

Queries / Suggestions received from Vendors in respect of “Expression of Interest (EoI) to call for technical solution towards migration / upgradation of existing infrastructure /solution design of Root Certifying Authority of India (RCAI)”.

S.No.	Name of Vendor	Queries/Clarifications	Response from Office of CCA
1	Vendor 1	<p>ISO 9001:2008 and ISO 27001 majorly focus on quality management system standard and provide a model for establishing, implementing, operating, monitoring, reviewing, maintaining and improving an information security management system.</p> <p>Suggestion: Request to kindly change and Amend the clause as " The bidder should have CMMI Level-3 or CMMI-5 or as the Projects requires migration and Upgradation of existing Infrastructure which required High level of expertise in Process and Process flow management.</p>	No change.
2	Vendor 2	Does current HSM have any multifactor authentication enabled ?	Authentication is based on smart card and its pin.
		Is doomsday service to be provided by existing OEM HSM Vendor for Key extraction (as plaintext key bytes) from existing HSM hardware ?	Yes, the key extraction can be achieved with doomsday service, however, the vendor need to suggest the solution. Make and Model of HSM Thales host security module enShield PCI 500 TPS F3
		Does existing OEM allow Keys to be migrated from its hardware to any other vendor’s hardware device ? If not , then how can BCP be done if vendor liquidates and goes out of existence ?	Same as above.
		Can the generation of new root key also be feasible while migrating to newer HSM ?	Existing keys should be used.
		Please share the make, model, version and quantity of existing OS and database for which migration is required.	Windows Server 16 Desktop version: THIRTEEN (Main site-DC) -7, DR-6)

S.No.	Name of Vendor	Queries/Clarifications	Response from Office of CCA
			SQL SERVER 2019: FIVE (Main site-DC)-3, DR-2)
		<p>Requesting you to kindly provide the detailed configuration of ASIS components currently hosted in DC & DR :-</p> <p>1.1 High End Physical Server & Workstation 1.2 Operating System & Database 1.3 Backup Hardware & Software 1.4 Server & Network Monitoring system 1.5 Network and Network Security Components 1.6 DR Configuration whether it is 1:1 or 1:2 1.7 RPO & RTO requirement 1.8 SAN & SAN Storage Requirement 1.9 Total No. of Networking Rack & their configuration 2.0 Total No. of HSM currently deployed at DC & DR 2.1 Current volume/ size of database along with DB Cluster, DB Version etc</p>	The infra installed in the RCAI is critical and confidential in nature and accordingly can't be shared in public domain. However, the interested parties may visit the RCAI facility at New Delhi with prior appointment with the concern officials of O/o CCA as per contact details listed in the EoI.
		OCSP Deployment desired in standalone or HA Mode; if virtualization is required for future scalability/ redundancy?	<p>Vendor need to provide the best feasible solution as per requirement of the load.</p> <p>Current Peak load: 3000 per second. Expected response time: 10 seconds or less</p>
		Desired Network setup Bandwidth 1G or 10 G (Planning for next 5 years should consider 10 G)	Vendor need to suggest the requirement of bandwidth as per the requirement of the load.
		Do we consider the network & security apparatus e.g. Firewall and other Network security devices like NIPS, DDOS, WAF Make Model for DC/DR site (including LAN)	OCSP should be set up an operative as per the provisions under IT Act 2000 and also in line with webtrust requirements. Also the vendor should brought out the requirement of webtrust in this matter after deep study and thorough understanding.
		What is the current storage size for Application & Database, CCTV & ACCESS control System, LOG Monitoring & retention (Retaining Period) and what is the growth proportion for next 5 Years that should be considered while sizing the solution?	The infra installed in the RCAI is critical and confidential in nature and accordingly can't be shared in public domain. However, the interested parties may visit the RCAI facility at New Delhi with prior appointment with the

S.No.	Name of Vendor	Queries/Clarifications	Response from Office of CCA
			concern officials of O/o CCA as per contact details listed in the EoI.
		Do current system use any Antivirus Solution & DLP? How update are managed on these systems?	Vendor should provision for antivirus system for RCAI and OCSP both. The requirement of DLP to be assessed by vendor based on webtrust compliance requirements.
		Does you require to monitor and manage the Performance & Alerts through EMS/NMS Solution?	Yes, required for OCSP infra.
		OCSP Deployment desired in standalone or HA Mode; if virtualization is required for future scalability/ redundancy?	Vendor need to provide the best feasible solution as per requirement of the load. Current Peak load: 3000 per second. Expected response time: 10 seconds or less
		What is the current Log Collection and review mechanism? Please share the indicative size of EPS (Events per Second).	Current Peak load: 3000 per second
		What is the current number of Managed Network Switches in current DC & DR LAN setup?	The infra installed in the RCAI is critical and confidential in nature and accordingly can't be shared in public domain. However, the interested parties may visit the RCAI facility at New Delhi with prior appointment with the concern officials of O/o CCA as per contact details listed in the EoI.
		Does the Upgradation of existing infrastructure requires provision for Backup Solution details (Tape library, Backup software, VTL etc.)	Backup software solution is required along with SAN box and backup software as per latest solution for RCAI and OCSP infra both.
		What is the current data size of CCTV daily footage data and where it is stored in NVR/ SAN storage on an archive that shall be considered for planning CCTV + ACCESS Control Data for 5 years? Do we consider the separate new Display, NVR/DVR also or existing Devices will be continued to be used?	Complete solution to be proposed by vendor.
		Please share the Current DC-DR replication technology if used any? How data (Application/DB &HSM) is replicating?	Vendor need to suggest state of art of solution.

S.No.	Name of Vendor	Queries/Clarifications	Response from Office of CCA
3	Vendor 3	<p>a) Does the Root CA operated in offline mode? And is the scope of our proposal limited to the offline Root CA? No need to migrate the Issuing CAs?</p> <p>b) Is there any requirement for registration authority for certificate management?</p> <p>c) Is it possible to share the current high-level Architecture diagram</p> <p>d) Is there a requirement for time-stamping solution as well?</p> <p>e) What is the Crypto Algorithm and bit length used by the current CA? Is it RSA 2048?</p> <p>f) If it's possible then please share the CP/CPS document with us?</p> <p>g) Is there a need for the Root CA to issue OCSP server certificates?</p> <p>h) The Root CA needs an LDAP Directory. Do we need to install an LDAP software on the Root CA server? If so, what is the preferred LDAP software? E.g. OpenDJ, OpenLDAP, etc.</p>	<p>RCAI is operated in offline mode, scope is as per the EoI. The existing keys and data of RCAI needs to be migrated.</p> <p>The infra installed in the RCAI is critical and confidential in nature and accordingly can't be shared in public domain. However, the interested parties may visit the RCAI facility at New Delhi with prior appointment with the concern officials of O/o CCA as per contact details listed in the EoI.</p> <p>No.</p> <p>Yes.</p> <p>Yes, use as per the provision of IT Act 2000. Crypto Algorithm and bit length is RSA 2048/4096.</p> <p>CPS of RCAI is available on the website of Office of CCA i.e. www.cca.gov.in</p> <p>Yes.</p> <p>Not required.</p>
4	Vendor 4	The expertise from OEM would also be essential to execute a project of this kind. Hence we request to modify as "Bidder and PKI Software OEM together should have atleast	Clause may be read as: "bidder or the CA software OEM should have atleast 10+ PKI expert on their pay role. In case the eligibility is

S.No.	Name of Vendor	Queries/Clarifications	Response from Office of CCA
		10+ PKI experts on his strength"	being met through CA software OEM, the respective OEM should submit an undertaking towards taking the complete ownership of installation and successful migration of RCAI infrastructure as per detailed RFP requirement to be published in subsequent stage.
		We understand there are 5 HSMs - 1+1 in DC, 1+1 in DR and 1 in UAT. Please confirm	Yes, with additional two as standby.
		a) Please confirm if yearly audit (for next 5 year) to be considered as part of Bidder's scope of work or will the bidder be responsible only for the first go LIVE audit.	Yes, successful bidder will be responsible for arranging and coordinating the audit process of the newly migrated RCAI facility in line with provisions of IT Act and webturst audit requirements including, closure of non-compliance as per the scope of contract. However, CCA will be responsible for appointing the auditor and making all payments to auditor under audit process from 2 nd year onwards.
		a) Please provide the volume details for the OCSP service: * No of expected OCSP reqs / resps per day * TPS expected * Year-on-Year growth expected (please keep buffer) * Peak time period in a day * Maximum demand indicator * Peak month or week, if any b) Please also confirm if Bill of Materials includes HSM for OCSP service c) Please share the Bill of Material if any available from exiting Infrastructre that can be used in new set up.	The infra installed in the RCAI is critical and confidential in nature and accordingly can't be shared in public domain. However, the interested parties may visit the RCAI facility at New Delhi with prior appointment with the concern officials of O/o CCA as per contact details listed in the EoI.
		Please explain the scope of migration, * whether the keys and data should be migrated from existing HSM and system,	Yes.

S.No.	Name of Vendor	Queries/Clarifications	Response from Office of CCA
		whether CCA would be sharing the data schema details.	To be shared with successful bidder at the time of migration.
		whether the HSM vendor confirms the feasibility of migration of keys to new HSM (of any other or same brand), etc.	Vendor need to explore and suggest the best solution.
		Please confirm if scope of work also involve the enrolment activity of Root Certificate with browsers, if yes, please mention the browsers name.	Yes. As per the CAB forum majorly with Microsoft, Google, Apple, Mozilla, Safari, etc.
		Please confirm the scope of migration of OCSP service - whether the old data should be migrated, whether CCA would provide technical details, schema details and expectations, etc.	Not required.
5	Vendor 5	1. Please provide more details regarding the solution requirements.	EoI is self explanatory.
		2. Root placement requires an active issuing CA as well for a comprehensive WebTrust audit report of entire process. Please let know whether CCA is planning to operate an ISSUING CA as well	RCAI issue certificate through its license Certifying Authorities only.
		Change request: Bidder should have the experience of successfully executing similar projects of value not less than: one project of value not less than 8 crores and two projects of value not less than 5 crores each and three project of value not less than 3 crores each. Definition of similar project: Supply, installation, commissioning of projects related to Public Key Infrastructure, Cloud based delivery of services, Data Centre operations or Network establishment (Campus Area Network/ Local Area Network including Radio Network). The projects may include turnkey implementation or consultancy work.	No change.

S.No.	Name of Vendor	Queries/Clarifications	Response from Office of CCA
6	Vendor 6	<p>1) Existing HSM is with Smart Card or Token for role based authentication/access control ? The same make needs to be supplied ? Pl confirm</p> <p>2) The new set-up Need to serve increased volume or same scale as existing volume?</p> <p>3) It is assumed that infrastructure for hosting OCSP will be provided by CCA. Technology components of OCSP are only part of scope of this project. Pl confirm</p> <p>4) New systems will be installed in existing infra with AC and UPS or SI to supply AC and UPS ?</p> <p>5) Smoke and Fire detection and suppression system is existing or scope of SI in this project ?</p> <p>6) Vibration sensor and alarm system is existing or need to be supplied as part of this system</p> <p>7) What is the warranty and AMC period to be included for solution BOM items</p> <p>8) OEM details will be provided at the time of RFP Pl confirm</p> <p>9) Payment terms - Pls provide details</p> <p>10) Location of delivery of items – please provide details.</p>	<p>Existing HSM is smart card based. Vendor need to provide the feasible solution.</p> <p>As per the requirement from time to time. However, at this stage vendor need to suggest the solution which can be scalable in future.</p> <p>Vendor need to suggest the complete solution and its design as per the scope of work.</p> <p>Vendor need to suggest the complete solution, however, the existing infra may be used or upgraded.</p> <p>Vendor need to suggest the state of art solution as per the webtrust audit compliance requirement.</p> <p>Vendor need to suggest the state of art solution as per the webtrust audit compliance requirement.</p> <p>The solution should be proposed with five years operation maintenance i.e. one year AMC + four years AMC support.</p> <p>OEM details of the quoted solution has to be provided by vendor at this stage only.</p> <p>Not applicable.</p> <p>EoI is self explanatory.</p>
7	Vendor 7	<p>Bidder should have the experience of successfully executing similar projects of value not less than: one project of value not less than 8 crores OR two projects of value not less than 5 crores each OR three project of value not less than 3 crores each.</p> <p>Definition of similar project: Supply, installation, commissioning of projects related to Public Key</p>	No change.

S.No.	Name of Vendor	Queries/Clarifications	Response from Office of CCA
		Infrastructure, Cloud based delivery of services, Data Centre operations or Network establishment (Campus Area Network/ Local Area Network including Radio Network). The projects may include turnkey implementation or consultancy work.	