## Request for Proposal (RFP) for Selection of Vendor for Provision of Dedicated Cloud Services & Video Analytics Capability - 2nd Call RFP Reference: IHMCL/CSP/2021/02 Published on dated 28 October 2021 Pre-bid Query Response published on dated 22 November 2021

S. No.	Ref to RFP (Clause,	Category	Original Clause of RFP	Clarification Sought	IHMCL Response
	no. 13	Eligibility / Pre- Qualification criteria	The Bidder should have successfully completed at least one project of value at least Rs. 2 Crore (excluding taxes/GST) involving Cloud based laaS or PaaS or SaaS during the last ten years prior to the submission of the bid in India, for any government dept./PSU or public authority. P.S. – The supporting document should clearly highlight the relevant scope of work, contract value and year of execution.	relaxtion to Startups & MSMEs bidder:	No Change, As per RFP
2	- / 1 3	criteria	The Bidder should have successfully completed at least one project related with providing Cloud based Services for capturing and hosting of video feed and Usage of video analytics for counting / classification during the last ten years prior to the submission of the bid in India, for any government or public authority.  P.S. – The supporting document should clearly highlight the relevant scope of work, contract value and year of execution	relaxtion to Startups & MSMEs bidder: In accordance with the Ministry of Finance Office memorandum, the IHMCL may relax condition of prior experiences for Startups	No Change, As per RFP

S. No.	Ref to RFP (Clause,	Category	Original Clause of RFP	Clarification Sought	IHMCL Response
3	6.3.2.1.3. Scalability / Scale out	Technical	All components of the CSP must support scalability to provide continuous growth to meet the requirements.	What is the scalable percentage envisaged ?	Indicative size of legacy data and incremental data is already provided in the RFP, bidder to size the requirement as per the RFP requirement (Bidder should support on Demand Scalability as per the projects requirement and to meet the RFP criteria.)
4	6.3.2.1.3. Scalability / Scale out	Legal	4. A scalable Data Center shall easily be expanded or upgraded on demand. Scalability is important because new computing component is constantly being deployed, either to replace legacy component or to support new missions.	Can hosting on cloud be considered , since scaling is easy and quick.	Yes
5	6.3.2.1.12. Audit & Governanc e requireme nts	General	c. System-wide visibility into resource utilization, application performance, and operational health through proactive monitoring (collect and track metrics, collect and monitor log files, and set alarms) of the cloud resources.	How much log files would be stored and the duration of this storage ?	Bidder to size the requirement as per RFP for the cloud resources. Bidder to refer the RFP for storage backup (The cloud resource utilization, performance metrics, operation health etc. is under RFP scope.)
6	6.3.3 Migration of Existing Application s	Others	6.3.3.1.1. Migration Planning: Comprehensive planning for migration of the application suite and data to the cloud including developing the migration roadmap identifying the constraints and inhibitors to cloud migration. The migration plan should also include plan for co-existence of noncloud and cloud architectures during and after migration and test plans for verifying successful migration.		Please refer Clause 6.3.3 of RFP.

S. No.	Ref to RFP (Clause,	Category	Original Clause of RFP	Clarification Sought	IHMCL Response
7	45	6.3 Server Requiremen t	Server Requirement	Any particular processor configuration – x86, ARM, Intel or AMD?	No specific Make of processor is specified, however the procesor deployed/used for the project should meet all the requirement as per RFP.
8	63	6.3.4.1.4. Storage block storage (Pt 8)	CSP should offer secure, durable, highly scalable object storage for storing and retrieving any amount of data from the web	What size of object storage is needed?	Kindly refer Section 6.3.1 and 6.3.3
9	63	6.3.4.1.4. Storage block storage (Pt 9)	CSP should support an extremely low-cost storage service that provides durable storage with security features for data archiving and backup.	What size of archival storage is needed	Kindly refer Section 6.3.1 and 6.3.3
10	62	6.3.4.1.4. Storage block storage (Pt 2)	CSP should provide ability to provision storage dynamically with on- demand IOPS provisioning.	Any baseline throughput or IOPS requirements for the block storage?	The information sought shall be shared during course of the project
11	50	6.3.2.1.8. Security Requiremen ts (Pt g.)	Dedicated, Hardware-Based Crypto Key Storage Option for using Hardware Security Module (HSM) appliances	Does HSM need to be considered?	CSP should support HSM Solution. The information sought shall be shared during course of the project
12	50	6.3.2.1.8. Security Requiremen ts (Pt h.)	Centralized Key Management	Do we need to considered Key management service?	CSP should centralized key management solution. The information sought shall be shared during course of the project
13			Automated security assessment service that helps improve the security and compliance of applications deployed on cloud by automatically assessing applications for vulnerabilities or deviations from best practices	Do we need to consider vulnerability scanning services?	The information sought shall be shared during course of the project

S. No.	Ref to RFP	Category	Original Clause of RFP	Clarification Sought	IHMCL Response
	(Clause,				
14	52	Monitoring	CSP should provide service to have dedicated connectivity (Direct Connect) from on premise data center to cloud.	Do we need to consider Direct Connect connectivity?	Refer Clause 6.2.12
15			The storage service should (File Storage) should not have limitation of bandwidth.	What type of file storage service is being talked about here, as it is not mentioned in the list of items mentioned	Refer Corrigendum-2
16	52	Monitoring Services (Pt	CSP should have provision to host site to site VPN connectivity. CSP should have provision to setup software VPN to support 5,000+ users.	Site-to-site VPN and Client VPN need to be considered?	As per RFP
17	6.2 Scope Overview 6.2.2 Page. 44	Technical	The selected CSP should migration the existing VMS solution to cloud, if required.	Requesting authority to kindly provide more details on existing setup in terms of whole environement, VM/Server configurations, network configurations, security and storage configurations along with deployment architecture if available.	Please refer Clause 6.3.3 of RFP.
18	Server Requireme nt Page. 45	Technical	Database Server	Kindly provide database version and edition for mentioned database instances in requirement sheet.	The information sought shall be shared during project implementation phase
19	Server Requireme nt Page. 46	Technical	GPU Server Count - 1 per 20 video streams	Count is given as 20 video streams on both VM requirements. Kindly confirm total video streams so as to size and propose optimum cost bids.	Indicative size of legacy data, incremental data and number of fee plazas is already provided in the RFP, bidder to size the requirement as per the RFP requirement
20	6.3.2 Cloud based Storage Requireme nt Page. 47	Technical	The application must be architected and designed to leverage the cloud characteristics such as rapid elasticity and handle transient and hardware failures without downtime.	, , ,	Refer Corrigendum-2

S. No.	Ref to RFP (Clause,	Category	Original Clause of RFP	Clarification Sought	IHMCL Response
	Scope Overview Page. 44	Technical	The virtual machines (application servers) should be configured in separate availability zone.	As per the said clause, department has asked for the specefic services which are available with limited number of CSP hence we will request department to neutralize the said clause so that other CSP can also propose the asked services.	As per RFP
	Scope Overview Page. 43	Technical	The Successful bidder shall be responsible for provisioning of adequate Internet Bandwidth and connectivity to fetch data from NPCI through leased line connectivity. The cost for connectivity shall be borne by successful bidder.	Kindly share incremetnal data size to size the leasline between NPCI and bidders data center.	Refer Clause 6.3.3 and 6.2.12
23	Scope Overview Page. 44	Technical	The Successful bidder shall be responsible for provisioning of adequate Internet Bandwidth and connectivity to fetch data from NPCI through leased line connectivity. The cost for connectivity shall be borne by successful bidder.	Kindly provide approximate figure for the internatet bandwidth for lease line, that every bidders will work on same for commercial point of view.	Refer Clause 6.2.12
	6.3.2.1.1. Software defined element Page 48	Technical	Hybrid Cloud Workload Migration – There should also be provision to integrate existing DB hosted on IHMCL premises with the Application servers hosted in cloud environment through a Private/Public connectivity. CSP will provide access points / POP for the same.	Application and database on different premises will cause high latency issues and high bandwidth utilization, that will degrade the performance and will be costly, So we request authority to host application and database both on cloud to have better performance.	No Change, provision of RFP shall prevail (Till the migration of existing on premise solution to cloud, this solution will be required.)
25	6.3.2.1.1. Software defined element Page 48	Technical	6. Hybrid Cloud Workload Migration — There should also be provision to integrate existing DB hosted on IHMCL premises with the Application servers hosted in cloud environment through a Private/Public connectivity. CSP will provide access points / POP for the same.	Requesting authority to provide more details about existing DB infrastructure in terms of sizing, version & editions of databases and file types, etc./	No change in the RFP. The information sought shall be shared during project implementation phase
	6.3.2.1.6. Back-up page 49	Technical	Backup solution should take consistent Application and Database backups	kindly confirm required backup space that need to considered.	The indicative requirement is mentioned in RFP, bidder need to be estimate on their own

S. No.	Ref to RFP (Clause,	Category	Original Clause of RFP	Clarification Sought	IHMCL Response
	6.3.2.1.7. Business Continuity Services Page 50	Technical	The CSP shall provide business continuity services in case the primary site becomes unavailable.	kindly specify the DR size it will be 100% or 50% of DC.	No Change, provision of RFP shall prevail (Bidder is responsible for business connectivity plan)
	6.3.2.1.7. Business Continuity Services Page 50	Technical	The CSP shall provide business continuity services in case the primary site becomes unavailable.	Please share the expected daily data generation at DC site which would be replicated at DR site (Eg, GB/TB)	The indicative requirement is mentioned in RFP, bidder need to be estimate on their own
	6.3.2.1.7. Business Continuity Services Page 50	Technical	The CSP shall provide business continuity services in case the primary site becomes unavailable.	Kindly specify how many public IPs are required at DC/DR	No change in the RFP. The information sought shall be shared during project implementation phase
	6.3.2.1.8. Security Requireme nts Page 50	Technical	Dedicated, Hardware-Based Crypto Key Storage Option for using Hardware Security Module (HSM) appliances	Please confirm, i. TPS count ii. HSM use case iii. No. of keys needed iv. Is it needed to encrypt Database/ other files and store keys in HSM	CSP should provide HSM solution. The information sought shall be shared during course of the project
	6.3.2.1.8. Security Requireme nts Page 50	Technical	Dedicated, Hardware-Based Crypto Key Storage Option for using Hardware Security Module (HSM) appliances	We will be considering Cloud HSM i.e. HSM on shared basis with virtual seperation. integration with application will be under Clients Scope. Please acknowledge	CSP should provide HSM solution. The information sought shall be shared during course of the project
	6.3.2.1.8. Security Requireme nts Page 50	Technical	Multi-Factor Authentication (MFA)	kindly specify No. of users requiring MFA?	The proposed solution shall support MFA. The information sought shall be shared during course of the project
	6.3.2.1.11. Monitoring Services page 51	Technical	s. CSP should have provision to setup software VPN to support 5,000+ users.	kindly specify the exact number of VPN users require.	As per RFP

S. No.	Ref to RFP	Category	Original Clause of RFP	Clarification Sought	IHMCL Response
	(Clause,				
34	6.3.2.1.1. Software defined element Page 48 and 6.3.3 Migration of Existing Application s	Technical	Hybrid Cloud Workload Migration – There should also be provision to integrate existing DB hosted on IHMCL premises with the Application servers hosted in cloud environment through a Private/Public connectivity. CSP will provide access points / POP for the same. And ix. Migration of the Application Suite from the existing infrastructure to the cloud infrastructure as per the defined To-Be architecture. The migration shall also include the migration of underlying data & files from the current database(s) / storage into the database(s) / storage on the cloud.	contradict to each other. Kindly confirm do bidder need migrate existing application and database on cloud or only existing application will be migrtaed and database remain hosted on IHMCL premises.	No Change, provision of RFP shall prevail (Till the migration of existing on prem solution to cloud, this solution will be required.)
	6.3.3.1.1. Migration Planning:	Technical	NPCI – Overall DB size Production + Archival :: 3.08TB	Kindly provide bifurcation of production and archival tier data from this total data size 3.08TB.	The information sought shall be shared during course of the project. IHMCL to provide the detail
36	6.3.4.1.1. General specificatio ns Page 56	Technical	The Cloud Service Provider must have connectivity of leading ISPs viz. BSNL/MTNL, Airtel, Vodafone, JIO, Idea, RCOM, Tata Teleservices, Railtel etc	Some of the mentioned ISP's has no feasibility in some area so to make this generic. we request authority to ammend this clause to "The Cloud Service Provider must have connectivity of leading 4+ ISP's."	No Change in the RFP.
37	Scope Overview Page. 43	Technical	The virtual machines (application servers) should be configured in separate availability zone.	As per the said clause, department has asked for the specefic services which are available with limited number of CSP hence we will request department to neutralize the said clause so that other CSP can also propose the asked services.	No Change in the RFP.
	6.2.4 Project Handover - Page 45	Technical	Hand-over of the system at the end of contractual period along with all documentation before the expiry of the contract:	Kindly confirm that bidder needs not provide any hardware handover after contract period and only data and documentation is to be submitted since the project is on cloud model.	Yes

S. No.	Ref to RFP (Clause,	Category	Original Clause of RFP	Clarification Sought	IHMCL Response
	6.3.2.1.1. Software defined element Page 47	Technical	Hybrid Cloud Workload Migration – There should also be provision to integrate existing DB hosted on IHMCL premises with the Application servers hosted in cloud environment through a Private/Public connectivity. CSP will provide access points / POP for the same.	Application and database on different premises will cause high latency issues and high bandwidth utilization, that will degrade the performance and will be costly, So we request authority to host application and database both on cloud to have better performance.	No Change, provision of RFP shall prevail (Till the migration of existing on prem solution to cloud, this solution will be required.)
40	6.3.4.1.1. General specificatio ns Page 58	Technical	The Cloud Service Provider must have connectivity of leading ISPs viz. BSNL/MTNL, Airtel, Vodafone, JIO, Idea, RCOM, Tata Teleservices, Railtel etc	The mentioned some ISP's has no feasibility in some area so to make this generic. we request authority to ammend this clause to The Cloud Service Provider must have connectivity of leading 4+ ISP's.	No Change in the RFP.
41	6.3.4.1.9. Hybrid Integration page no 66	Technical	CSP should offer a service to automate operational tasks like software configurations, package installations, and database setups for servers running on-premises or in the cloud.	Request authority to revise the clause as "Cloud provider should offer a service like software configurations, package installations, and database setups for servers running on-premises or in the cloud."	No Change in the RFP.
42	6.3.4.1.7. Deployme nt and Manageme nt page no 65	Technical	CSP should offer a service to quickly deploy and manage applications in the cloud by automatically handling the deployment, from capacity provisioning, load balancing, autoscaling to application health monitoring.	As per the said clause, department has asked for the specefic services which are available with limited number of CSP hence we will request department to neutralize the said clause so that other CSP can also propose the asked services.	No Change in the RFP.
43	6.3.4.1.4. Storage block storage page no 60	Technical	CSP should offer a solution for seamlessly storing cloud data from cloud backup storage or object storage to on-premises storage.	As per the said clause, department has asked for the specefic services which are available with limited number of CSP hence we will request department to neutralize the said clause so that other CSP can also propose the asked services.	No Change in the RFP.

S. No.	Ref to RFP (Clause,	Category	Original Clause of RFP	Clarification Sought	IHMCL Response
	6.3.4.1.4. Storage block storage Page no.62	Technical	CSP should be able to send notifications when certain events happen at the object level (addition/deletion).	Request authority to revise the clause as "Ability to send notifications when certain events happen at the infrastructure level (i.e. addition/deletion operations)"	No Change in the RFP.
	6.3.4.1.8. Application Services Page 65		CSP should offer a search service in the Cloud that makes it simple and cost-effective to set up, manage, and scale a search solution for websites or applications	The following Feature is available with very few CSPs. Hence to have healthy competition and more CSP options, we request authority to not make the following feature mandatory	No Change in the RFP.
	6.3.4.1.7. Deployme nt and Manageme nt Page no. 65	Technical	CSP should use a template, a JSON-format, text-based file that describes all the resources required for an application. The resources in the template should be managed as a single unit.	As per the said clause, department has asked for the specefic services which are available with limited number of CSP hence we will request department to neutralize the said clause so that other CSP can also propose the asked services.	No Change in the RFP.