Request for Proposal for Supply, Implementation and Maintenance of Hardware Security Module (HSM) at Bank of Baroda sponsored RRB's Data Centres (Bid Number: GEM/2023/B/3643296 dated 04th July 2023)

Addendum - 1 Dated 21st July 2023

[A] Important Dates:

Sr. No.	RFP / Bid	Timeline
1	Last Date of Submission of RFP Response (Closing Date)	**03:00 PM on 28th July, 2023**
2	Eligibility Cum Technical Bid Opening Date	**03:30 PM on 28th July, 2023**

Addendum to following Annexure:

1. Annexure 02 – Eligibility Criteria
2. Annexure 12 – Scope of Work with Technical Requirements Details

Clarification of Pre-bid queries is enclosed as "Annexure A".

All other Terms & Conditions are same as per our RFP for Supply, Implementation and Maintenance of Hardware Security Module (HSM) at Bank of Baroda sponsored RRB's Data Centres (Bid Number: GEM/2023/B/3643296 dated 04th July 2023).

Request for Proposal for Supply, Implementation and Maintenance of Hardware Security Module (HSM) at Bank of Baroda sponsored RRB's Data Centres (Bid Number: GEM/2023/B/3643296 dated 04th July 2023)

Addendum - 1 Dated 21st July 2023

Sr. No.	Clause in RFP	Clarifications/ Changes made
1	**New (Add)**	**Annexure 02 – Eligibility Criteria** **D. Experience & Support Infrastructure:** ………………………………….. ………………………………….. **3. The proposed HSM should be currently deployed in at least two Commercial Banks / Financial Institutions in India.** (Documentary proof – Purchase Order along with installation signoff report / contract copy / written confirmation from designated authority with project & order details) ………………………………….. …………………………………..
2	**Annexure 12 - Scope of Work with Technical Requirements Details** **A. Brief Description:** ………………………………….. ………………………………….. 7) The proposed HSM device must support Secure PIN generation while accepting request from multiple applications. ………………………………….. …………………………………..	**Annexure 12 - Scope of Work with Technical Requirements Details** **A. Brief Description:** ………………………………….. ………………………………….. 7) ~~The proposed HSM device must support Secure PIN generation while accepting request from multiple applications.~~ ………………………………….. …………………………………..
3	**Annexure 12 - Scope of Work with Technical Requirements Details** **B. Technical Specification of HSM (Other Features):** ………………………………….. ………………………………….. 38. Symmetric algorithms: AES, HMAC, SEED, Triple DES ………………………………….. ………………………………....	**Annexure 12 - Scope of Work with Technical Requirements Details** **B. Technical Specification of HSM (Other Features):** ………………………………….. ………………………………….. 38. Symmetric algorithms: AES, HMAC, ~~SEED,~~ Triple DES ………………………………….. …………………………………..

Annexure A
Pre-bid queries response as part of Addendum
Bank's clarification on Pre-bid Queries from Prospective Bidders for RFP- RRBs HSM
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S No.	Point / Section #	Clauses mentioned in RFP Document	Comment/Suggestions (From Vendors)	Bank's Clarifications to the bidder query
1	B. Technical Specification of HSM - Security Certification (Points 12 & 13)	12. Cryptographic module certified to FIPS: 140-2 Level 3 13. FIPS 140-2 level 3 (Device should be FIPS certified and proof must be submitted as a part of compliance)	Request to modify the clause to: Cryptographic module certified to FIPS: 140-2 Level 3 .Certification copy needs to be submitted which should be in the name of OEM. Justification: FIPS 140-2 level 3 compliant modules of HSMs are considered as security benchmark standards widely accepted around the world. It takes all the encompassing look at the firmware of a device as well as the overall development process of the device. Hence making it reasonable to inquiry OEM name in these certifications. FIPS 140-2 Level 3 compliant modules of HSM are considered the top secure HSMs according to global standards. In almost all implementations this is the backbone of the security infrastructure, and any patch management, firmware upgrade, any vulnerability related information etc is best handled directly from the OEM of the Cryptographic module and hence the OEM name is an essential ask. There are multiple vendors of the HSM which are listed under NIST and have FIPS certification under their name NIST website https://csrc.nist.gov/projects/cryptographic-module-validation-program/validated-modules/search/all	No change
2	A. Brief Description (Point 6)	Bidders have to implement & integrate HSM device for the purpose of processing of Aadhaar vault services and data encryption/decryption in storage. The HSM has to be integrated with Aadhar vault application & Storage. Bidders may be called to	Integration with the ADV application needs to be in place. ADV application vendor to confirm the existing integration of the proposed HSM	No change

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S No.	Point / Section #	Clauses mentioned in RFP Document	Comment/Suggestions (From Vendors)	Bank's Clarifications to the bidder query
		perform demonstration of solution at Technical evaluation stage		
3	C. Others (Point 3)	Both OEM and Bidder must have valid ISO 9001 certification. OEM should also have valid ISO 14001 certification for manufacturing facility from where the equipment will originate.	We request bank to consider PCI DSS certification for bidder in Lieu of ISO 9001, trust bank would consider our request favorably	No change
4	3.6 Preference to make in India initiative	The guidelines under PPP-MII order and subsequent revisions as mentioned above shall be applicable subject to bidder submitting with Class-I/Class-II local content certificate for the quoted product.	Our proposed HSM is fully compliant and meets all technical requirement. You may be aware that there are few OEMs across the globe who makes industry standard HSMs to meet global security standards. We request you to waive this criteria so that the bidder like us can participate in the RFP. Trust the bank will consider our request favorably.	No change
5	1.5 Delivery	All four HSM along with their components & licenses etc. shall be delivered within 10 weeks from the date of issuance of purchase order by the successful bidder.	Kindly change this to exclusion of hardware delivery. Since Hardware delivery is OEM dependent and in few cases it takes 5-6 months. Else allow deviation for no penalty.	No change
6	1.7 Installation	Bidder shall install HSM devices and hand it over to Bank for acceptance testing within a maximum of 2 weeks from the date of receipt of the deliverables at RRB's DC / DR site and Bank's notification for installation of the HSM.	Kindly change this to 16 weeks. Since new setup / installation takes time.	No change

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7	1.8 Warranty	In case problems persist, systems should be replaced within 24 hours of receiving complaint and alternate system should be given till machine is repaired.	Kindly change this under OEM responsibility. Since, systems are supplied by OEM's or through designated distributors only. Service Integrator has limited control on replacement timeline.	No change
8	D. Experience & Support Infrastructure (Point 1)	Bidder should have Supplied, Installed, Supported & successfully completed the implementation for at least -2- no's of proposed / similar HSMs in past 3 Years to Commercial Banks / Financial Institutions / Government / PSU Organizations in India.	Kindly change this to " The bidder should have Supplied, Installed, Supported & successfully completed the implementation for at least -2- no's of proposed / similar HSMs in past 10 years (as on RDF date) to Commercial Banks / Financial Institutions/ Government / PSUs / Private Organizations within India.	No change
9	A. Brief Description (Point 17)	The bidder should have a 24x7x365 days support contact center in order to log the calls. The contact center numbers should be provided to the Bank along with the escalation matrix mentioning the contact person's name, number and designation in the company.	24x7x365 support team from bidder cost line item is not mentioned in "Annexure 14 - Masked Commercial Bid" and "Annexure 15 - Commercial Bid". Kindly include it.	No change
10	B. Technical Specification of HSM - Management facilities (Points 11)	FIPS complaint HSM should have dedicated management Ethernet port with minimum 4X1G network interface.	As per the industry standard, an HSM comes with Dual network interfaces with port bonding support. Having 4 Gigabit network ports is not mandatory. This will create a monopolistic situation. This clause also contradicts with the clause# 5 which mentions dual connectivity support. Kindly revise it to dual Gigabit Ethernet ports.	No change

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S No.	Point / Section #	Clauses mentioned in RFP Document	Comment/Suggestions (From Vendors)	Bank's Clarifications to the bidder query
11	B. Technical Specification of HSM - Security features (Points 18)	Detection of cover removal in addition to Alarm triggers for motion, voltage and temperature	The tamper resistant mechanisms are already taken care as part of Physical security of the FIPS certification. Please note that mentioned requirements are specific to a single OEM.	No change
12	B. Technical Specification of HSM - Security features (Points 19)	Multiple alarm triggers for motion, voltage and temperature	The tamper resistant mechanisms are already taken care as part of Physical security of the FIPS certification. Please note that mentioned requirements are specific to a single OEM.	No change
13	B. Technical Specification of HSM - Security features (Points 20)	Device hardening - ability to disable functions not required by the host application	The tamper resistant mechanisms are already taken care as part of Physical security of the FIPS certification. Please note that mentioned requirements are specific to a single OEM.	No change
14	B. Technical Specification of HSM - Key Features (Points 26)	Secure Host communication using TLS or SSL	Please note that it's specific to Payment HSMs and doesn't apply to General Purpose HSMs which is required in this RFP. Request to kindly remove.	No change
15	B. Technical Specification of HSM - Other Features (Points 36)	Minimum 4 x 1G with Port Bonding	As per the industry standard, an HSM comes with Dual network interfaces with port bonding support. Having 4 Gigabit network ports is not mandatory. This will create a monopolistic situation. This clause also contradicts with the clause# 5 which mentions dual connectivity support. Kindly revise it to dual Gigabit ethernet ports.	No change

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S No.	Point / Section #	Clauses mentioned in RFP Document	Comment/Suggestions (From Vendors)	Bank's Clarifications to the bidder query
16	B. Technical Specification of HSM - Other Features (Points 42)	HSM should have Dual Physical lock	Please note that this is not a mandatory specification as per the General Purpose HSM standards. It will create a monopolistic situation as it seems to be specific to a particular OEM. Requesting to kindly remove it.	No change
17	B. Technical Specification of HSM - Security Certification (Points 13)	FIPS 140-2 level 3 (Device should be FIPS certified and proof must be submitted as a part of compliance)	We request the bank to add a clause mentioning that the FIPS certification of the HSM should be in the name of OEM and the HSM should not be an assembled or bundled device.	No change
18	B. Technical Specification of HSM - Security features (Points 23)	Key Generation Speed	The key generation speed is an important factor in the performance of the HSM. We would like to mention that RSA 2048 key generation speed should be on a higher range, e.g. minimum of 7 and upgradable to 20 RSA 2048 keys/second. Request you to kindly keep the RSA 2048 key generation speed of 7 RSA 2048 keys/second.	No change
19	D. Experience & Support Infrastructure (Point 1)	Bidder should have Supplied, Installed, Supported & successfully completed the implementation for at least -2- no's of proposed / similar HSMs in past 3 Years to Commercial Banks / Financial Institutions / Government / PSU Organizations in India.	We request bank to kindly consider the experience in any 2 HSM implementation rather than correlating with the current proposed HSM experience. Request to kindly consider	No change

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S No.	Point / Section #	Clauses mentioned in RFP Document	Comment/Suggestions (From Vendors)	Bank's Clarifications to the bidder query
20	B. Technical Specification of HSM - Management facilities (Points 11)	FIPS complaint HSM should have dedicated management Ethernet port with minimum 4X1G network interface.	Should the solution be scalable for network connectivity as current standard data center is 10Gb connectivity? Only 1 GB NIC will bring latency, affect applications efficiency, and is only compatible by using additional hardware. This will attract additional cost to BOB in later stage of projects? Request you to remove gigabit ethernet ports only and include both 1GB and 10 GB NIC to cater any requirements without any hidden costs, issues. Request you to change it for scalability of solution: FIPS complaint HSM should have dedicated management Ethernet port with minimum 2 x 1G with Port Bonding and 2 x 10G with Port Bonding form day 1.	No change
21	B. Technical Specification of HSM - Security features (Points 18)	Detection of cover removal in addition to Alarm triggers for motion, voltage and temperature	Appliances are racked in DC and does not move. Also motion sensor is specific to single OEM only. Request you to change it for multiple OEM participation: Detection of cover removal in addition to Alarm triggers for voltage and temperature	No change
22	B. Technical Specification of HSM - Key Features (Points 27)	Remote management and monitoring options.	Should GUI for HSM be there to manage HSM and ease the task of auditing? Request you to add GUI for HSM also. Request you to change it for ease of management of solution: GUI based remote administration and monitoring options.	Published specifications are minimum requirement of the Bank. Bidder may propose device as deemed suitable.

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S No.	Point / Section #	Clauses mentioned in RFP Document	Comment/Suggestions (From Vendors)	Bank's Clarifications to the bidder query
23	B. Technical Specification of HSM - Other Features (Points 36)	Minimum 4 x 1G with Port Bonding	Should the solution be scalable for network connectivity as current standard data center is 10Gb connectivity? Only 1 GB NIC will bring latency, affect applications efficiency, and is only compatible by using additional hardware. This will attract additional cost to BOB in later stage of projects? Request you to remove gigabit ethernet ports only and include both 1GB and 10 GB NIC to cater any requirements without any hidden costs, issues. Request you to change it for scalability of solution: Minimum 2 x 1G with Port Bonding and 2 x 10G with Port Bonding form day 1.	No change
24	B. Technical Specification of HSM - Other Features (Points 40)	Support remote administration – including adding applications, updating firmware, and checking status from centralized Location	Should GUI for HSM be there to manage HSM and ease the task of auditing? Request you to add GUI for HSM also. Request you to change it for ease of management of solution: Support GUI based remote administration – including partition management, crypto management , backup/restore management ,user management ,applications management, updating firmware, and checking status from centralized Location without need to build any software/interface from HSM APIs.	Published specifications are minimum requirement of the Bank. Bidder may propose device as deemed suitable.
25	B. Technical Specification of HSM - Other Features (Points 49)	Must maintain compatibility with wide range of host applications	Segregation of crypto objects/Keys is as essential as compatibility. Request to include segregation of applications data also: Must maintain compatibility with wide range of host applications and provide minimum 30 partitions inside FIPS 140-2 level 3 certified memory of HSM for application's keys segregation .	No change

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S No.	Point / Section #	Clauses mentioned in RFP Document	Comment/Suggestions (From Vendors)	Bank's Clarifications to the bidder query
26	1.2 Project overview and Scope	Bank intends to engage vendor for Supply, Installation, commissioning, Testing, Configuration, migration and Maintenance of HSM at RRB Data Centres in Mumbai and Hyderabad locations	Can you please share more details on migration requirement? for e.g. Existing tools, applications from where we have to migrate the data.	Migration of keys is not required
27	1.7 Installation	Bidder shall install HSM devices and hand it over to Bank for acceptance testing within a maximum of 2 weeks from the date of receipt of the deliverables at RRB's DC / DR site and Bank's notification for installation of the HSM.	Bidder shall install HSM devices and hand it over to Bank for acceptance testing within a maximum of 4-6 weeks from the date of receipt of the deliverables at RRB's DC / DR site and Bank's notification for installation of the HSM.	No change
28	1.2 Project overview and Scope	Bank intends to engage vendor for Supply, Installation, commissioning, Testing, Configuration, migration and Maintenance of HSM at RRB Data Centres in Mumbai and Hyderabad locations. The HSMs to be supplied must be compatible with current HW/SW used by Bank for seamless integration without facing any disruption of services. Bank will award the contract to the successful bidder.	Kindly share the existing HW/SW/Application details which are to be integrated with the new solution.	Will be shared with the L1 bidder during implementation

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29	1.9 Acceptance Test (AT)	AT shall comprise of completion of following activities: i. For each installed equipment and IR template should be prepared along with the technical specifications and its value as per quoted product. ii. Bank personnel will check the working system value against the product value before signing the acceptance of the installation of equipment iii. In case Bank is not satisfied with installation / configuration, party must reinstall and / or reconfigure the entire / partial solution. iv. Running of AT Schedule as per agreed AT Plan for systems	Kindly confirm the AT timeline period.	Will be shared with the L1 bidder during implementation
30	1.10 Handover Services	The handover services are the services provided by bidder to the Bank during the handover period of 15 days which will start after completion of operationalization of HSM to facilitate an orderly transfer of the Services to Bank and/ or Managed Service Provider of the Bank. Handover Services of HSM which will be provided by the bidder after installation and handed over to MSP of the Bank shall include the following but not limited to:	Whether the warranty starts after the handover services period?	Pls. refer Warranty clause 1.8 (page no.13 of RFP). Warranty shall start from date of installation sign-off given by Bank representative

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31	1.10 Handover Services	All trainings that the Bank feels are necessary to be imparted to the Bank or its designated personnel.	Kindly confirm the details of training required. Number of participants, duration, mode, location etc.	Onsite training to the Bank designated officials
32	A. Brief Description (Point 14)	The bidder shall follow all respective technical/statutory guidelines, validations, SCD should be implemented, checked & verified, and related reports including SOP, SCD, Software Integrity Certificate and VAPT Clearance must be submitted, duly certified by OEM to the Bank for sign off the successful installation.	Assume the mentioned VAPT audit is a one-time activity before handing over of the solution, kindly confirm.	VAPT audit clearance will be one time activity before handover to the Bank.
33	D. Experience & Support Infrastructure (Point 1)	Bidder should have Supplied, Installed, Supported & successfully completed the implementation for at least -2- no's of proposed / similar HSMs in past 3 Years to Commercial Banks / Financial Institutions / Government / PSU Organizations in India.	Bidder should have Supplied, Installed, Supported & successfully completed the implementation for at least -2- no's of proposed / similar HSMs in past 4 Years to Commercial Banks / Financial Institutions / Government / PSU Organizations/ Reputed Enterprises in India.	No change
34	D. Experience & Support Infrastructure (Point 1)	Bidder should have Supplied, Installed, Supported & successfully completed the implementation for at least -2- no's of proposed / similar HSMs in past 3 Years to Commercial Banks / Financial Institutions / Government / PSU Organizations in India.	Bidder/OEM should have Supplied, Installed, Supported & successfully completed the implementation for at least -2- no's of proposed / similar HSMs in past 3 Years to Commercial Banks / Financial Institutions / Government / PSU Organizations in India.	No change