केनरा बैंक Canara Bank

REQUEST FOR PROPOSAL [RFP]

FOR

"PROCUREMENT, IMPLEMENTATION AND MAINTENANCE

OF

MOBILE APPLICATION SECURITY (MAS) SOLUTION

FOR

CANARA MOBILE BANKING APP

IN

IOS AND ANDROID PLATFORM

Issued by: Canara Bank,
        Procurement Group, 1st Floor,
        DIT Wing, Naveen Complex,
        14, MG Road, Bengaluru -560 001
        Phone No - 080- 25590070,25584873
        Email Id - hoditapm@canarabank.com

केनरा बैंक Canara Bank

A. BID SCHEDULE & ABBREVIATIONS

1. BID SCHEDULE

Sl. No.	Description	Details
1.	RFP No. and Date	RFP 20/2019-20 dated 19/03/2020
2.	Name of the Wing	Department of Information Technology
3.	Brief Description of the RFP	Procurement, Implementation and Maintenance of MAS (MAS) solution for Canara Mobile Banking App For Android and iOS platform
4.	Bank's Address for Communication	Deputy General Manager Canara Bank, AP&M Group, 1st Floor, DIT Wing, Naveen Complex, 14 MG Road, Bengaluru -560 001
		Senior Manager, Procurement Group Tel - 080-25590070,25584873 Fax- 080-25596539 Email: hoditapm@canarabank.com
5.	Date of Issue of RFP	19/03/2020, Thursday
6.	Tender Fee (Non-refundable)	Rs.11,800 (including 18% GST)
7.	Earnest Money Deposit (Refundable)	Rs.5,00,000/-
8.	Performance Bank Guarantee/Bid Security	10% of Total Order Value
9.	Purchase Preference Policy (MSE, Startup, Make in India)	All are Applicable as per Section-H (except the order is not divisible. Hence, Bank will not split the Order)
10.	Last Date and Time for Submission of Bids	09/04/2020, Thursday upto 3.00 PM Venue: Canara Bank, First Floor, DIT Wing, HO (Annex), Naveen Complex, 14 M G Road, Bengaluru 560001.
11.	Date, Time & Venue for opening of Part A- Conformity to Eligibility Criteria.	09/04/2020, Thursday at 3:30 PM Venue: Canara Bank, Second Floor, Conference Hall, DIT Wing-HO (Annex), Naveen Complex, 14 M G Road, Bengaluru 560001.
12.	Date and time for opening of Technical Bid Part-B / Commercial Bid Part-C	Will be intimated at a later date.
13.	Pre-bid Meeting Date & Time	Pre-Bid meeting will be held on 27/03/2020, Friday at 3.30 pm Venue: Canara Bank, Second Floor, Conference Hall, DIT Wing-HO (Annex), Naveen Complex,

		14 M G Road, Bengaluru 560001. o Pre Bid queries should be submitted as per **Appendix-D.** Pre-Bid Queries to E-mail hoditapm@canarabank.com must reach us on or before 26/03/2020, Thursday at 3.00pm. Subject of the email should be given as "**Pre Bid Queries for RFP 20/2019-20 dated 19/03/2020**". Queries reaching after 3.00pm on 26/03/2020 will not be entertained.
14.	**Other Details**	1. The bidders must fulfil the Pre-Qualification criteria for being eligible to bid. 2. Subsequent changes made based on the suggestions and clarifications as per pre-bid meeting shall be deemed to be part of the RFP document and shall be uploaded on the Bank's corporate website http://canarabank.com/english/announcements/tenders. 3. No suggestions or queries shall be entertained after pre-bid meeting.

This document can be downloaded from following website http://canarabank.com/english/announcements/tenders and https://eprocure.gov.in/epublish/app. In that event, the bidders should pay the Tender Fee for tender document by means of DD drawn on any Scheduled Commercial Bank for the above mentioned amount in favour of Canara Bank, payable at Bengaluru and submit the same as mentioned above.

Any amendments, modifications, Pre Bid replies & any communication etc. will be uploaded in the Bank's website only (i.e. http://canarabank.com/english/announcements/tenders). No individual communication will be sent to the individual bidders.

केनरा बैंक Canara Bank

DISCLAIMER

The information contained in this Request for Proposal ("RFP") document or information provided subsequently to bidders or applicants whether verbally or in documentary form by or on behalf of Canara Bank (or Bank), is provided to the bidder(s) on the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided. This RFP document is not an agreement and is not an offer or invitation by Canara Bank to any parties other than the applicants who are qualified to submit the bids (hereinafter individually and collectively referred to as "Bidder" or "Bidders" respectively). The purpose of this RFP is to provide the Bidders with information to assist the formulation of their proposals. This RFP does not claim to contain all the information each Bidder requires. Each Bidder may conduct its own independent investigations and analysis and is free to check the accuracy, reliability and completeness of the information in this RFP. Canara Bank makes no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFP. The information contained in the RFP document is selective and is subject to updating, expansion, revision and amendment. It does not purport to contain all the information that a Bidder requires. Canara Bank does not undertake to provide any Bidder with access to any additional information or to update the information in the RFP document or to correct any inaccuracies therein, which may become apparent.

Canara Bank reserves the right of discretion to change, modify, add to or alter any or all of the provisions of this RFP and/or the bidding process, without assigning any reasons whatsoever. Such change will be published on the Bank's Website (http://canarabank.com/english/announcements/tenders) and it will become part and parcel of RFP.

Canara Bank in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this RFP. Canara Bank reserves the right to reject any or all the Request for Proposals received in response to this RFP document at any stage without assigning any reason whatsoever. The decision of Canara Bank shall be final, conclusive and binding on all the parties.

2. Abbreviations:

1.	AMC	Annual Maintenance Contract
2.	MAS	Mobile Application Security
3.	ATS	Annual Technical Support
4.	BG	Bank Guarantee
5.	BOM	Bill of Material
6.	CCF	Credit Conversion Factor
7.	CVA	Credit Value Adjustment
8.	DC	Data Center
9.	DD	Demand Draft
10.	DIT	Department of Information Technology
11.	DPD	Days Past Due
12.	DR	Disaster Recovery
13.	DSB	Department of Supervision by Banks
14.	EAD	Exposure at Default
15.	ECL	Expected Credit Loss
16.	ECR	Error Correction Model
17.	EDW	Enterprise Data Warehouse
18.	EIR	Effective Interest Rate
19.	EMI	Equated Monthly Instalments
20.	EMD	Earnest Money Deposit
21.	FIFO	First In First Out
22.	FIRB	Foundation Internal Rating Based Approach
23.	FVOCI	Fair Value through Other Comprehensive Income
24.	FVTPL	Fair Value through Profit and Loss account
25.	GDP	Gross Domestic Product
26.	GL	General Ledger
27.	GST	Goods and Service Tax
28.	HO	Head Office
29.	LAS	Lending Automation System
30.	LD	Liquidated Damage
31.	LGD	Loss Given Default
32.	LOB	Line Of Business
33.	LTV	Loan To Value
34.	MAF	Manufacturer Authorisation Form
35.	MCA	Ministry of Corporate Affairs
36.	MCLR	Marginal Cost of Fund Based Lending Rate
37.	MOC	Memorandum of Change
38.	MSE	Micro and Small Enterprises
39.	MSME	Micro Small & Medium Enterprises

40.	MTBF	Mean Time Between Failure
41.	MTM	Mark to Market
42.	MTTR	Mean Time To Restore
43.	NEFT	National Electronic Funds Transfer
44.	NI Act	Negotiable Instruments Act
45.	NPA	Non-Performing Asset
46.	NSIC	National Small Industries Corporation
47.	OEM	Original Equipment Manufacturer
48.	OS	Operating System
49.	OSD	Original Software Developer
50.	OSMOS	Offsite Monitoring and Surveillance
51.	PD	Probability of Default
52.	PERT	Project Execution and Review Technique
53.	PIT	Point in Time
54.	RFP	Request For Proposal [Interalia the term 'Tender' is also used]
55.	RTGS	Real Time Gross Settlement
56.	RWA	Risk Weighted Assets
57.	SBU	Strategic Business Unit
58.	SEBI	Securities and Exchange Board of India
59.	SMA	Special Mention Accounts
60.	UAT	Users Acceptance Test
61.	VAPT	Vulnerability Assessment and Penetration Test

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B. INTRODUCTION

1. About Canara Bank:

CANARA BANK, a body Corporate and a premier Public Sector Bank established in the Year 1906 and nationalized under the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970, having its Head office at 112, J C Road Bengaluru-560002 and among others, having DIT Office at Naveen Complex, No.14, M G Road, Bengaluru-560001. The Bank is having pan India presence of more than 6,300 branches, 21 Circle offices and 118 Regional Offices situated across the States. The Bank is working on Core Banking System using Flexcube solution. The Bank is a forerunner in implementation of IT related products and services and continuously making efforts to provide the state of art technological products to its customers.

2. Definitions:

2.1. 'Bank' means unless excluded by and repugnant context or the meaning thereof, shall mean 'Canara Bank', described in more detail in Clause 1 above and which has invited bids under this Request for Proposal and shall be deemed to include its successor and permitted assigns.

2.2. 'RFP' means Request for Proposal for "Procurement, Implementation and Maintenance of MAS Solution for Canara Bank Mobile Banking App".

2.3. 'Bidder' means a vendor submitting the proposal in response to RFP.

2.4. 'Solution' means "Procurement, Implementation and Maintenance of "Mobile Application Security (MAS) Solution for Mobile Banking Application in Android and iOS platform." as per the Technical Specifications mentioned in this RFP.

2.5. 'Contract' means the agreement signed by successful bidder and the Bank at the conclusion of bidding process, wherever required.

2.6. 'Successful Bidder'/ 'L1 bidder' means the Bidder who is found to be the lowest bidder after conclusion of the bidding process, subject to compliance to all the Terms and Conditions of the RFP, etc.

3. About RFP:

The Bank wishes to procure end-to-end Solution for implementing MAS Solution for Canara Bank's Mobile Banking application for Android and IOS version from reputed vendors. In this connection, Bank invites sealed offers ('Conformity to Eligibility Criteria', 'Technical Proposal' and 'Commercial Bid') for providing MAS Solution for Mobile Banking Application in Android and iOS platform as per the Terms & Conditions, Technical Specifications and Scope of Work described elsewhere in this document.

4. Objective:

4.1. The objective of this RFP is to implement MAS Solution for Canara Bank's Mobile Banking application for Android and IOS version to secure the application from external threats affecting the Mobile App on Customer Device. The solution should act as a layer of defense and effectively detect and prevent attacks from making changes to the app or stealing personal data. The solution should also have proactive controls to prevent the application from tampering or modification.

4.2. The purpose of this RFP is to obtain competitive proposals for supply of solution that meet the Enhanced Access and Service Excellence (EASE) compliance requirements. The MAS Solution for Mobile Banking Application in Android and iOS platform deployed should meet the Technical & Functional Specifications (TFS) as per **Annexure-7**. Any upgradation or modification required by the Bank till the time of Go-Live and thereafter any upgradation/updates or modification required as per the

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requirement of RBI or IBA or FIU-IND or any regulator to be provided free of cost by the vendor.

4.3. The proposed solution should be up-to-date and protect the App from existing and emerging threats and malwares on the Mobile device.

5. Eligibility Criteria:

5.1. A vendor submitting the proposal in response to this RFP shall hereinafter be referred to as 'Bidder' and RFP for "Procurement, Implementation and Maintenance of Mobile Application Security (MAS) solution for Canara Bank's Mobile Banking app in Android and IOS platform in the Bank shall hereinafter be referred as "Solution".

5.2. Interested Bidders, who can Supply, Implement and Support MAS solution for Canara Bank's Mobile Banking app in Android and IOS platform in Canara Bank and meeting the Eligibility Criteria as per **Annexure-2** may respond.

5.3. Non-compliance to any of Eligibility criteria would result in outright rejection of the Bidder's proposal. The Bidder is expected to provide proof for each of the points for eligibility evaluation. The proof provided must be in line with the details mentioned in "Documents to be submitted for Eligibility Criteria Compliance". Any credential detail mentioned in "Eligibility Criteria Compliance" and not accompanied by relevant proof documents will not be considered for evaluation.

6. Participation Methodology:

6.1. In a tender either the authorized Bidder on behalf of the Principal/OEM/OSD or Principal/OEM/OSD itself can bid but both cannot bid simultaneously for the same item/product in the same tender.

6.2. If a Bidder bids on behalf of the Principal/OEM/OSD, the same Bidder shall not submit a bid on behalf of another Principal/OEM/OSD in the same tender for the same item/product/service.

6.3. If any product of Principal/OEM/OSD is being quoted in the tender, the Principal/OEM/OSD cannot bid for any other Principal's/OEM's/OSD's product in the same tender.

6.4. In the event of Authorized Dealer being not able to perform the obligations as per the provisions of the contract, the OEM/OSD/principal should assume complete responsibility on behalf of the Bidder for providing end-to-end solution i.e., technology, personnel, financial and any other infrastructure that would be required to meet intent of this RFP at no additional cost to the bank. To this effect Bidder should provide a dealer/distributor certificate as per **Annexure-13**.

7. Infrastructure:

7.1. Canara Bank's mobile Banking App is being used by more than 40 lakh customers. The app is available in iOS and Android version. The major features of the app include Touch pay with IMPS/RTGS/ NEFT, investment through Fixed Deposits & recurring deposits, Payment of EMI Loans, Scheduling of Payments, Balance viewing and statements , booking of flight, bus tickets etc.

7.2. Bank will provide Database (If proposed solution supports Oracle Database and same will be provided by bank as Bank is having ULA (Unlimited License Agreement) for Oracle database). Rest of the requirement to be supplied by the Bidder to make the system live. Though Bank is providing the licenses for Databases i.e. Oracle, all necessary support related to database has to be provided by the Bidder. Bidder should provide all software pertaining to the solution. Bank will not provide any database OEM or other support.

7.3. The selected bidder has to provide Hardware sizing to run the proposed application and other environmental or related software along with technical proposal. The Hardware intended to be sized by the bidder should have the capability to receive events generated by the solution embedded with Canara Bank's Mobile Banking Application.

7.4. The successful bidder must design the solution with high availability & secure infrastructure in Data Centre and Disaster Recovery site as per Industry accepted security standards and best practices.

7.5. The Bank is not responsible for any assumption made by the bidder with respect to the sizing. In the event the sizing proposed by the successful bidder does not meet the performance / service levels of the Bank, the successful bidder will at their cost carry out the necessary upgrades / replacements. The Bank has the right to deduct / recover from the successful bidder the required additional expenses which Bank may incur on account of such upgrades / replacements.

8. Requirement Details:

8.1. Bank invites sealed offers ('Conformity to Eligibility Criteria', 'Technical Proposal' and 'Commercial Bid') for Procurement, Implementation and Maintenance of MAS Solution for Mobile Banking Application in Android and iOS platform as per the Terms & Conditions, Technical Specifications and Scope of Work described elsewhere in this document. The brief description of MAS Solution for Android and iOS version of Mobile Banking App Solution is furnished in following table:

Item Details	Quantity
MAS solution for Canara Bank's Mobile Banking App in Android and IOS platform narrated in Annexure-7.	**Enterprise vide license (unlimited licenses for the solution)**
Hardware, Software, Operating Systems and other Items	**Bidder has to provide the required Hardware, Software, Operating Systems and other Items. Information/specification related to quoted hardware & software items to be furnished in Annexure-7(B)**

8.2. Detailed technical specification for each of the above is furnished in **Annexure-7.** All the Hardware / Software ordered for Procurement, Implementation and Maintenance of MAS Solution for Canara Mobile Banking App should have comprehensive onsite warranty of Three (3) year & AMC/ATS of Two (2) Years (if contracted).

8.3. The requirements of Bank under this RFP is not divisible. Hence, the purchase preference towards splitting the order for MSE Bidders is not applicable. However, other guidelines of MSE, Make in India and Startup India as mentioned in Section-H of this RFP are applicable.

9. Scope of Work:

The Broad Scope of work shall include but not be limited as mentioned in **Annexure-8.** The bidders are required to go through the complete RFP document thoroughly. The obligation / responsibilities mentioned elsewhere in the document, if any, shall be the integral part of the scope.

10. Project Completion and Management

10.1. For smooth completion of project, the Bidder should identify one or two of its representatives at Bengaluru as a single point of contact for the Bank.

10.2. Project implementation team should be conversant with local rules and conditions to resolve the issues, if any.

11. Training:

11.1. Bidder has to provide OEM training in 2 batches for 4 days (i.e. 2 days a batch). The training should be on the proposed Solution from OEM/OSD directly at Bangalore at Bank's premises.

11.2. Bidder will be responsible to provide trainings to the employees with respect to the implemented system. The training should include but not limited to :

12.2.1 Hands on training on the integration of the app with SDK in Android and iOS platform.

12.2.2 Operation and maintenance of the servers used for the solution.

12.2.3 Generation of different reports form the application.

12.2.4 Identification of all response messages for each incident on the device.

12.2.5 Troubleshooting of incidents on the mobile device and servers and there resolution.

12.2.6 The OEM should provide the lab environment during the trainings, which should be similar to production environment designed for solution. The Lab can be provided through VM hosted on cloud or a physical setup located at OEM office. In case the training location is in OEM office all the travel expenses needs to be borne by the bidder.

12.3 Trainer should be well experienced and should provide hands on training to the staff for the proposed solutions.

12.4 Bidder has to provide User Manual and Technical Documentation both in hard and soft copies to the Bank.

12.5 Bidder should provide similar training during the contract period at the same cost, if required by the Bank.

12.6 The bidder along with OEM needs to make all the arrangements required for the training within 7 days of intimation by the Bank.

C. DELIVERABLES & SERVICE LEVEL AGREEMENTS (SLAs)

1. ## Delivery, Installation, Integration and Commissioning

   1.1. Bank shall provide the address and contact details for delivery of required hardware/software items for implementation of **Mobile Application Security Solution** while placing the order.

   1.2. **Delivery Schedule are as follows:**

      1.2.1. **Supply of Hardware items & other Items (including OS):** Within **7 weeks** from the date of acceptance of Purchase Order.

      1.2.2. **Supply of Software (SDK for integration with the Mobile App and software for Dashboard/Portal):** Within **3 weeks** from the date of acceptance of Purchase Order.

   1.3. **Installation Schedule:**

      1.3.1. **Installation, Configuration, Integration and Commissioning of Hardware Appliance/Items (including OS):** The successful bidder should ensure installation, configuration, Integration and commissioning of the delivered Hardware Appliance/Items (including OS) at the bank branch/office within 2 weeks from the date of delivery of all the materials for each ordered locations.

      1.3.2. **Integration of Software/SDK with the Mobile App:** The bidder should ensure that integration of the Mobile App with the software/ SDK within **Nine (9) weeks** from date of Supply of Software/SDK for integration with the Mobile App in coordination with the Banks' Team and Mobile Application Development Vendor.

      1.3.3. **Installation, configuration, Integration and complete implementation of the delivered Software solution (for Portal/Dashboard):** The successful bidder should ensure installation, configuration, Integration and complete implementation of the delivered Software solution (for Portal/Dashboard) at the bank branch/office within 3 weeks from Integration of Software/SDK with the Mobile App as per Clause 1.3.2.

2. ## Integration & Interfaces:

   2.1. The selected bidder has to work with the system integrator of our Mobile Banking Application for integration of the app with the MAS Solution and testing the functionality and security parameters.

   2.2. The selected bidder has to work with different application vendors managing CBS , Mobile and internet Banking Application, SOC, System and network administrators managing the servers and network connectivity etc. in the Bank.

   2.3. The selected bidder has to work with different teams of Bank & application OEM to understand the security requirement and prepare the configuration documentation accordingly.

   2.4. The proposed solution should have the capability to integrate with Security Operation Center (SOC) and Enterprise Risk and Fraud Management (EFRM) Solution of the Bank.

   2.5. The bidder must provide required support for addition of servers to PIM solution.

3. Security:

3.1. The Bidder has to use standard procedures like hardening, dedicated configuration in order to comply security standards including cyber security.

3.2. The Bank will may provide remote session only for exceptional cases and are subjected to approvals from concerned Authorities. The bidder needs to ensure competent resources are deployed in the Bank to operations and maintenance of solution.

3.3. The Bank may conduct security audit in the proposed solution after complete implementation.

3.4. The Bidder has to do necessary changes in the configuration directed by security team of the bank after security audits like VAPT, Code Audit etc. without disturbing the production and existing backed up copies.

3.5. Any kind of change like update, upgrades etc. in the system after complete installation will not lead into any commercial during contract tenure.

3.6. Bidder should take adequate security measures to ensure confidentiality, integrity and availability of the information.

3.7. Bidders are liable for not meeting the security standards or desired security aspects of all the ICT resources as per Bank's IT/Information Security / Cyber Security Policy.

3.8. The selected bidder will have to establish all the necessary procedures/infrastructure/technology /personnel to ensure the Information System Security as per the guidelines prescribed by RBI and the policies of the Bank.

3.9. The bidder/ OEM should ensure that no Personally Identifiable information of the app user should be transmitted to cloud for malware detection.

4. Acceptance:

4.1. Bank will evaluate the offered Solution implemented by the bidder. If the Solution experiences no failures and functions according to the requirements of the RFP as determined by the Bank during the implementation period, then the solution will be accepted by the Bank and the project will be considered as deemed signed-off.

4.2. After the Solution has been accepted by the Bank, the Vendor may submit an invoice for the Solution.

5. Uptime:

5.1. The bidder shall guarantee a **24x7x365** availability with monthly uptime of **99.00%** for the solution as specified in **Annexure-7 and Scope of Work**, during the period of the Contract and also during ATS, if contracted, which shall be calculated on monthly basis.

5.2. The "Uptime" is, for calculation purposes, equals to the Total contracted minutes in a month less Downtime. The "Downtime" is the time between the Time of Failure and Time of Restoration within the contracted minutes. "Failure" is the condition that renders the Bank unable to perform any of the defined functions on the Solution. "Restoration" is the condition when the selected bidder demonstrates that the solution is in working order and the Bank acknowledges the same.

5.3. If the Bidder is not able to attend the troubleshooting calls on solution working due to closure of the office/non-availability of access to the solution, the response time/uptime will be taken from the opening of the office for the purpose of uptime calculation. The Bidder shall provide the Monthly uptime reports during the warranty period and ATS period, if contracted.

5.4. The Downtime calculated shall not include any failure due to bank, third party and Force Majeure.

5.5. The percentage uptime is calculated on monthly basis as follows:

$$\frac{(\text{Total contracted minutes in a month} - \text{Downtime minutes within contracted minutes})}{\text{Total contracted minutes in a month}} \times 100$$

5.6. Contracted minutes of a month = No. of days in that month X 24 X 60.

6. Penalties/Liquidated Damages:

6.1. Penalties/Liquidated damages for delay in supply:

6.1.1. Non-compliance of the **Supply of Hardware items & other Items (including OS)** as per **clause 1.2.1** will result in imposing penalty of 0.50% by the Bank on delay in supply per week or part thereof plus GST on the invoice value of **Hardware items & other Items (including OS)** (exclusive of Taxes) as mentioned in serial number 7 of Table-A in Annexure-14 (Bill of Material) location/office address wise.

6.1.2. Non-compliance of the **Supply of Software (SDK for integration with the Mobile App and software for Dashboard/Portal)** as per **clause 1.2.2** will result in the imposing penalty of 0.50% by the Bank on delay in supply per week or part thereof plus GST on the invoice value of Enterprise license for Mobile Application Security Solution for Android and iOS version (exclusive of Taxes) as mentioned in Table-B in Annexure-14 (Bill of Material) location/office address wise.

6.1.3. However, the total Penalty/LD to be recovered under **clause 6.1.1 & 6.1.2** shall be restricted to 5% (Plus GST) of the total value of the order (exclusive of Taxes).

6.2. Penalties/Liquidated damages for delay in implementation:

6.2.1. Non-compliance of the **Installation, Configuration, Integration and Commissioning of Hardware Appliance/Items (including OS)** as per **clause 1.3.1** will result in imposing penalty of 0.50% by the Bank, on delay in Installation per week or part thereof plus GST on the invoice value of **Hardware items & other Items (including OS)** (exclusive of Taxes) as mentioned in serial number 7 of Table-A in Annexure-14 (Bill of Material) location/office address wise.

6.2.2. Since, the Integration of Software/SDK with the Mobile App requires active involvement of the Bank/ Mobile App development Vendors, the implementation stage is exempted from penalty. However, the bidder needs to work in coordination with the teams and provide all support required for integration of the app.

6.2.3. Non-compliance of the Installation, configuration, Integration and complete implementation of the delivered Software solution (for Portal/Dashboard) as per clause 1.3.3 will result in imposing penalty of 0.50% by the Bank, on delay in Installation, configuration, Integration and complete implementation per week or part thereof plus GST on the invoice value of Enterprise license for Mobile Application Security Solution for Android and iOS version (exclusive of Taxes) as mentioned in serial number 1 of Table-B in Annexure-14 (Bill of Material) location/office address wise.

6.2.4. However, the total Penalty/LD to be recovered under **clause 6.2.1 & 6.2.3** shall be restricted to **10%** (plus GST) of the total value of the order (exclusive of Taxes).

6.3. Penalties/Liquidated damages for onsite resources:

In case replacements are not arranged, bank shall pay only the proportionate amount of Resident resource charges during the particular month. The Bank shall also impose a penalty of 0.5% (plus GST) of the Resident resource charges payable to the Bidder for that quarter for each hour and part thereof of absence. However, total penalty under this clause will be limited to 50% (plus GST) of the total charges payable for Resident Resource charges for that quarter.

6.4. Penalties/Liquidated damages for not maintaining uptime:

6.4.1. If the bidder fails to maintain the guaranteed Uptime during Warranty and ATS period (if contracted), the penalty for Uptime will be deducted as under:

Level of availability calculated on monthly basis	Penalty Amount
99.00% to 100%	No penalty
98.00% to 98.99%	0.10% on invoice Value* for every hour or part thereof.
97.00% to 97.99%	0.20% on invoice Value* for every hour or part thereof.
97.00% to 97.99%	0.30% on invoice Value* for every hour or part thereof.
96.00% to 96.99%	0.40% on invoice Value* for every hour or part thereof.
95.00% to 95.99%	0.50% on invoice Value* for every hour or part thereof.
Less than 95.00%	1.00% on invoice Value* for every hour or part thereof.

*Invoice value of hardware, software and solution excluding AMC/ATS as per Table-A & Table-B of Bill of Material.

6.4.2. The maximum penalty levied shall not be more than the 5% of Total Order Value (plus GST) during warranty period and 50% of AMC/ATS amount payable for one year (plus GST) during AMC/ATS period.

6.5. Penalties/Liquidated damages for outage in Mobile Banking App due to the solution:

6.5.1. If the Mobile Banking Application is down for all the users and it is concluded that the outage is due to the solution provided by the bidder penalty will be applied as below :

Level of availability calculated on monthly basis	Penalty Amount
Nil to 15 mins	No penalty
15 mins to 60 mins	0.05% on invoice Value* for every hour or part thereof.
61 mins to 120 mins	0.10% on invoice Value* for every hour or part thereof.
121 mins to 180 mins	0.15% on invoice Value* for every hour or part thereof.
181 mins to 240 mins	0.20% on invoice Value* for every hour or part thereof.
241 mins to 300 mins	0.25% on invoice Value* for every hour or part thereof.
Less than 300 mins	.30% on invoice Value* for every hour or part thereof.

*Invoice value of hardware, software and solution excluding AMC/ATS as per Table-A & Table-B of Bill of Material.

6.5.2. The maximum penalty levied shall not be more than the 5% of invoice value (plus GST) during warranty period and 50% of AMC/ATS amount payable for one year (plus GST) during AMC/ATS period.

6.6. If monthly uptime is less than 95%, the Bank shall levy penalty as above and shall have full right to terminate the contract under this RFP or AMC/ATS, if contracted. The right of termination shall be in addition to the penalty. The above penalty shall be deducted from any payments due to the bidder (including AMC/ATS payments).

6.7. If monthly uptime is less than 95% in three consecutive months, bank may at its sole discretion blacklist the bidder in addition to imposing penalty and invoking the Bank Guarantee.

6.8. **Penalties/Liquidated Damages for non-performance:** If the specifications of the RFP are **not** met by the bidder during various tests, the bidder shall rectify the same at bidders cost to comply with the specifications immediately to ensure the committed uptime, failing which the Bank reserves its right to invoke the Bank Guarantee.

    6.8.1. The Bidder shall perform its obligations under the agreement entered into with the Bank, in a professional manner.

    6.8.2. If any act or failure by the bidder under the agreement results in failure or inoperability of systems and if the Bank has to take corrective actions to ensure functionality of its property, the Bank reserves the right to impose penalty, which may be equal to the cost it incurs or the loss it suffers for such failures.

    6.8.3. If the Bidder fails to complete the due performance of the contract in accordance with the specification and conditions of the offer document, the Bank reserves the right either to cancel the order or to recover a suitable amount as deemed reasonable as Penalty / Liquidated Damage for non-performance.

    6.8.4. Any financial loss to the Bank on account of fraud taking place due to Successful Bidder, its employee or their services provider's negligence shall be recoverable from the Successful Bidder along with damages if any with regard to the Bank's reputation and goodwill.

    6.8.5. Bank may impose penalty to the extent of damage to its any equipment, if the damage was due to the actions directly attributable to the staff of the Bidder.

    6.8.6. The liquidated damages/penalties shall be deducted / recovered by the Bank from any money due or becoming due to the bidder under this purchase contract or may be recovered by invoking of Bank Guarantees or otherwise from bidder or from any other amount payable to the bidder in respect of other Purchase Orders issued under this contract, levying liquidated damages without prejudice to the Bank's right to levy any other penalty where provided for under the contract.

    6.8.7. All the above LDs are independent of each other and are applicable separately and concurrently.

    6.8.8. LD is not applicable for the reasons attributable to the Bank and Force Majeure.

7. Payment Terms:

The following terms of payment shall be applicable to this contract and will be released after execution of Contract Agreement:

7.1. Payment schedule for Required Hardware for MAS solution with required OS, License and other Licenses will be as under:

Sl. No.	Payment Stage	% of Payment
a.	Delivery of Required Hardware for MAS solution with required OS License and other Licenses as per **clause 1.2.1**	50% of the Invoice Value of these Hardware for MAS solution with required OS, Database License and other Licenses
b.	Installation, Configuration, Integration and implementation of Hardware Appliance/Items (including OS License and other Licenses) as per **clause 1.3.1**	40% of the Invoice Value of these Hardware for MAS solution with required OS License and other Licenses
c.	After Completion of Warranty Period and after deducting applicable penalties and Liquidated Damages. Or On submission of a bank guarantee equivalent to the remaining payment	10% of the Invoice Value of these Hardware for MAS solution with required OS License and other Licenses
d.	AMC for Required Hardware for MAS solution with required OS License and other Licenses	Quarterly in Arrears

7.2. Payment schedule for MASS Software solution will be as under:

Sl. No.	Payment Stage	% of Payment
a.	Delivery of MAS software solution as per **clause 1.2.2**	40% of the Invoice Value of MAS solution
b.	Installation, Configuration, Integration, implementation and acceptance/sign off by the bank for MAS Solution as per **clause 1.3.3**	50% of the Invoice Value of MAS solution
c.	After completion of warranty period and after deducting applicable penalties and Liquidated damages. Or On submission of a bank guarantee equivalent to the remaining payment.	10% of the Invoice Value of the MAS software solution
d.	ATS for MAS solution	Quarterly in Arrears Or Yearly in Advance on submission of Bank Guarantee of the equivalent payment amount

7.3. Payment schedule for Implementation Charges, Training charges and Onsite resources will be as under:

Sl. No.	Payment Stage	% of Payment
a.	Training Charges	100% Training Charges will be paid on completion of Training as per Clause-11 of Section -B of the RFP.
b.	Onsite Resource	Payment will be quarterly basis in arrears after deducting applicable penalties and Liquidated damages.

7.4. Please note that Originals of invoices (plus One Copy) reflecting GST, GSTIN, HSN Code, State Code, State Name, Taxes & Duties, Proof of delivery duly signed by Bank officials of the respective Branch/office and Manufacturer's / Supplier's Warranty Certificate should be submitted while claiming payment in respect of orders placed.

7.5. Bank will not pay any amount in advance.

7.6. The payments will be released through NEFT / RTGS after deducting the applicable LD/Penalty, TDS if any, centrally by Head Office at Bengaluru and the Selected Bidder has to provide necessary Bank Details like Account No., Bank's Name with Branch, IFSC Code etc.

8. Support:

8.1. The Bidder has to provide complete support for end-to-end installation, implementation and maintenance of the proposed solution during contract period and Bidder will be responsible for attending complaints, resolutions of complaints, raising cases with Tac support team in case the local support is not able to solve the issues.

8.2. Support should include advising & helping the Bank in implementing security controls on the mobile app for the risk advised by regulators/Govt. of India, sharing latest news and advisories related to mobile banking malwares and frauds, suggesting best practices, hardening documents for MAS etc.

8.3. Support has to cover to solve day to day issue while using the proposed solution in our environment like resolving the issues related to integration using SDK / portal with Mobile App, test the app in UAT for new release of the solution, coordination with development teams for performance related issues, integration with SOC and EFRM, monitoring of incidents through dashboard and providing support in case a user is facing accessibility issues while using the app on his mobile.

8.4. Bidder is responsible for providing practical solution for resolution of the issues and implementation of the same to resolve the issue. If the Issue requires OEMs technical person's/ product developer etc. intervention, Bidder has to take up suitability with the appropriate level at OEM and obtain the solution and implement it for resolution of the issue. If the analysis of the issue requires log submission, Bidder will submit the same for further analysis in consultation with the Bank.

8.5. The Bidder should help Bank in resolving any security observations on the mobile application as per the policies and guidelines of the Bank.

8.6. Resources for monitoring should be on boarded immediately on completion of implementation and acceptance by the bank.

8.7. At least one resource from the OEM should be available during implementation of the project. Onsite support provided by the Bidder should be well trained by OEM and should have sufficient knowledge and experience to manage the operations.

8.8. One onsite resource should be available after installation of the hardware for the solution.

8.8.1 The qualification of the onsite engineer should include but not limited to the following:

8.8.1.1 Onsite Support should be at least B. Tech in Electronics/ IT/communication field.

8.8.1.2 The resource should be properly trained and possess a minimum of two years' experience on the proposed solution. Bidder has to quote onsite resource charges in the bill of material. The resource should be on payroll of OEM.

8.8.2 The roles of the onsite engineer should include but not limited to the following:

8.8.2.1 The SI has to provide one resident engineer for management and monitoring of the solution. The resident engineer should be available in the Bank during all Bank business hours (10 AM to 6 PM). He/she will also be the Single Point of Contact (SPOC) on 24*7*365 basis. The resident engineer should have a minimum experience of 3 years of experience in implementation and management of similar solution. The role includes but not limited to :

8.8.2.2 Coordination with Bank team and Mobile Banking application System Integrator for integration of the solution with the App.

8.8.2.3 Management and monitoring of the solution.

8.8.2.4 Testing of the app for security features post integration.

8.8.2.5 Generation of custom reports as per schedule or as and when required by the Bank.

8.8.2.6 Coordination with System Team for taking backups of configuration of logs and configuration as and when informed by the Bank.

8.8.2.7 Escalation of issues to TAC support or development team and tracking the same till there closure.

8.8.2.8 Responding to emails and calls on issues related to the solution from Bank and Application Development team.

9. Software, Drivers and Manuals:

9.1 The bidder shall supply along with each item all the related documents, Software Licenses loaded in the Hardware items without any additional cost. The documents shall be in English. These will include but not restricted to User Manual, Operation Manual, Other Software and Drivers etc.

9.2 All related documents, manuals, catalogues and information furnished by the bidder shall become the property of the Bank.

10. Warranty:

10.1. The Bidder warrants that the Software/Solution will be free of defects in workmanship and materials for a period of time consistent with industry standards and the nature of the Software ("Warranty Period").

10.2. The Bidder has to provide comprehensive On-site replacement warranty for Three (3) years.

10.3. The warranty will cover all supplied components includes software and will start after project acceptance & Signoff.

10.4. The software/hardware deployed for this project shall be under Comprehensive Onsite Warranty covering update of software, maintenance or support for its proper operation, performance and output as specified in the tender technical specifications for a period of Three (3) years from the Date of Acceptance of the Solution.

10.5. If the Software/Solution does not perform in accordance with the Contract during the Warranty Period, then the Bidder shall take such steps as necessary to repair or replace the Software/Solution. Such warranty service shall be provided at the Vendor's expense and shall include all media, parts, labour, freight and insurance to and from the Department's site.

10.6. Warranty service may be provided by a third party, provided such third party is authorized to perform warranty service by the Bidder or, if the Bidder is not the Manufacturer, by the Manufacturer prior to the RFP closing date and time.

10.7. If any defect in the Software/Solution is not rectified by the Bidder before the end of the Warranty Period, the Warranty Period shall be extended until, in the opinion of the Bank: a) the defect has been corrected; and b) the Software/Solution functions in accordance with the Contract for a reasonable period of time.

10.8. Despite any other provision, the Bank, may return a defective Software/Solution to the Bidder within Sixty (60) days of delivery of the Software/Solution and the Bidder shall immediately provide full exchange or refund. For the purpose of this section, "defective Solution" includes, but is not limited to: a) broken seals; b) missing items; and c) Software that are not the most current version at the time of shipping.

10.9. The Bidder shall provide, after the warranty commences for all Software/Solution components, telephone support to the Bank during Business Days for assistance with the operation of the Software/Solution.

10.10. The bidder shall be fully responsible for the manufacturer's warranty in respect of proper design, quality and workmanship. Bidder must warrant all components, accessories, spare parts etc. against any manufacturing defects during the warranty period.

11. Annual Maintenance Contract (AMC) / Annual Technical Support (ATS) (if contracted)

11.1. At the time of submission of bids, the Bidder has to quote AMC/ATS for Hardware (including OS), software, License Items for Two (2) years after completion of Three (3) years warranty period, in the commercial Bid separately for comprehensive maintenance contract.

11.2. The Bank, at its discretion may enter into Annual Maintenance Contract (AMC)/ Annual Technical Support (ATS) of hardware, software, License supplied with the bidder after completion of respective warranty periods.

11.3. Support for maintenance of solution (including Hardware, Software, OS and software license) supplied should be available for a minimum period of Two (2) years, covering all parts, maintenance and support, after expiry of warranty period.

11.4. The Bank will pay AMC/ATS charges for Solution (including hardware, software OS and license) after the end of warranty period. Such payment shall be released quarterly in arrears after satisfactory completion of service during the period and submission of reports and invoices.

11.5. During the Warranty and AMC/ATS (if contracted) period, the Bidder should extend On Site Service and Support whenever and wherever required. The scope of Warranty and AMC (if contracted) shall include:

11.5.1. Rectification of Bugs/defects if any.

11.5.2. Ensuring uptime of 99.00%

11.5.3. Preventive Maintenance.

11.5.4. Maintenance of Hardware/Software/License supplied.

11.6. It may be noted that the Bank reserves the right to demand additional performance Bank Guarantee (as per Appendix-G) to the tune of 10% of the value of the Purchase Order, if AMC/ATS charges quoted by the bidder are abnormally low (i.e. AMC/ATS Cost percentage per annum should not be less than 5% of the cost of Hardware, software and License). The Bank has discretion to consider such offer or for seeking clarification from the bidder to decide for consideration. This Bank Guarantee will be towards contractual/AMC/ATS obligations of the bidder. Bidder shall quote the charges of AMC/ATS as per the Bill of Material (Annexure-14). This Bank guarantee shall be submitted within 15 days from the date of acceptance of the order which shall cover warranty and AMC/ATS period with a claim period of 3 months. The bidder has to submit this Bank guarantee in addition to the Security Deposit/Bank Guarantee as specified in clause 8 of Section-F. The selected bidder shall be responsible for extending the validity date and claim period of the Bank guarantees as and when it is due, on account of incompletion of the project and warranty period.

12. Scope Involved During Warranty and ATS Period (if contracted)

During the period of contract up to completion of Warranty and also during Annual Technical Support (if contracted), the bidder shall do the following:

12.1. During the period of contract upto completion of Warranty and also during Annual Technical Support [if contracted], the bidder should inform Bank about all release/version change of patches/ upgrades/ updates of hardware/software/ OS/ middleware etc. as and when released by the selected bidder/OSD.

12.2. If any software, License and Hardware updates provided by the OSD as free of cost, it should be provided and installed & configured by the selected bidder free of cost to the Bank during Warranty and AMC support [If contracted].

12.3. Any corruption in the software/License/Hardware shall be rectified during the full period of the contract including Warranty and AMC/ATS, if contracted, at no extra cost to the Bank.

12.4. The vendor shall make availability of spare parts/services, components etc. as and when required, and complete maintenance of the software and hardware during warranty period and AMC/ATS (if contracted).

12.5. The support shall be given in person only.

12.6. Only licensed copies of software shall be supplied. The bidder shall grant an irrevocable perpetual license to the Bank to use the software. Further, all software supplied shall be of latest version.

12.7. The bidder shall provide centralized complaint booking/lodging facility to the bank and the dash board, if available, shall be provided to the Bank. The method of booking complaints shall be E-mail, Toll-free no, on line portal, web, etc.

12.8. Escalation matrix should be provided for support, technical, project etc.

13. Mean Time Between Failures (MTBF)

If during the warranty period and AMC period [If contracted], any hardware and/or software items fails on three or more occasions in a quarter, such hardware items shall

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be replaced by equivalent / superior new hardware items by the bidder at no additional cost to the Bank.

14. Subcontracting

The selected vendor shall not subcontract or permit anyone other than its personnel to perform any of the work, service or other performance required of the vendor under the contract without the prior written consent of the Bank.

15. Defect liability

In case any of the supplies and equipment delivered under the Contract are found to be defective as to material and workmanship and / or not in accordance with the requirement, and/or do not achieve the guaranteed performance as specified herein, within the warranty and AMC period (if contracted) of the contract, the Bidder shall forthwith replace/make good such defective supplies at no extra cost to the bank without prejudice to other remedies as may be available to the bank as per RFP terms.

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D. BID PROCESS

1.	Clarification to RFP & Pre-Bid queries	9.	Software Version
2.	Pre-Bid Meeting	10.	Documentation
3.	Amendment to Bidding Document	11.	Cost & Currency
4.	Bid System Offer	12.	Erasures or Alterations
5.	Preparation of Bids	13.	Assumptions/Presumptions/Modification
6.	Tender Fee	14.	Submission of Bids
7.	Earnest Money Deposit (EMD)/Bank Guarantee In Lieu Of EMD	15.	Bid opening
8.	Make & Models		

The above mentioned clauses are part and parcel of the RFP. Bidders are requested to refer at the following website for the above mentioned clauses https://canarabank.com/english/announcements/important-rfptender-documents-of-dit-wing/.

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E. SELECTION OF BIDDER

1. Preliminary Scrutiny:

1.1. The Bank will scrutinize the Bid/s received to determine whether they are complete in all respects as per the requirement of RFP, whether the documents have been properly signed, whether items are offered as per RFP requirements and whether technical documentation as required to evaluate the offer has been submitted.

1.2. Prior to detailed evaluation, the Bank will determine the substantial responsiveness of each Bid to the bidding document. Substantial responsiveness means that the bid conforms to all terms and conditions, scope of work and technical specifications and bidding document is submitted without any deviations.

2. Clarification of Offers:

2.1. During the process of scrutiny, evaluation and comparison of offers, the Bank may, at its discretion, seek clarifications from all the bidders/any of the bidders on the offer made by them. The bidder has to respond to the bank and submit the relevant proof /supporting documents required against clarifications, if applicable. The request for such clarifications and the Bidders response will necessarily be in writing and it should be submitted within the time frame stipulated by the Bank.

2.2. The Bank may, at its discretion, waive any minor non-conformity or any minor irregularity in the offer. Bank's decision with regard to 'minor non-conformity' is final and the waiver shall be binding on all the bidders and the Bank reserves the right for such waivers.

3. Evaluation of Bid:

3.1. The Bank will evaluate the bid submitted by the bidders under this RFP. The Bid will be evaluated by a Committee of officers of the Bank. If warranted, the Bank may engage the services of external consultants for evaluation of the bid. It is Bank's discretion to decide at the relevant point of time.

3.2. **Part A-Conformity to Eligibility Criteria:** The Part A- Conformity to Eligibility Criteria submitted by the bidder will be evaluated based on **Annexure-2** and on the documents submitted as per Appendix-A of RFP. The proof of documents should be submitted as per Appendix-A and it will be evaluated by the Bank and Bank will seek clarification, if required.

3.3. **Part B-Technical Proposal:**

3.3.1. The Part B-Technical Proposal of only those bidders who qualified in Part A- Conformity to Eligibility Criteria, will be opened with due communication by the Bank. The Part B- Technical Proposal submitted by the bidder will be evaluated based on documents submitted as per **Appendix-B**. The proof of documents should be submitted as per **Appendix-B** and it will be evaluated by the Bank and Bank will seek clarification, if required.

3.3.2. The Technical Evaluation will be for Technical and Functional requirement as per Annexure-7 and Annexure-8 (scope of RFP).

3.3.3. Against each of the specifications under Solution Specifications, there is a Bidder's response column (BR) where the bidder has 2 options viz., Complied (C) and Not Complied (NC) to indicate their response. **Bidders must fully comply with mandatory requirements. Non-compliance to any one of the mandatory requirements leads to disqualification of the Bidder in Part B-Technical Proposal.**

3.3.4. Bank will also award the marks on the basis of Annexure 7 relating to scoring sheet for bidder evaluation. Bidder has to score minimum 90% marks in the evaluation.

3.3.5. At the sole discretion and determination of the Bank, the Bank may add any other relevant criteria for evaluating the proposals received in response to this RFP.

3.3.6. The decision of Bank in this regard shall be final and no correspondence shall be entertained.

4. Bidders Presentation /Site Visits / Product Demonstration/POC:

4.1. The Bank reserves the right to call for a presentation on the features and functionalities from those Bidders who have qualified in **Part A-Conformity to Eligibility Criteria.**

4.2. As a Part of Technical Evaluation based on the technical bids submitted by the Bidders, Bank at its discretion may call the Bidders for conducting POC (Proof of Concept) of the Solution proposed by them. This exercise will be undertaken before opening of the Commercial Bids of the Bidders whose Part B-Technical proposals has been opened.

4.3. The Bank at its discretion call for providing of Proof of Concept (PoC) of proposed solution at the location, which is identified by the Bank. The **Technical Criteria for Proof of Concept** (PoC) will be conducted as per Appendix-K.

4.4. Results of the Proof of Concept (PoC) will be evaluated and the effectiveness of the solution will be derived upon.

4.5. Unless there is a delay from the Bank for conducting the POC, the same needs to be completed in 30 days from the data of initiating the POC. The right to extend or reduce the period is solely at the discretion of the Bank.

4.6. Bidders are further required to be in preparedness to demonstrate the proposed solution by arranging for product walk-through at their own installations/principals/ R&D labs duly meeting the specific requirements/issues raised by the Bank.

4.7. Setting of evaluation criteria for product demonstrations shall be entirely at the discretion of the Bank. The decision of Bank in this regard shall be final and in this regard, no correspondence shall be entertained.

4.8. The infrastructure for conducting the POC i.e hosting the POC setup on cloud or for servers in datacenter is at the discretion of the Bank. The bidders should be readiness to demonstrate the proposed solution in any of the setup.

4.9. All expenses incurred in connection with the above shall be borne by the bidder. However, Bank will bear the travelling, boarding and lodging expenses related to its own personnel and its Consultants, if any.

4.10. **Part C-Commercial Bid:**

The Part C-Commercial Bid of only those bidders who qualified in **Part B-Technical Proposal** will be opened with due communication by the Bank. The **Part C-Commercial Bid** submitted by the bidder will be evaluated based on Bill of material submitted by the Bidder.

5. Normalization of Bids

5.1. The Bank may go through a process of technical evaluation and normalization of the bids to the extent possible and feasible to ensure that, shortlisted bidders are more or less on the same technical ground. After the normalization process, if the Bank feels that, any of the Bids needs to be normalized and that such normalization has a

bearing on the price bids; the Bank may at its discretion request all the technically shortlisted bidders to re-submit the technical and Commercial Bids once again for scrutiny. The resubmissions can be requested by the Bank in the following manner;

5.1.1. Incremental bid submission in part of the requested clarification by the Bank

OR

5.1.2. Revised submissions of the entire bid in the whole

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

5.3. The shortlisted bidders, by submitting the response to this RFP, agree to the process and conditions of the normalization process.

6. Intimation to Qualified/Successful Bidders:

The Bank will prepare a list of qualified bidders at each stage on the basis of evaluation of Part A-Conformity to Eligibility Criteria, Part - B Technical Proposal and Part C-Commercial Bid. The names of qualified bidders at each stage would be announced on the Notice Board/Bank's website (i.e. www.canarabank.com). Commercial Bids of only technical qualified bidders shall be opened. Final list of the bidders (L1, L2, L3.... etc.,) will be announced as indicated above. No separate intimation will be sent to successful Bidder.

7. Correction of Error in Commercial Bid:

Bank reserves the right to correct any arithmetical errors furnished in the Commercial Bid. If any such errors are noticed it will be rectified on the following basis:

7.1. Bank may waive off any minor infirmity or non-conformity or irregularity in a bid, which does not constitute a material deviation.

7.2. If there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price shall be corrected accordingly.

7.3. If there is discrepancy between percentage and amount, the amount calculated on percentage basis will prevail.

7.4. If there is discrepancy in the total arrived at Bill of Material (addition, subtraction, multiplication, division and carryover of amount from one page to another), correct total will be arrived by the Bank and the same will prevail over the total furnished in the Bill of Material

7.5. If there is a discrepancy between words and figures, the rate/ amount in words shall prevail, unless the amount expressed in words is related to an arithmetical error in which case, the amount in figures will prevail, subject to the above two provisions.

7.6. If the bidder does not accept the correction of errors, the bid will be rejected.

8. Determination of L1 Price:

8.1. L1 Price will be determined after giving effect to arithmetical correction, if any.

8.2. The L-1 bidder will be determined on the basis of the lowest price quoted in the Commercial bid.

8.3. However, the Bank does not bind itself to accept the lowest or any Bid and reserves the right to reject any or all bids at any point of time prior to the order without assigning any reasons whatsoever.

8.4. The bank reserves the right to re-tender without assigning any reasons whatsoever. The bank shall not incur any liability to the affected bidder(s) on account of such rejection. Bank shall not be obliged to inform the affected bidder(s) of the grounds for the Bank's rejection.

8.5 The Bank reserves the right to modify any terms, conditions and specifications of the RFP and Bank reserves the right to obtain revised price bids from the bidders with regard to change in RFP clauses. The Bank reserves the right to accept any bid in whole or in part.

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F. Ownership & Awarding of Contract

1.	Bid Validity Period	7.	Project Execution
2.	Proposal ownership	8.	Security Deposit / Performance Bank
3.	Project ownership	9.	Execution of Agreement
4.	Acceptance of offer	10.	Pricing
5.	Award of Contract	11.	Order Cancellation/Termination of Contract
6.	Effective Date		

The above mentioned clauses are part and parcel of the RFP. Bidders are requested to refer at the following website for the above mentioned clauses https://canarabank.com/english/announcements/important-rfptender-documents-of-dit-wing/.

G. GENERAL CONDITIONS

1.	General Order Terms	13.	Confidentiality and Non-Disclosure
2.	Roles & Responsibility during project Implementation	14.	Indemnity
3.	Responsibilities of the Selected Bidder	15.	Force majeure
4.	Human Resource Requirement	16.	Responsibilities of the Bidder
5.	Responsibility for completeness	17.	Corrupt and Fraudulent Practices
6.	Inspection of Records	18.	Adoption of Integrity Pact
7.	Negligence	19.	Amendments to the Purchase Order
8.	Assignment	20.	Amendments to the Agreement
9.	Publicity	21.	Modification/Cancellation of RFP
10.	Insurance	22.	Social Media Policy
11.	Guarantees	23.	Resolution of disputes
12.	Intellectual Property Rights	24.	Legal Disputes and Jurisdiction of the court

The above mentioned clauses are part and parcel of the RFP. Bidders are requested to refer at the following website for the above mentioned clauses https://canarabank.com/english/announcements/important-rfptender-documents-of-dit-wing/.

केनरा बैंक Canara Bank

H. PURCHASE PREFERENCE

1.	Micro & Small Enterprises	3.	Procurement through Local Suppliers (Make in India)
2.	Startup		

The above mentioned clauses are part and parcel of the RFP. Bidders are requested to refer at the following website for the above mentioned clauses https://canarabank.com/english/announcements/important-rfptender-documents-of-dit-wing/.

Deputy General Manager

Canara Bank
केनरा बैंक

Note: The following Sections, Annexures, Forms and Formats are uploaded in Bank's website under URL: https://canarabank.com/english/announcements/important-rfptender-documents-of-dit-wing. Bidders are requested to submit applicable Annexures, Forms and Formats by downloading from the above mentioned website.

Sections	
Section D	BID PROCESS
Section F	OWNERSHIP & AWARDING OF CONTRACT
Section G	GENERAL CONDITIONS
Section H	PURCHASE PREFERENCE
Annexures	
Annexure-1	Bid Covering Letter
Annexure-3	Bidder's Profile
Annexure-4	Service Support Details
Annexure-5	Track Record of Past Implementation of Projects
Annexure-6	Non-Disclosure Agreement
Annexure-9	Undertaking of Authenticity
Annexure-10	Compliance Statement
Annexure-11	Undertaking Letter
Annexure-12	Escalation Matrix
Forms (Purchase Preference)	
Form PP-A	Undertaking for Applicability of Purchase Preference Policy
Form PP-B	Self-Declaration of MSEs and Startups
Form PP-C	Undertaking by Bidder towards Mandatory Minimum LC
Form PP-D	Certificate by Statutory Auditor of Bidder towards Mandatory Minimum LC
MeitY Form – 1	Affidavit of Self Certification regarding Domestic Value Addition in an Electronic Product
DoT Form – 1	Self-Certification regarding Local Content (LC) for Telecom Product, Services or Works
Bid Formats	
Appendix D	Format for Sending Prebid Queries.
Appendix E	Authorization Letter Format.
Bank Guarantee Formats	
Appendix-F	Bank Guarantee Format for Earnest Money Deposit.
Appendix G	Proforma of Bank Guarantee for Contract Performance.
Appendix H	Format for Bank Guarantee for Advance Warranty Payment. (Not Applicable)
Pre Contract Integrity Pact	

Appendix I	Pre Contract Integrity Pact.
Reverse Auction Formats (Not Applicable)	
Appendix J	Business Rules and Terms and Conditions of Reverse Auction.
Appendix J (1) & Appendix J(3)	Format to be submitted before commencement of Reverse Auction.
Appendix J(2)	Format to be submitted after Reverse Auction by L1 vendor.
Other Format	
Appendix-K	Location Details.

Annexure-2

Eligibility Criteria Declaration

The Deputy General Manager
Canara Bank
Procurement Group – DIT Wing
HO: BENGALURU

SUB: RFP for Procurement, Implementation and Maintenance of Mobile Application Security (MAS) solution for Canara Mobile Banking App for Android and iOS platform.

Ref: Your RFP 20/2019-20 dated 19/03/2020

We have carefully gone through the contents of the above referred RFP and furnish the following information relating to Eligibility Criteria.

	Sl. No.	Eligibility Criteria	Documents to be submitted for Eligibility Criteria Compliance	Bidder's Response and Documents Submitted
CONSTITUTION	a)	The Bidder should be a partnership firm registered under LLP Act, 2008/Indian Partnership Act, 1932 or Company in India as per Indian Companies Act, 1956 or Indian Companies Act, 2013 and must have in existence for 3 years as on RFP date.	Bidder has to submit Copy of Certificate of LLP registration. (OR) Copy of Certificate of Incorporation and Certificate of Commencement of business in case of Public Limited Company (OR) Certificate of Incorporation in case of Private Limited Company, issued by the Registrar of Companies.	
OSD	b)	Bidder shall be the Original Equipment Manufacturer (OEM)/Original Software Developers (OSD)/ Original Software Owner (OSO) of the Solution (OR) An authorized dealer	If the applicant is a OEM/OSD/OSO, an Undertaking Letter has to submitted in this effect. If the bidder is an Authorised Dealer, an Authorisation letter from their OEM & OSD/OSO to deal/market their product in India and it should be valid for a minimum period of 6 years from the date of submission of the Bid.	
FINANCIALS	c)	The Bidder should have minimum average turnover of Rs. 10.00 Crores for the last three financial years (i.e. 2016-17, 2017-18 and 2018-19) from Indian Operations. This must be the individual company turnover and not of any group of companies.	Bidder has to submit Audited Balance Sheet for last 3 Years (i.e. 2016-17, 2017-18 and 2018-19). AND Bidder must produce a certificate from the Company's Chartered Accountant to this effect. The documents certified by Chartered Accountants should mandatorily contain Unique Document Identification Number.	

	d)	The Bidder should have Positive Net Worth as on 31/03/2019.	The Bidder must produce a certificate from the Company's Chartered Accountant to this effect. The documents certified by Chartered Accountants should mandatorily contain Unique Document Identification Number.	
BIDDER EXPERIENCE	e)	The proposed MAS solution should have been implemented (Not necessarily by the Bidder) in at least One Scheduled Commercial Bank/ BFSI Sector in India or abroad as on the date of RFP.	The Bidder has to provide order copy/reference Letter duly mentioning the solution name to this effect.	
	f)	The applicant shall have support office in Bengaluru and in any metro cities for 24x7 support.	The Bidder has to provide their existing service center infrastructure details like local Contact Person Name, Address, Phone No, Mobile No, Email etc., no of engineers and jurisdiction of the engineer.	
	g)	Bidder should have valid ISO 9000/9001 or ISO/IEC 27001 certification for IT related activities.	Bidder should submit copy of the ISO 9000/9001 or ISO/IEC 27001 Certificate.	

We confirm that the information furnished above is true and correct. We also note that, if there are any inconsistencies in the information furnished above, the bid is liable for rejection. All documentary evidence / certificates confirming compliance to Eligibility Criteria should be part of Eligibility bid.

Date

Signature with seal
Name   :
Designation   :

Bank shall verify the certificates submitted by the Bidder with the portal https://udin.icai.org

Annexure-7
Technical & Functional Requirement of MAS Solution

SUB: RFP for Procurement, Implementation and Maintenance of Mobile Application Security (MAS) solution for Canara Mobile Banking App for Android and iOS platform.

Ref: Your RFP 20/2019-20 dated 19/03/2020

Note:
i. If the Bidder feels that certain features offered are superior to what has been specified by the Bank, it shall be highlighted separately. Information regarding any modification required in the proposed solution to meet the intent of the specifications and state-of-the-art technology shall be provided. However, the Bank reserves the right to adopt the modifications / superior features suggested/offered.

ii. The Bidder shall provide all other required equipments and/or services, whether or not explicitly mentioned in this RFP, to ensure the intent of specification, completeness, operability, maintainability and upgradability.

iii. The selected bidder shall own the responsibility to demonstrate that the services offered are as per the specification/performance stipulated in this RFP and as committed by the bidder either at site or in bidder's work site without any extra cost to the Bank.

A. TECHNICAL REQUIREMENTS

Sl. No.	TECHNICAL REQUIREMENTS	Bidder's Compliance (YES/NO)
1.	**INFRASTRUCTURE**	
1.1.	Bidder to provide details of the infrastructure, hardware, software, power supply, storage and connectivity details.	
1.2.	Bidder to provide the technical escalation matrix	
1.3.	Bidder to provide documents pertaining to the audit process being followed by them.	
1.4.	The selected Bidder shall guarantee a total Monthly Solution uptime of minimum 99% from the date of commencement of the proposed solution. (Any planned shutdown will not be considered for calculating SLA).	
2.	**ACCESS CONTROL**	
2.1.	Access to the System by Bank as well as proposed Vendors should be by way of User-Id & Password and should support the banks current policy & systems for Access control and should be able to integrate seamless with any Identity access management solution procured in future.	
2.2.	The application used for monitoring and management should have provisions for Role Based Access Controls (RBAC) .	
3.	**OTHER REQUIREMENTS**	
3.1.	Bidder to provide details of implementation team along with appropriate experience in similar projects.	

4.	SYSTEM SUPPORT	

4.1.	For Dashboard:
	The offered solution should have support for the following client side features:
	1. Operating Systems: Windows 10 and above.
	2. Internet Browsers: a) IE 9, 10, 11 and above.
	                b) Google Chrome Version 51 and above.
	                c) Mozilla Firefox version 47 and above.
	3. Java Runtime Environment 6u31 and above	

B. SOLUTION REQUIREMENTS:

Sl. No.	Mobile App Protection Features	Requirement Specification	Compliance (Yes/No)
1.	The solution shall detect for rooted Android or jailbroken iOS mobile devices.	Must Have	
2.	The solution shall detect for mobile application repackaging and should preferably have Anti-rogue features and binary protection.	Must Have	
3.	The solution should have the ability to provide Anti-Cloning capability by binding the device's unique identity to the customer. This capability will prevent mobile app and its data from being copied onto and run on another device.	Must Have	
4.	The Device Fingerprint should be secure and cannot be spoofed on a different device.	Must Have	
5.	The device fingerprint should be unique and should be created using multiple elements from the mobile device and software.	Must Have	
6.	The solution should protect the mobile app against static and runtime attacks.	Must Have	
7.	The solution should have Application integrity checks to protect mobile application against attacks such as code tampering, code injection and code modification.	Must Have	
8.	The solution should perform file system integrity checks to detect backdoors and rootkits.	Good to Have	
9.	The solution shall detect for the presence of hooking framework.	Must Have	
10.	The solution shall protect mobile application against external debugger.	Must Have	
11.	The solution should have device integrity checks to detect malicious activities such as key logger detection.	Must Have	
12.	The solutions shall have capability for Emulator detection and capabilities to detect if transaction is happening from Terminal Emulator or remote access tools on customer device.	Must Have	
13.	The solution shall protect mobile application against common screen overlays.	Must Have	
14.	The solution shall protect mobile application against untrusted keyboard application.	Must Have	
15.	The solution should provide a secure keyboard to the Mobile Banking App	Good to Have	
16.	The solution shall protect mobile application against screen mirroring.	Must Have	

17.	The solution shall protect the data stored by the Mobile App locally on the device through strong encryption mechanism.	Must Have	
18.	The solution should act as an intrusion prevention system to prevent the app against threats.	Must Have	
19.	The solution shall prevent man in the middle attacks.	Must Have	

20.	The solution shall protect static code and app binaries through code obfuscation.The solution shall include but not limited to the following code obfuscation mechanism:
	    - class renaming and randomization
	    - method renaming and randomization
	    - namespace flattening
	    - debug information removal
	    - java annotation removal
	    - code shuffling
	    -encryption of strings and constants in the code.
		Good to Have	

21.	The solution shall provide unique response / message ID options upon detection of each threat such as shutting down the mobile App, generating callback, providing threat type and severity.	Must have	
22.	The solution should have the feature to provide threat response through customizable features such as Alert, disable, bypass or quit the app	Good to Have	
23.	The solution shall provide option for the mobile application to handle the threats via callbacks or unique status codes so as to generate alerts in the application against the threats.	Must have	
24.	The solution should have one touch bypass capacity for continuity of operations in case of failure of the solution.	Must Have	
25.	The solution should detect if the network connection (wifi or cellular) is compromised in any way for Rogue network or access point, MiTM attacks, etc	Must have	
26.	The solution should use strong cryptographic protocols and algorithms such for asymmetric/ symmetric encryption (AES 256 and above), integrity (SHA 256 and above), key exchange etc. to be used for data at rest (i.e. on the device) and in motion.	Must have	
27.	The cryptographic modules or protocols used in the solution should be validated by agencies such as NIST (FIPS 140-2) or comparable agencies.	Good to have	
28.	The entire solution including hardware and software should be IPv6 compatible.	Must Have	
29.	The solution should support both native platforms such as Apple iOS and Google Android as well as mobile application development frameworks such as Cordova etc.	Must Have	
30.	Ability to provide SMS Stealer Detection capability against malwares that are trying to spy/steal data from customer SMS.	Must Have	
	MALWARE DETECTION		
31.	The solution should be able to detect malwares and malicious apps installed on the mobile device.	Must have	
32.	The malware detection capabilities should be real time and should not result in slowness or performance impact on the application.	Must Have	
33.	The solution should have the ability to detect Remote Administration Tools (RAT) available on the local device.	Must Have	
34.	The malware detection should happen through software integrated with the app or through communication with AV detection engine hosted in Bank's Datacenter.	Must have	

35.	The bidder should ensure that the latest malware signatures are updated on the solution integrated with the app.	Must have	
36.	The bidder should send advisory to Bank on the threats related to Mobile Application, there threat impact, risk score and prepare plans to mitigate the threats.	Good to have	
37.	The malware detection capabilities should have the provision for detection during start up as well as runtime.	Must Have	
38.	The run time detection capability should be configurable with the provision to block the app or notify the user.	Must Have	
39.	The malware engine should not send any information from the mobile device to the cloud for detection.	Must Have	
	Management and Reports		
40.	Should provide a web based module for monitoring and reporting with configurable user roles based upon the privilege of the user.	Must Have	
41.	Solution should provide a management portal for tracking and reporting on incidents happening of the mobile device.	Must have	
42.	The management and report portal of the solution should have the options to generate standard and customized reports based upon common parameters such as device OS, device fingerprint, date etc.	Must Have	
43.	The solution should be capable of Auto generating reports and sending them over mail displaying the threat landscape at specified periods informed by the Bank.	Good to Have	
44.	The solution should have the provision for centralized intelligence gathering, security profile configuration, over the air updates to be sent to the mobile device	Good to Have	
45.	The communication of the solution embedded with the app to the server used for management and monitoring should be over a secure channel using best encryption standards (such as SSL with TLS 1.2 encryption protocol or above, AES 256 cipher mode etc.)	Must Have	
	HARDWARE AND SOFTWARE REQURIEMENTS		
46.	The bidder has to provide all the required hardware, software and licenses for the solution. Only licensed software should be used for the solution. The bidder will be responsible for any Upgradation/maintenance/patch management for delivered hardware/software during contract period.	Must have	
47.	The System Integrator should provide the Enterprise licenses perpetual to the Bank for all the software in the solution.	Must Have	
48.	The selected bidder should provide the necessary hardware, Operating Systems, standard middleware if any, required for the implementation of the solution for both the locations Primary Site (DC) and DR. The bidder has to keep into account the year on year anticipated growth in the customer base while giving the sizing of the hardware and software/application. The sizing should be done in such a manner that the average utilization of server should not exceed more than 50% of its peak capacity	Must have	
49.	The hardware sizing for UAT should be 1/10th of the production capacity and should provide a similar setup as the production environment for testing of changes and user acceptance.	Must Have	
50.	The Solution proposed should be provided with High availability in Primary Datacenter and a standby arrangement of same specifications should be available in Disaster Recovery center.	Must have	
51.	The solution proposed should be provided with Active-passive model at DR site.	Must have	

52.	The hardware should be in a three-tier architecture comprising of Web, Application and Database Layer, which is in line with the policy of the Bank.	Must have	
53.	The solution should have the capability to maintain comprehensive Audit logs of user access to defined resources.	Must have	
54.	The solution should have the capability to maintain comprehensive Audit logs for the events happening on the end device and captured by the SDK provided for the solution.	Must have	
55.	The hardware sizing of the solution should be done such that at least three months of logs received in the application are stored on the Box. The logs after three months should be stored on the storage solution provided by the Bank.	Must have	
56.	The System Integrator needs to coordinate with Bank team for taking Backups at regular intervals as per the backup policy of the Bank. The Backup should include but not limited to Application logs, configuration etc, The solution for backup will be provided by the Bank. Restoration of backup should be done at pre-defined intervals to check integrity of logs.	Must have	
57.	Bidder needs to ensure that the vulnerabilities reported on the hardware, firmware , OS, application and database by OEMs are mitigated through application of patches or configuration change.	Must have	
58.	The System Integrator should coordinate with Bank Team for restoration of logs as and when required.	Must have	
59.	Vulnerability assessment and Penetration test are conducted on the application and hardware as per Policy of the Bank. Any observations if reported should be mitigated within 15 days of reporting to the bidder. The Bidder has to do necessary changes in the configuration directed by security team of the bank without disturbing the production and existing backed up copies.	Must have	
60.	In case of completion of the contract, if the solution is entrusted to a new vendor the SI should help Bank in migration of current database to the new vendor selected at no additional cost. The SI will have to provide full support to the new vendor selected till the successful implementation of the portal (till portal goes live) at no additional cost.	Must have	
	Server and Solution Administration		
61.	For every release/ upgrade of the component of the solution, the System Integrator shall share clean reports of security assessment such as Code Audit and Penetration testing with the Bank. Bank will also conduct App security tests on the Integrated App. Any security related observation reported on the App needs to be analyzed and mitigated by the bidder.	Must have	
62.	The Bidder has to use standard procedures like hardening, dedicated configuration in order to comply with global security standards and secure configuration documents shared by the Bank.	Must have	
63.	Usage of Webex / remote connectivity tools is restricted. The bidder needs to ensure that competent resources are available onsite for proper monitoring and management of the solution. Remote sessions can be provided as an exception based upon approvals from management.	Must have	
64.	Any kind of change like update, upgrades in the license procured by the Bank etc. in the system after complete installation will not lead into any commercial during contract tenure.	Must have	
65.	Bidder should take adequate security measures to ensure confidentiality, integrity and availability of the information.	Must have	

66.	The bidder/ OEM should ensure that no Personally Identifiable information of the stored our forwarded by the solution.	Must have	
67.	As per Bank's policy remote session like Team Viewer, WebEx etc are prohibited. The bidder needs to ensure that the competent resources are placed at client location for any kind of installation, bug fixing, update and upgrade in entire project tenure. Bank may provide remote access in case of exceptions requiring TAC / offsite support based on approvals from management. The bidder will have to arrange for resources in case the remote access is denied by Approving authority.	Must have	
	OTHER FEATURES		
68.	There should be in sync between DC and DR.	Must Have	
69.	Authentication (if Any) from the solution should support any SMS gateway vendor using http protocol.	Must Have	
70.	The solution shall provide the option for quick initial checks to facilitate faster application launch and option to background full file system scanning once the application is started.	Must Have	
71.	The Solution should support all leading and licensed platforms including Windows and multiple flavors of UNIX on the server side and database servers including Oracle, SQL Server and DB2.	Must Have	
72.	OEM must have a global online Fraud Intelligence Network that also looks at global frauds and feeds from sources across financial institutions, credit and debit card issuers, health care firms, internet service providers, wireless providers, high-tech companies and government and law enforcement agencies.	Must Have	
73.	The selected bidder/ OEM should also suggest measures to be implemented on the native app to prevent them from being exploited from malwares and frauds.	Must Have	
74.	The solution should be constantly updated with detection and prevention mechanism for new threats emerging and mobile and cross platforms.	Must Have	
75.	All events should be logged and be available to support investigation as and when required. The bidder should provide complete support during the investigation.	Must have	
76.	During implementation the bidder should coordinate with Application development teams and prepare acceptable performance benchmarks (ex latency) for the solution.	Must Have	
77.	The solution should come with exhaustive documentation and provide an easy interface for integration.	Must Have	
78.	Proposed Solution should have the capability to integrate with Security operation center (SOC), Privilege Identity Management (PIM) and Enterprise Risk and Fraud Management (EFRM) Solution of the bank.	Must Have	

C. FUNCTIONAL REQUIREMENTS

Sl. No.	Requirements	Bidder's Compliance (Yes/No)
1.	**Application Security:**	
1.1.	All users should be authenticated before access is provided.	
1.2.	Application should enforce minimum password length of 8 characters.	
1.3.	Password expiry should be set.	
1.4.	Password history should be maintained. The last 3 passwords should not be usable.	
1.5.	Account lockout feature should be configured.	
1.6.	Web based applications should comply with security standards including OWASP.	
1.7.	Time stamping of all activities	
1.8.	When writing log data, the application should avoid writing sensitive data to log files.	
2.	**Operating System Security**	
2.1.	Default accounts should be disabled.	
2.2.	All users should have a unique user-id. There should be no sharing of user accounts.	
2.3.	Operating System should enforce minimum password length of 8 characters.	
2.4.	Account lockout feature should be enabled.	
2.5.	The Operating System should force a new user to change the password at first logon.	
2.6.	Operating System should enforce password complexity with the following characteristics a) Password should not contain any portion of user-id b) Password should have a combination of upper-case and lower-case alphabets, numerals and special characters.	
2.7.	Support access through PIM solution	
3.	**Database Security:**	
3.1.	All users should be authenticated before providing access.	
3.2.	There should not be any account with default password or with no password.	
3.3.	All users should have a unique user-id. There should be no sharing of accounts	
3.4.	The default user profile should be modified to enforce account policy settings.	
3.5.	The database should enforce minimum password length of 8 characters	
3.6.	Password history should be maintained.	
3.7.	Account lockout feature should be enabled.	
3.8.	Password expiry should be set.	
3.9.	Integrity of data in concurrent user mode should be designed in the database through record locking or two-phase locking / commit features .	
3.10.	Logging should be enabled for security related events	
4.	**Hardware Requirements at Data Centre**	
4.1.	Entire Hardware required at Data Centre, for implementing the MAS solution, shall be procured, deployed and maintained by the Bidder.	
4.2.	The proposed configuration of Hardware shall cover CPU, main memory required, storage requirement, auto-backup, dual systems for fault free operations, devices, etc. which takes into consideration the present and future volume estimates, current technology, and path for upgrade/growth. Dual system redundancies should be built in the proposed hardware to ensure the desired performance needs considering the load on the system in terms of transaction volumes, estimated number of users, etc.The bidder shall be responsible for providing hardware and software for backup/redundancy purposes also.	
4.3.	Deploy all Hardware and Software to handle the present and future estimates of volume of data and transactions for a period of 5 years.	
4.4.	Deployment of logging at OS/network level and monitoring the same.	

4.5.	Servers, Workstations and network hosts should be updated with latest patches, latest security updates whenever released.	
4.6.	All the installed OS software/firmware must be of stable version and all recommended patches should be installed by the Successful Bidder and the same to be submitted to the bank on monthly basis.	
5.	**Access Control**	
5.1.	Application should enforce an authorization mechanism that provides access to sensitive data and functionality only to suitably permitted users.	
5.2.	The role-based access controls should be enforced at the database level as well as at the application interface.	
5.3.	Authorization checks should be followed post successful authentication and all attempts to obtain access without proper authorization should be logged.	

Note:

a. The above requirements mentioned in Annexure-7-A & Annexure-7-C are mandatory. Non-compliance to any of the Functional Requirements functional mentioned in Annexure-7-A & Annexure-7-C will lead to disqualification of the Bidder/s.

b. All the "must have" requirement mentioned under Annexure-7 (B) are mandatory and Non-compliance to any of the "must have" Functional Requirements mentioned in Annexure-7(B) will lead to disqualification of the Bidder/s. All the Functional Requirements carry one marks each.

c. Bank will be also conduct a POC as per the Appendix-K. If Bidder is not able to demonstrate/showcase "Must Have" features during the POC as mentioned in Appendix-K, Bidder will stand disqualified, even if Bidder has confirmed compliance as "FC" in Annexure-7. If Bidder is not able to demonstrate/showcase "Good to Have" features during the POC, Bidder will be awarded zero (0) marks for the same, even if Bidder has confirmed compliance as "FC" in Annexure-7.

d. All the good to have requirement mentioned under Annexure-7 (B) are desirable, However, Bidder has to comply with at least 50% (4 out of 8) Functional Requirements mentioned in Annexure-7(B). Non-compliance to minimum criteria of 50% will lead to disqualification of the Bidder.

Date   Signature with seal
                                        Name   :
                                        Designation :

Annexure-7(A)
Sizing of Hardware including Software/OS for DC & DRC

For Development Environment (in DC & DR):

Sr. No.	Sub Compo nents	Quantity	Device Type Physical / VM / Appliance)	Cores	Processor	Storage (Thick/ Thin provision ing)		Software's	
						RAM GB	storage GB/TB	Operating System	Data base
1.									
2.									
3.									
4.									

For UAT Environment (in DC):

Sr. No.	Sub Compo nents	Quantity	Device Type Physical / VM / Appliance)	Cores	Processor	Storage (Thick/ Thin provision ing)		Software's	
						RAM GB	storage GB/TB	Operating System	Data base
5.									
6.									
7.									
8.									

DC (Should be in Active/Stand by) & DRC Site (Standalone and in Sync DC Setup) - Bidder should suggest the architecture in consultation with solution architect along with justifications and should provide reasonable hardware components as per the requirements.

The hardware/ software for UAT setup can be sized not less than 1/10 of the production setup. The bidder has to ensure that the hardware provided is appropriate for proper testing of the application.

In case proposed database is Oracle then, Bank will provide the License. If Database is other than Oracle, Licenses to be provided by Bidder. Bidder has to quote the same in the Bill of Material.

Canara Bank

Quoted Hardware/software/OS details for both DC& DRC:

Sr. No.	Sub Components	Quantity	Device Type Physical / VM / Appliance)	Cores	Processor	Storage		Software's	
						RAM GB	storage GB/TB	Operating System	Database
a.	Web Server								
b.	Application Server								
c.	Database Server								
d.	Licenses								
e.	Any other Software								

Quoted Hardware/software/OS details for UAT Server in DC:

Sr. No.	Sub Components	Quantity	Device Type Physical / VM / Appliance)	Cores	Processor	Storage		Software's	
						RAM GB	storage GB/TB	Operating System	Database
f.	Web Server								
g.	Application Server								
h.	Database Server								
i.	Licenses								
j.	Any other Software								

The hardware/ software for UAT setup can be sized not less than 1/10 of the production setup. The bidder has to ensure that the hardware provided is appropriate for proper testing of the application.

Date:

Signature with Seal:
Name:
Designation:

Annexure-8
Scope of Work

SUB: RFP for Procurement, Implementation and Maintenance of Mobile Application Security (MAS) solution for Canara Mobile Banking App for Android and iOS platform.

Ref: Your RFP 20/2019-20 dated 19/03/2020

The Scope of Work shall include but not be limited to the following:

1. Bank has decided to procure MAS solution to secure the mobile App on the customer's device from threats available on their device. The solution should act as a layer of defence and effectively detect and prevent attacks from making changes to the app or stealing personal data. The solution should also have proactive controls to prevent the application from tampering or modification.

2. Table 1: Deployment Locations in scope

Sl. No.	Coverage (Address)	MASS functionalities & servers	Storage
a.	Data Center Bangalore	Yes in Active/Standby	Yes
b.	Disaster Recovery Centre	Yes in Standalone setup (backup to Data center setup)	Yes

3. The Solution should be deployed in the Bank's DC & DRC Setup.

4. The solution deployment should be compliant with Bank's IS, IT and Cyber Security policies, internal guidelines, regulatory requirements and country wide regulations and laws from time to time.

5. The Bidder would be responsible for supply, installation, testing, commissioning, complete implementation, configuring, Operation & Maintenance of the solutions, warranty and AMC of licenses (hardware, software, middleware supplied) as part of this RFP for a period of 5 years.

6. During the tenure of the contract, all upgrades or requirements in hardware, software, licensing, implementation of upgrades/patches/version changes etc, due to whatsoever reason including but not limited to EOL or EOS, would be done by the bidder without any additional cost to the bank.

7. Bidder to ensure that the end of sale is not declared by the respective OEMs for the proposed Solution.

8. If a solution fails to meet the technical requirements of RFP during the implementation/before sign-off phase, Bank reserves the right to reject the solution with no cost to the Bank and recover all payments made for that solution. However, in such cases the bidder may offer alternate solution to the Bank which fulfils technical requirements of the RFP with no extra cost to the Bank.

9. If during the contract period, the solution is not performing as per specifications in this RFP, bidder shall upgrade/enhance the devices or place additional devices and reconfigure the system without any extra cost to the bank till the required performance is achieved.

10. Initial period of 8 weeks from PO acceptance date will be considered for delivery of hardware, OS, IT GRC Solution and other Licenses. The five years active life of solutions will start from Sign-off /acceptance date for respective solution.

11. As the late sign-off of any solution may impact the Warranty / AMC timelines under back-to back agreements of Bidder with OEM, they are advised to take care of the same in their agreements with OEMs. The Bank will not consider any request for adjustments in such cases and will seek full five years active life of each solution with full OEM support & services.

12. Each solution's initial and future license requirements, infrastructure, storage requirements and other information is captured in Annexure 7 (A) - Sizing.

13. The proposed MAS solution should be integrated with existing backup solution of the bank (Microfocus data protector).

14. The utilization of resources should not cross 50% during the peak load during the entire period of contract.

15. Bidder has to submit benchmark report in this regard.

16. The services/ solutions offered should be modular, scalable both horizontally & vertically, and should be able to address Bank's requirements during the period of contract and even beyond future license figures given.

17. All the Hardware & Software supplied under this contract should be IPV6 Ready.

18. The services / solutions offered should not have any significant adverse impact on the existing infrastructure/ business of the Bank neither during installation nor during operation. There should be no service disruption as part of implementation or any upgrades. Any such incident may attract penalties.

19. The services/ solutions offered should not require any major functional changes to the Mobile App.

20. The integration of solution should have zero to minimal impact on the performance of the solution.

21. The selected bidder should provide details of resources consumed by the solution such as Internet Bandwidth consumed by the application, network requirements etc. during the planning stage of implementation.

22. All the devices, hardware, software, database, storage, licenses, solutions and services required at Bank's premises for deployment and operation of these solutions shall be delivered by Bidder as part of this RFP.

23. Bidder has to mandatorily comply with the specifications/requirement mentioned in Annexure-7. Bidder has to provide their response in Annexure-7.

24. All solutions proposed must have a post- sales OEM production/Enterprise category support through established service centres / offices preferably within India. Successful bidder has to submit a copy of such support availed by them to the Bank.

25. A robust documentation system needs to be in place for all to understand the process and their responsibilities.

26. The Solution will have to be upgraded by the vendor free of cost any time in the event of new scenarios or developing MAS Solution for Mobile Banking Application in Android and iOS platform. /any changes/modification/new regulatory requirements or reporting requirements which warrants the Bank's compliance during the contract period.

27. The bidders shall also provide the following documents as part of the deliverables of the project.

    29.1 Original manuals of all proposed hardware/software/applications.

    29.2 Standard Operating Procedures Installation & Configuration Documents

    29.3 Network & Security Design Documents (will be approved by the Bank) Troubleshooting Manual

    29.4 Executive summary report for the project to the management

    29.5 Functional and operational requirements

    29.6 Project design/plan

    29.7 Product description

    29.8 Guidance for best practices

    29.9 Implementation guidelines.

    29.10 Business Continuity /archival/purging /back up Policies/procedures

    29.11 User acceptance test plan

    29.12 if any training materials

Once a year health check-up report by OEM. All the above documents (soft copy or hard copy) should be provided by the Bidder, vetted by the bank, suggestions incorporated by Bidder and then provided to the Bank.

28. The services/ solutions in scope should be designed with adequate redundancy and fault tolerance to meet the Business Continuity requirements of the Bank.

29. The Bidder should provide Help-line and resolution on technical issues without any additional cost.

30. The Bidder shall be responsible for patch updates of the deployed solution to make it compatible with the latest versions of Operating Systems, Browsers and other resources necessary for access within the contract period without incurring any additional cost for the Bank.

31. The Bidder should provide the application audit/security audit certificate for the product.

32. The Bidder shall be responsible for including any change request by the Bank in the solution offered at no additional cost to the bank during the tenure of the cost.

33. During the period of the contract, the Bidder may be required to carry out additional customization in existing functionality of their software to meet the requirement of Canara Bank which may arise out of changes for regulatory compliance without any additional cost.

34. The Bidder should be able to provide any functionalities of the solution independently without dependency on any other functionality. Bank may opt to start with one or few functionalities but reserves the right to utilize all functionalities at a later stage at the price quoted in the commercial bid without any additional cost.

35. The Solution/System should broadly have the following functionalities/features:

35.1   The solution shall protect iOS & Android Version of Canara Bank's Mobile Banking application.

35.2   The solution shall not require separate application to be installed on customer device in order to protect mobile application/web application.

35.3   The solution should protect the Mobile App from existing and emerging threats in app landscape.

35.4   The solution shall provide binding mechanism to prevent attackers from removing the protection mechanism from the mobile/web application.

35.5   The solution should consume minimal bandwidth and work in 3G/4G networks.

35.6   The solution should be able to integrate seamlessly with Bank's Mobile Banking App with Zero to minimal Impact to the user.

35.7   The solution shall not violate any Privacy regulation like GDPR / Prospective Data Protection Bill / any other such regulation released by the Government or the regulator.

35.8   The selected bidder/ OEM should also suggest measures to be implemented on the native app to prevent them from being exploited from malwares and frauds.

35.9

35.10   The selected bidder has to implement suitable security configuration to meet the security requirement released from authorities such as RBI, CSITE, Cert-in, NPCI etc.

35.11   The solution should meet the requirements with Bank's policies and guidelines.

35.12   The bidder and OEM must coordinate with all stakeholders Banks and vendor teams during all phases of implementation i.e. Preparation of plan, defining the security policies to be implemented, development, testing and operation of the solution

35.13   Implementation requirements: For the purpose of implementation, the following points should be noted:

     35.13.1   The solution, service, hardware, software, and all other necessary items would be provided by the Bidder.

     35.13.2   The implementation should be done by qualified resource who is on the OEM payroll.

     35.13.3   The Bank will only provide facilities/space to host the devices.

     35.13.4   Passive Cabling to make the solution workable at DC and DRC shall be under bidder's scope.

     35.13.5   No additional payment apart from the final tender bid value will be processed/released by the Bank to the Bidder under any circumstances.

35.14   All Software / Databases deployed as part of solution at Bank under scope of this RFP should be licensed one with back-to-back support contracts from respective OEMs.

35.15 The licenses should be in the name of Canara Bank or specifically purchased for bank with Bank's name mentioned in license & copies of these should be submitted to Bank.

35.16 Bidder should supply products as specified, and Services which includes Implementation, Integration, management, maintenance, audit compliance and knowledge transfer in respect of their solutions as detailed in the subsequent sections.

35.17 The OEM should be implementing the solution. However, Bidder will be held accountable for OEM's inaction and penalty charges would be levied as per the SLA terms to Bidder.

35.18 The Bidder would be responsible for updates, patches, bug fixes, version upgrades for the entire infrastructure during the period of the contract, warranty and AMC. The OEM support for major upgrades if required should be factored in project cost.

35.19 In addition to Operations Management of their own solutions, the on-site team will be responsible for closure of findings of VAPT and SCD review conducted by the Bank on under lying assets of these solutions.

35.20 All the observations/vulnerabilities reported in the component of the solution should be reported at the eaeliest but not more than 15 days from the date of such reporting. The observation/ vulnerabilities should be prioritized on the basis of severity and its impact to the organization.

35.21 The Bidder should keep on improving the policies configured on an on-going basis for each solution.

35.22 Periodic health check should be carried out by on-site team every quarter to ensure the quality of implementation and operations with at least yearly once by OEM itself apart from the day-to-day real time monitoring of CPU utilization, database activities, OS etc.

35.23 Bidder would be responsible for all technical support to maintain the required uptime.

35.24 The Bidder would be the single point of contact.

35.25 The Bidder should have necessary agreement with the OEM for all the required onsite support for entire project period.

35.26 Bidder should have back-to-back support with OEM during the total contract period for necessary support on 24x7x365 basis.

35.27 The OEM is expected to submit the yearly health check report for solution deployment at the Bank before yearly Pay-outs by Bank to Bidder.

35.28 Bank may request Bidders to conduct POC of solution. Bidder has to adhere to agreed Service Level Agreements (SLA) and periodic monitoring and reporting requirements of the Bank.

35.29 The project may be subjected to audit from Bank and/or third party and/or regulatory body. It shall be responsibility of the Bidder to co-operate and provide necessary information and support to the auditors. The Bidder must ensure that the audit observations are closed on top priority and to the satisfaction of the Bank, regulator and its appointed auditors

35.30 The selected bidder should provide the necessary reports on periodic intervals or as per bank's requirements on an ongoing basis within the contract period.

36. Sizing and scope of work for the solution:

36.1   Each solution's initial and future license requirements, infrastructure, storage requirements and other information is captured in Annexure 7 (A)- Sizing.

36.2   The Sizing of each Solution should be done by the bidder to meet requirement of the bank for the next 5 years.

36.3   The Active life period of 5 years is expected for each solution therefore the future load increase should also be factored in Sizing the Solution component.

36.4   The Bidder shall ensure that any additional hardware/ software/ network equipment required to operationalize the respective solutions/ devices must be provisioned by the Bidder while proposing the Solutions to the Bank and their details should be given in the technical and commercial bill of material.

36.5   If the same is not ensured, the Bidder shall be responsible to provide such hardware/ software/ networking equipment free of cost to the bank at the time of implementation.

36.6   The Bank may ask the Bidder to provide calculations/ logic arrived at the sizing for all appliances/ hardware as part of the response

37. Audit Trail:

The system should provide for adequate audit trail including log reports for all the activities and any changes in configuration, information/data changes, updations etc.

38. Data Transfer and Migration:

After the end of the contract period, the Bidder should help Bank in migration of current database to the new vendor selected at no additional cost. The Bidder will have to provide full support to the new vendor selected till the successful implementation of the solution at no additional cost.

39. Security Features:

1   **Data Encryption:** The system shall support a minimum of 128 bit encryption for sensitive data, and information while in transfer & rest and conform to relevant guidelines wherever applicable.

2   **Prevention of Unauthorized access:** The system shall integrate with bank's existing access control mechanisms – Privileged Identity Management solution and Active Directory.

40. Customization flexibility and scalability:

The system shall be scalable and shall permit expansion of both the capacity and functionality either with the existing configuration or through the addition of items, details of which shall be furnished by Canara Bank. The system shall incorporate the necessary requirements to meet the scope and requirements as stated.

41. Compliances:

1   The Bidder's solution must comply with guidelines of RBI/ MeitY/PCI or any other guidelines of GOI or any regulatory authorities in respect of IT Governance, Risk and compliance issued from time to time.

2   Data captured in the solution should not be stored outside the Bank's Network.

42. Operational Support:

The responsibilities of the selected Bidder include, but not limited to the following:

1. Onsite Support at bank's premises.

2. Support for all system and associated components of the MAS solution.

3. Bidder should ensure that the system is available 24x7x365.

4. The onsite Resources (OEM pay roll only) should possess certification and minimum two years' experience on the relevant MAS solution.

5. Re-installations, in the event of system crash/failures.

6. Develop Standard Operating Procedures (SOPs) as per best practices and requirements of the bank.

7. Over all monitoring and management of the systems implemented, which includes administration of Networks, UPS and all other services ancillary to these facilities.

8. Ensure timely fine tuning of the application to enhance the end-user experience.

9. Ensure implementation of policies as per regulatory requirements issued from time to time.

10. System shall be able to enhance/ integrate the solution with new regulatory requirements on ongoing basis with minimal effort.

11. Response Time and Meantime to Restore [MTTR]

   42.11.1. Response Time shall be 2 hours and MTTR shall be 4 hours.

   42.11.2. Time specified above is from lodging of complaint.

43. Other Requirements:

1. The Bidders shall have in place a documented Quality and Audit process. A copy of the same shall be made available along with the technical bids.

2. The solution should be able to receive feeds from global agencies wherever applicable and any new feed on security / risk information should be fed instantly.

3. Bidder / OEM should submit any certificate as proof for adoption of best security practices for the solution like source code audit.

We hereby comply with the Scope of Work mentioned from Point no. 1 to 43 of Annexure-8.

Date   Signature with seal
                                        Name   :
                                        Designation   :

Annexure-13
Original Equipment Manufacturer (OEM) /Original Software Owner/Developer (OSO/OSD) in India Authorization Form

[Note: This Format Letter should be on the letterhead of the OSO/OSD and should be signed by an Authorised Signatory of the manufacturer]

No._____ dated_____

The Deputy General Manager,
Canara Bank,
Procurement Group,
DIT-Wing, Naveen Complex, 14 M G Road,
Bengaluru-560 001
Karnataka

Dear Sir,   .

SUB: RFP for Procurement, Implementation and Maintenance of MAS Solution for Android and iOS version of Mobile Banking App Solution for Credit Monitoring in Canara Bank.

Ref: Your RFP 20/2019-20 dated 19/03/2020

We _____who are established and reputed manufacturers of _____having factories/development facilities at 1)_____and 2)_____do hereby authorize M/s_____(Name and address of the Agent/Dealer) to offer their quotation, negotiate and conclude the contract with you against the above invitation for tender offer.
We (Manufacturer/Original Software Owner/Developer) hereby extend our full guarantee and warranty as per terms and conditions of the tender and the contract for the solution, products/equipment and services offered against this invitation for tender offer by the above firm and will extend technical support and updates and ensure availability of spares including processors for our products for contract period from the date of installation.

We (Manufacturer/Original Software Owner/Developer) also confirm that we will ensure all product updates (including management software updates and new product feature releases) are provided by M/s ....for all the products quoted for and supplied to the bank during the Contract period. In case this is not considered while quoting and in the event M/s .... fail in their --obligations to provide the updates within 30 days of release/announcement, we hereby confirm that we will provide the same to the bank at no additional cost to the bank and we will directly install the updates and updates and any new Operating Software releases at the bank's premises.

We also confirm that the proposed solution offered by the bidder to the Bank are correct, viable, technically feasible for implementation and the solution will work without any hassles in all the locations. We also confirm that all the equipment offered are not "End of Life" during the next One Year and "End of Support" for a minimum period of Six Years.

We hereby commit to the tender terms and conditions and will not withdraw our commitments during the process and or during the period of contract.

Yours faithfully

(Name)
For and on behalf of
M/s ....

Annexure- 14
Bill of Material

SUB: RFP for Procurement, Implementation and Maintenance of Mobile Application Security (MAS) solution for Canara Mobile Banking App for Android and iOS platform.

Ref: Your RFP 20/2019-20 dated 19/03/2020

Notes
1. These details should be on the letter head of Bidder and each & every page should be signed by an Authorised Signatory with Name and Seal of the Company.
2. Please be guided by RFP terms, subsequent amendments and replies to pre-bid queries (if any) while quoting.
3. Do not change the structure of the format nor add any extra items.
4. No counter condition/assumption in response to commercial bid will be accepted. Bank has a right to reject such bid.

Table -A
Price details for Implementing MAS Solution for Android and iOS version of Mobile Banking App Solution in Canara Bank

[Amount in Rupees]

Sl. No.	Requirement Details		Cost Price				AMC/ATS (as per Table C)*					Quantity	Total Cost with Three Year Comprehensive Onsite Warranty and Two Years AMC/ATS after Warranty period (Incl. of tax)
			Unit Price with Three years Comprehensive onsite warranty and support (Excl. of Tax) for EWS Solution	Tax for Column A		Unit Price with Three years Comprehensive onsite warranty and support (Incl. of Tax) for EWS Solution	Two years AMC/ ATS charges per unit after warranty period (Excl. of Tax)	Tax for Column E		Two years AMC/ ATS charges per unit after warranty period (incl. of tax)	Unit Price with Three Year Comprehensive Onsite Warranty and Two Years AMC/ATS after Warranty period(Incl. of tax)		
			A	B= % of tax	C= Tax Amt	D= A+C	E	F= % of Tax	G= Tax Amt	H=E+G	I=D+H	J	K= (IxJ)
1.	Hardware / Appliance including OS for DC	App Server											
		Web Server											
		Data base Server											
		Any other (add more rows of required)											
2.	Hardware / Appliance including OS for DR	App Server											
		Web Server											

		Data base Server														
		Any other (add more rows of required)														
3.	Hardware / Appliance including OS & other software for MAS Solution for UAT at DC	App Server														
		Web Server														
		Data base Server														
		Any other (add more rows of required)														
4.	Cost of Database Licenses (In case proposed database is Oracle then, Database cost to be indicated as Zero)														1	
5.	Any other Software/ Licenses															
6.	Total Cost of Ownership for Five years contract period (Sum of column k of rows 1,2,3,4 and 5)															

*Year wise breakup of AMC/ATS charges should be furnished in Table-F.

Bidder has to provide the adequate quantity in column J of Table -A as mentioned in Annexure-7 (B).

Table -B
Price details of MAS Software Solution

[Amount in Indian Rupees]

Sl. No.	Item Details	Cost Price				AMC/ATS (as per Table-G)**				Enterprise License Cost with 3 years Comprehensive onsite warranty and support and 2 Years ATS (Incl. of tax)
		Enterprise License Cost with 3 years Comprehensive onsite warranty and support (Excl. of Tax)	Tax for Column A		Enterprise License Cost with 3 years Comprehensive onsite warranty and support (Incl. of Tax)	Two (2) years ATS charges per unit after warranty period (Excl. of Tax)	Tax for Column E		Two (2) years ATS charges per unit after warranty period (Excl. of Tax)	
		A	B % of tax	C= Tax Amt.	D= A+C	E	F% of Tax	G= Tax Amt.	H=E+G	I=D+H
1.	Enterprise license for Mobile Application Security Solution for Android and iOS version.									

**Year wise breakup of ATS charges should be furnished in Table-G.

Table-C
One Time Training Charges

[Amount in Indian Rupees]

Sl. No.	Requirement	Training Charges Excl. of Taxes)	Tax for Column A		Training Charges (Incl. of Taxes)
			Tax %	Tax Value	
		a	b	c	d=a+c
1.	Training Charges for Clause no. 11 of Section B of the RFP				

Table-D
Charges for Onsite Resources

[Amount in Indian Rupees]

Sl. No.	Description	Charges for one resource Per Month [Excluding Tax]	No. of Months	No. of Resources	Charges for One resources for 56 Months [Excluding Tax]	Tax %	Tax Value	Charges for One resources for 56 Months [Including Tax]
		a	b	c	d=axbxc	e	f	g=d+f
1	Cost of Onsite Resources at Bengaluru		56	1				

** The bank will be at its discretion extend the Onsite resources for further one year after expiry at the same cost and T&C.

** Onsite resource will be deployed immediately after Go-Live of the solution.

*** The onsite support should be on-boarded immediately on delivery of hardware or the MAS Solution whichever is earlier as per the PO.

Table-E
Total Cost for 5 Years Contract Period

[Amount in Indian Rupees]

Sl. No.	Details	Total Cost of Ownership [inclusive of tax]
A	Total Cost for Hardware Items (Including OS & Licenses) as per Table-A [Total of Column K]	
B	Total cost of MAS Solutions as per Table-B [Total of Column I]	
C	Charges for Training for 1 Year as per Table-C [Column d]	
D	Charges for Onsite Resources for 1 Year Table-D [column g]	
E	Total Cost of Ownership [Sum of A, B, C and D of Table-E]	

केनरा बैंक **Canara Bank**

Table-F
Post Warranty AMC/ATS Calculation Table for Unit Quantity for Table-A

[Amount in Indian Rupees]

Sl. No.	Description		Post Warranty AMC/ATS Charges year wise***					
			4th Year AMC/ATS Charge (Excl. of tax)	5th Year AMC/ATS Charge (Excl. of tax)	Total AMC/ATS for 2 Years (Excl. of Tax)	Tax %	Tax in Amt.	Total AMC/ATS for 2 Years (Incl. of Tax)
			a	b	c=a+b	d	e	f=c+e
1.	Hardware/ Appliance including OS for DC	App Server						
		Web Server						
		Data base Server						
		Any other (add more rows of required)						
2.	Hardware/ Appliance including OS for DR	App Server						
		Web Server						
		Data base Server						
		Any other (add more rows of required)						
3.	Hardware/ Appliance including OS & other software for MAS Solution for UAT at DC. (specify the list of items serially)	App Server						
		Web Server						
		Data base Server						
		Any other (add more rows of required)						
4.	Cost of Database Licenses (In case proposed database is Oracle then, Database cost to be indicated as Zero)							
5.	Any other Software/ Licenses							

Table-G
Post Warranty AMC/ATS Calculation Table for Unit Quantity for Table-A

[Amount in Indian Rupees]

Sl. No.	Description	Post Warranty AMC/ATS Charges year wise****					
		4th Year AMC/ATS Charge (Excl. of tax)	5th Year AMC/ATS Charge (Excl. of tax)	Total AMC/ATS for 2 Years (Excl. of Tax)	Tax %	Tax in Amt.	Total AMC/ATS for 2 Years (Incl. of Tax)
		a	b	c=a+b	d	e	f=c+e
6.	Enterprise license for Mobile Application Security Solution for Android and iOS version.						

***The Charges mentioned in column 'c' of Table-F should tally with the charges mentioned under Column 'E' of Table-A. The Charges mentioned in column 'f' of Table-F should tally with the charges mentioned under Column 'H' of Table-A.

****The Charges mentioned in column 'c' of Table-G should tally with the charges mentioned under Column 'E' of Table-B. The Charges mentioned in column 'f' of Table-G should tally with the charges mentioned under Column 'H' of Table-B.

Undertaking:

i. Bill of material is submitted on the letter head and is signed by an Authorized Signatory with Name and Seal of the Company.

ii. We confirm that we have gone through RFP clauses, subsequent amendments and replies to pre-bid queries (if any) and abide by the same.

iii. We have not changed the structure of the format nor added any extra items. We note that any such alternation will lead to rejection of Bid.

iv. We agree that no counter condition/assumption in response to commercial bid will be accepted by the Bank. Bank has a right to reject such bid.

v. We are agreeable to the payment schedule as per "Payment Terms" of the RFP.

Date

Signature with seal
Name   :
Designation :

Appendix -A
Instructions to be noted while preparing/submitting Part A- Conformity to Eligibility Criteria

The Proposal should be made in an organized, structured, and neat manner. Brochures / leaflets etc. should not be submitted in loose form. All the pages of the submitted bids should be filed and paginated (serially numbered) with seal and signature (not initials) of the authorized signatory. **All the Annexures should be submitted in Bidder's Letter Head only.**

1) Index of all the documents submitted with page numbers.

2) Cost of Tender document by way of DD payable at Bengaluru / Exemption Certificate.

3) Earnest Money Deposit (EMD)/Bank Guarantee in lieu of EMD / exemption Certificate.

4) Self-Declaration of MSEs/Startup on their Letter Head as per Form PP – B.

5) Power of Attorney / Authorisation letter signed by the Competent Authority with the seal of the bidder's company / firm in the name of the person signing the tender documents.

6) Bid Covering letter as per **Annexure-1**.

7) Eligibility Criteria declaration as per **Annexure-2** with documentary proof in support of the Eligibility Criteria.

8) Bidder's Profile as per **Annexure-3**.

9) Service Support Details as per **Annexure-4**.

10) Track Record of Past Implementation of Projects as per **Annexure-5**.

11) Non-Disclosure Agreement as per **Annexure-6**.

12) Signed Pre Contract Integrity Pact as per **Appendix-I (available at URL: https://canarabank.com/english/announcements/important-rfptender-documents-of-dit-wing/)** on non-judicial Stamp paper.

13) Write up on the Work Experience / Expertise of MAS Solution for Android and iOS version of Mobile Banking App Solution.

14) Bidder should have central help Desk available on 24x7x365 basis for support and compliant booking. Details of the Help Desk phone no. & email ID has to be provided.

Appendix-B

Instructions to be noted while preparing/submitting Part B- Technical Proposal

The Technical Proposal should be made in an organized, structured, and neat manner. Brochures / leaflets etc. should not be submitted in loose form. All the pages of the submitted bids should be filed and paginated (serially numbered) with seal and signature (not initials) of the authorized signatory. **All the Annexures should be submitted in Bidder's Letter Head.** Technical Offer for this RFP shall be made as under:

1) Index of all the documents submitted with page numbers.

2) Compliance to Technical and Functional Requirements/specification for **Solution** should be complete with all columns filled in as per **Annexure-7.**

3) Compliance to the Scope of Work as per **Annexure-8.**

4) Undertaking Letter of Authenticity for Procurement, Implementation and Maintenance of MAS Solution for Android and iOS version of Mobile Banking App Solution for Credit Monitoring in Canara Bank as per **Annexure-9.**

5) Compliance Statement as per **Annexure-10.**

6) Undertaking Letter as per **Annexure-11.**

7) Escalation Matrix as per **Annexure-12.**

8) Manufacturer Authorization form as per **Annexure-13.**

9) Masked bill of Material as per **Annexure-14.**

10) Technical Documentation (Product Brochures, leaflets, manuals, drawings).

11) A detailed list of the other Infrastructure required and any other precautions to be undertaken should be given in detail along with the Technical Proposal.

12) Bidder has to provide detailed proposed BOM each line item wise for Solution, OS, Licenses for 5 Years as part of Technical Bid.

Appendix-C

Instruction to be noted while preparing/submitting Part C-Commercial Bid

The Commercial Bid should be made in an organized, structured, and neat manner. Brochures / leaflets etc., should not be submitted in loose form. All the pages of the submitted bids should be filed and paginated (serially numbered) with seal and signature of the authorized signatory. **All the Annexures should be submitted in Bidder's Letter Head.**

The suggested format for submission of commercial Offer for this RFP is as follows:

1) Bill of Materials as per **Annexure-14.**

Forms (Purchase Preference)	
Form PP-A	Undertaking for Applicability of Purchase Preference Policy
Form PP-B	Self-Declaration of MSEs and Startups
Form PP-C	Undertaking by Bidder towards Mandatory Minimum LC (Local Content)
Form PP-D	Certificate by Statutory Auditor of Bidder towards Mandatory Minimum LC
MeitY Form - 1	Affidavit of Self Certification regarding Domestic Value Addition in an Electronic Product
DoT Form - 1	Self-Certification regarding Local Content (LC) for Telecom Product, Services or Works
Bid Formats	
Appendix D	Format for Sending Prebid Queries.
Appendix E	Authorization Letter Format.
Bank Guarantee Formats	
Appendix-F	Bank Guarantee Format for Earnest Money Deposit.
Appendix G	Proforma of Bank Guarantee for Contract Performance.
Appendix H	Format for Bank Guarantee for Advance Warranty Payment. (Not Applicable)
Pre Contract Integrity Pact	
Appendix I	Pre Contract Integrity Pact.
Reverse Auction Formats (Not Applicable)	
Appendix J	Business Rules and Terms and Conditions of Reverse Auction.
Appendix J (1) & Appendix J(3)	Format to be submitted before commencement of Reverse Auction.
Appendix J(2)	Format to be submitted after Reverse Auction by L1 vendor.
Appendix K	**Format for Proof of Concept for Mobile Application Security (MAS) Solution.**

Appendix - K

POC of the proposed solution is being done to evaluate the effectiveness of solution and the ease of the integration with the Canara Bank's Mobile Banking App. The Bidder / OEM needs to complete the POC in a period not more than thirty days (30) from the date of initiation of the activity.

1. The complete hardware and software for the POC needs to be provided by the Bidder/OEM.

2. The Bidder/OEM needs to coordinate with the Application development teams for integration of the solution with the Mobile App.

3. The Bidder/OEM needs to demonstrate the protection capabilities of the solution by creating an test environment containing major banking malwares (Ex. Zeus, Trojan Ramnit, Ursnif, Trickbot), Remote access tools (Ex Anydesk) , emulators, Jailbroken devices etc.

4. The POC use cases contain "Must Have" and "Good to Have" capabilities in the solution. The Bidder/OEM has to demonstrate all the "Must Have" features and all the "Good to Have" features if the same is marked as available in the technical Specification Requirement as per Annexure-7 of the RFP. If Bidder is not able to demonstrate/showcase "Good to Have" features during the POC, Bidder will be awarded zero (0) marks for the same, even if Bidder has confirmed compliance as "FC" in Annexure-7.

5. Bank will conduct a Penetration test of the App post integration of the solution. The Bidder/OEM can also conduct a pre and post Penetration test of the Application through in-house or reputed firms and showcase the vulnerabilities mitigate by the solution. However, Bank will take the final call on effectiveness of the solution.

6. A major focus of the POC will be on the performance of the App post the integration with the solution. The Bidder/OEM needs to suggest proper configurations to the development teams for minimal impact to the app.

7. Where ever possible the solution (Sdk integration with the app) should be configured in protection mode with the app else the Bidder/OEMs should inform the alerts, callbacks generated by the solution be used by the App for blocking/ Alerts to user.

Sl. No.	Test Cases	Requirement Specification	Success/ Failed
1.	Detection of rooted Android or jailbroken iOS mobile device.	Must Have	
2.	Mobile application repackage detection	Must Have	
3.	The Device Fingerprint should be secure and cannot be spoofed on a different device.	Must Have	
4.	The device fingerprint should be unique and should be created using multiple elements from the mobile device and software.	Must Have	
5.	Integrity checks should be available on the solution to detect Code tampering and code injection.	Must Have	
6.	Detection against hooking framework.	Must Have	
7.	Detection against external debugger.	Must Have	
8.	Integrity checks to detect malicious activities such as key logger detection.	Must Have	
9.	Detection and protection of app from running on Emulators or remote access tools.	Must Have	
10.	Detection and protection of the App against mobile screen overlays.	Must Have	

11.	Detection and protection of mobile application against untrusted keyboard application.	Must Have	
12.	Detection of screen mirroring when the Mobile app is open on the device.	Must Have	
13.	Protection of data stored by the Mobile App locally on the device through strong encryption mechanism.	Must Have	
14.	Detection and prevention of the app against man in the middle attacks.	Must Have	
15.	One touch bypass capability . The same needs to be demonstrated only in case the solution is inline between the customer app and the servers hosted in datacenter and failure of the solution will result in interruption of Mobile Application.	Must Have	
16.	Solution Support for both native platforms such as Apple iOS and Google Android as well as mobile application development frameworks such as Cordova etc. The Bidder/OEM has to demonstrate that the app works in native platforms and share the whitepapers on the different frameworks supported by the solution.	Must Have	
17.	Malware detection through mechanisms configured on the App (using SDK) or at centralized servers hosted in Datacenter.	Must have	
18.	Detection of malware at startup and at runtime. The Bidder/OEM needs to demonstrate the capability of the solution to stop the app or notify the user in case of detection. The configuration for the same can either be on the solution or the app (for which the Bidder/OEM needs to coordinate with the App developer for making the necessary changes.	Must Have	
19.	Demonstration on the features available in the management portal for the solution.	Must have	
20.	Parameters available in the management dashboard such as device OS, device fingerprint, date etc.	Must Have	
21.	Portal should enforce a minimum password length of 8 characters which are a combination of alpha numeric characters.	Must Have	
22.	Role base access controls in case where the application provides different levels of privileges for administration.	Must have	
23.	Usage of secure channel for communication of the app with the servers hosted in datacenter using secure protocols such as TLS 1.1, TLS 1.2 etc., encryption standards such as AES 256 etc.	Must Have	
24.	The solution should not result in negligible performance impact on the application. The performance testing of the app will be done in coordination with the Mobile Banking application development teams.	Must have	
25.	System integrity checks to detect backdoors and rootkits.	Good to Have	
26.	The solution should provide a secure keyboard to the Mobile Banking App	Good to Have	

27.	Code obfuscation of the Mobile App. The demonstration in POC includes but not limited to the following code obfuscation mechanism:
	   - class renaming and randomization
	   - method renaming and randomization
	   - namespace flattening
	   - debug information removal
	   - java annotation removal
	   - code shuffling
	   -encryption of strings and constants in the code.
		Good to have	

28.	In built features in the solution to provide threat response through customizable features such as Alert, disable, bypass or quit the app	Good to Have	
29.	The cryptographic modules or protocols used in the solution should be validated by agencies such as NIST (FIPS 140-2) or comparable agencies.	Good to have	
30.	Reports auto generated from the portal at regular frequency such as weekly, monthly etc.	Good to Have	
31.	The solution should have the provision for centralized intelligence gathering, security profile configuration, over the air updates to be sent to the mobile device	Good to Have	