

Smart Bank Operations & Unified Lending Ecosystem (SOUL)

Issued by: Kerala State Cooperative Bank (KSCB)

In collaboration with: Kerala Startup Mission (KSUM)

Date of Issue: [22/01/2026]

Reference No: [KBIT/PMU/Smart Bank & Unified Lending/085/2025-26]

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1. Introduction

The Kerala State Cooperative Bank (KSCB), the apex cooperative bank of Kerala, invites proposals from eligible startups registered under Kerala Startup Mission (KSUM) for the phased design, development, implementation, and support of a future-ready Smart Bank Operations & Unified Lending Ecosystem (SOUL). The proposed initiative aims to transform the bank's operational and lending framework into a unified, digital-first environment. The scope covers the following solution areas:

- **E-Office:** Establish a paperless office ecosystem with secure document management, workflow automation, and digital archival. This will streamline approvals, reduce physical dependency, and ensure compliance with regulatory standards.
- **Office Automation:** Deploy intelligent automation tools to handle routine administrative tasks, reporting, and approvals. This will enhance productivity, minimize manual errors, and accelerate decision-making.
- **Circular Management:** Implement a centralized platform for issuing, tracking, and managing internal circulars and communications. The system will ensure timely dissemination, version control, and audit readiness.
- **Intranet:** Build a secure, collaborative intranet portal to serve as the bank's internal knowledge hub. Features will include employee engagement tools, policy repositories, and cross-departmental collaboration spaces.
- **Loan Origination System (LOS):** Deploy an end-to-end platform for loan application intake, credit assessment, underwriting, and approval workflows. Integration with core banking and regulatory systems will ensure seamless compliance and faster turnaround times.
- **Digital Lending Platform (DLP):** Enable customer-centric digital lending through online loan applications, instant eligibility checks, e-KYC integration, and automated disbursement. This platform will enhance customer experience while supporting scalability and innovation in lending.
- **Expense Management:** Introduce a digital expense tracking and approval system to improve transparency, compliance, and financial control. Automated workflows will support reimbursement, budgeting, and audit processes.

The system must be scalable, API-first, multilingual, and compliant with RBI, PMLA, and DPDP Act. It must integrate with national and Kerala state APIs, support refinancing workflows, and embed orchestration and AI layers for automation and inclusivity.

2. Objectives

- Digitize and streamline Smart Bank Operations & Unified Lending Ecosystem across KSCB branches
- Enable zero/minimal data entry via national APIs
- Ensure compliance-by-design with RBI FREE-AI, PMLA, and DPDP Act
- Integrate with Finacle 10.2.25 CBS
- Deploy MCP orchestration, Agentic AI, and Generative AI modules
- Provide API sandbox and documentation

3. Scope of Work

3.1 Functional Scope

- Loan application intake, eligibility checks, document capture, scoring, approval, and sanctioning
- Role-based dashboards for loan officers, approvers, and administrators
- Real-time status tracking and alerts
- Integrations with CBS, Allied solution and national APIs
- Portals and Mobile Apps
- PACS-specific workflows: group loans, JLGs, SHGs, crop loans, gold loans
- E office & Office Automation
- Circular management
- Document scanning
- Workflow
- Archival of electronic documents
- Annotation / Indexing /Tracking
- Reports / Audit Trails
- Reminders / Alarms
- Committee / Meeting
- E-Sign facility
- Expense Management

3.2 Technical Scope

- API-first, microservices-based architecture
- Integrations with CBS, DMS, Bank's allied solutions
- MCP orchestration layer
- Agentic AI and Generative AI modules
- Offline-first PWA/mobile app
- Secure data storage, encryption, and audit logging

3.3 Compliance Scope

- RBI: Loan Origination Guidelines, Account Aggregator, FREE-AI Framework
- PMLA: AML/KYC, CTR/STR reporting
- DPDP Act: Consent, Minimization, Erasure, Portability
- ISO 27001 and CERT-In cybersecurity controls

4. Deliverables

This solution should facilitate movement of files digitally from desk to desk, defining workflow, collaboration among users in the automation of day-to-day office activities, loan sanction activities and processes on the digital platform, eliminating movement of papers & files in physical form.

Facility for the internal circular management between Head office, Departments, Offices, branches and employees. System should have the facility to add serial number, synopsis, keywords, classify by category / type, add enclosures, cross-links to previous & subsequent references, etc. Create internal instructions, memos, circulars, notices, etc. on the system itself. Facility to address the instructions to a particular person, department or an entire office altogether, with prompt alerts indicating the issue of these instructions. Retrieval of circulars.

Provide an Intranet facility for content touch and share information across the Bank.

The solution should also provide the end-to-end expense management including the origination, approvals, posting to CBS, monitoring and dash boards.

The Bidder has to supply and install at all the required solution, account aggregator modules, e-sign solution, required licences including Operating system & data base, HSM, network etc for the successful implementation of the proposed solution for a period of 5 years.

Additional:

- Technical documentation
- User manuals and training materials
- SLA-backed support and maintenance plan

5. Eligibility Criteria

- Registered startup under Kerala Startup Mission KSUM
- Demonstrated experience in fintech/regtech, API integration, or AI/ML
- Prior PoC, pilot, or hackathon experience in financial services preferred
- If the proposed solution has not yet been implemented, a POC with the Bank is required.

Team with expertise in:

API aggregation and orchestration

AI/ML and NLP

Cybersecurity and compliance

UX design for rural/low-literacy users

6. Evaluation Criteria (QCBS 70:30)

Bids are evaluated using QCBS –Quality and Cost Based evaluation method where Quality will be having highest priority and Cost will be the next priority.

STAGE 1: TECHNICAL BIDS EVALUATION [e.g.]

Bidder details	Technical Marks Obtained	Technical Score (TS*)
Bidder1	92 (T1)	$(92/92) * 100 = 100$
Bidder2	85	$(85 / 92) * 100 = 92.39$
Bidder3	55	Not applicable
Bidder4	75	$(75 / 92) * 100 = 81.52$

*Technical score is calculated as $TS = (\text{Technical Mark obtained by the bidder} / \text{Highest Technical Mark amongst bidders}) * 100$

The bidders who score 70 marks or above in the technical evaluation will be qualified for Financial Bid evaluation.

STAGE 2: FINAL BID EVALUATION [e.g.]

Bidder details	Financial Bid Amount discovered
Bidder1	1,30,000
Bidder2	1,20,000
Bidder4	1,00,000

Note: The associated infrastructure costs will also be added for the calculation of the Total Project Cost.

STAGE 3: CONVERSION OF FINANCIAL BID AMOUNT TO SCORE [eg]

Bidder Details	Financial Bid Amount discovered	Financial Score (LFB/F*100)
Bidder1	1,30,000	$(100000/130000)*100=76.92$
Bidder2	1,20,000	$(100000/120000)*100= 83.33$
Bidder4	1,00,000 (L1)	$(100000/100000)*100 =100$

LFB = Lowest Financial Bid from Financial Bid, F = Quoted Amount in Financial Bid

Consolidated Technical & Financial Score (e.g.)

Bidder Details	Technical Score	Financial Score
Bidder 1	100	76.92
Bidder 2	92.39	83.33
Bidder 4	81.52	100

STAGE 4: COMBINED TECHNICAL AND FINANCIAL SCORE (CTFS)

70:30 weightage for Technical and Financial Score will be used to arrive the Combined Technical and Financial Score (CTFS)

Bidder Details	Applying weights for the Technical Score & Financial Score	CTFS	Rank of the Bidder
Bidder1	$100*(70/100) + 76.92*(30/100)= 93.076$	93.076	1
Bidder2	$92.39*(70/100) + 83.33*(30/100) = 89.672$	89.672	2
Bidder4	$81.52*(70/100) + 100*(30/100)= 87.064$	87.064	3

7. Implementation Timeline

Sl.No	Milestone	Timeline – days
1	Issuance of Purchase Order	T
2	Signing of the agreement, Finalise and signing of implementation Project plan	
3	Finalisation of SRS and integration requirements	

4	Successful completion of Customization, integration Configuration and pre-delivery testing	
5	Delivery of Functional and non-functional test results Successful completion of UAT. Delivery of Training and Training materials	
7	Go-live preparation Finalise support process.	
8	Go-live	T+120 days

8. Proposal Submission Guidelines

- Submit technical and financial proposals in separate sealed envelopes Include the following: -
 - Company profile and registration documents
 - Team CVs and relevant project experience
 - Technical proposal with architecture diagrams and compliance roadmap
 - Financial proposal with detailed TCO (Annexure II format)
 - Proposals must be valid for 180 days

9. Terms & Conditions

- KSCB reserves the right to accept/reject proposals
- Data privacy and DPDP compliance are mandatory
- SLAs must define uptime, response times, and support levels
- Selected vendor must sign a Non-Disclosure Agreement (NDA)

10. Projected Branch / Office Expansion

	No of Branches & Offices	No of users
Current Scenario	850	4000

The solution proposed by the bidder should be scalable to handle the load for projections. The resource (CPU/ memory / utilization) at given projection should not go beyond 70% there should not be any single point of failure in the entire software solution. The entire solution should be configured in high availability mode both at DC and DR with inbuilt redundancy.

So the bidder has to calculate the data growth based on the standard assumption in the industry. This is applicable for all other services which are presently in use and that might get included in future.

11. Infrastructure (Hardware/Network)

The Bidder must include all hardware and network infrastructure components necessary to implement and maintain the solution for the full contract period, with details provided in the Technical Proposal.

Kerala Bank may provision these components through its DC/DR facilities or an alternate environment; otherwise, the Bidder shall provision them via a Meity-empowered cloud solution.

12. Facility Management Services

The FM support - with minimum two L2 resources should be deployed at Bank's premises, for supporting the solution primarily for 10 hours (viz. 9 am to 7 pm) or as decided by the Bank. However in case of exigency the Bidder shall provide and maintain requisite skilled resources for extended hours as required.

13. Integrity Pact

The Integrity Pact shall be executed by the Bidder, duly stamped and signed on each page, and witnessed by two individuals.

14. Escrow / Similar arrangements

The bidder shall be required to establish and execute an Escrow or equivalent arrangement to ensure that the complete source code, along with all related customization details, is securely deposited with a designated third-party location.

15. Confidentiality

The bidder, by participating in the bidding process, shall regard all document details as strictly confidential. The bidder must undertake that they shall hold in trust any information received by them under the contract /agreement, and the strictest of confidence shall be maintained in respect of such information.

16. Performance & security audit

This is an important step that ensures accuracy, availability and security of the data. Bank will identify a suitable audit firm to conduct performance & security audit in compliance with the

norms set by regulator for which the selected bidder should furnish all necessary information and support in the form prescribed by the audit firm. The selected bidder has to rectify all the performance and security audit comments to the satisfaction of the Bank without any additional cost.

17. Penalty

The successful bidder must strictly adhere to the delivery periods and timelines in the implementation schedule. Failure to meet these delivery dates, unless it is due to reasons entirely attributable to the Bank, may constitute a material breach of the bidder’s performance. As a deterrent for delays during implementation, Bank may levy penalties for delays attributable to the successful bidder.

18. Contract Period

5 years.

19. Annexures

Annexure I - Functional requirements

The form has to be filled in all respects. If any row is left blank it will be categorized as “Not Possible” for evaluation purpose.

Sl#	Description	Readily Available (RA)	Customisable (CA)	Not Available (NA)
1	◇ General requirements			
1	The solution should be device independent and work seamlessly on devices such as desktops, laptops, mobiles, tablets etc.			
2	The solution should be available in multiple languages i.e. should have Unicode support.			
3	The solution should be fully web- based with preferably no client component installation required on the user's work station.			
4	The solution should be platform Independent. It should support commonly used open source and proprietary platforms (OS, DB, Web Server, App Server, monitoring platforms etc)			
5	The solution should be secure with complete access and role management features.			

6	The solution must not, by its own architecture or design, impose any practical limit on the number of files/ documents that can be created/ handled at any point			
7	The solution should be compatible with technologies and communication platform running within in KSCB.			
8	The system must offer full application security and information on all security events must be recorded on an audit trail.			
9	The solution should be able to be accessed remotely, via VPN or Internet			
10	The system should define and support loan products/portfolios like Working capital loan, Term Loan, overdraft, Real estate loans, non-fund-based lines (LC, BG etc.), Bills, Trade Finance solution, Lease (Finance or operating Lease), Hire purchase, all segments like Retail, MSME and Agriculture segment (Farm & Non-Farm credit) etc. as per the requirement of the Bank.			
11	System should have the ability to define, generate and collect leads and manage external agencies and their users like Direct Selling Agency (DSA), dealers, builders, Bank Mitra, valuation agencies, Law Firms, verification agencies, BCs and BFs etc. Should allow creation of user groups under each business partner and creation of users under each group as part of Corporate License.			
12	System should have the ability to allocate relevant cases to these external agencies and give controlled access to work or give them facility to upload their reports.			
13	System should have facility to calculate commission/Fee for DSAs, Valuer, LIEs, Lawyers and other third parties.			
14	System should be able to receive various reports in predefined form from authorized vendors through internet, email, and other electronic media in a secured manner.			
15	Software should deliver Lead Management/Database management, Loan Origination System.			
16	Ability to generate automated e-mails / SMSs to applicants / valuers / other agencies, users etc as per the requirement.			

17	The system should provide output format to be generated in MS Word, MS Excel, Adobe acrobat PDF, HTML, XML etc. and any format needed in future. Output has to be a printable format with full alignment of text, images & tables (in A4, A3, legal, letter etc. Paper sizes)			
18	Multilingual (Malayalam & English Languages) output templates. Moreover, proposed solution should have feasibility to include the major regional/scheduled language at a later date.			
19	Ability to define various masters e.g. Calendar Master, Business Partners, Deviation reason master, Delegation level master (Value), Product master (including pricing etc.), Customer master (With ID details etc.), Policy criteria master, Profession master, Company master, Customer service master, Collateral detail master, Interest Rate Master, Other Masters as relevant for the software/as required by the bank			
20	System should support 'Master Data Management' of various heads such as type of loan, geography, business unit etc. and also version control in key masters.			
21	There should be a facility to configure templates in the system like the Call Report, offer letter, SMS and email alert, Survey report templates, subsidy claim template which can be configured at the master's level in the system.			
ii	◇ Core functionalities			
22	Lead Management: Capture and track potential loan applicants.			
23	User Management: Role-based access and Admin/user provisioning.			
24	Workflow & Allocation: Automate task routing and workload distribution.			
25	Application Input & Tracking: Capture granular customer and loan data and real-time monitoring of loan applications.			
iii	◇ Customer & Product Handling			
26	Customer Management: Centralized customer profiles and history.			
27	Product Configuration: Define loan products and parameters independently by Bank user			
28	Product Management: Lifecycle management of loan offerings.			
iv	◇ Risk & Credit Evaluation			

29	De-dupe & Negative Database Check: Prevent duplicate entries and flag risky profiles.			
30	Credit Evaluation / Rating: Assess borrower creditworthiness.			
31	Eligibility Analysis: Automated rule-based eligibility checks.			
32	Project Appraisal: Evaluate project feasibility and financials.			
V	◇ Document Lifecycle			
33	Document Management: Central repository for all loan documents.			
34	Document Configuration & Checklist: Define required documents per product.			
35	Document Receipt & Verification: Track and validate submitted documents.			
Vi	◇ Operational Controls			
36	Fees & Charges: Automated fee computation and tracking.			
37	Deviation Management: Handle exceptions and policy overrides.			
38	User Workspace: Personalized dashboards and task views.			
39	Collateral Management: Register and monitor loan securities.			
40	Verification Management: Manage field and backend verifications.			
Vii	◇ Approval & Disbursement			
41	Terms & Conditions Management: Configure and enforce loan terms.			
42	Credit Approval: Multi-level approval workflows.			
43	Offer Letter & Loan Documents: Auto-generate legal documentation.			
44	Appraisal Note & Limit Management: Finalize loan limits and notes.			
45	Disbursement: Initiate and track fund release.			
Viii	◇ Monitoring & Reporting			
46	Review / Renewal: Periodic loan reviews and renewals.			
47	Exception Handling: Manage operational and compliance exceptions.			
48	Notification Management: Alerts and communication triggers.			
49	Reports / MIS & Dashboards: Analytics and performance tracking.			
Ix	◇ Specialized Modules			
50	Agriculture Segment: Tailored workflows for Agricultural-loans.			

51	MSME Segment: Custom features for MSME lending.			
52	Online Retail / MSME Module: End-to-end digital journey.			
53	Tab-based Functional Requirements: Mobile-first field operations.			
54	Account Aggregator Module: Consent-based financial data sharing.			
55	E-Sign Module: Digital signature integration.			
X	◆ Platform Capabilities			
56	Rule Builder: Configure business logic and validations.			
57	Integration with CBS: - Integration with Finacle 10.2.25			
58	Risk & Security Policy Configuration: Enforce bank-wide compliance.			
59	Portal Provisioning: Interfaces for customers, staff, and partners.			
60	Channel integrations: Capability to integrate with the mobile app/ website/ internet banking/ chatbot/ kiosk/ ATM & other devices/appliance			
61	Integration with Third-party applications: - Loan/NPA Management solution, EWS solution, HRMS, NACH, V-kyc, CRM, Risk Rating Applications, Account aggregators etc			
62	Integration with: UIADI, NSDL, CERSAI, CICs			
63	Integrations including Account aggregators			
64	Integrate with: - MCA defaulter List, Wilful defaulter List Central Fraud Registry, CBI, ED, SFIO, Cybercrime etc			
65	Fraud Checks like tampered document, irregular salary credit, Face Match, Name Match etc			
Xi	Intranet Solution			
66	Employees to access internal and external resources and enables workers to communicate, collaborate, and share documents and other information			
Xii	Circular Management			
67	Facility for the internal circular management between Head office, Departments, Offices, branches and employees			
68	System should have the facility to add serial number, synopsis, keywords, classify by category / type, add enclosures, cross-links to previous & subsequent references, etc			

69	Create internal instructions, memos, circulars, notices, etc. on the system itself. Facility to address the instructions to a particular person, department or an entire office altogether, with prompt alerts indicating the issue of these instructions.			
70	Retrieval of circulars			
Xiii	Collaboration and Messaging Service			
71	The system should help users in scheduling appointments, meetings, events and conventions online and facilitate the sharing of appointments and updates users/groups through SMS and email.			
72	The system should provide Instant Messaging (IM) functionality to users through which users can exchange important messages over the electronic office system portal.			
73	The system should provide alerting mechanism for updating users about changes for their items from all modules in electronic office system.			
74	The system should have the capability to integrate with social networking sites like twitter etc.			
75	E-sign solution, services and interfaces			
Xiv	RSS (Really Simple Syndication) Feeds			
76	The solution should have the capability to RSS feature			
Xv	Parliamentary/Assembly Question Management			
77	The system should have capability for Parliamentary/Assembly Question Management			
Xvi	RTI Management			
78	The system should have capability for RTI management			
xvii	Workflow Engine			
xviii	The system shall facilitate workflow engine to support different types of document routing mechanism including Sequential routing, Parallel/Committee routing, Ad-hoc routing etc			

xix	Committee & Meeting Management			
79	Committee Constitution & Member Management			
80	Communication & Notification Templates			
81	Approval & Workflow Control			
82	Meeting Scheduling & Participation Management			
83	Minutes of Meeting & Action Tracking			
xx	Correspondence/DAK Management			
84	Centralized Repository & Capture			
85	Viewing & Annotation			
86	Workflow & Routing			
87	Recall & Monitoring			
xxi	File/Office Note Management			
88	Office Note Creation & Editing			
89	Workflow & Approval Integration			
90	Scratch Pad & Revision Tracking			
91	File Classification & Creation			
92	File Storage & Barcode Management			
93	Document Addition & Indexing			
94	Electronic File Handling & User Experience			
95	Note Management & Security			
96	Document Interaction & Multi-File Support			
97	File Workflow, Tracking & Case File Management			

xxii	Record Management System requirements:			
99	Compliance & Archival Standards			
100	Document Lifecycle Management			
101	Physical & Electronic Record Tracking			
102	Access Control & Workflow			
103	Reporting & Monitoring			
xxiii	Integration and Web Services			
104	Open Standards & API Support			
105	Standards-Based Integration & Collaboration – XML, HTTP, FTP, SMTP etc			
106	Communication Server Integration – Email, SMS etc			
xxiv	Reminders and Alarms			
107	capability to set automatic reminders and alarms to concerned users (through email/SMS etc.).			
xxv	Reports and Audit Trails Features			
108	The System shall support extensive Reports and audit trails of user, Folder Cabinet levels etc and shall also provide data points and facility to design new reports			
xxvi	Administration			
109	The system shall support web-based administration module for the complete management of system.			
xxvii	Security & User Management			
110	System shall support definition of Users, Groups & Roles and its writes			
Xxviii	Search and Retrieval			
111	The system shall provide extensive search facility to retrieve documents or Folders/Files/users			

Xxix	Indexing			
112	The System shall provide facility to index folders, files and documents on user-defined indexes like department, user, file number, year etc.			
xxx	Annotations			
113	The solution shall support comprehensive annotation features like highlighting, marking text, underlining putting sticky notes on documents, and support for text and image stamps etc.			
xxxi	Document View			
114	The System shall support Applet for viewing Image documents – single page, page by page, zoom etc			
115	Document view shall have the provision to draw a line, insert arrows, highlight or hide certain text etc over image document			
Xxxii	Archival of Electronic documents			
116	System shall support categorization of documents in folders-subfolders just like windows interface. There should not be any limit on the number of folder and levels of sub folder			
xxxiii	Architecture & Scalability			
117	System should be platform independent and should support all platforms			
118	Solution should be multi-tier, web-based solution (having web-based front-end for users and as well as for system administrative functions) having centralized database, web and application server with support for clustering			
119	The system should store only index information in database while images should be stored in separate file server.			
120	Solution should be compliant to ODMA, WebDAV open source standards			
xxxiv	Document Scanning Features			
121	Should provide an integrated scanning engine with capability for centralized and			

	decentralized Scanning & Document Capturing.			
122	Should have a well-defined capture module for support of document processing, validation, index building, and image enhancements			
123	Should be able to support the capture of digital records of at least the following formats: Emails & attachments, OCR Documents, Images - .tiff, jpeg, gif, PDF etc.			
124	The proposed solution should provide for automatic correction of parameters like format/ compression not proper, skew, wrong orientation, error in automatic cropping, punch hole marks etc. during scanning. The scanning solution should provide support for automatic document quality analysis so that any bad quality document doesn't get uploaded to the repository. There should be an independent software quality check service available as part of overall scanning solution which can be used to audit scanned documents for resolution, format/ compression, orientation etc.			
125	Should have capability of automatic segregation of documents/records based on Barcode, Blank page, Fixed page and auto Form recognition			
126	Provide Image processing libraries that support image enhancements such as changing contrast, zoom in/out, cleaning etc and other imaging features like compression and extraction etc.			
xxxv	Expenses Management			
127	System should have the end-to-end Expenses Management solution including, origination, approvals and auto post in to CBS and communications platforms			
These are indicative requirements. Final functionalities must be implemented by the vendor as determined in the detailed system study.				

Annexure II – Technical requirements

The form has to be filled in all respects. If any row is left blank it will be categorized as “Not Possible” for evaluation purpose.

Sl#	Description	Readily Available (RA)	Customisable (CA)	Not Available (NA)
1	The selected vendor should host the solution in High Availability mode, with DR and a minimum uptime time of 99%.			
2	The architecture should have the ability to increase the number of concurrent instances to keep the application and database server parameters below (70% utilization (CPU and Memory)			
3	The product should support SSO (Single Sign On) for all modules of the solution with Finacle CBS. The product should be able to interface with the core Banking system Finacle and able to pull/push data from/to Finacle			
4	Solution is platform agnostic – not dependent on a particular hardware setup.			
5	Solution is capable and being offered in such a manner that includes installation either as a single instance or multi-instance depending on Bank’s requirements.			
6	Supports real time replication of data from production site to DR site and permit manual and automatic shift of the application to the DR site.			
7	Application supports database and OS level clustering.			
8	Application should be light weight that is easily accessible even in branches with low bandwidth availability.			
9	The selected vendor has to deploy the application in the Production, Pre production, DR and Training and Development/UAT environments.			
10	The product should offer maximum flexibility in User administration for all the modules while making available all the required user control tools at the hands of the Bank users. The solution should support super administration for the Bank as a whole as well as local administrators and user controls at Head/ Regional/ branch level.			
11	The vendor should provide necessary changes in the solution to meet the regulatory /statutory guidelines / requirement free of cost to the Bank during the contract period.			

12	The vendor shall do proactive monitoring and do capacity planning well in advance at regular intervals and advise the Bank on software/hardware upgrades.			
13	Adequate staging procedures for supporting staging and availability of system 24*7*365.			
14	Test environments should be 50% to production environment in terms of data, whereas application wise test environment should be replica of production environment.			
15	Integrity of data to be maintained at 100% of time.			
16	Encryption to be used for data traveling between CBS and other interfacing applications.			
17	The solution should comply with the IT Security Policy, Cyber Security Policy and IT Policy of the Bank.			
18	The Service Provider shall create adequate controls ensuring that, when exception or abnormal conditions occur, resulting errors do not allow users to bypass security checks or obtain core dumps.			
19	Client account, transaction data or any sensitive information is encrypted when in transit.			
20	System provides comprehensive audit trail and audit logs features to monitor activity of all programs/functions/processes and data files etc. and as per Bank's Policy and/or requirements. Audit logs should contain logs for all users including admin users.			
21	Segregation of duties is permitted (e.g. segregated function between system and application administration). Should allow multi-level admins i.e. system, functional etc. with modular approach in every kind.			
22	All modules in the system are fully integrated and provide online processing for Mobile/Web channels, real time updates and batch processing for offline processing like KCC in camp mode.			
23	Provide support to standard messaging protocols for interfacing.			
24	The system should have the ability to rollback a transaction to a particular stage and restart, if required.			
25	Interface able to handle exceptions (e.g. will output to log files, retries) when unsuccessful. Able to handle continual processing or gracefully terminated.			

26	The application should support various web servers and web server should scale to future Bank requirements.			
27	Provide support for store-and-forward mechanism in case of a communication breakdown			
28	Transaction screens should display system information including Processing Date, Current Time, Current User and other necessary information			
29	Daily activity reports are provided to highlight all the transactions being processed during the day.			
30	Recording of Unsuccessful attempts to log-in to the system.			
31	System to provide session log files. The user should be able to analyze the information (e.g., account id, session time etc.).			
32	System should provide tracking of the client's IP & Network Interface address.			
33	Support for integration with standard report writers to generate user defined reports.			
34	The application software should be Platform independent wrt OS, third party tools etc.			
35	The Vendor should provide perpetual Corporate License of the software(s) to the Bank having no limitation based on No of the Users, No. of the Branches, Nature, Location and Type of Branches etc.			
36	System should have the capability to interface with Internal and the External systems. The vendor has required APIs for the desired interfacing.			
37	Facility to interface with any Negative database of Customers, Property, Vendor, Sourcing Agency (external database if available) etc.			
38	The system architecture must be scalable and shall support increasing number of users and concurrent processing			
39	System software and required hardware for supporting the required present/future volume to be mentioned as part of the technical requirement. It can be given with the current concurrency and annual increase for next 5 years. Sizing of storage should be computed accordingly which can be sustained for the entire contract period.			

40	The Application software should have capability of being integrated with other Customer Sourcing channels like Internet, Mobile (Android + iOS), Tablets and other devices. Further the application should be accessible through other devices like Mobile, internet etc. for processing / Approval by Bank's Officials on the move			
41	Documents to be stored page wise and be retrieved page wise so that bandwidth usage is minimized			
42	System should be capable of validating data at entry as well as during "Save" level.			
43	Facility to upload and attach scanned images of documents in compressed and encrypted form. The different users in the workflow can view the images.			
44	All integration should be in STP mode with/without minimum intervention from user and leveraging existing platform			
45	Application should be compatible with any Web Browser like, Internet Explorer/ Mozilla Fire Fox/ Google Chrome/Microsoft Edge, Apple Safari etc.			
46	System integration testing will be followed by user acceptance testing, plan for which has to be submitted by the vendor to the Bank. The UAT includes Functional tests, Resilience tests, Benchmark Comparisons, Operational tests, Load tests etc. Bank staff/ third Party Vendor designated by the Bank will carry out the functional testing. This staff/ third party vendor will need necessary training for the purpose and should be provided by the Vendor. Vendor should carry out other testing like resiliency/ benchmarking/ load etc. Vendor should submit result log for all testing to the Bank.			
47	version upgrades for the proposed solution should be provided to the bank free of cost in the contract period.			
48	Bidder has to provide the complete documentation (hard copy and soft copy) and it must be made available in English:			
49	Development of a separate mobile application for sourcing leads (lead management) from Direct Selling Agent (DSA), HLC (Home Loan Counsellor), BC (Business Correspondent), staff, etc.			
50	Development of a separate portal from which customers should be able to manage their loan applications/proposals viz. apply for loans, upload documents, check application status, etc.			

51	Bidder will be required to provide root cause analysis for all performance and availability problems that occur			
52	Monitoring and confirming the DR replication and performing DR Drill ensuring the RPO and RTO as per Bank's requirements			
53	Solution must integrate with the Bank's existing network and security solutions.			
54	The solution should provide interface with Bank's Middleware System and with various internal/ external systems on web services messaging formats like REST API / SOAP, with standardized data formats JSON, XML, ISO 8583 etc			
55	The solution should be able to Extract, Transform and Load data from the source systems and consume Big Data			
56	Application should be capable of working in offline mode in case of poor or no network connection, and sync with the database once network is available. Once the data collected during offline mode is synced with the database, the offline data should be purged from the mobile client device			
57	The solution should provide facility for seamless integration to various FinTech's and the platform should be able to consume APIs as well as provide well defined and well documented Open APIs to be exposed to 3rd party's/ Fintech's. The platform should be able to handle both Synchronous and Asynchronous calls			
58	The solution should provide logging and monitoring capabilities and provide feed to SIEM & any other monitoring / security solution in the Bank.			
59	Bidder has to be provided the centralized helpdesk too. Further, the solution should have the facility to integrate with the Bank's existing Ticketing tool			
60	The solution should be capable of Active Directory (AD) / LDAP SSO/IDAM Solutions integration for single sign-on authentication for designated users			
61	The solution should handle all web application security threats like Cross-site scripting, SQL injection flaws, Malicious file execution, Information leakage, Improper error handling, Broken authentication and session management, Insecure Cryptographic storage, Failure to restrict URL access etc			

62	The solution must comply/adhere to Data localization norms and privacy protection norms as per our Statutory / Regulatory requirements and our Bank's policies			
63	The platform should ensure Data Integrity using internationally accepted hashing algorithms such as MD5/ SHA-2 or higher etc. and support standard algorithms like AES, TLS.			
64	The Solution should have BRE with capabilities to leverage AI & ML.			
65	The solution should have the facility of digital contract note generation feature			
66	Digital Footprint & Social Media Data- Digital footprint of the users to be captured and analysed to identify fraud risk and customer sentiment using Email, IP Address, Device etc.			
67	Application user interface should be progressive web application			
68	The solution should be RBI's ULI ready			
69	The solution should have the facility of document template generation feature			
70	The Vendor will be responsible for notification of new versions / releases of the solution and supervise their implementation without any additional cost during the contract period			
71	Solution must integrate with the Bank's existing network and security solutions.			

Annexure III - API Aggregator integration details

Sl#	Service	Facilities	Aggregator Name
1			
2			
3			
4			
5			

Bidder can add more rows to mention the API aggregator details.

Annexure IV – Details of Proposed Network components

Serial Number	Item Description	Make & Model	Version/Specification	Capacity such as number of ports/connections	No of License/users	Warranty Period	Support Details	Any other information

Annexure V – Details of Proposed Hardware Infrastructure

Serial Number	Make & Model	Processor Type & clock speed	Number of cores per server	Total Memory per server	Hard Disk type & capacity etc. per server	RAID Particulars per server	Operating System per server	Redundant Network bandwidth per server	Redundant Power Supply (RPS)	Number of Physical servers	Other particulars such as HBA	whether deployed in VM /shared	Function / purpose

Annexure VI - Declarations

- Eligibility Declaration
- Conflict of Interest Declaration
- NDA Acceptance
- Integrity Pact
- Details of Existing Installations