

Information Technology Division, HO, 5, Sansad Marg, New Delhi – 110 001  
 Email: [itdhw@pnb.co.in](mailto:itdhw@pnb.co.in)

### Consolidate Response to Pre-Bid Queries

#### Expression of Interest (EOI) for Supply, Implementation & Maintenance of Early Warning System (EWS) & Intelligent Transaction Monitoring System

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
1	6	vii) 1	Transaction alerts are to be attended to on a real time basis/near real time basis either by accepting the transaction or rejecting the transaction.	EWS monitoring is done on a batch mode usually T+1 basis. Real time monitoring requires direct integration with source systems which can affect performance of critical systems like CBS and hence most banks don't allow such integration. Please suggest if the requirement is to have a batch based monitoring frequency like every end of the day	Please be guided as per the EOI
2	7	vii) 4	Bidder should have documentary evidence to substantiate its Back-end arrangements with external agencies for Data sharing and for	For any external data, banks are better suited to take subscription to the mentioned data services for e.g. stock exchanges, peer banks, government websites will not enter into a data sharing agreement with vendor. Hence it is recommended for bank	Please be clarified that Data, as required by Bank from external sources/agencies is to be arranged/provided by the Bidder only. For this, the

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			integration capabilities.	to have the required subscriptions and arrangements in place. Bidder can provide a possible list of sources which can be discussed and agreed upon by the bank during requirement gathering phase. This is the approach taken by other banks as well. Please suggest if the data from external sources will be subscribed and provided by the bank. This approach also brings parity amongst the bidders as different bidders may choose different data sources and hence can have different costs.	bidder to ensure adequate arrangements with the External Agencies. Bank will not bear any cost incurred for the same.
3	7	vii) 6	Capabilities such as Artificial Intelligence, web crawling, Optical Character Recognition(OCR) etc. may be utilized to trigger precise EWS to the satisfaction of Bank.	Please clarify if the bank has existing OCR capabilities as OCR is not usually part of EWS solution. This is done at the source system level for example while onboarding a Customer	Please be clarified the solution should have any of these functionality/capability which should be utilized to trigger precise EWS to the satisfaction of Bank.
4	6	vii) 2	The solution should have full capability to cover Corporate, SME, Retail and Agriculture Loans irrespective of lending arrangement (whether sole banking, multiple banking or consortium).	EWS monitoring is restricted to corporate borrowers above a certain threshold. RBI is its circular No.RBI/2014-15/590 (DBS.CO.CFMC.BC.No.007/23.04.001/2014-15) dated May, 7, 2015 mentions - The threshold for EWS and RFA is an exposure of Rs.500 million or more at the level of a bank irrespective of the lending arrangement (whether solo banking, multiple banking or consortium). Can you help us know the number of accounts to be	Please be clarified that Bank intends to monitor 100% of its loan portfolio through this solution, irrespective of the threshold value or category.

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
				monitored for EWS and the threshold selected.	
5	6	v)	Presently bank's loan portfolio consist of approximately 61 lakhs accounts with yearly increment of around 20 %.	Please clarify how many of the mentioned accounts will be monitored for EWS and the threshold selected	Please be clarified that Bank intends to monitor 100% of its loan portfolio through this solution, irrespective of the threshold value or category.
6	15	Annexure C - 2	The bidder must have implemented similar solutions like Preventive Monitoring System, Early Warning System, Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years in atleast 3 banks (Public sector bank/ Private bank/BFSI) registered in India. Out of these three, atleast one of these solution should be currently running in a Bank with Loan Portfolio of atleast 50 % of PNB's Loan Portfolio as on 31.03.2019..	Request you to please modify the clause as follows :- "The bidder/OEM must have implemented/Under implementation similar solutions like Preventive Monitoring System/Early Warning System/ Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years in atleast 3 banks (Public sector bank/ Private bank/BFSI) registered in India.	<b>Corrigendum 2</b>
7	5	-		Name of the current PMS tool and version?	The PMS tool currently being used in Bank has been developed in-house.

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
8	5	-		Does the existing PMS tool cover only corporate borrowals? What about for other categories (retail, SME, Agri etc.)? Any other tool/application?	The existing PMS tool only covers Corporate Borrowers. Other details would be shared in the RFP.
9	5	-		Indicative txn volumes - by product, branch, zone, region?	The Bidders are required to demonstrate the scalability of their solution and constraints if any, in the upgradation or expansion of their solution. The details, if necessary, would be shared in the RFP.
10	6	3) i.		Would there be a need to monitor un-structured data (emails etc.)?	Yes, the proposed solution should monitor unstructured data as well.
11	6	3) i.		Would the scope of surveillance cover other payment channels like Bharat PayQR, Adhaar Pay etc.?	Please be clarified that the solution should cover all Channels
12	6	3) ii.		DC & DR locations? What is the RTO & RPO for disaster recovery?	DC is location at New Delhi & DRS at Mumbai. RTO & RPO will be shared in the RFP.
13	6	3) iv.		Does this require integration with third party BI tools? If so, we would need more information.	As of now there is o requirement of integration with third party Business Integration tools
14	6	3) iv.		Does this require integration with other external systems (incl. RBI)? If so, need to understand what all external systems the solution needs to integrate with.	Yes, there is requirement of integration with other external systems also, for the purpose of fetching data related to EWS.

<b>S.No.</b>	<b>Page . No.</b>	<b>EOI Clause No.</b>	<b>Existing Clause Details</b>	<b>Bidder's Query/Clarification sought/Remarks</b>	<b>Bank's Response</b>
15	6	3) v.		In the backdrop of recent PSU bank merger announcements, what are the expected volumes in loan account portfolios?	The Bidders are required to demonstrate the scalability of their solution and constraints if any, in the upgradation or expansion of their solution. The details would be shared in the RFP.
16	7	3) vii.1		Should the proposed solution have real-time monitoring, alerts and interdiction capabilities?	Please be guided as per the EOI
17	7	3) vii.3		Is there a need to provide consistent alerts/notifications audit trail? If so, for what types/categories?	Yes, a consistent alert along with notifications audit trail is required. The same is to be provided by the solution for all types & categories of loan accounts.
18	7	3) vii.3		Does the bank have any existing ADF/XBRL utility? If so, please mention name and version.	The details, if necessary, would be shared in the RFP.
19	7	3) vii.3		Does the bank have any existing ESB or Hub to carry out API integration?	The details, if necessary, would be shared in the RFP.
20	7	3) vii.4		What is the current EFRM and AML solution?	The details, if necessary, would be shared in the RFP.
21	7	3) vii.7		Should the reports be configurable?	Yes, the solution should provide configurable reports.
22	7	3) vii.7		Should the reports function provide drill-down, drill-through and drill-across capabilities?	Please be clarified, that through this EOI, bidders are required to showcase

<b>S.No.</b>	<b>Page . No.</b>	<b>EOI Clause No.</b>	<b>Existing Clause Details</b>	<b>Bidder's Query/Clarification sought/Remarks</b>	<b>Bank's Response</b>
23	7	3) vii.7		Currently, how many reports are being generated? Frequency? Complexity? Data sources touched? Data elements captured?	the capabilities of their proposed solution inline with our tentative scope of work and functional requirement. The exact and detailed technical /functional specification of the solution would be explicitly elaborated in the RFP.
24	7	3) vii.7		Presently, how are these reports being consumed internally? Formats? Frequency?	
25	7	3) vii.7		Currently, how are these reports being submitted to regulators? Formats? Frequency?	
26	7	3) vii.7		What are the number of jurisdictions (incl. high-risk jurisdictions) under the current reporting regime? Also, the number of reporting entities covering various jurisdictions?	
27	7	3) vii.7		Is there a need to provide consistent report audit trail? If so, for what types/categories - Submissions? Amendments? Bulk reports?	
28	7	3) vii.8		Is there a requirement to support schemas of various jurisdictions and regimes? And, to support future updates/upgrades to those schemas?	
29	7	3) vii.8		Is there a need to provide notifications and alerts related to the reports submitted to the Competent Authority or any other Regulatory body?	
30	7	3) vii.9		Should the proposed solution have the ability to perform detailed record/element level validation of content for XML(i.e. check data entry for spaces at the end of fields)?	Please be clarified, that through this EOI, bidders are required to showcase the capabilities of their proposed solution inline with

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
31	7	3) vii.9		Should the proposed solution have the ability to compare files (versions)?	our tentative scope of work and functional requirement. The exact and detailed technical /functional specification of the solution would be explicitly elaborated in the RFP.
32	7	3) vii.11		Should the reporting feature include STP submission (in a desired format) to the regulators?	
33	7	3) vii.11		Should the reporting feature include file split and export .XML files to specified folders?	
34	7	3) vii.11		Is there a need to provide for creating a workflow or authorization hierarchy for creating sign off procedure before report submission?	
35	7	3) vii.13		Does the bank have any existing negative news screening tool/utility? Is it web-based? If so, name and version please.	Bank at present does not have a negative news screening tool/utility
36	7	3) vii.13		Is PEP & Sanctions screening being done currently as part of AML compliance? If so, mechanism, tool?	The details, if necessary, would be shared in the RFP.
37	7	3) vii.13		Should the proposed solution do a 'real-time' PEP and Sanctions screening against internationally accepted and approved lists?	Please be clarified, that through this EOI, bidders are required to showcase the capabilities of their proposed solution inline with our tentative scope of work and functional requirement. The exact and detailed technical /functional specification of the solution would be explicitly elaborated in the RFP.
38	7	3) vii.14		Should the proposed system have in-built model validation tools to stress-test and back-test the model being deployed?	
39	7	3) vii.9		Should the 'alerts scoring' be done on a real-time basis?	
40	7	3) vii.9		Should the scoring models for real-time alerts and notifications be re-calibrated and deployed based on complex events	

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
				monitoring? If so, frequency?	
41	7	3) vii.8		Should the solution have the capability to produce 'false positive rates' for each rule that is triggered?	
42	7	3) vii.14		Should the rules engine automatically consider using only 1 (primary) rule, if the rules are highly correlated. This is to prevent over modelling.	
43	6	2. BACKGRO UND &PURPOS E OF THE PROJECT	This invitation of EOI is open to all Original Equipment Manufacturers (OEMs) of such solution, having presence in India or their Authorized Representative in India, provided bidders fulfill the minimum qualification criteria as mentioned in bid document (AnnexureIII)	The EOI document does not seem to have an " <b>Annexure III</b> ". Please clarify.	This refers to the eligibility criteria as in Annexure C
44	6	2. BACKGRO UND &PURPOS E OF THE PROJECT	If a single solution is not able to meet all the requirements of a fully functional EWS solution, the bidder can provide the solution of any other OEM also to meet the	Since full functionality of the EWS requirements have not been given in the Scope of work, we seek more details so as to be prepared to provide the same in our solution.	A tentative requirement has been illustrated in the scope of work of the EOI. Bidders are required to propose solutions, inline with our requirement. The exact and detailed technical /functional

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			requirements i.e all the technical/functional requirements should be complied with through one or more solution of one OEM or multiple OEMs.		specification of the solution would be explicitly elaborated in the RFP.
45	6	3. SCOPE OF WORK v.	v. Bidder is required to implement the solution for the entire loan portfolio including all fund based and non fund based facilities. Presently bank's loan portfolio consist of approximately 61 lakhs accounts with yearly increment of around 20 %.	Please clarify whether the Bank intends to include all 61 lakhs accounts at one go or same will be done on a staggered basis.	Please be clarified that the solution is to be implemented for 100% of Bank's loan portfolio (both for fund based & non-fund based and including off-Balance sheet exposure, in one go, i.e. at the time of implementation itself.
46	6	3. SCOPE OF WORK v.	In case PNB acquires or amalgamate any other bank/s at any future date, the solution should have to be extended to such entity for which only implementation cost will be paid by bank.	Since merger of two banks have already been announced, please include their requirements also, so that the Bidder will have a clear understanding of the volume involved.	The Bidders are required to demonstrate the scalability of their solution and constraints if any, in the upgradation or expansion of their solution. The volume details, if necessary, would be shared in the RFP.
47	6	3. SCOPE OF WORK vii.	1. Transaction alerts are to be attended to on a real time basis/near real time basis either by accepting the transaction	We wish to suggest that in the initial phase, T+1 basis may be considered and subsequently upgraded to real-time basis.	Please be guided as per the EOI

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			or rejecting the transaction.		
48	7	3. SCOPE OF WORK vii.	4. Bidder should have documentary evidence to substantiate its Back-end arrangements with external agencies for Data sharing and for integration capabilities.	Please clarify on the "documentary evidence"	Any documentary evidence, such as copy of a valid agreement between the bidder and the External Agency, that would substantiate the data sharing arrangement between the two.
49	12	14. EVALUATION of EOI Response d.	First of all, the EOI Cost of all bidders will be verified. If any EOI Cost is not found in order, that bidder will be declared ineligible for further participating in the tender process	We did not seem to have seen any format for submission of EOI cost. Without this, how the cost of all bidders will be verified?	Please refer Pg 3 of the EOI. The bidders are required to submit the EOI cost (along with GST) through online transaction in the PNB account as mentioned. If the EOI cost is not submitted or if there is any deviation in the amount, the bidder will not be eligible for further evaluation.
50	12	14. EVALUATION of EOI Response e.	Bids complying with all the eligibility criteria and confirming compliance to all the terms & conditions of EOI document would be further evaluated on technical parameters	We did not seem to have seen any technical parameters specified in the EOI document.	By technical evaluation, it is meant that the Presentation of the bidders would be evaluated on the basis of the technical capabilities of the solution, demonstrated during the presentation.
51	15	Annexure-C-	The bidder must have implemented similar	We request you to clarify "Preventive Monitoring System", Intelligent	<b>Corrigendum 2</b>

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
		Response to eligibility criteria 2.	solutions like Preventive Monitoring System, Early Warning System, Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years in atleast 3 banks (Public sector bank/Private bank/BFSI) registered in India. Out of these three, atleast one of these solution should be currently running in a Bank with Loan Portfolio of atleast 50 % of PNB's Loan Portfolio as on 31.03.2019	Transactional Monitoring System etc." As per GOI Ministry of MSME, PSUs are advised to provide certain relaxations to MSME units on Prior Turnover and Prior Experience, subject to meeting quality and technical specifications. Please confirm that the Govt. guidelines will be adhered to for this EOI. (Copy enclosed)	
52	15	Annexure-C- Response to eligibility criteria 5.	The bidder should have Support center in Delhi/NCR and Mumbai Undertaking to be submitted with details of support center like address, contact details, no. of Support engineers	This may be modified to "Undertaking to be submitted <b>to the effect that the shortlisted successful bidder shall provide</b> details like address, contact details, no. of Support engineers"	<b>Corrigendum 1</b>
53	15	Annexure-C- Response to eligibility criteria	The bidder should have a minimum turnover of INR 10 crores (Rupees Ten crores) during the past 3 financial years i.e. 2018-	As per GOI Ministry of MSME, PSUs are advised to provide certain relaxations to MSME units on Prior Turnover and Prior Experience, subject to meeting quality and technical specifications. Please confirm	Relaxation with respect to EOI cost has been provided to MSME bidders. No further relaxation, in any of the eligibility criteria would

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
		7.	19, 2017-18, 2016-17, from their Indian operations should have positive networth during the last three financial years	that the Govt. guidelines will be adhered to for this EOI. (Copy enclosed)	be provided.
54	17	Annexure D – Details of the Bidder 11.	Details of Service Support Center in Delhi/NCR and Mumbai Complete Address: No. of Support Engineers: Contact Person (Name & No.): Email ID:	An undertaking letter may be obtained to the effect that the bidder, if shortlisted as successful bidder, shall provide these details.	<b>Corrigendum 1</b>
55	17	Annexure D – Details of the Bidder 14.	Please mention turnover for last three financial years and include the copies of Audited Balance Sheet in support of it.	For 2018-19, unaudited financials may be accepted, with an undertaking to submit the audit financials as and when ready.	<b>Corrigendum 3</b>
56	18	Annexure E – Details of the solution provided	a. Details of the solution b. Technical details of Projects, Solution Developed	MSMEs may be exempted from submitting this.	Please be guided as per the EOI
57	20	Annexure G – Customer reference	1) Provide customer references with following details	MSMEs may be exempted from submitting this.	Please be guided as per the EOI
58	23	ANNEXUR E-J	PERFORMANCE CERTIFICATE	MSMEs may be exempted from submitting this.	Please be guided as per the EOI

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
59	5	1. INTRODUCTION:	Bank has its overseas presence in 6 countries by ways of 2 branches (1 Hong Kong and 1 Dubai) , 2 subsidiaries (London and Bhutan, 1 Associate (at Kazakhstan), 1 joint Venture (at Nepal).	Is the bank looking to implement the proposed solution to it's foreign branches, subsidiaries, associate and joint venture also? If yes, is all the data maintained in the same DC?	Please be clarified that Bank intends to monitor 100% of its loan portfolio through this solution, irrespective of the location.
60	5	1. INTRODUCTION:	Bank has its overseas presence in 6 countries by ways of 2 branches (1 Hong Kong and 1 Dubai) , 2 subsidiaries (London and Bhutan, 1 Associate (at Kazakhstan), 1 joint Venture (at Nepal).	Is separate instances (Separate HW & Application) of the proposed solution to be implemented for foreign branches, subsidiaries, associate and joint venture or the bank is looking for single instance implementation covering all of the branches/ offices.	Bidder are required to propose best suited deployment architecture for PNB. Exact requirement of the Bank would be mentioned in the RFP.
61	5	1. INTRODUCTION:	The Centralized Banking Application covers all the 7000 plus SOLs (Service Outlets), which are connected to the Data Centre and DRS through an Enterprise Wide Network which is a two tier meshed architecture	It is our understanding that the centralized banking application covers only 7000+ Service Outlets in India. Does bank has separate instances of CBS for foreign entities also?	The detail, if necessary would be shared in the RFP
62	6	3. SCOPE OF WORK:	ii. The solution is required to be implemented at Bank's Data Centre & Disaster Recovery Centre	Requesting the bank to provide the list of source systems other than CBS in current scope for integrating with the proposed EWS solution.	The detail, if necessary would be shared in the RFP

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			and it to be integrated with Bank's CBS or any other existing or future solution, as required by the Bank		
63	6	3. SCOPE OF WORK:	1. Transaction alerts are to be attended to on a real time basis/near real time basis either by accepting the transaction or rejecting the transaction.	Is bank looking for transaction blocking/rejecting capabilities in the proposed EWS solution? Please confirm.	The proposed solution should have all the required features.
64	7	3. SCOPE OF WORK:	4. .... Bidder should have documentary evidence to substantiate its Back-end arrangements with external agencies for Data sharing and for integration capabilities	Does bidder need to provide the external data? Please confirm. Will bank bear the cost for the external data subscription or the bidder has to bear it?	Please be clarified that Data, as required by Bank from external sources/agencies is to be arranged/provided by the Bidder only. For this, the bidder to ensure adequate arrangements with the External Agencies. Bank will not bear any cost incurred for the same.
65	7	3. SCOPE OF WORK:	2. The solution should have full capability to cover Corporate, SME, Retail and Agriculture Loans irrespective of lending arrangement (whether sole banking, multiple banking or	Is monitoring required for all Retail, SME, corporate, Agriculture Loans facilities or is the bank looking to implement the EWS capabilities for customers having sanction limit above a certain threshold limit defined by RBI. Kindly clarify.	Please be clarified that Bank intends to monitor 100% of its loan portfolio through this solution, irrespective of the threshold value or category.

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			<p>consortium). The exposure Limit for reporting of EWS/RFA may be changed from time to time as per RBI guidelines, system should be capable of parameterizing the exposure limit for identification/reporting of EWS/RFA.</p>		
66	7	3. SCOPE OF WORK:	<p>2. The solution should have full capability to cover Corporate, SME, Retail and Agriculture Loans irrespective of lending arrangement (whether sole banking, multiple banking or consortium). The exposure Limit for reporting of EWS/RFA may be changed from time to time as per RBI guidelines, system should be capable of parameterizing the exposure limit for identification/reporting of EWS/RFA.</p>	<p>Requesting the bank to provide the estimate of the number of retail customer that are to be monitored under EWS.</p>	<p>The Bidders are required to demonstrate the scalability of their solution and constraints if any, in the upgradation or expansion of their solution. The volume details, if necessary, would be shared in the RFP.</p>

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
67	7	3. SCOPE OF WORK:	2. The solution should have full capability to cover Corporate, SME, Retail and Agriculture Loans irrespective of lending arrangement (whether sole banking, multiple banking or consortium). The exposure Limit for reporting of EWS/RFA may be changed from time to time as per RBI guidelines, system should be capable of parameterizing the exposure limit for identification/reporting of EWS/RFA.	Requesting the bank to provide the estimate of the number of corporate customer that we are looking to monitor under EWS?	The Bidders are required to demonstrate the scalability of their solution and constraints if any, in the upgradation or expansion of their solution. The volume details, if necessary, would be shared in the RFP.
68	7	3. SCOPE OF WORK:	2. The solution should have full capability to cover Corporate, SME, Retail and Agriculture Loans irrespective of lending arrangement (whether sole banking, multiple banking or consortium). The exposure Limit for reporting of EWS/RFA may be changed from	Requesting the bank to provide the estimate of the number of SME customer that we are looking to monitor under EWS?	The Bidders are required to demonstrate the scalability of their solution and constraints if any, in the upgradation or expansion of their solution. The volume details, if necessary, would be shared in the RFP.

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			time to time as per RBI guidelines, system should be capable of parameterizing the exposure limit for identification/reporting of EWS/RFA.		
69	7	3. SCOPE OF WORK:	2. The solution should have full capability to cover Corporate, SME, Retail and Agriculture Loans irrespective of lending arrangement (whether sole banking, multiple banking or consortium). The exposure Limit for reporting of EWS/RFA may be changed from time to time as per RBI guidelines, system should be capable of parameterizing the exposure limit for identification/reporting of EWS/RFA.	Requesting the bank to provide the estimate of the number of Agriculture Loans customer that we are looking to monitor under EWS?	The Bidders are required to demonstrate the scalability of their solution and constraints if any, in the upgradation or expansion of their solution. The volume details, if necessary, would be shared in the RFP.
70	7	3. SCOPE OF WORK:	2. The solution should have full capability to cover Corporate, SME, Retail and Agriculture Loans irrespective of	Requesting the bank to provide the breakdown of the number of Corporate Customers (Listed / Non-Listed), SME, MSME, Partnership etc.	Please be clarified that the solution should have cover 100% loan portfolio, irrespective of the type/category. As such the

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			<p>lending arrangement (whether sole banking, multiple banking or consortium). The exposure Limit for reporting of EWS/RFA may be changed from time to time as per RBI guidelines, system should be capable of parameterizing the exposure limit for identification/reporting of EWS/RFA.</p>		breakdown is not required.
71	7	3. SCOPE OF WORK:	<p>2. The solution should have full capability to cover Corporate, SME, Retail and Agriculture Loans irrespective of lending arrangement (whether sole banking, multiple banking or consortium). The exposure Limit for reporting of EWS/RFA may be changed from time to time as per RBI guidelines, system should be capable of parameterizing the exposure limit for</p>	<p>Requesting the bank to provide the Total Number of Corporate &amp; SME Customers which require monitoring</p> <ul style="list-style-type: none"> <li>- Listed Entities</li> <li>- Unlisted Entities</li> </ul>	<p>Please be clarified that the solution should have cover 100% loan portfolio, irrespective of the type/category. As such the breakdown is not required.</p>

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			identification/reporting of EWS/RFA.		
72	7	3. SCOPE OF WORK:	4. Capability to collate, consolidate , transform, enrich, filter, analyse and storage of structured / semi-structure / un-structured information / data from all available channels from bank"s internal solution like CBS, Rating, EFRM,CLAPS,CLPMS,A ML etc. and from others like MCA, CERSAI, CRILIC, NSE/BSE etc.	Our understanding is that data from sources such as CRILIC etc. which is available only to the banks, will be arranged by the bank. Kindly confirm.	Please be clarified, that through this EOI, bidders are required to showcase the capabilities of their proposed solution inline with our tentative scope of work and functional requirement. Other details , if necessary would be shared in the RFP. However, capabilities of integration with external data source should be present in the solution.
73	15	Annexure-C- Response to eligibility criteria	2. The bidder must have implemented similar solutions like Preventive Monitoring System, Early Warning System, Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years in atleast 3 banks (Public sector bank/ Private bank/BFSI) registered in India. Out of these three, atleast one	Early Warning Signals solution is fairly a new requirement in Indian Banking space and not a single bank has gone live fully with alerts prescribed by RBI & Department of Financial Services. Hence requesting bank to kindly consider Enterprise Fraud Management system (also a similar solution to EWS) implementation experience to this eligibility criteria. Kindly modify the clause as "The bidder must have implemented similar solutions like Preventive Monitoring System, Early Warning System, Intelligent Transactional Monitoring system, Enterprise Fraud	<b>Corrigendum 2</b>

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			of these solution should be currently running in a Bank with Loan Portfolio of atleast 50 % of PNB's Loan Portfolio as on 31.03.2019.	Management system etc. in the area of credit and monitoring during last 5 years in at least 3 banks (Public sector bank/ Private bank/BFSI) registered in India. "	
74	15	Annexure-C- Response to eligibility criteria	5. The bidder should have Support center in Delhi/NCR and Mumbai.	We are providing support to PNB at Delhi for an ongoing project and we are also supporting multiple bank's in Mumbai where our support engineers work onsite at these banks. If required we will set up a support center in Delhi/NCR and Mumbai. Please confirm if this is acceptable.	<b>Corrigendum 1</b>
75	15	Annexure-C- Response to eligibility criteria	7. The bidder should have a minimum turnover of INR 10 crores (Rupees Ten crores) during the past 3 financial years i.e. 2018-19, 2017-18, 2016-17, from their Indian operations should have positive network during the last three financial years  Provide Audited Financial statements (Balance sheet & Profit & Loss statement) for the last three (3) Financial years	For MSMEs it would be difficult to have positive net worth in the last 3 financial years hence requesting the bank to change the clause as "The bidder should have a minimum turnover of INR 10 crores (Rupees Ten crores) during the past 3 financial years i.e. 2018-19, 2017-18, 2016-17, from their Indian operations should have positive net worth during the last two financial years."	<b>Corrigendum 3</b>

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
76	15	Annexure-C- Response to eligibility criteria	7. <b>Supporting Documents to be submitted:</b> Provide Audited Financial statements (Balance sheet & Profit & Loss statement) for the last three (3) Financial years	Our financial statement for FY 18-19 is under audit and will be available in a months time. Hence requesting the bank to accept provisional financial statements for FY 18-19 along with an undertaking to submit the audited financial statement when they are available.	<b>Corrigendum 3</b>
77	15	Annexure-C- Response to eligibility criteria	8. Bidder must have qualified and experienced team for implementing & maintenance of the solution to be deployed at PNB. The team must consist of persons having atleast 3 years of experience of the working of the proposed solution and must have knowledge of General Banking domain also.	Early warning Signals solution is fairly very new requirement in the banking technology space in India and persons with three years of experience is very difficult to find. Hence requesting bank to consider people with experience in similar solutions like Enterprise Fraud Management, Anti Money Laundering etc. and modify this clause as "8. Bidder must have qualified and experienced team for implementing & maintenance of the solution to be deployed at PNB or similar solutions like EFM, AML etc. The team must consist of persons having at least 3 years of experience of the working of the proposed solution or similar solutions like EFM, AML etc. and must have knowledge of General Banking domain also."	<b>Please be guided as per the EOI</b>
78			The following information is required for us to provide appropriate HW sizing.		Please be clarified, that through this EOI, bidders are required to showcase the capabilities of their proposed solution inline with
			<b>Core Banking System</b>		

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			Total Number of Corporate Customers		our tentative scope of work and functional requirement along with the scalability, additional features, integration capabilities & deployment architecture. The details required for sizing of the solution would be explicitly elaborated in the RFP.
			Total Number of Current Accounts of Corporate Customers (as in c)		
			Total Number of Loan Account / Credit Facilities held by these customers (as in c)		
			Total Number of transactions for Deposits and Credit Accounts in a day, month and year for these customers (as in c)		
			Total Number of Corporate Customers with exposure greater than 50 crores		
			Total Number of Current Accounts of Corporate Customers (as in g)		
			Total Number of Loan Account / Credit Facilities held by these customers (as in g)		
			Expected YoY Growth (%)		
			System X (Please replicate this section for all the products / channels in project		

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			scope)		
			System X Name and Vendor		
			Total number of Account in System X		
			Total transactions volume per day, month and year		
			Average TPS of all transactions in System X		
			Peak TPS of all transactions in System X		
			Expected YoY Growth (%)		
79	NA	NA	Requesting the bank to provide the required number of named user access required for the proposed EWS solution.		
80	15	ELIGIBILITY CRITERIA OF THE BIDDER, Point No 2	The bidder must have implemented similar solutions like Preventive Monitoring System, Early Warning System, Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years in atleast 3 banks (Public sector bank/	The <b>bidder/ OEM</b> must have <b>implemented/ Under Implementation</b> similar solutions like Preventive Monitoring System OR Early Warning System OR Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years in atleast <b>2 banks</b> (Public sector bank/ Private bank/BFSI) registered in India. Out of these three, atleast one of these solution should be currently running in a Bank	<b>Corrigendum 2</b>

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			Private bank/BFSI) registered in India. Out of these three, atleast one of these solution should be currently running in a Bank with Loan Portfolio of atleast 50 % of PNB's Loan Portfolio as on 31.03.2019..		
81	6	vii) 1	Transaction alerts are to be attended to on a real time basis/near real time basis either by accepting the transaction or rejecting the transaction.	EWS monitoring is done on a batch mode usually T+1 basis. Real time monitoring requires direct integration with source systems which can affect performance of critical systems like CBS and hence most banks don't allow such integration. Please suggest if the requirement is to have a batch based monitoring frequency like every end of the day	Please be guided as per the EOI
82	7	vii) 4	Bidder should have documentary evidence to substantiate its Back-end arrangements with external agencies for Data sharing and for integration capabilities.	For any external data, banks are better suited to take subscription to the mentioned data services for e.g. stock exchanges, peer banks, government websites will not enter into a data sharing agreement with vendor. Hence it is recommended for bank to have the required subscriptions and arrangements in place. Bidder can provide a possible list of sources which can be discussed and agreed upon by the bank during requirement gathering phase. This is the approach taken by other banks as well. Please suggest if the data from external	Please be clarified that Data, as required by Bank from external sources/agencies is to be arranged/provided by the Bidder only. For this, the bidder to ensure adequate arrangements with the External Agencies. Bank will not bear any cost incurred for the same.

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
				sources will be subscribed and provided by the bank. This approach also brings parity amongst the bidders as different bidders may choose different data sources and hence can have different costs.	
83	7	vii) 6	Capabilities such as Artificial Intelligence, web crawling, Optical Character Recognition(OCR) etc. may be utilized to trigger precise EWS to the satisfaction of Bank.	Please clarify if the bank has existing OCR capabilities as OCR is not usually part of EWS solution. This is done at the source system level for example while on boarding a Customer	Please be clarified the solution should have any of these functionality/capability which should be utilized to trigger precise EWS to the satisfaction of Bank.
84	6	vii) 2	The solution should have full capability to cover Corporate, SME, Retail and Agriculture Loans irrespective of lending arrangement (whether sole banking, multiple banking or consortium).	EWS monitoring is restricted to corporate borrowers above a certain threshold. RBI is its circular No.RBI/2014-15/590 (DBS.CO.CFMC.BC.No.007/23.04.001/2014-15) dated May, 7, 2015 mentions - The threshold for EWS and RFA is an exposure of Rs.500 million or more at the level of a bank irrespective of the lending arrangement (whether solo banking, multiple banking or consortium). Can you help us know the number of accounts to be monitored for EWS and the threshold selected.	Please be clarified that Bank intends to monitor 100% of its loan portfolio through this solution, irrespective of the threshold value or category.
85	6	v)	Presently bank's loan portfolio consist of approximately 61 lakhs accounts with yearly increment of around 20	Please clarify how many of the mentioned accounts will be monitored for EWS and the threshold selected	Please be clarified that Bank intends to monitor 100% of its loan portfolio through this solution, irrespective of the threshold

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			%. %		value or category.
86	Page -7	Scope of Work	During Presentation, the bidder will also have to show the front end of the proposed application i.e monitoring of transactions, generating alert, updating as well as inserting the data to the data base, deployment method etc.	Presentation of deployment methodology during demo is not feasible, request the bank to drop this particular requirement during presentation.	During the Presentation, Bidders are required to illustrate how their solution would be deployed and how will it achieve the intended objective.
87	Page -7	Scope of Work	Hardware and software to be provided along with architecture	We are the software provider, request the bank to remove the hardware requirement	Please be clarified that with respect to hardware, Bank will only provide VMs on x86 platform. Any other hardware required for the complete operationalization of the solution is to be provided by the bidder itself.
88	Page -7	Scope of Work	Capabilities such as Artificial Intelligence, web crawling, Optical Character Recognition(OCR) etc may be utilized to trigger precise EWS to the satisfaction of Bank.	Software will use web crawling feature for generating alerts from unstructured data, kindly advise its that fine at bank's end	Please be clarified the solution should have any of these functionality/capability which should be utilized to trigger precise EWS to the satisfaction of Bank.
89	-	General	Request the bank to advise regarding the		<b>The details would be shared in the RFP.</b>

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			costing and aggrement procedure with data aggregator		
90	-	General	Hardware Sizing	Please provide number of accounts across all the business segments (Corporate/Retail/Argi/SME) and number of "concurrent" users.	Bidders are required to showcase the capabilities of their proposed solution along with the scalability, additional features, integration capabilities & deployment architecture. The details required for sizing of the solution would be explicitly elaborated in the RFP.
91	15	Page 15 , Point 2 of Eligibility Criteria	The bidder must have implemented similar solutions like Preventive Monitoring System, Early Warning System, Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years in atleast 3 banks (Public sector bank/ Private bank/BFSI) registered in India. Out of these three, atleast one of these solution should be currently running in a Bank	We request bank for below modification: The bidder must have implemented similar solutions like Preventive Monitoring System or Early Warning System or Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years in atleast 3 banks (Public sector bank/ Private bank/BFSI) registered in India and abroad .	<b>Corrigendum 2</b>

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
			with Loan Portfolio of at least 50 % of Loan Portfolio as on 31.03.2019.		
92				How many channels are required to integrated with EWS system	All channels are required to be integrated with the EWS system.
93				Will all transactions be required to be screened real time for alert or batch mode process will also be required for monitoring transactions.	Please be guided as per the EOI
94				Will Solution required real time integration with URLs for BSE/NSE, CRICIL for news feed.	Yes.
95		3 (iii)		Does the bank permit usage of open source tools as part of the solution?	Please be clarified that usage of open source is not allowed.
96		3 (iii)		Does the bank have an existing reporting platform that can be leveraged for this implementation?	Bidder is required to provide integrated & comprehensive solution which will provide everything from capturing the EWS , its reporting and closure thereby .
97		3 (v)		Please provide the expected number of users and concurrent users	Please be clarified, that through this EOI, bidders are required to showcase the capabilities of their proposed solution inline with our requirement along with the scalability of their
98		3 (v)		With the board approved merger with OBC and UBI, please inform if the solution is to be rolled out to the merged entity; if yes, please provide the number of total	

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
				number of asset accounts	solution and constraints if any, in the upgradation or expansion of their solution, additional features, integration capabilities & deployment architecture. Other details including volume details required for sizing of the solution, if necessary, would be explicitly elaborated in the RFP.
99		3 (v)		With the board approved merger with OBC and UBI, please inform if the solution is to be rolled out to the merged entity; if yes, please confirm if the version numbers of CBS is the same in the 3 banks	
100		3 (vii) - 1		Please elaborate on the coverage of transaction alerts on real time/near real time basis. Does this cover only FB or NFB transaction as well?	Please be guided as per the EOI
101		3 (vii) - 1		Please inform us on the coverage of the solution - is it for India only or foreign branches also? If foreign branches are also to be covered, please let us know if all branches are on the same CBS as the domestic ones	Please be clarified that Bank intends to monitor 100% of its loan portfolio through this solution, irrespective of the location.
102		3 (vii) - 4		Does the bank have existing partnerships with external sources that can be leveraged for the proposed solution?	Bank does not have any such partnerships presently. Further the bidder to ensure adequate arrangements with the External Agencies. Bank will not bear any cost incurred for the same.

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
103	Annexure C. Sl. No.2	15	The bidder must have implemented similar solutions like Preventive Monitoring System, Early Warning System, Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years in atleast 3 banks (Public sector bank/ Private bank/BFSI) registered in India. Out of these three, atleast one of these solution should be currently running in a Bank with Loan Portfolio of atleast 50 % of PNB's Loan Portfolio as on 31.03.2019..	<b>Request the bank to modify the clause as follows to allow eligible vendors like us to participate.</b> The bidder must have implemented similar solutions like Preventive Monitoring System, Early Warning System, Intelligent Transactional Monitoring system etc. in the area of credit and monitoring during last 5 years <b>in atleast one bank</b> (Public sector bank/ Private bank/BFSI/ <b>Any Financial Institution</b> ) <b>in /Outside India</b>	<b>Corrigendum 2</b>
104			General	Please share the detail list of application used in the Bank, with which the proposed Early Warning System need to be integrated	Bidder is required to demonstrate its integration capabilities as per the tentative scope of work and requirement of the Bank. The list of applications, if required, would be shared in the RFP.
105			General	What all events are expected to be monitored by the system? Kindly share us the detailed scenario's for evaluation.	Please refer the scope of work for the tentative requirement. Exact

S.No.	Page . No.	EOI Clause No.	Existing Clause Details	Bidder's Query/Clarification sought/Remarks	Bank's Response
					technical/functional specification would be shared in the RFP.