

Minutes of the Pre-bid meeting for 'Procurement of cloud hosting services for the Assam Project on Forest and Biodiversity Conservation-Phase II.'

Date: 22.08.2024

Time: 11:30 AM

Venue: Wildlife Conference Hall, Aranya Bhawan

IFB No. APFBC/PMU/Phase-II/Cloud Services/2024/350/7, dated 10th August 2024.

The following APFBCS officials and prospective vendor representatives were present at the pre-bid meeting:

Officials of the APFBCS:

1. Shri Sandeep Kumar, IFS : PCCF (Wildlife) & CWLW, Assam and Project Director (PD), APFBCS
2. Shri Prashant Dhanda, IFS : Activity Director (IT & GIS), O/o the PCCF & HoFF, Assam
3. Smt. Rehena Sultana : Procurement Executive, PMU, APFBCS

Representatives of the Firms (Physically Present):

1. Shri Sanjib Pathak : M/s Esri India Technologies Pvt. Ltd.
2. Shri Anowarul Islam : M/s ESDS Software Solution Ltd.
3. Shri Binoy Khound : M/s ESDS Software Solution Ltd.
4. Shri Pranjal Jyoti Sarma : M/s Trans Virtual Pvt. Ltd.
5. Shri Jitu Sarma : M/s Bharti Airtel Ltd.
6. Shri Bishnu Shekhar Baruah : M/s Oracle India Pvt. Ltd.
7. Shri Sovan Banerjee : M/s Oracle Cloud Infrastructure

Representatives of the Firms (Virtually Present):

1. Shri Varun Singh : M/s Cyfuture
2. Shri Supratik Saha : M/s Cyfuture
3. Shri Varun Singh : M/s Binary Global Limited
4. Shri Gaurang Gautam : M/s Web Werks Iron Mountain Data Centre
5. Smti. Simontica Das : M/s CLOUD4C

Attendance sheet of the meeting is enclosed at Annex-1.

1. The Project Director welcomed all participants to the pre-bid meeting and briefly outlined the purpose of engaging vendors for the non-consultancy work related to the project.
2. During the meeting, APFBCS officials addressed queries from the representatives of the attending firms. Responses to the questions raised during the meeting, as well as those received via email, have been included in the minutes, which are enclosed as Annex-2.

Minutes approved

Sd/-

(Sandeep Kumar, IFS)

Project Director, PMU, APFBCS

Memo No: APFBC/PMU/Phase-II/Cloud Services/2024/350/57

Dated 10th September, 2024

Copy to:

1. All concerned officials of the APFBCS joined the meeting.
2. Email to the Bidders: (1) M/s Esri India Technologies Pvt. Ltd; Email: sanjib.pathak@esri.in (2) M/s ESDS Software Solution Ltd.; Email: anowarul.islam@esds.co.in, binoy.khound@esds.co.in, Saurav.Chakravorty@esds.co.in; (3) M/s Trans Virtual Pvt. Ltd.; Email: pranjal@transv.net; (4) M/s Bharti Airtel Ltd.; Email: jitu.sharma@airtel.com; (5) M/s Oracle India Pvt. Ltd.; Email: bishnu.shekhar.baruah@oracle.com; (6) M/s Oracle Cloud Infrastructure; Email: sovanb.banerjee@oracle.com; (7) M/s Cyfuture; Email: rishabh.kumar1@cyfuture.com, sumit.bhel@cyfuture.com, supratik.saha@cyfuture.com, sumitesh.kumar@cyfuture.com; (8) M/s Arceus Infotech Private Limited; Email: monika.yadav@arceus.in, presales@arceus.in; (9) M/s Binary Global Limited; Email:

varun.singh@binaryglobal.com ; (10) M/s Web Werks Iron Mountain Data Centre; Email: gaurang.gautam@webwerks.com; (11) M/s CLOUD4C; Email: simontica.das@cloud4c.com, vikram.m@ctrls.in; (12) M/s Yotta Data Services Private Limited, Email: sacharya@yotta.com ; (13) M/s Tata Communications Limited, Email: Gaurav.Bajpai@tatacommunications.com , Deepak.Bajaj1@tatacommunications.com .






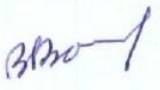


Annexe-1

Attendance Sheet for the Pre-Bid Meeting on Non-Consultancy Work 'Procurement of cloud hosting services for the Assam Project on Forest and Biodiversity Conservation-Phase II'.

Date: 22nd August 2024

Time: 11.30 AM

Venue: PMU, APFBC Society

Sl.	Name of the Attendant	Designation & Organization	Email ID & Contact no.	Signature
1.	Sandeep Kumar, IFS	Project Director, APFBC Society	9717509-600	
2.	Sanjib Pathak	Regional manager ESRI India	Sanjib.Pathak@esri.in 8011917350	
3.	Anowarul Islam Binoy Khound	Regional Director BDS software	anowarul.islam@esde.co.in 8217836824.	
4.	Pranjal Jyoti Sarma	Deputy Manager TRANS VIRTUAL PVT LTD GUWAHATI	pranjal@transv.net 926425524	
5.	Jitu Sarma	DGM-Govt Business Airtel 9892049118	Jitu.Sarma@airtel.com	
6.	Bishnu Shekhar Baruah	Oracle India Pvt. Ltd. 9957573167	bishnu.shekhar.baruah@oracle.com manager	
7.	Sovan Banerjee	Oracle Cloud 9830993790	sovanb.banerjee@oracle.com	
8.	Prashant Dhandu, IFS	Activity Director (IT & GIS) O/o PCCF & HOFF, Assam	-	
9.	Varun Singh Supratik Saha	M/s eyfuture M/s eyfuture	- supratik.saha@eyfuture.com	Virtually Present
10.	Varun Singh	M/s Binary Global Limited	varun.singh@binaryglobal.com	Virtually Present
11.	Gaurang Gautam	M/s Web Works Iron Mountain Data Centre	gaurang.gautam@webworks.com	Virtually Present
12.	Simontica Das	M/s CLOUD4C	simontica.das@cloud4c.com	Virtually Present

Attendance Sheet for the Pre-Bid Meeting on Non-Consultancy Work 'Procurement of cloud hosting services for the Assam Project on Forest and Biodiversity Conservation-Phase II'.				
Date: 22 nd August 2024				
Time: 11.30 AM			Venue: PMU, APFBC Society	
Sl.	Name of the Attendant	Designation & Organization	Email ID & Contact no.	Signature
13.	Subash Saxena	—	—	Virtually Present
14.	Vikas Singh	—	—	Virtually Present
15.	Wamiq	—	—	Virtually Present
16.	Rehana Sultana	PE, APFBC Society	—	<i>Rehana</i> 22/08/24
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				

Annexure-2

Queries and responses regarding IFB No. APFBC/PMU/Phase-II/Cloud Services/2024/350/7, dated 10th August 2024, for the procurement of cloud hosting services for the Assam Project on Forest and Biodiversity Conservation - Phase II.

#	Reference	Existing Clause	Queries	PMU's Responses
1.	Section IV –Bidding Forms, Page no. 47	Price Schedule – Non-Consulting Services	Please clarify whether the requirement is for virtual cores or physical cores for the servers mentioned in the Price Schedule.	The software is to be deployed with licensing for physical cores.
2.	Section IV –Bidding Forms, Page no. 49	Price Schedule – Non-Consulting Services	Within the scope of work defined in the RFP, the inclusion of operating system is requested. We kindly request the authority to provide a provision for adding the prices of Firewall in the Price Schedule.	The primary OS shall be Windows 2022 and the CSP should also support Linux Operating system and functionalities as well. The security config should include cost of Firewall and antivirus + HIPS. The price shall be included in the line-item security config. in the pricing schedule
3.	Section IV –Bidding Forms, Page no. 49	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for adding the prices of management of operating system in the Price Schedule.	The bidder should include price in Service Management item in the pricing schedule
4.	Section IV –Bidding Forms, Page no. 50	Price Schedule – Non-Consulting Services	Within the scope of work defined in the RFP, the inclusion of database system is requested. Kindly confirm the database version and edition.	We will have our own database software (SQL Server Standard Edition 2022) license under BYOL plan which will be installed on the database server.
5.	Section IV –Bidding Forms, Page no. 50	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for adding the prices of Database License in the Price Schedule.	Not required
6.	Section IV –Bidding Forms, Page no. 50	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for adding the prices of management of database system in the Price Schedule.	The bidder should include price in Service Management item in the pricing schedule
7.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	Within the scope of work defined in the RFP, the inclusion of Firewall is requested. We kindly request the authority to provide a provision for adding the prices of Firewall (per device / license) in the Price Schedule.	Firewall should be provided as part of minimum CSP security services necessary for hosting of the applications. The price shall be included in the line item security config. in the pricing schedule Following features are required: <ul style="list-style-type: none"> • Stateful Inspection Firewall Inbound and Outbond

#	Reference	Existing Clause	Queries	PMU's Responses
				<ul style="list-style-type: none"> • Intrusion Prevention System/IDS • User Identity Acquisition • Application Control and URL filtering • Anti – Bot and Anti – Virus • Threat Emulation (Sandboxing) • Threat Extraction (scrubbing) • Anti – Spam and Email Security • IPSec VPN • Data Loss Prevention • Mobile Access • Logging and Status • Event Correlation and Reporting • Real-Time Prevention-unknown malware patient-0 in web browsing • Real-Time Prevention-unknown malware patient-0 in email • Detect C&C traffic according to dynamic ip/url reputation • Sandbox and extract files embedded in documents • scan documents containing URLs
8.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for adding the prices of management of Firewall in the Price Schedule.	The bidder should include price in Service Management item in the pricing schedule
9.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for the cost of WAF management in the Price Schedule?	The bidder should include price in Service Management item in the pricing schedule
10.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for the cost of DDOS License in the Price Schedule?	As we are opting for Firewall, WAF and antivirus + HIPS, all events should be captured and addressed accordingly by successful bidder.
11.	Section IV –Bidding	Price Schedule – Non-Consulting	We kindly request the authority to provide a provision for the cost of IPS/IDS services in the	The price should be contained in the cost of Firewall. The price shall be included in the line

#	Reference	Existing Clause	Queries	PMU's Responses
	Forms, Page no. 51	Services	Price Schedule?	item security config. in the pricing schedule
12.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for the cost of SIEM service in the Price Schedule?	As we are opting for Firewall, WAF and antivirus + HIPS, all events should be captured and addressed accordingly by successful bidder.
13.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for the cost of SOAR service in the Price Schedule?	As we are opting for Firewall, WAF and antivirus + HIPS, all events should be captured and addressed accordingly by successful bidder.
14.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for the cost of SOC Monitoring service in the Price Schedule?	We are opting for Firewall, WAF and antivirus + HIPS, all events should be captured and addressed accordingly by successful bidder.
15.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for the cost of Antivirus License in the Price Schedule?	The price of security config should include cost of Firewall and antivirus + HIPS. The price shall be included in the line item security config. in the pricing schedule
16.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	We kindly request the authority to provide a provision for the cost of HIPS License in the Price Schedule?	The price of security config should include cost of Firewall and antivirus + HIPS. The price shall be included in the line item security config. in the pricing schedule
17.	Section IV –Bidding Forms, Page no. 51	Price Schedule – Non-Consulting Services	Please provide detailed information on the security configuration requirements specified in the Price Schedule.	The price of security config should include cost of Firewall and antivirus + HIPS.
18.	General Query	DR site failover testing. DR site with similar specifications would be hosted on premise or at state data centre by the department	For testing the DR failover. This requirement is only for the Primary site hosting. Please confirm.	DR drill will be performed on secondary region in India after restoring the backups taken from the Primary hosting site. This should be performed thrice a year.
19.	General Query	General	What throughput is required for the load balancer?	We are expecting 50, 150, 200 and 300 concurrent users in first 2 months, 4 months, 6 months and 10 months respectively.
20.	General Query	General	What throughput is required for the firewall?	Bidder is expected to exercise their own judgement to arrive at a reasonable figure.
21.	General Query	General	What throughput is required for the Web Application Firewall (WAF)?	Bidder is expected to exercise their own judgement to arrive at a reasonable figure.

#	Reference	Existing Clause	Queries	PMU's Responses
22.	General Query	General	What specific tasks or applications will require GPU acceleration?	We are planning to use GPU for image analysis and AI/ML automation tasks.
23.	General Query	General	How many concurrent users are expected?	Same as question 19
24.	General Query	General	How frequently will the web-based application be accessed by users?	Web Application would be live and would be accessed by the department users quite frequently.
25.	General Query	General	What are the IOPS (Input/Output Operations Per Second) requirements for file storage?	Bidder is expected to exercise their own judgement to arrive at a reasonable figure.
26.	General Query	General	What are the IOPS (Input/Output Operations Per Second) requirements for Block storage?	Bidder is expected to exercise their own judgement to arrive at a reasonable figure.
27.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 30	(iii) CSP experience and other technical qualification requirements: 2. Similar Experience: The CSP should have experience in India of executing at least one completed/ongoing project of DC/DR hosting of GIS Application / Workload on Cloud with at least 1 (One) year duration with minimum value of INR 50 (Fifty) Million for any Government Institution during the last 5 years w.e.f. date of publication of this bid document.	The requirement of the CSP is for compute and security. The hosting of the application requires the same. Also, Smart City and Smart Metering Projects which are also very compute intensive have not required for GIS application hosting experience. Hence, we request you to kindly remove the specific experience of GIS Application/Workload and amend the clause as foll: <i>The CSP should have experience in India of executing at least one completed/ongoing project of DC/DR hosting of Application / Workload on Cloud with at least 1 (One) year duration with minimum value of INR 50 (Fifty) Million for any Government Institution during the last 5 years w.e.f. date of publication of this bid document.</i>	No change
28.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 30	(iii) CSP experience and other technical qualification requirements: 3. Empanelment: The CSP shall be MeitY empanelled& STQC audited as per Ministry of Electronics and Information Technology (MeitY) as on the last date of submission of the bid for Public Cloud and / or	The STQC audit of most of the CSPs is in progress. Kindly accept MeitY empanelment confirmation as on last date of submission of this bid. For STQC, MeitY has provided a time frame for the completion of same. <i>The public cloud deployment and GCC deployment are two different deployment models. If the data is very critical our recommendation is</i>	We are already expecting MSP to adhere to Data protection and privacy certifications such as ISO 27001:2022, ISO 27017:2015, and ISO 27018:2020 standards

#	Reference	Existing Clause	Queries	PMU's Responses
		Government Community Cloud (GCC) as on the date of publication of bid document.	<i>to use GCC model. At present there are 15 MeitY approved CSPs offering the Govt. Community Cloud. Kindly note that GCC deployment model is dedicated for Govt. customers only.</i>	
29.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.2 After Sales Service*, Page no. 32	3. The MeitY empanelled & STQC audited CSP must be operating Data Centre(s)/ Disaster Recovery Centre(s) in India at least 12 months prior to the date of publication of this bid document. The CSP should be providing both DC & DR services together as per MeitY guidelines without any limitations. The operational data center must be Tier III or above and should have accreditations relevant to security, availability, confidentiality, processing integrity, and privacy and trust Services principles SOC 1, SOC 2 and SOC 3.	Kindly confirm if the NOC and SOC setup is also to be provisioned in India?	Since the hosting environment would be in India hence NOC and SOC should also exist in India.
30.	4.1 Similar Experience and other technical qualifications	2. Similar Experience: The MSP should have successfully provided cloud service hosting of GIS Application/Work load to at least 2 (Two) clients for minimum 1(One) year duration amongst clients from Central Govt. /PSU/State Govt. /State Forest Departments in India in the last 5 (Five) years for individual project value of a minimum of INR5 (Five) million (inclusive of taxes) w.e.f. date of publication of this bid document.	2. Similar Experience: The MSP should have successfully provided cloud service hosting of Cloud Based Solutions / Cloud Hosted Services to at least 2 (Two) clients for minimum 1(One) year duration amongst clients from Central Govt. /PSU/State Govt. / State Forest Departments / Private Entity / Enterprise Customers in India in the last 5 (Five) years for individual project value of a minimum of INR5 (Five) million (inclusive of taxes) w.e.f. date of publication of this bid document.	No change
31.		3. Technical Resource: The MSP must have strength of at least 40 IT Professionals (data center /networking /system	3. Technical Resource: The MSP must have strength of at least 10 IT Professionals (data center /networking /system administration /cloud services professionals / cloud security	No change

#	Reference	Existing Clause	Queries	PMU's Responses
		administration /cloud services professionals / cloud security experts) on their payroll as on date of publication of this bid. At least 10 of these professionals must have experience (of minimum 3 years) in maintenance of cloud solution/virtual server administration/system administration, Virtualization, security, database administration, networking management, etc. The selected bidder must maintain the requisite number of relevant professionals (minimum 5 professionals) during the whole duration of the project to maintain this eligibility criteria. Quarterly report on manpower position must be submitted along with the invoices. The successful Bidder may be expected to prepare for onsite hosting of Geospatial Enterprise application and web FMIS, PMIS and Portal applications integrated with GIS, drone and mobile app catering to day-to-day activities of Forest department. The successful Bidder may also be required to submit a scoping and sizing study of the DC/DR on an equivalent level as being provided by cloud services.	experts / Cloud Based Solutions / Cloud Hosted Services) on their payroll as on date of publication of this bid. At least 10 of these professionals must have experience (of minimum 3 years) in maintenance of cloud solution/ virtual server administration/system administration, Virtualization, security, database administration, networking management, etc. The selected bidder must maintain the requisite number of relevant professionals (minimum 5 professionals) during the whole duration of the project to maintain this eligibility criteria. Quarterly report on manpower position must be submitted along with the invoices. The successful Bidder may be expected to prepare for onsite hosting of Geospatial Enterprise application and web FMIS, PMIS and Portal applications integrated with GIS, drone and mobile app catering to day-to-day activities of Forest department. The successful Bidder may also be required to submit a scoping and sizing study of the DC/DR on an equivalent level as being provided by cloud services.	
32.		4. Certifications: The MSP should compulsorily possess following certifications: -ISO 27001:2022 for Information Security Management System and ISO 9001:2015 for Quality Management System	4. Certifications: The MSP should compulsorily possess following certifications: -ISO 27001:2022 / ISO 27001:2013 for Information Security Management System and ISO 9001:2015 for Quality Management System	No Change

#	Reference	Existing Clause	Queries	PMU's Responses
33.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 29	(ii) MSP experience and other technical qualification requirements: 2. Similar Experience: The MSP should have successfully provided cloud service hosting of GIS Application/Work load to at least 2 (Two) clients for minimum 1(One) year duration amongst clients from Central Govt. /PSU/State Govt. /State Forest Departments in India in the last 5 (Five) years for individual project value of a minimum of INR5 (Five) million (inclusive of taxes) w.e.f. date of publication of this bid document.	Requesting you to amend the clause as below for wider participation of the bidder: The MSP should have successfully provided cloud service hosting of GIS Application/Work load/ IT applications to at least 2 (Two) clients for minimum 1(One) year duration amongst clients from Central Govt. /PSU/State Govt. /State Forest Departments in India in the last 5 (Five) 7 (Seven) years for individual project value of a minimum of INR 5 (Five) million (inclusive of taxes) w.e.f. date of publication of this bid document.	No Change
34.	Section VII – Schedule of Requirements; Technical Specifications for Cloud Services; Page no. 61- Sl. 10	CSP supports various enterprise Linux and Windows distributions	The Technical Specifications mentions that the CSP supports various enterprise Linux and Windows distribution but as per the List of Services and Delivery Schedule (Page No 59) the OS mentioned is Windows Server 2022 .Please clarify whether the the OS is Windows and Linux.	The primary OS shall be Windows 2022 and the CSP should also support Linux Operating system and functionalities as well.
35.	General	-	There is one Real time IOT system designated in the RFP. How do you want to integrate the IOT sensor data with GIS system. What will be the connectors, and the type of data expected to be collected via these sensors.	Not required please see the revised Price Schedule – Non-Consulting Services
36.	General	-	What software is expected under Data Science and automation servers?	AI/ML models would be developed and deployed on Data science server.
37.	General	-	Can DC and DR both be configured on cloud? If not, how bidder will gain access to the DR infrastructure at the State Data Centre? How will bidder provide managed services for the DR setup in data centre.	Dedicated DR is not required. DR drill will be performed on secondary region in India after restoring the backups taken from the Primary hosting site. This should be performed thrice a year to ensure back-up is in pristine state
38.	Section VII – Schedule of Requirements; Service	-	The SLA table will be applicable to SI or CSP or	SLA is for CSP/MSP for management and

#	Reference	Existing Clause	Queries	PMU's Responses
	Level Agreement and Penalties; Page no. 64-69		both	maintenance of cloud infrastructure
39.	General	-	Who will be responsible for Preparing onsite hosting of Geospatial Enterprise application and web FMIS, PMIS and Portal applications integrated with GIS, drone and mobile app catering day-to-day activities of Forest department?	Not relevant for Cloud hosting scope of work.
40.	Section IV –Bidding Forms, Price Schedule Forms, Price Schedule – Non-Consulting Services, Page no. 48	Sl. 11- *File Storage (OS/ VM storage) Sl. 12-Block Storage (Shared storage)	Please update the description of "File storage" by changing it from "OS/VM storage" to "shared storage," and similarly for Block storage from "Shared storage" to "OS/VM Storage," swap the descriptions of "block storage" and "file storage."	Please see the revised Price Schedule – Non-Consulting Services
41.	Section IV –Bidding Forms, Price Schedule Forms, Price Schedule – Non-Consulting Services, Page no. 48	Sl. 18-Web Application Firewall (WAF) for additional security.	What is the expected throughput requirement for the Firewall and WAF to handle government traffic?	Bidder is expected to exercise their own judgement to arrive at a reasonable figure.
42.		Firewall	According to the BOM format, there is no provision for firewall pricing. Please provide a separate column for the firewall to add price. Additionally, include the required throughput information for the firewall.	The price of security config should include cost of Firewall and antivirus + HIPS. The price shall be included in the line item security config. in the pricing schedule
43.	Section IV –Bidding Forms, Price Schedule Forms, Price Schedule – Non-Consulting Services, Page no. 48	Sl. 17- Application Load Balancer	<ol style="list-style-type: none"> 1) What specific applications or services do you plan to load balance with the vLB? 2) How many backend servers or instances will the vLB need to distribute traffic to? 3) What is the expected traffic volume and throughput that the vLB needs to handle? 	<ol style="list-style-type: none"> 1) Please refer to bid document section Scope of Work, Overview of application section. 2) There would be three Enterprise GIS, FMIS and GIS application servers 3) We are expecting 50, 150, 200 and 300 concurrent users in first 2 months, 4 months, 6 months and 10 months respectively.

#	Reference	Existing Clause	Queries	PMU's Responses
44.	Section IV –Bidding Forms, Price Schedule Forms, Price Schedule – Non-Consulting Services, Page no. 49	Sl. 19- Replication tool for DC-DR Synchronization	<p>1) The RFP indicates that the Department will set up Disaster Recovery (DR) either on their premises or in the State data center. Since the DR tool provisioning will depend on the primary environment, if the CSP uses VMware cloud, it is recommended to set up the DR on VMware as well. This approach reduces challenges, similar to how it would be with KVM and AHV and etc. Therefore, we request that the DR be set up within the same CSP but in a separate seismic zone instead of State DC or on prem</p> <p>2) The RFP does not specify the required Recovery Time Objective (RTO) and Recovery Point Objective (RPO). Please provide the necessary details for these metrics.</p>	<p>1) Dedicated DR is not required hence replication tool is not required. DR drill will be performed on secondary region in India after restoring the backups taken from the Primary hosting site. This should be performed thrice a year to ensure back-up is in pristine state</p> <p>2) As already mentioned in the SLA Table point 8 (“Business Continuity: Storing backup in Separate seismic zone”) a daily incremental back-up is sought, hence deriving from there RPO would be 24hrs and RTO would be few minutes to 1 Hour.</p>
45.	Section IV –Bidding Forms, Price Schedule Forms, Price Schedule – Non-Consulting Services, Page no. 49	Sl. 20-Security Config.	Please provide details on all the security services considered under this line item. This should include a comprehensive list of the security services that are included or required.	The price should include cost of Firewall and antivirus + HIPS. The price shall be included in the line item security config. in the pricing schedule. WAF is required and is a separate line item.
46.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, Page no. 57	Scope of Work for Cloud Services Hosting Project; Infrastructure Provisioning & Setup; Ensure high availability, disaster recovery, and auto-scaling capabilities.	Auto scaling Windows VMs is limited due to complex licensing, stateful configurations, and LUN attachment constraints, making dynamic scaling challenging. So, we request you to change it from Auto scalability to scalability	No change. We need flexibility to auto scale when required to leverage cloud hosting.
47.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, Page no. 59	List of Services and Delivery Schedule; Server Sizing for Production Environment; GPU Memory	<p>1) What specific tasks will require the use of a graphics card with 16 GB of memory?</p> <p>2) Could you please specify the exact model or brand of the graphics card required?</p>	<p>1) We are planning to use GPU for image analysis and leverage AI/ML for change detection and task automation</p> <p>2) Please suggest based on above requirement</p>
48.	Section VII – Schedule of Requirements, Scope of Work, List of Services	The current DC setup needs to have a security stack including Gateway Firewall, WAF, DDOS, IPS/IDS, SIEM,	A. What is the expected maximum traffic volume you need the DDoS mitigation solution to handle. Also, request you to	Bidder is expected to exercise their own judgement to arrive at a reasonable figure. As we are opting for Firewall, WAF and

#	Reference	Existing Clause	Queries	PMU's Responses
	and Delivery Schedule, Page no. 60	SORE, SOC Monitoring Antivirus, HIPS	allow CSP to add separate cost for DDOS	antivirus + HIPS, all events should be captured and addressed accordingly by successful bidder.
49.	General	Migration	B. Could you please share the total data migration need to be migrated from the current CSP to the new CSP. This information will help us plan and execute the migration efficiently.	Not required.
50.	General	Current Infra details	C. Please provide the current infrastructure architecture, including details on network connectivity and security. This will help us understand the requirements thoroughly.	The applications would be hosted for the first time. Please refer to the Scope of work from Page 57. Also refer to the minimum and maximum specifications have been mentioned in the "Price Schedule - Non-Consulting Services" table.
51.	General	CSP/SI	D. As the Department plans to deploy FMIS, PMIS, and GIS applications on the cloud, the CSP will be responsible solely for setting up the required infrastructure. The application setup will be managed by the application vendor. Please provide details of the application vendor for these systems.	Yes correct. We will provide the details to the successful bidder.
52.	General	CSP/SI	E. Additionally, for the GIS application, the geographical maps will be required, and the application vendor will be responsible for providing this service request you to provide the details.	The SI will manage the deployment of the Map services and the applications to be hosted on the cloud platform.
53.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no.	(ii) MSP experience and other technical qualification requirements: 3. Technical Resources -The successful Bidder may also be required to submit a scoping and sizing study of the DC/DR on an equivalent level as	Please provide a detailed timeline for conducting and completing the scope study. If the study is conducted after bid submission, how will changes in scope be managed and reflected financially? Will new change orders be raised, or will bidders be expected to absorb the additional costs within the already	This item has been mentioned in the Scope of Work as well in Section VII – Schedule of Requirements, Page 57 (Scope of Work), to clarify MSP is expected to work closely with the Application Developer over the project timeline to determine the sizing & specifications of DC-DR. This would eventually be utilized by the department, for hosting the applications after

#	Reference	Existing Clause	Queries	PMU's Responses
	30	being provided by cloud services.	submitted bid price?	<p>the project period.</p> <p>Since this is a green field project, determining sizing, throughput, etc. is not feasible currently. It is only through experience of working with the Application Developer, the MSP will be able to to advise us on correct specifications & sizing of on-premises (SDC) DC-DR that will eventually be used by the Department.</p> <p>Such a report is expected to be submitted before completion of 5 months from date of launch. No new change orders will be raised, and the additional costs are to be absorbed within the already submitted bid-price, although a separate line item "Managed Services" can be given within the price schedule for the sizing & scoping report.</p>
54.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 47	<p>1.Web Server [Physical Core (vCPU) =4, RAM (in GB)=32, OS Sizing =250, Additional storage (in GB) =500]</p> <p>& Web Adaptor Server, GIS Enterprise Portal Server, GIS Server, GIS Image Server, Data Store Server, Data Science & Automation Server, Real time/IOT/ Sensor Server , App. (FMIS) Server , App (GIS) server SQL Server Standard 2022</p>	<p>For all bidders to be at par & quote uniformly min CPU shall be mentioned.</p> <p>"Given the specified requirements, bidders to propose VMs with min Processor: AMD EPYC 7J13. Base frequency 2.55 GHz, max boost frequency 3.5 GHz. and Enterprise Linux with 24 x 7 premier support as the optimal configuration and workload characteristics".</p> <p>Similarly can we propose for your other server requirements Server for Web Adaptor , GIS Enterprise Portal, GIS Server, GIS Image Server, Data Store Server , Data Science & Automation Server, Real time/IOT/ Sensor Server , App. (FMIS) Server , App (GIS) server SQL Server Standard 2022.</p>	<p>It is the bidders' call what minimum specifications they wish to propose but the SLA's must be met.</p>

#	Reference	Existing Clause	Queries	PMU's Responses
55.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	<p>3. Application Deployment and Management:</p> <ul style="list-style-type: none"> • System Integrator (SI) team will work in close coordination with CSP/MSP for deployment of FMIS, PMIS, GIS and other applications efficiently on the cloud infrastructure. <p>Provide support for testing, installation and hosting issues.</p>	<p>Are there any specific considerations or challenges associated with migrating these types of applications to OCI?</p> <p>What are the requirements for data synchronization and integration? Please share names, version, list of Integration end points required?</p>	Based on our understanding, there are no such specific challenges or considerations associated.
56.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	<p>4. Monitoring and Maintenance:</p> <ul style="list-style-type: none"> • Set up comprehensive monitoring tools to track the performance and availability of cloud resources and applications. • Provide ongoing maintenance, including regular updates, patches, and backups. • Offer 24/7 helpdesk support for incident management and resolution. <p>Publish monthly reports on the maintenance and support</p>	<p>"Please provide a list of items and resources that should be monitored, including their names and versions. What is the desired frequency of monitoring (daily, weekly, monthly)?</p> <p>Can you estimate the approximate backup size for these resources? "Please share back requirements i.e. daily, weekly, monthly? Estimated back up size?</p>	Please refer to backup SLA Table, Point 8: Business Continuity: Storing backup in separate seismic zone
57.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 47	1.Web Server [Physical Core (vCPU) =4,RAM (in GB)=32,OS Sizing =250,Additional storage (in GB) =500]	<p>Physical Core (vCPU) =4. Does this mean 4 vCPUs or 4 Physical cores?</p> <p>Please mention min CPU so that all bidders offer same. We suggest min CPU to be Processor: AMD EPYC 7J13. Base frequency 2.55 GHz, max boost frequency 3.5 GHz.</p>	<p>4 physical cores.</p> <p>It is the bidders' call what minimum specifications they wish to propose but the SLA's must be met.</p>
58.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 48	11.*File Storage (OS/ VM storage)	Do we need to offer native file storage or block storage attached to a SAMBA VM?	We need native file storage for OS and data. Please refer to revised specifications in "Server Sizing for Production Environment" table.

#	Reference	Existing Clause	Queries	PMU's Responses
59.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, General Conditions applicable to Bidder; Page no. 60	1. All Cloud DC and DR system software, including the Database, shall be under the CSP SPLA / Perpetual Model.	What is the sizing of DR? DR will be what % of Production at DC? How many DR drills will be done in a year? What will be the duration in hours for each DR drill?	Dedicated DR is not required. DR drill will be performed on secondary region in India after restoring the backups taken from the Primary hosting site. This should be performed twice a year to ensure back-up is in pristine state
60.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, List of Services and Delivery Schedule; Page no. 59	GPU Memory-16	This column shall be deleted as in normal VM's it is not possible to allocate GPU memory.	No Change.
61.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, List of Services and Delivery Schedule; Page no. 59	OS/ Name- Windows Server 2022	Why OS is windows? As Application is in Development phase we do suggest Enterprise Linux which will be very cost optimized, and far better on Reliability, Flexibility and Security Features	The primary OS shall be Windows 2022 and the CSP should also support Linux Operating system and functionalities as well.
62.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, List of Services and Delivery Schedule; Page no. 59	Blob Storage/Secondary Storage in (GB)-1000	Blob Storage is specific to Azure? Do you want only Azure to participate? Request you to please neutralize the RFP.	Please refer to revised specifications in “Server Sizing for Production Environment” table.
63.	Section VII – Schedule of Requirements:2. Technical specifications for cloud services; Page no. 61	8. The CSP supports standard hypervisors i.e. KVM, Microsoft Hyper-V and VMware	This clause is restrictive in nature & shall be neutralized to "The CSP supports standard hypervisors i.e. KVM etc."	No change.
64.	Section VII – Schedule of Requirements:2. Technical specifications	17. CSP has no objection in case the end user Dept. intends to do a review at their DC site where the	For security reasons hyper-scalers does not allow such visits. Please delete this clause.	Accepted.

#	Reference	Existing Clause	Queries	PMU's Responses
	for cloud services; Page no. 61	proposed GIS workload has been hosted		
65.	Section I - Instructions to Bidders; Page no. 7	4. Eligible Bidders	<p>The Eligibility Criterion seems to be very diluted, keeping in mind the importance and the criticality of the Project. Requesting you to please add the following for making it Robust and Durable, catering to Department Requirement of Availability and Maintainability.</p> <ol style="list-style-type: none"> 1. Availability-The CSP shall have min 1 public regions outside India and minimum 2 regions in India and Regions in India to be in different seismic zone. Regions outside India will ensure Data Availability and Maintainability in the event of any Force Majeure issue affecting India, i.e. War or Internal Disquiet. 2. CSP Credentials-The CSP should be in the quadrant of 2023 Gartner Magic Quadrant for Strategic Cloud Platform Services, 2023 Gartner Magic Quadrant for Distributed Hybrid Infrastructure, 2023 Gartner Magic Quadrant for Data Integration Tools & 2024 Gartner Magic Quadrant for Integration Platform as a Service (iPaaS). 3. Uptime- The CSP should be able to provide >99% Uptime of the given Platform Monthly, keeping in mind the Criticality of the Project 4. Security-The CSP shall offer services for the following security components - <ol style="list-style-type: none"> i. Manage user access and entitlements for the offered public cloud using a cloud native, identity as a service (IDaaS) platform to help us pursue a zero trust strategy. ii. Audit service, which automatically records calls to all supported public 	<p>1) No Change.</p> <p>2) No change.</p> <p>3) No Change. SLAs cover the same.</p> <p>4) As per our need the major components for security systems, i.e, Firewall, WAF and antivirus + HIPS, have already been included.</p> <p>MSP is also expected to go through the SLA Table and meet SLAs accordingly. And whatever is required to meet the security</p>

#	Reference	Existing Clause	Queries	PMU's Responses
			<p>application programming interface (API) endpoints as log events capturing data like - Time the API activity occurred, Source of the activity, Target of the activity, Type of action & Type of response.</p> <p>iii. Provide restricted & time-limited secure access to resources that don't have public endpoints & require strict resource access controls.</p> <p>iv. DDoS Protection.</p> <p>v. Provide a unified view of cloud security posture across customer tenants. It shall detect misconfigured resources, insecure activity across tenants, malicious threat activities & provides security administrators with the visibility to triage & resolve cloud security issues.</p> <p>vi. Aggregate threat intelligence data across many different sources & manages this data to provide actionable guidance for threat detection & prevention in the public cloud. It shall also manage disparate feeds & create a single confidence score for each indicator to reduce false positives while providing transparency into the source to support incident investigation.</p> <p>vii. Enforce security posture in the tenancy & prevent actions that could weaken a customers' security posture. The policies shall be applied to various cloud infrastructure types (network, compute, storage, database, etc.) to ensure cloud resources stay secure and prevent security misconfigurations. Users should be able to determine which policies are appropriate for their needs by defining</p>	<p>related SLA's, the MSP is expected to provide the same.</p>

#	Reference	Existing Clause	Queries	PMU's Responses
			<p>custom policy sets.</p> <p>viii. Eliminate risk from new, unpatched vulnerabilities & open ports by assessing & monitoring cloud instances.</p> <p>ix. Easily create, deploy, & manage Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates available in the public cloud. In a flexible Certificate Authority (CA) hierarchy, this shall help us create private CAs to provide granular security controls for each CA.</p> <p>5. Network Performance-The CSP's networking shall support access to RDMA over converged Ethernet & a 100 Gb/sec network to create High performance clusters with microsecond latencies if required.</p>	5) Not relevant
66.	General	Commercial	The RFP has mentioned a fixed BOQ. Based on the BOQ OCI will provide a fixed Price(UC) to Department for the entire Contract Period, billable at the end of the quarter. This price will remain fixed and it would also be immune to USD/INR Conversion Rate. The fixation of the Conversion Rate will be the date of the offer given to the Department.	Bidders are required to submit quotes for revised specification for minimum and maximum specifications. Tender will be evaluated based on maximum specifications. However, the invoices shall be raised quarterly based on the actual usage falling between minimum and maximum specifications.
67.	General	Application	During Pre-Bid it also came to our Notice that the Application is yet to be developed/in a developmental Stage. In that Scenario we request to develop the Application on Enterprise Level LINUX which will help to reduce cost and being Enterprise LINUX, Department will receive OEM Support. Please note Oracle LINUX is a ENTERPRISE LINUX and is 100% Compatible with RED-HAT/SUSE or any other Linux Versions available in the Market.	Applications already developed and migration is not needed.
68.	General		Please note that OCI has OCLS, our Own Cloud	ok

#	Reference	Existing Clause	Queries	PMU's Responses
			Support Team through which we will provide support to Department/Application Vendor along with MSP on the lift and shift services of the Application along with LINUX Compatibility(if required)	
69.	Section III –Evaluation and Qualification Criteria: Technical Qualification Criteria, Page no. 26,36	1.3 AFD Eligibility	As per Oracle Legal, this is not so Relevant to CSP but relevant to MSP. So requesting to please make this form to "MSP only" and remove the CSP requirement. As CSP, we are already giving Conflict of Interest Undertaking in BID SUBMISSION FORM already, Pg 26, Clause 1.2. So repetitive document.	No Change
70.	Section II–Bid Data Sheet (BDS); ITB 22.1, Page no. 22	Deadline for Submission of Bids	Current Bid Submission Date is 10th September. Requesting you to please extend it for 15 working days from the date of Pre-Bid queries answered by Department. Please note as the RFP involves creating a Solution for Department, minimum 15 working days is required for the same.	The deadline for bid submission has been extended to October 1, 2024. (A corrigendum in this regard is being issued).
71.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 30	(ii) MSP experience and other technical qualification requirements: 3. Technical Resources -The successful Bidder may also be required to submit a scoping and sizing study of the DC/DR on an equivalent level as being provided by cloud services.	Please provide a detailed timeline for conducting and completing the scope study. If the study is conducted after bid submission, how will changes in scope be managed and reflected financially? Will new change orders be raised, or will bidders be expected to absorb the additional costs within the already submitted bid price?	As given earlier
72.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 47	1.Web Server [Physical Core (vCPU) =4, RAM (in GB)=32, OS Sizing =250, Additional storage (in GB) =500] & Web Adaptor Server, GIS Enterprise Portal Server, GIS Server, GIS Image Server, Data Store Server, Data Science & Automation Server, Real time/IOT/ Sensor Server , App.	For all bidders to be at par & quote uniformly min CPU shall be mentioned. "Given the specified requirements, bidders to propose VMs with min Processor: AMD EPYC 7J13. Base frequency 2.55 GHz, max boost frequency 3.5 GHz. and Enterprise Linux with 24 x 7 premier support as the optimal configuration and workload characteristics". Similarly can we propose for your other server	As given earlier

#	Reference	Existing Clause	Queries	PMU's Responses
		(FMIS) Server , App (GIS) server SQL Server Standard 2022	requirements Server for Web Adaptor, GIS Enterprise Portal, GIS Server, GIS Image Server, Data Store Server, Data Science & Automation Server, Real time/IOT/ Sensor Server, App. (FMIS) Server, App (GIS) server SQL Server Standard 2022?	
73.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	<p>3. Application Deployment and Management:</p> <ul style="list-style-type: none"> • System Integrator (SI) team will work in close coordination with CSP/MSP for deployment of FMIS, PMIS, GIS and other applications efficiently on the cloud infrastructure. <p>Provide support for testing, installation and hosting issues.</p>	<p>Are there any specific considerations or challenges associated with migrating these types of applications to OCI?</p> <p>What are the requirements for data synchronization and integration? Please share names, version, list of Integration end points required?</p>	As given earlier
74.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	<p>4. Monitoring and Maintenance:</p> <ul style="list-style-type: none"> • Set up comprehensive monitoring tools to track the performance and availability of cloud resources and applications. • Provide ongoing maintenance, including regular updates, patches, and backups. • Offer 24/7 helpdesk support for incident management and resolution. <p>Publish monthly reports on the maintenance and support</p>	<p>"Please provide a list of items and resources that should be monitored, including their names and versions. What is the desired frequency of monitoring (daily, weekly, monthly)?</p> <p>Can you estimate the approximate backup size for these resources? "Please share back requirements i.e. daily, weekly, monthly? Estimated back up size?</p>	As given earlier
75.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical	<p>(iii) CSP experience and other technical qualification requirements:</p> <p>4. Certifications: The CSP must possess the following :b. Data protection and privacy certifications</p>	To be deleted.	As given earlier

#	Reference	Existing Clause	Queries	PMU's Responses
	qualifications, Page no. 31	such as ISO 27001:2022, ISO 27017:2015, and ISO 27018:2020,ISO 20000 - 1:2011 certification for Service Management System, ISO 22301 certification - Complying to Business Continuity Management standard requirements.		
76.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 47	1.Web Server [Physical Core (vCPU) =4,RAM (in GB)=32,OS Sizing =250,Additional storage (in GB) =500]	Physical Core (vCPU) =4. Does this mean 4 vCPUs or 4 Physical cores? Please mention min CPU so that all bidders offer same. We suggest min CPU to be Processor: AMD EPYC 7J13. Base frequency 2.55 GHz, max boost frequency 3.5 GHz.	As given earlier
77.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 48	11. *File Storage (OS/ VM storage)	Do we need to offer native file storage or block storage attached to a SAMBA VM?	As given earlier
78.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, General Conditions applicable to Bidder; Page no. 60	1. All Cloud DC and DR system software, including the Database, shall be under the CSP SPLA / Perpetual Model.	What is the sizing of DR? DR will be what % of Production at DC? How many DR drills will be done in a year? What will be the duration in hours for each DR drill?	As given earlier
79.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, List of Services and Delivery Schedule; Page no. 59	GPU Memory-16	This column shall be deleted as in normal VM's it is not possible to allocate GPU memory.	As given earlier
80.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule,	OS/ Name- Windows Server 2022	Why OS is windows? Enterprise linux with premier support is a far better option.	As given earlier

#	Reference	Existing Clause	Queries	PMU's Responses
	List of Services and Delivery Schedule; Page no. 59			
81.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, List of Services and Delivery Schedule; Page no. 59	Blob Storage/Secondary Storage in (GB)-1000	Blob Storage is specific to Azure? Do you want only Azure to participate? Request you to please neutralize the RFP.	As given earlier
82.	Section VII – Schedule of Requirements:2. Technical specifications for cloud services; Page no. 61	8. The CSP supports standard hypervisors i.e. KVM, Microsoft Hyper-V and VMware	This clause is restrictive in nature & shall be neutralized to "The CSP supports standard hypervisors i.e. KVM etc".	As given earlier
83.	Section VII – Schedule of Requirements:2. Technical specifications for cloud services; Page no. 61	17. CSP has no objection in case the end user Dept. intends to do a review at their DC site where the proposed GIS workload has been hosted	For security reasons hyper-scalers does not allow such visits. Please delete this clause.	As given earlier
84.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 29	(ii) MSP experience and other technical qualification requirements: 2. Similar Experience: The MSP should have successfully provided cloud service hosting of GIS Application/Work load to at least 2 (Two) clients for minimum 1(One) year duration amongst clients from Central Govt. /PSU/State Govt. /State Forest Departments in India in the last 5 (Five) years for individual project value of a minimum of INR5 (Five) million (inclusive of taxes) w.e.f. date of publication of this bid document.	Please change it to: The MSP should have successfully provided cloud service hosting of Application/Work load to at least 2 (Two) clients for minimum 1(One) year duration amongst clients from Central Govt. /PSU/State Govt. /State Forest Departments/Enterprise customer in India in the last 5 (Five) years for individual project value of a minimum of INR5 (Five) million (inclusive of taxes) w.e.f. date of publication of this bid document.	As given earlier

#	Reference	Existing Clause	Queries	PMU's Responses
85.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 29	(ii) MSP experience and other technical qualification requirements: 3. Technical Resource: The selected bidder must maintain the requisite number of relevant professionals (minimum 5 professionals) during the whole duration of the project to maintain this eligibility criteria. Quarterly report on manpower position must be submitted along with the invoices	Do we need to provide the onsite resources? IN case yes, please suggest the team size.	As per tender document.
86.	Section VII – Schedule of Requirements; 5. Service Level Agreement and Penalties; 5.3 SLA Table, Page no. 68	8. Business Continuity: Storing backup in separate seismic zone.	What is the approximate backup size for the resources?	As given earlier
87.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 30	(ii) MSP experience and other technical qualification requirements: 3. Technical Resources- The successful Bidder may also be required to submit a scoping and sizing study of the DC/DR on an equivalent level as being provided by cloud services.	Kindly share the detailed deployment timelines, in how many days the infra needs to be ready?	As given earlier
88.	Section VIII. General Conditions of Contract, Page no. 76.	25.Transportation 25.1 Unless otherwise specified in the SCC, responsibility for arranging Transportation of the Goods shall be in accordance with the specified Incoterms. 25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC: (a) Performance or supervision of on-site assembly and/or start-up of	Kindly elaborate on each point: <ul style="list-style-type: none"> • To how many resources the training needs to be provided and for how many days, • Any specific number on the batch size, • Please confirm the training location • Number of times the training sessions needs to be conducted. • What materials (training manuals) & topics are expected here? 	No training required

#	Reference	Existing Clause	Queries	PMU's Responses
		<p>the supplied Goods;</p> <p>(b) Furnishing of tools required for assembly and/or maintenance of the supplied Goods;</p> <p>(c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;</p> <p>(d) Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and</p> <p>(e) Training of the Purchaser's personnel, at the Supplier's plant and/or onsite, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.</p> <p>25.3 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.</p>		
89.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, General Conditions applicable to	<p>3. DC and DR database replication should be through the Native replication tool and the bidder should provide a dashboard for monitoring RPO and RTO once the APFBCS considers DR Setup.</p>	<ul style="list-style-type: none"> Do we need to offer CSP native database replication tool or can be cloud native of some other OEM. What are the desired RTO & RPO timelines for DR. <p>Is "zero data loss recovery" service/appliance</p>	As given earlier

#	Reference	Existing Clause	Queries	PMU's Responses
	Bidder, Page no. 60		is expected in this RFP. If yes, then is it required from CSP native or can it be from other OEMs also.	
90.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule, General Conditions applicable to Bidder; Page no. 60	1. All Cloud DC and DR system software, including the Database, shall be under the CSP SPLA / Perpetual Model.	<p>Kindly elaborate on each point:</p> <ul style="list-style-type: none"> • Are these BCP drills same as DR drills? • What is the sizing of DR? • DR will be what % of Production at DC? • How many DR drills will be done in a year? • What will be the duration in hours for each DR drill? • We are assuming DR setup will be for Production environment only, kindly confirm if our understanding is correct? 	As given earlier
91.	Section VII – Schedule of Requirements; 5. Service Level Agreement and Penalties; 5.3 SLA Table, Page no. 68	8. Business Continuity: Storing backup in separate seismic zone- Performing two BCP drills on annual basis to validate backup based on the BCP drill. Temporary Production Environment will be setup with desired capacity resources which can sustain production load and data backups will be restored to run Production Operations during BCP drill window. Tentatively 1-2 days will be invested to setup entire environment and same will be charged back as per usage of respective resources.	-	As given earlier
92.	Section IX- Special Conditions of Contract, GCC 20.1, Page no. 83	The Bidder shall execute non-disclosure agreements with APFBCS with respect to migration and hosting of all the applications/websites. For the avoidance of doubt, it is expressly clarified that the aforesaid	<ul style="list-style-type: none"> • Is there any migration of data, application, database is in scope of this RFP. • If yes, then kindly share the details on application & database name, version, hosting platform details, existing inventory. • Data size to be migrated, source of the 	As given earlier

#	Reference	Existing Clause	Queries	PMU's Responses
		provisions shall not apply to the following information: a) Information already available in the public domain; b) information which has been developed independently by the Service Provider; c) Information which has been received from a third party who had the right to disclose the aforesaid information; Information which has been disclosed to the public pursuant to a court order	<p>storage and type of media.</p> <ul style="list-style-type: none"> Also, share the timelines for the migration activities. <p>What kind of connectivity is needed for migration, VPN / Fast Connect?</p>	
93.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	<p>4. Monitoring and Maintenance:</p> <ul style="list-style-type: none"> Offer 24/7 helpdesk support for incident management and resolution. 	<ul style="list-style-type: none"> How many resources are needed to provide 24*7 support & of what all skillset. What will be the support duration, 1 year? Are these resources to be provided by MSP on MSP payroll or CSP needs to provide this support? Where these resources are needed onsite (please share the office location) or offsite/remote? <p>a) Who will provide the laptops, headsets required assets to these resources if resources need to be onsite.</p>	As given earlier
94.	Section VII – Schedule of Requirements; 5. Service Level Agreement and Penalties; 5.3 SLA Table, Page no. 69	10. Support and Maintenance-24*7 technical support Advance notice (1 week) for scheduled maintenance	<ul style="list-style-type: none"> How many resources are needed to provide 24*7 support & of what all skillset. What will be the support duration, 1 year? Are these resources to be provided by MSP on MSP payroll or CSP needs to provide this support? Where these resources are needed onsite (please share the office location) or offsite/remote? Who will provide the laptops, headsets required assets to these resources if resources need to be onsite. 	As given earlier

#	Reference	Existing Clause	Queries	PMU's Responses
95.	Section II–Bid Data Sheet (BDS): ITB 19.1, Page no.22	19. Bid Security	a) Kindly provide the IFSC code of the registered bank to prepare BG.	DD/BG from any nationalized or scheduled commercial Bank having a branch in Guwahati, Assam
96.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-3.1 Financial Capabilities, Page no. 28	<p>Submission of audited balance sheets or if not required by the law of the Bidder's country, other financial statements acceptable to the Purchaser, for the last three (3) years to demonstrate the current soundness of the Bidder's financial position based on the following criteria:</p> <p>a) Average liquidity ratio for the last three (3) years ≥ 1.1 (Current assets / Current liabilities ≥ 1.1);</p> <p>b) Average indebtedness ratio for the last three (3) years $\leq 80\%$. $[(\text{Total liabilities}) \times 100 / (\text{Total Assets}) \leq 80\%]$</p> <p>If MSP and CSP are different, each shall individually satisfy the above criterions.</p>	<p>Please amend the clause as- Average indebtedness ratio for the last three (3) years $\leq 90\%$. $[(\text{Total liabilities}) \times 100 / (\text{Total Assets}) \leq 90\%]$</p> <p>We have considered Financial year (2022-23; 2021-22 & 2020-21).</p>	No change
97.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 29	<p>(ii) MSP experience and other technical qualification requirements:</p> <p>2. Similar Experience: The MSP should have successfully provided cloud service hosting of GIS Application/Work load to at least 2 (Two) clients for minimum 1(One) year duration amongst clients from Central Govt. /PSU/State Govt. /State Forest Departments in India in the last 5 (Five) years for individual project value of a minimum of INR5 (Five) million (inclusive of taxes) w.e.f. date of</p>	Please amend the clause as- The MSP should have successfully provided cloud service hosting to at least 2 (Two) clients for minimum 1(One) year duration amongst clients from Central Govt. /PSU/State Govt. /State Forest Departments/Public Limited company/Enterprise in India in the last 5 (Five) years for individual project value of a minimum of INR5 (Five) million (inclusive of taxes) w.e.f. date of publication of this bid document.	No change

#	Reference	Existing Clause	Queries	PMU's Responses
		publication of this bid document.		
98.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 30	(iii) CSP experience and other technical qualification requirements: 2. Similar Experience: The CSP should have experience in India of executing at least one completed/ongoing project of DC/DR hosting of GIS Application / Workload on Cloud with at least 1 (One) year duration with minimum value of INR 50 (Fifty) Million for any Government Institution during the last 5 years w.e.f. date of publication of this bid document.	Please amend the clause as -The CSP should have experience in India of executing at least one completed/ongoing project of DC/DR hosting on Cloud with at least 1 (One) year duration with minimum value of INR 50 (Fifty) Million for any Government Institution/Public Limited company/Enterprise during the last 5 years w.e.f. date of publication of this bid document.	No change
99.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 47	1.Web Server [Physical Core (vCPU) =4, RAM (in GB)=32, OS Sizing =250, Additional storage (in GB) =500]	Needs clarity on OS version and type to be proposed.	The primary OS shall be Windows 2022 and the CSP should also support Linux Operating system and functionalities as well.
100.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 47	4. GIS Image Server [Physical Core (vCPU) =4, RAM (in GB)=64, GPU Memory=16, OS Sizing =250, Additional storage (in GB) =750]	Needs clarity on GPU card type.	The specs have been mentioned. Bidder is expected to exercise their own judgement.
101.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 47	1.Web Server [Physical Core (vCPU) =4, RAM (in GB)=32, OS Sizing =250, Additional storage (in GB) =500]	We understand that physical core mentioned means virtual core in the clause. Kindly make the changes.	The software is to be deployed with licensing for physical cores. Please also refer to the “Server sizing for Production Environment”
102.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 48	Active directory configuration, and management	We understand that this will be in customer scope. Please confirm. Customer requires Global DNS, pls confirm.	Not required.
103.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 48	18. Web Application Firewall	Please help with the throughput requirement and number of applications to be placed behind WAF.	We are expecting 50, 150, 200 and 300 concurrent users in first 2 months, 4 months, 6 months and 10 months respectively. The following application will be behind WAF

#	Reference	Existing Clause	Queries	PMU's Responses
				namely FMIS, GIS Portal and GIS Enterprise
104.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 49	19. Replication tool for DC-DR Synchronization	Needs clarity on below points. 1. Number of servers required on DR site. 2. Please specify the type of server- a) Application b) Database 3) Data growth rate, to size the replication bandwidth throughput. 4) Needs clarity on RTO and RPO requirement. 5) Needs clarity on Drill frequency.	1. Replication tool is not required. Dedicated DR is not required. 2. Server Types: Application – (Frontend – ReactJS, Backend – Microservices) Web based Forest Management Information System. Web based GIS Portal application Web based GIS Enterprise application Database – Microsoft SQL Server 3. We are expecting 50, 150, 200 and 300 concurrent users in first 2 months, 4 months, 6 months and 10 months respectively. 4. RPO would be 24hrs and RTO would be few minutes to 1 Hour. DR drill will be performed on secondary region in India after restoring the backups taken from the Primary hosting site. This should be performed thrice a year to ensure back-up is in pristine state
105.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 49	22. Email Gateway (SMTP)/ Email notification	Pls. clarify the scope for email notifications.	The email notification needs to be sent to relevant forest officers and will be triggered based on the status/events defined in the application workflow.
106.	Section IV– Bidding Forms: Price Schedule – Non-Consulting Services, Page no. 49	20.Security Config.	Needs clarity on security services to be factored for mentioned line item.	The price of security config should include cost of Firewall and antivirus + HIPS. The price shall be included in the line item security config. in the pricing schedule. WAF is required and kept as separate line item.
107.	Section VII – Schedule of Requirements, Scope of Work, List of Services	1. Infrastructure Provisioning & Setup: Ensure high availability, disaster recovery, and auto-scaling	We can offer horizontal scaling. Customer to confirm please.	We require vertical as well as horizontal scaling

#	Reference	Existing Clause	Queries	PMU's Responses
	and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	capabilities		
108.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	3. Application Deployment and Management: System Integrator (SI) team will work in close coordination with CSP/MSP for deployment of FMIS, PMIS, GIS and other applications efficiently on the cloud infrastructure.	CSP will provide IaaS support.	Yes correct.
109.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	2. Security and Compliance: Implement robust security measures, including firewalls, encryption, access controls, and continuous monitoring.	We would like to state that under Zero network policy - firewall is dedicated. The ask in the clause is single. This can be a single cause of failure. Kindly change the clause.	We need dedicated firewall and bidders have to ensure that SLA's are met.
110.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	2. Security and Compliance: Conduct regular security audits and vulnerability assessments.	Bidder understands that this clause is covered thru the certification which has regular audits but this is not specific to any customer. Kindly clarify.	Bidder should be able to demonstrate the requested compliance as and when required by the client.
111.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Scope of Work for Cloud Services Hosting Project, Page no. 57	1. Infrastructure Provisioning & Setup: DR site failover testing. DR site with similar specifications would be hosted on premise or at state data centre by the department	Bandwidth from DC to DR will be governed as per the change Data required by the apps and Databases. Kindly confirm.	Dedicated DR is not required. DR drill will be performed on secondary region in India after restoring the backups taken from the Primary hosting site. This should be performed thrice a year to ensure back-up is in pristine state
112.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule-	4. Monitoring and Maintenance: Publish monthly reports on the maintenance and support	This will be as per standard format provide by the bidder.	Yes, correct.

#	Reference	Existing Clause	Queries	PMU's Responses
	Scope of Work for Cloud Services Hosting Project, Page no. 57			
113.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- Page no. 58	The successful Bidder may also be required to submit a scoping and sizing study of the DC/DR on an equivalent level as being provided by cloud services.	Please Note that if there is a major change in the ask after the scoping and sizing study - this may impact the requirement.	The scoping and sizing study report shall be submitted on recommended specification (before completion of 5 months from date of launch) for hosting later on DC and DR on clients own premises
114.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- List of Services and Delivery Schedule, Page no. 59	Application Load Balancer	Please help with the throughput requirement and number of applications to be load balanced.	Bidder is expected to exercise their own judgement.
115.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- List of Services and Delivery Schedule, Page no. 60	10. Email Gateway (SMTP)	Needs clarity a SMTP port to be opened or you want to make a separate server as SMTP managed server. 1. Please also confirmed these should not be a promotions emails.	SMTP gateway service is required for email notifications to be sent to various application users based on the event/status updates. We confirm that these are not promotion emails
116.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- List of Services and Delivery Schedule, Page no. 60	General Conditions applicable to Bidder: 3. DC and DR database replication should be through the Native replication tool and the bidder should provide a dashboard for monitoring RPO and RTO once the APFBCS considers DR Setup.	Please confirm the RPO and RTO requirement. Bidder understands that the DC side will be seen by customer.	RPO would be 24hrs and RTO would be few minutes to 1 Hour.
117.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule- List of Services and Delivery Schedule, Page	11. SMS Gateway	Please confirm the use case for the same. 1. Do you want to share the same notification over SMS which are going to be shared over email?	SMS would be sent to application users where there is notification urgency and may vary on case to case basis.

#	Reference	Existing Clause	Queries	PMU's Responses
	no. 60			
118.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule-List of Services and Delivery Schedule, Page no. 60	6. DDOS	Needs clarity on throughput details to be protected.	As we are opting for Firewall, WAF and antivirus + HIPS, all events should be captured and addressed accordingly by successful bidder.
119.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule	6.IPS/IDS	Needs clarity on number of Ips/Application to be checked.	<p>Firewall should be provided as part of minimum CSP security services necessary for hosting of the applications. The price shall be included in the line item security config. in the pricing schedule</p> <p>Following features are required:</p> <ul style="list-style-type: none"> • Stateful Inspection Firewall Inbound and Outbond • Intrusion Prevention System/IDS • User Identity Acquisition • Application Control and URL filtering • Anti – Bot and Anti – Virus • Threat Emulation (Sandboxing) • Threat Extraction (scrubbing) • Anti – Spam and Email Security • IPSec VPN • Data Loss Prevention • Mobile Access • Logging and Status • Event Correlation and Reporting • Real-Time Prevention-unknown malware patient-0 in web browsing • Real-Time Prevention-unknown malware patient-0 in email • Detect C&C traffic according to dynamic ip/url reputation

#	Reference	Existing Clause	Queries	PMU's Responses
				<ul style="list-style-type: none"> Sandbox and extract files embedded in documents <p>scan documents containing URLs</p> <p>Please refer to the scope of work (Section VII – Schedule of Requirements). There would be 3-4 web based applications integrated with mobile app hosted on the platform.</p>
120.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule	6. SIEM	Needs clarity on number of devices to be considered and EPS counts.	As we are opting for Firewall, WAF and antivirus + HIPS, all events should be captured and addressed accordingly by successful bidder.
121.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule-List of Services and Delivery Schedule, Page no. 60	6. SOC	Needs clarity on number of devices to be considered and EPS counts.	As we are opting for Firewall, WAF and antivirus + HIPS, all events should be captured and addressed accordingly by successful bidder.
122.	Generic	-	Is there any migration involve in the SOW? And where the current applications are running?	Migration is not required.
123.	Section III –Evaluation and Qualification Criteria; Technical Qualification Criteria-4.1 Similar Experience and other technical qualifications, Page no. 29	<p>(ii) MSP experience and other technical qualification requirements:</p> <p>2. Similar Experience: The MSP should have successfully provided cloud service hosting of GIS Application/Workload to at least 2 (Two) clients for minimum 1(One) year duration amongst clients from Central Govt. /PSU/State Govt. /State Forest Departments in India in the last 5 (Five) years for individual project value of a minimum of INR5 (Five) million (inclusive of taxes) w.e.f. date of</p>	We do have similar E Governance application of various other ministries of central govt. so this may be considered as workload. (Similar for CSP qualifications also)	If the bidder can provide certification from Govt. client whose e-governance application was hosted on CSP/MSP cloud certifying that the application had a substantial GIS component then it can be considered as a workload. The certification should be from and on the letter head of an officer not less than the rank of a JS in Central Govt.

#	Reference	Existing Clause	Queries	PMU's Responses
		publication of this bid document.		
124.	Section VII – Schedule of Requirements, Scope of Work, List of Services and Delivery Schedule-List of Services and Delivery Schedule, Page no. 60	6. The current DC setup needs to have a security stack including Gateway Firewall, WAF, DDOS, IPS/IDS, SIEM, SORE, SOC Monitoring Antivirus, HIPS	The Financial format does not have line items for the security services asked in BOQ/ Financial Format. Is there indicative sizing of the security solutions proposed on page no 60.	The price shall be included in the line item security config. in the pricing schedule. The price of security config should include cost of Firewall and antivirus + HIPS. WAF is required and is a separate line item.
125.	Section VII – Schedule of Requirements; 5. Service Level Agreement and Penalties, Page no. 69	5.3 SLA Table: 9. Latency and Throughput	The proposed solutions are not the part of BOQ so need not be placed in SLA. Request you to remove the clause.	The platform should support the required SLA's