



Department of Information Technology

Expression of Interest (EOI) for Procurement of Open API Banking & Secret Key Management Solution (E-tendering)

EOI Ref No: UCO/DIT/EOI/2509/2022-23 Date: 10.01.2023

Pre-Bid Responses/ Clarifications to Queries raised by the Bidder(s) uploaded on 25/01/2023

Sl. No	RFP Page no.	RFP Clause No.	Original RFP Clause	Query sought/ Suggestions of the Bidder	Bank's response
1.			General Terms and Conditions	Is the response to the EOI supposed to be submitted both digitally and physically?	It is clarified that all the EOI documents should be submitted digitally and documents executed on non-judicial stamp paper to be submitted physically. For more clarity on digital submission, refer control sheet of EOI.
2.			Scope of Work	"The offered solution should be implemented on-premise and should be compatible with Private Cloud, Public Cloud, and Hybrid Infrastructure as available in the market." Please elaborate more on on-premise implementation of the	The complete end to end solutions including hardware shall be installed inside Bank's Data Centres. The data centre location will be shared with selected bidder.

				solution?	
3.			Scope of Work	"The solution should adhere to all API standards whether regional or local." Please provide the existing API standards used by the bank?	Query is not admissible.
4.			Scope of Work	"The solution has to be implemented at Bank's Primary, Secondary sites and any other site as per Bank's requirement." Can you provide details of secondary and other sites?	Bank's data centre is located in India. Details shall be shared with selected bidder.
5.			Scope of Work	As per the EOI, "Post implementation, Bidder has to provide onsite support for any customization and/or new implementations in any API or the solution as per discretion of the Bank as and when required by the Bank." Is there any tentative timeline for which the bidder is required to provide onsite support?	Bidder is required to provide onsite support during entire contract period i.e. 1 year warranty plus 4 year ATS.
6.			Scope of Work	What would be the frequency of SOP updates to be performed by the bidder during the course of the engagement?	Query is not admissible.
7.			General Terms and Conditions	Is the bidder expected to develop any BRDs as part of the scope?	Yes Kindly refer EOI document for more clarity.
8.			General	Is there a specific requirement for	It is noted that bidder has to submit all the annexures

				the format of the EOI?	mentioned in the EOI.
9.			General	Does the scope include the design or implementation of any internal business processes or program management thereof?	Yes, bidder's understanding is correct.
10.			General Terms and Conditions	What is the expected timeline for the completion of this engagement?	It will be completed as per Bank's policy and guidelines.
11.			Bid Submission & Evaluation	What will be the tentative timeline against release and submission of the RFP	Query is not admissible
12.			Scope of Work	As per the EOI, "Bidder shall provide comprehensive onsite support and deploy onsite resources during the warranty period of 1 year free of cost and onsite support for subsequent ATS period of 4 years, if availed by the Bank." Is there any limit to the resources for onsite deployment during 1 year warranty and 4 year ATS period	Clause is self-explanatory
13.			Scope of Work	What can be relevant modes of training? - entirely onsite, entirely offsite or mix of onsite & offsite	Modes of training should be onsite as well as offsite as per the requirements of Bank.
14.			Scope of Work	Please provide more details on the frequency of Dashboards and MI Reporting to be generated	Query is not admissible.
15.			Scope of Work	"The solution should be able to provide alerts by way of SMS/E-Mail/Dashboard for various failure	Alerts for failure events shall be triggered on real-time basis.

				events for defined thresholds/scenarios." Should all the alerts be Real Time or can this be triggered as a mix of real time and batch mode?	
16.			Scope of Work	As per the EOI, "Bidders to ensure resolution time of 4 hours." Please clarify our understanding, the SLA's might vary as per the criticality of the incident, hence a SLA matrix to be developed during the course of the engagement and the appropriate resolution time to be adhered	Clause stands as per EOI
17.			Technology	How many applications approx. are being used at the bank?	Query is not admissible.
18.			Technology	Is there an envisioned architecture documented (even at a high level) of how the overall integrated solution will look like?	Bidder has to provide the same.
19.			Technology	How many APIs would be needed approx. to support the overall envisioned architecture ?	Query is not admissible.
20.			Technology	What is the current baseline TPS and average payload stats ?	Query is not admissible.
21.			Technology	Has any cloud solution been adopted so far? If yes, which Hyperscaler?	Query is not admissible.
22.			Technology	What are the challenges faced with the current architecture and tech	Query is not admissible.

				landscape?	
23.			Technology	Is there any other CBS in place apart from Finacle?	Query is not admissible.
24.			Technology	Which are the LOS and LMS in place?	Query is not admissible.
25.	9	Eligibility Criteria - Point 6	The bidder must have implemented Secret Key Management Solution and successfully under live run the in any one Public sector Bank/Private sector bank/BFSI/NBFC during last three years as on bid submission date.	Requesting Bank to kindly consider this experience : We have supplied our UPI solution at our data centre on hosted model along with Hardware Security Module (HSM) to various scheduled commercial banks.	Clause stands as per EOI
26.	9	Eligibility Criteria - Point 7	The bidder must have implemented Open API Banking solution and successfully under live run in any one Public sector Bank/Private sector bank/BFSI/NBFC during last three years as on bid submission date.	Requesting bank to consider : The bidder must have implemented Open API Banking solution and successfully under live run in any one Public sector Bank/Private sector bank/BFSI/NBFC during last four years as on bid submission date.	Clause stands as per EOI
27.	18	45	Source code of the developed/customized APIs will be exclusive property of UCO Bank.	Source code developed will be exclusive property of (the vendor)	Clause stands as per EOI
28.				Following clause is missing. Please include: Limitation of Liability	Bank will not accept any additional clause.

				<p>Licensor's liability under this contract is limited to the amount of fees considerations received by it reduced by the associated costs, till such time as the Software Solution is under warranty from Licensor. After expiry of warranty and provided the Client has entered into an Annual Maintenance Contract (AMC) for maintenance and support of the Software Solution, such liability will be limited to the amount of AMC fees paid to Licensor during the calendar year of such claim. Under no circumstances shall the liability of Licensor regardless of the nature of claim whether in contract, tort, strict liability or any other theory of liability, exceed the amount mentioned above.</p> <p>The aforesaid limitation does not apply to any liability of the Licensor towards violation of third party Copyrights / Intellectual Property Rights as well as any acts of gross negligence, misconduct or fraud on the part of the Licensor or its representatives causing direct loss to the Bank causing mal-functioning or non-functioning of the Software and where such claims are subjected to and decided by the</p>	
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				<p>court of law.</p> <p>The Licensor shall not be liable for any special, indirect, incidental or consequential damages of any kind including but not limited to loss of use, data, profit, income, business, anticipated savings, reputation, and more generally, any loss of an economic or financial nature, which may be deemed as consequential incident of the claim.</p> <p>The foregoing states and constitutes the entire obligations and liabilities of Licensor to Licensee.</p>	
29.				<p>Following clause is missing. Please include:</p> <p>a. Indemnification</p> <p>The Licensor hereby indemnifies Licensee from costs and expenses arising from infringement of unaffiliated third party rights by the Software Solution provided that: (1) Licensor is given prompt notice of the claim; (2) Licensor is given immediate and complete control over defence and/or settlement of claim, and Licensee fully cooperates with Licensor in such</p>	Bank will not accept any additional clause.

				<p>defence and/or settlement; (3) Licensee does not prejudice in any manner Licensor's conduct of such claim; and (4) the alleged infringement is not based upon use of Software Solution in a manner prohibited under this Contract, in a manner for which Software Solution was not designed, or in a manner not in accordance with Specifications.</p> <p>b. Altered Version</p> <p>The Licensor shall have no liability for any claim of infringement based on (a) use of a superseded or altered version of Software Solution if infringement would have been avoided by use of a current or unaltered version of Software Solution which Licensor made available to Licensee or (b) combination, operation or use of Software Solution with software, hardware or other materials not furnished by Licensor.</p> <p>c. Liability</p> <p>The foregoing states Licensor's entire obligation and liability with respect to infringement of any intellectual property right.</p>	
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30.		4.A	The scope of work includes following but is not limited to	Please specify the number of API at the time of go live	Query is not admissible.
31.		4.9		some of standard may be different , it is assumed that product can follow the industry standards	Query is not admissible.
32.		4.1		Please confirm if other systems support the integration and they have the required API's are available at the time of project implementation	Query is not admissible.
33.		4.17		assumption : APP tps is 250 , please let us know the grow percentage year by year	EOI clause no-67 is self-explanatory
34.		4.19		SLA is based on the severity of the application , both bank and Bidder should be agree to define the SLA	Query is not admissible.
35.	11	4. Scope of work	Secret Key Management Solution should be capable to handle/manage all symmetric encryption keys & asymmetric encryption keys (i.e. Public Private Key pair/Digital Signature Certificate) used by various systems in Bank for integration with internal & external applications/systems in secured manner	As we understand, Secret Key management is required for various application / system in Bank & not only for API Management solution. So can the bidder co-relate this as two different requirement in one RFP	In build Secret Key Management components of Open API Banking Solution should be capable to maintain/manage secret keys/certificates at separate server/environment and same component should be capable to integrate with other application/software of the Bank for providing access of the secret key/certificates to other application also. In

					case the component is not an integral part of solution, additional application/tools should be factored as per the scope of work.
36.	11	4. Scope of work	Secret Key Management Solution should be capable to handle/manage all symmetric encryption keys & asymmetric encryption keys (i.e. Public Private Key pair/Digital Signature Certificate) used by various systems in Bank for integration with internal & external applications/systems in secured manner	In case the API management solution has its own secret key management feature, can the bidder propose the same for APIM or the APIM solution has to be integrated with external Secret key Management Solution	<p>In build Secret Key Management components of Open API Banking Solution should be capable to maintain/manage secret keys/certificates at separate server/environment and same component should be capable to integrate with other application/software of the Bank for providing access of the secret key/certificates to other application also.</p> <p>No external Secret Key Management Solution will be provided by Bank for Integration with Open API Banking Solution separately.</p>
37.	15	4. Scope of work	17. Proposed solution should have highly scalable architecture, initially supporting at least 250 transactions per second (TPS) considering an average payload of 100KB (max 15MB).	<p>1. What % of payload would have 15 MB of messages?</p> <p>2. Is 100 KB the request payload or request+ response payload?</p>	<p>1. Query is not admissible.</p> <p>2. Average payload size is for request and response both separately. However, It is tentative figure & subject to change at the time of actual implementation.</p>

38.	15	4. Scope of work	19. Bidders to ensure resolution time of 4 hours for any issue in solution, individual APIs etc. with back to back arrangements with respective OEMs.	Request if this can be changed to 4 hours for only very critical issues.	Clause stands as per EOI
39.	15	4. Scope of work	23. As a part of the project implementation, one resource from the OEM having adequate experience in API Banking & Secret Key Management solution implementation has to be deployed onsite during the entire implementation period to supervise the installation and implementation process.	API banking & Secret Key Management will be two different product may be from one or two different OEMs. So Request to bank to change this to OEM resources with experience in respective domains	Kindly refer corrigendum enclosed herewith.
40.	15	4. Scope of work	23. As a part of the project implementation, one resource from the OEM having adequate experience in API Banking & Secret Key Management solution implementation has to be deployed onsite during the entire implementation period to supervise the installation and implementation process.	Is it mandatory to deploy OEM resource onsite for entire duration ?	Clause is self explanatory.

41.	15	4. Scope of work	28. Bidder should provide perpetual Enterprise Wide Licenses required for all the applications, software, tools, components, etc. provided as a part of the Solution without any constraint and without any additional cost to the Bank. The licenses provided should have unrestricted access (without any limitation in no. of users, instances, installations, hardware etc.) and should not be tied to the hardware supplied even after expiry of the contract.	Perpetual licenses will have constraints like hardware resources , users & others. Can the condition for "unrestricted access be dropped"	Clause stands as per EOI
42.	29	Escrow Management	a. The Bank and the Bidder shall enter into escrow arrangement mutually agreed on 50:50 charge basis. The Bank to provide escrow mechanism for the deposit of the source code for the proposed solution in order to protect its interests in an eventual situation.	OEM product specific codes can't be shared, only the codes / artefacts which will be created for the bank can be shared for Escrow Management. Does the Bank agrees on it ?	Clause stands as per EOI
43.	49	Mandatory Functional / Technical Requirement	2. The solution architecture should support 3-way DR setup (DC, DR and Near DR)	Is 3-way DR architecture mandatory ? Can the bidder propose APIM solution with 2-way DR solution to achieve the RTO & RPO	Clause stands as per EOI

		nt		requirement?	
44.	55		Solution is capable to handle/manage asymmetric encryption keys (i.e. Public Private Key pair/Digital Signature Certificate) used by various systems in Bank like HSM, other industry standards etc.	Request to specify the number of Certificates/Keys to be stored in HSM to arrive for HSM model. What performance requirements do you have? (TPS)	RFP clause is self-explanatory
45.	55		Solution have capability to store keys/certificate at separate server/environment	Request to specify the number of Certificates/Keys to be stored in Key Management Solution	Query is not admissible.
46.				<i>"Add or remove pre-built or custom policies at runtime with minimal or no downtime"</i> . Is this referring to API routing and gateway policies? If there are others, please mention.	Please note it is not limited to API routing and gateway policies. Provided solutions should also supports policies related to API Level IP Whitelisting/ threshold or rate limit setup/ Consumer Blacklisting/ Consumer Whitelisting, headers w.r.t. version control, security aspects etc and depreciation/decommission related policies etc.
47.				<i>"The solution should support all types of application connectors, data Connectors/adapters."</i> - can we get a non-exhaustive list of connectors here that you plan to use, basically can we get the scope	Query is not admissible.

				of all?	
48.				What's file based interaction? What kind of file based interaction is required? Bank's centralized antivirus is available for Linux OS? Can we get some clarity on the bank's patch and inventory management solution?	Information will be shared with selected bidder.
49.				Horizontal scaling will lead to servers cost, however the product won't require additional license for horizontal scaling. Can we have some clarity on the same?	It is noted that price validity will be valid for entire contract period.
50.				Which STS is present in the bank?	At present there are no STS (Secure Token Server) available with Bank. (Technical & Functional Specification, Point No-61).
51.				Do we need SSO for authentication of the API consumers or the personnel doing the policy configuration in the portal?	(Technical & Functional Specification, Point No-63).
52.				Need more clarity on what's expected in interactive documentation. Are we expecting a sandbox for making API hits through the web console?	In developer portal allowed users shall be able to understand API wise specification easily using User Interface/pdf/doc etc & Consumer shall be able to consume published APIs without raising more queries to Bank's internal team.
53.				<i>"The developer portal should have a graphical user interface with Graphical representation of</i>	Repository objects represents resources that allowed consumer can access; which

				repository objects, data models and multistep processes" - What are repository objects ?	also include list of fields along with its type/size/ description/ sample values etc.
54.		118	The solution has capability of central maintenance & management of secret keys at separate server/environment.	Query 1) Pl. clarify that when we want to keep the secret keys at separate server/environment, the idea is to have the high availability of the keys, so that in case of any disaster at/on one server, the other server can provide the services?	Entire Secret Key Management Solution shall be on High Availability (HA). The idea behind maintaining secret keys at separate server/environment is to hide/ secure keys/certificates from unauthorized users and avoid exposure of secrets/ certificates due to possible misconfiguration at application server and keep applications secrets outside of the application source tree etc.
55.		118	The solution has capability of central maintenance & management of secret keys at separate server/environment.	Query 2) Also request to pl. provide the details of multiple environment, bank is having right now, with one use case of each on how the secret management server(s) are suppose to store the keys?	Query is not admissible.
56.		120	Solution is capable to handle/manage asymmetric encryption keys (i.e. Public Private Key pair/Digital Signature Certificate) used by various	Query3) Request to pl. provide the complete and comprehensive list (with make/model and version) of various systems in bank like HSMs, other industry standard etc, so that we can propose the comprehensive	Query is not admissible.

			systems in Bank like HSM, other industry standards etc.	solution?	
57.		121	<i>Solution is able to provide alerts through SMS/Email w.r.t. expiry of the secret keys/DSC.</i>	Query 4) Pl. suggest how the SMS notification is happening? Is it OK to assume that we can send one email to the SMS service provide for SMS notification or there is another method being used for the same, pl. explain?	Bank has already tie-up with SMS Vendors, proposed solution shall be integrated with the solution of SMS providers. For Email Alert proposed solution shall use Bank's existing Email System.
58.		122	The solution is able to manage key distribution through approval/workflow mechanism as per requirement of Bank.	Query 5) Pl. provide the details of this requirement with one use case for each category for which we need to provide the secrets management (pl. see point no # 125 of Page no 55 out of 56 of this RFP)	Details will be shared with selected bidder.
59.		122	The solution is able to manage key distribution through approval/workflow mechanism as per requirement of Bank.	Query 6) Is there any existing workflow/approval mechanism being used by bank, which we need to integrate with the proposed secrets management solution? Or with the proposed secret management solution, we have to propose the approval/workflow mechanism as well, pl. clarify?	Bidder has to propose multilevel approval/workflow mechanism.
60.		123	Solution have capability to store keys/certificate at separate server/environment	Query 7) Pl. clarify if this is the same requirement as point no 118 of page 55 out of 56 page of RFP, or this is different requirement? If this is different requirement, pl. share more details on this?	Bidder's understanding is correct.

61.		124	Solution has capability to integrate with various application/software of the Bank for providing secret keys/certificate.	Query 8) Pl. provide complete comprehensive list, with name, make/model and version, of all the various application/software of the bank for providing the secret key/certificates?	Query is not admissible.
62.		125	Solution has capability to manage key/certificate lifecycle of software keys stored by hardware, appliances, operating systems, Hypervisors, virtual machines, network devices, virtual networks, middleware, web servers, application servers, application software, utility software, system software, active directory and any other technologies.	Query 9) Request to provide the inventory (or comprehensive list) with make/model/version of all the components (asked in this point, like hardware, appliances, operating systems, Hypervisors, virtual machines, network devices, virtual networks, middleware, web servers, application servers, application software, utility software, system software, active directory and any other technologies) for which proposed secret key management solution should be able to manage key/certificate lifecycle of software keys?	Query is not admissible.
63.		125	Solution has capability to manage key/certificate lifecycle of software keys stored by hardware, appliances, operating systems, Hypervisors, virtual machines, network devices, virtual networks, middleware, web servers, application servers,	Query 10) Also suggest how these keys/certificates are being stored presently for all (hardware, appliances, operating systems, Hypervisors, virtual machines, network devices, virtual networks, middleware, web servers, application servers, application software, utility software, system software, active directory and any	Query is not admissible.

			application software, utility software, system software, active directory and any other technologies.	other technologies)	
64.		125	Solution has capability to manage key/certificate lifecycle of software keys stored by hardware, appliances, operating systems, Hypervisors, virtual machines, network devices, virtual networks, middleware, web servers, application servers, application software, utility software, system software, active directory and any other technologies.	Query 11) PL. suggest if present secrets/keys of all the categories (hardware, appliances, operating systems, Hypervisors, virtual machines, network devices, virtual networks, middleware, web servers, application servers, application software, utility software, system software, active directory and any other technologies) support KMIP (Key Management Interoperability Protocol)? If no, request to pl. provide the details of the protocol supported by each individual category as asked in the RFP?	The proposed key management solution shall be utilised in this regard. Bidder should factor adequate tools/application as a part of solution for various categories.
65.		125	Solution has capability to manage key/certificate lifecycle of software keys stored by hardware, appliances, operating systems, Hypervisors, virtual machines, network devices, virtual networks, middleware, web servers, application servers, application software, utility software, system software, active directory and any	Query 12) For few technologies like network devices, hardware etc. (which may not have operating system to store the keys), how the keys are being stored presently? Of if these keys are not being stored presently, how key management function is happening currently?	Required information will be shared with selected bidder. However the bidder shall factor all the required component in the proposed solution.

			other technologies.		
66.	11		4. Scope of Work	How many keys and Certificates are expected to be managed in this solution?	Requirement will be shared with selected bidder. However solution should be scalable to accommodate additional keys/certificates as per Bank's requirement.
67.	55		TECHNICAL FUNCTIONAL SPECIFICATIONS APPLICATION	AND OF THE Is HSM required to protect keys?	Requirement is self-explanatory. Kindly refer scope of work of EOI.



Department of Information Technology

Expression of Interest (EOI) for Procurement of Open API Banking & Secret Key Management Solution (E-tendering)

EOI Ref No: UCO/DIT/EOI/2509/2022-23 Date: 10.01.2023

Amendments, Addendums and Corrigendum's uploaded on 25/01/2023

Sl. No	Clause No	Existing Clause	Modified Clause
1	4. Scope of work	23. As a part of the project implementation, one resource from the OEM having adequate experience in API Banking & Secret Key Management solution implementation has to be deployed onsite during the entire implementation period to supervise the installation and implementation process.	23. As a part of the project implementation, at least one resource from the OEM having adequate experience in API Banking & Secret Key Management solution implementation has to be deployed onsite during the entire implementation period to supervise the installation and implementation process.