following reports should be produced:	
7.4.1.1.1	transaction inventory reports,	
7.4.1.1.2	open position reports based on any hierarchy level and any transaction/computed values,	
7.4.1.1.3	VaR reports disaggregated into various risk components (regulatory requirement)	
7.4.1.1.4	simulation/stress testing reports	
7.4.1.1.5	back testing exception reports	
7.4.1.1.6	other risk measure reports	
7.4.1.1.7	position reports for various parameters: delta, gamma, vega, theta, etc. based on internal hierarchy or sub-portfolios/trades	
7.4.1.1.8	limit and gaps reports based on risk parameters	
7.4.1.1.9	portfolio analysis	
7.4.1.1.10	interest rate sensitivity analysis	
7.4.1.1.11	interest rate sensitivity statement	
7.4.1.1.12	Summary of banks aggregate exposures like duration, modified duration/VaR, mismatches, forex VaR etc.	
7.4.1.1.13	Mark to Market Reports (Investments/Forex/ Commodities)	
7.4.1.1.14	Market Analysis Report (Volatility/Trends and other risk indicators)	
7.4.1.1.15	Market Scenario/Strategy (Based on volatilities, correlations)	
7.4.1.2	Report customization	
7.4.1.2.1	flexible in allowing users to specify the exact layout of the required report including location of fields, header, footer, page numbering, title etc.	
7.4.1.2.2	flexible in allowing users to define structures and fields of each report by selecting fields from databases of their choice	
7.4.1.2.3	allow reports to be exported into Microsoft Excel, Adobe PDF format and other databases	
7.4.1.2.4	allow users to print reports directly from the system	
7.4.1.2.5	allow users to save reports to a disc in a non-editable as well as an editable format	
7.4.1.2.6	provide context sensitive help to guide users to form the reports required by them	
7.4.1.2.7.	provide a report writing wizard that provides users with step by step menus and allows them to draw up reports in the required format	
7.4.1.2.8	allow users to present outputs from reports in the form of graphs, charts and other graphical representations	
7.4.1.2.9	allow for sorting of data in reports	
7.4.1.2.10	isolate and report errors and exceptions	
7.4.1.2.11	Generate reports in various types of files like:	
7.4.1.2.11.1	View Mode	
7.4.1.2.11.2	Excel Mode	
7.4.1.2.11.3	Text Mode	
7.4.1.2.11.4	HTML Table	

7.4.1.2.11.5	CSV format	
7.4.1.2.12	reports to have provisions to define user defined filters	
7.4.1.3	Scheduling of reports	
7.4.1.3.1	allow for generation of pre-defined end-of-day, end-of week and end-of month reports	
7.4.1.3.2	pre-defined reports should be generated with a minimum user interference	
7.4.1.3.3	ability to define a schedule for reports and reports should be generated in as per the frequency defined by the Bank	
7.4.1.3.4	allow defining users to whom reports can be automatically sent	
7.4.1.4	Archiving of reports	
7.4.1.4.1	archiving historical reports	
7.4.1.4.2	archive historical rates extracted from market information systems	
7.4.1.4.3	archiving of reports in the following formats: Adobe PDF, Microsoft Excel, Microsoft Word, Microsoft Access, Comma separated values (.CSV)	
7.4.1.4.4	archiving of circulars, notifications and other communication received from regulators	

7.5 Audit Specifications

7.5	Audit Requirements	
7.5.1	generate a detailed audit trail on a daily basis for the following minimum features: attempted unauthorized logins, time of login and logout, change of passwords, change of parameters, data modifications	
7.5.2	maintain the audit trail with details like Person, Date and Time details	
7.5.3	support drill down of the audit trail can to granular levels and track users across each activity	
7.5.4	transactions should be time stamped with user ID along with details of modification, if any	
7.5.5	trail to include details of databases accessed and modified by the users	
7.5.6	ability to store and track all system events, including corrections and cancellations by multiple criteria	
7.5.7	allow deal amendments only after creating an audit trail	
7.5.8	generate error log in case of missing and/or erroneous data	
7.5.9	support for archiving audit log files	

7.6 Static Data Specifications

7.6.	Static Data Specifications	
7.6.1	Multi-currency system	
7.6.1.1	track and account for the necessary range of traded and non-traded currencies that can be configured by the user	
7.6.2	Reference Data	
7.6.2.1	capture and utilize static data associated with counterparties, products and accounts etc.	
7.6.3	Multiple levels	
7.6.3.1	provide support for multiple organizational levels and relationships	

7.6.4	Day Count basis	
7.6.4.1	support all types of day count basis including 30/360, Actual/360, Actual/365, Actual/Actual, 30E/360	
7.6.5	Business Day Convention	
7.6.5.1	support International Swaps and Derivatives Association (ISDA) -defined business day conventions such as following, modified following, preceding, next month, this month, average of the month etc.	
7.6.6	Holiday Calendars	
7.6.6.1	load calendar schedules from external sources including but not limited to SWIFT, International Holiday schedule and Bloomberg holiday schedule etc.	
7.6.6.2	allow calendar schedules to be set by users and through interfaces/ patch updates	
7.6.6.3	allow for multiple holiday tables for each currency and country	
7.6.6.4	allow users to input calendar schedules at least 7 years forward	
7.6.6.5	support to edit and override global calendar and holiday tables	
7.6.6.6	flag trades executed on a global holiday through exception messages and exception reports	
7.6.6.7	flexibility to define settlement instructions based on emergency holidays	
7.6.6.8	model cash flows and interest accruals based on holiday calendar and standard day roll conventions	
7.6.7	Currency translation	
7.6.7.1	convert between currencies without manual intervention to the home currency	
7.6.8	Free fields	
7.6.8.1	Permit entry of free format text (especially in case where the dealer wants to provide additional settlement instructions during deal entry, dealer notes etc.)	

7.7 Other System Specifications

7.7	Other System Specifications	
7.7.1	Edit check	
7.7.1.1	perform logical edit checks on all input fields	
7.7.1.2	provide intelligible edit error messaging to assist correction and re-entry of data	
7.7.1.3	reject entries that cause edit errors	
7.7.1.4	ability to over-ride edited errors	
7.7.2	User interface	
7.7.2.1	provide a consistent and user-friendly interfaces	
7.7.2.2	generate intelligent error messages based on pre-defined parameters	
7.7.2.3	provide online and offline context sensitive help	
7.7.2.4	interface with mail clients and corporate instant messenger service to generate notifications and auto-mailers	
7.7.3	Internet enablement	
7.7.3.1	internet and intranet enabled and should provide remote access to authorized users	

7.7.3.2	receive and process transactions/ queries from the internet, and be able to post transaction processing/ query results on to the internet	
7.7.3.3	process large blocks of transactions/ information from third party systems through internet enabled interfaces	
7.7.4	Product set-up	
7.7.4.1	allow for creation of products and sub-products	
7.7.4.2	allow for creation of product codes	
7.7.5	System availability	
7.7.5.1	up at all times on a 24-hour basis 7 days a week	
7.7.5.2	run background batch allowing 24 hours of system uptime	
7.7.5.3	the application shall be available for 99.9% of the time	
7.7.5.4	Down time period should not exceed 15 minutes in the entire year.	
7.7.5.5	performance during failure conditions: during failure condition 50 percent of the treasury users will be working and 50 percent of the capacity would be required	
7.7.5.6	Spares turnaround: during failure condition, the degraded performance period should not exceed 4 hours.	
7.7.6	Overall System Architecture	
7.7.6.1	modular architecture – separate modules of the system should run independently	
7.7.6.2	built in an client server architecture	
7.7.6.3	Platform independent.	
7.7.6.4	client environment should be windows 2000 /windows XP/ windows vista/windows 7	
7.7.6.5	The functionalities should be menu driven.	
7.7.6.6	facility to filter, sort and assimilate data should exist	
7.7.7	Data Archiving	
7.7.7.1	support archiving of data that are beyond a specified time horizon	
7.7.7.2	export of data to secondary storage device should be supported by the system without down-time	
7.7.7.3	Support data retrieval – from the specified archives. The archival and retrieval programs should facilitate easier analysis of old data.	
7.7.7.4	in-built Data warehousing capabilities or standard interface with Data warehousing solutions would be a desired feature	
7.7.7.5	support Web enabled analysis and reporting functions	
7.7.7.6	in-built report writing facility would be a desired feature in the system	
7.7.8	Help Facility	
7.7.8.1	provision of simple and interactive dialogues to obtain the desired information e.g. help facility	
7.7.8.2	help facility which are context sensitive at field, screen etc.	
7.7.8.3	help facility should explain probable causes of errors and possible solutions	
7.7.9	Compatibility	
7.7.9.1	perform queries against database independently of the vendor and technology	
7.7.9.2	store and retrieve data from existing systems and databases	
7.7.9.3	provide an application programming interface to access outside programs	
7.7.10	Scalability : Without the necessity of re-writing code or undertaking other major efforts, the system should be easily upgradeable to:	

7.7.10.1	increased workload	
7.7.10.2	better performance	
7.7.10.3	additional users	
7.7.10.4	improved network capability	
7.7.11	Interfacing with information feeds	
7.7.11.1	interface with other solutions for receiving inputs and sending outputs, such as automated information pricing feeds including but not limited to: Reuters, Bloomberg, Negotiated Dealing System, National Stock Exchange, Moneyline Telerate, RTGS, Finnacle, CDSL, NSDL, Legacy banking applications used by the bank, EFT/SEFT, SWIFT, ECS, CRISMAC system, Credit risk rating system, Risk management software, Data warehousing package, Inter-branch accounting system, Liquidity management system, PDO/ CCIL, NDS-OM, FX Clear, NEFT, SFMS, FIMMDA, AMFI, STP-GATE/ FTP, other existing system	
7.7.11.2	accept inputs from handheld devices and other web-enabled devices through a web-based interface	
7.7.11.3	interface with ledgers across the bank	
7.7.12	File import and export functionality	
7.7.12.1	The system have a flat file import and export functionality to import and export transaction data and static data in the following formats but not limited to: Microsoft Excel Format (.XLS), Web Page (.HTML), Comma separated values (.CSV), Text file (.TXT), Microsoft Word (.DOC), Adobe Reader (.PDF), ASCII (Flat File), Extended Markup Language (XML),	
7.7.13	Interfacing with other banks and networks	
7.7.13.1	interface with systems of other bankers and other networks	
7.7.14	Bank reconciliation	
7.7.14.1	reconcile treasury transactions with electronically received bank statements on a daily basis	
7.7.15.	Batch processing	
7.7.15.1	receive and send transactions information in batch mode	
7.7.16	Duplication checks	
7.7.16.1	ensure that there are effective checks and controls to ensure that transactions are not loaded multiple times in the host system	
7.7.17	Security	
7.7.17.1	Security management	
7.7.17.1.1	allow users to be controlled by a specific administrator	
7.7.17.1.2	permit access only through password verification and all user ids should be unique	
7.7.17.1.3	allow upgrades and patches to be uploaded only through the system upgrade path and not to the run-time system	
7.7.17.1.4	addition of features should be allowed only through a properly revised upgrade and data migration method	
7.7.17.1.5	provide or restrict access privileges based upon hierarchy and multiple criteria	
7.7.17.1.6	provide role based access for front, middle and back office that can be defined by the user	
7.7.17.1.7	allow for setting of each user profile without any hard coding	
7.7.17.1.8	synchronize the user id and password with network user id and	

	password	
7.7.17.1.9	databases should have database locking features in the situation that there are multiple access and updates on the same record	
7.7.17.1.10	provide unique identity for each user	
7.7.17.1.11	support bank defined password expiry period	
7.7.17.1.12	support password encryption	
7.7.17.1.13	automatic user disabling after three successive erroneous tries	
7.7.17.1.14	automatic user time-out on inactivity for a predefined time duration	
7.7.17.1.15	creation, deletion and modification of users, upgrades of users and data access rights	
7.7.17.1.16	user id and login should determine level of access to data e.g. read/view data, print data, write/modify data, delete data etc.	
7.7.18	Passwords	
7.7.18.1	Force password changes every user defined period.	
7.7.18.2	ensure that the password should at least be 8 characters long and should be a combination of alpha-numeric characters	
7.7.18.3	Disable user access after three failed login attempts. access can be provided again by system administrator	
7.7.18.4	allow access to users only through screens	
7.7.18.5	maintain password history up to last 12 passwords	
7.7.19	Auto logout	
7.7.19.1	logout users on user defined idle time	
7.7.20	Backup and recovery	
7.7.20.1	allow have a day-end back-up process	
7.7.20.2	recovery features in case of system failures	
7.7.20.3	back-up should be possible in external media (CD, tapes, DVD) for off-site storage	

B. Vendor Requirements

7.8	Vendor Requirements	
7.8.1	Project Management : develop comprehensive project plan including:	
7.8.1.1	project implementation schedule	
7.8.1.2	quality assurance and testing plan	
7.8.1.3	request management process	
7.8.1.4	change management process	
7.8.1.5	release management process	
7.8.1.6	documentation management process	
7.8.1.7	progress reporting templates	
7.8.2	Data Gap Analysis	
7.8.2.1	Perform a data gap analysis based on RBI guidelines (Both Standardised Approach and Internal Models Approach ('IMA')).	
7.8.2.2	identify sources of data and identifying/drawing up the mechanism to collect/generate the required data to bridge the identified gaps	
7.8.2.3	hardware/software recommendation for optimized processing time	
7.8.3	Vendor Requirements - Training	
7.8.3.1	conduct at least 5 training sessions to train the bank's mid-office function on the system capabilities	
7.8.4	Vendor Requirements - System Documentation	
7.8.4.1	detailed data base design and data dictionary	
7.8.4.2	Technical design documentation:	
7.8.4.2.1	Technical architecture	
7.8.4.2.2	Interface design	
7.8.4.2.3	Development tools, API	
7.8.4.2.4	System performance benchmarks (response time, etc.)	
7.8.4.3	provide intuitive and current documentation covering scope of application	
7.8.4.4	online support for the application and updated user manuals should also be provided from time to time	
7.8.5	Vendor Requirements - Warranty- post software roll-out : warranty should cover:	
7.8.5.1	Defect fixes	
7.8.5.2	Application Support/Help desk support	
7.8.5.3	Enhancements in the system as per changing RBI/Basel II guidelines	
7.8.5.4	Application software version upgrades	

PART 8: Domestic mid – Office Requirement

8	The system should be able to ensure that all copies of deal slips generated are seamlessly sent to the mid office/back office for authorization and further processing	
8.1	The system should be able to isolate certain deals and not send them to the middle office based on certain pre defined system parameters	
8.2	The system should allow for the measurement of the Counterparty risks for treasury	
8.3	EXCEPTION REPORTING	
8.3.1	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	
8.3.2	End of Day Exception report should be generated mandatory & no user should have the power to skip the same	
8.3.3	The system should be able to carry out sensitivity analysis for:	
8.3.3.1	By defining user defined curves	
8.3.3.2	MTM based on user defined curves	
8.3.3.3	The system should be able to support warning messages and exception reporting for credit limit violations	
8.3.3.4	The system should be able to measure various exposure norms, monitor counterparties' credit exposure against authorized limits. 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 adapt to the latest regulatory guidelines in this regard.	
8.3.3.5	The system should be able to arrive net credit exposures on products by counterparty	
8.3.3.6	The system should support accrual calculations	
8.4	LIMITS TO MARKET OPERATIONS	
8.4.1	The system should be able to track user-defined trading limits and provide viewing and reporting	
8.4.2	The system should be able to define and monitor limits at various levels in the hierarchy	
8.4.3	The system should be able to issue a system notification to dealers that a limit is violated	
8.5	POSITION TRACKING	
8.5.1	The system should be able to update positions on a real time basis	
8.5.2	The system should be able to view positions for user- defined portfolios	
8.5.3	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 etc.	
8.5.4	The system should be able to monitor Trading Book limit, PV01 limit, NOP Limit, VaR Issuer-wise limits, Broker-wise Turnover limits, Stop Loss limits etc.	
8.5.5	The system should enable tracking Duration, Modified Duration, Convexity, Holding Period, Entry Level Credit Rating Norms, Rating Migration etc.	
8.5.6	The system should enable tracking Delta, Gamma, Theta, Rho & Phi for currency options & equity linked convertible bonds / warrants / depository receipts	
8.5.7	The system should be able to generate, view and print positions reports with fair market value provided by information feeds	

8.5.8	The system should be able to generate, view and print positions reports	
8.5.9	The system should enable querying of limits at an individual as well as aggregate level	
8.5.10	The system should be able to produce daily on-line trade blotter	
8.5.11	The system should be able to customize blotter views by user	
8.6	BROAD RANGE OF TREASURY PRODUCTS/INSTRUMENT to be covered	
8.6.1	Money Market	
8.6.1.1	Deposits	
8.6.1.2	Loans	
8.6.1.3	Repurchase Agreement	
8.6.1.4	Reverse Repurchase Agreement	
8.6.2	Fixed Income Securities	
8.6.2.1	Standard Fixed Income	
8.6.2.2	Securities Lending	
8.6.2.3	Securities Borrowing	
8.6.3	Equities	
8.6.3.1	Common Shares	
8.6.3.2	Preferred Shares	
8.6.3.3	Convertibles	
8.7	DATA MANAGEMENT	
8.7.1	Ability to format and validate data from different sources	
8.7.2	The system contains an interface for application administrator to enter data manually in cases that the said data is not available or inaccurate. There shall be a log that will indicate the user, workstation and timestamp of all the manual data encoding/updating.	
8.7.3	Ability to generate automated notification system that will alert users that a specific data is inaccurate or missing.	
8.8	INTEGRATION	
8.8.1	Ability to import rates and/or prices and ratings from independent price providers like Reuters, Moody's, Fitch, Bloomberg, etc	
8.9	RATE SCAN, LIMIT & EXPOSURE MONITORING	
8.9.1	The system should be capable of carrying automatic validation of deal rates based on user defined variable Tolerance Limit.	
8.9.2	The system shall allow users to customize triggers; alarms and thresholds (i.e. increase/decrease thresholds).	
8.10	Structural Liquidity Report	
8.10.1	Based on residual maturity for fixed/float instruments and defeasance period wise for HFT portfolio to be generated along with other assets & liabilities components into RBI prescribed 10 buckets with a provision for splitting any bucket	
8.11	Interest Rate Sensitive Report	
8.11.1	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	
8.12	Duration Related Measures	
8.12.1	Report on bucket wise (as per STL) investments/assets with weighted average Duration/Moderation of such securities/assets for each buckets and consolidated portfolio as a whole	

PART 9: FOREX MID OFFICE REQUIREMENTS

9.1	INTRA-DAY OPEN POSITION	
9.1.1	Intra-day Open Foreign Exchange position to be computed dynamically during the day .Provision to fix limit for Individual Currency, Aggregate Currency, sub-limits for positions initiated abroad within the main limit.	
9.1.2	Currency-wise open position and equivalent in US Dollars to be computed dynamically during the course of transactions.	
9.1.3	Exceeding under Individual Currency Limit (ICL) and Aggregate Currency Limit (ACL) to be thrown as exception dynamically, including the sub-limits.	
9.2	Intra-Day Exceeding Report	
9.2.1	The intra-day exceeding, if any, on account of any deal has to be captured with full particulars like deal no., time, whether ICL and ACL limit exceeded and exceeded the limit by what amount, name of the counter party, highest and lowest ICL and ACL, etc and also to provide the details of authority, whose power has been exceeded	
9.2.2	If there is no exceeding, then NIL report	
9.3	Exception Report	
	Changes/cancellations of deals after authorization to be captured along with the name of the dealer who has changed/cancelled the deals and reasons thereof.	
9.4	Report on Open Position in Forex Dealings	
9.4.1	Weekly report to RBI	
9.4.2	Data on open position pertaining to the rupee against foreign currency in USD :	
9.4.2.1	Daily Open Position, Intra Day Position-High, Intra Day Position-Low Closing position for the week	
9.4.2.2	For the days when there are no transactions, previous day's opening and closing position will continue.	
9.4.3	Calculation of Net Open Position in Single Currency	
9.4.3.1	Net open position in each currency that the bank is holding position is to be calculated (in the respective currency, USD equivalent and in INR).	
9.4.3.2	The open position must be measured separately for each foreign currency. It is the sum of (a) net spot position (b) net forward position and (c) net options position - as detailed in RBI Master cir. No.6 on Risk Management.	
9.4.4	Calculation of Overall Overnight Net Open Position	
9.4.4.1	Open position in the case of all assets and liabilities calculated currency wise and US Dollar equivalent arrived at.	
9.4.4.2	Provision to incorporate all devolved/likely to devolve contingent liabilities.	
9.4.4.3	Delta value of options in case of options.	
9.4.4.4	Open position calculated in respect of all accrued incomes and expenses.	
9.4.4.5	The system should incorporate the data available from CBS (for accrued expenses, accrued income, and gold position). It should also incorporate the NOPL data of currency exchange counters situated at Airports (at present Mumbai and Delhi) and any other currency exchange counter the bank may open in future.	

9.4.5	Calculation of Overall (Global) Net Open position-Net Present Value	
9.4.5.1	Overnight NOP to be calculated both under Net present value (discounted) as well as original method.	
9.4.5.2	Provision to calculate NOP by any other method prescribed by RBI.	
9.4.6	NOP Exception report is to be generated if there are any exceptions/breaches giving details of breaches under different limits.	
9.4.7	Monthly analysis of Global overnight net open position consisting of day wise	
9.4.8	ID's position - total of overbought and oversold position and the higher of the two	
9.4.9	Interest receivable and Interest payable and the net of the interest	
9.4.10	Total global overnight net open position in USD and INR	
9.4.11	Limit exceeding in respect of ID	
9.4.12	Maximum, minimum, average and position as on the last day of the month and %age of utilization of the limit.	
9.4.13	IC 4 - Worksheet for Aggregate Gap Limit/VaR	
9.4.13.1	Worksheet showing calculation of gaps for AGL/VaR	
9.4.13.2	Currency-wise gaps in monthly buckets consisting of overdue bucket (matured deals), spot bucket (deals up to spot value), one month to 12 months buckets (12th month includes all deals beyond 12th month).	
9.4.13.3	Each bucket should contain portfolio-wise totals of purchases and sales in the respective currency and INR and the net (gap) should be converted into USD equivalent.	
9.4.13.4	Gaps to include all types of deals/deposits/loans/ lending/placements / mirror balance/ gold/stale DDs, etc	
9.4.13.5	The total of all the gaps should equal the net open position in that currency	
9.4.14	IC 6 - AGL Consolidation	
9.4.14.1	Gaps to be bifurcated into exchange risk components (off-Balance sheet items) and interest risk components (Balance sheet items including FIM - domestic treasury swaps).	
9.4.14.2	The gaps calculated at as above should be consolidated into currency-wise and bucket-wise (in USD equivalent).	
9.4.14.3	AGL is the aggregate total of each currency-wise gap across the monthly maturity buckets, irrespective of the overbought or oversold position. However, the gap between the overdue bucket and spot bucket is to be netted.	
9.4.14.4	Total of the gaps under Exchange risk and Interest Risk component is the Aggregate gap limit.	
9.4.14.5	Report should reflect the total limit, alert limit, trigger limit and the gap for the day.	
9.4.15	Monthly Analysis of AGL : Analysis of AGL on monthly basis consisting of Date-wise AGL, maximum, minimum, average and AGL as on the last day of the month.	
9.5	Counter party Exposure statement	
9.5.1	Counter parties to be grouped into different categories as per bank's policy.	
9.5.2	Counterparty-wise outstanding forex deals (both spot and forward deals), derivatives and FX lending exposures to be captured for each	

	counterparty Category-wise along with consolidated analysis.	
9.5.3	System should have a provision to transfer the counter party exposure once the deals are matched / confirmed by CCIL to CCIL exposure from the individual counter party exposure both for Spot deals as well for Forwards. The details of such transfer should be available on any given date as well daily basis. Necessary contra accounting has to be passed for net amount in the system reversing the individual contra entries .	
9.5.4	Similar provision should be available for CLS deals. Bank should have option to adopt this procedure whenever necessary.	
9.6	Country Risk Exposure statement	
9.6.1	Countries to be grouped into different categories as per bank's policy.	
9.6.2	Report on country-wise outstanding exposure under Single Country and Aggregate Country limits for all forex deals (spot and forward), derivatives, FX lending, mirror balance, other contingent liabilities like BG, LC confirmation, etc.	
9.7	ALM: Residual maturity-wise inflows and outflows of forex. The data should include flows on account of BUY/SELL and SELL/BUY swaps and other forward contracts. Inflow represents among others, outstanding dollar sales and outflows represents among others, outstanding dollar buys - mismatch analysis capability	
9.8	DSB 10 - Statement on Maturity & Position	
9.8.1	Currency-wise outstanding open position bifurcated into Balance-sheet and Off-Balance-sheet items in the respective maturity-wise buckets as per ALM policy as on specified dates. In addition to this, for the month of March every year, as on the last working day in all currencies.	
9.8.2	Balance sheet gap, off-Balance sheet gap and residual gap for each currency	
9.9	DSB 11 - Statement of Interest Rate Sensitivity (Forex): Currency-wise outstanding open position of Balance-sheet items in maturity-wise buckets as per ALM policy, along with Balance sheet gaps as on the specified dates. In addition to this, for the month of March every year, as on the last working day in all currencies.	
9.10	Detailed Report of Maturity Components Gap limit : Currency-wise maturity bucket-wise break up of outstanding purchases and sales as appearing in DSB 10 & 11 above - for tallying purpose.	
9.11	Maturity Profile of FX Assets & Liabilities as at year end : Maturity Profile of FX Assets & Liabilities as at year end in INR - to tally with the respective heads in the Balance sheet.	
9.12	GPB Statement (Gap Position & Balance Statement): Gaps as appearing in IC-6, Net overnight open position and balances in nostro including USD/INR swaps with domestic treasury.	
9.13	DSB 9 (Off-Balance sheet exposure in Derivatives): Derivative contracts outstanding product-wise bifurcated into Trading & Banking Book, including forward contracts.	
9.14	DSB 10 (Credit Risk concentration in derivatives): Credit Risk in derivatives - notional amount, current credit exposure and potential future exposure of	
9.15	DSB - 3 (Derivative exposure-Hedging): All outstanding derivatives including forward contracts, with CCE,	

	MTM, PV-01 and derivatives contracted for hedging purpose.	
9.16	Prudential Exposure statement (Off-Balance Sheet Exposure: Outstanding forward contracts/derivatives of Corporates, both notional principal and current credit exposure amount of Corporates	
9.17	Report of all outstanding deals: All outstanding deals with full particulars like deal no., Purchase/sale, Customer, Currency, FCY, Contract rate, contract amt, deal date, maturity date, number of days, category, Revaluation. Rate, Revaluation. Amt, residual period, MTM, Potential Future Exposure, Current credit exposure, capital adequacy, PV-01, etc	
9.18	Report of all outstanding borrowings: All outstanding borrowings with deal no., deal date, name of the bank, FCY, ROI, Rs. equivalent, start date, end date, interest amt, etc	
9.19	Report of all outstanding placements/lending: All outstanding placements with deal no., deal date, name of the bank, FCY, ROI, Rs. equivalent, start date, end date, interest amt, etc	
9.20	Cost and Yield of Funds: The cost incurred on funds mobilized through accepting deposits from the customers as well as through borrowings from inter bank/rupee funds from domestic treasury and the yield earned on deployment of the same	
9.21	Report on Trading Profit/Loss: Deal-wise, dealer-wise and product-wise profit or loss made on covering of outright trading deals and swap deals (P&L in counter currency as well as in USD equivalent)	
9.22	Statement of Analysis of Trading deals: No. of outright trading deals, swap deals, total profit/loss incurred, swap deals pending for cover/partly covered swap deals, analysis of loss on outright deals and swap deals, etc. for different classifications (Product wise, dealer wise etc)	
9.23	Monthly summary of P&L on Trading deals: Daily profit/loss on trading deals and net P&L, etc. for different classifications (Product wise, dealer wise etc)	
9.24	Consolidated Exposure for Credit Risk Consolidated exposure for credit risk on all counter party banks, of both forex and domestic treasuries, including nostro balance, bank guarantees/LCs, etc.	
9.25	Different types of Rates: Provision to capture various rates like RBI reference rate, FEDAI VaR Rates, FEDAI rates for profit evaluation, LIBOR rates, FEDAI closing spot rates, etc	
9.26	Arbitrage Deals on OTC: Details of deals done on OTC for arbitrage (hedging) maturity-wise with daily MTM	
9.27	Arbitrage Deals done on Exchanges: Details of deals done on currency futures for arbitrage maturity-wise with daily MTM	
9.28	Forward Contracts booked – Turnover : Details of forward contracts booked during the year - month wise, purchase/sales, merchant/inter market, no. of items and amount in INR, etc. (USD/INR, Cross currency	
9.29	Forward Contracts cancelled: Details of forward contracts - (merchant) cancelled during the year - full details of booking rate, cancellation rate, difference in exchange, counterparty, date of booking, date of cancellation, etc. USD/INR, Cross currency)	
9.30	Overdue Forward Contracts as at year end: Details of forward	

	contracts which stands matured up to 31st March, but not delivered /cancelled, etc	
9.31	List of Corporates who have booked Forward Contracts: List of Corporates who have booked forward contracts during the year with details like branch, FCY, amount (in FCY/INR	
9.32	List of Major Merchant Transactions – daily : Details of major merchant transactions done during the day	
9.33	Derivatives entered into during the year: Details of all derivatives done during the year product-wise	
9.34	Credit Risk on Derivatives as per Current Credit Exposure Method: Calculation of credit risk using conversion factors as per RBI guidelines.	
9.35	Credit Risk on Derivatives as per Original Exposure Method’: Calculation of credit risk using conversion factors as per RBI guidelines.	
9.36	Derivatives entered into for Hedging/Trading: Details of all derivatives bifurcated into hedging and trading	
9.37	Calculation of profit on derivatives: Profit or loss incurred on derivative transactions product-wise	
9.38	Derivatives Valuation: Calculate the MTM, PV-01, Potential Future exposure, current credit exposure, calculation of capital charge, fair value of the swap book, maximum and minimum PV-01, etc., required for Quantitative Disclosure in the Annual Report	
9.39	Computation of Market Risk for capital adequacy : Maturity pattern of Forward Contracts, and other derivatives, outstanding as on 31st March for the purpose of computing Capital Adequacy on quarterly basis with a provision to arrive at monthly/daily	
9.40	Quarterly statement on Premium received/paid on FIM swaps: Quarterly statement on Premium received/paid on FIM swaps	
9.41	Limit setting and definition of operational parameters	
9.41.1	The system should enable setting of user-defined limits, designation-wise	
9.41.2	The limits should be defined for the integrated treasury as a whole at the apex level.	
9.41.3	The limits would then be bifurcated and allocated in the descending order up to the individual dealer level.	
9.41.4	System should provide Limits as :	
9.41.4.1	Operational unit wise (Forex and Domestic)	
9.41.4.2	Counterparty Bank wise	
9.41.4.3	Daylight/ overnight limits	
9.41.4.4	Counter party limit- Settlement	
9.41.4.5	Counter party limit- Pre-Settlement	
9.41.4.6	Product/Instrument/ Transaction Type limit	
9.41.4.7	Currency Limits	
9.41.4.8	Gap Limits	
9.41.4.9	Authorization limits	
9.41.4.10	Stop Loss Limits	
9.41.4.11	Book Profit Limits	
9.41.4.12	Portfolio wise Limits	
9.41.4.13	Dealer-wise limits	

9.41.4.14	Dealer-wise Profit/Loss	
9.42	Maintaining limits of Corporates for Forward Contracts	
9.42.1	as % of total brokerage: Broker limit	
9.42.1.1	Exposures Monitoring	
9.42.1.2	Limit Monitoring	
9.42.1.3	The system should enable online tracking of all limits	
9.42.1.4	On-line limit availability alert	
9.42.1.5	Counter party-wise, location-wise, tenor-wise, facility-wise monitoring of exposures	
9.42.1.6	Designation-wise limit monitoring to be available. Pop ups should come.	
9.42.1.7	System should provide alerts at user defined levels	
9.42.1.8	Interchange ability /transfer of limits between units, facilities should be permissible with well defined controls	
9.42.1.9	The system should enable querying of limits at an individual as well as aggregate levels	
9.42.1.10	Ability to monitor brokerage charges by broker, period, tenor viz., outright/crosses/short/long swaps etc.,	
9.42.1.11	Any other kind of brokerage monitoring should also be facilitated Pips difference received and paid should be made available	
9.42.2	Exception Monitoring : The system should enable monitoring of all exceptions in terms of :	
9.42.2.1	Limit breaches (Dynamic)	
9.42.2.2	Rate verifications	
9.42.2.3	Default margins	
9.42.2.4	The system should support Mid Office monitoring of exception report at user defined intervals.	
9.43	Internal model for country-risk rating: Rating all banks on the basis of a tiering system that includes an assessment of capital adequacy, asset quality, liquidity, profitability, ownership, management ability, peer comparison, market perception, country of incorporation and the regulatory environment in the country of incorporation	
9.44	Provision for conducting stress testing of country risk at frequent intervals.	
9.45	Provision for conducting back testing of country risk at frequent intervals.	
9.46	Internal Assessment Model/Matrix showing the counterparty limits and country risk ratings	
9.47	Real-time monitoring of deals by Mid Office	
9.47.1	Computation of forwards on net present value method.	
9.47.2	System should be able to capture the gross profit/loss in proprietary trading position, in addition to net profit/loss Including taking into consideration of the notional costs	
9.47.3	Credit exposure on derivatives is to be arrived at using credit conversion factors as prescribed by RBI/our internal policy	
9.47.4	Net cash flows arising out of derivative transactions are booked as income and expenditure and should be reckoned as Exchange Position.	
9.47.5	Details of arbitrage deals done on Exchanges	
9.47.6	Details of arbitrage deals done on OTC vis-à-vis currency futures	

9.47.7	Currency Futures: Provide list of deals done for Trading & Arbitrage on currency futures	
9.48	Report on exceeding under Open Interest Position in Currency Futures	
9.49	R>Returns: Generation of centralized R Returns on the basis of data received from branches through CBS network and in addition, International Division's R return has to be generated from this system, which will be consolidated along with the data received from branches. The data received from branches should tally with the details available with International Division (Mirror)	
9.50	Brokerage vs. Turnover comparison: Comparison between the brokerage paid and turnover with respective brokers.	
9.51	Mark to Market / Portfolio Valuation	
9.51.1	The system should allow Online import from external feeds like Reuters, Bloomberg, etc.	
9.51.2	The system should also allow manual input of rates overriding the external feeds by authorized personnel	
9.51.3	The system should automatically plot the yield curves across security groups on the basis of actual or referenced rates (FIMMDA etc.)	
9.52	Valuation	
9.52.1	The system should be capable of online valuation	
9.52.2	The system should show the Accounting entries in a simulated environment and it also show the likely effect on Balance sheet	
9.52.3	Check should be available for updation (Query file)	
9.52.4	The system should be capable of periodic automatic valuation	
9.52.5	System should support user defined accruals.	
9.52.6	The system should be able to accommodate Parallel shifts in yield curve for revaluation	
9.52.8	The system should be able to accommodate non-parallel shifts in yield curve for revaluation	
9.52.9	Specific identification methods of revaluation	
9.53	Rate Scan Report	
9.53.1	The system should automatically generate a rate scan report on the basis of external rate feeds or manual rate feeds	
9.53.2	The system should support printing of rate scan report at pre-defined time intervals	
9.53.3	Rate Sensitivity Control : The system should be capable of allowing defining of tolerance margin(User defined & Parameterized) on the yield curve / market price as rate reasonability factor	
9.53.4	Rate Verification : The system should be capable of carrying out automatic verification of deal rates based on external feeds as well as manual feeds of rates	
9.54	Authorization	
9.54.1	The system should allow for second level of ratification from the mid-office in case of sensitive operations and from a control of limit violations perspective (maker-checker)	
9.54.2	The system should facilitate periodic confirmation of exception ratification	
9.55	Risk Management	
9.55.1	Sensitivity Measures : Duration ,Modified duration, Convexity	

9.55.2	Market Risk: In addition to VAR, system should be capable of permitting PVBP method also	
9.56	Monitoring of Deals done	
9.56.1	The systems should allow monitoring of all deals done with user defined criteria like period, amount, and type of transaction. In addition the system should allow the relevant authority to view the list of incomplete tasks/deals	
9.56.2	The system should support carrying out an ageing analysis for all outstanding confirmations and should give the outstanding confirmations in an ascending order of time(deal date)	
9.56.3	The system shall support ageing analysis of all outstanding reconciliation entries	
9.57	Provision to create new product and transaction type	
9.57.1	The system should allow definition of all products and transaction types across forex and domestic products	
9.57.2	The system should allow definition of different maturity and coupons associated with the products	
9.57.3	System should allow definition of static data regarding the settlement instructions for an instrument	
9.58	Definition of periodicities	
9.58.1	The system should allow mid-office to define the periodicities involved in various activities like generating printouts / mark to market / etc	

11. Covering Letter

Ref. No:

To,
Dy. General Manager,
Central Bank of India
Integrated Treasury Branch,
5th Floor, Chander Mukhi,
Nariman Point,
Mumbai – 400 021.

Having examined the RFP including all Annexures, the receipt of which is hereby duly acknowledged, we the undersigned, offer to supply and deliver the equipments and services including installations and commissioning in conformity with the said RFP in accordance with the Schedule of Prices indicated in the Commercial Offer and made part of the Bid.

We undertake, if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified in schedule of requirement.

We agree to abide by this bid for the period of 180 days from the date of technical bid submission. Until a formal empanelment of vendors is made and is intimated to us in writing this bid shall remain binding upon us.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely “Prevention of Corruption Act 1988”.

We understand that the Bank is not bound to accept the lowest of any bid the Bank may receive.

Dated this _____ day of _____ 2012.

(Signature) (In the Capacity of)

Duly authorized to sign bid for and on behalf of

(Name & Address of Bidder) _____

12. Acceptance Letter to be given by the Vendor

To,
Dy. General Manager,
Central Bank of India
Integrated Treasury Branch,
5th Floor, Chander Mukhi,
Nariman Point,
Mumbai – 400 021.

Dear Sir,

REG: Acceptance of the Terms and Conditions and Confirmation of the Offer.

Ref: Central Bank of India Tender No. _____

The details submitted in the format above are true and correct to the best of our knowledge and if it is proved otherwise at any stage of execution of the contract, Central bank of India has the right to summarily reject the proposal and disqualify us from the process.

We hereby acknowledge and confirm having accepted can at its absolute discretion apply whatever criteria it deems appropriate, not just limiting to those criteria set out in the RFP and related PROC documents, in short listing of vendors for providing software solution.

We also acknowledge the information that this response of our Company for the Bank's RFP process is valid for a period of, for the selection purpose, from the date of expiry of the last date for submission for response to RFP and related enclosures.

We also confirm that we have noted the contents of the RFP including various documents forming part of it and have ensured that there is no deviation in submitting our offer in response to the tender. The Bank will have the option to disqualify us in case of any such deviations.

We also confirm that we will abide by the Terms & Conditions mentioned in the Tender Document in full and without any deviation.

Place:

Date: Seal & Signature of the Vendor

13. Proforma for Performance Bank Guarantee

PERFORMANCE BANK GUARANTEE

To,

_____,
_____,
_____.

- 1) In consideration of M/s Central Bank of India having Head Office at Chandermukhi, Nariman Point, Mumbai 400 021 (hereinafter referred to as “Purchaser”) having agreed to implement Integrated Treasury Solutions from M/s _____ (hereinafter referred to as “Bidder”) on the terms and conditions contained in their purchase order No. _____ dt. _____ (hereinafter referred to as the “Contract”), we _____ (Bank) (hereinafter called “the Bank”) having its Head Office at _____ and a branch interalia at _____, at the request of the bidder, do hereby guarantee and undertake to pay without demur to the purchaser, forthwith on mere demand, at any time up to _____ any money or moneys not exceeding a total sum of Rs. _____ (Rupees _____ only) as may be claimed by the purchaser to be due from the bidder by way of loss or damage caused to or would be caused to or suffered by the purchaser by reason of failure of components as per the terms and conditions of the contract.
- 2) Notwithstanding anything to the contrary, the decision of the purchaser as to whether bidder has failed as per the said contract, and also as to whether the bidder has failed to maintain the deliverables and timelines as per the terms and conditions of the said contract will be final and binding on the Bank and the Bank shall not be entitled to ask the purchaser to establish its claim or claims under this Guarantee but shall pay the same to the purchaser forthwith on mere demand without any demur, reservation, recourse, contest or protest and/or without any reference to the bidder. Any such demand made by the purchaser on the Bank shall be conclusive and binding notwithstanding any difference between the purchaser and the bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.
- 3) The Bank further undertakes not to revoke this Guarantee during its currency except with the previous consent of the purchaser in writing and this Guarantee shall continue to be enforceable till the aforesaid date of expiry or the last date of the extended period of expiry of Guarantee agreed upon by all the parties to this Guarantee, as the case may be, unless during the currency of this Guarantee all the dues of the purchaser under or by virtue of the said contract have been duly paid and its claims satisfied or discharged or the purchaser certifies that the terms and conditions of the said contract have been fully carried out by the bidder and accordingly discharges the Guarantee.
- 4) In order to give full effect to the Guarantee herein contained you shall be entitled to act as if we are your principal debtors in respect of all your claims against the bidder hereby guaranteed by us as aforesaid and we hereby expressly waive all our rights of suretyship and other rights if any which are in any way inconsistent with the above or any other provisions of this Guarantee.
- 5) The Bank agrees with the purchaser that the purchaser shall have the fullest liberty without affecting in any manner the Bank’s obligations under this Guarantee to extend the time of performance by the bidder from time to time or to postpone for any time or from time to time any of the rights or powers exercisable by the purchaser against the bidder and either to enforce

or forbear to enforce any of the terms and conditions of the said contract, and the Bank shall not be released from its liability for the reasons of any such extensions being granted to the bidder for any forbearance, act or omission on the part of the purchaser or any other indulgence shown by the purchaser or by any other matter or thing whatsoever which under the law relating to sureties would, but for this provision have the effect of so relieving the Bank.

- 6) The Guarantee shall not be affected by any change in the constitution of the bidder or the Bank nor shall it be affected by any change in the constitution of the purchaser by any amalgamation or absorption but will enure for and be available to and enforceable by the absorbing or amalgamated company or concern.
- 7) This guarantee and the powers and provisions herein contained are in addition to and not by way of limitation or in substitution of any other guarantee or guarantees heretofore issued by us (whether singly or jointly with other banks) on behalf of the bidder heretofore mentioned for the same contract referred to heretofore and also for the same purpose for which this guarantee is issued, and now existing uncanceled and we further mention that this guarantee is not intended to and shall not revoke or limit such guarantee or guarantees heretofore issued by us on behalf of the bidder heretofore mentioned for the same contract referred to heretofore and for the same purpose for which this guarantee is issued.
- 8) Any notice by way of demand or otherwise under this guarantee may be sent by special courier, telex, fax or registered post to our local address as mentioned in this guarantee.
- 9) Notwithstanding anything contained herein:
 - i) Our liability under this Bank Guarantee shall not exceed Rest. _____ (Rupees _____ only);
 - ii) This Bank Guarantee shall be valid up to _____; and
 - iii) We are liable to pay the Guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before _____ (date of expiry of Guarantee).
- 10) The Bank has power to issue this Guarantee under the statute/constitution and the undersigned has full power to sign this Guarantee on behalf of the Bank.

Date : this _____ day of _____ 2012 at _____

For and on behalf of _____ Bank

sd/- _____

14. NON-DISCLOSURE AGREEMENT

This Agreement made at _____, on this _____ day of _____ 2012.

BETWEEN

_____ a company incorporated under the Companies Act, 1956 having its registered office at _____ (hereinafter referred to as “-----” which expression unless repugnant to the context or meaning thereof be deemed to include its successors and assigns) of the **ONE PART**;

AND

CENTRAL BANK OF INDIA, a body corporate constituted under the Banking Companies (Acquisition & Transfer of Undertakings) Act, 1970 and having its head Office at Central Office, Chander Mukhi, Nariman Point, Mumbai – 400 021 (hereinafter referred to as “**CBI**” which expression unless repugnant to the context or meaning thereof be deemed to include its successors and assigns) of the **OTHER PART**

and **CBI** are hereinafter individually referred to as party and collectively referred to as “the Parties”. Either of the parties which discloses or receives the confidential information is respectively referred to herein as Disclosing Party and Receiving Party.

WHEREAS:

The Parties intend to engage in discussions and negotiations concerning the establishment of a business relationship between them. In the course of such discussions and negotiations, it is anticipated that both the parties may disclose or deliver to either of the Parties certain or some of its trade secrets or confidential or proprietary information, for the purpose of enabling the other party to evaluate the feasibility of such business relationship (hereinafter referred to as “**the Purpose**”).

NOW, THEREFORE, THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. **Confidential Information:** “Confidential Information” means all information disclosed/ furnished by either of the parties to another Party in connection with the business transacted/to be transacted between the Parties and/or in the course of discussions and negotiations between them in connection with the Purpose. Confidential Information shall include customer data, any copy, abstract, extract, sample, note or module thereof.

Either of the Parties may use the Confidential Information solely for and in connection with the Purpose.

Notwithstanding the foregoing, “Confidential Information” shall not include any information which the Receiving Party can show: (a) is now or subsequently becomes legally and publicly available without breach of this Agreement by the Receiving Party, (b) was rightfully in the possession of the Receiving Party without any obligation of confidentiality prior to receiving it from the Disclosing Party, (c) was rightfully obtained by the Receiving Party from a source other than the Disclosing Party without any obligation of confidentiality, or (d) was developed by or for the Receiving Party independently and without reference to any Confidential Information and such independent development can be shown by documentary evidence.

2. **Non-disclosure:** The Receiving Party shall not commercially use or disclose any Confidential Information or any materials derived there from to any other person or entity other than persons in the direct employment of the Receiving Party who have a need to have access to and knowledge of the Confidential Information solely for the Purpose authorized above. The Receiving Party may disclose Confidential Information to consultants only if the consultant has executed a Non-disclosure Agreement with the Receiving Party that contains terms and conditions that are no less restrictive than these. The Receiving Party shall take appropriate measures by instruction and written agreement prior to disclosure to such employees to assure against unauthorized use or disclosure. The Receiving Party agrees to notify the Disclosing Party immediately if it learns of any use or disclosure of the Disclosing Party's Confidential Information in violation of the terms of this Agreement. Further, any breach of non-disclosure obligations by such employees or consultants shall be deemed to be a breach of this Agreement by the Receiving Party and the Receiving Party shall be accordingly liable therefore.

Provided that the Receiving Party may disclose Confidential information to a court or governmental agency pursuant to an order of such court or governmental agency as so required by such order, provided that the Receiving Party shall, unless prohibited by law or regulation, promptly notify the Disclosing Party of such order and afford the Disclosing Party the opportunity to seek appropriate protective order relating to such disclosure.

3. **Publications:** Neither Party shall make news releases, public announcements, give interviews, issue or publish advertisements or publicize in any other manner whatsoever in connection with this Agreement, the contents / provisions thereof, other information relating to this Agreement, the Purpose, the Confidential Information or other matter of this Agreement, without the prior written approval of the other Party.
4. **Term:** This Agreement shall be effective from the date hereof and shall continue till establishment of business relationship between the Parties and execution of definitive agreements thereafter. Upon expiration or termination as contemplated herein the Receiving Party shall immediately cease any and all disclosures or uses of Confidential Information; and at the request of the Disclosing Party, the Receiving Party shall promptly return or destroy all written, graphic or other tangible forms of the Confidential Information and all copies, abstracts, extracts, samples, notes or modules thereof.

Notwithstanding anything to the contrary contained herein the confidential information shall continue to remain confidential until it reaches the public domain in the normal course.

5. **Title and Proprietary Rights:** Notwithstanding the disclosure of any Confidential Information by the Disclosing Party to the Receiving Party, the Disclosing Party shall retain title and all intellectual property and proprietary rights in the Confidential Information. No license under any trademark, patent or copyright, or application for same which are now or thereafter may be obtained by such Party is either granted or implied by the conveying of Confidential Information. The Receiving Party shall not conceal, alter, obliterate, mutilate, deface or otherwise interfere with any trademark, trademark notice, copyright notice, confidentiality notice or any notice of any other proprietary right of the Disclosing Party on any copy of the Confidential Information, and shall reproduce any such mark or notice on all copies of such Confidential Information. Likewise, the Receiving Party shall not add or emboss its own or any other any mark, symbol or logo on such Confidential Information.

6. **Return of Confidential Information:** Upon written demand of the Disclosing Party, the Receiving Party shall (i) cease using the Confidential Information, (ii) return the Confidential Information and all copies, abstract, extracts, samples, notes or modules thereof to the Disclosing Party within seven (7) days after receipt of notice, and (iii) upon request of the Disclosing Party, certify in writing that the Receiving Party has complied with the obligations set forth in this paragraph.
7. **Remedies:** The Receiving Party acknowledges that if the Receiving Party fails to comply with any of its obligations hereunder, the Disclosing Party may suffer immediate, irreparable harm for which monetary damages may not be adequate. The Receiving Party agrees that, in addition to all other remedies provided at law or in equity, the Disclosing Party shall be entitled to injunctive relief hereunder.
8. **Entire Agreement, Amendment, Assignment:** This Agreement constitutes the entire agreement between the parties relating to the matters discussed herein and supersedes any and all prior oral discussions and/or written correspondence or agreements between the parties. This Agreement may be amended or modified only with the mutual written consent of the parties. Neither this Agreement nor any right granted hereunder shall be assignable or otherwise transferable.
9. **Governing Law and Jurisdiction:** The provisions of this Agreement shall be governed by the laws of India. The disputes, if any, arising out of this Agreement shall be submitted to the jurisdiction of the courts/tribunals in Mumbai.
10. **General:** The Receiving Party shall not reverse-engineer, decompile, disassemble or otherwise interfere with any software disclosed hereunder. All Confidential Information is provided "as is". In no event shall the Disclosing Party be liable for the inaccuracy or incompleteness of the Confidential Information. None of the Confidential Information disclosed by the parties constitutes any representation, warranty, assurance, guarantee or inducement by either party to the other with respect to the fitness of such Confidential Information for any particular purpose or infringement of trademarks, patents, copyrights or any right of third persons.
11. **Indemnity:** The receiving party should indemnify and keep indemnified, saved, defended, harmless against any loss, damage, costs etc. incurred and / or suffered by the disclosing party arising out of breach of confidentiality obligations under this agreement by the receiving party etc., officers, employees, agents or consultants.

IN WITNESS WHEREOF, the Parties hereto have executed these presents the day, month and year first hereinabove written.

For and on behalf of

Name of Authorized signatory:

Designation:

**For and on behalf of
CENTRAL BANK OF INDIA**

Name of Authorized signatory:

Designation:

~ End of document ~~