



**Institute for Development and Research in Banking Technology**  
(Established by Reserve Bank of India)

# **Core Banking Solution Requirements for Urban Cooperative Banks: Functional and Technical**

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## I Introduction

Core Banking Solution (CBS) adoption is completed by commercial banks in India. Though the Urban Cooperative Banks (UCBs) have also been working towards implementation of CBS, there are still many UCBs that are not under CBS. Even in regard to the UCBs that adopted CBS, there are concerns about completeness and security.

The CBS of UCBs contains key modules for customer information, online transaction processing of deposit and loan accounts and the reports required for regulatory compliance and day-to-day operations. However, there are issues in some of the modules especially relating to generation of regulatory reports. Further, there are challenges in interfacing CBS with payment systems of the country.

In order to attain a minimum degree of completeness of the solution with adequate security features, RBI has advised IDRBT to prepare a document detailing the requirements of a CBS for a UCB. It is quite relevant in the case of UCBs in view of the paucity of expertise relating to implementation of technology projects and vendor management in many of the UCBs.

IDRBT has prepared this document detailing the requirements of CBS in the case of UCBs. The inputs of functional and technical experts of CBS have been obtained for preparation of this document. The document is vetted by a few UCBs (with both unit and multi-branch) that already has CBS implementation. A Pilot Project at Idukki, Kerala for a UCB has ensured that the documented requirements are implementable.

In order to make the document comprehensive, requirements for remittances, asset liability management, reports for anti-money laundering, human resources management, fixed asset management, treasury and investments, safe deposit lockers have also been included. While details of functional requirements are presented in **Annexure I**, technical details are given in **Annexure II**.

Many of the CBS implementations by UCBs are cloud based. In order to help UCBs to be better prepared for such outsourcing and to get best out of cloud services, guidelines for leveraging cloud computing are detailed in **Annexure III**.

The document is expected to serve as a reference document for any UCB that is implementing CBS by an internal team or an external vendor. The document would be useful even in the case of change requests, system modifications, vendor management and contract finalization. Though the document is prepared for UCB, this may be leveraged by DCCB, SCB, Payment and Small Finance Banks to scope their functional and technical requirements.

Apart from the minimum common requirements given in this document, banks have to factor their specific requirements. They also need to plan for new requirements that may come due to changing customer and regulatory needs while deploying CBS.

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## II Functional Requirements

Most of the UCBs CBS is one stop solution for meeting the Branch banking operations as well as other functions like Head office needs, asset liability management, remittances, anti-money laundering, bank staff management, etc. If the UCBs are large and multi-state, they could deploy separate modules/software for asset liability management, anti-money laundering, remittances, staff management, etc., surrounding core banking. The functionality requirements of UCBs can be broadly categorized into CBS and its peripherals, payment channels and surround applications.

### CBS Technology Suite for UCBS



Figure 1: CBS and its Peripherals

The detail functional specifications of the document are available in the Annexure I. The specifications are grouped under following functional areas of CBS:

### **Deposit Accounts (Individuals, Institutions and Cooperatives)**

- Customer Account Management and KYC includes Signature, photo storage and retrieval
- CASA
- Suspense Account handling
- Term Deposit
- Other configurable account and deposit types like PMJDY, etc.
- Cheque issue and maintenance
- Alerts including the interface for SMS and Email. However, the commercials related to sending SMS and send/receive emails to a bank email id may be different.
- TDS includes issuance of TDS certificate to customers
- Passbook printing

### **Loans and Advances**

- Retail, Wholesale/Corporate and Agricultural loans that includes
- Short/Medium/Long term loans with interest subvention & interest calculation with/without compounding
- Cash credit & Over Draft
- Retail Loans and related Account Operations
- Deposit Loan
- Gold Loans including for agricultural/rural development purposes
- Other loan types with configurable interest rates, payment terms, collaterals, etc.
- Limits
- Security maintenance includes collateral and other documents storage and retrieval
- Asset Classification (NPA) and Restructuring Loans
- Waiver, Write-off & Legal

### **Remittances and Services**

- Demand Draft and Pay Order Issue & Payments
- Standing Instructions
- Service Tax

- Safe Deposit Lockers
- Payment Systems and Digital Channels
- With increasing adoption of digital channels and real-time payment systems, UCBs may also obtain the CBS interfaces for
  - SFMS (NEFT, RTGS, LC and BG) for inter-bank remittances/transfers as a direct/sub member
  - NFS for ATM Switch, IMPS, AEPS, etc.
  - ECS and NACH
  - Cheque Truncation System (Registration, Verification, File Generation, etc.)
  - Aadhaar integration for KYC, AEPS, etc.
  - SWIFT Integration for FOREX remittances
  - Participation in CCIL related activities for government securities
  - Bancassurance (Corporate, Agent & Referral Mode)
  - Utility Bill payments
  - Mobile Banking for account summary. Adding/Updating beneficiary, fund transfer, etc.
  - Internet Banking for account summary. Adding/Updating beneficiary, fund transfer, etc.
  - Financial Inclusion in Online mode with Aadhaar integration

### **Core Operations**

- GL and Accounting includes Trial balance, Profit and Loss Account and Balance sheet
- Authorization
- Batch Processing(EOD and EOM)
- Bills & Utilities
- Cash and Vault Management
- Teller
- Configurable interest, commission and Charges
- Bills for Collection(Inward/Outward)
- Transactions
- Inter Branch and Agency Banking
- Clearing (Inward/Outward)
- Other liabilities and assets

## Head Office

- HO Accounting
- Shares capital accounting specific to cooperative sector
- Investment & Borrowings (Treasury)
- Fixed Assets Management
- Inter-Branch Reconciliation
- Asset Management
- AML and related reports
- Audit Module for statutory and internal examiners

## Reports and Statements

- Statutory & Regulatory Reports to RBI including CERSAI reports
- Other reports and statements for operational, reviews and monitoring
- Module-wise Canned Reports/MIS

## Miscellaneous

- Access Controls and User Management
- Financial power based on authorization
- Audit trail of user actions, customer and transactions data
- Rule Engine - to create multiple levels of authorization and must be parameterisable.
- Inland Letter of Credit and Bank Guarantee
- HRMS including performance management system
- Credit Scoring integration with CIBIL and others

The above list is common minimum for CBS of any UCB and would be more or less for a specific UBB. Further, there may be an increase in the list with increasing digital channels.

### III. Technical Requirements

The technology requirements are important for ensuring availability, performance, scalability and security of the UCB CBS. RBI's report of "**Working Group on Information Security, Electronic Banking, Technology Risk Management and Cyber Frauds**" is exhaustive for ensuring security needs for a bank. ISO 27000 series, OWASP, PCI and PA DSS and IDRBT's "**Information Security Framework for Indian Banking Industry**" based on the guidance from various security practitioners of Indian Banks serve as references for ensuring IT security in the banks.

UCBs should ensure applications/software being hosted are thoroughly tested and pass Vulnerability and Penetration testing done by CERT-IN/STQC approved organizations. VAPT has to be done at prescribed regular intervals/also, UCBs leveraging Cloud computing model for CBS and other IT applications can refer to the “IDRBT Cloud Security for Indian Banks” for the contract documents with the service provider. Detailed technical requirements for UCB applications are presented in **Annexure II**.

The technical requirements are classified as

- 1) Performance, Availability and Scalability Requirements
- 2) IT Security Requirements

UCBs have been adopting CBS using cloud services. Keeping in view the requirements relating to cloud model, in the **Annexure III**, key areas that have to be looked into CBS on cloud computing are described. The **Working Group on Cloud computing option for small size UCBs** from RBI provides a precautionary direction on leveraging cloud services. IDRBT's **Cloud Security Framework for Indian Banks** provides guidelines for cloud adoption in IaaS, PaaS and SaaS model. UCBs planning to leverage cloud service providers(CSP) for CBS and their other needs need to ensure the CSP adhere to the above mentioned security requirement and also provide a written proof that any PII or customer data will not be stored outside India. Banks should test the process for complete data removal from cloud service provider as part of UAT. If there is a situation of exit, Bank should obtain the data and have written proof that data is completely destroyed from the service provider location.

#### **IV. Legal and HR Requirements**

As the cooperative banks have lean IT skilled staff and have offices in towns and tier II/III/IV urban areas, recruitment and retention of skilled IT resources is a challenge. It is prudent for UCBs to leverage established ASPs/Data centers/Cloud Service Providers(CSP) for the IT services and to meet availability requirements. If, for any reason the ASP/CSP is unable to provide such service offerings, the Bank should have the right to go to other Service Providers in which case the current ASP shall extend necessary co-operation and assistance, beyond providing an interface patch, to integrate the new service line with the existing infrastructure and applications of the ASP. UCB should reserve the option to ask the ASP to arrange for all additional third party applications / tools / hardware in order to bring the entire additional service line under ASP model. For better interactions with outsourced/Cloud service providers, UCBs should have resources with strong project management skills that includes vendor management and project planning capabilities. **IDRBT Vendor Management Framework** provides a guidance for



preparation of contract document along with SLA terms and conditions with the service provider and UCB.

## **Annexure I (Detailed Functional Requirements)**

### **1. Account Opening**

- Account opening process should include KYC documents to provide an operative account. The requirements for opening CASA, fixed deposits and other accounts are described
- Fresh KYC need not be insisted for transfer of accounts from one branch to another unless KYC updation is due.
- Provide for generation of alerts on KYC updation every 2/7/10 years in respect of high/medium/ low risk category customers respectively.
- Introduction of a customer need not be insisted upon.
- Support for following liability products:
  - Savings Account – General and Staff, Salary, No-Frill, Pension, SB Society/Institutional SB Society
  - Current Account – Individuals/ Institutions/Organization
  - Deposit – General, Society, Organizations.
- Cumulative Fixed Deposit, RD, Savings related insurance Term Deposit, Daily Deposit
- NRE/NRO Accounts
- FCNR accounts (for scheduled UCBs with AD-Category I license only)
- Existence of customer record to be mandatory for opening a new account. Data cleansing to ensure unique customer id
- Support defining eligibility criteria for different account/customer type
- Provide for capturing details including but not limited to: Title of a/c, Name (First, Middle, Last name) with salutation e.g. Mr./Ms. key in field, Father's/Husband's Name, Postal Address, Telephone #/ Fax/, Mobile No., E-Mail, Date of Birth, Gender of each a/c holder and PA holder, if any, PAN#, Passport, Driving License, Voter Identity Card, Electricity Bill/Telephone Bill/Defence Identity Card, Passport#, UID (Aadhar) Card#, Details of introducer a/c number and other details as prescribe in IBA Account opening form
- For current account opening, following details may be captured along with the details requested in IBA account opening form – Memorandum and Article of Association/Certificate of incorporation and commencement of business, Proprietorship letter, Partnership Deed/Letter, Trust Deed, HUF declaration, Resolution

of Board/Trust/Clubs/Association/Society, Order of appointment of Executor or Administrator, Details of A/C with any other bank(s)/or our other branch(es), Power of Attorney, Copy of PAN Card, Form 60/61, Undertaking to notify the bank of any change in the partnership/Board

- Provide for capturing mode of operation including but not limited to:
  - For individuals: Singly, severally, jointly, either or survivor, former or survivor. (Jointly or survivor/s)
  - For other than individuals (companies/trusts/HUFs/clubs/society, etc.): Any one, joint, an authorized operator and any one/more of the rest of the authorized signatories. Also provide for capture of modification with history. (Panchayats/Panchayat Samiti, etc.)
- Allow updation of the identity details to handle mistakes, if any. However, the updates have to go through maker-checker process
- Records must be created and authorised by the supervisor as per maker-checker concept except system generated accounting entries
- Allow for setting of account parameter including but not limited to:
  - Debits not allowed, credits not allowed, debit/credit not allowed, debit with ceiling, credit with ceiling, provide for pop-up message displaying the restriction giving reason thereof, requiring approval by authorized official. Such transactions must be listed in the exception report, provide for revocation of such restriction under authorization.
  - Provide for identification of accounts opened with simplified KYC procedure or as BSBD Accounts including setting transaction limits, outstanding balance limits.
  - Provide for identification of accounts under special schemes / eligible for subsidies/ interest subvention/ pension/ life/ accident insurance, etc. (e.g. PMJDY accounts)
- Provide facility to stop opening a particular type of account/product type from a specified date. Existing account to continue unless and until closed or matured
- Provide menu for flagging of accounts of deceased depositors and accounts where operations have been stopped/restricted under Court-IT Order, etc.
- In case of substitution, original name should be retained with date of change and exception report to be generated
- Provide a field for storing old account numbers (from earlier legacy system) with corresponding new account numbers and the date of opening of old account number
- Support recording of mode of deposit of the initial amount: cash/transfer/clearing
- Nominations:

- Provide facility to specify nomination eligibility based on customer types
- Nomination facility should be offered as a rule. If a customer does not want to nominate, the same should be recorded.
- Provide for the capture of the following details including but not limited to:
  - Name, address, relationship with the account holder, date of birth and signature of the nominee, name of the person authorized to receive money in case of minor nomination
  - Nominations to continue on renewal of deposit unless changed an alert should appear to this effect at the time of renewal
  - Allow for modifications and cancellations of nominations with authorization.
  - Provide for flagging the account as a – new a/c for a period of first – x months, ‘x’ to be defined as a parameter
  - Provide capability to group various accounts of a corporate/individuals based on predefined parameters, e.g. common first accountholder for TDS.
  - Provide for setting limits in accounts opened by minors, entering details of legal guardian
  - Support printing of pass book/deposit receipt, etc., after authorization of initial credit
  - Provide for view of account status (e.g. inoperative/minor/blind/illiterate/KYC norms complied/frozen, etc.) on deposit of cheque
  - Provide for minimum amount with which account can be opened. No minimum balance should be mandated for BSBDA.
  - Provide for alerts if outstanding balance falls below the minimum threshold
  - Blocking of an account for specific accounting period/entity/location/branch
  - Allow setting of Account Parameter: Account cannot go negative. Necessary alert must be displayed and the authorized official must approve the debit-transaction
  - Closed accounts should be allowed only for enquiry and not for transactions
  - Provide for alerts when there are no transactions in an account for two years, sudden operation in a dormant/inoperative account
- Closure of SB and CA
  - Unused cheque must be surrendered or deleted before closure of any account in CA and SB
  - Recover charge of Rs. x if SB/CA account closed within ‘y’ months from date of opening (other than due to death of the depositor). Where ‘y’ is a parameter.
- Closure/Renewal of Term Deposits
  - Provide for sending alerts to customers when an account is reaching maturity or due for renewal

- Provide facility for renewal of full or part of the proceeds e.g. principal and interest, principal, interest and overdue interest, principal only, interest only (i.e., without addition of amount), of matured FD for further period, including retrospective renewal from date of maturity for overdue FD
- Support parameterisation of rate of interest applicable to overdue period of a FD on prospective renewal after – x || days from maturity-date
- Support parameterisation of rate of interest applicable to overdue period of a FD on settlement of deceased account
- In case of premature closure interest rate for run-period of the deposit is to be selected from the interest table effective on date of opening and x% penalty to be charged, 'x' to be set as a parameter
- Premature only from the date of extension
- Account to be termed as closed only when balance is zero and there is nothing further left to process either in the account in question
- Support maintenance of notional balances in certain types of accounts such as PPF
- Support parameterisation of permissible credits for product-types e.g., the variable monthly instalment to be deposited by the customer should not exceed Rs. x
- Calculate and display applicable penalty as applicable
- Provide for generation of notices to be sent to customers in case of overdue instalments for more than parameterised period
- Provide for applying concessions in charges to specific account/group of accounts

#### **ATM Facility Available**

- Population category of the branch like metropolitan, urban, semi-urban and rural, and/or location such as district head quarter, state capital, etc.
- Allow defining of minimum balance to be maintained on each type of account, on a daily, monthly, quarterly, half-yearly, yearly basis
- Allow defining of minimum average balance to be maintained on each type of account, on a daily, monthly, quarterly, half-yearly, yearly basis
- Enable system to levy charges in case of default on instance-basis/period-basis
- Minimum balance charges must be levied before end of day is executed. If the balance in the account is not sufficient to charge minimum balance charges, a record must be kept and charges are to be recovered automatically whenever sufficient balance becomes available in the account
- Provide for setting monetary limits for ATM transactions, levy of charges beyond

- the minimum number of free transactions
- Provide for alerts when multiple ATM transactions are carried out at odd hours from unusual locations

### **Savings Bank Account**

- Interest is to be accrued at user-defined interval and applied to all savings accounts on daily basis based on clear balance at the end of the day and at the rate given in the interest table
- Rate of interest for different types of customers should be parameterized
- Provide for capability to accrue interest on SB account but not applying
- Provide for interest to be calculated up to the last completed month and credited to particular SB account at the time of its closure

### **Current Account**

- Provide for payment of interest at parameterized rate on sole proprietorship account at the time of settlement of deceased-claim

### **Payment of Interest on Term Deposits**

- Allow for creation/maintenance of various modes of interest payment on term deposits including but not restricted to:
  - Fixed Deposit where interest is paid out to the depositor at monthly (discounted)/Quarterly/other predetermined interval by cash/PO/credit to designated account (liquidation type)
  - Cash Certificate Deposits (CC) where interest is compounded at quarterly intervals and credited to CC a/c at the end of the financial year/pre-set interval
  - RD interest on the basis of monthly product
- Provide for executing TDS at the time of interest payment or accrual at predetermined intervals (including quarterly) and as per parameters required for calculation of applicable tax, with facility for clubbing all taxable interest income of a particular customer
- Provide for facility to capture and apply/revoke tax exemptions either on the basis of depositor's declaration or by virtue of exemption as a customer-type
- Support remittance of amount of TDS within user-defined period and generation of interest and TDS certificate at predefined periods
- Provide for capturing account/ transaction details of a customer across accounts/ branches for the purpose of TDS, submission of Form 15G/15H, CTR/ STR,

verification of KYC

- Support generation of yearly ticklers to the customer within a user defined period say for TDS declaration
- Provide for conversion of full or part of one type of deposit into another with facility of waiver of penal interest on premature payment of a term deposit converted into another term deposit

#### **Other Types of Term Deposit**

- Support maintenance of:
  - CC Interest Accrual Account for holding CC quarterly accruals
  - Interest Paid CC Account for making payments of interest on CC for current quarter
  - Interest Accrued and Payable Non-CC for holding quarterly accruals of term deposits. The balance to be credited to Interest Paid Non-CC on the first working day of the new quarter
- Interest Paid Non-CC for making payments of interest on Non-CC Term Deposits for current quarter
- In case of premature payment provide for reversal of recoverable interest from CC account to CC interest account
- System to support parameterized interest payments for different types of accounts in respect of period and rate of interest and recovery of excess interest already paid in case the deposit does not run for a minimum period. System to support accrual of interest with or without application at parameterized intervals on authorization
- Support parameterized payment of interest in case of deceased account
- Support mode of payment of interest like cash/electronic clearing/transfer/other remittance mode, etc.
- Support crediting of interest to loan account in case of lien marking on deposit account to loan account and interest is liquidated periodically
- Support flagging of Recurring Deposit (RD) accounts where monthly instalment is not received in any month
- Display number of arrears instalment

#### **Loan Against Deposit**

- Support marking of lien on deposits (including CC) against which loan/overdraft has been sanctioned and only then disburse the loan
- Denial of closure of such deposit accounts by the system if corresponding loan is not fully adjusted. Provision for automatic closure of loan against

- Deposit account/s on maturity payment of fixed deposit account
- Support tagging of interest and principal in loan account to such deposit account with alert if the former exceeds y% of the interest and principal amount of deposit
- Support automatic lifting of lien when loan/overdraft is adjusted
- Support opening of a single loan account against many deposits

**Closure of Account:** Provide facilities including but not restricted to:

- validation with respect to lien/earmarking, pending debit/credit, recovery of any outstanding charges, instructions like no operation/no withdrawal, unused cheques, stop payment instructions, instruments outstanding in clearing, outward bills for collection and bills purchased, standing instructions, instruction for credit of interest and/or principal of term deposit, outstanding ATM/Debit/Credit Card or any other restriction to closure
- Validation for lost postal receipts (NSC/KVP) and demand drafts; bank initiated closure will need validation in terms of prior notice
- Support payment of proceeds by Pay Order/credit to designated account/conversion fully or partly to a fresh Term Deposit/Demand Draft, etc. Payment by cash restricted to parameterized amount at product-level.

## **2. Customer Information**

Customer Information module will hold customer information/profile for all the customers of the branch across various products of the bank. The module will ensure standard customer information across various product solutions with the specific object of providing a single view of customers across products. The module should have the capability to integrate with all other modules which support individual products like loans, deposits, trade finance, treasury products, etc.

**Customer Profile:** Ability to record structured profiles of each customer of the branch including Retail, Corporate, Government, etc., which would include the following information but not limited to:

- **Unique Customer Identification Number**
- . A customer should have only one customer ID for all the facilities availed by him from single/multiple branches of a bank and irrespective of the style of the name used by him for various accounts
- **Individuals:** Following details regarding individuals as single/joint account holder,

proprietor, partner, director, etc. as well as borrower, guarantor, etc. are required to be captured

- Name (s) and Father's Name of Joint account holder with mandatory detail
- Individual field length for capturing each component of customer details mentioned below should be parameterized:
- Salutation, first name, middle name, last name, title, name of father/spouse, nationality, date of birth, name of the guardian in case of minor, marital status (married, single, widower, etc.), residential status, passport details such as date of issue, valid till, issued by, passport no., current address with pin code (minimum six fields), permanent residential address with pin code (minimum six fields), voter id card number, date of issue and issuing authority, PAN card number, UID (Aadhar) card number, date of issue and place of issue – electronic capture and validation, telephone no., fax no., mobile no., e-mail address (additional five fields may be provided for any future needs)
- Other Details: Date of commencement of customer relation, number of dependents, name of each dependent, relationship
- Occupation: Designation, office address (provide for minimum 6 fields)
- Phone number (provide for minimum 10 fields)
- Annual Income
- PAN details and issuing authority
- Details of contact persons (with relationship)
- Manager, Power of Attorney Holder, etc.
- Group Code for definition of customer hierarchy (used to flag individual within a group OR family code for grouping all members within a family) should provide for at least two levels of hierarchy
  - Whether the Individual is performing agriculture –Y/N
- **Non-Individuals:** In case of accounts of other than individuals the following details would have to be captured:
  - Name of Organization
  - Constitution (e.g. Proprietorship, Partnership, Private Ltd. Company, Public Ltd. Company, Club, Trusts, HUF, Government, Autonomous body, etc.)
  - Provide for particulars of proprietors/partners/directors/promoters, etc. as given for individuals herein above
  - Phone numbers – Provide for 10 fields, e-mail id, fax number – Provide for five fields, activity code as per Basic Statistical Return (BSR), date of incorporation, date of commencement of business, whether enjoying credit facility from any



other bank – Y/N. If yes, then name of the bank, branch and address, whether no objection certificate from that bank has been obtained – Y/N, PAN number

- Introduction Details: Details of Introducer (could be another existing customer and in such case customer id of that customer will do) such as name (three fields), address (six fields), etc.
- Provide for maintenance of list of individuals/banned organizations/entities, etc. as per Anti Money Laundering (AML) measures for validation purposes so that accounts in such names are not allowed to be opened in the system. A full-fledged AML module is not envisaged
- Provide for specific details: Specific details are required to be captured with respect to following but not limited to:
  - Credit Ratings from External Agencies, Credit Risk Indicators, Litigation Status, Consortium bank/multiple banking arrangement details, any other (user definable – at least another 10 fields)
  - Credit Ratings from External Agencies. An illustrative list of status will include:
    - Credit Rating Agency, Rating, Rating definition, Rating date
- Credit Risk Indicators
- An illustrative list will include:
  - Willful defaulter, missing person, on watch list of the bank, RBI defaulters list, RBI exporter's caution list/SAL of ECGC/DGFT caution list, dormant customer, inoperative customer, NPA/special watch account flag
- Litigation Status
- List should include, but not limited to: court case proceedings as "defendant", official seizure and sale by public auction, official liquidation
- Consortium bank/multiple banking arrangement details of credit customers
- Provide for maintaining more than one value per customer profile with "Effective Dates" for specific fields like, but not limited to: Credit Ratings, Litigation Status, Consortium Bank Details, Operation Status
- Support creation and maintenance of drop-down list for individual fields based on standard/user-defined classifications during creation of customer profiles and all related masters (for example when system comes to religion field a drop-down list should come with options of religion like Hindu, Christian, etc.)
- **Product Utilization Information**
  - Provide for identifying various products being used by the customer across the bank including Retail Products, Corporate Products, Cash Management, etc. as

well as to enquire balance outstanding under each head

- Provide for identifying products not yet taken up by the customer
- Provide for targeting of specific products to the customer based on the customer profile. For change of constitution of the customer, support linking of accounts to the new customer profile.

- **Controls and User Support**

- Allow staged completion of the customer profiles creation process (e.g. create a customer with just a customer-id and name with the ability to add/modify additional details at a subsequent stage) (completion of remaining details be made mandatory before EOD)
- Allow combination of two or more customer ids to be linked to a joint account
- Provide for online verification of introducer's signatures, in case the introducers are customers of the bank/branch
- Provide for classification of accounts as per customer type/subtype: e.g. Individual>Male>Pensioner>Defence personnel>Specially enabled

- **Signature Verification**

- System should permit online signature/thumb impression verification. In case of all accounts photos should be displayed along with signatures/thumb impression
- System should work with a common database for all modules in the branch
- Signature is associated with: Customer and Staff
- Signatures may be retrieved and viewed for any customer/staff, etc., from any client pc. If customer has multiple authorised signatories, signatures of all authorised signatories should be retrieved at transaction time along with mode of operation
- Signature scanning and authentication should be possible at any client PC. Facility for modification of signatures should be available along with history of changes. Changes made should be captured in the exception report
- Provide for uploading of scanned signatures to common database (after due authentication) in: Batch/Online mode
- Only authenticated signatures can be used for verification purpose
- Scanned signatures should be stored in compressed format
- The compressed signatures should be encrypted and stored
- System should be able to seamlessly integrate with other modules for transaction processing

- Zooming of signatures (with various levels of zooming) should be possible
- It should be possible to group signatures together
- User should be able to assign particular signatures to groups
  - It should be possible to search and display signatures based on: customer id, a/c location
  - Sorting facility for a given display
  - System should be able to link and show key data like account number, name, limits period of validity, etc., along with signature.

### **3. Cheque Book Facility**

- An option to be available to customer on account opening form for (Y/N) to avail chequebook facility. If yes, accept cheque from and to numbers
- Support recording details of the cheque series including alphabetical part of the series and number of cheque leaves issued to customer for each account separately
- Posting of cheques to be validated. Cheque number to be within the range of cheques already issued and not paid
- Provide for online checking of the amount of each cheque against the actual balance in the account at the time of data entry, including during batch entry of multiple cheques
- Provide for rejection/override message in case the cheque amount exceeds the available balance in the account
- Provide for maintenance of chequebook inventory at branch and alert when stock goes below a predetermined level
- Support recovery of charges for issuing of chequebooks with an exception for staff accounts
- Support maintenance of stock of chequebooks for all account types
- Support 'alpha' number validation of cheque
- The instruction of operation and signature of the customer should be shown on screen before posting of the cheque and the following validations must be carried out:
  - Validity of the account
  - Account is not blocked or closed.
- To provide for all posting of cheques, account-wise individually
- The instruction of operation and signature of the customer should be shown on screen before posting of the cheque and the following validations must be carried out:
  - Stop payment instruction for cheques issued and not paid yet. Alert message while requesting stop payment for already paid cheques
  - Provide for validation of cheque number/date and stop payment instructions

before the cheque is cleared for payment.

- A cheque number once paid should not be allowed to be presented again for payment
- When a cheque is presented again, a warning should be flashed to the user and should be committed only by the user and not automatically
- Support represent option for those cheques, which have been returned unpaid
- To provide for scrutiny of list and confirmation of cheques to be returned
- Provide for authorization of remaining entries excluding the deletion entries in respect of returned instruments
- To generate voucher and Cheque Return Advice in respect of returned cheques containing the following details:
  - Service charges to be automatically debited to the customer's account
  - Reason for return
  - Name of drawee/presenting banker should be mentioned on the return memo
  - Provide for Debit Note Receivable Account (pointing account).
- To generate responding entries in respect of inward clearing
- Provide for marking for returned cheques and posting them automatically to the customer's accounts along with charges
- Calculates rate (parameter and based on account/customer type) per cheque leaf to be charged against issue of cheque book
- Parameter available for calculating commission for cheque purchases
- Facility and minimum number of days the bank should hold the cheque
- Register for banker's cheque, cheque on other banks, demand draft.

#### **4. Service Branches and Clearing**

- Provide for alerts if any third party cheques beyond specified monetary limit is presented for payment/ collection / clearing
- Support receipt of clearing data by the clearing (service) branch from all the designated branches in the format as prescribed by the user. This may be based on: drawee bank, drawee branch, presenting bank, presenting branch
- Support creation of summarized clearing data branch-wise, instrument type-wise, account-wise, etc., with printed and soft copy
- Enable consolidation of the soft copy of the clearing data received from different branches in user-defined formats
- Allow the user to define the period by which credit has to be passed on to the branches for different types of clearing

- Allow for marking of returned cheques. Allow for sorting the unpaid or returned cheques bank-wise and branch-wise with reasons thereof
- Generate the clearing data to be sent back to the originating branches giving the details of cleared cheques and returned cheques. The format of these statements may be defined by the user
- Support automatic credit to the customer's accounts for cheques that have been cleared
- Ability to automatically reverse the entries in customer accounts for cheques that have been returned unpaid
- Ability to debit the customer's account for recovery of the charges for unpaid cheques automatically
- In case of a batch posting, system should reduce the available balance dynamically from the customer's account after every cheque
- Provide a facility to automatically store and make available on enquiry, information such as when and where the cheque is presented and cleared and whether cleared or stopped, payment to which bank, etc.
- Provide for automatic transfer of net balance to RBI clearing account/local clearing (Outward)
- Support sorting of the data on user-defined parameters for all cheques received
- Enable inward clearing based on the data received in soft copy from Reserve Bank of India/clearing house or input the data generated by the MICR reader at the service branch and also to modify cheque date and payee's name
- Ability to match the instrument details received from the clearing house with the details of instruments sent to the clearing house and identifies and reconciles any differences
- Should be able to support cheques/DDs drawn on branches maintained in another cheque processing centre of the bank to be uploaded and paid
- Cheques to be available in format identified by RBI and NPCI for CTS based clearing. Functionality for scanning, uploading, receiving and reconciling with CTS clearing systems
- Provide for following categories of clearing: MICR clearing, non-MICR clearing, Inter Bank clearing (Magnetic media based clearing system), high value clearing, national clearing, Cheque Truncation/Image-based Clearing, Electronic Clearing Service (ECS), Outstation clearing or any other clearing as per RBI norms
- System should support various types of clearing under each of the above category:
  - Inward clearing
  - Outward clearing – as well as provide for data entry for next working day

- Clearing returns – Provide for generation of outward debit note and processing of inward debit note.
- To provide for more than one clearing per day in each of the above categories
- System should support for more than one clearing zone in the centres
- Customers may be credited on a predefined working day, (mostly on next day from the date of deposit)
- Customer may be allowed to utilize the funds after a predefined number of days as per the clearing norms at the centre
- Provide for online posting, as well as batch posting. System to suggest measures for double-checking of batches posted to ensure correctness
- Provide for handling of multiple cheques deposited under one pay-in slip
- Provide for credit to multiple accounts from one cheque
- To generate unique reference number for every deposit of cheques
- Provide for automatic transfer of net balance to RBI clearing account/local-clearing account
- Give daily status of net amount “due to” or “due by” RBI/SBI/clearing house including reconciliation of account
- To provide for handling of electronic funds transfer (electronic debits and credits not internal to the bank)
- Provide for recording and handling payments of dividend warrants separately including through electronic clearing service
- Provide for beginning and end of clearing cycle so that no instruments can be included after the end of the clearing cycle
- Provide for capturing of the following information but not limited to: Customer ID, Customer’s account type and number, Cheque number/Cheque date, City code, Branch code, Bank code, Type of instrument, Amount, Account number of issuing party, MICR code
- Provide for capture of cheque image for enabling capacity for cheque truncation
- Provide for capability to interface with the cheque truncation software as may be provided by NPCI/external agency
- Support upload of the above details pertaining to the instruments from the file generated by the reader and sorter machine
- Support identification and sorting of the intra-bank and inter-bank cheques and support clearing of cheques locally without being sent to RBI, if required
- Support generation of list of instruments bank wise (for inter-bank) and branch wise (for intra-bank) for each clearing (formats of the lists to be defined by the user)

- Allow defining the following dates:
  - Clearing data entry date, credit date and clearing clear date
  - Posted date: Date on which RBI gives credit to the concerned bank. Customer account begins to earn interest from this date
  - Cleared date: Funds are cleared and available to the customer provided for crediting the entries in the account based on these dates and mark the balances as cleared.
- Provide for postponement of uncleared funds and not advancement in relation to predefined days/period
- Provide for two fields – one for voucher details and other for cheque details
- System should flash message in case of undetailed batch or untallied batch
- To provide for charges in respect of outward clearing return instruments and generate vouchers
- To provide for authorization of all entries
- To generate responding entries in respect of outward clearing

## **5. Cash Department at Branch**

- Provide facility to define functions/operations, which can be performed by each teller/cashier
- Support limits for tellers based on:
  - Type of accounts, Type of transactions, Amount of transactions
  - Teller/Cashier Operation
- Provide facility for the teller to view customer's signature on screen for verification and account operating instructions
- Provide teller functions in local currency (Indian Rupees) as well as foreign currencies
- Support exchange of currency, denomination-wise, between two or more tellers/cashiers and head cashier
- Support tendering of change to customer, denomination-wise
- Support payment of cash for demand drafts, pay orders, bank orders, traveler's cheques, etc.
- Provide for issue/printing of drafts, pay orders, bank orders, etc. by the teller
- Cashier Operations: Cashier to be able to query/call on terminal-only cash transactions already authorized for payment, pay cash, enter denominations and flag transaction
  - Provide for enquiry on cash on hand and denominations to monitor cash
  - Provide for enquiring on status of transactions, whether entered, already authorized, etc., based on amount, account number and type, etc.
  - Generation of cash scrolls, payment and receipt for end-of-day handing over of cash to Chief/Head Cashier/Cashier-in-Charge.

- **Chief/Head Cashier Operations**
  - Support facility to record open/close status of vault
  - Support automatic verification of Cash-on-Hand position (as per GL) at end-of-day (EOD) with EOD cash inventory position and pop-up message in case of discrepancy. (EOD to be allowed to go ahead only if there is no difference)
  - Should allow for a teller function and a cashier function optionally
  - Cashier should be able to receive/pay amounts with authorizations. At least two levels of authorizations must be provided for
  - There should be a provision for storing a token number and scroll number for each cash payment/cash receipt.
  
- **Cash Deposits**
  - Provide a facility for cash deposit to all permitted account types for credit of accounts across all CBS branches. (subject to user defined charges over and above redefined limit of cash deposit)
  - Provide for cash handling charges on User defined parameters.
  
- **Cheque Deposits**
  - Support cheque deposit (and their classification for the purpose of printing of statements and monitoring) of the following types:
    - Cheque drawn on another customer of same branch, cheque drawn on another customer of same bank but different branch, cheque drawn on another customer of another bank in the same city, cheque drawn on another customer of another bank in different cities.
  
- **Cash Payments**
  - Enable cash withdrawal from specified account type using withdrawal slips/vouchers.
  - Allow withdrawal of cash using cheques as well as payment of DDs, POs, BOs (in case of DDs, POs, BOs and term deposit accounts a predefined limit should be fixed for cash payment; say Rs. 20000/-)
  - Allow cash withdrawal across branches and validate for cheque number, cheque date, stop payments in case cheques are used for withdrawals.
  
- **Data Input for Teller Operations**
  - Provide facility to enter transaction (e.g. Cheques) in batch mode or single



transaction mode

- Support input of transactions affecting internal accounts like Cash-Remittance-in Transit, Working Expenses, Sundry Debtors, Rent Payable, etc.
- Allow authorization of inputs, when done for a batch, only when the batch is balanced. Support for unbalanced batches based on entry/partial updation, etc. in case of problems during entry/updation
- Allow marking of transactions as reversed (rather than passing contra entry to cancel the erroneous entry) which should be captured in exception report
- Support functionality to allow access to the above-mentioned facility only to predefined users
- Support facility to authorize multiple transactions using a single function with overrides if any for transactions. Any overrides should be captured in exception report.
- Printing of passbook, statement, DD and pay order at teller counter
- Passbook layouts and transactions should be user-definable.

## **6. Cash Credit and Overdraft**

- Appraisal for CC/OD. Fields to be captured are: Recording date, date of membership, Validity date, Sanctioned Limit, Fixation/Calculation of limits, margin, drawing power
- Should go through regular account opening process. Chequebook related functionality and other facilities and regulations available for an account
- Monitoring of the CC/OD account. Max. outgoing/Min. outgoing/Credit Balances number recording with ref. date
- Facility to upload appraisal related documentation. Details regarding the security furnished
- Closing of an existing account
- Recording and posting of debit entries
- Recording and posting of credit entries
- Calculation and debiting of interest
- Accepts the relevant information of CC/OD application form
- Cash deposit with scroll number
- Provides input for RBI specifications viz. margin applicable industry-wise
- Records information from the monthly stock statement
- Provides input for RBI specified penal interest for late submission of stock statements, etc.

- MPBF, limit and drawing power
- Details of the securities provided with reference to the valuation and date
- Modification to value of security, if any
- Allows modifications to an account and only with the authority
- Application for modification with relevant details
- Allows withdrawal by cheque, standing instructions and internal voucher signed by an Officer
- Records date and scroll of the transaction
- Allows deposit to the account through cheque, cash, remittance, standing instruction and internal transfer signed by an Officer
- Allows modification of interest rates for past quarter
- Accepts parameter details for charging the cheque return
- Provides facility for classifying assets, provisioning and upgradation
- Allows freezing and de-freezing of accounts with earmarking.
- Provide for re-setting interest rates in case of floating rate loans

## **7. Loan Processing**

- **Direct Lending**
  - Provide capability to segregate advances into various types like but not limited to Overdraft, Cash Credit, Clean Advances, Term loans, Working capital loans, Hire Purchase, Bills Purchased (a) Inland (b) Foreign, Advance Bills Purchased Account (Bills under devolved LCs), Letter of Credit Bank Guarantee, Deferred Payment Guarantee Discounting of Bills under LC (Inland), Advances to Infrastructure Projects (Eligible for tax exceptions under Section 10(23) G of IT Act)
  - Provide capability to segregate advances into: 'Standard' – with provision for age wise sub classification 'Sub-standard' – with provision for age wise sub classification 'Doubtful' – with provision for age wise sub classification 'Loss'
  - Provide trigger for special watch accounts (probable NPA a/cs or overdue a/cs for user defined period)
  - Provide capability to segregate advances into various Schemes/Categories like but not limited to: each scheme would be specific to each of the UCB – provide for automatic classification of accounts into priority sector.
  - Small scale industries, retail trade and small business, Composite loan (bank credit for Artisans village & Cottage industries), Loans to professional & self-employed, Direct loan to small road & water transport operators Differential

Rate of Interest (DRI) scheme, Education, Rural housing consumption loans, Self-Help Groups, National Equity Fund Scheme, Wind Mill/Solar Power, Personal loan, Vehicle loan, Demand loan (staff), Demand loan (others), Salary linked personal loan, Gold loan, Loan for Rain water harvesting, Joint liability group loan, Loan against banks deposit/NSC/KVP/LIC shares/other banks deposit, Car loan, Loan against flexi RD-( age wise credit limit e.g. Big Samridhi loan scheme), staff loans (not limited to) house loan, additional house loan, overdraft scheme, vehicle loan, festival loan, consumer loan anytime money for salaried persons/comm. agents, etc.

- Provide capability for configuring templates for lending products with, but not limited to, following parameters:
  - Name of the lending product, target group for the lending product, eligibility criteria for the product, quantum of loan, minimum, maximum rate of interest, minimum, maximum, method of charging interest – simple/periodic compounding (with option not to charge/to charge interest during moratorium), security – primary and collateral (provision for modification for security subject to authorisation), owner of the collateral, if owner of collateral is a third party, then there should be a mandatory field for guarantee, (in case of FDR as collateral security, the guarantee should be limited to the extent of principal and interest of FDR), repayment schedule with options to show daily, monthly, quarterly, half yearly, annual, etc. with or without moratorium – suitable option for running accounts and loan accounts, prepayment charges, commitment charges, insurance requirements with provision indicating different clauses and extent of coverage with reference to value of goods, processing charges/up-front fees, prepayment incentive (e.g. education loan, etc.)
  - Provide for margin sensitive interest rates
  - Support creating composite loan products using the generic loan products/facilities under each of the lending classifications
  - Support definition of main-limit, outer-limit, inner-limit, interchangeable limit, earmarking for other facilities, month-wise operating limit for seasonal activities (e.g., tea, sugar, etc.)
  - Support maintenance of more than one limit per customer for a type of facility
  - Support maintenance of main limit in one product with sub-limits/inner-limits in other loan products/in other branches

- Allow creating of notes, which have to be attached to the loan details. These could be in the form of additional text fields in the loans
- Separate form attached to the original detailed form
- Separate note linked to the loan details form and security documents
- Support for marking lien on deposits within the branch or with another branch, offered as security for any loan with option to generate report/certificate of lien
- Support marking lien on limit/drawing power of loan accounts (for issuing Commercial Paper, Letters of Comfort, Letters of Credit, Bank Guarantees, Short Term Loan, etc.)
- Support auto reduction of limit to the extent of excess drawals in other specified loan account(s) selected i.e. defining the overall group exposure
- Support seeking online confirmation for lifting of lien, on closure of loan account
- Support reflection of liens details for a loan account, marked against any deposit/liability products
- Support reflection of liens marked on a loan limit
- Allow and support different due dates for principal interest and other charge types with both structured or irregular periodicity
- Provide for transfer of loan accounts from one branch (location) to another. This should not be treated as pre-mature closure of account with option to transfer such accounts within core banking branches and other branches and necessary inter-branch trans
- Provide for validation of the time/demand deposit in case it is offered in lien for the loan
- Support loan application where the collateral is held with another branch/bank
- Support selecting mode of sending notices to borrowers/guarantors both individually for each type of notice and collectively for borrower and group of borrowers/guarantors (multilingual)
- Support blocking either credits or debits or both in any account with reasons and reports along with option for generating notice advising the account holder
- Provision to maintain records of securities for loans against shares with options for temporary in/out: Physical/demat with option for validating acceptability of shares against set of predetermined list of shares and option.
- Provision to maintain loans against own bank deposits and/or government certificates/bonds (LIC POLICY)
- Provision to generate reports of shares company wise, category wise, with number and face value, market value with annual high and low

- Provision to update share value with provision for interface with external source: Offline/Online
- Provide for surrender value of LIC
- Provision to calculate drawing power as per the definition and generation of advice letters to party in case of excess/overdrawing for regularization
- Limit Monitoring
- Support capture of records based on the following parameters and validate the exposure limit, but not limited to:
  - Customer
  - Sanction/application reference, scheme-wise, industry-wise, sanctioning authority, facility/product, limit-wise (amount), provide for capturing detail of reference person
- Limit maintenance support capture of following information:
  - Name and address of the borrower
  - Nature of activity
  - Category of borrower (Priority/Non-Priority/Export/Special Schemes, etc.)
  - Restructured account (CDR or otherwise), accounts under compromise, sick unit, etc.
  - Date of sanction/renewal/review
  - Due date for limit renewal
  - Age in number of days from date of renewal and review
  - Sanctioning authority with validation for sanctioning powers as per delegated authority
  - Nature of limits (division wise limit If any)
  - Limit with progressive reductions
  - Sub Limits for charging differential rate of interest
  - Amount of limit (Peak and Non-Peak Level)
  - Rating of the borrower.
- Support setting up limits in stages for a customer account i.e., support setting of limits for each product/facility separately
- Provision to override the exceptions for partial disbursements up to a particular amount/nos. of transactions only with proper authorisation.
- Provision to maintain partial/full disbursements
- Provide capability to set overdraft limits for the current accounts
- Enable setting of limits and exposures for loans to be sanctioned to a Customer / group

- Support usage of a single overall limit by all disbursement products (with level / break-up of disbursement)
- Allow for setting up of lines/provisional limit in case the customer has used up the limit defined.
- Provide capability to automatically reduce the overdraft limit based on a predefined frequency
- Support design (template) to check compliance, of related terms and conditions of sanction
- Support modification of check List to make account specific modification requirements of terms of sanction
- Support capture of data in stages, for details of compliance for each application/sanction reference
- Support capturing details of registration of charge with Registrar of Companies (ROC), Registrar of Assurances, Depository, etc. for each limit separately with provision for recording the modifications there to with maintenance of the history
- Support tracking and give alerts for primary securities and collaterals pending registration of charge with ROC, Registrar of Assurances, etc., at predefined frequencies
- Support for flagging of limit for non-compliance of terms and conditions
- Support definition of mandatory compliance (in the standard list of compliance) for lifting the flag, to make the limit operational
- Support capturing dates of execution of each document stipulated in the sanction
- Support seeking online confirmation(s) for making a limit operational/for overdrawn, etc.
- Ensure that no limit is set up unless sanction details are recorded
- Capability to ensure that there is no duplication in the limit set up for any sanctioned limit
- Support obtaining of special approval for sanctioning of advance, where the advance is linked to the line of credit and not the limit itself
- Enable conversion of the line into limit in case payment of any other advance releases the limit with approval of the delegated authority
- In the case of a change of constitution of the customer, support linking accounts to the new customer profile with past history
- Support alerts/messages in case the collateral amount goes below the pre determines level, where the limit is linked to the collateral
- Allow for setting up of limits as a percentage of the collateral held

- Support updating of the limits on enhancement, reductions or ad hoc sanctions and maintain history of changes
- Ability to update the sanction details for completion of the legal formalities and execution of documents, registration of charges, etc.
- Provide for generation of alerts/ exception reports when any loan / credit limit is sanctioned by an Authority beyond the powers delegated to him
- Provide for periodical valuation of immovable properties and verification of encumbrances against the properties
- Provide for sale of assets given as security/collateral through auction / e-tendering

### **Collateral Management**

- Support capturing history of creation/addition/modification in the collateral security
- Support blocking/freeze (manual) and defreeze link to relevant authority
- Provide for maintaining value of collateral security with relevant date and history of valuations
- Support tracking of date of valuation of collateral, vis-à-vis predefined validity periods and prompt the user to update valuations. User to be able to define validity period for each category of Collateral
- Provide a reminder facility, based on a predefined frequency, for revaluation of collateral
- Provide alerts where the collateral value drops below the predefined limit
- Support interface with deposits module for recording liens on deposits
- Provide a facility to monitor collateral where the collateral (mainly time / demand deposits) is held with another Branch
- Support seeking on-line confirmation for de-linking of time / demand deposit to the loan limit, in case the loan is paid up
- Support seeking on-line confirmation for lifting lien in case the relative Letters of Credit, Bank Guarantee is retired
- Allow for management of collateral even in case the loan is paid up
- Allow for linking of:
  - Single loan to multiple collateral
  - Multiple loans to single collateral
  - Single collateral to multiple customers.
- Support validation of the collateral against the existing database, to find if it is being currently used for any other loan/advance

- Allow for capturing the following, but not limited to:
- Insurance details
- Legal/Solicitor details
- Valuation details (external consultant, etc.)
- Details of loans for which the security is held as collateral
- Provision to maintain details of suit filed details borrower/account wise
- Legal Action: Date of closure of loan, filing of ARC, amount of ARC, date of hearing of arbitrator, date of decree, amount of decree, execution amount, nature of execution (money/mortgage, etc.), charges paid, stages of decree, date of decree, date of preliminary decree, final decree, date of execution of decree, execution amount, notice issued under securitization act., status of action under securitization act, etc.
- Facility to automatically restrict operation on the collateral with provision to override by authorized users
- Provide for closing/marketing the collateral in case the collateral is disposed off in the market
- Maintenance of primary and collateral securities separately should include:
  - Recording of value
  - Recording of revaluation
  - Acknowledgement of securities
  - Addition/or release of securities
  - Registered mortgage or equitable mortgage
  - If registered mortgage, amount and date of registration
  - Description of security, legal opinion date, search report, valuation, report name of valuer.



## Disbursals

- Enable a phased draw-down schedule for the disbursement of the loan amount
- Support checking of balance and drawing power and ability to display record of past disbursement before the disbursement of the loan
- Ability to check authority limit of disbursing officer / approving authority
- Ability to check company / industry exposure prior to disbursement
- Ability to generate disbursement memo with disbursement request and overall exposure details
- Provision to track disbursement, full/partial. Provision for blocking further debits except interest, after completion of final disbursements.
- Ability to modify disbursement Schedule during the tenure of a facility
- Ability to keep track of future disbursement schedule
- Support cheque operated loan accounts (cash credit accounts on lines of current account)
- Provision to remit/draw disbursements related to scheme parameters through DD/PO/TT/MT/Cash/Cheques, etc.
- Provision to enter the proof of end use of funds like:
  - Bills/Money Receipts
  - RC book, etc.
- Support bulk credits/Recoveries in retail loans e.g. (salary, etc.)
- Fee based disbursals.
- Ability to account for fee based income with characteristics similar to interest rates
- Ability to handle transactions with only fee-based income
- Support for prepayment, part payment, pre-closure and closure of loans
- Allow pre-payment of loans on user-defined rules/charges model
- Support checks to ensure non-closure of loans till all outstanding and interest accrued against it has been repaid
- Ensure release of lien in case of prepayments
- Provision to generate predefined lists before closure of accounts to check for: charges to be recovered, interest to be recovered, interest in dummy ledger, cheque books to be surrendered, ATM/credit card/debit card or any other card transactions
- Provide for cheques deposited – but not cleared, lien on deposits, subsidy details, margin details, list of securities, operations in related accounts
- Provision for authorization of account closure after all the

exceptions/cautions are attended

- On authorization of account closure the related security documents have to be marked accordingly.

### **Drawing Power**

- Support automatic (rule based)/manual setting up of 'drawing powers' and restricting disbursements/drawings based on the same
- Allow defining rules for calculating drawing power based on Security (percentage/absolute value)
- Instalments not yet due
- Support limiting drawing in a loan account to drawing power (like a running account)
- Support allowing drawings in excess of 'drawing power' with online approval of authorized users with exception reporting
- System to prompt for period of validity each time drawing power is updated with default date as system date while updating
- Support selecting method/methods of computation of 'drawing power' for each limit set up on the system
- Support selecting items of security for calculation of drawing power
- Drawing power available for cash credit/working capital demand loan
- System should enable capture of margins, caps (sub-limits), periodicity of valuation, etc., specified for securities
- System to maintain these values for period specified by the user (minimum of 12 months)
- Support tracking of periodicity of valuation vis-à-vis the stipulated periodicity
- Support design of standard templates for capturing details like
- Date of valuation(date of stock statement),
- Value of each item of security(market value)
- For deposit receipts system should arrive DP after reducing margin on present value of deposit. Lien should be marked on the deposits
- For all other securities like NSC, shares, etc. security type, value of security, margin and description should be accepted and DP arrived accordingly by the system
- Monitoring of loans
  - Ability to record tracking of key events/milestones during the project analysis stage like financial closure, implementation, implementation status, clearance (statutory and others), etc.

- Facilitate identifying/monitoring defaulting loans based on:
  - Interest default, Principal default, Charges/fees default
  - Ability to generate standard notice/Legal notice/suit/plaint documents/letters of invocation of guarantee, etc.
  - Repayments.
- Provision unique repayment schedule for each of the disbursements
- Support fixing repayment schedule for a limit. The methods of repayment could be:
  - Periodical (monthly, quarterly, half-yearly, Yearly, seasonal (harvest) etc.)
  - Irregular and progressive
  - On demand:
    - With or without initial moratorium
    - Separate repayment schedules for Interest and principal
    - Equated instalments, with or without Moratorium
    - Equated monthly instalments (EMI)
    - Equal or un-equal instalments
    - Provide for accepting repayments by:
      - Cheque/ECS
      - Post-dated cheque (with due date maintenance for presentation)
      - Transfer from other account
      - Cash
      - Automatic debiting of any other account
      - Support “clearing” repayments against loan amount.

### **Insurance Details**

- Support capturing insurance details for each item of primary security as also each interim Collateral security (for which insurance cover is stipulated in the sanction).
- The details should include:
- Insurance company, Policy date, Policy number, Asset covered, Risks covered, Insurance cover, Premium, Beneficiary Due date for renewal
- Provision to note Insurance cover/guarantee cover.

### **Inspection**

- Support capturing dates of inspection customer-wise for both primary and collateral

- Support inputting of remarks/report of Inspecting officials/agencies (memo field).
- Provision to enter/upload remarks and Replies of audits like external, statutory, Concurrent, RBI, External
- Support capturing names of the officials/Agencies who conducted the inspections
- Provide for tracking the periodicity of Inspections with the periodicity of inspections specified in the Sanction Customer-wise for both primary and Collateral security
- Recording of inspection of assets
- Post sanction
- Generation of letters/reports to customers/higher authorities about the Inspections of assets
- Inspection Details: Date of last inspection, Inspection Schedule.

#### **Asset Classification and Provisioning**

- Support definition of norms for asset Classification and income recognition differently for each sector with provision to deal with restructured accounts as per terms of restructure
- Support auto classification of all loans into performing (including special watch accounts) and non-performing assets, based on user defined criteria and RBI guidelines. support classification into NPA customer wise i.e., if one loan account is NPA, all loan accounts of the customer are to be marked as NPA.
- Support manual over-ride facility for asset classification by authorized users with exception report
- Ability to identify and categorize assets into various categories such as standard, sub-standard, doubtful and loss assets based on multiple criteria
- Ability to trigger when there is a possibility of one or more criteria being met
- Store date on which the asset classification Changes from performing asset to non- performing asset
- Support automatic change of asset status (standard, sub-standard, etc.) based on user defined criteria after obtaining on screen confirmation from user
- Provision to classify accounts as per Income recognition norms with calculation of interest and charges to be reversed and account accordingly

with report generation:

- Automatic upgrading
- Automatic downgrading.
- Support separate calculation of interest Accruals for non-performing assets (NPAs) on an on-going basis
- Provision to maintain dummy account Ledger for NPA accounts/written off accounts. (A dummy ledger is one where notional entries are made without affecting any of the accounting heads)
- Provision to accrue interest on dummy ledger accounts/written off accounts (off balance sheet item) without applying the same.
- Provision to close dummy ledger on automatic upgrading of advance account
- Support compounding of interest at the user specified frequency for NPAs while computing Interest accrued
- Support maintenance of income suspense/interest not collected account
- Provision to maintain details of suit filed details borrower/account wise
- Automatically calculate write-off/write back amount outstanding in specified NPA accounts based on user defined criteria
- Automatically calculate specific provisions based on user defined criteria and formulae
- Support creation of interest provisions and Receivables, based on accrued interest calculated
- Support maintenance of provision/receivable accounts separately for each account type separately
- Support application of interest by debit/credit to provisions/receivable accounts
- Support user defining calendar for reversal of outstanding in provision/receivable accounts
- Provision to reversal of interest out of recoveries, in the dummy ledger
- The asset classification data should be available for future reference
- Provision to maintain income recognition norms for asset classification
  - Product wise
  - Scheme wise
  - Interest rate wise.
- Provision to appropriate recoveries to:
  - Principal

- Interest
- Charges.
- Provision to record receipt of guarantee claims like ECGC/CGFSI and proportionate refund from recoveries/claim accounts
- Provision to generate reports of asset classification for any given date/back date
- Generate potential NPA (special watch) statements as per pre-defined norms/formats
- Provision to calculate un-recovered interest on newly identified NPA accounts
- Provision to define accounting entries for unrecovered interest amounts
- System should check whether credit monitoring statement of large borrower accounts – Accounts with Rs. 10 Lakh and above (parameterisable) is generated:
  - Debit and credit summations
  - Overdue bills (Number and Amount)
  - Excess/Ad hoc allowed, date of adjustment
  - Details of guarantee invoked, etc.

**•Indirect Lending**

- Provision for Direct and Indirect Lending for loan product type
- Opening of a new account/authorization
- Modification of an existing account depending on status
- Closing of an existing account
- Loan Disbursement
- Calculation of interest and instalment amount based on instalment calculation method. Check list for release of subsequent instalment
- Calculation of due dates for instalment
- Diary creation for every account:
  - Deposit Entry
  - Authorization.
- Provision of giving grace period and grace policy for every instalment or only in first instalment
- Interest application policies (on, when)
- Calculation of instalment amounts on different amounts (ledger balance, disburse amount, loan sanction)

- Methods for calculating instalment amount should be configurable (initial, monthly, half yearly, balloon, etc.)
- System will calculate exact instalment amount depending on instalment calculation method
- System provides facility of giving moratorium period to loan account
  - Diary will get created taking in to consideration due date, instalment amount, moratorium, etc.
  - Different repayment modes are provided in system like daily, quarterly, monthly, bimonthly, half yearly, yearly, lump sum
  - In deposition, facility is given to account holder what he/she want to adjust first, any Interest or principal
  - Depending on Interest charge frequency interest will get automatically posted to his Account.
  - Security of term loan detail recording. Prepayment/EMI guarantor for loan – detail recording
  - Guarantor for loan – detail recording
  - System will keep track of account holder and his guarantors
  - Partial Disbursement is allowed
  - Facility of transferring term loan account from one branch to another. Re-scheduling/compromise settlement
  - Loans for different types of loan products (configurable) – House Building, Transport etc. loan to/SHG. Appraisal process, Interest terms, duration, payment terms, etc., are configurable parameters
  - Provide for interfaces from RBI, other banks, Credit Information Bureau, for credit risk information/default status
  - Integration with collateral management facilities for verification/entry of details of collateral
  - Configurable alerting process (for staff and loan customers) for recovery
  - Configurable parameter for re-scheduling and restructuring loans.

## **8. Bills**

- Defining work flow requirements for authorizations based on hierarchy levels and amounts for different types of transactions
- Unique reference number generated for each transaction should be a combination based on branch ID, type of transaction, currency and serial number

- User should be able to define the order of this combination
- To enable users to hold the captured data as an incomplete transaction and the same may be accepted or committed after all the fields are captured
- To provide for creation of multi-level authorisation for the purpose of committing the transactions
- To prompt the user before any transaction is committed
- To provide for any entries in the accounts and the GL, only when the final authorities have approved the transaction
- To support blocking either credits or debits or both in any account
- To process all types of transactions and to provide for all types of facility to draw up the list of documents missing when the user is processing the transaction
- In case of any discrepancies during the validation of documents against the check list, the same should be forwarded to the next approving authority as per the workflow defined by the user
- To enable creation of new transaction by copying an existing transaction with the facility to change all fields
- Provide for linking of all transactions to day book, subsidiary and GL
- To enable picking up of customer information for all transaction from the database
- To provide capability to search a transaction based on various fields or a combination of fields such as customer ID, date of transaction/range of dates, due date, reference number, type of transaction, amounts, selection criteria defined by the user
- To enable customisation of new products as and when introduced by the bank masters
- Allow the user to define the desired fields as mandatory fields for all types of products. Interface with customer master module to capture customer details
- Provide for keeping a record of directory of bank branches giving details like bank name, branch name, branch address, fax/telephone number, e-mail address, SWIFT address, contact person, BSR/PIN/CBS BRANCH/MICR/IFSC Number
- Outward bills – cheque for collection
- Provide reference number, date of lodging, name of the party/account number, Cheque/DD number with date, drawn on bank/branch with city, amount of cheque/instrument, drawee account no. and name, sent for collection to whom like service branch, our branch, other bank with address, commission, postage, returned instruments with reasons thereof
- Provide for a separate head in P&L subsidiary — Interest paid account on delayed collection, Waiver of commission for staff and & quasi government bodies
- Provide for printing – Different schedules for each type of destination along with



instructions for dispatch e.g. courier, speed post etc., single and multiple schedules bank-wise

- Passing of contra voucher
- Reminders for unrealized instruments beyond specified number of days
- Realization of cheque sent for collection
- Provide for payment of interest for delayed collection of cheques beyond specified period in respect of state capitals and other places as per Goiporia Committee recommendations – specified period to be parameterized separately for state capital and other places
- Provide for realization register with the details like – date, our number, amount realized and amount credited, our commission, other bank’s charges, postages, number of days taken for realization, interest for delayed period if any, returned instruments
- Transfer from collection to purchase
- To provide for authorization – details of credit to be given
- To provide for separate schedule/code numbers
- National clearing realization
- Outward Bills for Collection Register
- To provide for collection register with the details – Date of lodgment, our bill number, name of the party/account number, amount, drawee details, details of usance/due date, our commission and collecting bank’s charges, if any, postage, interest charges/recovered as per drawers instructions, details of documents enclosed like invoice, lorry/railway receipt/airway bill, etc. with date/number/amount, instruction to party (regarding commission, C form, overdue interest and disposal instructions), sent to whom for collection, details of bill returned
- To generate –
  - Register for a given period
  - Covering schedule along with necessary instructions.
- Control vouchers
  - To provide reminders for unrealized bills after due date or parameterized period
  - To provide for register with details – Bill number, Name of party/account number, Date of realization, Amount realized and amount credited, Other Bank’s charges, our commission/postages
  - To sense the bill from the bill number, date of lodgement and original bill amount
- Cheque/Draft purchase
  - To provide for register with the details for cheque purchase – Date, our number, name of the party/account number, staff/non-staff, amount of cheque and

amount credited, cheque number and date (date to be validated), drawee bank/branch, to whom sent for collection, interest/commission/postage/other bank's charges, if any, date of realization

- To generate covering schedule for dispatch including remittance and dispatch instructions on realization (e.g.TT/Courier) as also necessary vouchers and provide for charging of commission upfront
- To generate reminders for unrealized cheques and maintenance of ledgers party wise
- Realization of cheques purchased.
- To generate register with the details – Date of realization, our number, amount realized/credited, rate of interest, amount of interest, other bank's charges, column for returned instrument (to be debited to past due and dishonored bills account in case of insufficient funds in the party's account) with reasons thereof
- To provide for entries for converting from:
  - Cheque purchase to cheque collection, returning of cheques with reasons thereof, charging of interest from day one with penal interest, our bill number, name of party/account number, bill amount/amount credited, margin held, drawee details, whether documentary or clean bill, details of demand bills (Demand bills purchased are to be shown separately in general ledger (GL) under inland bills purchased (Demand) account head), details of documents enclosed like invoice, lorry/railway receipt, airway bill, etc., with date/number/amount/transport operator (validation of date of LR/RR with provision to override with exception report), our commission and collecting bank's charges if any, postage, interest charges/recovered, instruction to party (regarding commission, C form, overdue interest and disposal instructions), sent to whom for collection, date of realization, details of returned instrument (to be debited to past due and dishonored bills account in case of insufficient funds in the party's account) with reasons.
- Provide for generating –
  - Register
  - Covering schedules for dispatch along with instructions of the drawers of the bill
- Vouchers
  - To generate reminders based on instructions of the drawer in the schedule or after parameterized period to drawer and drawee/bank
- Maintenance of Bills Purchase Register and Bills Purchase Ledger party wise
- Maintenance of pointed account for margin held

- To provide for register with the details – Bill number, amount purchased/realized, date of realization, overdue interest, amount, number of days, interest rate and penal rate
- Provide for realization register and vouchers along with advice for party
- To provide for two fields for interest calculation upfront at the time of realisation
- To provide for penal interest at the time of overdue bills realization
- To generate register with the details: Date of purchase, bill number and bill date, name of the party/account number, amount, drawee, details of B/E, number of days of usance period and due date, details of documents enclosed like invoice, lorry/railway receipt, airway bill, etc. with date/number/amount/transport operator (validation of date of LR/RR with provision to override with exception report), discount, amount of discount, commission/postage, date of realization, margin deducted, details of returned instrument (to be debited to past due and dishonored bills account in case of insufficient funds in the party's account) with reasons thereof
- To generate schedule for dispatch along with instructions
- Maintenance of Bills Discounted Register and Bills Discounted Ledger party wise
- Maintenance of pointed account for margin held
- Maintenance of list of IBA approved transport operators and validation thereof while purchasing bills
- To generate reminders one week before due date to drawer and drawee/bank
- Realisation of discounted bills
  - To provide for register with the details: Date of realization, name of the party/account number, amount of bill and amount realized, number of days, rate of interest, overdue interest, penal interest, margin deducted, details of returned instrument (to be debited to past due and dishonoured bills account in case of insufficient funds in the party's account) with reasons thereof
  - To generate realisation register
  - Inward cheques and bills received for collection
  - To provide for register with the details: Our number, date, their number, name of our customer/drawee, bill number/cheque number and date (date to be validated in case of cheque), amount, from whom received with address – (a) from branches (b) from others – the contra entries with respect to these two categories are to be shown separately in GL: Their commission and interest, our commission and postage, details of documents enclosed like invoice, lorry/railway receipt, airway bill, etc., with date/number/amount/transport operator (validation of date of

LR/RR with provision to override with exception report), due date, instruments returned with reasons thereof. Drawee-in-need is to be referred before return of instrument. Details of drawee-in-need to be captured while registering bill

- Provide for register, schedule, presentation memo incorporating instruction from the drawer including commission, interest details, mode of remitting realisation proceeds, etc.
- To generate contra vouchers
  - To generate reminders on overdue bills to both drawer/collecting bank and drawee
  - Realization of inward bills
  - To generate register with details: Date, name of customer/drawer/drawee, branch, Amount of bill, Amount remitted, bank's commission including charges on post parcels if any and postage /their charges, Interest details including number of days and rate of interest.
  - To generate realisation register and contra voucher and remittance of proceeds as per instructions of drawer/bank. System should prepare DD in case of cheques / bills received other than from our own branches. In case of our own branches system should prepare IBCN. The amount to be remitted should be based on the instructions of the drawer
- Immediate credit of outstation cheques
  - Provide for register with the details: Date of lodgment, bank number, name of party, account type and account number, cheque number, date, amount, to whom sent for collection, date of realization/return, commission and other bank charges if any, postages.
- Provide for validation only for individual accounts and account should have been operative at least for preceding six months
- Reporting
  - To provide for periodicals reference code wise
  - Statement of overdue inward and outward bills/cheques separately. Generation of statement of overdue bills purchased/discounted to be submitted to controlling office
  - Advance against Bills in Course of Collection
  - Name of the customer/party
  - Limit
  - Sanctioning authority
  - Date of sanction

- Renewal date.
- To generate register with the details: Date of lodgement, bill no., name of the customer/drawer, branch of bank/branch/agency on whom it is drawn, amount of bill, drawee details
  - No. of day's grace
  - Due date/details of usance
  - Our commission and collecting bank's charges
  - Postage
  - Interest charges/recovered as per drawer's instructions either from drawer/drawee
  - Whether documentary/clean bill.
- Details of documents enclosed like invoice, lorry/railway receipts/airway bill, etc. with date/number/amount/Transport Operator (validation of date of LR/RR with provision to override with exception report)
  - Details of usance/due date
  - Commission and collecting bank's charges if any
  - Postage
  - Interest charges/recovered as per drawer's instructions
  - Instruction to party (regarding commission, C form, overdue interest and disposal instructions)
  - To whom sent for collection and city
  - Amount realized and amount credited
  - Margin held
  - Date of realization
  - Details of returned bills/instruments (to be debited to past due and dishonored bills)
  - Account in case of insufficient funds in the party's account) with reasons.
- Provide for generating – (a) register (b) covering schedules for dispatch along with instructions of the drawers of the bill (c) vouchers and (d) party wise ledger (e) control vouchers
- To generate reminders based on instructions of the drawer in the schedule or after parameterised period to drawer and drawee/bank
- Maintenance of pointed account for margin held
- To generate realization register
- To generate reminders one week before due date to drawer and drawee/bank
- To generate decontrol vouchers.

## 9. Remittances

- Remittance transactions involve funds transfer which will include and is not restricted to: Demand Draft, Pay Order, Bank Order, Electronic Fund Transfer, (in local and foreign Currency), RTGS, NEFT. This includes inward and outward remittance
- Allow remittance for customers and non-customers
- Provide creation of transaction type which include specific multi-purpose products like: DD, pay order, bank order (denominations to be parameterised), direct transfer of funds, electronic fund transfers (NEFT), RTGS, bulk payment of products
- Enable setting up and maintenance of bank lists, branch lists, branch id, alpha code and drawing limits for paying branches
- Enable creation of a daily rate master for definition of foreign currency conversion rates to be applied for retail transactions
- Support automatic reconciliation of inter-branch transactions, DD issued and paid
- Allow overriding default currency rates. Such overriding should be captured in exception report
- Enable waiver/reduction of charges on specific transactions for any account with appropriate approval and inclusion in exception report
- Enable definition of amendments possible in the transaction details without canceling transaction
- Enable online approval of transaction by auto referral to appropriate authority
- Enable processing of transactions in both on line and batch mode. Transaction entry should be possible in single input mode and bulk import of data
- Provide automatic generation of instrument number. The information will include but is not restricted to:
  - Issuing branch code and ID no.
  - Paying branch-wise yearly running serial number (to be reset to 0 at the beginning of each financial year)
  - Type of transaction
  - Type of instrument (the structure of the number is to user definable).
- Provide for issuance of DD/PO/EFT/against the following mode of payments – cash, debiting account of the customer at the same branch and debiting account of the customer at another branch (should support multi branch transactions). Internal debit note/voucher, bill negotiated/discounted and debiting third party account with proper authorization
- DD/PO should not be issued against cash payment beyond the limit specified by RBI/ Income Tax Authorities periodically

- PAN details have to be obtained for cash transactions beyond specified limit
- Due diligence checks for issuing DD/PO to non-customers against cash deposit
- Provide for issuance of DD on another data centre of the bank
- Provide printing of instruments in pre-printed continuous stationery
- Provide user definition of criteria for generation of issuance advice to the paying bank/branch which will be used based on paying bank/branch
- Correspondent bank (in case of Foreign Currency Drafts) Advice for DD in a given amount range
- Provide maintenance of stock of instruments with alpha series and issue of books/running stationery there against
- System should have facility to automatically pick up the next DD/PO/MT instrument number from the stock
- Provide for issuance of DD/Fund Transfer/Pay Order/Bank Order
- Provide input for name of the payee, amount and date
- Provide branch code
- Provide branch name in a drop down list box
- Provide drawee branch Name and Code in a drop down list box
- Provide (Branch ID for drawer and drawee branch
- Branch Name for drawer and drawee branch, appropriate
- Transaction Code for Inter-branch (IBT) and Direct Head Office (DHO) Transactions, Daily
- Transfer DDs issued but not paid to stale DDs account after expiry of three months from the date of issue
- Provide for account status at the time of posting of voucher
- Provide instant printing of DD/Pay Order/Bank Order
- Enable control over security items support maintenance of inventory module end to end from placing indent, order on printer, dispatch to branches, delivery to counter and issue to customer, etc.
- Enable Running Number and Missing Number
- Enable defining service charges (parameters)
- Enable passing of accounting entries
- Provide for advice as per bank's requirements
- Provide updation of master
- System must check DD presented for payment that it is not already paid
- Provide charging of out of pocket expenses and actual postage
- System must check DD presented for payment with DD issue details and permit

payment only when they match

- Provide transmission of messages by SWIFT
- Provide for bulk remittances
- Provide for multiple debits and single/multiple remittances
- Enable DD issued on Service Branch at centres where such service branches exist – separate field for reversal
- Provide for bank orders (fixed amount)
- Facility for receipt and authorizing payment which will include but not restricted to:
  - Batch receipt of messages
  - Validation of instruments noted for caution instruments reported lost (stop payments)
  - Validation for date of instrument (period to be parameterised)
  - Validation for duplicate issued
  - Validation for instruments already paid
  - Validation of ALPHA number of the instrument.
- Provide for payment on instrument/instructions in the modes which include but not restricted to:
  - Cash (ceiling for cash payment should be parameterised)
  - Crediting account of customer at the same branch or another branch i.e. (it should provide for IBCN generations in such cases)
  - Issue of another instrument/remittance instructions like banker's cheque
  - Crediting third party accounts and internal accounts.
- Provide for cancellation of instruments against user determined conditions for
- Cancellation. Facility to cancel an instrument and pay cash/credit customers accounts with proceeds with recovery of charges for cancellation
- Provide for recording of caution for instruments reported lost (stop payment). These instructions can be originated by the user or internally generated
- Provide for validation of instrument numbers against stop payment instruction before actual payout of the amount
- Provide for validation of instrument numbers against stop payment instruction before actual payout of the amount
- Support validation of instruments before payment that will ensure that instrument/remittance are not paid twice or instruments cancelled/reported as lost are not honored. The validation will include – (a) Instruments/remittances issued by the issuing branch exceeding Rs.10,000/-; (b) Instruments noted for caution; (c) Instruments report as lost; (d) Instrument remittances paid; (e) Intra office suspense account.



- Provide for recording of reason for dishonour of instruments with minimum of 99 types of reasons for dishonour
- Provide for overriding facility with user-defined authorization for issue of instruments with direct debits when an account exceeds the authorised account limit and provision for exception report
- Support issuance of duplicate/revalidation by the issuing branch. Period for allowing revalidation to be user-definable with recovery of charges for the same
- Provide for transfer of outstanding instruments beyond the cut off date/period to Head Office with related IBCN entries and user specific details
- Allow facility to record prerequisite conditions for duplicate issue. Validation against these conditions will include but is not restricted to:
  - Original issue reference
  - Reported lost
  - Stop instructions
  - Duplicate already issued
  - Receipt of non-payment advice
  - Receipt of indemnity bond.
- Prior permission from head office for issue of drafts above Rs. x/- amount (x to be parameterised)
- Provide for referencing the original instrument/remittance while issuing a duplicate instruments/remittance
- Provide for cancellation of DD (including cash DD)/Remittance on the date of issue after authorization
- Provide for cancellation of DD (including cash DD)/Remittance on subsequent dates
- Provide for generation of accounting entries
- Ability to automatically issue instructions for canceling the validity of the original instruments on issuance of duplicate
- Provide for generation of duplicate DD with marking duplicate issued in lieu of original DD bearing number .....reported lost
- Provide for generation of revalidated DD and remittance
- Provide for generating the advice for duplicate and revalidation of DD / remittance
- Provide issue and payment of MT on non-computerised branches -define parameters
- Provide for capture of DD payment details
- Provide identification by:
  - Cash voucher no. for customer
  - Passport / Identification card

- Voter ID, Driving license/Electric/Telephone Bill/Defence ID Card/PAN Card, Aadhaar card
- Clearing
- Transfer.
  
- **Revalidation**
  - To be done by the system and fresh revalidated DD/PO/BO to be issued
  - No advice to be generated in above cases
  - List of outstanding DD Payable in case of instrument in excess Rs.10,000/- for which advices have been received from issuing branch to be generated
  - It should generate reminders for issuing branches on outstanding in DD payable accounts after three months from the date of issue.
  
- **Service Charges**
  - Provide for creation of differential charge structure which should consider parameters like: Customer (Branch Customer, Cooperative Bank etc.), Product (DD Issued, etc.), Cancellation charges, Amount, Slab or tier charges, Postal/Telegraph, combination of one or more above parameters
  - Provide for creation of differential charge for issuance to noncustomer against cash, etc.
  - Support for marking of certain accounts/class of accounts for automatic waiver of commission/charge.
  
- Provide facility for issuing duplicate Statement/Passbook, etc. by authorized official with recovery of charge @ Rs. x || per occasion, – x || determined on the basis of number of past entries required by the customer
- Provide generation of reports and queries for daily activity at branch product wise to include but not restricted to:
  - DDs/issued register
  - Pay order issued register
  - Draft Account issued and paid details
  - Bank Order issued register with additional column for date of issue of IBCN
  - DD/PO/issued on a particular day
  - DD/PO/paid on a particular day
  - Transaction volumes for specified period.
- Provide for status for specific instrument/remittance which may include but is not restricted to: unique reference number, transaction type, date, customer, branch,

customer identification number, combination of any two or more of the above

- Provide for MIS report generation for computing flow for the branch at the following levels:
  - Customer, Branch, Product, Period, Combination of the above
  - Provide for generation of control Reports for reconciliation which includes but is not restricted to: unpaid instruments listing, aging of unpaid of instruments. (Note: This report will be with respect to a branch, product and customer)
- Generate reports as per the user requirements for enabling inter branch reconciliation
- Do not allow modification of DD/Remittance once it is printed
- Allow entries to be authorized by the officials
- Allow printing of DD/PO only on authorisation
- Allow printing of DD only once
- Draft Account should be a pointing account (drop down list). It must have the facility to mark individual DDs as paid based on which corresponding accounting entries should be passed
- Draft accounts entries will point to the issuing/paying branch for generation of DD
- Provide for accounting entries at all stages of instrument which will include but not be restricted to: Issue, payment including certain inter-branch entries as per user definition for reconciliation, reversal of entries in the inter-branch account for payments, parking entries in inter-office suspense accounts, suspense accounts reversal/reconciliation in no., inter office suspense accounts, cancellation, charges, issuance of duplicate, instruments/instructions.

## **10. Interest and Fee Calculation**

- Allow interest calculation based on but not limited to: Daily product, Month end balance (staff housing loans, minimum balance between two predefined dates (savings a/c). Average balance maintained in the account between predefined dates/periods
- Support stepped interest rate calculation based on stepped interest rate
- Based on amounts (e.g. 0 – 500: 5%, 501-1000: 5.5%)
- Based on period (e.g. 1<sup>st</sup> yr 5%, 2<sup>nd</sup> yr 5.5%, etc.)
- Provide for maintaining multiple fixed and floating interest rates applicable to different products
- Enable floating rate to be held as Base rate + Spread (both of which are variable, independent of each other). The spread could be positive or negative
- Support interest calculation based on but not limited to: 360 days, 365 days, leap year

adjustment, 12 months and balance days/30

- Support interest rate changes with retrospective effect and consequential recalculation of interest automatically on all interest bearing assets and liabilities
- Provide for back value dated interest rate calculations for 'X' months where 'X' is a parameter
- Provide ability to define fees and charges to be applied to all products based on, but not limited to: Flat charges, Tiered, Variable, Transaction type, Account type, Customer type, Product, Register Type, Segment/sector, Area type, Combination of the above, Service tax on the fees charged on specified categories for each transaction at predetermined rates, period-wise
- Provide a facility for defining a minimum or maximum amount to be charged based on period, amount, transaction, etc.
- Allow the user to override the predefined charges or waive them with a facility for automatic reversion after a predefined period
- Provide a facility to charge customer for statement sent by other than by ordinary post, duplicate statements, and ad hoc statements, etc.
- Enable creation of an interest rate master for various types of deposit and borrower accounts. The application should maintain a history of interest rate changes
- Support defining interest rates for credit and debit balances separately for each account
- Support creation of penal interest rate masters for various types of deposit and borrower accounts and maintain history of changes in the penal interest rates
- Support defining penal interest for each type of advance product/facility, for more than one factor which includes, but is not limited to:
  - Excess Drawings
  - Limit Overdue
  - Non-compliances.
- Support defining cap for penal interest rate for each product / facility separately with facility for waiver
- Support defining cap for aggregate interest rate (applicable interest rate+ penal rate), for each product/facility separately
- Allow user to choose method for charging penal interest from time to time, at account level
- Support charging of penal interest for past periods
- Support capturing the factors in respect of which penal interest rate is to be charged
- Support linking interest rate on advance to interest rate on deposit held as security

(loan against deposit)

- Support defining spread/differential over deposit interest rate for arriving at interest rate on the corresponding loan account. Support defining the spread differently for Customer type, Segment type, Location type
- Provide capability for user-definable Interest rate for debit and credit interest
- Provide for interest rates to be linked to keys change in interest rate in master file should be applied to all accounts through the keys
- Provide for fixed as well floating interest rates
- Enable floating rate to be further divided into but not limited to:
  - Support for interest rate calculation based on but not limited to – 360 days or 365 days or leap year
  - Support interest rate changes with retrospective effect
  - Support changing rates of interests both in the master and at the account level – with future effect.
- Provide capability to handle automatic calculation of local taxes on interest earnings and deduct withholding tax/TDS on it with alerts for tax deducted in the previous month but not remitted
- Provide a capability to define different tax rates for different customer types and exemptions
- Enable users to define the interest accounting in case of holiday: In advance to a holiday or subsequent to holiday
- Provide facility to set the new interest rate with an effective date and to generate customer advice viz. letter/e-mail
- Provide for recalculation of interest based on value date
- Provide support for changes in interest rates during the tenure of the products with: Retrospective effect, Current effect, Future effect
- Provide support for charging penal interest at different rates on all kinds of products, for reasons defined by the user e.g. non-submission of stock statement, excess over limit, QIS non-submission
- For deposits maturing on holidays, calculation of interest should be through to the morning of the next working day
- Provide a facility to define frequency of compounding differently for different products
- Support choosing method of interest calculation simple, compounding at the product facility level with past and future effect
- Support multiple compounding frequencies for each product, with option to choose

- the frequency at account level
- Support compounding of interest, whether the accrued interest is applied (debited/credited) to the account or not
  - Provide a facility to segregate the interest/compounded interest and the original principal for business reporting purpose
  - Provide for recalculation of interest for time deposits – in case the time deposit is broken before the specified term and the interest to be given is lesser than the original interest rate
  - In case of premature closure of deposit accounts, system to automatically pick up the interest rate applicable for the actual period the deposit is held and penal rate (from penal rate master item) and arrive at the rate at which interest is to be charged with waiver in case of deceased claim settlement, premature extension and conversion into another term deposit scheme with maturity period covering remaining period of original deposit
  - No penalty should be levied for closure of term deposit accounts by nominee or legal heir(s) due to death of a customer
  - The applicable rate of interest will be the rate for the actual period as applicable at the start date of the deposit
  - System to reflect the above details at the time of subsequent closure of deposit when required
  - Provide capability to define interest rates for above kind of time deposit products
  - System should automatically make adjustments in interest provisions, where recalculation is required
  - Provide facility to calculate the penalty interest in case time deposit is partly/fully broken
  - Support feature of maintaining the history record of the interest rate changes
  - Support for defining of differential interest rates for time deposit based on but not limited to:
    - Carried till maturity
    - Partly broken at predefined frequency
    - Fully withdrawn before maturity
    - Interest accrual/application.
  - Support defining frequency of application of accrued interest for each product / facility separately
  - Allow defining of interest application frequency based on a parameterized value, for any type of account or transaction

- Support creation of interest provisions and receivables, based on accrued interest calculated
- Support maintenance of provision/receivable accounts separately for each account type, product, General Ledger Head separately
- Support application of interest by debit / credit to provisions/receivable accounts
- Allow interest on debit balance to be applied either as per the parameterized frequency or on the balance becoming credit
- Support generation of certificates at user defined periodicity for the customers regarding interest applied on the account
- Allow user to choose options for calculation of accrued interest, differently for different products. The options should include but not be limited to:
  - Daily on EOD balances
  - At predefined frequencies on average balance in the preceding period
  - Minimum balance during a period in the preceding period
  - Maximum balance during a period in the preceding period
  - End of the period balance.
- The frequencies should include: weekly, fortnightly, monthly, quarterly, half-yearly, yearly
- Support calculation of interest by treating the year as consisting of 360/365/366 days, taking the actual no. of days in a month, and arriving at accrual/application on quarterly basis as per financial year/calendar quarter from date of opening of Term Deposit and keeping record of monthly payment of interest at a discounted rate
- Support display of interest rate charts applicable from effective dates, historical up to ten years.

## **11. Transaction Posting**

- Provide capability to enquire in real time the status of the transaction and track its progress throughout its life history, e.g. entered, but not yet submitted for approval, waiting for approval, waiting for limit checking, etc.
- Allow generation of a unique reference number for each transaction
- Transfer from CBS branch to CBS branch to be allowed without charging any penalty and vice versa
- Provide for automatic generation of entries/transactions based on duly authenticated/authorized structured messages between CBS and external SFMS RTGS/NEFT gateway at member bank branch, DEMAT internet, etc.
- Provide for alerts based on pre-defined frequency for monitoring of due dates and

maturity lists for time deposits, payments, repayments, sanctions, collaterals, insurance, loan instalments, loan documents etc.

- While transacting, throw an alert if the account is KYC non-compliant
- Provide for generation of Debit Note Issued
- Provide for generation of clearing register based on clearing type and batch number
- Provide for generation of advices and vouchers
- Support generation of auto referral to the authorized persons in case of insufficient funds
- Provide for Trigger/Alert on Transaction in Minor accounts on Minor Turning Major
- Provide for value dated transactions, which result in a change in the end-of-day account balance and / or targeted to an account linked to a tiered interest rate structure. These should be flagged as exceptions' and processed via the end-of-day interest recalculation program
- Provide for capture and automatic processing of account operating instructions (Standing Instructions) of different types including but not limited to: for fixed amount fixed period, for variable amount, for variable amount with limit, for variable frequency, Event driven
- Provide for retrieval of customer information required by the product (for asset as well as liability products) e.g. all deposit products or all credit products subscribed to by a customer
- Provide for assigning and usage of specific accounting vouchers (documents) for specific types of transactions
- Automatically generate and assign sequential numbers to accounting documents for each document type independently for:
  - Bank/Accounting entity
  - Location/Branch
  - Fiscal year.
- Support changes to only selective fields of posted documents while allowing for changes to all fields of documents put on-hold
- Provide for automatic reversal of accounting document:
  - Individually
  - Collectively based on, but not limited to, parameters like document type, accounting entity, document reference number, location, user, etc.
- Support capture of reason for every reversal
- Ensure that reversal transactions do not affect the analysis of accounts for the purpose of MIS (e.g. a debit into an account and its reversal by a credit entry should



not be considered while reporting movements i.e. additions' and reductions' to the account during the period) but reversals should be included in audit trail

- Provide for creating recurring entries that allocates one amount to multiple accounts based on user-definable ratios
- Provide for setting of starting and ending date, period/year for recurring entries.
- Provide for automatic/scheduled processing of recurring/repetitive documents for user definable dates and period e.g. monthly, bi-monthly, quarterly, etc.
- Provide for automatic recasting of balance in the main account whenever a transaction is posted in the sub-ledger account
- Support restriction of direct postings to main accounts where sub-ledger account is maintained
- Allow selecting desired general ledger accounts (such as employee loan accounts, travel advance, etc.) to provide similar functionality for clearing of open debit and credit transactions within the general ledger account
- Provide for defining for each account (which is chosen to offer the clearing functionality) what should be the nature of the originating transaction (debit or credit) and what should be the nature of clearing transaction (corresponding credit or debit)
- The system should enforce the definition
- Allow for defining account level rules to automatically charge-off tolerable differences (user-definable and based on definable authorizations) to specific accounts while clearing open unbalanced debit and credit transactions
- Allow definition of rules for automatic processing (clearing) of open transactions in batches. The definition of rules should allow combination of various selection parameters like, but not limited to:
  - Accounting entity, Specific GL account, Definable set of GL accounts, Branch/Location, Group of Branches, Nature of transaction, Definable set of Document types, any of the reference number fields, amount
  - Provide for alerts for duplicate vouchers based on a combination of the following:
    - Dates
    - Reference number
    - Amounts.
  - Provide standard fields for recording of narration at the following levels:
    - Provide for capture of following dates per transaction (with automatic update by system wherever possible), but not limited to:
      - Date (and time) of preparing the document

- Value date
- Date (and time) of authorizing the document
- Date (and time) when document was changed
- Date of reference document if any
- Date when document was reversed
- Date of exchange rate used for foreign currency translation.
- Support defining rules for automatically calculating and accounting for, but not limited to:
  - Difference on clearing unbalanced open items, exchange rate difference postings (at the time of clearance of open transactions), Income Tax (payable as well as recoverable), Service Tax, Sales Tax, Purchase Tax, Cash Discounts, Interest on over-due amounts, Service Charges.
  - Ensure correct on-line generation of automatic entries based on defined rules at the time of data-entry or batch update itself
- **Accounts Receivable/Accounts Payable:**
  - Provide definition of sub-ledgers for desired main ledger accounts
  - Allow linking of multiple sub-ledger accounts (receivables as well as payables) within the accounting entity to behave as one account
  - Support definition of following codes and their assigning to specific sub-ledger accounts (valid across receivable as well as payable accounts)
    - Income tax codes
    - Service tax codes
    - Payment terms
    - Service charge codes.
  - Provide alerts for remitting/payment of taxes to concerned authorities at predefined periods
  - Provide ability to post miscellaneous receivable and payable transactions such as:
    - **Receivables:** Service Charges/Commission/Rent e.g. from Fund Transfer, Agency, Lockers, Sale of assets, Down payments/Advance payments, Security Deposits (e.g. rent, telephone, electricity etc.), Adjustment journals (e.g. exchange rate difference etc.) Inter-unit reconciliation entries, Receipts (manual as well as through electronic mode), Payments (refunds), Income Tax, Service Tax/Any other Tax.

- **Bills Payables:** Bidder/Lead Partner invoice, Debit/Credit notes to Bidder/Lead Partner, Down payments/Advance payments, Adjustment journals (e.g. rebate on bills, amortized discounts, provisions, exchange rate difference etc.), Payments (manual as well as automatic, including electronic mode), Receipts (refunds), Employee related payments, Withholding Tax (including automatic printing of tax certificates), Service Tax (including automatic printing of tax certificates), Inter-Unit reconciliation of accounts, Specific/Part reversal of entries.
- Provide for generation/printing of, including but not limited to:
  - Accounts balances
  - Accounts statements
  - Payment Advice/Receipt Advice.
- Correspondence based on account balance, un-cleared transactions, payment made, amount received, etc.
  - Accounts analysis (based on due dates, etc.)
  - Managing receivables and payables:
  - Provide support for complete tracking of receivables, through one visual/printable interface, with regard to:
    - Due date
    - Date of receipt of payment
    - Date when deposited with bank
    - Date when realized.
  - Provide support for complete tracking of payables, through one visual/printable interface, with regard to:
    - Receipt of Invoice
    - Accounting of the Invoice
    - Approval of Invoice for payment
    - Due date and other terms of payment.
  - Date of printing of payment instrument/instruction
  - Authorization of payment
  - Date of release of payment
  - Date of realization of payment
  - Facilitate automatic payments based on user definable payment terms using following parameters, but not limited to:
  - Payment method (e.g. cheque, transfer, etc.) preferred for the Payee/Bidder/Lead Partner

- Bank account from which payment may be made (based on definable authorizations specific to a branch/location).
- Facilities for —copy of the last transaction
- Single Debit with multiple credits & Multiple debits with single credit
- Support generation of single payment for multiple transaction, cutting across one or more receivable, payable or general ledger accounts
- Provide support for recording of:
  - Cancelled cheques / other instruments
  - Bounced cheques
  - For payments made, provide support for automatic recording and accounting for: collection charges, service charges or any other charges.
- Ensure automatic reversal of accounting documents in the event of, but not limited to:
  - Cancelled cheques/other instruments
  - Bounced cheques.
- Allow user to update cheque inventory only for select bank accounts based on definable authorizations
- Provide for querying/printing of cheque register for individual bank accounts based on definable authorizations
- Provision of automatically printing of correspondence for payment made/amount received to any one or combination of the following:
  - Payee
  - Payee bank.
- Provide fully functional interface for affecting inter-branch/location, inter-bank accounts funds transfer with complete integration with general ledger functionality
- Bank Reconciliation:
  - Support reconciliation of bank accounts using bank statements inputs either as:
    - Online manual entry, or upload of flexible structure soft file (different for each bank or bank account)
  - Support automation of bank reconciliation based on combination of following filter parameters, but not limited to:
    - Transaction code (e.g. Inward clearing, Outward clearing, Service charges, Interest, etc.)
    - Bank/Branch code/MICR code
    - Cheque/Instrument number
    - Date of transaction

- Amount.

### **Standing Instructions**

- Periodical Standing Instructions to be executed at the time of Day Begin/Midday/ End of day, with provision to execute during working hours also at higher authorization level
- Provide flexibility for setting up and processing any type of standing instructions as and when required with different parameters including but not limited to: Fixed Amount/Fixed Period/Variable amount/Variable amount with limit/Variable frequency/Event driven/Maintenance of balance (e.g. keeping a balance of Rs. 5,000/-, remaining amount to be transferred to another account)
- Provide a facility to allow carry forward of the standing instructions, for some user definable period, till the condition for processing the standing instruction is met or number of attempts made (should be flagged off as exceptions)
- Provide for recovery of charge Rs. X per failed attempt
- Provide capability to automatically cancel the standing instruction for the current cycle if it has been carried forward for more than the predefined number of attempts (to be defined as a parameter) with generation of a report for advising the customer
- Provide facility to add/modify/delete/display/print a standing instruction
- Allow for sweep option to transfer amounts from SB/CA accounts when the balance exceeds the limit set and create FDs with such amounts and credit back to relative SB/CA account, on FIFO or LIFO basis, one or more of such FDs executing premature payment whenever required (sweep facility).
- Provide for stopping execution of standing instructions of a customer upon his death. Similarly, Power of Attorney / authorization given by a customer to operate his account also becomes legally void upon his death.

## **Minimum Balance Requirements**

- Allow defining of minimum balance based on the following but not limited to:
  - Customer type e.g. Staff, Pensioner, Individual, Firms and Companies, etc.
  - Account type e.g. SB, CA
  - Cheque facility available (SB account)
  - Cheque facility not available (SB account).

## **12. Safe Custody Facility**

- Support capturing of customers' details for customer master which may include but not be restricted to: Name, Address, Board Resolution Number and Date, Authorized Signatories, Nature of Operation (singly, jointly two, jointly by any two of the three, etc.)
- Provide for automatic capture of customer details from existing database (CIF) in case of the existing customer
- Provide for definition of 'different types of items' under safe deposit articles which includes but not limited to:
  - Provide for capturing and retrieval of signature/s of authorized person/s
  - Provide for user definable 'fee table' for capturing
  - Application fee
  - Handling charges
  - Any other charges
  - Periodicity of levy of charges.
- Support capturing of nomination details which includes but not limited to:
  - Name
  - Address of the Nominees
  - Relationship
  - Date of Birth
  - Age.
- Maximum no. of nominees to be parameterized:
  - Witness's Name
  - Witness's Address.
- Support generation of reports, at user definable periodicity, which may include but not limited to:
  - Reminder for payment of fees
  - Acknowledgement of payment of fees.
- List of accounts where fees have not been recovered/paid
- Provide validation of the Time Deposits/Demand Deposits offered as lien.

### **13. Tax Calculation**

- Income tax/TDS, service tax calculation needs to be supported by all modules, which have incidence of income tax, service tax, etc., e.g. deposits, advances, treasury, general ledger, etc. The system has to adequately support all requirements, statutory or otherwise, of all types of tax. The requirements have been listed in detail in the following section. The system should provide for multiple tax deduction structure at the customer/account type level and linking of tax calculation structure and account type
- Support automatic calculation of income tax, service tax etc., for both product accounts as well as general ledger accounts (such as Bidder/Lead Partner payable accounts, receivable accounts, etc.)
- Support classification of taxes as income tax, service tax, any other type of tax for statutory reporting
- Support configuring of income tax, services tax etc. – statutory codes and rules, specifying but not limited to:
  - Basis and method of calculation, default percentage rates, general accounts to which tax effects may be posted, statutory codes, application state, location, reasons for exemptions, concession, model rules/templates
  - Support defining of income tax, service tax specifying but not limited to: concessional percentages rates with reasons, effective dates, numbering rules for the certificates as and when desired (based on model rules/templates)
  - Support automatic calculation and deduction of specific type of income tax, service tax at the time of: Accounting/Provision/Recognition of payable/Receivable transaction/ Down payment
  - Support calculation and deduction of specific type of income tax, service tax only at the time of payment
  - Support calculation and deduction of specific type of income tax, service tax only at the time of accounting or recognizing of the payable or receivable transaction
  - Ensure integration of the income tax, service tax functionality with general ledger, accounts receivable and accounts payable functionality
  - Ensure integration of the income tax, service tax functionality with automatic payments functionality, if any
  - Ensure support for all statutory reports/tax returns based on, but not limited to: Classification of Tax, Tax Codes, Accounting Entity, Branch ID, Nature of Transaction
  - Ensure capture and reporting of additional information required for statutory tax returns which include: Parties to the Transaction, Tax deduction Certificate number (branch & fiscal year specific) and date, Statutory Tax Code, Reason for Exemption,

- Concessional rate and reason, Reference to document seeking exemption/concession e.g. Form 15H
- System should be capable of marking whether tax is applicable or not and specify reasons why it is not applicable (This should be done at transaction level)
- Support grouping of accounts for calculation of tax, where the first account holder is common in single/joint accounts
- Allow verifying as well as setting up of the tax liability of an account transferred from another branch
- There should be facility for printing all the details of income tax either in the form of certificates, reports, etc., in user-definable formats.

#### **14. Lockers**

- Support capturing of customer details for Customer master which may include but not be limited to:
  - Name
  - Address
  - Board Resolution Number and Date
  - Authorised signatories
  - SB/Current Account no/Reference account number.
- Nature of operation (singly, jointly by any two of the three, etc.)
- Provide for automatic capture of customer details from his existing database in case of existing customer; Provide for maintenance of locker inventory with size-wise break-up which includes but not limited to:
  - Total Number in use
  - Total Number not in use/free
  - Total Number under servicing.
- Provide for capturing and retrieval of signature/s of Authorised person/s
- Provide for capturing and retrieval of signature/s of Authorised person/s
- Support capturing of nomination details which includes but not limited to:
  - Name of the nominees (Maximum no. to be parameterized)
  - Address of the nominees
  - Relationship
  - Date of Birth
  - Age
  - Witness's name
  - Witness's address.



- Provide for user definable 'different locker sizes' and rent applicable for each size
- Provide for user definable 'fee table' for capturing
  - Application fee
  - Handling charges
  - Any other charges.
- Periodicity of levy of rent
- Penal charges for delayed payment of rent
- Provide for acceptance of standing instruction for recovery of charges
- Support generation of list and voucher for fees recoverable from depositors as and when due and automatic postings thereof
- Provide for generation of user definable 'Locker receipt' to be issued to the depositor
- Provide for recording the date, time, name of the person for every operation by the locker holder/s
- Provide for authorization of locker operations by authorized signatory before the holder is allowed to operate on the locker
- Provide for recording of name of the operating holder for every operation on the locker
- Provide for recording of locker number and the corresponding key number with ability to alter the same
- Provide for STOP of operation against Attachment Order issued by competent court of law
- Provide for capturing corresponding key number for every locker
- Provide for allotting token number and key number to locker holder
- Support generation of reports, at user definable periodicity, which may include but not limited to:
  - Statement of lockers in use, serial number wise, size-wise, customer-wise, age-wise
  - Reminders for payment of rent
  - Acknowledgement of payment of rent
  - List of lockers where rent have not been recovered/paid
  - List of vacant lockers, size-wise
  - Change of KEY for the lockers surrendered and keeping of history
  - Enable creation of Party Master providing for but not limited to:
    - Standing instructions
    - Updating the party master.
- Enable operation of locker by using:

- Name
- Locker number
- Signature scanning.
- Operation of lockers on daily basis
- Register of overdue rent
- Register of lockers sealed
- Rent register
- Reminders for due dates for rent arrears
- Register for attachment order received up to date.
- Provide for alerts when a safe deposit locker is operated frequently not keeping with the past trend.

### **15. General Ledger**

- System should provide user-friendly method for introducing/creating new GL codes along with their specified nature at HO level only
- System should have provision to maintain debit/credit restriction at GL level
- System should provide numeric codification of GL codes having scientific nomenclature
- Summary Trial Balance – System should summarize listing of all account activity for the accounting period, including open and posted transactions
- No debit entry to be accepted by the system on HO a/c except Transfer price and P&L a/c (Option to be given).
- All GL accounts should have on sub account/ account level
- System should calculate Working Fund/Cost of Fund/Yield/Cost of Deposit/Gross Margin/Net Margin/Operating Expenses/Base rate calculation
- Support defining organization hierarchy allowing multiple levels reporting of Financials (trial balance, balance sheet and profit and loss accounts)
- Support multi-level GL hierarchy definition supporting at least 5 levels
- Support recognizing, accounting and reporting of transactions with respect to various heads including, but not limited to: Asset, Liability, Income, Expense, Contingent
- Ensure that bank reconciliation process does not interfere with the regular accounting process or maintaining books of accounts
- Provide for defining individual general ledger accounts with following parameters, including but not limited to:
  - Effective dates of the account
  - Overall blocking of account
- Mapping of each general ledger account to any node (subsidiary heads) of the chart

of account(s)

- Mapping of each general ledger account to one or more interfacing chart of accounts (since multiple systems would be interfacing with the general ledger)
- Support each general ledger account to be maintained in different currencies
- Provide facility to identify certain General Ledger accounts as bank/cash accounts
- Support online update to GL accounts for all types of transactions
- Provide for generation of daily Trial Balance in Bank's General Ledger Balance Format and in the prescribed format of RBI.
- Provide for total of credit balances in current accounts on the liabilities side and total of debit balances in cash credit accounts on the asset sides respectively by taking into account the total of debit balances in current accounts on the assets side and total of credit balances in cash credit accounts on the liabilities side every day – to be reflecting in the General Ledger Balance
- Provide for specifically recording of following additional definitions to general ledger accounts representing bank accounts, including but not limited to:
  - Bank Name/Internal code
  - Standard Bank Code (as understood across the banking sector for the country/world)
  - Branch (Name/Code)
  - Funded limits
  - Cheque inventory
  - Authorized signatories (multiple) and their limits
  - Validity dates for authorized signatories
  - MICR code of the Branch
  - Account Identification Number
  - Account Description
  - Account Location, State, Country
  - PIN number
  - Telephone and Fax numbers, Contact person, etc. (multiple)
  - Nature of Account
  - Date of opening/closing of account
  - Method(s) of on-line communication with the bank.
- Provide for fiscal year (April to March) accounting
- Allow splitting of fiscal year as defined by user
- Support user-defined financial reporting periods other than fiscal year, e.g. 15 months or 9 months

- Support monthly/quarterly/half-yearly accounting periods within each fiscal year with facility for aggregation of monthly figures into quarterly/half-yearly figures
- Provide for automatic maintenance and carry forward of period-end account balances to subsequent periods for:
  - Each accounting period within a fiscal year
  - Across fiscal years/financial reporting periods
  - Allow reporting of figures as at end of monthly accounting periods over a quarter/half year/year(s)
  - Allow sorting of figures at the end of monthly accounting periods as per user-defined parameters
  - Allow postings pertaining to prior dates after authorization (restricted to current accounting period).
- Provide for continuing operations into the new fiscal year with authorization even if due to some contingency, closing of accounts for the prior fiscal year remains incomplete
- Provide for detailed logging of all events related to opening and closing of accounting periods
- Allow user-defined closing cycles for any fiscal year with authorization
- Provide for different accounting entities to close independently
- Provide for acceptance and posting of only balanced journal entry transactions
- Support automatic calculation of Retained Earnings for each fiscal year and its automatic carry forward to the next fiscal year
- System should provide processing and maintaining all the types of transactions viz., cash, clearing and transfer
- System should provide multi-currency entry, verification, processing and maintenance of transactions
- Facilitate opening and maintenance of any number of GL heads and GL sub-heads (alpha, numeric, alpha-numeric, etc.) in the system
- Facilitate opening and maintenance of any number of accounts under each GL heads and GL sub-heads in the system
- Facilitate control of access to various GL heads/sub-heads branch-wise, user-level wise, etc.
- Generation of currency-wise subsidiaries, branch-wise, region-wise, circle-wise, lead district-wise, bank-wise general ledger
- Facility to open any number of schemes under each GL sub-head
- Should provide consolidation of transactions under various heads currency-wise,

branch-wise and consolidated

- Generation of related reports, subsidiaries, general ledger, etc. currency-wise, branch-wise and consolidated for the above
- System should support automatic updating of respective accounts, GL sub-head as defined upon each entry/verification/end-day activities
- Facility to mark an account/scheme-wise as interest bearing or otherwise
- Facilitate summation of number of transactions under each GL head/sub-head/scheme/debit/credit-wise and generate relevant report
- System should support summation of transactions GL head/sub-head wise and debit and credit-wise, branch-wise and generate report as a whole, etc.
- System should support summation of transactions under each delivery channels
- System should support inquiry/search by users on any transactions by giving various selection criteria
- Facility for updating of number of accounts opened and closed for each day under each main head and sub-head of general ledger and provide facility for inquiry and print for details as on any date and range of dates
- System should facilitate maintenance of account, transaction details under each GL head and sub-head for each branch or region or circle or bank as a whole
- Facilitate merging of non-CBS branches GL data with CBS branches GL data and arrive at Consolidated GL data of the bank, branch-wise, region-wise, circle-wise, bank-wise
- Facilitate generation and print of detailed and summary of daily subsidiaries GL-head and sub-head-wise for particular branch/Region/Circle or bank as a whole
- System must provide for a check to ensure authorization of all financial and non-financial transactions before day end process at branches
- Facility to transfer accounts from one GL-subhead to other GL-subhead (automatically based on parameters)
- System to provide GL consolidation based on category of branches like specialized branches, rural branches, metro branches, etc. (parameterized)
- Facility for handling of reconciliation of selected type of accounts like ATM transactions, inter-branch transactions, Demand Draft transactions, etc.
- Facilitate generation of unique transaction id for each financial/non-financial transactions including system generated transactions
- Facilitate detailed balancing and non-detailed balancing account-wise, GL head-wise, GL sub-head wise, scheme-wise, branch-wise, region-wise, circle-wise, bank-wise, etc., as on date and as on any date
- Facilitate for entry of transactions individually or through batch processing

- Facilitate generation of day book and trial balance currency-wise, branch-wise, region-wise, circle-wise, bank as a whole, etc.
- Facilitate head-wise particulars of deposit accounts with debit balance and loan and OD/CC accounts with credit balance in the day book
- Facility to maintain notional rate as on effective dates and facilitate revaluation of accounts
- System should support generation/printing of slips/vouchers for transactions verified in bank's predefined format
- System should be flexible enough to allow classification/sub-grouping of certain group of accounts by applying user-defined set of rules
- Generation of P&L account in bank's predefined format branch-wise, region-wise, circle-wise, bank as a whole, etc.
- Facilitate generation of balance sheet as per bank's predefined format for a branch or group of branches i.e., region, circle or bank as a whole
- Facilitate to maintain contingent liabilities like collection of bills, guarantees, letter of credit, etc.
- Facilitate generation of supporting sheets for Balance Sheet and P&L Account in bank's predefined format branch-wise, region-wise, circle-wise, bank-wise, etc.
- Provide generation of list of deleted transactions for given date, range of dates
- Facilitate generation of list of transactions batch-wise, account-wise, GL-sub-head wise, scheme-wise, etc.
- Minor subsidiaries/income & expenditure accounts:
  - Facility to support handling transactions of all types of accounts viz., pointing debit transactions, pointing credit transactions, exact matching transactions, non-pointing debits, non-pointing credits, etc. and summation/consolidation of same.
  - Facilitate part and full reversal of amounts under pointing type of accounts
  - Reversal entries under pointing type of accounts and exact match type of accounts should have reference to originating transactions
  - The system should not permit transactions if the amount to be adjusted towards any entry is more than the outstanding amount under that transaction
  - Marking transactions as originating debit or originating credit depending on the sub-head
  - Provision to maintain the date of reversal, amount of part reversal, balance amount and support periodical balancing of such accounts/transactions
  - Provision for defining permissible limits, on officers at various levels, for verification

- of transactions and throwing messages for transactions done beyond permitted limits
- Facilitate generation of balancing (detailed and non-detailed) report of minor subsidiary accounts as of date as well as on any date
- System should facilitate generation/printing of report showing entries outstanding beyond a given period (user definable and user enterable) – head/sub-head-wise/account-wise for each branch/group of branches or bank as a whole as on date and as on any date
- System should provide generation of all supporting documents under minor subsidiaries in bank's predefined format for the purpose of balance sheet
- Provide generation of general charges register containing details like date, particulars, amount, GC number etc., from the system
- Automatic generation of System Serial number for each entry in general charges accounts
- Facility to inquire/generate report on history of adjustment entries for any type of pointing type of accounts like sundry liabilities, sundry deposits accounts, branch adjustment a/c, etc.
- Provision to maintain list of items for local purchase requiring prior permission from higher authorities
- Support maintenance of list of permitted items for local purchase at branches/offices
- Facilitate maintenance of standing instructions for periodical recurring expenses like rent, charges, etc.
- Support deduction of TDS for rent and other payments and accounting of the same including generation of relevant reports for remitting TDS to appropriate authorities
- Facilitate provisional adjustment for the purpose of periodical P&L and Balance Sheet
- System should provide facility to analyze and monitor income and expenditure accounts vis-à-vis target branch-wise, region-wise, circle-wise, bank-wise, etc.
- Write-off and write-back facility for accounts under minor subsidiaries
- Banker's account and accounts with other banks including RBI and accounts of other banks with our bank
- Facilitate capturing full details for opening of current account with other bank's branch-wise
- System should facilitate opening and maintenance of bankers' account of other bank's account
- Support noting of staff details for operating the banker's account
- System should provide generation of Bankers Reconciliation Statement in the bank's predefined format (PRR-14)

- System to throw alert message when there is adverse position in banker's account.

## **16. Regulatory Requirements**

- **NPA Classification**
  - Provide for automatic/manual classification/flagging of specific borrower accounts as Special Watch accounts/NPA (non-performing assets) accounts, etc. based on user defined rules
  - Income accrued on NPA accounts also needs to be recognized differently for the purpose of accounting of income, without application/accounting in interest receivable
  - System-driven Asset Classification in terms of RBI guidelines (including changes during the currency of the contract) for agriculture and non-agriculture advances/loans
  - Identification of Non-Performing Assets (Gross and Net) as per RBI norms and Interest Reversal
  - Balance Sheet reflects the financial position, proper recognition of income, classification of assets and provisions for bad debts of a bank. The income recognition should be based on records of recovery rather than on subjective considerations, what is the day's position should be taken in consideration
  - System should have provision to configure business rules for declaring NPA is different for different types of advances like – Term Loan, Agricultural Loan, Cash Credit, Overdraft, Bills Payable, Bills Discounted, etc.
  - In respect of term loans, if instalment remains past due for a period of 90 (parameterized) days then it is treated as NPA. An amount is considered "Past due" when it remains outstanding for a period of said days
  - In respect of cash credit and overdraft accounts, if the account is overdrawn for a period of more than 90 days i.e., one quarter then it is treated as NPA, provided those two quarters are consecutive
  - In respect of bills purchased and discounted, if the bills remain overdue and unpaid for a period of more than 180(parameterized) days then it is considered as NPA.
- **Bank assurance (Referral Mode)**
  - LIC or other Insurance companies:
    - Name of the Policy Holder
    - Address
    - Mobile No.



- Name of the Nominee
- Sum Assured
- Date of Commencement of the Policy
- Table - Term
- Amount of Premium
- Mode of Payment
- Micro Insurance.
- Name of the Policy Holder
  - Address
  - Mobile No.
  - Name of the Nominee
  - Sum Assured
  - Date of Commencement of the Policy
  - Table - Term
  - Amount of Premium
  - Mode of Payment.

- **SLR Requirements**

The system should extract data showing daily balances of all branches showing:

- Daily Cash Balances
- Daily Balances with SBI/Other Notified Banks and Financial Institutions
- Daily Outstanding of Approved Investments with Accrued Interest and Amortization
- Submission of Form VIII and special fortnightly return to RBI
- System should report cash balances actually maintained with RBI vis-à-vis average requirement on fortnightly basis
- In the case of non-scheduled UCBs, excess CRR balances maintained with state or central co-operative banks should not be recognized for SLR purpose with effect from April 1, 2015
- System should generate on demand – Week-wise/Region-wise/District-wise/State-wise/Category-wise variations of the following:
  - Position of deposit and advances of the branches
  - Position of cash/other bank balances
  - Position of other liabilities
- Achievement of targets vis-à-vis Business Plan

- System should generate fresh deposits received over a given amount say ₹10 lakh and above within a specified period say one week giving the rate of interest, tenor, maturity date, segregation of deposit amount wise, etc.
- System should generate reports of high value deposits maturing say next one month
- Accounting of Transaction as per bank's accounting system and booking of interest/swap gain/swap charges/brokerage.

### **CRR Balances**

System should generate the following for preparation of CRR balances at specified intervals:

- System should recognize reporting fortnight dates and acceptance of data for the reporting dates
- System should determine CRR requirement of the bank based on the following inputs:
  - DTL and NDTL on the reporting dates (2nd previous fortnight, as per present norms)
  - The system should prepare day-wise CRR maintenance statement as per RBI norms
  - System should flash warning message for short fall/excess maintenance of CRR.
  - CRR balances maintained with only those banks permitted under the RBI Act 1934 / Banking Regulation Act 1949 should be recognized.

### **17. Head Office**

- **Head Office Account**
  - System to facilitate HO account entries under all the types of accounts viz., cash, clearing and transfer
  - System must route all inter-branch transactions through HO and facilitate automatic reconciliation of the same at the end of the day within CBS branches and provide related statements (both hard and soft copies)
  - Facilitate transactions between CBS and non-CBS branches through head office account and provide statement for originating, responding and consolidated for reconciliation (both hard and soft copies)
  - Should have facility to open any number of accounts under HO main head

- System should support classification of HO entries under originating and responding type
- System to support for entry and maintenance of both originating debit, originating credit, and responding debit, responding credit transactions
- System to provide automatic transfer of loss or profit as at predefined dates for the purpose of balance sheet and proper accounting of the same
- System must permit responding to IBA only once and throw error at entry level if the IBA is already responded
- Before responding any IBA to avoid double credit, system to verify even those entries which are in the 'entered' status and yet to be verified
- Provision to take debit/credit entries on account of profit/loss at extension counters by the parent branches and accounting the same
- Facility to create, modify, delete, undelete different transactions codes as defined by the bank (parameterized) and pick up the same at the time of putting through transactions
- System should capture required details under responding entries like DP code, date of IBA, amount, IBA Number, transaction code, duplicate advice flag, etc.
- System should verify that the responding amount is equal to originating amount, else display an error message indicating excess or shortage of amount
- System to support automatic generation of IBA number and ensure the number is re-initialized on start day of predefined date
- System to provide re-credit of differential amount WITHOUT ADVICE to originating branch. The branch advice should not be printed.
- System to support printing of IBA on pre-printed predefined format of the bank
- System should allow printing only after transactions are verified
- IBA printing should be linked to Inventory Module and internally track against the no. of times it is printed, inventory number, etc. System should not print the advice second time without the words 'Duplicate' on the advice
- System to permit printing of duplicate branch advice and keep track of no. of times printed
- System to print the words 'Duplicate' on the duplicate advices issued in the system
- System should allow printing of duplicate advice with authorization by a level of user, parameterised
- System to generate list of duplicate advices issued and duplicate advices responded as at any given date or range of dates

- Facility to route 'Anywhere Banking' transactions between CBS and Non-CBS branches through Head Office account without printing branch advice
- Facility to upload data through external media (Floppy, CD, etc.) for creation of HO transactions.
- **Liquidity and Investments**
  - System should provide for creating an investment agency description e.g. bank details on the following fields:
    - Name of the Bank or Organization
    - Address of the above
    - Name of Contact Person
    - Name of any other Contact Person
    - Contact Numbers
    - Scheduled or Non-Scheduled classification
  - System should provide for treasury accounting
  - System should have provision for calculation of bond value in case of bond valuation e.g. Government Security bonds/Corporate Bonds/CD/CP/CBLO, etc.
  - In case of government securities, investment interest earned should be calculated and stored in a batch (not in a GL). After receipt of credit information from the concerned bank, the batch should be authorized and posted to the concerned GL head
  - System should provide for opening a new investment account with the following fields: Every Investment should have a unique number, certificate/instrument number, effective from date, no. of days/months/years for which invested, amount invested, system should show the maturity amount and maturity date, rate of interest, fixed or floating rate of interest, type of compounding e.g. simple, quarterly, half yearly, account type, current or fixed deposit or mutual fund or others/money at call and name of fund
  - System should allow entry of Interest Received from time to time on any particular investment
  - System should show maturity interest value during the closing or maturity of any investment account where the interest amount should be modifiable by the user
  - System should provide for Bond and Government Security Accounting
  - System should provide for amortization calculation
  - System should provide for provisioning and present value calculation on mutual fund based on NAV of a particular date
  - System should provide for classifying an investment as statutory or non-

statutory

- System should provide for generating separate GL Head for any particular bank
- System should provide for provisioning on any given date in a report format
- System should show the maturity details of next 7 days on the Investment Menu only at HO
- System should show Cash and Current Account Balance on the investment menu refreshed every 30 minutes
- System should show Summary of Liabilities with proper segregation as demand and time/short-term and long-term as per RBI norms
- System should show Summary of Capital and Reserves of the bank with record of changes made date-wise
- System should show details of assets and liabilities to the banking system
- System should provide for closing of Share Account from Loan module after authorization from competent authority
- System should provide for creating a batch on dividend payment for a particular class of share on any given date
- System should provide for modification, passing and authorization by competent authorities
- System should provide the provision to provide incentive to share-holders.

#### **Fixed Assets**

- System should be capable of maintaining master details of owned premises/immovable assets and movable assets such as date of ownership, lease period, lease expiry date, location of lease agreements, value of asset (original value and present book value), location, etc. with warning message
- System should capture details of leased out premises like ownership details, location, date of lease, amount of lease, lease expiry, nature of lease, value, square ft., etc.
- System should support different types of depreciation methods such as straight line, reducing balance method, written down value method, etc.
- System should support parameterization of the depreciation percentages for each asset/type of asset
- System should compute the depreciation/appreciation as per the method and percentage of depreciation as specified in the parameter
- System should specify/capture tax details for calculation of applicable tax as per law of the land

- System should maintain master details of AMC and contractors e.g. name of the bidder/lead partner, AMC amount, period of contract, next service date, AMC expiry date, etc. Arrange to issue warning messages before expiry of warranty
- System should sub-classify both movable and immovable assets
- System should support movement of assets from one location to another
- System should provide for specifying insurance details for each asset
- System should generate warning messages for expiry/renewal of insurance 'x' (parameterized) number of days prior to actual expiry/renewal date
- System should maintain asset inspection details such as last inspection date, next inspection date, inspection comments, etc.
- System should support generation of asset inspection report along with comments of inspector
- System should link each asset with a unique asset number/inventory number
- System should support alpha numeric asset/inventory number
- System should maintain details on asset litigation
- System should generate a list of movable and immovable assets based on the user defined parameters
- System should generate a list of assets transferred/moved from one location to another along with details such as description of asset, inventory number etc., and should transfer the book value through CBS System
- System should generate depreciation report giving details of book value, year-to-year depreciation and residual value
- System should provide differences in inter-branch reconciliation
- System should generate warning messages for service contracts due 'x' (parameterized) number of days prior to such service dates
- System should specify the service level agreements and link them to a particular asset
- System should upload/enter bill of material details along with part numbers, quantity, unit rate, total rate, etc.
- Should support entering of asset details dispatched to a particular location and track the movement of the same
- System should record details of asset acceptance, PDI and note discrepancies in the asset inspection
- System should capture the asset installation details for movable assets (e.g. date of installation, inspection date, etc.)
- System should support parameterization of the payment terms (no. of months,

percentage of payment) and validate the same at the time of generating the invoice in case of leased assets

- System should specify the minimum requirements (e.g. documents, compliance to service level check, authorization from authority) to be verified before release of any payment to the bidder/lead partners/contractors
- System should record bill/invoice details submitted by the bidder/lead partner
- System should generate a payment advice for payment to be made by the bank to the bidder/lead partner
- System should support access to the solution at the branches/department as per user rights defined
- System should permit branches/offices to enter data of assets installed/purchased
- System should have capabilities to group all assets across the bank to generate a single view of all assets.

#### **HRMS Requirements**

- System should record basic Master Data for an employee/staff for following areas along with all the related and incidental information.
  - PF Number (For new employees who are on probation should be provided with a temporary number which can be shifted later to a permanent PF Number)
- Name
- Father's Name , Mother's Name & Husband Name
- Permanent Address
- Address for Communication
- Phone Numbers/Contact Information
- Home Town
- Sex
- Marital Status
- Position regarding CAIB
- Religion
- Category (SC/ST/OBC/Minority/General)
- Date of birth
- Date of joining, probation period, date of confirmation
- Scanning and storing of employee photo, signature with signature no.
- Passport No.

- PAN Number
- Bank Account No.
- Bank Branch Name and code
- Blood group and Mark of Identification
- Education Qualifications – should capture the details of name of the examination passed, university/institute, month & year of passing, percentage of marks obtained, grade/class obtained
- Professional Qualification
- Present posting
- Present job code/designation
- Present grade/cadre
- Deputation, temporary transfers
- Date of Increment
- Date of joining in the present place of posting
- Cadre (OL, IT, LAW, MKTG, etc.)
- Date of Retirement
- Major health problems with provision to capture the details of sickness, etc.
- Insurance details
- Club memberships
- Previous employment details, name of organization, position held, duration in years and months
- Details promotion – clerical to officer and scale (cadre) wise thereafter
- Languages known, with details of speak, read and write separately
- Nomination regarding PF and Gratuity.
- Support calendar definition (and modification) for each location/branch capturing weekly holidays, public holidays, non-business working day, unscheduled holidays for each front office separately
- System should record awards received by the employee including the name of the award, year of award, in which discipline/filed and date of receipt of award.

**Transfer Details:**

- System should record previous posting details
- System should record date of termination/restoration
- System should record Union Information (if applicable).

**System Alert** – Yearly Increment, Stagnation Increment, Professional Qualification Pay (PQP)

**Leave Management**



- System should maintain all types of leave like CL, PL, ML, SL extra-ordinary leave, sabbatical leave, special leave, etc. for each employee, leave without pay
- System should maintain leave rules for availing leave, encashment of leave, accrual of leaves, lapsing of leaves, ceilings for accumulation of leaves, rules for combination of leave types, etc. for each categories of employees
- System should record leaves availed and balance leave calculation at any point of time
- System should link leave record to payroll and employee history
- System should have leave cancellation, leave extension/amendments advancement and postponement of leave
- System should have function of transfer people from one leave structure to another leave structure with balance of leave in previous structure (on promotion from clerk to officer)
- System should support comprehensive leave approval rules for:
  - Barred combination of leave
  - Leave prefixing and suffixing with other leaves
  - Leave prefixing and suffixing with weekly-off and paid holidays
  - Leave cancellation, leave extension report
  - Minimum and maximum no of days at a stretch in a specific type of leave
  - System should process leave encashment
  - System should maintain leave encashment record.

### **Training**

- Identification, Nomination and Completion of training
- System should maintain a single history of all the training programs taken by the user even if it classroom training or self-study through E-Learning
- System should record History of trainings attended like name of the course, name of the STC/Institution, month & year of training, duration of the course in days/weeks
- Training – Identification, Nomination and Completion of training
- System should maintain a single history of all the training programs taken by the user whether they are class room training or self-study through E - Learning
- System should support for nominating officers/award staff for various trainings given by Banks own training college/centres, Outside institutes with in the country and also abroad based on skill requirement
- System should compile nominations from various Regional Offices for a particular training program
- System should capture details of the batch-size, faculty, participants, participant attendance, feedback and about the courses held at different centres, and evaluation

- System should automate the workflow of training requisitions, approvals
- **Promotions/Career and Succession Planning**
  - Should create standard career paths in the organization in terms of various possible moves from the current level/grade in the organization
  - Should define grade advancements within a level based on the criteria of time as well as merit
  - Should define the rules for promotion eligibility in terms of tenure, consistent achievement of high performance grades, etc.
  - Should define additional rules specific to service in terms of suspensions, disciplinary actions
  - System should support full (complete) promotion processes from sub-staff to clerical, clerical to officer and from one scale to another amongst officer/executive cadres (Provide for various categories through parameterization among sub-staff. So that promotions within sub-staff category can be effected)
  - System should support preparation of seniority list/merit list/waiting list/empaneled list, etc.
  - System should support advising salary fitment on promotion. The fitment made should automatically go to payroll module
  - System should maintain and track retirements, resignations, other vacancy positions

## **Payroll**

- System should be able to define multiple pay structures
- System should be able to define earning, deduction, contribution and provision heads for each pay structure
- System should run multiple payrolls in a single instance
- System should maintain a single central payroll depository and should be run and access payroll from any location in a centralized or decentralized manner
- System should define various pay elements like earnings and deductions using a rules-based framework
- System should group individual earnings and deductions and link them to employees as per their eligibilities
- System should run separate payrolls for officers and staff depending on the eligibilities and rules applicable for each category
- System should be able to define various formulae and should link them to other calculation formula/elements such that when there is a change in the rule, only that component which has undergone a change will be effected (affected)

- Should compute the dearness allowance (DA) using options such as Fixed DA, linkage to consumer price index (CPI)
- System should perform tax computation and it should be handled as per Income Tax Act without any need for repeated manual calculations. The tax slabs, rates and surcharges should be maintained by the system and the tax should be computed automatically
- Should handle unlimited number of allowances and deductions. Should configure characteristics for payment, taxability, computation and so on to suit (as per the) banks' requirements
- Should compute various benefits provided to our employees such as Leave Travel Allowance, Medical Reimbursement, Medical Insurance, Furniture, House Rent Allowance, Company Cars, Company Housing and other long term reimbursements
- Eligibility, computation and taxability should be considered
- System should compute the Provident Fund, Contributions, Labour Welfare Fund and Professional Tax for all states wherever applicable at the correct frequency
- System should calculate gratuity and superannuation for multiple trusts and user definable contributions
- System should give statutory reports relating to PF, Pension, Income Tax, Professional Tax either on a monthly, half yearly or annual basis
- System should support passing of accounting entries for salary payments and maintenance of related books of accounts and registers. Generation of month-wise, quarterly-wise, half yearly and yearly statement of accounts
- System should support payment of salary to special appointees, temporary staff, etc.
- System should have a link with CBS system to credit the salary, loan instalments to their corresponding accounts of the staff directly
- System should support main, supplementary and partial payroll run
- System should support location based payroll run
- System should perform pay slip number generation based on user defined logic such as category and pay mode
- System should support to view pay details of current month, pay history, net amount paid, unpaid deductions – Employee-wise and month-wise, financial year-wise
- System should allow payment of officiating allowance based on user defined criteria
- System should capture details of different perks paid to the employees/executives perks register and generation of perks statement for ITO
- System should support payment of subsistence allowance in case of suspended employees and facility for rephrasing various staff loans when on loss of pay and suspension

- System should support payment/disbursement and salary to individual staff account in their place of posting
- Deferred salary payment in case of salary withheld due legal/dispute, etc.
- In case of over payment of salary option should be there for deduction of additional salary in subsequent months
- Deduction of Income tax, Professional tax, etc.
- System should calculate Income tax, Professional tax, etc., in all modules which have incidents of such taxes i.e., payroll, pension, etc. The system has to adequately support all requirements of statutory tax deduction
- System should be configuring various tax rules (e.g. Income tax, Professional taxes, etc.) announced by government for (from) time-to-time
- System should calculate and deduct Income tax, Professional tax, etc., at the time of: Accrual and Payment
- System should support for all statutory reports/tax returns, based on, but not limited to
- Classification of taxes, accounting entity, location/branch, state and nature of transaction.

#### **PF & Terminal Benefit Management**

- System should support pooling the monthly contribution of PF, Pension Fund in to the PF management system
- System should support calculation of periodic interest and crediting the amount to the accounts
- System should perform PF application processing, loan sanctioning, loan disbursement, modification of loan instalments, loan short closure, recovery through payroll, final settlement during closing/transfer for different types of PF loan
- System should have facility to credit sanctioned PF loan/withdrawal amount directly to their respective accounts through CBS System
- System should maintain nominee details and payment to nominee in case of death of an employee.

#### **Disciplinary Proceeding**

- Investigation & Preliminary Report
- Show cause
- Reply to show cause
- Charge sheet – Article of charge, Implementation of charge
- Appointment of Enquiry Officer
- Appointment of Presenting Officer

- Notices of hearing
- Holding of hearing and enquiry of prime suspects
- Noting and recording of submissions by all participants in the enquiry
- Issue of enquiry proceedings
- Submission of Enquiry Report
- Copy of enquiry report sent to the delinquent
- Matter to be placed before the Disciplinary Authority or Board
- Board will consider and proposes punishment
- Proposed punishment should be intimated to charge sheeted employee/officers
- Representation of delinquent
- Final punishment
- System should record history of disciplinary actions against the employee including date of charge, nature of charge, amount of financial loss to bank, date of punishment and nature of punishment.

#### **Master Data Set Up**

- Provide for storage of totals as large as “999,999,999,999,999.99”. Numbers in thousands, lakhs and crores
- Multiple business units, multiple products, multiple cost centres, multiple profit-centres, multiple delivery channels
- Bank logo should be available in the log-in entry page
- Branch information, Branch code up to four digits
- Support capturing of details of the branch including but not limited to: Branch Name, Bank Code, Branch ID, Branch Code (for clearing), Address, Phone Number, Telex Number, Branch Category, Branch Size, MICR Code, Area Code, State Code, Weekly Holiday, Extension Counter/s, Whether ATM attached, how many and also whether on site/off site, IFSC
- Product Accounting: Provide for configuring/defining accounting rules for individual product and generating accounting entries that will be passed to the GL module
- Ensure automatic generation of accounting entries, online at the time of data entry or batch update itself, based on the predefined rules above
- Provide for interfacing with the GL module at individual transaction entry level (individual entry routed to GL) or as consolidated entries (consolidated for a period, transaction type, etc.) based on predefined parameters (say, for pension payments)
- Entries/modifications in masters/parameters, etc., are authorized
- Allow data entry as well as printing of transaction as well as total amounts with following

formats (both in figures and words) for all screens, reports, documents (including cheque printing)

- Support rounding up/rounding down of the amount to the nearest user-defined unit for specific transactions e.g. Income Tax, TDS, Interest, etc.
- Ensure interface with external data feeds for but not limited to:
- Stock Rates
- Customer Rating Information, etc.
- Payroll data from Institutions.

### **Batch Updates**

- All modules in the proposed solution should have batch update capability, as per requirements specified hereunder
- Provide for Batch Update or Job Stream update for all data entry screens
- Ensure that validations and authorization for batch processing necessarily follows the settings defined for corresponding online data entry transactions
- Provide for identification and alerts for missing batches based on batch numbers
- Provide control and monitoring support for batch-processing updates with support for review of batch values before committing the postings
- Provide for complete rollback of the entire batch in the event of failure of batch processing
- System should permit EOD processing only after ensuring that all transactions are authorized
- Provide for defining and processing of activities/tasks for say:
- Start of day, Start of week, Start of month, Start of quarter, Start of year, End of day, End of week, End of month, End of quarter and End of year.
- Maker-Checker Concept
- Multiple level of makers (based on a predefined number)
- Multiple level of checkers (based on a predefined number)
- Maker cannot be a checker and vice versa
- Allow maker-checker concept to be mandatory for all transactions including to master and parameter files
- Provide maker and checker concept allowing, for entry, verification, and authorization and post commit verification and audit by different users based on: Product type, Account Type, Transaction type, Transaction amount, Authorization levels, User-wise.

## 18. Reports

- The list of reports is categorized based on operational (controls and information) needs and RBI requirements. However, the banks may require additional reports.
- Enable sorting of the user-defined reports based on any of the fields in the report
- Enable users to define filters, selection criteria on any field or group of fields for generation of such report
- Enable users to define grouping, totaling on any field in the user-defined reports
- Support generation of reports in electronic form for storage and transmission and text form for printing
- Some reports should be outside the ambit of report writer facility for security and internal control reasons. Such reports must be produced only using specific programs in the system, either as part of EOD/BOD or using specific menu options
- Generate exception report for accounts with balances below a threshold (to be defined as a parameter in the system). Generate customer notices (as per formats predefined in the system) for the above. Exclude specific customer categories such as staff/VIP, etc. from the above
- Provide for capturing and reporting of the transaction history for input as well as changes at field level for all transactions as well as master entries, reporting:
  - The user(s) who made the entry
  - The date/time on which the entry was made, the user(s) who authorized the entry, the date/time on which authorized, the user(s) who made the changes, the user(s) who authorized the change, the 'new' value of the field, date of reference document, date when the document was acted upon, date of exchange rate and the actual exchange rate used in case of foreign currency transaction
    - Provide for flexible designing of reports including formats for totals, sub-totals, running totals, etc.
    - Enable user to insert comments in the structure of all user-defined reports
    - Enable users to prepare new reports by using existing reports as models
    - Enable generation of reports on multiple pages, if necessary
    - Allow selecting user selectable reporting formats for dates (DDMMYY or MMDDYY, etc.) amounts (Lakhs/Crores), etc.
    - System should provide function where user can define print layout (horizontal/vertical, etc.) and other print setting (paper size, margin, etc.) through menu-driven options
    - System to print reports as on a particular date, any user-defined date or range of dates for the selected criteria (e.g. stop payments, transaction details, etc.)

- System to restrict access to reports based on user privileges defined in the system
- The frequencies of generation of these reports/statements can be parameterized e.g. quarterly to monthly to weekly and vice-versa
- System should segregate accounts quantum-wise (< 1 lac, 1-5 lac, etc.) possible
- System should generate scheme-wise progress reports as per periodicity defined by the bank
- System should compare with previous week/month/quarter/half year/year or comparison for a given period/periodical progressive reports
- System should feed information from non-core branches at any point for amalgamation and generation of MIS as required by the bank
- Enable scheduling of processing/printing of reports (including statements/memos/notes) at desired frequencies, including: daily, weekly, monthly, quarterly, half-yearly, yearly, ad hoc.
- Cash transactions of Rs. 10 lakh and above with:
  - System should generate report on cash transactions over Rs. 'X' lakh giving details like date of transaction, branch name and code, type of transaction (Dr/Cr), type of account, etc.
  - While capturing integrally related cash transactions beyond Rs. 10 lakh during a period of 30 days for the purpose of CRR, reversal entries posted due to non-execution of transactions for any reason should not be reckoned to avoid wrong reporting to FIU-IND and inconvenience to customers.
  - For the purpose of compilation of CTR, all cash transactions under a unique customer ID should be captured across the bank

### **Operation Reports**

- Facilitate daily report generation of HO originating, HO responding, HO Reversal/Rectification and consolidation report for the day or for any day or for any given range of dates
- System to support transfer of HO data to external media in case of need
- System to support acceptance of data from external media for consolidation purpose
- Support generation of report branch-wise, region-wise, circle-wise or for bank as a whole either showing individual entry as well as consolidated amount
- System to give total cash position teller-wise, cashier-wise, branch-wise, region-wise, circle-wise, bank-wise, etc., at any point of time



- System to give total teller-wise/cashier-wise cash position at branch at any point of time
- Report on history of deposit rates
- Provide customer alias in internet banking/other channels
- Support enquiry based on old account numbers
- Support generation of report for nomination
- Provide for override of the recovery of charge under authorization to be captured in exception report
- Support for enquiry of transactions based on amount (less than, in, more than a range), customer ID, type of account, account number, transaction type, cheque no., date, etc.
- System must not permit to delete the cash transactions after posting or verification
- System should support tallying of cash between double lock and tellers/cashier
- System should support recording of movement of cash between double lock, cashiers, tellers
- Facility to record in the Double Lock Register – soiled, mutilated, etc., separately
- Facility to accept and record in the system late cash (both receipt and payments)
- Facility to generate report on late cash
- System must automatically create late cash transaction as first transactions on the next day
- System to generate Double Lock Register
- Facility to have separate ATM cash account of each ATM attached to branch or extension counter
- System to generate separate ATM cash register for each ATM transactions
- Support generation of cash waste-teller wise/cashier-wise
- System to maintain token issued register as per bank's predefined format
- Provision to record excess cash/cash shortage and account for the same under parameterized heads
- Facility to generate cash receipt and payment details GL head-wise (SB, CA, Loans, etc.,) currency-wise, etc.
- Facility to generate report of 'Anywhere Banking' transactions separately
- Generation of audit trail including failed transaction. The rejected transaction data should also reside in the database and should be retrievable for any analysis
- Generation of audit trail for transaction originations and changes. These should record the change history in terms of the user, date, nature of change, etc. All

changes should be stored within a history table which should record the change information for each record

- Reports for statement of accounts, closure report, interest calculation for income tax, monthly statements for loan demand, etc.
- Provide for a report generation facility that would generate reports specific to user requirements. System should also generate all statutory and regulatory reports.
- Facilitate generation of report on screen, print, file, optical disk, etc.
- Provide user-friendly interface for viewing, extraction, printing of all reports
- Enable generation of historical transaction reports for a specific period (within a fiscal year, across years etc.)
- Enable users to apply Boolean selection parameters (e.g. >, <, =, AND, OR) as selection/exception criteria for report generation
- Provide for generating reports across multiple financial periods for any entity within the hierarchy in list or columnar form
- Provide for generating reports across multiple versions of financials for any entity in list or columnar form
- Provide for automatic rolling up of transaction level data to summary values
- System to generate individual branch reports at any interval at the branch and head office if required
- System should generate reports for branches category wise/population-wise, etc., on different parameters
- System to define any report/MIS printing at the branch, HO based upon defined parameters e.g. at the time of day-end, occurrence of a particular event, day-begin (user-defined)
- System to support manual feeding of data at the nodal/link departments or HO for consolidation and amalgamation of data received by manual branches
- System to define reports as compulsory report and print them at user definable periods e.g., end of day, beginning of day, etc. The system should also provide an option to allow the user (bank) to select the location of each report printing. (e. g. at the HO and branches or only at the branches.)
- System to define reports for scheduled printing at the branch level, HO, etc. e.g., printing of 'n1' number of reports at day-end at the branch, 'n2' number at day-begin at the HO, etc., and also based on activities like day-begin, day-end, month begin/end, etc.
- System will be able to generate statement for different amounts viz. Rs. 10 lakh

and above, etc. (defaulters list)

- System should generate the report for balance sheet analysis as per, RBI guidelines which include tier-1, tier-2 capital, total risk weight assets, details of loan assets and investment and details of earnings along with financial ratios as required by the statutory authorities
- System should feed qualitative comments/notes manually without affecting the sanctity of report to explain the reason wherever fields (e.g. remarks/comments etc.) exist in a particular report/statement and facility to configure to see that the respective department alone at Controlling Office can view
- System should calculate averages of Deposit/Advances/Business, etc. per employee/per branch
- System should calculate Income/Expenditure, Profit/Loss per employee/per branch
- System should calculate cost of funds/yield on advances branch-wise
- System should calculate the breakeven analysis of profitability
- System should generate exposure to – Sensitive Sector, Capital Market, Commodity Sector, Real Estate, etc.
- System should calculate Deposit Insurance premium
- System should generate reports/statements as per new Basel Capital Accord
- System should provide projection of interest payable and receivable for a particular period
- System should generate reports on any kind of anomalies in different GL heads. E.g. Debit Balance reflected in a GL head which should have zero/credit balance. Difference in balances of Contra GL heads
- System should generate an asset inspection report giving details of asset type, asset description, part number, adverse remarks, etc.
- Enable calculation of the following account balances for transaction reports:
  - Opening balances
  - Closing balances
  - Runtime Option
- System should generate reports such as journals, logs, audits trails, transaction reports and account based reports
- Interfaced Transactions – System should list all transactions received from automated interfaces and any related balancing or exception errors
- System should generate report on the sources and uses of fund required at periodic intervals (fortnightly, weekly, monthly, quarterly) giving the inflow of

funds from various sources and the corresponding uses vis-à-vis the outflow of funds for varied obligations/reasons

- System should calculate variance with reference to 31st March of the previous accounting year and also variation from last months'/last reporting fortnight position
- Cash inflow/outflow for the next six months
- System should have details of deposits of branches and variance analysis
- System should generate statement of interest paid/payable and received/receivable from customers
- System should generate statement of interest received from the branches and customers
- Report on effective rate of interest on deposits classified in terms of different deposits
- System should generate monthly progress report branch-wise and consolidate the same for various branches at the nodal/link departments and HO
- System should increase and decrease over similar balances to the previous year and also show budget variances
- Certificate of Balancing of Books
- Statement of irregular accounts (for CC, OD, BP, LC, BG)
- Statement of Sundry Debtors
- Statement of Sundry Creditors
- Report on Important Monitoring Returns (IMRS)
- Position of Currency Chest Balance
- Monthly Credit Information
- Funds Remittance in Transit Account
- Statement of other bank's DD/TT paid
- Statement of Review/Renewal of borrower accounts
- Statement of suit-filed/decreed accounts
- Statement of Irregular Loan Accounts – Loan and DPGs
- Daily Maturity Statement
- Fortnightly balance statement
- Statement of maturity pattern of deposits with residual maturity
- Statement of maturity pattern of advances
- Interest band-wise term deposits report
- Interest band-wise advances report
- Term deposit band-wise for bank as a whole

- Statement of TDS recovered from accounts
- Statement of advances granted to nominal members (purpose-wise)
- Statement of Unsecured Advances
- Statement of Advances granted to women, SHG/JLG, SC/ST/Minority
- Overdue advances and NPA position, movement of NPA
- Activity and scheme-wise progress report
- Activity and scheme-wise recovery performance
- Activity and scheme-wise subsidy utilization/requirement statement
- Report on flow of credit to SSI
- Report for BSR
- Report for GCC/SCC
- Quarterly progress report
- Financial inclusion report
- Action taken report
- Time-barred loan document report
- Unclaimed deposit statement (monthly)
- Inoperative account report
- Institutional Deposit Account
- Interest Accrued and Payable Report
- Govt. Deposit Account
- Premature Closure Report for Time Deposits
- Compromise Settlement of Loan
- Customers enrolled during a day, given period
- Reporting Statement (in hard as well as soft copies), IBCN paid register, auto allotment of IBCN number and generation of IBCN number allotment register
- Generation of balancing report of IBCN paid and reminders for outstanding entries
- Issued and DD paid report in branch-wise serial manner with the facility of drop down list for report selection
- Audit Trail for a given period
- Report of transactions done during the day, given period
- Amount of business generated from a customer/group for product-wise/branch-wise
- Transaction Register – System should lists transactions by user-specified ranges of periods, accounts, transaction types, transaction dates, amounts or any

combination thereof

- System should generate HRMS reports as per the request of bank (like PF ledger, PF loan ledger, etc.)
- System should generate Monthly Report submission to PF authority
- Allow printing of a statement on demand, e.g. the remaining transactions after the issue of a periodic statement. The statement layouts and transactions should also be user-definable
- Report Inquiries
- Enable teller to scan at any time his journal on the terminal to view transaction log, amount, account number, code, etc. or to trace errors
- Provide a facility to view cash position for each teller at any point of time. Similarly, facility to view consolidated cash position for the branch at any point of time (without closing cash position)
- Allow generating of list of all transactions, function wise, (cash deposit, cash withdrawal, cheque deposit, etc.). Rectification of incorrect entries to be allowed in each function
- Provide for generation of report on transactions of predefined amounts for a given period as per Anti Money Laundering (AML) measures
- Provide for a report on branch totals to be produced when all the tellers in the branch have completed the 'final sign off'
- Provide for a cash analysis report, for each Teller and consolidated at branch level
- Enable facility that allows the teller to inquire on all clients/transactions using various search methods. The search criteria to be user definable. (e.g. alphabetical order, matching name, transaction type/amount-wise and cheque-wise, etc.)
- Provide adhoc and standard reporting capabilities based on individual customers, customer type for both user-defined and system default periods.
- Enable creation of reports based on individual/combination of fields in the customer master
- Generate audit report of additions, amendments and deletions to customer master
- Provide support to query on the customer limits as well as MIS information based on user-defined parameters
- Provision to generate report/query of NPA a/c as per asset classification
- Age-wise classification of over dues and generation of report

- Ability to generate outstanding/arrears status /reminder letter
- Provide 360 degree view of the customer by displaying all accounts and relations of customer in one place
- Provide for generation of report on:
- Standing instructions executed
- Standing Instructions failed in execution.

### **Lending Related Reports**

- System should reflect position of accounts of a customer at any point of time, in a columnar form which include: Limit, Date of Valuation (stock statement), Market Value, Advance Value, Drawing Power, Outstanding Balance, Irregularity
- Ability to generate reports based on sanction/availed amount, due dates of repayment, last recovery amount and date
- Ability to generate reports with/without provision and write-off figures
- System to furnish at the end of each month and on ad hoc request list of all limits overdue for inspection along with dates of last inspection
- Details of security
- Historical data of valuation of primary and collateral security
- Limit history covering drawing power, peak-outstanding, peak irregularity, minimum outstanding during a month, for the months specified
- Details of credits and debits into the account beyond a stipulated amount – to be user-definable at account level and will be different for credits and debits
- Query on the status of the customer to issue no-due/no-objection certificate
- Certificates of outstanding balances, recoveries, interest, etc., to the customers
- Provision for generation of interest certificate on future date
- Generate limits register at user-defined intervals
- Provide a full set of operational, audit trail and MIS reports which include:
- Daily Activities Report
- Outstanding Report
- Due Date Analysis Report
- Overdue Report
- Classification of Assets
- Assets written-off
- Closed accounts
- Reports

- Advice of transactions to customers
- List of NPA Account IRAC status-wise/with provisioning
- Document Register
- List of Inoperative Accounts – for a given period
- List of account which is overdrawn – for a given period
- Limit Register
- Balance Report
- Statement of Account
- Ledger – Regular/Dummy
- Interest Calculation Product Report
- Report on processing charges recovered
- List of Accounts opened/closed
- Cheque Issue Register
- Stop Payment Register
- Cheque book Register
- Pass Book Printing
- Report on Folio Charges
- Statement of Account is ASCII format
- Balance Certificate
- Account details for a given customer
- Assessing Value of account. Information for the following to be provided between two dates:
  - Interest Income
  - Other Income
  - Deposits maintained
  - Length of association with bank
  - Account closure query
  - Exception Transactions
  - Statement of Account Query (for Current day)
  - Statement of Account Query (for any given period)
  - Stop cheque issued
  - Cheque issued
  - List of Overdrawn Accounts
  - A/c wise debit/credit balances
  - Query on effect of a transaction on available limit



- Clearing cheques returned for a given period Inward Clearing/Outward Clearing
- Query on asset classification
- Audit trail of transactions/jobs done for all accounts/masters should be available
- Provide online enquiry capabilities for each loan record to include:
  - Transaction pending for further processing
  - Currently active outstanding records
  - Currently inactive records but still being kept in the system
- All the transaction movement history as long as they are kept in the system. The period for which the history transactions are maintained in the system must be user-definable and can vary for each product
- Provision to view/print the details of a loan account for the entire period of loan
- Provision to generate demand, collection and balance register.

## **RBI and Statutory Reports**

### **Regular Reports**

- CRR
- SLR
- FORM I
- FORM IX
- Form B-Statement of external liabilities and core assets
- Trends in earnings
- Deposit Insurance and Credit Guarantee Corporation (DICGC)
- Monetary aggregates
- Quarterly statement on advances to Directors' relatives
- Statement Of willful defaults of Rs. 50000 and above
- Statement of doubtful defaults
- Doubtful top 10 installment accounts
- Trial balance
- Statement of cash reserve and liquid assets
- Demand liabilities
- Credit flow under priority sector
- Debit credit balance in deposit
- Office expenditure statement
- Position under self-help group
- Statement of purpose wise classification of advances
- Annual interest summary

- Top 10 NPA
- Movement of NPA
- Deposit comparison of three years
- Loans comparison of three years
- Monthly reconciliation of accounts with RBI.

#### **Offsite Surveillance (OSS) Reports**

- OSS Statement 1
- OSS Statement 2
- OSS Statement 3
- OSS Statement 4
- OSS Statement 5
- OSS Statement 6
- OSS Statement 7
- OSS Statement 8.

#### **Top 10 Deposit**

- Top 50 Impaired Credit
- Priority Sector Advances by UCB's Statement II
- Priority Sector Advances by UCB's Statement II-Part B
- Statewide Priority Sector
- District-wise Priority Sector.

#### **RBI Inspection Report**

- Amount-wise classification of deposit (summary)
- Amount-wise classification of loan (summary)
- Maturity amount-wise classification
- Fixed amount-wise classification of deposit
- Average earning on assets
- Composition of deposit
- Deposit Comparison of three years
- Loan and advances size and composition
- Purpose-wise analysis of loans
- Purpose wise analysis of loans (summary)
- Security wise analysis of loans (summary)

- Statement III - Part A
- Priority Sector Advances
- Statement Recovery of NPA
- Summarized Statement of Maturity Profile of Advances
- Summarized Statement of Maturity Profile of Deposit
- Sanction amount wise classification of loans
- Bank statistics to different departments of RBI such as rupee deposits held by different customer categories, etc.

#### **ALM Reports**

- Statement of Structural Liquidity
- Statement of Interest Rate Sensitivity
- Increase/Decrease Deposit Yield on Deposits.

## **Annexure II (Detailed Technical Requirements)**

### **1. Performance, Availability and Scalability Requirements**

- System to meet all present and future functional requirements should be highly parameterisable and not hardcoded.
- The CBS should be able to process a minimum of 10 (OLTP) transactions per second. This is applicable for unit banks, however, UCBs with more branches need better concurrency. For medium/large UCBs, the concurrency should be 40% of the user base and should support 4000 login users.
- A proof of benchmarking of the solution and the hardware sizing for the scale of the branch should be documented before the implementation. The hardware sizing has to be done with consent of the application service provider.
- CBS should also support batch operations, EOD and BOD operations. EOD, BOD operations should be completed within 3 hours on a normal day and within 4 hours during quarter/halfyear/year ends. All Batch jobs and the running rights should be in control of the bank authorities with appropriate user rights
- Ability to restrict user logins to one workstation, date and time wise from a central location (DC or DRC). The connectivity between branches and DR should be tested alongwith connectivity from primary site of data center.
- DC and DRC should be compliant of Level 3 standards or equivalent. Data centers should comply with Gopalakrishna committee recommendations, ISO 27000 series standards and PA and PCI-DSS guidelines.
- Should have data storage capacity for reasonable period. Should have offline and online back-up available for any exigences.
- If any purging activity is in place, the data integrity should not be lost. CBS provider should provide the purging activity related entity relationship diagram along with a test report during UAT process.
- Should have the facility to archive the data from production server at regular intervals to ensure production server contains data of reasonable period and the rest is archived and kept separately.
- All the transactions/updates in the proposed solution should be processed in real time i.e account balance updatation, respective sub GL heads updation over all GL updation, etc.
- System should be highly available, fault tolerant,and support business continuity and disaster recovery. A quarterly report on audited BCP and DR drills with no compensatory controls should be submitted.
- The database server should have 1:1 redundancy and the application and web server should have atleast n+1 redundancy. The solution at Disaster recovery site should be identical and of

same size as that in primary site.

- The utilisation of hardware resources should always be within 80% of its capacity. The solution should be scalable with reference to software, hardware and other resources to meet the future needs of the bank.
- The sizing of the solution is to be done based on the no of transactions per day, peak load, no of accounts, no of users, concurrent users, transactions per second, and transaction time for different type of transactions and no of branches.
- The hardware provided should support horizontal/vertical scalability.
- Documentation of L1/L2 helpdesk with improving known error database. Should have standard monitoring and alerting tools for improving the availability of the environment. Process and proof of implementation of root cause analysis and solution for past issues.
- A well documented and agreed NDA and SLA with RPO and RTO should be established. A minimum 15 minutes RPO and 1 hour RTO is recommended for UCB functioning, however, bank may choose a near zero RPO and 1 hour RTO based on the business criticality. This warrants establishment of near site disaster recovery centre.
- Established escalation mechanism and governance model of monthly/quarterly reviews.
- A documented and automated test cases for regression and unit testing should be made available. All UAT releases should be available only after submitting a proof of System and Integration testing, Performance and stress testing.
- CBS must have 3-tier architecture model. Documented application architecture diagram with class diagrams and standard design patterns like MVC, MVVM, etc.
- Report on code quality metrics (cyclomatic complexity, methods per class and other metrics related to cohesion and coupling) against the industry benchmark of the application technology stack.
- CBS should work on thin clients, however, bank may use regular desktops for accessing CBS. Cross compatibility across browsers and desktop operating system. Not just being restricted to a particular vendor OS and browser software.
- The vendor providing CBS must also have and provide experienced skilled resources of adequate number to take care of Data base administration, system administration, application management, Network management and data centre infrastructure.
- Vendor must also provide resources either one or two who has/have complete knowledge about the functionalities of the application/s to interact as and when needed and to take care of future requirements
- UAT and Training servers appropriately based on specific requirements of the bank are also to be provided.
- Last mile connectivity over terrestrial links/CDMA/RF, VSAT, VSAT Hub Station to connect DC,

DRC, branches and between DC and DRC should be available and tested for redundancy.

## **2. IT Security Requirements**

### **Access Controls**

- All Personally Identifiable Information (PII) and confidential information should be stored in encrypted form on the database
- Standard RDBMS databases with local support should be used. A document with proof of segmentation of user roles and application roles should be submitted
- Implement a standard error handling procedures with logging of error condition and other details of the application for effective troubleshooting. However, the user should get an error message in simple language (English/regional) and the message should suggest the next course of action
- Customizable error (language support) and information messages outside application code
- Access to PII and confidential information should be logged and be available in a report format
- Audit trail of additions/deletion/modifications to parameter file/master file, etc.
- System should automatically generate an indent for supply of security printing items SB/CA/CC account cheque books, demand draft leaves, etc., when the stock falls below the minimum prescribed level which should be parameterised
- If any logged-in session is inactive for more than a predefined period of time, password protected screen savers should be activated and the screen saver should be uniform throughout the organisation
- At the time of log in, date/time of previous log in and unsuccessful attempts to log in, if any, should be displayed on the screen
- Availability of menu should be restricted on the basis of user access (RBAC) level
- CBS should have the ability to support third party single sign on solutions with active directory (AD) and biometric devices as certified by Standardisation Testing and Quality Certification (STQC)
- Ability to upgrade the authentication and authorisation mechanisms to accommodate the future use of smart card/biometric/Aadhaar-based digital signatures by the customers
- Ability to verify digital signatures of data being uploaded in CBS
- Ability to provide authorisation/verification mechanisms with the use of smart card based digital signatures
- Ability of the CBS server to sign the data being downloaded, so that the application/user can verify the data integrity, while uploading the same
- Wherever there is an override of a given rule/parameter, it should be captured in an exception report and printed automatically as part of EOD

- Admin rights should not be available on the application and database server
- CBS should not allow any database level modification like creating, modifying, deleting, dropping database objects from application front-end
- Operating system, database software and any other third party software used by the CBS software should have valid software assurance agreement for patch deployment
- Once user logs on to the system from the client workstation, he/she should be taken to the banking application menu (possibly using a login script) and once he/she logs out of the application session, he/she should get disconnected from the database with no command line access/any other means of connecting to the database (say through SQL prompt). All the functionality should be accessible only through online/menu-driven web interfaces
- Application administration should be available only to the bank and may be given only on temporary basis with an end date to application service providers for maintenance activities
- Source code of the software version including any updates and upgrades should be deposited with an escrow agent.
- Facility for user authentication using biometrics

### **Password Management Requirements**

- Minimum password length must be eight for both normal and privileged users
- Password should be alphanumeric
- Provide for mandatory change of password for users at the end of preset time intervals
- Password expiration period should not be more than 30 days for normal users and 15 days for privileged users
- Usage of passwords such as user name, commonly used words, etc., should not be allowed
- System must not show password in clear text while entering the password
- In case of reset of password by another authority e.g., by DBA where the user has forgotten his password, etc.
- Details should be captured in an exception report
- User should be forced to change the password reset by DBA
- Enabling user id of new employee with dummy password which the user should be forced to change on first log on
- Disabling user id of employees on leave/not on computer duty
- Intruder detection (repeated unsuccessful attempts (three attempts) to gain access to the system) should be logged with date and timestamp and the terminal should get locked after a number of predefined unsuccessful attempts
- Generation of mandatory log for all the activities carried out by highly powerful users like System Administrator/DBA

- Generation of access logs with date and timestamp on processes run user id-wise.

### **Network and Endpoint Security**

- The network security is paramount for UCB-CBS as the UCBs may access the application hosted from third party datacentres. The approach should be 'deny all and allow only' required ports after consent
- Datacentre hosting CBS application should have all the required security (firewall, IDS, IPS, SIEM, DDoS protection, etc.) in place
- Application should be configured with correct network time to ensure data integrity
- A secured VPN connection or IPSec should be established for accessing CBS software
- Security measures for Desktop/Virtual Machines that would be used for accessing CBS would include:
  - Removal of administrator rights from installing any invalid software
  - Removal of internet access
  - Harden OS and remove access to pen drive or any other mass storage devices
  - Up-to-date antivirus should be available for the servers/virtual machines hosting CBS.

### **Application Security Requirements**

- Should not store any data in cookies/cached memory
- Source files as .java, .cpp, etc., should not be available in production
- Do not allow installation of Microsoft Office and/or other utility components on production servers
- Unregister/delete ".dll", ".so", other libraries that are not required
- Convert unmanaged (C, C++) code to managed code (like Java, .NET, etc.)
- Code to reduce buffer overflow issues
- Allow least-privileged accounts used for running web application
- Deploy CCA approved SSL certificates on servers for access. Recycle SSL certificates every two years
- Should not allow system commands calls from user interface
- Encrypt impersonated application id and other config details in the configuration file
- Perform data validation on address, email id, PIN code, etc.
- Should validate data type, implement required field validator/range checks on client and server side
- Have an allowable character set (numeric, alpha, required, duplicates, special characters, etc.)
- Filter for double and single quotes. Do not allow characters such as "@", "<>", "\*", etc.
- Validate data coming through JavaScript/PHP/VBScript/ ActiveX/Flash, etc.



- Should store files and data outside www-root
- Ensure right level of access modifiers at class and method/function level(private/public/protected)
- Remove null bytes from user input
- Create 'html attribute allow' and 'html tag allow' lists
- Implement html tags as iframe security
- Set debug=false in production environment
- Output validation before displaying on the screen
- Do not allow URL redirection to untrusted (non-HTTPS) site
- Perform validation on both client and server side
- Do not make any decisions based on HTTP header information
- Hash to protect query strings during posting
- Protect 'View' state using message authentication code (MAC) and/or high entropy random sequence
- Erase/Clear the session data after closure of session
- Make session ids random and unpredictable and do not store them on client side. Do not pass session ids in an unencrypted format
- Encrypt cached sensitive data and set cookie expiration date/time. Encrypt/Hash session data and all data in network by >128 bits encryption algorithm
- Disallow passage of sensitive data across pages or using HTTP, SOAP/HTTP, SOAP/JMS, etc., protocols
- Disable "GET" method for sensitive information
- Disable "GET and PUT" methods at the server level for web services
- Recommended to set 180 seconds session timeout for inactivity
- Limit the number\* of GET/POST per session
- Do not install of ActiveX, JAR, etc., on customer machine
- Disable browser back button
- Application/shared folder access given based on the need (read/write/execute)
- Have a restriction on file type/extension for uploads. Do not allow file extensions with .bat, .com, .exe, .pif, .vbs, msi, zip, etc., for upload
- Input file names should be well-formed and complete with no wild characters
- Check for file integrity before processing
- File transfer should be avoided to the extent possible. If there is an unprecedented file transfer, the files should be encrypted and transferred using Secure FTP
- Restrict access to application configuration file (web.config, web.xml, etc.), registry, system32/kernel, etc.

- Enforce code access security to ensure only required privileges are available
- Do not store password in the database or in application code in clear text
- Upload File (photo, signature, collateral and other documents), size and file type (allow only .pdf, .jpeg format) restriction.

### **3. Other IT Requirements**

- Should have provision for setting up of hotkeys for certain predefined functions (e.g. help, commit, etc.). Ability to define keypad (num pad) for data entry operators
- Provide for basic calculator functionality (as a standalone facility or as an integral part of input transaction) which can assist in tasks such as, but not limited to – summing a set of numbers, calculating interest, converting currencies, calculating percentages, calculating averages and basic functions (add, subtract, multiply, divide, etc.)
- Support word processing features for text fields, reports, notices e.g. back delete, forward delete, word wrap, and split and join lines, format paragraphs, etc.
- Context based help can also be available in the regional language of the branch
- Should support standard dot matrix/inkjet/laser printers for printing pass book, statement, DD and other bank stationery, etc.
- CBS should work on thin clients. Cross compatibility across browsers and desktop operating system. Not just being restricted to a particular vendor OS and browser software
- Proof of Usability testing and adherence to ISO standards on usability. Provide user-friendly support for synchronization of data with interfacing systems/applications
- Must have the capability of capturing photograph, signature, fingerprint biometric and retina biometric as in the case of UID (Aadhaar ID)
- Separate MIS server and report writing tool/application with flexibility of generating ad hoc MIS besides the MIS and regulatory reports indicated in the list.

## ***Annexure III (Cloud Computing)***

RBI Working Group on Cloud computing option for small size UCBs and IDRBT Cloud Security Framework for Indian Banks and are available as a reference for formulating the requirements for Cloud Computing for UCBs. The cloud offering normally includes services, infrastructure, and hosting of application software. The following are some of the areas that are to be factored while adopting CBS solution services on cloud.:

- Datacentre: The datacentre shall be of minimum level-3 with n+1 redundancy for its entire infrastructure like HVAC, fire protection systems, ups and so forth. It must be secure and reliable
- The location of the datacentre is also to be considered while taking cloud services. Its location must be in a safe and secure place, away from crowded areas, fire hazard prone areas and high risk seismic zones
- In a cloud computing environment, the software and the customer's data are hosted by the vendor, typically in a shared environment and the software configuration is homogeneous across all of vendor's customers. This means that cloud application is generally customizable for common requirements and not for specific requirements. Hence, buyer must ensure that cloud service provider agrees to provide customization specific to buyer as and when required through change request mechanism
- The buyer must satisfy himself that the solution is highly available, reliable and fault tolerant. The buyer must prescribe performance metrics like TPS, response time for each type of transaction and so forth. The agreement must provide for appropriate service levels with reference to availability and responsiveness of the application software (uptime, response time and problem resolution time). It must also state the remedial measures available and the liquidated damages to be levied if service levels are not maintained. The buyer should not simply accept default vendor offers on uptime percentages and measurement period, but negotiate for uptime and its frequency of measurement to address its business needs and requirements. The shorter measurement of uptime say once in a month is preferable to longer durations of quarter/half year. Schedule downtime for maintenance should not affect the availability of services to buyer's organization. Any schedule maintenance is to be intimated to the buyer also
- Besides appropriate service levels, the service provider must also agree to resolve issues pertaining to software and other services in a timely manner so that it does not affect the business, if necessary by providing acceptable workarounds. If the issue is not addressed within a reasonable time, there must be a mechanism to escalate the matter to higher authorities

- Data security and confidentiality of that customer data are very important in cloud offers. The buyer must therefore satisfy himself that the procedures adopted by service provider are adequate to protect data against security vulnerabilities. Hence, the bank must demand from service provider specific details about data security, specifically hardware, software and security policies and review them to know that they are in line with industry standards and security policies of the bank.
- During the contract term, the bank should have the right to gain entry into service providers' datacentre and perform through an authorized person/entity, audits of vendors' environment, including penetration and security tests, etc.
- Service provider must agree to maintain and run disaster recovery site to ensure business continuity, in case of any disruption in the primary site. The service provider must also agree to conduct DR drills at prescribed intervals to test the readiness of Disaster Recovery Services (DRS)
- In all customer critical solutions like CBS, the service provider must provide adequate room in the hardware to take care of any sudden spurt in transactions. In order to facilitate this, the service provider must always ensure that utilization of its hardware resources are well within 80%. When the utilization exceeds the threshold limit of 80% for a reasonable period, say a fortnight or a month, the service provider must initiate steps to enhance/upgrade the hardware in order to avoid untoward incidents
- The bank relies on the service provider as the custodian of its data, and hence service provider must take backup of customer data at required intervals. The bank must ensure that service provider's backup policies are consistent with that of bank's backup policies in all critical aspects
- The service provider will have access to customer's data. The service provider must agree to maintain confidentiality of such information and that he will not use such information except for discharging its duties under cloud
- The service provider must grant to the buyer complete right and license to access and use the software for customer's business purposes by all its permitted employees and users. The license may be obtained either on enterprise basis, or per user basis based on no. of users accessing the software
- The service provider must also guarantee the following:
  - All services will be provided in a timely, professional manner to comply with industry best practices
  - Adequate training will be provided to the users on the features and usage of software
  - The customers' data and information will not be shared with or disclosed in any manner to any third party by the service provider without the consent of buyer

- The software will not infringe the intellectual property rights of any third party
- The software will be free from viruses and other destroying programs.

## Expansions of Abbreviations Used

Sl. No.	Term	Full form
1.	AEPS	Aadhar Enabled Payment Service
2.	AMC	Annual Maintenance Contract
3.	ARC	Asset Reconstruction Company
4.	ASP	Application Service Provider
5.	ATM	Automated Teller Machine
6.	BC	Banker's Cheque
7.	BCC	Bahrain Cooperation Council Banking
8.	BG	Bank Guaranty
9.	BSBDA	Basic Savings Bank Deposit Account
10.	BSR	Basic Statistical Return
11.	CA	Current Account
12.	CAIIB	Certified Associate of Indian Institute of Bankers
13.	CASA	Current Account & Savings Account
14.	CBLO	Collateralised Borrowing and Lending Obligation
15.	CBS	Core Banking Solution
16.	CBS	Core Banking Solution
17.	CC or CCA	Cash Credit Account
18.	CCIL	Clearing Corporation of India Limited
19.	CD	Certificate of Deposit
20.	CERSAI	Central Registry of Securitisation Asset Reconstruction and Security Interest
21.	CERT-IN	Computer Emergency Response Team – India
22.	CIBIL	Credit Information Bureau (India) Limited
23.	CIF	Customer Information File
24.	CIF	Cost, Insurance and Freight
25.	CP	Commercial Paper
26.	CSP	Cloud Service Providers
27.	CSP	Cloud Service Provider
28.	DCCB	District Central Cooperative Bank
29.	DD	Demand Draft
30.	DEMAT	Dematerialised (electronic records)
31.	DGFT	Directorate General of Foreign Trade
32.	DP Code	Depository Participant Code
33.	DSS	Data Security Standards
34.	DTL	Demand and Time Liabilities
35.	ECGC	Export Credit Guaranty Corporation
36.	ECS	Electronic Clearing Services
37.	ECS	Electronic Clearing Services
38.	EOD	End of Day
39.	EOD	End-of-Day process
40.	EOM	End of Message
41.	FCNR	Foreign Currency Non-Resident account
42.	FIFO	First in First Out
43.	FIU-IND	Financial Intelligence Unit – India
44.	GCC	Gulf Cooperation Council banking
45.	GL	General Ledger
46.	GL	General Ledger
47.	HO	Head Office
48.	HO	Head Office
49.	HRMS	Human Resource Management System

50.	HUF	Hindu Undivided Family
51.	IaaS	Infrastructure as a Service
52.	IBA	Indian Banks' Association
53.	IBA	Inter-Branch advice
54.	ID	Identity
55.	IDRBT	Institute for Development and Research in Banking Technology
56.	IFSC	Indian Financial System Code number
57.	IMPS	Immediate Payment Service
58.	ISO	International Organisation for Standardisation
59.	IT	Information Technology
60.	KVP	Kisan Vikas Patra
61.	KYC	Know Your Customer
62.	LC	Letter of Credit
63.	LIC India	Life Insurance Corporation of India
64.	LIFO	Last in First Out
65.	LR/RR	Lorry Receipt/Railway Receipt
66.	MIS	Management Information System
67.	MT	Money (Order) Transfer
68.	MT	Money Transfer
69.	NACH	National Automated Clearing House
70.	NAV	Net Asset Value
71.	NDTL	Net Demand and Time Liabilities
72.	NEFT	National Electronic Funds Transfer
73.	NFS	National Financial Switch
74.	NPA	Non-Performing Assets
75.	NPCI	National Payments Corporation of India Ltd.
76.	NRE	Non-Residential External Account.
77.	NRO	Non-Resident Ordinary Account (in Rupee)
78.	NSC	National Savings Certificate
79.	OD	Overdraft Account
80.	OS	Operating System
81.	OWASP	Open Web Application Security Project
82.	P&L subsidiary	Profit & Loss Subsidiary account
83.	PA	Payment Application
84.	PaaS	Platform as a Service
85.	PAN	Permanent Account Number (Income Tax Department)
86.	PC	Personal Computer
87.	PCI	Payment and Card Industry
88.	PII	Personally Identifiable Information
89.	PIN	Personal Identification Number
90.	PMJDY	Pradhan Mantri Jan Dhan Yojana
91.	PO	Payment Order
92.	RBI	Reserve Bank of India
93.	RC Book	Vehicle Registration Certificate (Registration Card) Book
94.	ROC	Registrar of Companies
95.	RTGS	Real Time Gross Settlement
96.	SA or SB	Savings Account or Savings Bank Account
97.	SaaS	Software as a Service
98.	SAL	Specific Approval List
99.	SBI	State Bank of India
100.	SCB	Scheduled Commercial Bank
101.	SFMS	Structured Financial Messaging System
102.	SHG	Self Help Group

103.	SMS	Short Messaging Service
104.	SSI	Small Scale Industry
105.	STQC	Standardisation Testing and Quality Certification
106.	SWIFT	Society for Worldwide Interbank Financial Telecommunication
107.	TDS	Tax Deducted at Source
108.	TDS	Tax Deducted at Source
109.	TT	Telegraphic Transfer
110.	TT	Telegraphic Transfer
111.	UAT	User Acceptance Test
112.	UCB / UCBs	Urban Cooperative Bank/s
113.	VAPT	Vulnerability and Penetration Test