



**REQUEST FOR EXPRESSION OF INTEREST
FOR PROCUREMENT OF BEHAVIORAL BIOMETRIC SOLUTION**

**Ref: SBI: SBI/GITC/IT-ATM/2024/2025/49
dated : 01/07/2024**

***IT-PRM Department
Ground Floor, MTNL Building
GITC, Sector 11, CBD Belapur
Navi Mumbai, Maharashtra
400614***

Schedule of Events

SI No	Particulars	Remarks
1	Contact details of issuing department (Name, Designation, Mobile No., Email and office address for sending any kind of correspondence regarding this EOI)	Name: ASN Murthy Designation: DGM (IT-PRM) Email ID: dgmit.prm@sbi.co.in Contact Address: IT-PRM Department Ground Floor, MTNL Building GITC, Sector-11, CBD Belapur Navi Mumbai, Maharashtra Contact Number:9987897131
2	Bid Document Availability including changes/amendments, if any, to be issued	EOI may be downloaded from Bank's website https://www.sbi.co.in procurement news from 02.07.2024 to 23.07.2024
3	Last date for requesting clarification	Up to 17:00 HRS (time) on 08.07.2024 All communications regarding points / queries requiring clarifications shall be given in writing or by e-mail.
4	Pre - bid Meeting at (venue)	From 15:00 HRS to 17:00 HRS on 10.07.2024 at through online meeting
5	Clarifications to queries raised at pre-bid meeting will be provided by the Bank.	On 16.07.2024(date)
6	Last date and time for Bid submission	Up to 15:00 HRS on 23.07.2024
7	URL Address for submission of Bids <i>(No physical document Bids are accepted)</i>	https://etender.sbi/SBI/

8	Date and Time of opening of Technical Bids	16:00 HRS on 23.07.2024 (date) Authorized representatives of Bidders may be present online during the opening of the Technical Bids. However, Technical Bids would be opened even in the absence of any or all of the Bidders' representatives.
11	Tender Fee	Rs. _25,000/- _____ Amount should be deposited in A/c No: _4897932113433 IFSC: __ SBIN0011343 Account Name: Subsidy Inward Remittance (If Mode of Transaction is NEFT and RTGS) _____ Account No: 37608352111 IFSC: SBIN0011343 Branch: OAD, GITC, Belapur Account Name: System Suspense Branch Parking Account If Mode of Transaction is Intra-bank transfer (i.e. SBI to SBI only) Tender fee will be non-refundable. Proof of tender fee payment to be uploaded along with the technical bid.
12	Contact details of e-Procurement agency appointed for e-procurement	M/s E-Procurement Technologies Ltd, Ahmedabad Website: https://etender.sbi/SBI/ Email – eTender.Support@sbi.co.in, rupesh.c@auctiontiger.net Support Help Desk Numbers – 6352631766, 9265562819, 7859800621, 7990334985 DSC related inquiry - info@abcProcure.com & Mobile Number - 9099090830

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1. INVITATION TO BID:

- i. **State Bank of India** (herein after referred to as '**SBI/the Bank**'), having its Corporate Centre at Mumbai, various other offices (LHOs/ Head Offices /Zonal Offices/Global Link Services, Global IT Centre, foreign offices etc.) of State Bank of India, branches/other offices, Subsidiaries and Joint Ventures available at various locations and managed by the Bank (collectively referred to as **State Bank Group or 'SBG'** hereinafter). This Request for EOI is issued by **the Bank** on behalf of **SBG** for procurement of Behavioral Biometrics Solution.
- ii. In order to meet the IT requirements, the Bank proposes to invite **online EOI** from eligible Bidders wishing to be considered for short listing for participating in bidding process of the proposed procurement.
- iii. Bidder shall mean any entity (i.e. juristic person) who meets the eligibility criteria given in **Appendix-B** of this EOI and willing to provide the product and services required by the Bank through RFP process in pursuant to this EOI. The interested Bidders who agree to all the terms and conditions contained in this EOI may submit their Bids with the information desired in this EOI. Consortium bidding is not permitted under this EOI.
- iv. Address for submission of online Bids, contact details including email address for sending communications are given in Schedule of Events of this EOI.
- v. The objective of this EOI is to identify eligible Bidders who are interested in providing the required product and services and have suitable capacity, capability and experience.
- vii. Public procurement (preference to make in India) order 2017 and any amendment/clarification thereto shall be applicable to the RFP floated in pursuant to this EOI.
- viii. This EOI document shall not be transferred, reproduced or otherwise used for purpose other than for which it is specifically issued.
- ix. Interested Bidders are advised to go through the entire EOI before submission of online Bids to avoid any chance of elimination. The criteria and the actual process of evaluation of the responses to this EOI and

subsequent selection of the successful Bidder will be entirely at Bank's discretion.

2. **BACKGROUND:**

State Bank of India or SBG intends to procure an enterprise wide Behavioral Biometric solution for its device based channel applications (web and app) to proactively profile its customers and their behavioral patterns such as mouse activity, keyboard activity, keyboard dynamics, touchscreen behavior, swipe pattern, mobile device movement, presence of remote access tool, presence of malware while using these end points/devices so that alerts as per the severity of the behavior and device fingerprinting shall be generated to complement the existing Proactive Risk Manager (PRM) application which is a primary application for fraud risk management solution which monitors the digital transactions in real-time.

3. **DISCLAIMER:**

- i. The information contained in this EOI or information provided subsequently to Bidder(s) whether verbally or in documentary form/email by or on behalf of SBI, is subject to the terms and conditions set out in this EOI.
- ii. This EOI is not an offer by SBI, but an invitation to receive responses from the eligible Bidders.
- iii. The purpose of this EOI is to provide the Bidder(s) with information to assist preparation of their Bid proposals. This EOI does not claim to contain all the information each Bidder may require. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information contained in this EOI and where necessary obtain independent advice/clarifications. Bank may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this EOI.
- iv. The Bank, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this EOI or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the EOI and any assessment, assumption, statement or information contained therein or deemed to form or arising in any way for participation in this EOI.

- v. The Bank also accepts no liability of any nature whether resulting from negligence or otherwise, howsoever caused arising from reliance of any Bidder upon the statements contained in this EOI.
- vi. The Bidder is expected to examine all instructions, forms, terms and specifications in this EOI. Failure to furnish all information required under this EOI or to submit a Bid not substantially responsive to this EOI in all respect will be at the Bidder's risk and may result in rejection of the Bid.
- vii. The issue of this EOI does not imply that the Bank is bound to select a Bidder or subsequently to award the contract to the shortlisted Bidder, as the case may be, for the project and the Bank reserves the right to reject all or any of the Bids or Bidders without assigning any reason.

4. **DEFINITIONS:**

In this connection, the following terms shall be interpreted as indicated below:

- i. **"The Bank"** 'means the State Bank of India (including domestic branches and foreign offices), Subsidiaries and Joint Ventures, where the Bank has ownership of more than 50% of voting securities or the power to direct the management and policies of such Subsidiaries.
- ii. **"Bidder/Channel Partner"** means an eligible entity/firm submitting the Bid in response to this EOI.
- iii. **"Bid"** means the written reply or submission of response to this EOI.
- iv. **Pattern"** or **"behavioral patterns"** means mouse activity, keyboard activity, keyboard dynamics, touchscreen behavior, swipe dynamics, mobile device movement, presence of remote access tool, presence of malware etc. while using end points/devices/systems.

5. **ELIGIBILITY AND TECHNICAL CRITERIA/SCOPE OF WORK:**

- i. Bid is open to all Bidders who meet the eligibility and technical criteria/scope of work as given in **Appendix-B & Appendix-C** of this EOI. The Bidder has to submit the documents substantiating eligibility criteria as mentioned in this EOI document.
 - (a) If any Bidder submits Bid on behalf of Principal/OEM, the same Bidder shall not submit a Bid on behalf of another Principal/OEM under the

EOI. Bid submitted with options of multiple OEMs shall also be considered Bid submitted on behalf of multiple OEMs.

(b) Either the Bidder on behalf of Principal/OEM or Principal/OEM itself is allowed to Bid, however both cannot Bid simultaneously.

6. COST OF BID DOCUMENT:

The participating Bidders shall bear all the costs associated with or relating to the preparation and submission of their Bids including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstration or presentations which may be required by the Bank or any other costs incurred in connection with or relating to their Bid. The Bank shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder regardless of the conduct or outcome of the bidding process.

7. CLARIFICATION AND AMENDMENTS ON EOI/PRE-BID MEETING:

- i. Bidder requiring any clarification on EOI may notify the Bank in writing strictly as per the format given in **Appendix-E** at the address/by e-mail within the date/time mentioned in the Schedule of Events.
- ii. All queries to be raised in the pre-bid meeting will relate to the EOI alone and no queries related to detailed analysis of scope of work, payment terms and mode of selection will be entertained. These issues will be amply clarified at the RFP stage.
- iii. A pre-Bid meeting will be held in person or online on the date and time specified in the Schedule of Events which may be attended by the authorized representatives of the Bidders interested to respond to this EOI.
- iv. The queries received (without identifying source of query) and response of the Bank thereof will be posted on the Bank's website or conveyed to the Bidders.
- v. The Bank reserves the right to amend, rescind or reissue the EOI, at any time prior to the deadline for submission of Bids. The Bank, for any reason, whether, on its own initiative or in response to a clarification requested by a prospective Bidder, may modify the EOI, by amendment which will be made available to the Bidders by way of corrigendum/addendum. The interested parties/Bidders are advised to check the Bank's website regularly till the

date of submission of Bid document specified in the Schedule of Events/email and ensure that clarifications/ amendments issued by the Bank, if any, have been taken into consideration before submitting the Bid. Such amendments/clarifications, if any, issued by the Bank will be binding on the participating Bidders. Bank will not take any responsibility for any such omissions by the Bidder. The Bank, at its own discretion, may extend the deadline for submission of Bids in order to allow prospective Bidders a reasonable time to prepare the Bid, for taking the amendment into account. Nothing in this EOI or any addenda/corrigenda or clarifications issued in connection thereto is intended to relieve Bidders from forming their own opinions and conclusions in respect of the matters addresses in this EOI or any addenda/corrigenda or clarifications issued in connection thereto.

- vi. Queries received after the scheduled date and time will not be responded/acted upon.

8. CONTENTS OF EOI DOCUMENT:

- i. The Bidder must thoroughly study/analyse and properly understand the contents of this EOI, its meaning and impact of the information contained therein.
- ii. Failure to furnish all information required in this EOI or submission of Bid not responsive to this EOI in any respect will be at the Bidder's risk and responsibility and the same may finally result in rejection of its Bid. The Bank has made considerable effort to ensure that accurate information is contained in this EOI and is supplied solely as guidelines for Bidders.
- iii. The Bid prepared by the Bidder, as well as all correspondences and documents relating to the Bid exchanged by the Bidder and the Bank and supporting documents and printed literature shall be submitted in English.
- iv. The information provided by the Bidders in response to this EOI will become the property of the Bank and will not be returned. Incomplete information in Bid document may lead to non-consideration of the proposal.

9. BID PREPARATION AND SUBMISSION:

- i. The Bid is to be submitted on portal of e-Procurement agency for EOI of **Procurement Of Behavioural Biometric Solution** in response to the EOI No. **SBI/GITC/IT-ATM/2024/2025/49** dated **01.07.2024**. Documents

mentioned below are to be uploaded on portal of e-Procurement agency (<https://etender.sbi/sBI>) with **digital signature of authorised signatory**:

- (a) Index of all the documents, letters, bid forms etc. submitted in response to EOI along with page numbers.
- (b) Bid covering letter/Bid form on the lines of **Appendix-A** on Bidder's letter head.
- (c) Proof of remittance of Tender Fee as specified in this document.
- (d) Specific response with supporting documents in respect of Eligibility Criteria as mentioned in **Appendix-B** and technical criteria/scope of work on the lines of **Appendix-C**.
- (e) Bidder's details as per **Appendix-D** on Bidder's letter head.
- (f) Audited financial statement and profit and loss account statement as mentioned in Part-II.
- (g) A copy of board resolution along with copy of power of attorney (POA wherever applicable) showing that the signatory has been duly authorized to sign the Bid document.
- (h) If applicable, copy of registration certificate issued by competent authority as mentioned in **SI No 2 of Eligibility Criteria** under **Appendix-B**.

ii. Bidders may please note:

- (a) While submitting the Technical Bid, literature on the proposed solution/services should be segregated and kept together in one section.
- (b) The Bid document shall be complete in accordance with various clauses of the EOI document or any addenda/corrigenda or clarifications issued in connection thereto, duly signed by the authorized representative of the Bidder. Board resolution authorizing representative to Bid and make commitments on behalf of the Bidder is to be attached.
- (c) It is mandatory for all the Bidders to have class-III Digital Signature Certificate (DSC) (in the name of person who will sign the Bid) from any of the licensed certifying agency to participate in this EOI. DSC should be in the name of the authorized signatory. It should be in corporate capacity (that is in Bidder capacity).
- (d) If deemed necessary, the Bank may seek clarifications on any aspect from the Bidder. However, that would not entitle the Bidder to change or cause any change in the substances of the Bid already submitted.
- (e) The Bidder may also be asked to give presentation for the purpose of clarification of the Bid.
- (f) The Bidder must provide specific and factual replies to the points raised in the EOI.

- (g) The Bid shall be typed or written and shall be digitally signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract.
- (h) All the enclosures (Bid submission) shall be serially numbered.
- (i) The Bank reserves the right to reject Bids not conforming to above.
- (j) The Bid document shall be complete in accordance with various clauses of the EOI document or any addenda/corrigenda or clarifications issued in connection thereto, duly signed by the authorized representative of the Bidder. Board resolution authorizing representative to Bid and make commitments on behalf of the Bidder is to be attached.
- (k) Bidder(s) should prepare and submit their online Bids well in advance before the prescribed date and time to avoid any delay or problem during the bid submission process. The Bank shall not be held responsible for any sort of delay, or the difficulties faced by the Bidder(s) during the submission of online Bids.
- (l) Bidder(s) should ensure that the Bid documents submitted should be free from virus and if the documents could not be opened, due to virus or otherwise, during Bid opening, the Bid is liable to be rejected.

10. DEADLINE FOR SUBMISSION OF BIDS:

- i. Bids must be submitted online on portal of e-Procurement agency by the date and time mentioned in the "Schedule of Events".
- ii. In the event of the specified date for submission of Bids being declared a holiday for the Bank, the Bids will be received up to the appointed time on the next working day.
- iii. In case the Bank extends the scheduled date of submission of Bid document, the Bids shall be submitted by the time and date rescheduled. All rights and obligations of the Bank and Bidders will remain the same.

11. MODIFICATION AND WITHDRAWAL OF BIDS:

- i. The Bidder may modify or withdraw its Bid after the Bid's submission, provided that modification, including substitution or withdrawal of the Bids, is received on e-procurement portal, prior to the deadline prescribed for submission of Bids.
- ii. No modification in the Bid shall be allowed, after the deadline for submission of Bids.

12. BIDDING PROCESS/OPENING OF TECHNICAL BIDS:

- i. All Bids received up to the specified time and date will be opened for initial evaluation on the time and date mentioned in the schedule of events. The Bids will be opened in the presence of representatives of the Bidders who choose to attend the same on portal of e-Procurement agency. However, Bids may be opened even in the absence of representatives of one or more of the Bidders.
- ii. Prior to the detailed evaluation, the Bank will determine the responsiveness of each Bid to the EOI. For purposes of these Clauses, a responsive Bid is one, which conforms to all the terms and conditions of the EOI in toto, without any deviation.
- iii. If a Bid is not responsive, it will be rejected by the Bank and will not subsequently be made responsive by the Bidder by correction of the non-conformity.
- iv. After examining the EOI, some or all of the Bidders may be asked to make presentation of the solution and demonstrate proof of concept (POC). The Bidder shall bear all costs associated with submission of EOI, presentation/POC desired by the Bank. The Bank shall not be responsible or liable for any cost thereof, regardless of the conduct or outcome of the process.
- v. SBI may shortlist the Bidders who fulfill the eligibility and technical criteria specified in this EOI, have solution/services as per the requirement of the Bank and are agreeing to abide by the terms and conditions of the Bank. Bank's judgment in this regard will be final.
- vi. Bank may issue a Request for Proposal (RFP) to shortlisted Bidder for next process of procurement. However, please note that short listing of Bidders should not be treated as a contract for the proposed work.
- vii. Nothing contained in this EOI shall impair the Bank's Right to issue 'Open RFP' on the proposed solution/services.

- viii. Bidders will be advised about shortlisting of their EOIs or otherwise. However, Bidders will not be provided with information about comparative position of their EOIs with that of others.

13. CONFLICT OF INTEREST:

- i. Bidder shall not have a conflict of interest (the “Conflict of Interest”) that affects the bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified without prejudice to any other right or remedy that may be available to the Bank under the EOI and/ or the subsequent RFP or otherwise.
- ii. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the bidding Process, if:
- (a) the Bidder, its Member or Associate (or any constituent thereof) and any other Bidder, its Member or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, its Member or an Associate thereof (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Bidder, Member or Associate, as the case may be) in the other Bidder, its Member or Associate, has less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in section 2(72) of the Companies Act, 2013. For the purposes of this Clause, indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the “Subject Person”) shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or

- (b) a constituent of such Bidder is also a constituent of another Bidder; or
 - (c) such Bidder, its Member or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder, its Member or any Associate thereof; or
 - (d) such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or
 - (e) such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party/parties, that puts either or both of them in a position to have access to each other's information about, or to influence the Bid of either or each other; or
 - (f) such Bidder or any of its affiliates thereof has participated as a consultant to the Bank in the preparation of any documents, design or technical specifications of the EOI.
- iii. For the purposes of this EOI, Associate means, in relation to the Bidder, a person who controls, is controlled by, or is under the common control with such Bidder (the "Associate"). As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law or by contract.

14. CODE OF INTEGRITY AND DEBARMENT/BANNING:

- i. The Bidder and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the bidding Process. Notwithstanding anything to the contrary contained herein, the Bank shall reject Bid without being liable in any manner whatsoever to the Bidder if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt/fraudulent/coercive/undesirable or restrictive practices in the bidding Process.
- ii. Bidders are obliged under code of integrity to Suo-moto proactively declare any conflicts of interest (pre-existing or as and as soon as these arise at any stage) in EOI process or execution of contract. Failure to do so would amount to violation of this code of integrity.

- iii. Any Bidder needs to declare any previous transgressions of such a code of integrity with any entity in any country during the last three years or of being debarred by any other procuring entity. Failure to do so would amount to violation of this code of integrity.
- iv. For the purposes of this clause, the following terms shall have the meaning hereinafter, respectively assigned to them:
- (a) **“corrupt practice”** means making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process or contract execution.
 - (b) **“Fraudulent practice”** means any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained, or an obligation avoided. This includes making false declaration or providing false information for participation in a EOI process or to secure a contract or in execution of the contract.
 - (c) **“Coercive practice”** means harming or threatening to harm, persons or their property to influence their participation in the procurement process or affect the execution of a contract.
 - (d) **“Anti-competitive practice”** means any collusion, bid rigging or anti-competitive arrangement, or any other practice coming under the purview of the Competition Act, 2002, between two or more bidders, with or without the knowledge of the Bank, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels.
 - (e) **“Obstructive practice”** means materially impede the Bank’s or Government agencies investigation into allegations of one or more of the above mentioned prohibited practices either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements to investigators and/or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or by impeding the Bank’s rights of audit or access to information;

v. **Debarment/Banning**

Empanelment/participation of Bidders and their eligibility to participate in the Bank's procurements is subject to compliance with code of integrity and performance in contracts as per terms and conditions of contracts. Following grades of debarment from empanelment/participation in the Bank's procurement process shall be considered against delinquent Vendors/Bidders:

(a) Holiday Listing (Temporary Debarment - suspension):

Whenever a Bidder is found lacking in performance, in case of less frequent and less serious misdemeanors, the Bidders may be put on a holiday listing (temporary debarment) for a period upto 12 (twelve) months. When a Bidder is on the holiday listing, he is neither invited to bid nor are his bids considered for evaluation during the period of the holiday. The Bidder is, however, not removed from the list of empaneled vendors, if any. Performance issues which may justify holiday listing of the Vendor are:

- Vendors who have not responded to requests for quotation/tenders consecutively three times without furnishing valid reasons, if mandated in the empanelment contract (if applicable);
- Repeated non-performance or performance below specified standards (including after sales services and maintenance services etc.);
- Bidders undergoing process for removal from empanelment/participation in procurement process or banning/debarment may also be put on a holiday listing during such proceedings.

(b) Debarment from participation including removal from empanelled list

Debarment of a delinquent Bidder (including their related entities) for a period (one to two years) from the Bank's procurements including removal from empanelment, wherever such Bidder is empaneled, due to severe deficiencies in performance or other serious transgressions. Reasons which may justify debarment and/or removal of the Bidder from the list of empaneled vendors are:

- Without prejudice to the rights of the Bank under Clause 14(i) hereinabove, if a Bidder is found by the Bank to have directly or indirectly or through an agent, engaged or indulged in any corrupt/fraudulent/coercive/undesirable or restrictive practices during the bidding Process, such Bidder shall not be eligible to participate in any

EOI/RFP issued by the Bank during a period of 2 (two) years from the date of debarment.

- The Bidder fails to abide by the terms and conditions or to maintain the required technical/operational staff/equipment or there is change in its production/service line affecting its performance adversely, or fails to cooperate or qualify in the review for empanelment.
- If Bidder ceases to exist or ceases to operate in the category of requirements for which it is empaneled.
- Bankruptcy or insolvency on the part of the Bidder as declared by a court of law; or
- Banning by Ministry/Department or any other Government agency.
- Other than in situations of force majeure, technically qualified Bidder withdraws from the procurement process or after being declared as successful bidder: (i) withdraws from the process; (ii) fails to enter into a Contract; or (iii) fails to provide performance guarantee or any other document or security required in terms of the RFP documents.
- If the Central Bureau of Investigation/CVC/C&AG or Vigilance Department of the Bank or any other investigating agency recommends such a course in respect of a case under investigation.
- Employs a Government servant or the Bank's Officer within two years of his retirement, who has had business dealings with him in an official capacity before retirement; or
- Any other ground, based on which the Bank considers, that continuation of Contract is not in public interest.
- If there is strong justification for believing that the partners/directors/proprietor/agents of the firm/company has been guilty of violation of the code of integrity or Integrity Pact (wherever applicable), evasion or habitual default in payment of any tax levied by law; etc.

(c) Banning from Ministry/Country-wide procurements

For serious transgression of code of integrity, a delinquent Bidder (including their related entities) may be banned/debarred from participation in a procurement process of the Bank including procurement process of any procuring entity of Government of India for a period not exceeding three years commencing from the date of debarment.

15. GOVERNING LANGUAGE:

The governing language shall be English.

16. APPLICABLE LAW:

The Contract shall be interpreted in accordance with the laws of the Union of India and shall be subjected to the exclusive jurisdiction of courts at Mumbai.

17. TENDER FEE:

Non-refundable Tender Fee should be directly credited to the designated account as mentioned in Schedule of Events. Proof of remittance of Tender Fee in the designated account should be enclosed with the technical bid. The Bids without tender fee will not be considered valid.

EXEMPTION OF EMD AND TENDER FEE:

Micro & Small Enterprises (MSE) units and Start-ups are exempted from payment of EMD and tender fee provided the products and/or services they are offering, are manufactured and/or services rendered by them. Exemption as stated above is not applicable for selling products and/or services, manufactured/ rendered by other companies.

Bidder should submit supporting documents issued by competent Govt. bodies to become eligible for the above exemption.

Bidders may please note:

- i. NSIC certificate/ Udyog Aadhar Memorandum/Udyam Registration Certificate should cover the items tendered to get EMD/tender fee exemptions. Certificate/ Memorandum should be valid as on due date / extended due date for Bid submission.
- ii. Bidder who solely on its own, fulfils each eligibility criteria condition as per the RFP terms and conditions and who are having MSE or Start-up company status, can claim exemption for EMD/ tender fee.
- iii. If all these conditions are not fulfilled or supporting documents are not submitted with the technical Bid, then all those Bids without tender fees /EMD will be summarily rejected and no queries will be entertained.

18. NOTICES:

Any notice given by one party to the other pursuant to this EOI shall be sent to other party in writing and confirmed in writing to other Party's address. The notice shall be effective when delivered or on the notice's effective date whichever is later.

19. OTHER TERMS & CONDITIONS

- i. Lodgement of an EOI is evidence of a Bidder's consent to comply with the terms and condition of Request for EOI process and subsequent bidding process. If a Bidder fails to comply with any of the terms, its EOI may be summarily rejected.
- ii. Willful misrepresentation of any fact within the Bid will lead to the disqualification of the Bidder without prejudice to other actions that the Bank may take. All the submissions, including any accompanying documents, will become property of the Bank. The Bidders shall be deemed to license, and grant all rights to the Bank, to reproduce the whole or any portion of their Bid document for the purpose of evaluation and to disclose the contents of submission for regulatory and legal requirements.
- iii. Bidders must advise the Bank immediately in writing of any material change to the information contained in the EOI application, including any substantial change in their ownership or their financial or technical capacity. Copies of relevant documents must be submitted with their advices. For shortlisted Bidders, this requirement applies until a contract is awarded as a result of subsequent bidding process.
- iv. Shortlisted Bidders must not advertise or publish the same in any form without the prior written consent of SBI.
- v. Brief overview of the proposed procurement/scope of work given in this document may be further elaborated, viz., more details may be included in the Request for Proposal (RFP) document to be issued as a result of evaluation process of EOIs.
- vi. The Bank reserves the right to formulate any terms & conditions while framing the RFP, even if these are in variance with the terms provided in this EOI. Further, the Bidders shall have no claim in this regard.
- vii. The Bank shall have the right to cancel the EOI process itself at any time, without thereby incurring any liabilities to the affected Bidders. Reasons for cancellation, as determined by the Bank in its sole discretion include but are not limited to, the following:
 - a. Services contemplated are no longer required.



- b. Scope of work not adequately or clearly defined due to unforeseen circumstance and/or factors and/or new developments.
- c. The project is not in the best interest of the Bank.
- d. Any other reason.



PART - II

BID FORM (TECHNICAL BID)

[On Bidder's letter head]

Date: _____

To:
DGM IT-PRM
IT-PRM Department
Ground Floor, MTNL Building
GITC, Sector-11, CBD Belapur
Navi Mumbai, Maharashtra -400614

Dear Sir,

Ref: EOI No. SBI/GITC/IT-ATM/2024/2025/49 dated 01.07.2024

~~~~~

We have examined the above EOI, the receipt of which is hereby duly acknowledged and subsequent pre-bid clarifications/ modifications / revisions, if any, furnished by the Bank. We submit our bid and shall abide by the terms and conditions spelt out in the EOI.

**i. While submitting this Bid, we certify that:**

- The undersigned is authorized to sign on behalf of the Bidder and the necessary support document delegating this authority is enclosed to this letter.
  - We declare that we are not in contravention of conflict-of-interest obligation mentioned in this EOI.
  - We have not induced or attempted to induce any other Bidder to submit or not to submit a Bid for restricting competition.
- ii. We undertake that, in competing for the above EOI, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".
- iii. We undertake that we will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Bank, connected directly or indirectly with this EOI process, or to any person, organisation or third party

related to this EOI in exchange for any advantage in the EOI, evaluation and shortlisting.

- iv. We undertake that we will not resort to canvassing with any official of the Bank, connected directly or indirectly with the EOI process to derive any undue advantage. We also understand that any violation in this regard, will result in disqualification of bidder from further bidding process.
- v. It is further certified that the contents of our Bid are factually correct. We have not sought any deviation to the terms and conditions of this EOI. We also accept that in the event of any information / data / particulars proving to be incorrect, the Bank will have right to disqualify us from the EOI or any subsequent bidding process without prejudice to any other rights available to the Bank.
- vi. We certify that while submitting our Bid document, we have not made any changes in the contents of the EOI, read with its amendments/clarifications provided by the Bank.
- vii. We understand that you are not bound to accept any Bid you may receive, and you may reject all or any Bid without assigning any reason or giving any explanation whatsoever.
- viii. We hereby certify that our name does not appear in any "Caution" list of RBI / IBA or any other regulatory body for outsourcing activity.
- ix. We hereby certify that on the date of submission of Bid for this EOI, we are not under any debarment/blacklist period for breach of contract/fraud/corrupt practices by any Scheduled Commercial Bank/ Public Sector Undertaking/ State or Central Government or their agencies/departments.
- x. We hereby certify that on the date of submission of Bid, we do not have any Service Level Agreement pending to be signed with the Bank for more than 6 months from the date of issue of purchase order.
- xi. We hereby certify that we have read the clauses contained in O.M. No. 6/18/2019-PPD, dated 23.07.2020 order (Public Procurement No. 1), order (Public Procurement No. 2) dated 23.07.2020 and order (Public Procurement No. 3) dated 24.07.2020 regarding restrictions on procurement from a bidder of a country which shares a land border with India. We further certify that we **and our OEM** are not from such a country or if from a country, has been registered with competent authority. We certify that we **and our OEM** fulfil all the requirements in this regard and **are** eligible to participate in this EOI.



- xii. We, further, hereby undertake and agree to abide by all the terms and conditions stipulated by the Bank in the EOI document.

Dated this ..... day of ..... 202

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name)

(In the capacity of)

Duly authorised to sign Bid for and on behalf of  
\_\_\_\_\_

**Seal of the company.**



**Appendix-B**

**Bidder's Eligibility Criteria**

Bidders meeting the following criteria are eligible to submit their Bids along with supporting documents. If the Bid is not accompanied by all the required documents supporting eligibility criteria, the same would be rejected:

| S. No. | Eligibility Criteria                                                                                                                                                                                                                                                     | Compliance (Yes/No) | Documents to be submitted                                                                                                                                                                                                                                                                                                        |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.     | The Bidder must be a Company/LLP /Partnership firm registered under applicable Act.                                                                                                                                                                                      |                     | Certificate of Incorporation issued by Registrar of Companies and full address of the registered office along with Memorandum & Articles of Association/ Partnership Deed if the Bidder is registered in India or relevant certificates equivalent to above mentioned documents in force in the country of origin of the company |
| 2.     | The Bidder (including its OEM, if any) must comply with the requirements contained in O.M. No. 6/18/2019-PPD, dated 23.07.2020 order (Public Procurement No. 1), order (Public Procurement No. 2) dated 23.07.2020 and order (Public Procurement No. 3) dated 24.07.2020 |                     | Bidder should specifically certify in <b>Appendix A</b> in this regard and provide copy of registration certificate/ equivalent certificate/s issued by competent authority wherever applicable.                                                                                                                                 |
| 3.     | The Bidder must have an average turnover of minimum Rs100 crore per financial year during last 03 (three) financial year(s) i.e. FY_2023-24 , FY2022-23 and FY_2021-22.                                                                                                  |                     | Copy of the audited financial statement for required financial years. (Certificate from statutory auditor for preceding/current year may be submitted.)                                                                                                                                                                          |
| 4.     | The Bidder should be profitable organization on the basis of profit before tax (PBT) for at least 02 (two)                                                                                                                                                               |                     | Copy of the audited financial statement along with profit and loss statement for                                                                                                                                                                                                                                                 |

|     |                                                                                                                                                                                                                                                          |  |                                                                                                                          |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------|
|     | out of last 03 (three) financial years mentioned in para 2 above.                                                                                                                                                                                        |  | corresponding years and / or Certificate of the statutory auditor.                                                       |
| 5   | Bidder must have deployed the proposed solution in at least 3 BFSI clients during the last 5 years and operational to detect the user behavior and device malware related frauds with highest degree of accuracy.                                        |  | Copy of the order and / or Certificate of completion of the work. The Bidder should also furnish user acceptance report. |
| 6.. | Past/present litigations, disputes, if any (Adverse litigations could result in disqualification, at the sole discretion of the Bank)                                                                                                                    |  | Brief details of litigations, disputes, if any are to be given on Company's letter head.                                 |
| 7.  | Bidders should not be under debarment/blacklist period for breach of contract/fraud/corrupt practices by any Bank/ Public Sector Undertaking / State or Central Government or their agencies/ departments on the date of submission of bid for this EOI. |  | Bidder should specifically certify in <b>Appendix A</b> in this regard.                                                  |
| 8.  | The Bidder should not have any Service Level Agreement pending to be signed with the Bank for more than 6 months from the date of issue of purchase order.                                                                                               |  | Bidder should specifically certify in <b>Appendix A</b> in this regard.                                                  |
| 9.. | Proposed solution must be public cloud based and it must be cloud agnostic. The proposed solution must follow all the compliance of Bank's cloud policy requirements from time to time for the entire contract period.                                   |  | Bidder should specifically confirm on their letter head in this regard.<br>(Self certification)                          |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                        |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------|
| 10. | <p>Client references and contact details (email/ landline/ mobile) of customers for whom the Bidder has implemented Behavioral Biometric <b>with risk scoring/data points</b> in India or elsewhere in any country in the past (Start and End Date of the Project to be mentioned). <b>At least 3 client references</b> are required with feedback related prevention and detection rate of fraud with formula and detection rate increase after the implementation of Behavioral Biometric solution.</p> <p>Client reference should state peak tps (transactions per second) handled by the Bidder's solution and it should at least 500 tps and also certify that the bidder is handling more than 2,50,00,000 transactions per month for last 6 months (The period of 6 months should fall anytime in 2023/2024).</p> |  | <p>Bidder should specifically confirm on their letter head in this regard as per <b>Appendix-F</b></p> |
| 11  | <p>The Proposed Solution of the bidder must capture following parameters to generate risk score:</p> <ol style="list-style-type: none"> <li>1. Digital Behavioral patterns</li> <li>2. Mouse Activity</li> <li>3. Keyboard dynamics/activity</li> <li>4. Touchscreen swipe pattern</li> <li>5. Mobile device movement</li> <li>6. Presence of remote access tools</li> <li>7. Presence of malware</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                             |  | <p>Bidder should specifically certify in <b>Appendix-C</b> in this regard.</p>                         |
| 12  | <p>The Proposed Solution of the bidder must</p> <ol style="list-style-type: none"> <li>1. Maintain profiles of the customer for minimum 3 months.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | <p>Bidder should specifically certify in <b>Appendix-C</b> in this regard.</p>                         |

|     |                                                                                                                                                                                                                                                                                                                                    |  |                                                                         |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------|
|     | <p>2. Have IP intelligence capabilities to detect TOR IP, Malicious IP, Proxy IP, blacklisted IP, etc.</p> <p>3. Be able to provide risk score to Bank's channel Application/Fraud Risk Monitoring System</p> <p>4. Be able to provide threat indicator data points to Bank's channel Application/Fraud Risk Monitoring System</p> |  |                                                                         |
| 13  | Maximum API response time of the Proposed Solution of the bidder must be within 150 milli seconds                                                                                                                                                                                                                                  |  | Bidder should specifically certify in <b>Appendix-C</b> in this regard. |
| 14. | The Proposed Solution of the bidder must have capabilities to detect Account take over frauds and Social Engineering (Phising / Vishing/ Smishing etc.)                                                                                                                                                                            |  | Bidder should specifically certify in <b>Appendix-C</b> in this regard. |

Documentary evidence must be furnished against each of the above criteria along with an index. All documents must be signed by the authorized signatory of the Bidder. Relevant portions, in the documents submitted in pursuance of eligibility criteria, should be highlighted.

**For the purpose of Preference to Make in India, Order 2017 (PPP-MII Order) and revision thereto:**

**“Local content”** means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

**“Class-I local supplier”** means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed for ‘Class-I local supplier’ hereunder.

**“Class-II local supplier”** means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed for ‘Class-II local supplier’ hereunder. Class-II local supplier shall not get any purchase preference under RFP pursuant to this EOI

**“Non-local supplier”** means a supplier or service provider whose product or service offered for procurement has ‘local content’ less than that prescribed for ‘Class-II local supplier’ under RFP pursuant to this EOI.

**“Minimum Local content”** for the purpose of RFP pursuant to this EOI, the ‘local content’ requirement to categorize a supplier as ‘Class-I local supplier’ is minimum 50%. For ‘Class-II local supplier’, the ‘local content’ requirement is minimum 20%. If Nodal Ministry/Department has prescribed different percentage of minimum ‘local content’ requirement to categorize a supplier as ‘Class-I local supplier’/ ‘Class-II local supplier’, same shall be applicable.

#### **Verification of local content**

The ‘Class-I local supplier’/ ‘Class-II local supplier’ at the time of submission of bid shall be required to provide a certificate as per **Appendix-G** from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content requirement for ‘Class-I local supplier’/ ‘Class-II local supplier’ as the case may be.

**Technical & Functional Specifications**

**Bidder to give the codes, as given below in their response. To short list a bidder, an overall minimum score of 75 marks out of 100 required in the following Tables (i.e., B1. Mandatory Functionalities, B2. Preferred functionalities, B3- Service setup in India, B4- Presentations & Site visits etc.)**

Requirements are classified into below categories:

| SYMBOL   | CATEGORY                                                                                               |
|----------|--------------------------------------------------------------------------------------------------------|
| <b>M</b> | Mandatory, application must provide the functionality out-of-box or customize them with no extra cost. |
| <b>P</b> | Preferable, prefer to have features of the application                                                 |

| Status (Codes) | Description  | Marks |
|----------------|--------------|-------|
| <b>A</b>       | Available    | 1.5   |
| <b>C</b>       | Customizable | 1     |
| <b>N</b>       | Not feasible | 0     |

| Sr. No                               | Required Functionalities/ Features                                                                     | Category | Status (A/C/N) | Max Marks |
|--------------------------------------|--------------------------------------------------------------------------------------------------------|----------|----------------|-----------|
| <b>B1. MANDATORY FUNCTIONALITIES</b> |                                                                                                        |          |                |           |
| 1.                                   | The proposed Solution to support Real time decision making.                                            | M        |                | 1.5       |
| 2                                    | Proposed solution to Revert User Risk Score/ Profile associated with any implemented Policy/ Policies. | M        |                | 1.5       |
| 3                                    | Proposed solution to configure Bank                                                                    | M        |                | 1.5       |

|    |                                                                                                                                               |   |  |     |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------|---|--|-----|
|    | specific Policies/<br>Rules with validity<br>period                                                                                           |   |  |     |
| 4  | Proposed solution to Integrate and work in sync with Bank's 'Fraud Risk Management Solutions (PRM)'                                           | M |  | 1.5 |
| 5  | Proposed solution to support Digital Banking usage pattern detection in Web Applications                                                      | M |  | 1.5 |
| 6  | Proposed solution to support Digital Banking usage pattern detection in Mobile Applications                                                   | M |  | 1.5 |
| 7  | Proposed solution to be fully compatible with Browser: Google Chrome, Safari and Microsoft edge on all devices, makes and models with all OS. | M |  | 1.5 |
| 8  | Proposed solution to have <b>Artificial Intelligence (AI)/ Machine Learning (ML)</b> capabilities                                             | M |  | 1.5 |
| 9  | The solution to retain the all-user's profile from the beginning i.e., since first login.                                                     | M |  | 1.5 |
| 10 | Proposed Solution fully compatible from Android OS 6 onwards on all makes and models.                                                         | M |  | 1.5 |

|    |                                                                                                                                    |   |  |     |
|----|------------------------------------------------------------------------------------------------------------------------------------|---|--|-----|
| 11 | Proposed Solution fully compatible from Apple iOS 10 onwards on all makes and models.                                              | M |  | 1.5 |
| 12 | Proposed solution to capture Geolocation details (Continent, Country, State/ County, City, location, and ZIP/PIN Code) of the User | M |  | 1.5 |
| 13 | Proposed solution to capture Latitude and Longitude coordinates of the User                                                        | M |  | 1.5 |
| 14 | Proposed solution to capture User Device details (Browser, IP, ISP, Operating System, Device ID etc.,)                             | M |  | 1.5 |
| 15 | Proposed solution to capture and analyze Keystroke Dynamics of the User while using devices.                                       | M |  | 1.5 |
| 16 | Proposed solution to capture and analyze Mouse Movement Patterns of the User while using devices.                                  | M |  | 1.5 |
| 17 | Proposed solution to capture and analyze Touch Interaction patterns of the User while using devices.                               | M |  | 1.5 |
| 18 | Proposed solution to capture and analyze Sensor (Gyroscope,                                                                        | M |  | 1.5 |



|    |                                                                                                                                         |   |  |     |
|----|-----------------------------------------------------------------------------------------------------------------------------------------|---|--|-----|
|    | Accelerometer, etc.) patterns of the User                                                                                               |   |  |     |
| 19 | Proposed solution to uniquely Profile User's based on all parameters like behavioral patterns, device fingerprinting, IP profiling etc. | M |  | 1.5 |
| 20 | Proposed solution to facilitate Malware and any Suspicious activity/ software detection in the User's Device                            | M |  | 1.5 |
| 21 | Proposed solution to detect Screen sharing and detect remote access control/ Remote Access Tools (RAT) on the User's Device.            | M |  | 1.5 |
| 22 | Proposed solution to detect User's Device state with respect to Jail Break and Rooting                                                  | M |  | 1.5 |
| 23 | Having Repository of 'Virtual Private Network (VPN) and proxy IPs' and proposed solution to update the Repository in real-time.         | M |  | 1.5 |
| 24 | Having Repository of 'TOR (The Onion Routing) IPs' and proposed solution to update the Repository in real-time.                         | M |  | 1.5 |

|                    |                                                                                                                                                                            |   |  |           |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|-----------|
| 25                 | Having Repository of <b>'Malicious IPs'</b> and proposed solution to update the Repository in real-time.                                                                   | M |  | 1.5       |
| 26                 | Having Repository of <b>'Blacklisted IPs'</b> and proposed solution to update the Repository in real-time.                                                                 | M |  | 1.5       |
| 27                 | Graphical User Interface (GUI) and Application Programming Interface (API) available to access Indicators of Compromise <b>IP Repository</b> as mentioned in Scope of work | M |  | 1.5       |
| 28                 | Proposed solution to Suggest Policies/ Rules (Based on Machine Learning) and provide report on their impact                                                                | M |  | 1.5       |
| 29                 | Proposed solution to populate Dashboards as per the Bank's requirement.                                                                                                    | M |  | 1.5       |
| 30                 | The proposed solution average response time to Bank's application to be within 150 milli seconds and shall not exceed 500 milli seconds..                                  | M |  | 1.5       |
| <b>Total Marks</b> |                                                                                                                                                                            |   |  | <b>45</b> |

Note: It is mandatory to score 45 marks in B1 table for further evaluation of the bidder.

| <b>B2. Preferred Functionalities</b> |                                                                                                                                         |                 |                       |                  |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------|------------------|
| <b>Sr. No</b>                        | <b>Required Functionalities/ Features</b>                                                                                               | <b>Category</b> | <b>Status (A/C/N)</b> | <b>Max Marks</b> |
| 1                                    | Proposed solution to uniquely Profile User's based on the preferred parameters (Device, IP, geo-location, etc.) as defined by the Bank. | P               |                       | 1.5              |
| 2                                    | Proposed solution to Integrate with Bank's Customer Relationship Management (CRM) solutions                                             | P               |                       | 1.5              |
| 3                                    | Proposed solution fully compatible with Browser: Mozilla Firefox on all make/ models of the endpoints                                   | P               |                       | 1.5              |
| 4                                    | Proposed solution to support Ring Deployment (Gradual Release to target groups).                                                        | P               |                       | 1.5              |
| 5                                    | Proposed solution to detect "Live" user usage patterns.                                                                                 | P               |                       | 1.5              |
| 6                                    | The solution to detect suspicious activities using global behavioral profile etc since day zero to detect zero-day attacks.             | P               |                       | 1.5              |

|              |                                                                                                                                                        |   |  |           |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|-----------|
| 7            | The solution should be able to detect clipboard event, gyro events, key events and long press events.                                                  | P |  | 1.5       |
| 8            | Proposed solution to Custom update the Blacklist IPs/ Whitelist IPs in the Indicators of Compromise <b>IP Repository</b> as mentioned in scope of work | P |  | 1.5       |
| 9            | Proposed solution to Generate Reports based on On-Demand Customized parameters                                                                         | P |  | 1.5       |
| 10           | Proposed solution to Visualize 'User access Geolocation' in Maps with interactive Drill down options                                                   | P |  | 1.5       |
| <b>TOTAL</b> |                                                                                                                                                        |   |  | <b>15</b> |

| <b>B3</b>    | <b>Service Set-up in India requirement</b>                                                                                                                             |   |   |          |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|----------|
|              | Already established service set-up in India                                                                                                                            | M |   | 5        |
|              | Service Set-up to be established before installation and commissioning ( <b>self-certification</b> ) post award of contract after RFP process in pursuant to this EOI. | M | - | 3        |
|              | Non-submission of certificate                                                                                                                                          | M | - | 0        |
| <b>Total</b> |                                                                                                                                                                        |   |   | <b>5</b> |

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   |   |           |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|-----------|
| <b>B4</b> | <b>Presentations, Site Visits and alignment with the requirement</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |   |   | <b>35</b> |
|           | <p>Degree of alignment of the solution being proposed with the requirements of the Bank. This would be ascertained through presentations / demonstrations / documents / visit to the customer location, management centers of the bidders:</p> <p>A. Does the bidder display clear understanding in fulfilling the bank's requirements mentioned in EOI?</p> <p>B. Does the bidder demonstrate ability to deliver on all mandatory requirements beyond any doubt?</p> <p>C. Does the bidder have capabilities to support the implementation and have the implementation road-map available?</p> <p>D. Availability of qualified Team/resources to support the implementation.</p> <p>E. Availability of documented change management process.</p> | - | - |           |

**Mode of calculation:**

**Total Marks= B1+B2+B3+B4=100**

**B1=**Mandatory requirements. (45)

**B2=**Preferred Requirements. (15)

**B3=** Service Set-up in India requirement (Self certification/Proof of establishment document required to be upload) (5)

**B4=**Presentation, Site visits and alignment with the requirement. (35)

**Qualification:**

**Bids meeting the eligibility criteria & having complied with the points of Technical Bid and attain minimum technical score 75 (as in above table) out of total 100 marks shall be qualified.**

**Name & Signature of authorised signatory**

**Seal of Company**

**Scope of Work**

The below scope is only indicative, but not exhaustive. The Bank's decision on the scope of engagement will be final and will be binding on the bidder.

| S. No. | Particulars                | Requirements/ Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | <b>Description of Work</b> | <p>Bidder should</p> <ul style="list-style-type: none"> <li>i. Implement solution to fingerprint Customers based on <b>Behavioral Biometrics</b> parameters, <b>IP Intelligence</b> statistics, device binding etc and conduct Risk Assessment based on the same. The indicative list of parameters to be captured are mentioned in <b>Appendix-H</b></li> <li>ii. <b>Implement Risk &amp; Rule Engine</b> based on customer's usage behavioral parameters and other parameters captured from any Bank's application (INB/YONO/YONO-Lite/Bhim-UPI/AePS/Kiosk/YONO 2.0 etc.) and Transaction acquiring infrastructures (like ATM/POS/eCOM/wearables).</li> <li>iii. <b>Implement solution to facilitate</b> risk assessment, provide risk score, risk/threat indicators and captured data points to Bank's application for monitoring suspicious/fraudulent activities.</li> <li>iv. Support implementation of Adaptive Authentication in Bank's Services/Applications.</li> <li>v. <b>Provide</b> Integrated Operations Portal for handling Operations, Fraud Life Cycle, etc.,</li> </ul> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>1. Proposed Solution should be Customizable as per Bank's needs. Exact implementation scope would be provided by the concerned application teams during Implementation.</li> <li>2. Bidder must supply, install, configure, implement, test, integrate, maintain &amp; support the solution during the Contract period. i.e.,</li> </ul> |



|  |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |                                                         | <p>overall end to end responsibility (i.e. managing Application, Infrastructure, Complaints/ Incidents, Compliance/Audit, Security vulnerabilities, Patches, Upgrades, Integration &amp; Supporting Components, etc) to manage the proposed solution would be with the successful Bidder.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|  | <p><b>1 (a) Description of Work: <u>General</u></b></p> | <ol style="list-style-type: none"> <li>1. The proposed solution should provide emergency failure alternatives for both self-non-availability &amp; dependent non-availability.</li> <li>2. Data Minimization approach by design should be opted across the application. i.e., Capture data only what is relevant for Decision making.</li> <li>3. Wherever functionalities are not replicable/restricted in non-Production environments, it is Bidders' responsibility to provide simulation to mimic the production functionality which also includes Test data creation.</li> <li>4. Bidder would be responsible to coordinate with Internal &amp; External stakeholders for development, implementation, integration, operational activities, issue isolation etc.,</li> <li>5. Bidder should ensure implementation &amp; management of DevOps process for the proposed solution based on tools recommended by the Bank with no additional cost for its Support, etc.,</li> <li>6. Implementation details like Architecture (Business, Data and Technology), Risk scoring Policy/Rules methodology would be decided by the Bank during the implementation phases.</li> <li>7. Proposed solution should have compatibility with following browsers: Google Chrome, Safari, Microsoft Edge, Mozilla Firefox,</li> </ol> |

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|  |  | <p>Opera etc and 'Compatibility' referred here implies 'All versions of Browsers released from Jan 01, 2015, onwards.</p> <ol style="list-style-type: none"><li>8. For Mobile based Interaction, proposed solution should be compatible from 'Android OS 6' and 'Apple iOS 10 onwards.</li><li>9. Bidder should ensure that their Application/Services upgrade is always compatible with Integrated Bank's solutions and doesn't break any system.</li><li>10. Bidder is responsible for customization of sdk and JavaScript to make it compatible with the Bank's Application without any cost to the Bank during the contract period.</li><li>11. During the Contract period, Bidder shall also be responsible for upgrading and updating the solution in part or full to meet the latest Technology standards in Performance, IT security and Operationalization of the solution.</li><li>12. Pre-Release Impact analysis to be made for all Integrated Systems post Deployment Validation and Monitoring to be done for all Integrated Systems</li><li>13. Proposed solution should have Artificial Intelligence (AI)/<b>Machine Learning (ML)</b> capabilities. All expected Machine Learning outputs mentioned below should be accessible from Integrated Operations Portal.<br/><u>Input Data for AI/ML Engine:</u> In the form of Feedback loops, Application observed Patterns etc.,<br/><u>Expected Output from AI/ML Engine:</u> Suggest Policies/ Rules (Daily/Monthly or Period as desired by the Bank), analyse Impact of Suggested Policies/ Rules and Implement suggested Policies/ Rules<ol style="list-style-type: none"><li>a. New Fraud Patterns detected, Deviations from Standard Fraud Pattern</li><li>b. Number of Frauds that couldn't be prevented with losses to Bank.</li></ol></li></ol> |
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|  |                                                                                                                         | <p>c. Number of Prevented Frauds with Notional losses to Bank</p> <p>d. Accuracy metrics: True Positive, True Negative, False Positive, False Negative</p> <p>e. Comprehensive Risk Report in Bank defined Intervals to be provided</p> <p><u>Note:</u> Bank should be able to provide Feedback in any/all the methods below.</p> <ul style="list-style-type: none"> <li>• API,</li> <li>• Operations Portal,</li> <li>• Batch file/Mail.</li> <li>• Any other mutually agreed integration approach</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|  | <p><b>1 (b) Description of Work:</b> For Behavior Biometrics Solution-Risk engine and device Binding/fingerprinting</p> | <p>a. Proposed solution should support both Real-time decisions making, and Event based triggers.</p> <p>b. The proposed solution should have the ability to independently classify, and report Users based on Risk Score/Profile in real-time to respective Bank applications.</p> <p>c. Apart from reporting, user classification/ Profile information should be stored by the proposed solution in the way and retention period deemed necessary by the Bank.</p> <p>d. Policies/Rules could be applicable either at the Application level or at the Enterprise level.</p> <p>e. There would be no limit on the number of Policies/Rules that the Bank can Create, Configure, Remove, Update, Revert and no additional cost would be paid by the Bank in this regard.</p> <p>f. Bank can define Policies/Rules to</p> <ul style="list-style-type: none"> <li>➤ Override a Risk score</li> <li>➤ Proactively Push Risk Score based on any specific Fraud event/Activity or Anomaly</li> <li>➤ Trigger an Alert</li> </ul> |

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|  |  | <ul style="list-style-type: none"><li>➤ Define Custom Indicators</li><li>➤ To decide on transaction/session status like real-time decline, additional authentication (2FA), review, etc.,</li></ul> <p>g. Bidder's proposed solution should support Policy/Rule making from both Dynamic Parameters (Captured in Real time from Customer) and Static Parameters (Received from Other Applications/Already available information stored in the proposed solution)</p> <p>h. The proposed solution should be able to Fingerprint and facilitate capturing of below parameters.</p> <ul style="list-style-type: none"><li>➤ Device parameters (OS, browser, Device Id, Number of cores, Screen resolution, make/model etc.,)</li><li>➤ End-User behavior patterns (Physical &amp; Cognitive behaviors like Keystroke Dynamics, Touch Interaction Analytics, Sensor Analytics, Form Familiarity, etc.,)</li><li>➤ Indicators of Compromise Parameters (VPN IP, Proxy IP, TOR IP, Malicious IP/ Blacklisted IP, etc.,)</li><li>➤ Geolocation Parameters like IP, Latitude, Longitude, Area, City, State, Country, Continent, ZIP/ PIN, ISP etc.,</li><li>➤ Device state Parameters (Like Malware (including in memory) Presence, Screen shared, RAT(Remote access tool), Jail Broken, Rooted, etc.,)</li></ul> <p>i. Parameters used to define Policies/ Rules should be customizable as per Bank's needs. These Parameters if not readily configurable/available as part of the proposed solution, the same should be captured from the Customer and/or Bank's Applications (RINB/CINB/YONO/YONO-Lite/AePS, Kiosk Banking/FASTag, Bhim-UPI etc.) Including Transaction Acquiring infrastructures (like ATM/POS/eCOM/wearables) and made available for Bank's decision making at no additional cost to the Bank.</p> |
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|  |  | <p>j. Proposed Solution should have the ability to Blacklist and Whitelist: various parameter individually or combination e.g. Users, IPs, Devices etc. Further such blacklisting and whitelisting can also be based on parameters such as Geolocations (Countries), Network Characteristics (Connection Type, Network Reputation, and Traffic Patterns), Transaction Types based on risk level and frequency etc.</p> <p>k. Proposed solution should have the ability to integrate with Bank's Customer Relationship Management (CRM) solution &amp; optimize the Risk Engine/ Models/ Decision making engine automatically.</p> <p>l. Integration with CRM would be through APIs and GUI for handling the cases/ Incident to be provided as part of Integrated Operations Portal.</p> <p>i. Proposed solution should have the ability to Optimize Risk Engine automatically based on Application/ Customer Feedback.</p> <p>ii. Proposed Solution should be able to build Profiles of Users, Devices, etc., where the Inputs for profile building could be either captured by the Proposed Solution or Bank's Applications or Combination of both</p> <p>iii. Proposed Solution should be capable of providing Data Statistics and reports as per the Bank's requirement during the contract period. Proposed Solution should be customizable as per Bank's needs</p> <p><u>Note:</u></p> <p>I. Exact Parameters/ Rules, Data Statistics requirements would be defined by the concerned applications at the time of solution implementation.</p> <p>II. Parameters, Rules, Data Statistics should be accessible from Integrated Operations Portal for Configuration and Operational activities</p> |
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|  |                                                                                            | <p>III. Details where Accuracy/ Confidence parameters are involved, the same should be captured by the proposed solution and stored [Ex: Geo Coordinates (Latitude &amp; Longitude)]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|  | <p><b>1 (C) Description of Work: <u>For Adaptive Authentication</u></b></p>                | <p>Adaptive Authentication is the process of Authenticating a customer based on a Perceived Risk level. Adaptive Authentication is also referred to as Risk based Authentication.</p> <p>Proposed Solution should facilitate Adaptive Authentication/ Risk based Authentication to Bank services and Applications.</p> <p>After completing the Risk Assessment as per Bank’s defined process, Proposed Solution would communicate decision to Bank’s Applications; Decisions could be Step Up Authentication, Step Down Authentication or any API calls as per Bank’s requirements.</p> <p>In some cases, the Bank Applications may need Raw Risk scores (Arrived based on Policies/ Rules). In those cases, Proposed Solution should have the ability to pass the Raw Risk scores and captured user behavior raw data in the format/message-type requested by the Bank’s applications.</p> |
|  | <p><b>1 (D) Description of Work: <u>For Indicators of Compromise IP Repository</u></b></p> | <p>i. Proposed solution should have Indicators of Compromise ‘<b>IP Repository</b>’ with following details.</p> <ul style="list-style-type: none"> <li>a) Virtual Private Network (VPN) IPs</li> <li>b) TOR (The Onion Routing) IPs</li> <li>c) Proxy IPs</li> <li>d) Malicious IPs</li> <li>e) Blacklisted IPs</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|  |                                                                                  | <ul style="list-style-type: none"> <li>ii. Indicators of Compromise <b>IP Repository</b> containing above information should be updated in real time basis.</li> <li>iii. API/file-dump accessible 'Indicators of Compromise' information should be made available to all Bank services and Applications independently. There should be no limit on the number of queries, applications, etc., which can query this information and Bank won't bear any additional cost for the same.</li> <li>iv. Option to Add/ Delete information in the 'Indicators of Compromise <b>IP Repository</b>' through 'Integrated Operations Portal' should be provided by the Bidder; and these changes should follow Bank's guidelines and policies.</li> </ul>                                                                                                                                                                                                                                                                                                                 |
|  | <p><b>1 (E) Description of Work: <u>For Integrated Operations Portal</u></b></p> | <p>Proposed solution should provide an integrated Operations portal (GUI driven) to manage operations, Fraud Lifecycle compliance, and security related activities of the proposed solution. The below list of functionalities is indicative but not exhaustive.</p> <ul style="list-style-type: none"> <li>i. User Management, Role Management &amp; Access Management modules (Including Provision for Maker &amp; Checker, wherever applicable)</li> <li>ii. Manage Policies/ Rules: Create, Configure, Remove, Update and Revert</li> <li>iii. Manage impact of Policies/ Rules: Analyze, Implement and Revert</li> <li>iv. Configure validity of the Policies/ Rules for a fixed period (or) permanently (or) variable period based on Risk Parameters</li> <li>v. Search Functionality (Search Details by any of the Parameters Captured/Mapped) including option to drill down linkages graphically.</li> <li>vi. Overriding of Profiled Data (Based on Feedback and 'False Positives' observed); Manual overriding should also be available.</li> </ul> |



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|  |  | <ul style="list-style-type: none"> <li>vii. Machine Learning Module Expected Outputs Mentioned in 'General' section) (Containing Suggested Policies/ Rules &amp; Ability to Edit, Implement and Detect impact of the Policy/Rule)</li> <li>viii. Reversion of Policies/ Rules should have option to             <ul style="list-style-type: none"> <li>a) 'Remove Only Policies/ Rules' and</li> <li>b) 'Remove Policies/Rules' and revert the learned Risk Score/ Profile associated with any implemented Policy/ Policies.</li> </ul> </li> <li>ix. Dashboards (Including Real time/ Near Real time behaviors)</li> <li>x. Visualization, Clustering Analysis of data. Visualization should be implemented in Integrated Operations Portal and should have the ability to Drill Down all captured and mapped information</li> <li>xi. Visualize 'User Login Attempt's Geolocation' in Maps,</li> <li>xii. All Other Data Statistics could use model which is relevant to the Data Statistics</li> <li>xiii. Standard and custom reports as per Bank's requirement during the contract period without any additional cost.</li> <li>xiv. Event Management: Including but not limited to Alerts Configuration and Escalation matrix Configuration.</li> <li>xv. Audit Trail management (GUI to Search, Filter, View and Download)</li> <li>xvi. Audit and Compliance Management (GUI To Search, View, Filter, Generate and Configure)</li> <li>xvii. These are not restricted to tracking logs/ Audit trail. These are more about Customized reporting and no additional cost would be paid by the Bank in this regard.</li> <li>xviii. Configuration Module (To eliminate all backend updates in the proposed solution)</li> </ul> |
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xix. 'Ring Deployment implementation for all features/services/functionalities through Integrated Operations Portal

Note: Exact list of functionalities/ features for implementation would be decided by the Bank during the implementation phase.

Dashboards and Reports:

- i. Bidder should be able to provide Dashboards and reports as per the Bank's needs.
- ii. Dashboards should be able to populate even '**Live Data.**'
- iii. Solution should be able to generate reports in real time as well as scheduled.
- iv. Solution should be able to generate all type of reports in pdf, csv and excel format.
- v. Dashboards and Reports should have filters as per the requirements of the Bank.
- vi. Option to send Reports in automated way based on specified criteria should be supported by the proposed solution and these Reports should be made configurable in GUI.

Note:

- Exact Dashboards & Reports requirements would be decided by the concerned applications at the time of implementation.
- Wherever, Configuration is be done, the same should be done through GUI without any underlying code change. i.e., In Initial implementation only, code changes should be done to Configure Dashboards and Reports in a modular way.
- The solution should support data flow into the downstream e.g. DWH (if required).
- All of the expected features (not limited to the listed above) shall be available all the time, without adversely impacting the performance of source application or the underlying Behavioral Biometrics solution.



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| <p><b>1 (F) Description of Work:</b> <u>For Parameters to be Captured/ Identified</u></p> | <p>Proposed solution should be able to do Fingerprinting of both Device and User. Fingerprinted data should as far as possible be maintained at the User's Device. Data management policies of the Bank should be followed.</p> <p>Proposed solution should be capable of capturing and analyzing the below details.</p> <ol style="list-style-type: none"> <li>i. IP of the User</li> <li>ii. Geolocation (Continent, Country, State/ County, City and ZIP/PIN Code)</li> <li>iii. Latitude and Longitude coordinates</li> <li>iv. ISP Details</li> <li>v. User Device details (Browser, Operating System, etc.)</li> <li>vi. Keystroke Dynamics</li> <li>vii. Mouse Movement Use Patterns</li> <li>viii. Touch Interaction Use Patterns</li> <li>ix. Sensor Use Patterns (Gyroscope, Accelerometer, etc.) Analytics</li> <li>x. Malware Presence (If Possible, with limited permission available)</li> <li>xi. Device Jail Breaking and Rooting</li> <li>xii. Screen Sharing</li> <li>xiii. Session Durations</li> <li>xiv. Biometric Authentication Attempts/Ratio</li> <li>xv. App Usage Patterns and App Permissions</li> <li>xvi. Device Identifiers</li> <li>xvii. Authentication Methods Frequented</li> <li>xviii. Network Use Patterns (Frequency of WiFi- Protected/Unprotected, Cellular Connectivity (4G/5G) etc.)</li> <li>xix. Payments related checks like             <ol style="list-style-type: none"> <li>a. Volume velocity</li> <li>b. Hotlisted cards</li> <li>c. Suspicious bank accounts</li> </ol> </li> <li>xx. Privilege escalation attempts.</li> <li>xxi. Transmission of sensitive information in readable form</li> <li>xxii. User enumeration attempts.</li> <li>xxiii. Parameter manipulation attempts</li> </ol> |
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|  |  | <p>xxiv. Passwords figuring in data breaches.</p> <p><u>Note:</u></p> <p>xxv. The above list of parameters is only indicative and not exhaustive. Bank may choose to add additional parameters during the contract period without any additional cost to the Bank.</p> <p>xxvi. The various suggestive data points to be captured is attached as Annexure but not limited to.</p> <p>xxvii. Some Parameters may be specific to a certain type of Device/Interaction; In that case, concerned applications/ Transaction acquiring Infrastructure during implementation would finalize the list of feasible parameters to be captured/processed.</p> <p>xxviii. Geolocation and coordinates (Latitude &amp; Longitude) should be accurate and precise. Any deviation should be captured and stored alongside the fingerprinting details.</p> <p>xxix. 'Keystroke Dynamics and Touch Interaction Use Patterns should be learnt to determine 'Form Familiarity' of the User.</p> <p>xxx. The proposed solution shall support the Bank's Web/mobile applications to obtain the customer consent to capture the behavioral biometric data parameters. Only after the consent of the customer, shall the solution capture &amp; process users' behavioral biometric data.</p> <p>xxxi. If due to Denial of permissions by Customers, certain Data are unable to be captured then the same must be recorded and customer preference should be stored.</p> <p>xxxi. Customer consents have to be captured without fail, cases of non-capture of customer consent on account of any technical reason(s) will have to be addressed and resolved within a fixed minimum period.</p> |
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|  | <p><b>1 (G) Description of Work: <u>For Profiling</u></b></p> | <p>The proposed solution should be able to build Profiles of Users, Devices, etc., where the Inputs for profile building could be either captured by the Proposed solution or Bank's Applications or Combination of both.</p> <p>Proposed solution should be capable of Profiling the below details.</p> <ol style="list-style-type: none"><li>i. Friction Percentage per Customer [(Number of Challenges/ Number of Logins Attempted) *100]</li><li>ii. Proposed solution should have the ability to store 'Preferred Parameters like Device ID, IP etc.,</li><li>iii. Visualize 'User Login Attempt's Geolocation' in Maps. This visualization should be implemented in Integrated Operations Portal and should have the ability to Drill Down all captured and mapped information.</li><li>iv. Visualize all other Parameters captured/processed in GUI. This visualization should be implemented in Integrated Operations Portal and should have the ability to Drill Down all captured and mapped information.</li></ol> <p><u>Note:</u></p> <ul style="list-style-type: none"><li>• The above Profiling requirements are only indicative and not exhaustive. The Bank may choose to add more Profiling requirements during the contract period and the same shall be provisioned without any additional cost to the Bank.</li><li>• When the number of Customer Interactions (Ex: Login Attempts) is greater than or equal to 5, then the overall 'Customer Risk Profiling' and 'Individual Parameters (Captured by the proposed solution)' should have an accuracy greater than 99%. Any deviation would attract Penalty.</li></ul> |
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|          |                                                                    | <ul style="list-style-type: none"> <li>The solution shall maintain global/population/Bank level profile which shall be used for risk evaluation of the users since first login attempt itself(i.e solution should cater to zero-day attacks)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|          | <p><b>1 (H) Description of Work: <u>For Infrastructure</u></b></p> | <p>a) The proposed solution should be deployed on-public cloud. Alongside, Proposed solution should be Cloud agnostic and free from vendor-lock-in from Day 1.</p> <ul style="list-style-type: none"> <li>(i) No Separate cost would be provided by the Bank for Infrastructure, Licensing, etc., i.e. All costs must be borne and built by the BIDDER in subscription cost.</li> <li>(ii) BIDDER is solely responsible to handle the Cloud Infrastructure for Proposed Solution.</li> <li>(iii) All Information on Incidents, Changes, Vulnerabilities etc., should be tracked by the BIDDER and reported to the Bank.</li> </ul> <p>b) Infrastructure Management and Maintenance of the proposed solution would be the responsibility of the Bidder. Also, responsibility to coordinate with the Bank (Application departments), its Partners and OEMs would be with the Bidder.</p> <p>c) Recovery Time Objective (RTO) &amp; Recovery Point Objective (RPO) of the proposed solution should be as per Performance metrics defined by the Bank.</p> <p>d) All Information on assets, incidents, changes, Vulnerabilities etc., should be tracked by the Bidder and reported to the Bank.</p> |
| <p>2</p> | <p><b>Integration requirements</b></p>                             | <p>Proposed solution should offer APIs/scripts to extend and customize the proposed solution as per Bank's needs.</p> <p><u>Integration for Capturing usage patterns.</u></p> <p>The proposed solution should facilitate capturing of usage patterns associated with the Journeys of following Web applications.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

- a) Retail Internet Banking
- b) Corporate Internet Banking
- c) Merchant Internet Banking
- d) YONO Business
- e) YONO/YONO 2.0

Proposed solution should facilitate capturing of usage patterns associated with the Journeys of following Mobile applications.

- a) YONO/YONO 2.0
- b) Yono Lite
- c) YONO Business
- d) BHIM SBI Pay
- e) SBI UniPay

Proposed solution should facilitate capturing of usage patterns associated with Bank's Acquiring Infrastructure like ATM/ POS/ eCOM/ Wearables etc.

The indicative list of Bank's applications journeys to be integrated with the proposed solution are listed below:

1. On boarding of the customer
2. Registration of customer for respective digital journey
3. Login
4. Change of device
5. Change of login password or profile passwords
6. Change of email address
7. Change of Mobile number
8. All financial transactions
9. Addition of Beneficiary
10. Enable or disable of the digital channels
11. Closure of the TDR/STDR/FD/RD etc.
12. Any online loan journey

Change in transaction rights

Note:

- a) The above list of applications and journeys-to-be-integrated to capture usage patterns **is only indicative**, and Bank may add/reduce the scope of number/journeys of applications as per Bank's needs during the Contract period which is to be done by the successful Bidder without any additional cost to the Bank.
- b) All relevant activities including but not limited to Code Customizations, Development of APIs/SDKs, Providing Java Scripts, customization of sdk & JavaScript as per Bank's application requirement, Environment Simulation, Integration Support, etc., which are required to capture usage patterns & facilitate Behavioral Biometric and adaptive authentication in Bank's Applications, should be provided by the Bidder at no additional cost to the Bank.

Integration of Risk Engine with existing Bank's systems

The Bank preferred approach is to have a Centralized Fraud risk monitoring system. Considering this design Principle, Bank desires to have a Centralized Risk and Rule Engine to avoid fragmentation. To achieve the same,

- a. Proposed Solution should support working in complementary with the existing Fraud Risk Management solution i.e., Proposed Solution should be able to work as both Upstream and Downstream systems with Bank's Enterprise Fraud Risk Management Solution along with Bank's other web, mobile and payment/acquiring Infra/Applications.
- b. The Proposed Solution should be Architected in a way to maintain Single Risk Profile for Customers across the Bank (Which would involve Data Synchronization, API calls, Integration with Enterprise Fraud Risk Management System and passing of proposed solution's captured behavioral & other data to

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|  |  | <p>FRM through Channel application). However, At its discretion, Bank may choose the integration approach and choose to deploy common profile across Bank's Applications or implement Bank's application specific profiles.</p> <p>c. At its discretion, Bank may choose to Integrate the Proposed Solution with Bank's Enterprise Fraud Risk Management system. In that case, Proposed Solution should do all the preprocessing required to post the request.</p> <p>d. Integration with PRM would be in combination of Messaging formats and Integration methods mentioned below,<br/><u>Messaging Format</u>: JSON, XML, cdif etc.,<br/><u>Integration Methods</u>: KAFKA, TCP/ IP, Message Queue, APIs etc</p> <p>e. Proposed solution should support Data exchange with Bank's systems in a scheduled way, in Batches, in Real time; any Utility required for Data exchange should be part of proposed solution. Bank if desired, may use tools like Oracle Golden Gate for Data exchange.</p> <p>f. The Proposed solution should have the versatility to receive Inputs from multiple Bank's systems &amp; process Policies/ Rules as configured by the Bank.</p> <p>g. Wherever required, Proposed solution should have the ability to parse, convert &amp; process Input/Output data without any additional cost to the Bank.</p> <p><u>Integration for Security, Compliance &amp; Operations</u></p> <p>a) The proposed solution should integrate with the Bank's mandated security, compliance, and operation management systems as per the Bank's IS Policy (Relevant action points will be shared with successful bidder later).</p> <p>b) Bidder should advise the Bank for any patch upgrades/ changes required in the</p> |
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|---|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                        | <p>integrated systems to mitigate evolving threats &amp; vulnerabilities.</p> <p>c) Any security advisory issued by the Bank, Regulator or Government Agencies which may involve vulnerability(eg. Log4j ) in or risk arising on account of proposed solution need to be complied within the time limit as required by the Bank, and any deviation from such compliance will not be acceptable.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3 | <p><b>Performance and Scalability Requirements</b></p> | <p>a) Proposed solution should be able to handle 5000 transaction per second (TPS) per service while accommodating 5000 Concurrent users initially (Excluding 'Backoffice services'). Later, the solution should be scalable to extend for all the Bank's Applications journey which may come-up/implemented during the contract period.</p> <p>b) For BackOffice services (Services predominantly used in 'Integrated Operations Portal' and/or Services not accessed by end customers):</p> <p>c) Even when not requested by the Bank, Bidder should conduct the Performance testing for all the services of the proposed solution and submit the report on Half Yearly basis.</p> <p>d) For any functionality (Risk Scoring, threat analysis, processing captured patterns/data etc.), solution's response time to the Bank's Application <b>should not exceed 150 ms</b> on an-average.</p> <p>e) The Bidder should capture processing time at each leg internally and at the functionality level; Bidder should also provide this data to the Bank, as required.</p> <p>f) The proposed solution should be scalable as per Bank's future requirement.</p> <p>g) Capacity planning for the proposed solution is to be ensured by the Bidder on an ongoing basis and Utilization parameters like</p> |

Memory, CPU, Storage should be kept below 60% during the Contract period. Related capacity utilization reports must be submitted to the Bank regularly and on-demand basis.

- h) The architecture of the proposed solution should be in-line with Industry best practices. The bidder must submit the architecture of the proposed solution for review/assessment and approval from the Bank's internal E&TA team before finalization. The Bank's recommendations must be implemented by the Bidder.
- i) Architecture details incorporating all underlying Infrastructure components (wherever applicable) should be provided by the Bidder.
- j) The successful Bidder should ensure high availability for all the services and infrastructure and there should not be any single point of failure in the architecture.
- k) The proposed solution should have automatic failover capabilities for all services in case of any service/component/site failure.
- l) Proposed solution should support 'Ring Deployment' for all features/services/functionalities.

Definition of tps: Transaction Per Second (Decision Making):

Every request to proposed solution from Bank's System/ Customer and communication of final decision back to Bank's System/ Customer is considered as one transaction. All intermediary hops, time-outs, and session lengths to be optimized by the Bidder.

Note: Here the Final Decision may be Threack indicators, captured data points, Raw Risk Score, Decision to Step up/Step Down, etc.



|  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p><u>Definition of response time:</u></p> <p>The amount of time taken from the point when Bank's system/application initiates request to the proposed solution, till the final response is received from the proposed solution against the request, back to the Bank's System/application is referred to as '<b>response time</b>' of the proposed solution. Within the proposed solution, when intended functionality is having dependency with multiple/other systems, computational time taken by the other dependent systems would be considered as part of the '<b>response time</b>' of the proposed solution.</p> |
|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**The proposed solution requirements comprise of the following broad sections.**

**Proposed solution should capture and provide all the devices, digital behaviour patterns, locations, OS, Hardware, Remote Access Tools, and other such parameters required to identify user access on all the devices on which user may access web browser based Bank's application and Mobile application currently and during contract period should be provided without any additional cost to the Bank and such information is provided in real-time for the identified user whenever they performs any activity.**

**Terminologies:**

- |                    |   |                                                  |
|--------------------|---|--------------------------------------------------|
| 1) <b>ATM</b>      | - | Automated Teller Machine                         |
| 2) <b>POS</b>      | - | Point of Sale                                    |
| 3) <b>eCOM</b>     | - | eCommerce                                        |
| 4) <b>PRM</b>      | - | Proactive Risk Monitoring                        |
| 5) <b>CRM</b>      | - | Customer Relationship Management                 |
| 6) <b>API</b>      | - | Application Programming Interface                |
| 7) <b>IP</b>       | - | Internet Protocol                                |
| 8) <b>JSON</b>     | - | JavaScript Object Notation                       |
| 9) <b>XML</b>      | - | Extensible Markup Language                       |
| 10) <b>TCP/IP</b>  | - | Transmission Control Protocol/ Internet Protocol |
| 11) <b>SSL</b>     | - | Secure Socket Layer                              |
| 12) <b>OEM</b>     | - | Original Equipment Manufacturer                  |
| 13) <b>VPN</b>     | - | Virtual Private Network                          |
| 14) <b>TOR</b>     | - | The Onion Routing                                |
| 15) <b>CERT-In</b> | - | Indian Computer Emergency Response Team          |
| 16) <b>RFP</b>     | - | Request for Proposal                             |
| 17) <b>AMC</b>     | - | Annual Maintenance Contract                      |
| 18) <b>ML</b>      | - | Machine Learning                                 |
| 19) <b>GUI</b>     | - | Graphical User Interface                         |
| 20) <b>UI/UX</b>   | - | User Interface/ User Experience                  |
| 21) <b>MIS</b>     | - | Management Information System                    |
| 22) <b>VA</b>      | - | Vulnerability Assessment                         |
| 23) <b>PT</b>      | - | Penetration testing                              |
| 24) <b>RTO</b>     | - | Recovery Time Objective                          |
| 25) <b>RPO</b>     | - | Recovery Point Objective                         |

**Appendix-D**

**Bidder Details**

Details of the Bidder

| S. No. | Particulars                                                                                                                                                                             | Details |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 1.     | Name                                                                                                                                                                                    |         |
| 2.     | Date of Incorporation and / or commencement of business                                                                                                                                 |         |
| 3.     | Certificate of incorporation                                                                                                                                                            |         |
| 4.     | Brief description of the Bidder including details of its main line of business                                                                                                          |         |
| 5.     | Company website URL                                                                                                                                                                     |         |
| 6.     | Company Pan Number                                                                                                                                                                      |         |
| 7.     | Company GSTIN Number                                                                                                                                                                    |         |
| 8.     | Particulars of the Authorized Signatory of the Bidder<br>a) Name<br>b) Designation<br>c) Address<br>d) Phone Number (Landline)<br>e) Mobile Number<br>f) Fax Number<br>g) Email Address |         |

**Name & Signature of authorised signatory**

**Seal of Company**



**Appendix-E**

**Pre-Bid Query Format**  
**(To be provide strictly in Excel format)**

| <b>Vendor Name</b> | <b>Sl. No</b> | <b>EOI Page No</b> | <b>EOI Clause No.</b> | <b>Existing Clause</b> | <b>Query/Suggestions</b> |
|--------------------|---------------|--------------------|-----------------------|------------------------|--------------------------|
|                    |               |                    |                       |                        |                          |
|                    |               |                    |                       |                        |                          |
|                    |               |                    |                       |                        |                          |
|                    |               |                    |                       |                        |                          |

**Format for Submission of Client References**

**To whosoever it may concern**

| <b>Particulars</b>                                     | <b>Details</b> |
|--------------------------------------------------------|----------------|
|                                                        |                |
| <b>Client Information</b>                              |                |
| Client Name                                            |                |
| Client address                                         |                |
| Name of the contact person and designation             |                |
| Phone number of the contact person                     |                |
| E-mail address of the contact person                   |                |
| <b>Project Details</b>                                 |                |
| Name of the Project                                    |                |
| Start Date                                             |                |
| End Date                                               |                |
| Current Status (In Progress / Completed)               |                |
| <b>Size of Project</b>                                 |                |
| Value of Work Order (In Lakh) (only single work order) |                |

**Signature of authorised official**

**Name:**

**Company seal:**

**Appendix–G**

**Certificate of Local Content**

<Certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content, on their letter head with Registration Number with seal.>

Date:

To,

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear Sir,

**Ref.: RFP No. : SBI/GITC/IT-ATM/2024/2025/49 Dated: 01.07.2024**

This is to certify that proposed \_\_\_\_\_ <details of services> is having the local content of \_\_\_\_\_ % as defined in the above mentioned RFP.

2. This certificate is submitted in reference to the Public Procurement (Preference to Make in India), Order 2017 including revision thereto.

**Signature of Statutory Auditor/Cost Auditor**  
**Registration Number:**  
**Seal**

**Counter-signed:**

**Bidder**

**OEM**

< Certified copy of board resolution for appointment of statutory/cost auditor should also be enclosed with the certificate of local content.>

**OR**

**Format for Self-Certification of Local Content**

Date:

To,

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear Sir,

**Ref.: RFP No. :** \_\_\_\_\_ **Dated:** \_\_\_\_\_

This is to certify that proposed \_\_\_\_\_ < details of services > is having the local content of \_\_\_\_\_ % as defined in the above-mentioned RFP.

1. The details of location(s) at which the local value addition is made are as under:

| SI No | Product details | Name of place |
|-------|-----------------|---------------|
| 1     |                 |               |
| 2     |                 |               |

3. This certificate is submitted in reference to the Public Procurement (Preference to Make in India), Order 2017 including revision thereto.

**Signature of authorised official**

**Name:**

**Company seal:**

Appendix-H

Illustrative Parameters to be captured from Web/Mobile applications by the proposed Solution.

| #  | Java Script (on Web & Mobile Browsers) | Y/N | #  | SDK (on Android Devices) | Y/N | #  | SDK (on iOS Devices)      | Y/N |
|----|----------------------------------------|-----|----|--------------------------|-----|----|---------------------------|-----|
|    | <b>Dynamic Data</b>                    |     |    | <b>Dynamic Data</b>      |     |    | <b>Dynamic Data</b>       |     |
| 1  | Accelerometer Events                   |     | 1  | Accelerometer Events     |     | 1  | Accelerometer Events      |     |
| 2  | Before Install Prompt Events           |     | 2  | Accessibility State      |     | 2  | Application Events        |     |
| 3  | Blur & Focus Events                    |     | 3  | Installed Applications   |     | 3  | Battery Status            |     |
| 4  | Clipboard Events                       |     | 4  | Battery Status           |     | 4  | Active Call Status        |     |
| 5  | Document referrer                      |     | 5  | Active Call Status       |     | 5  | Active Call Status (VOIP) |     |
| 6  | Elements                               |     | 6  | Charging Status          |     | 6  | Charging State            |     |
| 7  | Element Events                         |     | 7  | Clipboard Events         |     | 7  | Clipboard Events          |     |
| 8  | Gyro Events                            |     | 8  | Display Connect Devices  |     | 8  | Device Orientation        |     |
| 9  | Light Sensors                          |     | 9  | Elements                 |     | 9  | Display Connected Devices |     |
| 10 | Location via IP                        |     | 10 | Element Events           |     | 10 | Elements                  |     |
| 11 | Key Events                             |     | 11 | Fling Events             |     | 11 | Element Events            |     |
| 12 | Mouse Events                           |     | 12 | Gyroscope                |     | 12 | Gyroscope                 |     |
| 13 | Net Info Events                        |     | 13 | Key Events               |     | 13 | Key Events                |     |
| 14 | Orientation                            |     | 14 | Light                    |     | 14 | Location                  |     |





|    |                              |    |                           |    |                               |
|----|------------------------------|----|---------------------------|----|-------------------------------|
| 15 | Pinch / Zoom Event           | 15 | Long Press                | 15 | Long Press                    |
| 16 | Print                        | 16 | Orientation               | 16 | Orientation                   |
| 17 | Screen Orientation           | 17 | Pan                       | 17 | Pan                           |
| 18 | Script Events                | 18 | Pinch                     | 18 | Pinch                         |
| 19 | Storage Events               | 19 | Proximity                 | 19 | Print Screen                  |
| 20 | Tab Events                   | 20 | Screen Orientation        | 20 | Swipe                         |
| 21 | Tap Events                   | 21 | Significant Motion Events | 21 | Tap                           |
| 22 | Touch                        | 22 | Tap                       | 22 | Touch Events                  |
| 23 | Window Events of the browser | 23 | Touch Events              | 23 | Wi-fi                         |
|    | <b>Static Data</b>           | 24 | Wi-fi                     |    | <b>Static Data</b>            |
| 24 | Cookie Enabled               |    | <b>Static Data</b>        | 24 | Application Name              |
| 25 | Cores                        | 25 | Android ID                | 25 | Cores                         |
| 26 | Device Memory                | 26 | Application Name          | 26 | Display Settings              |
| 27 | Languages                    | 27 | Application Name          | 27 | Emulator                      |
| 28 | Operating System             | 28 | Bluetooth devices         | 28 | Global IP Address             |
| 29 | Plugins                      | 29 | Cores                     | 29 | Keyboards                     |
| 30 | TimeZone                     | 30 | Device fingerprint value  | 30 | Languages                     |
| 31 | User-agent String            | 31 | Device Manufacturer       | 31 | Application Vendor Identifier |

Expression of Interest for procurement of Behavioral Biometrics Solution



|    |                           |    |                    |    |                           |
|----|---------------------------|----|--------------------|----|---------------------------|
| 32 | Display Settings          | 32 | Device Hardware    | 32 | Local & Global IP Address |
| 33 | Do Not Track              | 33 | Device Model       | 33 | Main Language             |
| 34 | Fonts                     | 34 | Device Product     | 34 | Memory                    |
| 35 | Graphic Card              | 35 | Display Settings   | 35 | Machine User ID           |
| 36 | Is Private Browsing       | 36 | Keyboards          | 36 | SIM Data                  |
| 37 | Local & Global IP Address | 37 | Languages          | 37 | OS Version                |
| 38 | Media Devices             | 38 | Local IP Address   | 38 | Sensor List               |
| 39 | Machine User ID           | 39 | Main Language      | 39 | Time Zone                 |
| 40 | Permissions Enabled       | 40 | Memory             |    |                           |
| 41 | <b>MAC Address</b>        | 41 | Machine User ID    |    |                           |
| 42 | <b>Device ID</b>          | 42 | Network Interfaces |    |                           |
|    |                           | 43 | OS Version         |    |                           |
|    |                           | 44 | Sensor List        |    |                           |
|    |                           | 45 | SIM Data           |    |                           |
|    |                           | 46 | Time Zone          |    |                           |
|    |                           | 47 | Wi-fi History      |    |                           |
|    |                           | 48 | <b>Device ID</b>   |    |                           |

Signature of authorised official  
 Name:  
 Company seal: