

Request for Proposal (RFP)

For

PoC on Geospatial Cloud based Data Center

RFP No. 2/8/2016/NSDI

National Spatial Data Infrastructure

New Delhi

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TABLE OF CONTENTS

SECTION I: TECHNICAL SPECIFICATIONS

1.0	PROJECT BACKGROUND	:	1
2.0	PURPOSE OF THE RFP	:	2
3.0	RFP ISSUING AUTHORITY	:	2
4.0	TENTATIVE CALENDAR OF EVENTS	:	3
5.0	SCOPE OF WORK – CLOUD SERVICES	:	3
6.0	INDICATIVE BILL OF MATERIAL	:	4
7.0	SECURITY AND STATUTORY REQUIREMENTS	:	4
8.0	AUDIT AND GOVERNANCE REQUIREMENTS	:	6
9.0	EXIT MANAGEMENT / TRANSITION-OUT RESPONSIBILITIES	:	7
10.0	PROJECT TIMELINES	:	8

SECTION II: BIDDING TERMS AND CONDITIONS

1.0	INSTRUCTIONS TO BIDDERS	:	8
1.1	AVAILABILITY OF THE RFP DOCUMENTS	:	8
1.2	EARNEST MONEY DEPOSIT (EMD)	:	8
1.3	PRE-BID CONFERENCE	:	9
1.4	BIDDER INQUIRIES AND NSDI'S RESPONSES	:	10
1.5	SUPPLEMENTARY INFORMATION / CORRIGENDUM / AMENDMENT TO THE RFP	:	10
1.6	PROPOSAL PREPARATION COSTS	:	10
1.7	NSDI'S RIGHT TO TERMINATE THE PROCESS	:	11
1.8	ACCEPTANCE OF PART / WHOLE BID / MODIFICATION – RIGHTS THEREOF	:	11
1.9	AUTHENTICATION OF BIDS	:	11
1.10	INTERLINEATIONS IN BIDS	:	11
1.11	CONSORTIUM BIDS	:	11
1.12	VENUE & DEADLINE FOR SUBMISSION OF PROPOSALS	:	12
1.13	LATE BIDS	:	12
1.14	CONDITIONS UNDER WHICH THIS RFP IS ISSUED	:	12
1.15	RIGHTS TO THE CONTENT OF THE PROPOSAL	:	12
1.16	MODIFICATION AND WITHDRAWAL OF PROPOSALS	:	13
1.17	NON-CONFORMING PROPOSALS	:	13
1.18	DISQUALIFICATION	:	13
	THE PROPOSAL IS LIABLE TO BE DISQUALIFIED IN THE FOLLOWING CASES	:	13
1.19	ACKNOWLEDGEMENT OF UNDERSTANDING OF TERMS	:	14
1.20	OFFER VALIDITY PERIOD	:	14
1.21	LANGUAGE OF PROPOSALS	:	15
2.0	BID SUBMISSION INSTRUCTIONS	:	15
2.1	DOCUMENTS COMPRISE OF PROPOSAL	:	15
2.2	AUTHENTICATION	:	15
2.3	TECHNICAL BID	:	15
2.4	PRICE BID	:	16
2.5	SIGNATURE	:	16

SECTION III: BID SUBMISSION

3.0	BID SUBMISSION	:	16
3.1	INSTRUCTIONS FOR ONLINE BID SUBMISSION	:	16
3.2	REGISTRATION	:	17
3.3	PREPARATION OF BIDS	:	17
3.4	SUBMISSION OF BIDS	:	17
3.5	ASSISTANCE TO BIDDERS	:	18
3.6	PRICES	:	19
3.7	CORRECTION OF ERRORS	:	20
3.8	NON-CONFORMING PROPOSALS	:	21
3.9	FORFEITURE OF EARNEST MONEY	:	21

3.10	CONFLICT OF INTEREST	: 21
3.11	TERMINATION FOR INSOLVENCY	: 21
3.12	GENERAL CONDITIONS	: 22

SECTION IV: BID EVALUATION AND AWARD OF CONTRACT

4.0	BID OPENING SESSIONS	: 23
4.1	OPENING OF EMD ENVELOPE	: 23
4.2	EVALUATION OF TECHNICAL BIDS	: 23
4.3	EVALUATION OF PRICE BIDS	: 23
4.4	NEGOTIATIONS, AGREEMENT FINALIZATION AND AWARD OF CONTRACT	: 24
4.5	AWARD OF CONTRACT	: 25
	4.5.1. AWARD CRITERIA	: 25
	4.5.2. NSDI'S RIGHT TO ACCEPT ANY PROPOSAL AND TO REJECT ANY OR ALL PROSPECTS	: 25
	4.5.3 NOTIFICATION OF AWARD	: 25
	4.5.4 SIGNING OF AGREEMENT	: 26
	4.5.5 PERFORMANCE BANK GUARANTEE	: 26
	4.5.6 FAILURE TO AGREE WITH THE TERMS & CONDITIONS OF THE RFP	: 26

SECTION V: DISPUTE RESOLUTION

5.0	DISPUTE RESOLUTION	: 27
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SECTION VI: PAYMENT TERMS

6.0	PAYMENT TERMS	: 28
6.1	Liquidated Damages	: 28
6.2	Payment Schedules and Milestones	: 28
6.3	Terms and conditions	: 28
6.4	Provisioning of Cloud services for additional quantities at proposed rate	: 29
6.5	PROJECT EXTENSION	: 29

SECTION VII: INDEMNITY

7.0	INDEMNITY	: 30
-----	-----------	------

SECTION VIII: FORCE MAJURE

8.0	FORCE MAJEURE	: 30
-----	---------------	------

SECTION IX: LIMITATION OF LIABILITY

9.0	LIMITATION OF LIABILITY	: 31
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ANNEXURE I

FORM A.1.	REQUEST FOR CLARIFICATION FORMAT	: 31
FORM A.2.	FORMAT FOR EARNEST MONEY DEPOSIT (EMD)	: 32
FORM A.3.	RFP RESPONSE COVER LETTER	: 33
	CERTIFICATE AS TO AUTHORISED SIGNATORIES	:
FORM A.4.	SELF-DECLARATION ON THE BLACKLISTING (BIDDER AND CSP IN CASE / BIDDER AND CSP ARE DIFFERENT)	: 35
FORM A.5.	COMMERCIAL BID FORMATS – AS PER BOQ (PRICE BID)	: 36
FORM A.6.	UNDERTAKING ON ABSENCE OF LITIGATION	: 36
FORM A.7.	UNDERTAKING FROM CLOUD SERVICE PROVIDER (CSP)	: 37
FORM A.8.	ORGANIZATION INFORMATION (USE SEPARATE SHEET IN CASE BIDDER AND CSP)	: 38
FORM A.9.	PERFORMANCE BANK GUARANTEE FORMAT	: 40

ANNEXURE II

II.0	SERVICE LEVEL AGREEMENT (SLA)	: 42
II.I	MEASUREMENT AND MONITORING	: 42
II.II	PERIODIC REVIEWS	: 42
II.III	PENALTIES	: 43
II.IV	SERVICE LEVELS	: 43
II.V	DEFINITIONS	: 47

ANNEXURE III

III.I	INDICATIVE BILL OF MATERIAL (ATTACHED AS SEPARATE EXCEL DOCUMENTS ALONG WITH PRICE BID (BOQ))	: 49
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ANNEXURE IV

IV.I	Annexure- A (Technical Bid Format)	: 58
IV.II	Annexure- B (Financial Bid Format)	: 59
IV.III	Annexure- C (Draft Agreement)	: 60
IV.IV	Annexure- D (Bank Gurantee Format)	: 62
IV.V	Annexure- E (Data Security undertaking)	: 64
IV.VI	Annexure- F (Deliverables)	: 65
IV.VII	Annexure- G (Project Work Flow)	: 68
IV.VIII	Annexure- H (Image and Mapping Standards)	: 72
IV.IX	Annexure- I (Evaluation Criteria)	: 73

DEFINITIONS

Acronym	Expansion
CSP / DCO	Cloud Service Provider / Data Center Operator
EMD	Earnest Money Deposit
EMI	Equated Monthly Installment
EQI	Equated Quarterly Installment
GI Cloud	Government of India Cloud
IaaS	Infrastructure as a Service
IAM	Identity and Access Management
IOPS	Input/output operations per second
MSP	Managed Service Provider
O&M	Operations and Maintenance
PaaS	Platform as a Service
PBG	Performance Bank Guarantee
PCI DSS	Payment Card Industry Data Security Standard
RPO	Recovery Point Objective
RTO	Recovery Time objective
SAS	Serial Attached SCSI
SATA	Serial Advanced Technology Attachment
SCSI	Small Computer System Interface
SI	System Integrator
SLA	Service Level Agreement
SSD	Solid State Drive
VLAN	Virtual Local Area Network
VLB	Virtual Load Balancer
VM	Virtual Machines

1. Project Background

India has, over the past years, produced a rich "base" of map/ image information through systematic field/ aerial/ remote sensing surveys. Standardised metadata for most of these maps and images have been captured and made accessible through India Geo-portal (<https://www.nsdiindia.gov.in>) of NSDI to facilitate data discovery and access. Portals of the NSDI Nodal Agencies like Survey of India (Surveykshan), National Remote Sensing Centre (Bhuvan); National Informatics Centre (NIC) (National Data Portal); Forest Survey of India; Geological Survey of India; Karnataka S&T Council (Govt. of Karnataka); and State IT Mission (Govt. of Kerala) etc. have been providing Web Map Services (WMS) and Catalogues for their data sets for human visualization and developing possible GIS applications. Efforts are currently being made by these Nodal Agencies to make interoperable Web Feature Services (WFS) accessible for download of feature data in standard encoding specifications (e.g. OGC's Geography Markup Language) for processing on a GIS Platform. More national and state level geo-portals are likely to emerge in the near future for provision of feature and attribute data services. With web-based data services gradually getting accessible from various agencies, emphasis in NSDI is shifting from enabling 'data' services to 'product or application' services so that required products/ applications could be prepared on a GIS Platform and delivered to the end user for decision support.

Various information resources mentioned above like geo-spatial feature data/ service metadata (ISO 19115/ ISO 19119/ NSDI Metadata version 2.0/ BIS LITD-22-3335), data/ services (ISO 19136/ ISO 19142/ ISO 19128 etc.), feature catalogues etc. are usually governed by feature concept definitions, application schemas, data classification systems (e.g. code lists), units of measurement, and spatial reference systems. These resources are expected to change over time with evolution of newer concepts/ innovations, standards, technologies, and applications. Towards this goal, there is a need for setting up a mechanism for keeping track of these changes for ensuring consistent processing and interpretation of spatial data for decision-making by end users. This is proposed to be achieved by establishing a set of registers, implementation of the registers on a web-accessible registry, defining procedures for registering the resources on the registry by data providers and provision of a suitable governance structure for overseeing the process of registration of a resource. It has thus been decided to operationalise a National Data Registry for NSDI with the following technical specifications:

2. Purpose of the RFP

The purpose of this RFP is to enable NSDI to setup onsite Datacenter and enable cloud services from the cloud service offerings of various CSP's / DCO's.

The RFP is not an offer by NSDI but an invitation to receive proposals from eligible and interested bidders in respect of the above-mentioned project. The RFP does not commit NSDI to enter into a binding agreement in respect of the project with the potential bidders. Potential bidders are henceforth referred to as "Bidders" in this document.

3. RFP Issuing Authority

This RFP is issued by NSDI to the bidders and is intended to procure cloud services.

S. No.	Item	Description
1	Project Title	Procurement of Cloud Services
2	Project Initiator / RFP Issuer Details	Under Secretary, NSDI
3	Department	Department of Science & Technology
4	Contact Person	Under Secretary, NSDI
5	Contact Person (Alternate)	Dharmendra Singh, SA, NSDI
6	Email Address for all Bid Correspondence	nsdi@nic.in
7	Address for the purpose of Bid Submission	National Spatial Data Infrastructure East Block-7, Level-5 R.K. Puram, N. Delhi-66
8	Website	https://www.nsdiindia.gov.in/

4. Tentative Calendar of Events

The following table enlists important milestones and timelines for completion of bidding activities:

S. No.	Milestone	Date and Time
1	Release of Request for Proposal (RFP)	29-01-2018
2	Last date for submission of written questions by bidders	25-04-2018
3	Pre- Bid Conference	26-04-2018
4	Date of Issue of Clarifications	30-04-2018
5	Last date for Submission of bids	09-05-2018, 5:30 PM
6	Opening of Bids	Will be notified later.

5. Scope of Work – Cloud Services

NSDI wishes to engage a CSP / DCO for providing Geospatial Cloud based Data Center Services for a period of **5 years**, which includes comprehensive maintenance of Hardware, Software, with 3 months for initial data capture and yearly data updation, in the Aol of the provided input data (Varanasi approx. 100 Sq. Kms.); which may be reviewed for extension on the completion of Fifth year at the discretion of Competent authority, for Geospatial Cloud based Data Center. The scope of work is as under:

1. The Bidder will be responsible for provisioning of required IT infrastructure as IaaS for setting Geospatial Cloud based Data Center and hosting Cloud based GIS application.
2. The proposed landscape for the deployment of Cloud based GIS solution is
 - Staging
 - Production
 - Disaster Recovery
3. The above environments are to be deployed on the virtual private Cloud / Government Community Cloud
4. The environment of virtual private cloud / Government Community Cloud shall comply with the respective Provisional Empanelment Compliance Requirements published by Ministry of Science and Technology, Government of India.

5. Each of the environments mentioned above should be logically isolated, i.e., separate from the production environment in a different VLAN than the production environment and to be setup such that users of the environments are in separate networks.
6. The Bidder shall be responsible for provisioning required compute infrastructure (server/virtual machines), storage for hosting Cloud based GIS applications. The indicative compute requirements for the IT infrastructure is placed at Annexure C. Inbuilt Anti-Spam / Malware / Antivirus threats control software.
7. The Bidder shall be responsible for provisioning of adequate Internet Bandwidth and connectivity at the DC & DR, including termination devices, for end users to access Cloud based GIS application.
8. DR site should be anywhere in India which is easily accessible and geographical safe.
9. The Bidder will be responsible for provisioning of requisite network infrastructure (including switches, routers and firewalls) to ensure accessibility of the servers as per defined SLA's.
10. The infrastructure provisioned by the Bidder must be scalable and shall allow NSDI to add/reduce cloud resources on demand basis through a user-friendly dashboard.
11. The solution needs to provide the ability for NSDI IT Administrators to automatically provision the services via a Web Portal (Self Provisioning), provide metering and billing to provide service assurance for maintenance & operations activities. Detailed user level or user group level auditing, monitoring, metering, accounting, quota and show-back information is essential for the cloud platform to be offered.
12. Compliance process to the defined international standards and security guidelines such as ISO 27001, for maintaining operations of cloud and ensuring privacy of NSDI data.
13. A change release management and configuration management procedures are defined and implemented to process any change to the cloud environment / services. These procedures must include the capability to support the transition between the aforementioned environments prior to production deployment.
14. Manage the instances of storage, compute instances, and network environments. This includes department-owned & installed operating systems and other system software that are outside of the authorization boundary of the CSP. Service Provider is also responsible for managing specific controls relating to shared touch points within the security authorization boundary, such as establishing customized security control solutions. Examples include, but are not limited to, configuration and patch management, vulnerability scanning, disaster recovery, and protecting data in transit and at rest, host firewall management, managing credentials, identity and access management, and managing network configurations.
15. Provide support to technical team of NSDI or nominated agency for Optimization of resources in cloud environment for better performance and also provide physical and virtual access to the technical persons for the resolution of any issue pertaining to the operation, maintenance or rectification to keep the application running without any problem, as authenticated by NSDI.
16. The bidder should provide 24*7 Helpdesk support
17. CSP/DCO should provide training to NSDI nominated officials/personnel on usage of the Console and any other technical aspect for monitoring of CLOUD BASED GIS project.

6.0 Indicative Bill Of Material

Each environment wise, an Indicative bill of material is provided in the Annexure C.

7.0 Security and Statutory Requirements

a. Certification/Compliance:

- I. The CSP/Bidder facilities/services need to be certified / compliant to the following standards based on the project requirements:
 - o ISO 27001 - Data Center and the cloud services should be certified for the latest version of the standards
 - o Tier IV Certification
 - o SOC – Type II
 - o PCI DSS - compliant technology infrastructure for storing, processing, and transmitting credit card information in the cloud – This standard is required if the transactions involve credit card payments.
- II. The CSP / Bidder shall comply or meet any security requirements applicable to CSP's / bidders published (or to be published) by Ministry of Electronics Information and Technology (MeitY), Government of India or any standards body setup / recognized by Government of India from time to time and notified to the CSP / Bidder by MeitY as a mandatory standard.
- III. The CSP / Bidder shall meet all the security requirements indicated in the IT Act 2000 the terms and conditions of the Provisional Empanelment of the Cloud Service Providers and shall comply to the audit criteria defined by STQC or CER-IN empaneled auditor.

b. Privacy and Security Safeguards.

- i. CSP/Bidder to ensure that the data is encrypted as part of a standard security process for highly sensitive content or choose the right cryptographic algorithms evaluating security, performance, and compliance requirements specific to their application and may choose from multiple key management options.
- ii. CSP/Bidder to notify the agency promptly in the event of security incidents or intrusions, or requests from foreign government agencies for access to the data, to enable the agency to manage these events proactively.
- iii. The Bidder shall ensure that all the storage blocks or multiple copies of data if any are unallocated or zeroed out by the CSPs so that data cannot be recovered. If due to some regulatory reasons if it is required to securely decommission data, departments can implement data encryption at rest using departments managed keys, which are not stored in the cloud. Then customers may delete the key used to protect the decommissioned data, making it irrecoverable.
- iv. The CSP/Bidder shall report forthwith in writing of information security breaches to the NSDI by unauthorized persons (including unauthorized persons who are employees of any Party) either to gain access to or interfere with the Project's Data, facilities or Confidential Information.
- v. The CSP undertakes to treat information passed on to them under this Agreement as classified. Such Information will not be communicated / published / advertised by the CSP to any person/organization without the express permission of the NSDI.

c. Confidentiality

The Bidder shall execute non-disclosure agreements with the NSDI with respect to CLOUD BASED Data Centre POC Project. For the avoidance of doubt, it is expressly clarified that the aforesaid provisions shall not apply to the following information:

- information already available in the public domain;
- information which has been developed independently by the Service Provider;
- 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.
- The Subcontractors will be permitted to obtain customer data only to deliver the services the bidder has retained them to provide and will be prohibited from using customer data for any other purpose. The bidder remains responsible for its subcontractors' compliance with bidder's obligations under the Project.

d. Location of Data:

- I. The location of the data (text, audio, video, image files, drawing files, GIS files, pdf, and any compressed data and software (including machine images), that are provided to the CSP for processing, storage or hosting by the CSP services in connection with the NSDI's account and any computational results that an NSDI or any end user derives from the foregoing through their use of the CSP's services) shall be as per the terms and conditions of the Empanelment of the Cloud Service Provider.
 - II. Nature of replication between the DC and DRC (e.g., asynchronous replication of data between Primary DC and DRDC) RPO should be less than or equal to <<2 hours>> and RTO shall be less than or equal to <<4 hours>>. The key transaction data shall have <<RPO of 15 minutes>>).
 - III. DR Database Storage shall be replicated on an ongoing basis and shall be available in full (100% of the PDC) as per designed RTO/RPO and replication strategy. The storage should be 100% of the capacity of the Primary Data Center site.
 - IV. In the event of a site failover or switchover, DR site will take over the active role, and all requests will be routed through that site. Application data and application states will be replicated between data centers so that when an outage occurs, failover to the surviving data center can be accomplished within the specified RTO.
- e. Law Enforcement Request: The Law Enforcement Agency as mandated under any law for the time being in force may seek access to information stored on cloud as provided by the Service Provider. The onus shall be on the Cloud Service Provider to perform all due diligence before releasing any such information to any such law enforcement agency.
- f. Audit: NSDI shall ensure that the Cloud Service Provider's services offerings are audited and certified by STQC/MeitY. NSDI include the following clauses in the Agreement:
- i. The Cloud Service Provider's services offerings shall comply with the audit requirements defined under the terms and conditions of the Provisional Empanelment of the Cloud Service Providers (or STQC /MEITY guidelines as and when published).
 - ii. The Audit, Access and Reporting Requirements should be as per the terms and conditions of the Provisional Empanelment of the Cloud Service Provider.

- g. Performance Management: The critical SLAs for cloud services are covered under Annexure B

8.0 Audit and Governance Requirements

The CSP shall implement the audit & compliance features to enable the Agency to monitor the provisioned resources, performance, resource utilization, and security compliance:

- a. View into the performance and availability of the cloud services being used, as well as alerts that are automatically triggered by changes in the health of those services.
- b. Event-based alerts, to provide proactive notifications of scheduled activities, such as any changes to the infrastructure powering the cloud resources.
- 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.
- d. Review of auto-scaling rules and limits.
- e. Logs of all user activity within an account. The recorded information should include the identity of the API caller, the time of the API call, the source IP address of the API caller, the request parameters, and the response elements returned by the cloud service. This is required to enable security analysis, resource change tracking, and compliance auditing.
- f. Ability to discover all of the provisioned resources and view the configuration of each. Notifications should be triggered each time a configuration changes, and Agencies should be given the ability to dig into the configuration history to perform incident analysis.
- g. Monitoring of cloud resources with alerts to customers on security configuration gaps such as overly permissive access to certain compute instance ports and storage buckets, minimal use of role segregation using identity and access management (IAM), and weak password policies.
- h. 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. After performing an assessment, the tools should produce a detailed list of security findings prioritized by level of severity

9.0 Exit Management / Transition-Out Responsibilities

Continuity and performance of the Services at all times including the duration of the Agreement and post expiry of the Agreement is a critical requirement of NSDI. It is the prime responsibility of CSP to ensure continuity of service at all times of the Agreement including exit management period and in no way any facility/service shall be affected/degraded.

The responsibilities of Service Provider with respect to Exit Management / Transition-Out services on cloud include:

- a. Provide necessary handholding and transition support to ensure the continuity and performance of the Services to the complete satisfaction of NSDI.
- b. Support NSDI in migration of the VMs, data, content and any other assets to the new environment created by NSDI or any Agency (on behalf of NSDI) on alternate cloud service provider's offerings to enable successful deployment and running of the NSDI's solution on

the new infrastructure by providing a mechanism to NSDI for the bulk retrieval of all data, scripts, software, virtual machine images, and so forth to enable mirroring or copying to NSDI supplied industry standard media.

- c. The format of the data transmitted from the cloud service provider to NSDI should leverage standard data formats (e.g., OVF, VHD...) whenever possible to ease and enhance portability. The format will be finalized by NSDI.
- d. The ownership of the data generated upon usage of the system, at any point of time during the contract or expiry or termination of the contract, shall rest absolutely with NSDI.
- e. Ensure that all the documentation required by NSDI for smooth transition including configuration documents are kept up to date and all such documentation is handed over to NSDI during regular intervals as well as during the exit management process.
- f. Shall not delete any data at the end of the agreement (for a maximum of 45 days beyond the expiry of the Agreement) without the express approval of NSDI.
- g. Once the exit process is completed, remove the NSDI's data, content and other assets from the cloud environment and certify that the VM, Content and data destruction to NSDI as per stipulations and shall ensure that the data cannot be forensically recovered.
- h. There shall not be any additional cost associated with the Exit / Transition-out process.

10.0 Project Timelines

The indicative milestones and project timelines are given below:

S. No.	Project Milestone	Indicative Timelines
1	Issue and Acceptance of Work Order	14 Days
2	Setup of Cloud Environment and Handover the Cloud Environment to NSDI	21 Days

- The bidder shall strictly adhere to above mentioned timelines. However, if the bidder is confident of completing the work before the stipulated period, he shall submit a revised project timeline along with the technical bid.
- In case, if the price bid of more than one bidder is same, in such cases, the bidder given the shortest project timelines, having more government and semi-government clients. In case, this also matches, the decision of the NSDI will be final to opt for any of them.
- The bidder shall provide the required hardware and software for Staging environment immediately within 2 weeks from the date of issuance of Work Order.
- The bidder shall provide the required hardware and software for Production environment and establish a DR within 4 weeks from the date of issuance of Work Order.

Section II: Bidding Terms and Conditions

1.0 Instructions to Bidders

1.1. Availability of the RFP Documents:

The RFP can be downloaded from the website / given under Section 1 clause 3. The bidders are expected to examine all instructions, forms, terms, project requirements and other information in the RFP documents. Failure to furnish all information required as mentioned in the RFP documents or

submission of a proposal not substantially responsive to the RFP documents in every respect will be at the bidder's risk and may result in rejection of the proposal and forfeiture of the bid security.

1.2. Earnest Money Deposit (EMD)

- a. Bidders shall submit, along with their Bids, an amount of INR 10, 00,000/- (Rupees Ten Lakhs only), as Earnest Money Deposit ("EMD").
- b. EMD can be either in the form of a/c payee DD/ FDR drawn in favour of "Under Secretary, National Spatial Data Infrastructure" payable at New Delhi or a Bank Guarantee issued by any of the Nationalized/Scheduled/Commercialized banks of India in the format provided in the Annexure A- Form A.2.
- c. The original copy of EMD should reach to NSDI office, address as mentioned in Section I clause 3 on or before the time of opening of bid. The original should be hosted / couriered / given person to the concerned authority of NSDI latest by the last date and time of the bid submission otherwise uploaded bid will be rejected.
- d. EMD in any other form will not be accepted.
- e. EMD shall be valid for a period of Forty-five (45) days beyond the final bid validity period.
- f. EMD payment is exempted for Micro and Small Enterprises (MSE) with NSIC registered organizations in case of Single Point Registration covering all components of the said RFP. Copy of valid NSIC Certificate for MSEs along with DIC's (District Industries Centre) Certificate has to be submitted along with the bid. Relevant documentation needs to be submitted along with the bid to substantiate the claim for exemption of EMD failing which, bidder's bid will be liable for rejection.
- g. EMD of all unsuccessful bidders would be refunded by NSDI within 30 days of the bidder being notified by NSDI as being unsuccessful and after received a written request from the unsuccessful bidder for refund of the same. EMD of the successful bidder would be returned upon submission of Performance Bank Guarantee.
- h. No interest shall be payable by NSDI to the Bidder(s) on the EMD amount for the period of its currency.
- i. The bid without adequate EMD, as mentioned above, will be liable for rejection without providing any further opportunity to the bidder concerned.
- j. The bidder shall extend the validity of the EMD on request by NSDI
- k. EMD may be forfeited:
 - If a bidder withdraws its bid during the period of bid validity or any extension thereof agreed to by the bidder
 - In case of a successful bidder, if the bidder fails to submit the PBG in accordance with terms and conditions
 - If any of the bidders modify their bid during the validity period
 - If the Proposal is varied or modified in a manner not acceptable to NSDI after opening of Proposal during the validity period or any extension thereof
 - If the Bidder tries to influence/jeopardize the bidding/evaluation process or submits any forged documents

1.3. Pre-Bid Conference

NSDI will host a Pre-Bid Conference, tentatively scheduled as per the schedule given in section 1 clause 4 above. The representatives of the interested organizations may attend the pre-bid conference at their own cost. The purpose of the pre-bid conference is to provide bidders with information regarding the RFP and the proposed requirements in reference to the particular RFP. It will also provide each bidder with an opportunity to seek clarifications regarding any aspect of the RFP and the project. The venue for the Pre-bid conference is the bid issuer's address provided in Section 1 Clause 3.

1.4. Bidder Inquiries and NSDI's responses

- a. All enquiries from the prospective bidders relating to this RFP must be submitted in writing exclusively to the contact person notified by NSDI as above in the format specified in Format A.1 Request for Clarification Format. A copy of the bidder enquiries should also be emailed to the bid issuer's email address provided in the Section 1 clause 3. The mode of delivering written questions would be through post or email. It can also be presented in writing by the authorized representative of the prospective bidders during pre-bid conference. In no event will NSDI be responsible for ensuring that bidders' inquiries have been received by them. Telephone calls or any other mode of communication other than prescribed herein will not be accepted for the queries.
- b. After the RFP is issued to the bidder, NSDI shall accept written questions/inquiries from the bidders. NSDI will endeavor to provide a complete, accurate, and timely response to all questions to all the bidders. However, NSDI makes no representation or warranty as to the completeness or accuracy of any response, nor does NSDI undertake to answer all the queries that have been posed by the bidders. All responses given by NSDI will be published on the website given under Section 1 Clause 3. All responses given by NSDI will be available to all the bidders. Any email communications sent by bidders to NSDI must be sent to the email address provided in Section 1 Clause 3.
- c. NSDI will not be bound to clarify any query after the pre-bid meeting.

1.5. Supplementary Information / Corrigendum / Amendment to the RFP

- a. If NSDI deems it appropriate to revise any part of this RFP or to issue additional data to clarify an interpretation of the provisions of this RFP, it may issue supplements to this RFP. Such supplemental information, including but not limited to, any additional conditions, clarifications, minutes of meeting, and official communication over email/post will be communicated to all the bidders by publishing on the website given under Section 1 Clause 3. Any such supplement shall be deemed to be incorporated by this reference into this RFP.
- b. The letters seeking clarifications sent either to all the bidders or to specific bidder as the case may be pertaining to pre-bid conference shall also be deemed to be incorporated by this reference in this RFP, as the case may be.
- c. At any time prior to the deadline (or as extended by NSDI) for submission of bids, NSDI, for any reason, whether at its own initiative or in response to clarifications requested by prospective bidder, may modify the RFP document by issuing amendment(s). All such amendments will be published on the website given under Section 1 Clause 3. All such amendment(s) will be binding on all the bidders.

- d. In order to allow bidders a reasonable time to take the amendment(s) into account in preparing their bids, NSDI, at its discretion, may extend the deadline for the submission of bids.

1.6. Proposal Preparation Costs:

The bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal in providing any additional information required by NSDI to facilitate the evaluation process, and in negotiating a definitive Service Agreement and all such activities related to the bid process. This RFP does not commit NSDI to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award of the contract for implementation of the project.

1.7. NSDI's Right to terminate the Process

- a. NSDI may terminate the RFP process at any time without assigning any reason. NSDI makes no commitments, explicit or implicit, that this process will result in a business transaction with anyone.
- b. This RFP does not constitute an offer by NSDI. The bidder's participation in this process may result in NSDI selecting the bidder to engage in further discussions and negotiations towards execution of a contract. The commencement of such negotiations does not, however, signify a commitment by NSDI to execute a contract or to continue negotiations.
- c. NSDI has the right to terminate this discussions and negotiations process without assigning any reason and no costs will be reimbursed to the participating bidders.

1.8. Acceptance of part / whole bid / modification – Rights thereof:

NSDI reserves the right to modify the specifications / quantities / requirements / tenure mentioned in this RFP including addition / deletion of any of the item or part thereof after pre-bid and the right to accept or reject wholly or partly bid offer, or, without assigning any reason whatsoever. No correspondence in this regard shall be entertained. NSDI also reserves the unconditional right to place order on wholly or partly bid quantity to successful bidder.

1.9. Authentication of Bids

The original and all copies of the bid shall be typed or written in indelible ink and signed by the Bidder or a person duly authorized to bind the Bidder to the Contract. A certified true copy of the corporate sanctions/approvals/board resolution authorizing its authorized representative to sign/act/execute documents forming part of this proposal including various RFP documents and binding contract shall accompany the bid. All pages of the bid, except for un-amended printed literature, shall be initialed and stamped by the person or persons signing the bid.

1.10. Interlineations in Bids

The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

1.11. Consortium Bids

Consortium is allowed with the prime bidder being responsible for in time delivery of the Project.

1.12. Venue & Deadline for submission of proposals

- a. Proposals, in its complete form in all respects as specified in the RFP, must be submitted online at address specified in Section 1 Clause 3.
- b. Last Date & Time of submission: Before the date and time stipulated in schedule given in section 1 clause 4
- c. NSDI may, in exceptional circumstances and at its discretion, extend the deadline for submission of proposals by issuing an addendum. All such addendums will be published on the website given under Section 1 clause 3. In such a case of extension, all rights and obligations of NSDI and the bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.

1.13. Late Bids

Bids received after the due date and the specified time (including the extended period if any) for any reason whatsoever, shall not be entertained and shall be returned unopened.

1.14. Conditions under which this RFP is issued

- a. This RFP is not an offer and is issued with no commitment. NSDI reserves the right to withdraw the RFP and change or vary any part thereof at any stage. NSDI also reserves the right to disqualify any bidder, should it be so necessary at any stage for any reason whatsoever.
- b. Timing and sequence of events resulting from this RFP shall ultimately be determined by NSDI.
- c. No oral conversations or agreements with any official, agent, or employee of NSDI shall affect or modify any terms of this RFP and any alleged oral agreement or arrangement made by a bidder with any department, agency, official or employee of NSDI shall be superseded by the definitive agreement that results from this RFP process. Oral communications by NSDI to bidders shall not be considered binding on NSDI, nor shall any written materials provided by any person other than NSDI.
- d. Neither the bidder nor any of the bidder's representatives shall have any claims whatsoever against NSDI or any of their respective officials, agents, or employees arising out of, or relating to this RFP or these procedures (other than those arising under a definitive service agreement with the bidder in accordance with the terms thereof).
- e. The information contained in this document is only disclosed for the purposes of enabling bidders to submit a proposal to NSDI. No part of this document including the Annexures can be reproduced in any form or by any means, disclosed or distributed to any party not

involved in the bid process without the prior consent of NSDI except to the extent required for submitting bid. This document should not therefore be used for any other purpose.

1.15. Rights to the Content of the Proposal:

All the bids and accompanying documentation submitted as bids against this RFP will become the property of NSDI and will not be returned after opening of the proposals. NSDI is not restricted in its rights to use or disclose any or all of the information contained in the proposal and can do so without compensation to the bidders. NSDI shall not be bound by any language in the proposal indicating the confidentiality of the proposal or any other restriction on its use or disclosure. NSDI has the right to use the services of external experts to evaluate the proposal by the bidders and share the content of the proposal either partially or completely with the experts for evaluation with adequate protection of the confidentiality information of the bidder.

1.16. Modification and Withdrawal of Proposals:

- a. No Bid shall be modified, substituted or withdrawn by the Bidder on or after the Bid Due Date. Entire bid security shall be forfeited if any of the bidders modify or withdraw their bid during the bid validity period.
- b. Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by the NSDI, shall be disregarded.
- c. The RFP/ bid submission process is according to the e-Procurement process. The procedure for modification, substitution and withdrawal of bids shall be as specified in the e-Procurement website mentioned in the section 1 clause 3 of this RFP. Hence, bidders are advised to go through such procedures stated in the online procurement portal of NSDI.
- d. The Bidder may modify, substitute or withdraw its Bid after submission, provided the same is done before the last date of bid submission or that written notice of the modification, substitution or withdrawal is received by the NSDI prior to the last date and time for submission of Bid. However, after the last date of bid submission, the EMD amount will be forfeited in case of modification, substitution or withdrawal of bid and such modified/ substituted bid will not be considered for evaluation.

1.17. Non-Conforming Proposals:

A proposal may be construed as a non-conforming proposal and ineligible for consideration:

- a. If it does not comply with the requirements of this RFP.
- b. If a proposal appears to be "canned" presentations of promotional materials that do not follow the format requested in this RFP or do not appear to address the particular requirements of the proposed solution, and any such bidders may also be disqualified

1.18. Disqualification:

The proposal is liable to be disqualified in the following cases:

- a. Proposal submitted without EMD;

- b. Proposal not submitted in accordance with the procedure and formats prescribed in this document or treated as non-conforming proposal;
- c. During validity of the proposal, or its extended period, if any, the bidder increases his quoted prices;
- d. Bidder qualifies the proposal with its own conditions or assumptions;
- e. Proposal is received in incomplete form;
- f. Proposal is received after due date and time for submission of bid;
- g. Proposal is not accompanied by all the requisite documents;
- h. A commercial bid submitted with assumptions or conditions.
- i. If the bidder provides any assumptions in the commercial proposal or qualifies the commercial proposal with its own conditions, such proposals will be rejected even if the commercial value of such proposals is the lowest (best value).
- j. Proposal is not properly sealed or signed;
- k. If bidder provides quotation only for a part of the project;
- l. Bidder tries to influence the proposal evaluation process by unlawful/corrupt/fraudulent means at any point of time during the bid process;
- m. In case any one bidder submits multiple proposals or if common interests are found in two or more bidders, the bidders are likely to be disqualified;
- n. Bidder fails to deposit the Performance Bank Guarantee (PBG) or fails to enter into a contract within 7 days of the date of notice of award or within such extended period, as may be specified by NSDI;
- o. Bidders may specifically note that while evaluating the proposals, if it comes to NSDI's knowledge expressly or implied, that some bidders may have colluded in any manner whatsoever or otherwise joined to form an alliance resulting in delaying the processing of proposal then the bidders so involved are liable to be disqualified for this contract as well as for a further period of three years from participation in any of the RFPs floated by NSDI;
- p. If, any of the bid documents (including but not limited to the hard and soft/electronic copies of the same, presentations during evaluation, clarifications provided by the bidder), excluding the commercial bid, submitted by the bidder is found to contain any information on price, pricing policy, pricing mechanism or any information indicative of the commercial aspects of the bid;
- q. Bidders or any person acting on its behalf indulges in corrupt and fraudulent practices; and
- r. In case bidder fails to meet any of the bidding requirements as indicated in this RFP

1.19. Acknowledgement of Understanding of Terms:

By submitting a proposal, each bidder shall be deemed to acknowledge that it has carefully read all sections of this RFP, including all forms, schedules and annexure hereto, and has fully informed itself as to all existing conditions and limitations.

1.20. Offer Validity period

The offer should remain valid for a period of 180 days from the date of the submission of offer. A proposal valid for a shorter period may be rejected as non-responsive. On completion of the validity period, unless the bidder withdraws his proposal in writing, it will be deemed to be valid until such time that the bidder formally (in writing) withdraws his proposal. In exceptional circumstances, at its discretion, NSDI may solicit the bidder's consent for an extension of the validity period. The request and the responses thereto shall be made in writing or by fax or email.

1.21. Language of Proposals

The proposal and all correspondence and documents shall be written in English.

2. Bid Submission Instructions

Bid must be direct, concise, and complete. All information not directly relevant to this RFP should be omitted. NSDI will evaluate bidder's bid based on its clarity and the directness of its response to the requirements of the project as outlined in this RFP.

Bidders shall furnish/ upload the required information on their technical and price bids in the formats provided in the RFP. Any deviations in format the RFP will be liable for rejection

2.1. Documents Comprise of Proposal

a. Proposal submitted by the bidder shall comprise the following:

- I. Proposal covering letter (covering letter as set forth in Form A.3).
- II. Technical proposal in the format as specified in Form A.3
- III. Price bid as specified in Form A.5. The bidders need to provide the component-wise cost details used for arriving at the quoted commercials as specified in the Form A.5.1
- IV. Any other information that is required to be submitted in the proposal process.

2.2. Authentication

- I. The original and all copies of the bid shall be signed by the authorized signatory of the Bidder to bind the Bidder to the Contract. A letter of authorization either as per the Form A.3 shall be supported by a written power-of-attorney by board resolution accompanying the bid or in bidder's standard format. In case the bidder is submitting the power of attorney in bidder's standard format then it should be supported by the certificate issued by the board resolution / Company secretary stating that the person authorized to sign the entire document specific to this project. All pages of the bid, except for un-amended printed literature, shall be initialed and stamped by the person or persons signing the bid.
- II. Bidders shall furnish the required information in the enclosed formats only. Any deviations in format may make the bid liable for rejection. The bid document shall be accompanied by a covering letter as per the format in Form A.3. Thus, main envelope shall consist of the covering letter, EMD, Technical bid and Price bid Envelopes. Proposals not accompanied with the covering letter shall be liable for rejection.

2.3. Technical Bid

The bidders are required to submit the prequalification bid in specified format furnishing all the required information and supporting documents.

A bid may be rejected at prequalification stage itself and not considered for techno-commercial evaluation if it fails to satisfy the prequalification criteria specified in this RFP.

2.4. Price Bid

- I. Unless expressly indicated, bidder shall not include any technical information regarding the services in the Price bid.
- II. Prices shall be quoted entirely in Indian Rupees and must be arrived at after including all expenses, rates, and taxes. However, GST, if any paid by the IA is reimbursable after producing documentary evidence.
- III. The Price bid must be detailed. A summary should be included in the form of the pricing matrices given in Form A.5 of this RFP.

2.5. Signature

All proposals must be signed with the bidder's name/ stamp and by a representative of the bidder, who is authorized to commit the bidder to contractual obligations. All obligations committed by such signatories must be fulfilled. Each page of the proposal would be signed/ initialed.

3. Bid Submission

- I. Each bidder can submit one proposal only.
- II. NSDI will not accept delivery of proposal in any manner other than that specified in this RFP. Proposal delivered in any other manner shall be treated as defective, invalid and rejected.
- III. The e-Tender will be submitted online in two Electronic Envelope system
 - a. Envelope No-I: - Technical Bid
 - b. Electronic Envelope No-II: - Price Bid
 - c. Original copies of EMD & Power of attorney are required to be submitted offline in the prescribed form at the address mentioned in section 1 clause 3 up to the Last date and time of submission of tender document

3.1. Instructions for Online Bid Submission

- a. The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the

bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

- b. More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.

3.2. Registration

- a. Bidders are required to enrol on the e-Procurement module of the Central Public Procurement Portal ([URL: https://eprocure.gov.in/eprocure/app](https://eprocure.gov.in/eprocure/app)) by clicking on the link "Online bidder Enrolment" on the CPP Portal which is free of charge.
- b. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- c. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- d. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- e. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- f. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

3.3. Preparation of Bids

- a. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- b. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- c. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- d. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

3.4. Submission of Bids

- a. Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- b. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- c. Bidder has to select the payment option as "offline" to pay the EMD as applicable and enter details of the instrument.
- d. Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- e. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. The price bid has been given as a standard BOQ format with the tender document; the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- f. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- g. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- h. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- i. Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- j. The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

3.5. Assistance to Bidders

- a. Any queries relating to the RFP document and the terms and conditions contained therein should be addressed to the RFP Inviting Authority for a RFP or the relevant contact person indicated in the RFP.
- b. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

3.6. Prices

- a. The bidder shall quote the price as per specified format fixed for the entire project on a single responsibility basis.
- b. The Bidder's price quote shall include all the components and services to meet the solution requirements.
- c. All the prices will be in Indian Rupees
- d. No adjustment of the price quoted in the Price Proposal shall be made on account of any variations in costs of labour and materials, currency exchange fluctuations with international currency or any other cost component affecting the total cost. No clauses for price fluctuations due to fluctuation of the Indian currency against any of foreign currency will be accepted during the period of the contract.
- e. The price quoted in the Price Proposal shall be the only payment, payable by the NSDI to the successful Bidder for completion of the contractual obligations by the successful Bidder under the Contract, subject to the terms of payment specified as in the proposed Price bid or the one agreed between NSDI and the Bidder after negotiations. The price would be inclusive of all taxes, duties, charges and levies as applicable.
- f. The prices, once offered, must remain fixed and must not be subject to escalation for any reason whatsoever within the period of the validity of the proposal and the contract. A proposal submitted with an adjustable price quotation or conditional proposal may be rejected as non-responsive.
- g. Bidder should provide all prices, quantities as per the prescribed formats given in RFP. Bidder should not leave any field blank. In case the field is not applicable, Bidder must indicate "0" (zero) in all such fields.
- h. It is mandatory to provide the break-up of all components in the format specified for detailed Bill of Material. The Price bid should include the unit price and proposed number of units for each component. In case of a discrepancy between the Bill of Material and the Price bid, the technical Bill of Material remains valid. In no circumstances shall the Price bid be allowed to be changed / modified.
- i. It is mandatory to provide break-up of all taxes, duties and levies wherever applicable and/or payable. All the taxes of any nature whatsoever shall be borne by the Bidder. It should be separately and clearly indicated how the local taxes will be applied for selling these services by a registered entity (anywhere in India) to the NSDI (located at New Delhi).
- j. All costs incurred due to delay of any sort, shall be borne by the Bidder.
- k. NSDI reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated within specified time frames.

- l. If the prices of different components are bundled together in the Price Proposal, unbundling of these prices, i.e. allocating prices for individual components during evaluation or during signing the contract, if awarded the contract, will not be allowed.
- m. If the bundling of the price of different services makes it difficult for NSDI to use them for the purpose of signing the contract, NSDI shall have the right to reject these Price bids as unresponsive bids.
- n. If the price for any of the services is not explicitly quoted in the price bid or mentioned as zero, it is assumed that the price for that particular element is absorbed in some other service element for which a price has been quoted. NSDI has the right to source services for which no price was quoted or quoted as zero, at no additional price.
- o. If taxes or any other applicable charges are not indicated explicitly, they are assumed to be bundled within the prices quoted and unbundling of these charges will not be entertained either during evaluation or contracting.
- p. In the event of any increase or decrease of the rate of taxes due to any statutory notification/s during the term of the Contract, the consequential effect shall be to the account of NSDI.
- q. NSDI reserves the right to procure the components/services listed in this RFP in whole or in part. No adjustment of the Agreement price shall be made on account of any variations in costs of labour and materials or any other cost component affecting the total cost in fulfilling the obligations under the Agreement. The Agreement price shall be the only payment, payable by NSDI to the successful bidder for completion of the obligations under the Agreement, subject to the terms of payment specified in the Agreement.
- r. The bidders are advised not to indicate any separate discount in the financial bid. Discount, if any, should be merged with the quoted price.

3.7. Correction of Errors

- a. Bidders are advised to exercise adequate care in quoting the prices. No excuse for corrections in the quoted price will be entertained after the proposals are opened. Corrections, if any, should be initialed by the person signing the proposal form before submission, failing which the figures for such items may not be considered.
- b. Arithmetic errors in proposals will be corrected as follows:
 - I. In case of discrepancy between the amounts mentioned in figures and in words, the amount in words shall prevail.
 - II. In case of discrepancy between the cost quoted in the pricing summary sheet for a component and the total cost provided for the component in the detailed cost breakup sheet, the cost quoted in the pricing summary sheet for the component will be considered.
 - III. In case of discrepancy between the total price given for a line item / component and the calculated total price (number of units multiplied by the cost per unit for that line item), the calculated total price will be considered.
 - IV. The amount stated in the proposal form, adjusted in accordance with the above procedure, shall be considered as binding, unless it causes the overall proposal price to rise, in which case the proposal price shall prevail.

- V. If the bidder does not accept the correction of errors, its bid will be rejected and EMD shall be forfeited.

3.8. Non-conforming Proposals

A proposal may be construed as a non-conforming proposal and ineligible for consideration:

- a. If it does not comply with the requirements of this RFP. Failure to comply with the technical requirements, and acknowledgment of receipt of amendments, are common causes for holding proposals non-conforming.
- b. If a proposal appears to contain only "canned" presentations or promotional materials that do not follow the format requested in this RFP or do not appear to address the project requirements. Such bids may also be held non-conforming.

3.9. Forfeiture Of Earnest Money Deposit

- a. If any bidder withdraws his bid before the expiry of the validity period, or before the issue of letter of acceptance, whichever is earlier, or makes any modification in the terms and conditions of the RFP which are not acceptable to NSDI then NSDI shall, without prejudice to any other right or remedy, be at liberty to forfeit the entire earnest money absolutely.
- b. If bidder fails to furnish the prescribed performance bank guarantee within the prescribed period, the earnest money is absolutely forfeited automatically without any notice.
- c. In case the bidder fails to commence the work specified in the RFP documents within 7 days or such time period as mentioned in letter of award, after the date on which NSDI issues written orders to commence the work, whichever is later, NSDI shall, without prejudice to any other right or remedy, be at liberty to forfeit whole of the earnest money absolutely.
- d. If only a part of the work as shown in the bid is awarded, and the bidder does not commence the work, the amount of the earnest money to be forfeited should be worked out with reference to the estimated cost of the work so awarded.
- e. In case of forfeiture of earnest money as prescribed as I to IV above, the bidder shall not be allowed to participate in the retendering process of the work, if carried out.

3.10. Conflict of Interest

Bidder shall furnish an affirmative statement as to the existence of, absence of, or potential for conflict of interest on the part of the bidder or any prospective subcontractor due to prior, current, or proposed agreements, engagements, or affiliations with NSDI. Additionally, such disclosure shall address any and all potential elements (time frame for service delivery, resource, financial or other) that would adversely impact the ability of the bidder to complete the requirements as given in the RFP.

3.11. Termination for Insolvency

3.11.1. NSDI may at any time terminate the work order / contract without any compensation to the bidder, if the bidder becomes bankrupt or otherwise insolvent.

3.11.2. In such event, the NSDI reserves the right to forfeit the contract performance security of the bidder and award the contract to a replacement bidder.

3.12. General Conditions

The following terms are applicable to this RFP and the bidder's proposal:

- a. This RFP does not commit NSDI to enter into a service agreement or similar undertaking with the bidder or any other organization and NSDI shall have the right to reject or accept any proposal or offer, or any part thereof (e.g., any component of any proposed solution) for any reason whatsoever. NSDI reserves the right to enter into contract with more than one bidder; can choose not to proceed with any bidder with respect to one or more categories of services/requirements outlined in this RFP; and can choose to suspend the project or to issue a new RFP for this project that would supersede and replace this one.
- b. NSDI is not restricted in its rights to use or disclose any or all of the information contained in their proposal, and can do so without compensation to the bidder. NSDI shall not be bound by any language in the proposal indicating the confidentiality of the proposal or any other restriction on its use or disclosure.
- c. Any work product, whether acceptable or unacceptable, developed under a contract awarded as a result of this RFP shall be the sole property of NSDI unless stated otherwise in the definitive service agreement.
- d. Timing and sequence of events resulting from this RFP shall ultimately be determined by NSDI
- e. No oral conversations or agreements with any official, agent, or employee of NSDI shall affect or modify any terms of this RFP. Any alleged oral agreement or arrangement made by a bidder with any department, IA, official or employee of NSDI shall be superseded by the definitive service agreement that could result from this RFP process. Oral communications by NSDI to bidders shall not be considered binding on NSDI, nor shall any written materials provided by any person other than NSDI.
- f. Proposals are subject to rejection if they limit or modify any of the terms and conditions or specifications of this RFP.
- g. By responding, the bidder shall be deemed to have represented and warranted that its proposal is not made in connection with any competing bidder submitting a separate response to this RFP, and is in all respects fair and without collusion or fraud; that the bidder did not participate in the RFP development process and had no knowledge of the specific contents of the RFP prior to its issuance; and that no employee or official of NSDI participated directly or indirectly in the bidder's proposal preparation.
- h. Neither the bidder nor any of bidder's representatives shall have any claims whatsoever against NSDI or any of its respective officials, agents, or employees arising out of or relating to this RFP or these procedures (other than those arising under a definitive service agreement with the bidder in accordance with the terms thereof).
- i. Until contract award, bidders shall not, directly or indirectly, solicit any employee of NSDI to leave NSDI or any other officials involved in this RFP process in order to accept employment

with the bidder, its affiliates, actual or prospective bidders, or any person acting in concert with the bidder, without prior written approval NSDI.

j. NSDI reserves the right to cancel this RFP without assigning any reason whatsoever at any time or modify the requirement.

k. NSDI also reserves the right to modify/relax any of the terms & conditions of the RFP by declaring / publishing such amendments in the websites <http://eprocure.gov.in/eprocure/app> , and <http://nsdiindia.gov.in>

l. NSDI in view of project's requirement, may reject any RFP(s), in which any prescribed condition(s) is/are found incomplete in any respect and at any processing stage.

m. NSDI will not be responsible for any misinterpretation or wrong assumption by the bidder.

4. Bid Evaluation and Award of Contract

4.1. Bid Opening Sessions

The bids will be opened, in two sessions, one each for Technical and Price, in the presence of bidders' representatives (Two per bidder) who choose to attend the Bid opening sessions on the specified date, time and address. The bidders' representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of bid opening being declared a holiday for NSDI, the bids shall be opened at the same time and location on the next working day. During the bid opening, preliminary scrutiny of the bid documents will be made to determine whether they are complete, whether required EMD has been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Bids not conforming to such preliminary requirements will be prima facie rejected.

4.2. Opening of EMD Envelope

The envelopes containing the EMD will be opened, by a Committee of Officers (the "Committee") appointed by NSDI for bid evaluation, in the presence of bidders' representatives (only one) who choose to attend the session on the specified date, time and address. EMD envelopes of the bidders will be opened on the same day and time, on which the Technical Bid is opened, and bids not accompanied with the requisite EMD or whose EMD is not in order shall be rejected.

4.3. Evaluation of Technical Bids

The Technical proposal envelopes of only those bidders, whose EMD is in order, shall be opened in the same session. The bids will then be passed on for evaluation.

The bidders will be assessed on the following Technical criteria:

S. No.	Mandatory Criteria	Documentary Evidence
1	Bidder must be incorporated and registered in India under the Indian Companies Act 1956 or a Limited Liability Partnership (LLP) registered under the LLP Act, 2008 or Indian Partnership Act 1932 and should have been in operation in India for minimum of 2 financial years ending 31 st March, 2017	Certificate of Incorporation
2	SI or the DCO whoever is the prime bidder should have a positive net-worth of not less than Rs. 10 Crore	Audited Financial statements by Chartered

	company in the Geospatial Data Centre related services.	Accountant.
3	The SI/CSP / DCO should have experience of provisioning Infrastructure as a Service (IaaS) on their Cloud for One government Project and One Private project in India during last 2 years ending last day of the month previous to the one in which bids are invited	Copy of Client certificate, work order, completion certificate or extract from the contract mentioning the scope of work
4	The bidder (if the bidder is not CSP) should have managed or managing the IT infrastructure for Data Centre / Cloud services to at least 3 clients (Private / PSU / Central Govt / State Govt. or any other Organization or agencies) in India during last 2 years ending last day of the month previous to the one in which bids are invited.	Self-Declaration along with documentary evidence
5	The Data Center Operator should be a minimum of Tier IV certified	Relevant certificate
6	The CSP or the Data Centre facility provider where the CSP has its Cloud or the bidder should not be black listed by PSU/Central Govt/State Govt. or any other Organization or agencies in India. Also both CSP & Data Centre facility provider should not be under any legal action for indulging in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice with any PSU/Central Govt/State Govt. or any other Organization or agencies in India.	Self-declaration as per form given in the RFP

4.4. Evaluation of Price Bids

- a. The Price Bids of only the technically qualified bidders will be opened for evaluation.
- b. The bidder should quote one single figure in Indian Rupees (as indicated in the commercial format) as the all-inclusive fee for rendering the desired services. This fee must include APIs and SDKs that facilitate on-demand self-service, network access, resource pooling, rapid elasticity and services that measure the usage of the Cloud Service. While submitting the financial bid, following must be kept in mind:
 - c. The price quoted should include all costs associated with the assignment.
 - d. The financial proposal should not include any assumptions or conditions attached to it and any such conditional financial bid shall be summarily rejected.
 - e. The Price bid evaluation will be done based on the bidders' quote for the components required by NSDI for the complete set of services
 - f. Whether NSDI procures these services or not, all the elements in the list of services listed will be used for evaluation.
 - g. If the price for any of the services is not explicitly mentioned or mentioned as "zero", it is assumed that the price for that particular element is absorbed in some other service element for which a price has been quoted or it is supplied at free of cost to NSDI.
 - h. Total Cost (TC): The Total cost of the bid will be the price quoted by the bidder in the price bid.

- i. The total cost will be derived after multiplying the unit cost quoted in the price bid with the Total quantity mentioned in the attached indicative Bill of Material.
- j. The bidder with lowest Total Cost (TC) is considered as "successful bidder"
- k. In case of a tie where two or more bidders achieve the same Total Cost (TC), the bidder proposed shorter duration of the project will be invited first for negotiations for awarding the contract.
- l. Even though the evaluation is carried out on the basis of Total Cost quoted by the bidder, the contract value is only unit price and payments to the bidder are made on the basis of usage.
- m. Even though unit price of the additional components is requested in the price, it is primarily for the price discovery only and it will not be part of the contract.

4.5. Negotiations, Agreement Finalization and Award

- a. NSDI shall reserve the right to negotiate with the successful bidder to ascertain the basis of price quoted in price bid and also other commercial terms and conditions furnished in the techno-commercial proposal. NSDI shall reserve the right to negotiate with the qualified bidders to bring onboard the L2,L3,L4... in that sequence, in case of failure of L1 to provide services as per agreement at any stage of contract provided that L2, L3, L4... (in that sequence) are ready to give the services at the rate of L1 and as per the agreement signed between L1 and NSDI. After completing the negotiations, a letter of communication will be sent to the successful bidder inviting to sign the contract. Mere issue of letter of communication doesn't mean award of work. NSDI reserves the right of awarding the contract.
- b. Once the contract is signed, the successful bidder shall submit the Performance Bank Guarantee within 7 days as per the terms and conditions laid out in this RFP for the submission of Performance Bank Guarantee.
- c. If a successful bidder who has been awarded the contract fails to sign the contract or fail to submit the PBG within 7 days of date of issue of notice of award, the EMD of that bidder will be forfeited.

4.6. Award of Contract

4.6.1. Award Criteria

NSDI will award the Contract to the bidder whose proposal has been determined to be the "successful bidder".

4.6.2. NSDI's Right to Accept any Proposal and to Reject any Or All Proposals

NSDI reserves the right to accept or reject any proposal, and to annul the tendering process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds.

4.6.3. Notification of Award

Prior to the expiration of the validity period, NSDI will notify the successful bidder in writing or by fax or email, to be confirmed in writing by letter, that his proposal has been accepted. The notification of award will constitute the formation of the agreement. Upon the successful bidder's furnishing of performance guarantee, NSDI will promptly notify each unsuccessful bidder and return their EMD.

4.6.4. Signing of Agreement

At the same time as NSDI notifies the successful bidder that its proposal has been accepted, NSDI shall enter into a separate agreement, incorporating all agreements between NSDI and the successful bidder.

4.6.5. Performance Bank Guarantee

- a. The successful bidder shall at his own expense deposit with NSDI, within 7 days of the date of notice of award or prior to signing of the agreement whichever is earlier, an unconditional and irrevocable Performance Bank Guarantee (PBG) by way Bank Guarantee from a Nationalized / Scheduled / Commercial Bank acceptable to NSDI in the format prescribed by NSDI, payable on demand, for the due performance and fulfillment of the agreement by the bidder.
- b. The Performance Guarantee (PG) will be for an amount of 10% of the Total annual Cost, derived from the multiplication of unit price quoted by the bidder with the quantity mentioned in the indicative Bill of Material. All incidental charges whatsoever such as premium, commission etc., with respect to the performance guarantee shall be borne by the successful bidder.
- c. The performance guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case the time for completion of work gets extended, the bidder shall get the validity of Performance Bank Guarantee extended to cover such extended time for completion of project.
- d. After recording of the completion certificate for the project by the competent authority, the performance guarantee shall be returned to the bidder, without any interest.
- e. NSDI shall not make a claim under the performance guarantee except for amounts to which NSDI is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of :
 - a. Failure of the bidder to extend the validity of the Performance Bank Guarantee as described herein above, in which event NSDI may claim the full amount of the PBG.
 - b. Failure by the bidder to pay NSDI any amount due, either as agreed by the bidder or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by NSDI.
- f. In the event of the bidder being determined or rescinded under provision of any of the Clause/Condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of NSDI.

4.6.6. Failure to Agree with the Terms & Conditions of the RFP

- a. Failure of the successful bidder to agree with the Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event NSDI may invite for negotiation and award the contract to the next successful bidder, if they match with the prices of L1 or call for new proposals.

5. Dispute Resolution

- a. "In event of any dispute of difference between the parties hereto, such disputes or differences shall be resolved amicably by mutual consultation. If such resolution is not possible, then the unresolved disputes or differences shall be referred to arbitration of the arbitrator to be appointed as per the provisions of Arbitration and Conciliation Act, 1996 (No.26 of 1996). The venue of such arbitration shall be at New Delhi or any other place, as may be decided by the arbitrator. The language of arbitration proceedings shall be in English. The arbitrator shall make a reasoned award (the "Award") which shall be final and binding on the parties". The expenses of the arbitration proceedings shall be shared equally by the parties to the agreement. However, expenses incurred by each party in connection with the preparation, presentation shall be borne by the party itself.
- b. Pending the submission of and/or decision on a dispute, difference or claim or until the arbitral award is published, the parties shall continue perform all of their obligations under the agreement without prejudice to a final adjustment in accordance with such award."
- c. Any dispute arising out of or in connection with this Agreement or the SLA shall in the first instance be dealt with in accordance with the escalation procedure as set out in the Agreement.
- d. In case the escalations do not help in resolution of the problem within 3 weeks of escalation, both the parties should agree on a mediator from the High court panel of mediators for communication between the two parties. The process of the mediation would be as follows:
 - I. Aggrieved party should refer the dispute to the identified mediator in writing, with a copy to the other party. Such a reference should contain a description of the nature of the dispute, the quantum in dispute (if any) and the relief or remedy sought suitable.
 - II. The mediator shall use his best endeavors to conclude the mediation within a certain number of days of his appointment.
 - III. If no resolution can be reached through mutual discussion or mediation within 30 days then the matter should be referred to Experts for advising on the issue.
- e. In case the mediation does not help in resolution and it requires expertise to understand an issue, a neutral panel of 3 experts, agreeable to both parties should be constituted. The process of the expert advisory would be as follows:
 - I. Aggrieved party should write to the other party on the failure of previous alternate dispute resolution processes within the timeframe and requesting for expert advisory. This is to be sent with a copy to the mediator.
 - II. Both parties should thereafter agree on the panel of experts who are well conversant with the issue under dispute.
 - III. The expert panel shall use his best endeavors to provide a neutral position on the issue.

- f. If no resolution can be reached through the above means within 30 days then the matter should be referred to Arbitration.
- g. Any dispute or difference whatsoever arising between the parties to this Agreement out of or relating to the construction, meaning, scope, operation or effect of this Agreement or the validity of the breach thereof shall be referred to a sole Arbitrator to be appointed by mutual consent of both the parties herein. If the parties cannot agree on the appointment of the Arbitrator within a period of one month from the notification by one party to the other of existence of such dispute, then the Arbitrator shall be appointed by the High Court where the Department is located in India. The provisions of the Arbitration and Conciliation Act, 1996 will be applicable and the award made there under shall be final and binding upon the parties hereto, subject to legal remedies available under the law. Such differences shall be deemed to be a submission to arbitration under the Indian Arbitration and Conciliation (Amendment) Act 2015 or of any modifications, Rules or re-enactments thereof. The Arbitration proceedings will be held at the High Court where the Department is located in India. Any legal dispute will come under the sole jurisdiction of state jurisdiction of the Department in India.

6. Payment Terms

The monthly payments may be made at the end of each month based on the actual usage of the services and as per the "Unit Costs" under the commercial quote.

6.1. Payments shall be subject to deductions of any amount for which the CSP is liable under the empanelment or RFP conditions. Further, all payments shall be made subject to deduction of TDS (Tax deduction at Source) as per the Income-Tax Act and / or any other statutory provisions.

6.2. Liquidated Damages

In the event of the Bidder's failure to submit the Guarantees and Documents and provision the infrastructure as per schedule specified in this RFP, NSDI may at its discretion withhold any payment until the completion of the contract. NSDI may also deduct from the payment due to the Bidder as agreed, liquidated damages to the sum of 0.5% of the contract price of the corresponding milestone payment of the delayed / undelivered services/monthly installment for every week of delay or part of a week, subject to the maximum value of the Liquidated Damages being not more than 10% of the value of corresponding milestone payment of the delayed / undelivered services/monthly installment. This right to claim any liquidated damages shall be without prejudice to other rights and remedies available to NSDI under the contract and law. Liquidated damages shall not be imposed for the period of delay solely attributable to NSDI.

6.3. Payment Schedules and Milestones

All the payments will be done to the selected Service Provider by the NSDI after the delivery of services.

Following payment milestones shall be applicable for the Cloud Services Consumed:

S. No	Phase	Milestone	Payment
	Monthly Payments* (The first monthly	At the end of each month after satisfactory delivery of	Payment will be based on the actual usage measured in

	payment will be due on completion of one month (30 days) from the Effective Date of Contract)	the services and acceptance of the submitted invoice to NSDI	minutes of the services and as per the "Unit Costs" under Pricing Summary Sheet. If the billing period less than one month, then amount will be calculated on pro-rata basis and for this purpose the following factors are considered. a) One month is equal to 30 days b) One day consists of 24 hours c) One hour consists of 60 minutes
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6.4. Terms and conditions

- a. Monthly Payment will be based on the actual usage of the services and as per the "Unit Costs" under Pricing Summary Sheet
- b. Total Monthly Payment is linked to the compliance with the SLA metrics and the actual payment is the payment due to the Service Provider after any SLA related deductions.
- c. The payments shall be carried out on Pro-rata basis computed usage in minutes for the respective month.

6.5. Provisioning Cloud services for additional quantities at proposed rate

- a. Annexure C specifies indicative quantities and compute for IT Infrastructure components for availing cloud services.
- b. Based on future requirements, NSDI is likely to purchase additional quantities of cloud service covered in this RFP.
- c. The rates offered for cloud services must be valid for entire contract/project duration. No variation in these quoted rates shall be allowed during this period.
- d. NSDI will have liberty to order additional cloud service items, at the rates offered in the commercial bid.
- e. NSDI reserves the right to scale down and scale up the IT infrastructure. The payment would be made only on the actual usage of the IT infrastructure as per the rates provided by the Bidder in their Commercials

6.6. Project Extension:

NSDI has the option to extend the Agreement on expiry, to avail the services of the bidder for specific work or continuation of the work carried out during the Agreement without the need to go for a separate bid process. The duration of extension will be up to a maximum of two years. The unit costs quoted in the commercial proposal will be used for such approved project extensions.

7. Indemnity:

The Bidder agrees to indemnify and hold harmless NSDI, its officers, employees and agents (each an "Indemnified Party") promptly upon demand at any time and from time to time, from and against any and all losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which the Indemnified Party may become subject, in so far as such losses directly arise out of, in any way relate to, or result from:

- a. Any mis-statement or any breach of any representation or warranty made by the Bidder or
- b. The failure by the Bidder to fulfill any covenant or condition contained in this Agreement, including without limitation the breach of any terms and conditions of this Agreement by any employee or agent of the Bidder. Against all losses or damages arising from claims by third Parties that any Deliverable (or the access, use or other rights thereto), created by Bidder pursuant to this Agreement, or any equipment, software, information, methods of operation or other intellectual property created by Bidder pursuant to this Agreement, or the SLAs (I) infringes a copyright, trade mark, trade design enforceable in India, (II) infringes a patent issued in India, or (III) constitutes misappropriation or unlawful disclosure or use of another Party's trade secret's under the laws of India (collectively, "Infringement Claims"); provided, however, that this will not apply to any Deliverable (or the access, use or other rights thereto) created by "Implementation of the IT Infrastructure product by itself at the direction of NSDI, or
- c. Any compensation / claim or proceeding by any third party against NSDI arising out of any act, deed or omission by the Bidder or
- d. Claim filed by a workman or employee engaged by the Bidder for carrying out work related to this Agreement. For the avoidance of doubt, indemnification of Losses pursuant to this section shall be made in an amount or amounts sufficient to restore each of the Indemnified Party to the financial position it would have been in had the losses not occurred
- e. Any payment made under this Agreement to an indemnity or claim for breach of any provision of this Agreement shall include applicable taxes.

8. Force Majeure:

The Bidder shall not be liable for forfeiture of its Performance Guarantee, imposition of liquidated damages or termination for default, if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the "reasonable" control of the Bidder, not involving the Bidder's fault or negligence and not foreseeable. Unforeseen circumstances or causes beyond the control of the Bidder include but are not limited to acts of God, war, riot, acts of civil or military authorities, fire, floods, accidents, terrorist activity, strikes or shortages of transportation facilities, fuel, energy, labor or material.

For the Bidder to take benefit of this clause it is a condition precedent that the Bidder must promptly notify NSDI, in writing of such conditions and the cause thereof within five calendar days of the arising of the Force Majeure event. NSDI, or the consultant / committee appointed by NSDI shall study the submission of the Bidder and inform whether the situation can be qualified one of Force Majeure. Unless otherwise directed by NSDI in writing, the Bidder shall continue to perform its obligations under the resultant Agreement as far as it is reasonably practical, and shall seek all reasonable alternative means for performance of services not prevented by the existence of a Force Majeure event.

In the event of delay in performance attributable to the presence of a force majeure event, the time for performance shall be extended by a period(s) equivalent to the duration of such delay. If the duration of delay continues beyond a period of 30 days, NSDI and the Bidder shall hold consultations with each other in an endeavor to find a solution to the problem.

Notwithstanding anything to the contrary mentioned above, the decision of NSDI shall be final and binding on the Bidder

9. Limitation of Liability:

The Bidder's liability under the resultant Agreement shall be determined as per the Law in force for the time being. The Bidder shall be liable to NSDI for loss or damage occurred or caused or likely to occur on account of any act of omission on the part of the Bidder and its employees, including loss caused to NSDI on account of defect in goods or deficiency in services on the part of Bidder or his agents or any person / persons claiming through or under said Bidder. However, such liability of Bidder shall not exceed the total value of the Agreement.

Bidder's aggregate liability in connection with obligations undertaken as a part of this contract regardless of the form or nature of the action giving rise to such liability, shall be actual and limited to the amount paid by NSDI for:

- a. The particular hardware/software; or
- b. Services provided during the twelve (12) months immediately preceding the date of the claim; that in each case is the subject of the claim
- c. This limit shall not apply to damages for bodily injury (including death) and damage to real property and tangible personal property for which the Bidder is legally liable

Annexure I

Form A.1 Request for Clarification Format

<<Date>>

To

The Under Secretary

National Spatial Data Infrastructure

New Delhi.

Dear Sir

Sub: Request for Clarification on RFP – reg.

Bidder's Request for Clarification on RFP

Bidder's Request for Clarification on RFP			
Name of the Bidder submitting the request		Name and position of person submitting request	Full formal address of the bidder including phone, fax and email points of contact
S. No.	RFP Document Reference(s) (Section Number / Page)	Content of RFP requiring Clarification	Points on which clarification Required

Form A.2 – Format for Earnest Money Deposit (EMD)

1. In consideration of _____ (hereinafter called the "NSDI") represented by _____, on the first part and M/s _____ of _____ (hereinafter referred to as "Bidder") on the Second part, having agreed to accept the Earnest Money Deposit of Rs. _____ (Rupees _____) in the form of Bank Guarantee for the Request for Proposal for Procurement of Cloud Services, we _____ (Name of the Bank), (hereinafter referred to as the "Bank"), do hereby undertake to pay to NSDI forthwith on demand without any demur and without seeking any reasons whatsoever, an amount not exceeding _____ (Rupees _____) and the guarantee will remain valid up to a period of 180 days from the due date of the RFP. It will, however, be open to NSDI to return the Guarantee earlier than this period to the bidder, in case the bidder has been notified by NSDI as being unsuccessful.
2. In the event of the bidder withdrawing the RFP before the completion of the bidding process, the EMD deposited by the bidder stands forfeited to NSDI. We also undertake not to revoke this guarantee during this period except with the previous consent of NSDI in writing and we further agree that our liability under the EMD shall not be discharged by any variation in the term of the said RFP and we shall be deemed to have agreed to any such variation.
3. No interest shall be payable by NSDI to the bidder on the guarantee for the period of its currency.
4. Notwithstanding anything contained hereinabove:

- a. Our liability under this Bank Guarantee shall not exceed and is restricted to Rs. _____ (Rupees _____ only).
- b. This Guarantee shall remain in force up to and including _____.
- c. Unless the demand/claim under this guarantee is served upon us in writing before _____ all the rights of NSDI under this guarantee shall stand automatically forfeited and we shall be relieved and discharged from all liabilities mentioned hereinabove.

Dated this _____ day of _____ 2018

For the Bank of _____

(Agent/Manager)

Form A.3 – RFP Response Cover Letter

Original signed copy on company letter head [Date]

To,

The Under Secretary

National Spatial Data Infrastructure

New Delhi

Sir / Madam,

Ref: Response to Request for Proposal for Selection of Geospatial Cloud based Data Center

Having examined the RFP Document, bid clarifications, amendments thereof, the receipt of which is hereby duly acknowledged, we, the undersigned offer to provide the services, as required and outlined in the RFP and agree to abide by this response for a period of six months from the last date for submission of RFP response.

The following persons will be the authorized representative of our company/ organization for all future correspondence between NSDI and our organization.

Organization Name:		Primary Contact Name:	
Address:		Title:	
Phone:		Phone:	
		Email:	

Secondary Contact Name: Title: Phone: Email:		Executive Contact Name: Title: Phone: Email:	
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We fully understand that in the event of any change in our contact details, it is our responsibility to inform NSDI about the new details. We fully understand that NSDI shall not be responsible for non-receipt or non-delivery of any communication and/or any missing communication from NSDI to us, in the event that reasonable prior notice of any change in the authorized person(s) of the company is not provided to NSDI.

We confirm that the information contained in this response or any part thereof, including its exhibits, and other documents and instruments delivered or to be delivered to NSDI is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead NSDI in its short-listing process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading, we are liable to be dismissed from the selection process or, in the event of our selection, our contract is liable to be terminated.

We agree for unconditional acceptance of all the terms and conditions in the RFP and we also agree to abide by this bid response for a period of 180 days from the date of bid opening and it shall be valid bid till such period with full force and virtue. Until within this period a formal contract is prepared and executed, this bid response, together with your written acceptance thereof in your notification of award, shall constitute a binding contract between NSDI and us.

We attach hereto the bid as required by the Bid document, which constitutes our bid. We undertake, if our bid is accepted, to carry out the services as put forward in the RFP or such modified requirements as may subsequently be agreed mutually between us and NSDI or its appointed representatives.

We hereby declare that in case the contract is awarded to us, we will obtain necessary Performance Bank Guarantee in the formats acceptable to NSDI and furnish them within the time frames set out in the RFP.

We agree that you are not bound to accept any response that you may receive from us. We agree that you are not bound to accept the lowest or any bid response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the RFP response.

It is hereby confirmed that I/We are entitled to act on behalf of our company /corporation/firm/organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Dated this Day of 2018

(Signature) (In the capacity of)

(Name)

Duly authorized to sign the RFP Response for and on behalf of:

(Name and Address of Company) Seal/Stamp of bidder Witness Signature:

Witness Name:

Witness Address:

(Company Seal)

CERTIFICATE AS TO AUTHORISED SIGNATORIES

I, the Company Secretary of, certify that who signed the above Bid is authorized to do so and bind the company by authority of its board/ governing body vide resolution No_____.

Date:

Signature:

(Company Seal)

(Name)

List of Enclosures:

1. EMD as per the details provided in the RFP
2. Undertaking from Cloud Service Provider (CSP) (In case the bidder is different from the Cloud Service Provider)
3. Envelop super-scribed "Technical Bid" as per the format provided in RFP
4. Envelop super-scribed "Price Bid" as per the format provided in RFP
5. A certified true copy of the corporate sanctions / approvals authorizing its authorized representative to sign/act/execute documents forming part of this proposal including various RFP documents and binding contract

Form A.4: Self-declaration on the Blacklisting (Bidder and CSP in case bidder and CSP are different)

(Company letterhead)

[Date]

To,
The Under Secretary
National Spatial Data Infrastructure
New Delhi

Dear Sir,

Sub: Self- declaration on Blacklisting

Ref.: RFP no. _____ for Geospatial Cloud based Data Center

We confirm that we are not blacklisted by Central / State Government Ministry / Department / PSU / Government Company. We also confirm that we're not be under any legal action for indulging in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice with any Indian Central / State Government Ministry / Department / PSU / Government Company.

Dated this Day of 2017

(Signature) (In the capacity of)

(Name)

Duly authorized to sign the RFP Response for and on behalf of:

(Name and Address of Company) Seal/Stamp of bidder

Form A.5 – Commercial Bid Formats –as per BoQ (Price bid)

Please refer Annexure – 'B'

Form A.6 - Undertaking on Absence of Litigation

(Company letterhead)

[Date]

To,

The Under Secretary

National Spatial Data Infrastructure

New Delhi

Sub: Undertaking on Absence of Litigation

Dear Sir,

I/We as Service Provider (SP) do hereby confirm that no claim, litigation, proceeding, arbitration, investigation, inquiry or order from any regulatory authority, or material controversy is pending, on-going or is contemplated which would have a material adverse effect on our ability to enter into the Agreement or provide the Services to NSDI on this Project.

Yours faithfully,

(Signature) (In the capacity of) \

(Name)

Duly authorized to sign the RFP Response for and on behalf of:

(Name and Address of Company) Seal/Stamp of bidder

Form A.7 – Undertaking from Cloud Service Provider (CSP)

(In case the bidder is different from the Cloud Service Provider)

(CSP letterhead)

[Date]

To,

Under Secretary
 National Spatial Data Infrastructure,
 New Delhi

Sub: Authorization to the <Service Provider> for Providing Services based on our Cloud Services

Sir / Madam,

This is to certify that I/We am/are the Cloud Service Provider and all of our offered Cloud Service Offerings for the proposed deployment models.

I/We confirm that <name of SP> ("SP") have due authorization from us to provide the cloud based services listed below, to NSDI, as per Request for Proposal (RFP) document relating to <<Title of the RFP>>

S. No.	Service Offering	Deployment Model	Remarks

Yours faithfully,

Authorized Signatory
 Designation
 CSP's company name

Form A.8 – Organization Information (Use separate sheet in case bidder and CSP)

A.8.1 General Information

S. No.	Particulars	Details to be Furnished		
	Details of the Bidder			
1	Name			
2	Address			
3	Telephone		Fax	
4	E-mail		Website	
	Details of Authorized person			

1	Name	
2	Address	
3	Telephone	
4	Email	

A.8.2. Details of the Organization

Details of the Organization	
Name of the Organization	
Nature of the legal status in India	(Public Ltd. / Private Ltd.)
Nature of business in India	
Address of the Headquarters	
Address of the Registered Office in India	
Date of Incorporation	Date and ROC No.
Date of Commencement of Business	Date and ROC No.
Other Relevant Information	
PAN Number, GSTN Number, VAT Number, etc.	

A.8.3. Financial Information

Financial Information		
	FY 2015-16	FY 2016-17
Revenue (in INR Crore)		
Profit Before Tax (in INR crore)		
Other Relevant Information		

A.8.4 Project Experience (Use one sheet for each project)

Project Experience (one Form for each project reference duly certified by authorized signatory)	
Client Information	
Name of client	
Name of the person who can act as a reference from Clients' side, with name, designation, postal address, contact phone, fax number, e-mail id.	
Type of Client (Private Sector / PSU / Government Organization)	
Nature of business / Operations of client:	
Revenue / Budget (in case of Government dept.) of the client	
Total number of Employees of the client organization or the business unit	

Project Details	
Nature of the Project	
Total Contract Value for Implementation Services	
Functional areas of business covered in the project	
Geographical Location of Implementation	
Number of Locations / business units at which the project is implemented	
Peak on-site (at the client location) project team size of the IA during implementation	
Peak on-site (at the client location) project team size of the IA during post-implementation support	
Date of commencement of the project	
Date of successful completion of the project	
If not completed, expected date of completion	
Brief Description of the Project in terms processes automated, complexity of the project, significant achievements, uniqueness,	
Scope of the Project:	
Brief details of the Solution	
A packaged implementation/developed from scratch	
The solution modules/engines/components implemented	
Number of Users of the solution	
Methodology Adopted	
Relevance of the implementation to the current project	
Other Relevant Information	

Form A.9 – Performance Bank Guarantee format

[Date]

From:

Bank _____

To,

The Under Secretary

National Spatial Data Infrastructure

New Delhi

Dear Sir / Madam,

1. Whereas NSDI has issued the notice of award _____ dated _____ (hereinafter referred to as the said Letter of Award or LoA) to M/s _____, hereinafter referred to as the "SP" and the SP has undertaken to produce a Performance Bank Guarantee for 10% of indicative Contract value amounting to _____ to secure its obligations to NSDI. We the _____ bank hereby expressly, irrevocably and unreservedly undertake and guarantee as principal obligors on behalf of the SP that, in the event that you declare to us that the services have not been rendered according to the Contractual obligations under the contract between NSDI and SP (hereinafter referred to as the said Contract), we will pay you forthwith on demand and without demur, all and any sum up to a maximum of Rupees _____ (Rupees _____ only). Your written demand shall be conclusive evidence to us that such repayment is due under the terms of the said contract. We undertake to effect payment forthwith upon receipt of such written demand.
2. We shall not be discharged or released from this undertaking and guarantee by any arrangements, variations made between you and the SP, indulgence to the SP by you, or by any alterations in the obligations of the SP or by any forbearance whether as to payment, time performance or otherwise. Notwithstanding anything to the contrary, as contained in the said contract, we agree that your decision as to whether our constituent has made any such default(s) / breach (es), as aforesaid and the amount or amounts to which you are entitled by reasons thereof, , will be valid, binding and conclusive on us and we shall not be entitled to ask you to establish your claim or claims under this Performance Bank Guarantee, but will pay the same forthwith on your demand without any protest or demur.
3. In no case shall the amount of this guarantee be increased.
4. This guarantee shall remain valid till 90 days beyond duration of the contract.
5. Unless a demand or claim under this guarantee is made on us in writing or on before the aforesaid expiry date as provided in the above referred contract or unless this guarantee is extended by us, all your rights under this guarantee shall be forfeited and we shall be discharged from the liabilities hereunder. This Performance Bank Guarantee shall be in addition to and not in substitution or in derogation of any other security held by you to secure the performance of the obligations of our constituent under the Contract.
6. This guarantee shall be a continuing guarantee and shall not be discharged by and change in the constitution of the Bank or in the constitution of M/s _____.
7. Notwithstanding anything contained hereinabove:
 - a. Our liability under this Bank Guarantee shall not exceed and is restricted to Rs. _____ (Rupees _____ only)
 - b. This Guarantee shall remain in force up to and including _____.
 - c. Unless the demand/claim under this guarantee is served upon us in writing before _____ all the rights of NSDI under this guarantee shall stand automatically forfeited and we shall be relieved and discharged from all liabilities mentioned hereinabove.

Yours faithfully,

for _____ Bank (Authorized Attorney)

Place: _____

Date : _____

Seal of the Bank

Annexure II

II.0 Service Level Agreement (SLA)

II.I Measurement and Monitoring

- a. The SLA parameters shall be monitored on monthly basis as per the individual SLA parameter requirements. However, if the performance of the system/services is degraded significantly at any given point in time during the contract and if the immediate measures are not implemented and issues are not rectified to the complete satisfaction of NSDI or an agency designated by them, then NSDI will have the right to take services form another CSP at the cost of existing CSP or/and termination of the contract.
- b. The full set of service level reports should be available to NSDI on a monthly basis or based on the project requirements.
- c. The Monitoring Tools shall play a critical role in monitoring the SLA compliance and hence will have to be customized accordingly. The CSP shall make available the Monitoring tools for measuring and monitoring the SLAs. The bidder may deploy additional tools and develop additional scripts (if required) for capturing the required data for SLA report generation in automated way. The tools should generate the SLA Monitoring report in the end of every month which is to be shared with the NSDI on a monthly basis. NSDI or its nominated agency shall have full access to the Monitoring Tools/portal (and any other tools / solutions deployed for SLA measurement and monitoring) to extract data (raw, intermediate as well as reports) as required during the project. NSDI or its nominated agency will also audit the tool and the scripts on a regular basis.
- d. The measurement methodology / criteria / logic will be reviewed by NSDI.
- e. In case of default on any of the service level metric, the CSP shall submit performance improvement plan along with the root cause analysis for NSDI's approval.

II.II Periodic Reviews

- a. During the contract period, it is envisaged that there could be changes to the SLA, in terms of measurement methodology / logic / criteria, addition, alteration or deletion of certain parameters, based on mutual consent of both the parties, i.e. NSDI and CSP.

- b. NSDI and CSP shall each ensure that the range of the Services under the SLA shall not be varied, reduced or increased except by the prior written agreement of NSDI and CSP in accordance with the Change Control Schedule.
- c. The SLAs may be reviewed on an annual basis by NSDI in consultation with the CSP and other agencies.

II.III Penalties

Payments to the CSP to be linked to the compliance with the SLA metrics laid down in the agreement.

- a. The payment will be linked to the compliance with the SLA metrics.
- b. The penalty in percentage of the monthly Payment is indicated against each SLA parameter in the table.
- c. In case multiple SLA violations occur due to the same root cause or incident then the SLA that incurs the maximum penalty may be considered for penalty calculation rather than a sum of penalties for the applicable SLA violations
- d. Penalties shall not exceed 100% of the monthly bill.
- e. If the penalties exceed more than 50% of the total monthly bill, it will result in a material breach. In case of a material breach, the operator will be given a cure period of one month to rectify the breach failing which a notice to terminate may be issued by NSDI.

II.IV Service Levels

S. No.	ServiceLevel Objective	Measurement Methodology	Target / Service Level	Penalty (Indicative)
Availability/Uptime				
	Availability/Uptime of cloud services Resources for Production environment (VMs, Storage, OS, VLB, Security Components,)	Availability (as per the definition in the SLA) will be measured for each of the underlying components (e.g., VM, Storage, OS, VLB, Security Components) provisioned in the cloud. Measured with the help of SLA reports provided by CSP	Availability for each of the provisioned resources: >=99.5%	Default on any one or more of the provisioned resource will attract penalty as indicated below. <99.5% & >=99% (10% of the <<periodic Payment>>) < 99% (30% of the <<periodic Payment>>)
	Availability of Critical Services (e.g., Register Support Request or Incident; Provisioning / De-Provisioning; User Activation / De-Activation; User	Availability (as per the definition in the SLA) will be measured for each of the critical services over both the User / Admin Portal and	Availability for each of the critical services over both the User / Admin Portal and APIs (where	Default on any one or more of the services on either of the portal or APIs will attract penalty as indicated below. <99.5%

	Profile Management; Access Utilization Monitoring Reports) over User / Admin Portal and APIs (where applicable)	APIs (where applicable)	applicable) >= 99.5%	and >= 99% (10% of the <<Periodic Payment>>) <99% (20% of the <<Periodic Payment>>)
	Availability of the network links at DC and DR (links at DC / DRC, DC-DRC link)	Availability (as per the definition in the SLA) will be measured for each of the network links provisioned in the cloud.	Availability for each of the network links: >= 99.5%	Default on any one or more of the provisioned network links will attract penalty as indicated below. <99.5% & >=99% (10% of the <<periodic Payment>>) < 99% (30% of the <<periodic Payment>>)
	Availability of Regular Reports (e.g., Audit, Certifications,) indicating the compliance to the Provisional Empanelment Requirements.		15 working days from the end of the quarter. If STQC issues a certificate based on the audit then this SLA is not required.	5% of <<periodic Payment>>
	Response Time	Average Time taken to acknowledge and respond, once a ticket/incident is logged through one of the agreed channels. This is calculated for all tickets/incidents reported within the reporting month.	95% within 15 Minutes	<95% & >=90% (5% of the <<periodic Payment>>) < 90% & >= 85% (7% of the <<periodic Payment>>) < 85% & >= 80% (9% of the Periodic Payment)
	Time to Resolve – Severity 1	Time taken to resolve the reported ticket/incident from the time of logging.	For Severity 1, 98% of the incidents should be resolved within 30 minutes of problem reporting	<98% & >=90% (5% of the <<periodic Payment>>) < 90% & >= 85% (10% of the <<periodic Payment>>) < 85% & >= 80% (20% of the <<periodic Payment>>)
	Time to Resolve – Severity 2 & 3	Time taken to resolve the	95% of Severity 2	<95% & >=90% (2% of the

		reported ticket/incident from the time of logging.	within 4 hours of problem reporting AND 95% of Severity 3 within 16 hours of problem reporting	<<periodic Payment>>) < 90% & >= 85% (4% of the <<periodic Payment>>) < 85% & >= 80% (6% of the <<periodic Payment>>)
Security Incident and Management Reporting				
	Percentage of Timely Incident Report	Measured as a percentage by the number of defined incidents reported within a predefined time (1 hour) limit after discovery, over the total number of defined incidents to the cloud service which are reported within a predefined period (i.e. month). Incident Response - CSP shall assess and acknowledge the defined incidents within 1 hour after discovery.	95 % within 1 hour	<95% & >=90% (5% of the <<Periodic Payment>>) < 90% & >= 85% (10% of the <<Periodic Payment>>) < 85% & >= 80% (15% of the <<Periodic Payment>>)
	Percentage of timely incident resolutions	Measured as a percentage of defined incidents against the cloud service that are resolved within a predefined time limit (month) over the total number of defined incidents to the cloud service within a predefined period. (Month). Measured from Incident Reports	95% to be resolved within 1 hour	<95% & >=90% (5% of the <<Periodic Payment>>) < 90% & >= 85% (10% of the <<Periodic Payment>>) < 85% & >= 80% (15% of the <<Periodic Payment>>)
Vulnerability Management				
	Percentage of timely vulnerability corrections	The number of vulnerability corrections performed by the	99.5%	>=99% to <99.95% [10% of Periodic Payment] >=98%

		cloud service provider - Measured as a percentage by the number of vulnerability corrections performed within a predefined time limit, over the total number of vulnerability corrections to the cloud service which are reported within a predefined period (i.e. month, week, year, etc.). • High Severity Vulnerabilities – 30 days - Maintain 99.95% service level • Medium Severity Vulnerabilities – 90 days - Maintain 99.95% service level		to <99% [20% of Periodic Payment] <98% [30% of Periodic Payment]
	Percentage of timely vulnerability reports	Measured as a percentage by the number of vulnerability reports within a predefined time limit, over the total number of vulnerability reports to the cloud service which are reported within a predefined period (i.e. month, week, year, etc.).	99.5%	>=99% to <99.95% [10% of Periodic Payment] >=98% to <99% [20% of Periodic Payment] <98% [30% of Periodic Payment]
	Security breach including Data Theft/Loss/Corruption	Any incident where in system compromised or any case wherein data theft occurs (including internal incidents)		For each breach/data theft, penalty will be levied as per following criteria. Any security incident detected INR << 5 Lakhs>>.This penalty is applicable per

				incident. These penalties will not be part of overall SLA penalties cap per month. In case of serious breach of security wherein the data is stolen or corrupted, NSDI reserves the right to terminate the contract.
	Availability of SLA reports covering all parameters required for SLA monitoring within the defined time.		(e.g., 3 working days from the end of the month)	5% of <<periodic Payment>>
Service levels for Disaster Recovery				
	Recovery Time Objective (RTO) (Applicable when taking Disaster Recovery as a Service from the Service Provider)	Measured during the regular planned or unplanned (outage) changeover from DC to DR or vice versa.	<<RTO <= 4 hours>> [NSDI to indicate based on the application requirements]	10% of <<Periodic Payment>> per every additional 4 (four) hours of downtime
	RPO (Applicable when taking Disaster Recovery as a Service from the Service Provider)	Measured during the regular planned or unplanned (outage) changeover from DC to DR or vice versa.	<= 2 hours NSDI to indicate based on the application requirements]	10% of <<Periodic Payment>> per every additional 2 (two) hours of downtime
	Availability of Root Cause Analysis (RCA) reports for Severity 1 & 2		Average within 5 Working days	5% of <<periodic Payment>>

II.V Definitions

- a. Cloud “Service Level Objective” (SLO) means the target for a given attribute of a cloud service that can be expressed quantitatively or qualitatively.
- b. Cloud SLAs means documented agreement between the cloud service provider and the Department that identifies services and cloud service level objectives (SLOs).
- c. Response time is the time interval between a cloud service customer initiated event (e.g., logging of the request) and a cloud service provider initiated event in response to that stimulus.

- d. "Scheduled Maintenance Time" shall mean the time that the System is not in service due to a scheduled activity. Scheduled maintenance time is planned downtime with the prior permission of the Department, during non-business hours. The Scheduled Maintenance time <<within 10 hours a month>> as agreed shall not be considered for SLA Calculation.
- e. "Scheduled operation time" means the scheduled operating hours of the System for the month. All scheduled maintenance time on the system would be deducted from the total operation time for the month to give the scheduled operation time.
- f. "Availability" means the time for which the cloud services and facilities are available for conducting operations on the Department system. Availability is defined as:

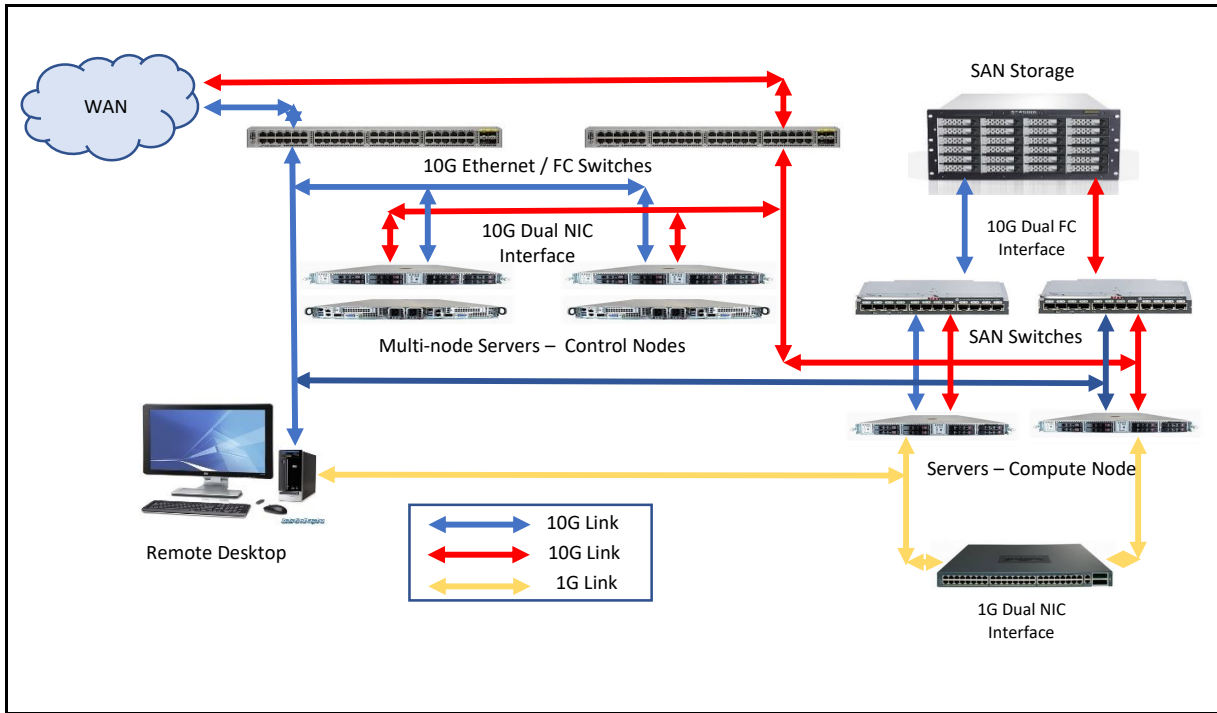
$$\{(\text{Scheduled Operation Time} - \text{System Downtime}) / (\text{Scheduled Operation Time})\} * 100\%$$
- g. "Incident" refers to any event/issue that affects the normal functioning of the services / infrastructure, reported by the cloud consumer to the Cloud Service provider (CSP) can be termed as an Incident.

Annexure III

III.0 The general high-level requirements for the Geospatial Cloud based Data Center offering will contemplate:

- On-demand self-service: Services will be unilaterally provisioned by NSDI/SOI
- Broad network access: Adequate Internet and Internal bandwidth.
- Resource pooling: Ability to place the resources on a specific geographical zone.
- Rapid elasticity: Near real-time service provisioning and de-provisioning times.
- Service measurement: Visibility for the different types of services via dashboard or web based console.
- Service Management and provisioning: Explicit service specific SLAs for each of the offerings along with Disaster recovery capabilities and Data isolation mechanisms.
- Service Accounts: Support for multiple users with a customized portal view or each.
- Service Management: Secure web based management console available for all services. Remote OS level access (RDP, SSH) for the virtual machine instances.

III.I SYSTEM ARCHITECTURE



HARDWARE TECHNICAL SPECIFICATIONS OF ITEM(S)

Bill of Materials:

S. No.	Item Description	Qty. Required	Agreement Period
1	Rack Mount Server 2x Intel Xeon 22 Core E5-26** processor, 256 GB DDR4 @2133 MHz RAM, 2 x 1TB SSD HDD, 2U Rack FF	08 Nos	
2	SAN Storage 20*2 TB SAN Storage, 02 nos' of SAN switches for server <--> SAN connectivity	01 No	
3	SAN Switches	02 Nos	
4	10G SFP+ Ethernet Switches	02 Nos	

5	GIS Server based software – 4 Core Perpetual Licenses	04 Nos	
6	VMWare ESXi Licenses	02 Nos	
7	Windows Server 2012 R2 or Higher	06 Nos	
8	Managed Services	As Required	

III.I.I Rack Mount Servers - 08 Nos.

Components	Minimum Required specs.
Processor	2 x Intel E5-2696V4 Xeon Processor (22 Core 2.2 GHZ) 384 GB DDR 4 ECC Registered Ram (12 x 32 GB) 2 x 1 TB SATA SSD (6 Bays Available) LSI 2108 Based SAS Raid Controller Remote Management Redundant Power Supply
Management	Integrated redundant management module to provide remote management of enclosure
Network	Dual Port 16 GBPS Fiber Channel HBA Dual Port 10G SFP+ Ethernet Card
Redundancy	Mechanical devices such as Fans and Power units should be completely hot swappable and redundant to ensure high availability. The Server enclosure should support SAN switches and SAS in the enclosure for future connectivity
Power & Cooling	The enclosure should be populated fully with hot swappable power supplies of the highest capacity available with the OEM. Power supplies should support N+N redundancy configuration where N is 1. The enclosure should be offered with single phase power supply. Each server enclosure should have a cooling subsystem consisting of redundant hot pluggable fans and blowers enabled with technologies for improved power consumption and acoustics. Fully populated fan modules should be offered.
KVM/CD/USB	To be enabled virtually over IP for remote access or provided locally
Performance Management & Alerting	Must have ability to perform a hardware level (32 bit & 64 bit) measurement. Must also manage and monitor CPU, I/O, Memory, Storage and Network
Power Management	Should have proper tools and means for effective power management
System Software	Management/controlling software have to be from the OEM itself
Warranty	5 years comprehensive onsite OEM warranty

III.1.II Storage Area Network (SAN) - 1 No

Specification for Storage:

Component	Minimum Required Specification.'
SAN controller	Dual redundant SAN controller to the clustered in active-active mode (bidder must establish the clustering and any necessary hardware and software, including any additional machines and OS. for this must he supplied by bidder. Any additional machines supplied should also be fault tolerant, so that failure of one machine cannot break the clustering).
Most Interface	Minimum 2 x 16Gbps FC Ports per controller populated with MMF modules and management port per controller.
Backend Interface	At least 2 backend ports per controller with 6 Gbps or higher SAS or 8 Gbps or higher FC. Total backend bandwidth must be at least 32 Gbps per controller.
Cache	64 GB or higher per controller
Capacity	The storage shall support SAS, SSD and SATA/ NL SAS' MDL SAS based disks simultaneously. The storage should be provisioned with 50 TB of usable capacity (with RAID 5 and with at least 4 disk groups) with 1.8TB or lower 10K rpm hot swap SIT SAS disk. Bidder must mention exact number and the of disks supplied.
RAID Levels	It should support hardware RAID 1, 5, 6
Scalability	The storage should be scalable to more than 200 drives in different enclosures
Power Supply	Dual redundant hot-swap power supply
Cooling Units	Redundant hot swap cooling
Mandatory Features and licenses to be Provided	The FC switches and the storage is to be connected through FC ports in a fault tolerant manner such that the system will continue to function properly even when one switch and one controller fails simultaneously. Hot spare disks to be provisioned (details to be provided). Storage Management software to be offered for the required full capacity (50TB) of the storage from day 1. Management software must be from the same OEM. All licenses must be perpetual, with free upgrades for the entire warranty period.
Licenses	All necessary software and hardware license must be perpetual, with free upgrades and support for the entire warranty period.
Connectivity Cables	All necessary power and data cables required for the installation.

Rack mounting	Storage must be 19-inch rack mountable. Necessary mounting kit to install the SAN storage in a 42U rack must be supplied.
Warranty	5 years comprehensive onsite OEM warranty

III.1.III SAN Switch – 02 Nos

Component	Specification
Form factor	Standalone or 1U rack mount (Machine Type 6559)
Ports	24x SFP+ ports: <ul style="list-style-type: none"> • Model HC1: 24 ports activated and 24x 16 Gb FC SWL SFP+ transceivers included. • Model HC2: 8 ports activated and 8x 16 Gb FC SWL SFP+ transceivers included. • Model HC3: 8 ports activated and no transceivers included. Up to two optional 8-port activation license packs or bundles (8-port license pack and 8x 16 Gb FC SWL SFP+ transceivers) for Models HC2 and HC3.
Media types	<ul style="list-style-type: none"> • 32 Gb FC SFP+ transceivers: short wavelength (SWL), long wavelength (LWL). • 16 Gb FC SFP+ transceivers: SWL, LWL, extended long wavelength (ELWL).
Port speeds	<ul style="list-style-type: none"> • 32 Gb FC SFP+ transceivers: 32/16/8 Gbps auto-sensing. • 16 Gb FC SFP+ transceivers: 16/8/4 Gbps auto-sensing.
FC port types	<ul style="list-style-type: none"> • Full Fabric mode: F_Port, M_Port (Mirror Port), E_Port, D_Port (Diagnostic Port). • Access Gateway mode: F_Port and NPIV-enabled N_Port.
Data traffic types	Unicast (Class 2 and Class 3), multicast (Class 3 only), broadcast (Class 3 only).
Classes of service	Class 2, Class 3, Class F (inter-switch frames).
Standard software	Full Fabric mode, Access Gateway, Advanced Zoning, Fabric Services, Adaptive Networking, Advanced Diagnostic Tools.
Optional software	Enterprise Bundle (ISL Trunking, Fabric Vision, Extended Fabric).
Performance	Non-blocking architecture with wire-speed forwarding of traffic: <ul style="list-style-type: none"> • 4GFC: 4.25 Gbit/sec line speed, full duplex • 8GFC: 8.5 Gbit/sec line speed, full duplex • 10GFC: 10.51875 Gbit/sec line speed, full duplex • 16GFC: 14.025 Gbit/sec line speed, full duplex • 32GFC: 28.05 Gbit/sec line speed, full duplex • Aggregated throughput: 768 Gbps • Up to 0.9 μs local switching latency

Component	Specification
Scalability	<ul style="list-style-type: none"> Maximum number of switches in the fabric: 239 Maximum frame size: 2,112-byte payload Maximum number of frame buffers per switch: 2,000 Maximum number of ports per ISL trunk: 8x SFP+ (ISL Trunking license is included in the Enterprise Bundle)
Cooling	Four fixed fans with N+1 cooling redundancy. Non-port to port side airflow.
Power supply	One fixed 150 W AC (100 - 240 V) power supply (IEC 320-C14 connector).
Hot-swap parts	SFP+ transceivers.
Management ports	One 10/100/1000 Mb Ethernet port (UTP, RJ-45); one RS-232 port (RJ-45); one USB port (for additional firmware/log/configuration files storage).
Management interfaces	EZSwitch Setup; Web-based GUI (Web Tools); Command Line Interface (CLI); SMI-S; SNMP; REST API. Optional Brocade Network Advisor.
Security features	Secure Socket Layer (SSL); Secure Shell (SSH); Secure Copy (SCP); Secure FTP (SFTP); user level security, Role-based Access Control (RBAC); LDAP, RADIUS, and TACACS+ authentication; access control lists (ACLs); IP security (IPsec)
Hardware warranty	One-year customer-replaceable unit limited warranty with 9x5 next business day parts delivered. Optional warranty service upgrades are available through Lenovo: on-site coverage (technician installed parts), 24x7 coverage, 2-hour or 4-hour response time, 6-hour or 24-hour committed repair, up to 5 years of warranty coverage, 1-year or 2-year warranty extensions, Remote Technical Support, hardware installation services.
Software maintenance	Three-year software support and subscription license is included. Optional 1-year and 2-year software support extension licenses are available through Lenovo.
Dimensions	Height: 43 mm (1.7 in.); width: 429 mm (16.9 in.); depth: 307 mm (12.1 in.)
Weight	Empty: 4.2 kg (9.3 lb); Fully configured: 5.8 kg (12.7 lb).

III.I.IV 10G SFP+ Ethernet Switch – 02 Nos

Feature	Description
Network Address Translation *	Network address translation with no performance impact to resolve overlapping addressing challenges without penalty
Wire speed VXLAN Gateway	Seamless integration between VXLAN and L2/L3 environments, physical and virtualized networks
IEEE 1588 PTP *	Build and scale accurate timing solutions with sub-microsecond accuracy

Accelerated SW Update	Optimized SW upgrades to reduce the impact of software upgrades and avoid network convergence
64-way ECMP and LAG	Improve network scalability and balance traffic across large-scale leaf-spine designs or server load balancers
Latency Analyzer *	A solution to improve monitoring and visibility at both 10G and 40G for congestion from persistent or microbursts
Cloud Control & SDN	Support for Openflow and OpenStack automation and self-service provisioning with cloud scale economics
Scalable Tables — ALPM and UFT	Flexible allocation of L2 and L3 forwarding table resources for greater design choice

Note:

- 1) All the items/tools/peripherals etc. supplied by the successful bidder should be of NEW/SEALED and BRANDED (from single OEM) type only.
- 2) Used/Worn-out items and Assembled items shall not be accepted by NSDI.

III.II.I Geospatial Data Management on Cloud

The bidder has to setup a private cloud OpenStack environment on high availability with all security features. Dashboard based addition and removal/re-configuration of new / existing servers in the cloud environment through latest version of Mirantis Fuel.

OpenStack Dashboard based management of the entire cloud environment with facility for creation, termination, shutdown/restart, online live migration of VMs, creation and attaching of SAN volumes to VMs, creation of new OS images, creation of new flavors of VMs, VM usage data reporting, etc.

Standard images of various guest operating systems like Ubuntu, CentOS, Redhat, Windows, etc., along with their GUI versions should be made available from Day 1. GIS Enterprise software has to be installed in 3 servers.

Staging_1

Production_1

Disaster Recovery_1

1. Using NUIS Data Content Standard, refer their official web site, create the following documents.
 - a. UML Diagram using ISO 19135 standards.
 - b. Data Definition Registers and Code List Registers.
2. Using SOI topographical Mapping Data content Standards, approved by competent authority, create the following.
 - a. UML Diagram using ISO 19135 standards.
 - b. Data Definition Registers and Code List Registers.
3. Translate the UML diagram obtained at step 1 to NUIS Database tables and 2 above to SOI Database tables, physical schema in Oracle Spatial latest version.

4. Develop suitable routines for QA/QC and migration of the NUIS data in NUIS Database to GIS ready data at SOI Database.
5. Extract transform and load the NUIS data to NUIS Database supplied in form of Shape files and/or ESRI Geo database using suitable cots product tools. Projection, Datum and origin transformation if required may be taken care of.
6. SOI Data base may be enriched by loading available data from other sources like photogrammetry, satellite imagery and field records using suitable cots product and methods to be accepted by competent authority.
7. Publish the data as OGC/BIS standards based web services from SOI Database tables through authoring and web publishing cots product tools.
8. Web Registry and OGC/BIS standards based catalogue services be published using suitable cots product in sync to the documents under references Para 1.b and 2.b.
9. Suitable Applications must be developed to update the field collected vector and raster data (features, attributes, pictures and definitions) on line from field using suitable device to the SOI Database tables.
10. QA/QC tools must be developed in Oracle Spatial environment to certify the migrated data and collected data. Software Requirement Specification document and other usability testing criteria to be accepted by the competent authority.
11. Data produced in step 10 must be checked against the 1:50,000 scale reengineered data available in OGC Web services WFS service up to the satisfaction of the competent authority.
12. Four color Printing and publishing software available in SOI be fed with this data for CMYK printing of maps on 1:2000 scale as per National Map Policy 2005 and/or subsequent revision if any. Quality of the paper copy final map to be accepted by competent authority.
13. The GSGS cleared vector map data to be web published as OGC Web Services.
14. Entire process to be published as OGC Web Processing service.

III.II.II OpenStack

Bidder has to setup Openstack Cloud Managed Platform and install suitable software and tools on the supplied hardware.

Necessary software for appropriate OpenStack services to integrate the SAN storage with the cloud installation so that volumes can be created and assigned to VMs as persistent storage. Out of 50 TB of SAN, two LUNs each of 25 TB will have to be created by the bidder. One LUN will be made available for Cinder volume creation in Staging_1 and the second will be available for Cinder volume creation in Production _1 (See connectivity diagram)

Staging _1, Production _1 will be independent installations that they will share the same SAN (each will use a different LUN) and Disaster Recovery_1 is an independent installation that will have its own storage and the FC switches as shown in the connectivity diagram. The OpenStack services like Neutron, Glance, Cinder, Keystone, Horizon, Heat, Ceilometer, etc., will have to be installed on each of the two cloud controllers (Rack servers). The servers will act as Nova compute nodes on which VMs will

be created by the bidder as and when required. The Top-of-the-Rack (TOR) switches will be used to connect the rack servers and OpenStack compute nodes to the NSDI LAN and to the Internet. The rack server will be kept as spare with all OpenStack services installed.

The system should be integrated in such a way that the VMs will be accessible from any machine on the NSDI LAN and any machine on the Internet as well as the Internet will be accessible from each of the VMs.

In the technical bid, bidder must provide a detailed connectivity diagram showing the physical connectivity between the different components.

In the technical bid, bidder must provide a detailed architectural diagram showing how they plan to integrate various components of the cloud system like Fuel, OpenStack Compute and Controller nodes, SAN, SAN Controller, SAN Switch, Switches, Rack servers, Top-of-the-rack switches, NSDI LAN, etc. They must also clearly specify the different OpenStack services that will be installed along with their functions. Number and sizes of VLANs required must also be specified.

Bidder to ensure that the hardware and software components are compatible with each other, and provide necessary cables/wires and any other accessories necessary for connecting the supplied components. Any accessories needed must be clearly mentioned and quoted as part of the tender.

Bidder must provide an integrated system including installation of complete hardware (servers, SAN, switches, etc.), operating system, virtualization software and cloud software.

III.III.I Managed Services

- 24*7 support to monitor, co-ordinate, update, resolve any kind of request / issue (hardware / OS software / service) that has been raised from NSDI.
- Organization Unit's/Users Creation & Testing
- "Shared Folder" for Data transfer/Storage Issue
- Network issues identification and resolution which are in scope of vendor
- Roaming Profile Creation
- Movement of some critical applications/data into DC which are running in to Client local systems
- Centralized knowledge hub creation
- Logo Change, AD sync., Script Modification, Users Data Sync etc.
- Group Policies creation and implementation
- Installation of certain licensed tools like Cacti, Nagios monitoring tools etc. in DC
- Installation of server backup service in DC and to take system state backup
- Folder redirections
- Enterprise Content Management
- Creation of VM's along with genuine OS license (minimum 08 VM's).
- Taking/Rewriting backup of data over external hard disks for every 3 months. External hard disks will be provided by NSDI.
- This L2 engineer should travel to onsite location of NSDI, for support whenever required and requested by NSDI. This request of travel will not be more than 5 working days in a month and till this mark of 5 working days in a month, all the travel, accommodation and food charges should be fully borne by vendor only.

- This L2 engineer should co-ordinate with NSDI for taking all the data security measures like installation of firewall, antivirus, antimalware and regular updating of patches etc. in order to protect the infrastructure from virus/malware attacks etc.
- Any other requests with respect to this infrastructure as required by NSDI.

III.III.II Portal Development: 8 Weeks

The bidder should deploy a team onsite the NSDI / SOI specified location who will develop an integrated portal with necessary upgradations to the current portal or a complete revamp of the portal. NSDI will take responsibility in bringing all the stakeholders of the portal to cooperate and coordinate with the bidder for smoother process and development.

**PROFORMA FOR
TECHNICAL BID**

1. Details of the firm/Vendor

(a) Name of Firm/Vendor: _____

(b) Address: _____

(c) Tel No. (with code)

(d) E-mail address :

(e) Contact person :

i) Name and Designation _____

ii) Address and telephone No. _____

2. Registration Detail of firm with documentary evidence.

3. Amount of EMD with details

4. Copy of latest Income Tax Return and Annual Balance sheet of Company for the last three years. Documents submitted to be attested by a Chartered Accountant.

5. Details about existing and proposed (man power, hardware & software etc.) infrastructure to carry out such a job.

6. Detailed execution plan inclusive of deliverables and time schedules for completing the job in time.

7. Mention past experience in the field of Establishing Cloud/ Providing Service in Cloud/Photogrammetry / Surveying / GIS / Mapping etc. Also mention Names, addresses, titles and contact numbers for at least three (3) previous clients or customers you have worked with.

8. Details of Demand Draft/Bank Guarantee.

9. The vendors should clearly specify their capacity and specific plan to complete the work in time

9. We agree with all the terms & conditions of this tender document.

10. Any other information.

Date:-

**Signature & Name of the Vendor
Name of the firm with seal**

**

PROFORMA FOR COMMERCIAL BID

POC PROJECT COMPONENTS			COST IN FIGURES AND WORDS (Inclusive of all taxes)
S. No.	Item Description	Qty. Required	INR
1	Rack Mount Server	08 Nos	
	2x Intel Xeon 22 Core E5-26** processor, 256 GB DDR4 @2133 MHz RAM, 2 x 1TB SSD HDD, 2U Rack FF		
2	SAN Storage	01 No	
	12*4 TB SAN Storage, 02 nos' of SAN switches for		
3	SAN Switches	02 Nos	
4	10G SFP+ Ethernet Switches	02 Nos	
5	GIS Enterprise Server software– 4 Core Perpetual	04 Nos	
6	VMware vSphere 6 Enterprise	02 Nos	
	VMware vCenter Server 6 Foundation		
	Production Support/Subscription VMware vSphere 6		
7	Windows Server 2012 R2 or Higher	06 Nos	
8	Managed Services	24 X 7 Support	
9	On Line topographic Data Capture from field	per Sq Km	
10	On Line smart city data capture up to LOD 3	Per Sq Km	
11	QA/QC for the captured Data	per Sq. Km	
12	Map Symbolization and printing as per National Map Policy Lay Out	Per sheet	
13	Schema Design as per NUIS standards	1	
14	Schema Design as per topographical standards	1	
15	RDBMS	1	

NOTE :- (i) No cost will be borne by the POC Project authorities in case a job is repeated or rejected. If a job is repeated, it will be done at the own cost of the vendors.

(ii) The above cost figure will not be subject to any escalation and the price shall remain valid for a period of **Five** years.

(iii) Financial bid and annexures has to be given in separate sealed cover.

Signature & Name of the Vendor

Date:- Name of the firm with seal

ANNEXURE - 'C'

AGREEMENT

An agreement made on this _____ day of _____ between _____ (hereinafter called the contractor which expression shall include his legal representatives) of the one part and the President of India (hereinafter called the Government or other party whereby the contractor agrees to supply to the _____ NSDI-SOI POC competent authority (hereinafter called _____) the under mentioned articles at cost mentioned against them viz: -

Job to be executed	Unit	Rate per Unit

and on the terms and conditions hereinafter mentioned viz:

1. That all deliverables (the deliverables mean the output as agreed) shall be delivered within two months from the date of _____ supply of input material at the _____ (location).
2. That all deliverables supplied shall be in exact accordance with the technical specifications.
3. That the inspection of the deliverables shall be carried out by Gazetted Officer(s) deputed by the competent authority and that the deliverables rejected must be resubmitted within two weeks from the date of rejection.
4. That the time for delivery stated above shall be of the essence of the contract and should the contractor fail to deliver the whole/ any part of the deliverables within the period specified and up to technical specifications, the competent authority shall have the right to forfeit the deposit. This is without prejudice to action being taken under other clauses.
5. That the competent authority, shall have full power to reject the whole or any part of the deliverables which to the true intent and meaning is not in exact accordance with the technical specifications and that his decision shall be final.
6. That the contractor will deposit a sum of 10% of the value of the contract as security for compliance with the terms and condition of this contract.
7. That the data supplied by the contractor and accepted, shall be **under warranty for six months** from the date of acceptance.

8. That the contractor will be entirely responsible for the execution of this contract in all respect in accordance with the conditions of this contract and shall not assign or sub-let the same. If the contractor becomes insolvent or he or his Agent offers any bribe in connection with the contract or the contractor fails to observe or perform any condition of this contract then notwithstanding any previous waiver of such default or action being taken under any other clause hereof the competent authority may on behalf of the Government terminate the contract and forfeit the said deposit and recover from the contractor any loss suffered by the Government on account of the contract being terminated.
9. Minor disputes or differences, if arise, during this contract will be addressed by the competent authority. If any dispute or difference still persists, the same shall be referred to the Head, NRDMS, Department of Science & Technology for resolution. If the matter is still not resolved, the same will be referred to Secretary, Department of Science & Technology, whose decision shall be final and binding on the parties to this contract.

In witness whereof, the parties have hereunto set their hands the day and year first above written.

Signed by the said contractor _____

In the presence of

1st Witness

Address

2nd Witness

Address

Signed by the said for and on behalf of the

President of India in the presence of:

1st Witness

Address

2nd Witness

Address

**REVISED MODEL FORM OF BANK GUARANTEE BOND
BANK GUARANTEE BOND**

In consideration of the President of India (hereinafter called "the Government") having agreed to exempt _____ (hereinafter called "the said Contractor(s)") from the demand, under the terms and conditions of an Agreement dated _____ made between _____ and _____ for supply of Delhi Base map with Land Information, of security deposit for the due fulfilment by the said Contractor(s) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs. _____ (Rupees _____ only). We, (indicate the name of the Bank) _____ hereinafter referred to as "the Bank") at the request of _____ Contractor(s) do hereby undertake to pay to the Government an amount not exceeding Rs. _____ against any loss or damage caused to or suffered or would be caused to or suffered by the Government by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We (indicate the name of the Bank) _____ do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from the Government stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Govt. by reason of breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability, under this Guarantee shall be restricted to an amount not exceeding Rs. _____.

3. We undertake to pay to the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s)/supplier(s) in any suit or proceeding pending before any court or Tribunal relating thereto; our liability under this Guarantee being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

4. We, (indicate the name of the Bank) _____ further,

agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till _____ Office / Department / Ministry of _____ certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said contractor(s) and accordingly discharge this Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before the _____ we shall be discharged from all liability under this Guarantee thereafter.

5. We, (indicate the name of the Bank) _____ further agree with the Government that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for anytime or from time to time any of the powers exercisable by the Government against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor or for any forbearance, act or commission on the part of the Government or any indulgence by the Government to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s)/ Supplier(s).

7. We, (indicate the name of the Bank) _____ lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Government in writing:

Dated the _____ day of _____

for _____

(Indicate the name of the Bank)

ANNEXURE - 'E'

DATA SECURITY

I / We hereby certify that the NSDI/Survey of India shall have absolute right on the digital data and output products processed/produced by me/us. I/We shall be responsible for security/safe custody of data during processing. I / We also certify that the digital topographical data will not be taken out of the building premises on any media. The original input data supplied to me /us by NSDI/SOI or digital data and output products processed / produced from input data will not be passed on to any other agency or individual other than the authorized person of SOI. Control data or any other data generated by me/us for this project will not be used for any other work.

I / We also agree that any NSDI/SOI data from my / our computer system will be deleted in the presence of NSDI/SOI /observer after completion of the task.

Signature of the witness

Signature of the vendor

DELIVERABLES

The deliverables for the overall project will be made by the company/ vendor responsible for System Integration. Amongst other products mentioned in various Parts / Sections of this RFP the deliverables shall include:

1) Data Model

- (a) Large scale topographical data model, Description of objects and symbolization as per standards of ISO/BIS/SOI accepted by the competent authority.
- (b) Conceptual, Logical and Physical Schema of the given data.
- (c) Conceptual, Logical and Physical Schema of the proposed topographical data
- (d) Conceptual, Logical and Physical Schema of the metadata.
- (e) Hard copy and Softcopy of the documents (XSD files / XML files) related to Data Model.

2) Project Planning Proposal

- (a) Field and project planning with proper charts showing detailed activities as per standards followed by National Mapping Agencies.
- (b) Detailed field planning and execution, extension of controls (both horizontal and vertical).
- (c) Location of GCPs and all other control points, documents related to field and other relevant information.

3) Field Records will include:-

- (a) Original observation documents.
- (b) Adjusted Ground control point volumes.
- (c) Detailed field survey documents.
- (d) Letter of competent authority authenticating the acceptance of the adjusted co-ordinates.

4) Ground Verified maps and other related records:

The Soft copy and hard copy of the base map generated on scale 1:2,000 with 1meter contour interval along with over ground and underground features as mentioned in the RFP. The vector graphics should be provided in MicroStation DGN /ESRI Shape/ ESRI GDB file format and one of the OGC/ISO/TC 211 File format as specified by NSDI/SOI.

5) Hardware and Software:

- (a) Fully functional hardware and software in the provided space, at Survey of India Campus, Hyderabad.
- (b) Fully functional virtual machines and configurations as per the acceptance of the competent authority.
- (c) Deployment and demo of various Cloud service models – IaaS/PaaS/SaaS
- (d) Dashboard for management of Cloud resources, Services, VMs
- (e) Fully configured RDBMS with tables created in confirmation with the diagrams of the data model submitted. Data and Meta data loaded and published from the RDBMS.
- (f) Installed and configured OGC compliant web services software with all OGC web services (CSW, WMS, WFS, WPS) in place ready for consumption.
- (g) Fully functional infrastructure to update the data and Meta data from the field (online and off line).
- (h) User access and user rights management as per the policy provided by the competent authority.
- (i) Hard copy of the network and connectivity Diagram.
- (j) Acceptance certification by the technical committee, formed NSDI/DST, Gol.

6) Records related to Land information.

Hard and soft copies of the Land records with other attribute information like ownership details etc. with integration of this data with the base map as available.

7) Documents specifying the accuracy achieved during the process at various salient stages of the project and acceptance of the same by the authorities.

- (a) Technical-cum-Operation manual
- (b) User manual

8) Deliverables under smart city component

- (a) Integrated 3D models up to LOD 3 with topographic data.

(b) Copy of the acceptance letter of the LOD 3 data from competent authority.

9) Security and Boundary Clearance:

(a) All GSGS and Survey of India cleared hard copy sheets

(b) Certificate of compliance for GSGS/NSDI/SOI corrections sheet wise and final seamless digital data separately.

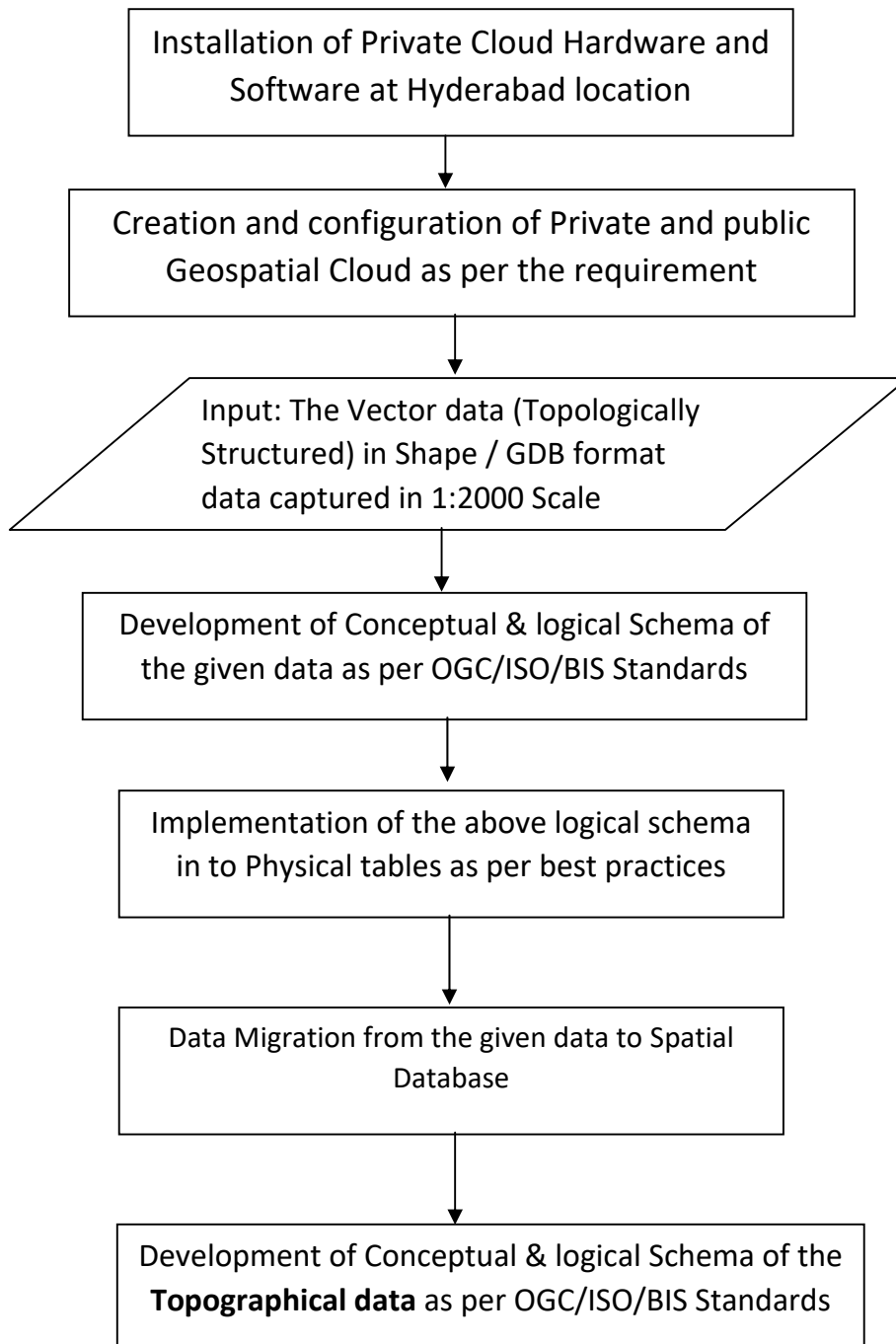
10. Four color printed maps sheet wise from downloaded GML files and as per ISO/BIS/SOI standards accepted by competent authority.

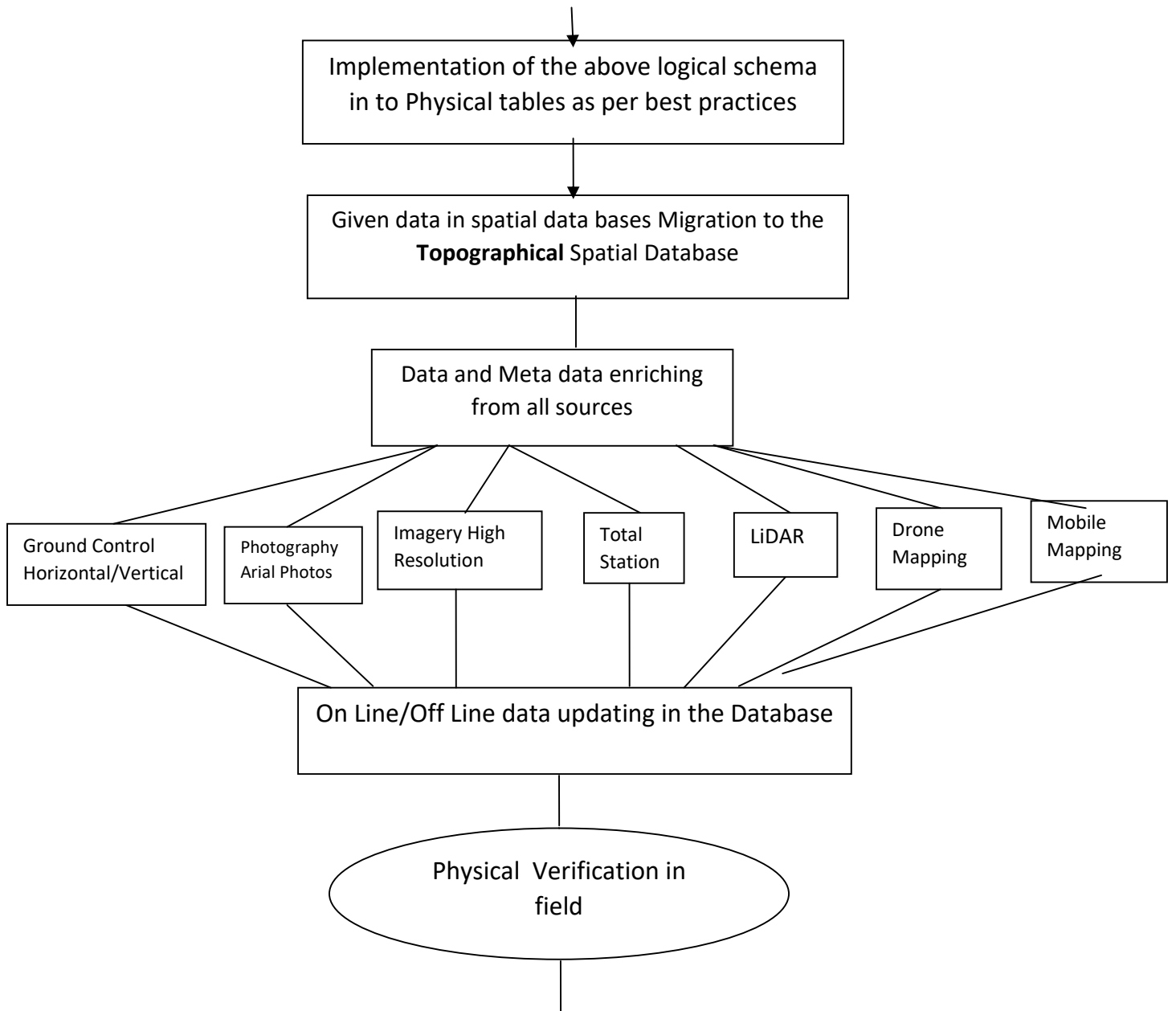
11. Vendor/SI should provide a single-point of contact (single-window) for all maintenance/ operation related issues.

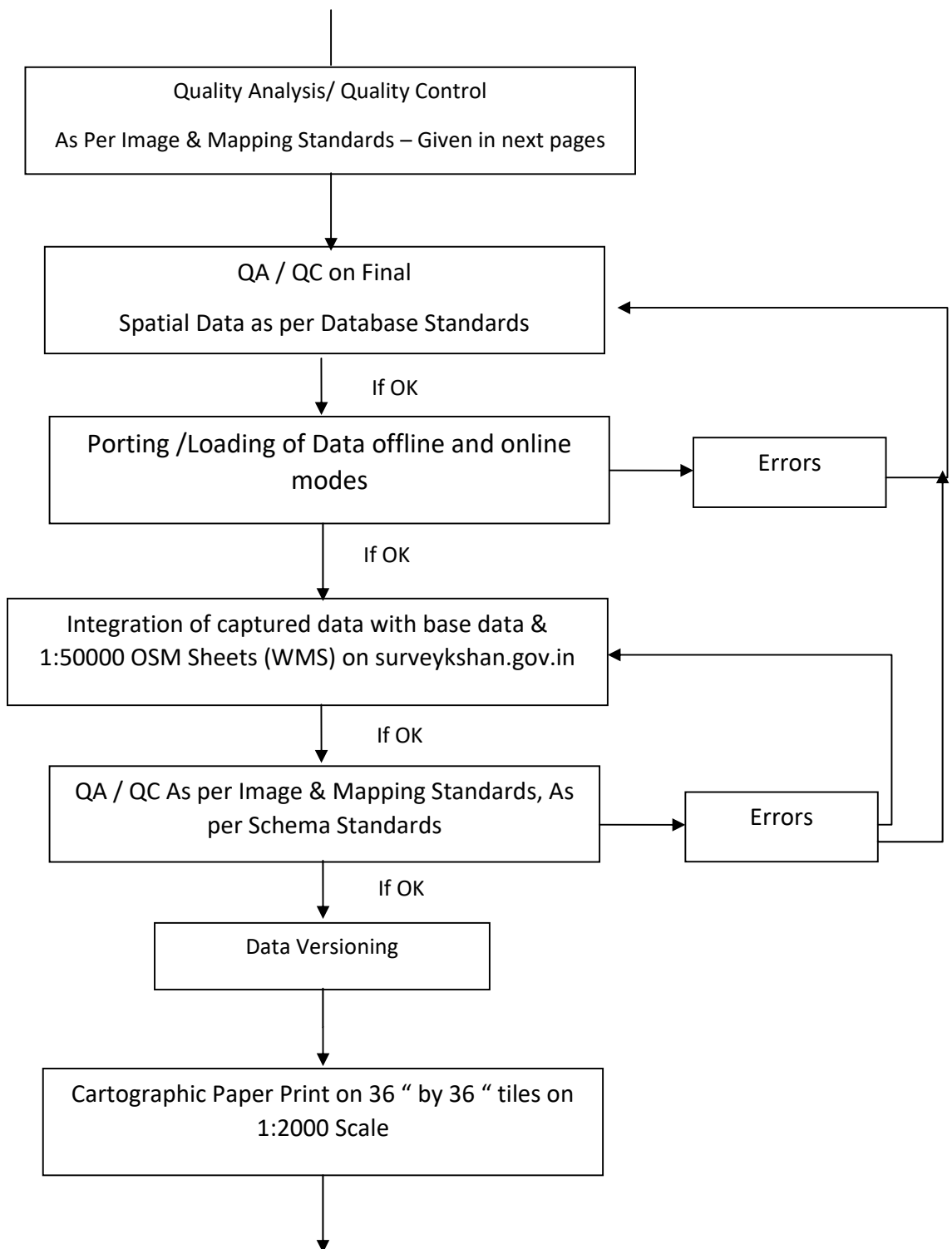
12. NSDI/DST will not disburse any additional amount for the 5 years.

Project Work Flow

(NSDI-SOI POC Project for Geo Spatial Cloud Based Data Centre)







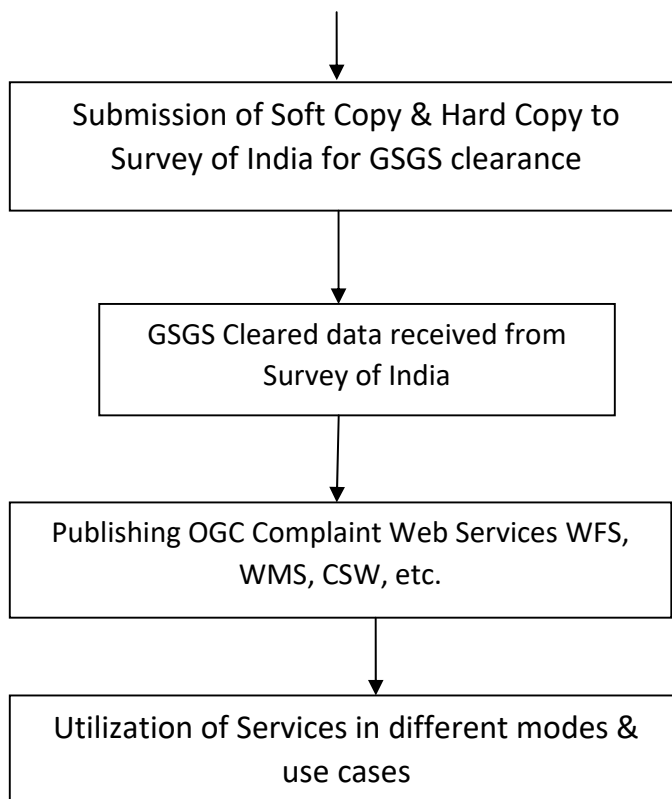


IMAGE AND MAPPING STANDARDS

Parameter 1:2000 SCALE

A. IMAGE

- Image Resolutions (Black and White only) 2 cm
- Projection for image outputs UTM Zone AoI
- Datum for image products WGS 84
- Image Frames (geometrically corrected; important for seamlessness) 36" x 36"
- Image Position (Planimetric) Accuracy in m 0.25

B. MAP STANDARDS

- Minimum Map Frame size for incorporation to 1 km X 1 km (approx.)
- Image Registration accuracy (RMS) 0.25 m
- Map projection UTM Zone AoI
- Datum WGS 84
- Position (Planimetric) Accuracy in m 0.35 m CE
- Minimum Mappable Unit (MMU) in sq mts 3 m X 3 m
- DEM point Spacing 10
- DEM Z Accuracy in m 0.5 @ 90 CE
- Thematic Accuracy of Classification / Mapping 90/90
- Formats • DGN files • Shape files

C. GIS DATABASE STANDARDS

- Spatial framework Seamless AoI/National
- Coordinate units for Precision Decimal Seconds
- Projection UTM Zone AoI
- Datum WGS 84
- Minimum Frame size 36" X 36"
- Position (Planimetric) Accuracy in m 0.25 m, 0.35 m CE
- Coordinate Movement Tolerance (CMT) in m 0.25
- Weed Tolerance (WT) (0.125mm of scale) in m 0.25
- Sliver Polygon Tolerance (SPT) (LESS_THAN MMU) in m 0
- Classification Accuracy (Confidence Level) 95%

D. CARTOGRAPHIC OUTPUT STANDARDS

- Output formats • DGN files (as applicable) • Oracle Spatial database • Shape files
- Output Framework • Administrative Boundaries • Spatial Framework grids
- Output Projection UTM Zone AoI
- Output Datum WGS 84
- Output Symbolology As per Layer Legend

EVALUATION CRITERIA FOR POC ON NSDI CLOUD BASED DATA CENTREPhase 1:

Sl No	Item	Marks
1	Understanding of project requirements and activities vs. time chart submitted to complete the project in time.	10
2	Technical proposal, consisting of tools, platforms, and basis of sizing.	10
3	Hardware and Software Deployment, upscale and maintenance proposal up to five years (includes cloud and other infrastructures).	10
4	On line and Off line spatial and attribute data updating and QA/QC for data quality proposed.	10
5	Security threat handling solution conforming different government acts and rules proposed. It Act 2008, 2011.IT security policy. Data protection law. Cyber security model framework for smart cities. Database server security guidelines,21 st Oct,2003. Govt. of India.	05
6	Conceptual, Logical and Physical Schema Design and implementation using OGC/ISO/BIS standards strategy.	10
7	Experience (years) in similar projects or projects critical to current requirement. Mention the project details (Customer, duration).	10
8	Team proposed (with their relevant experience)	10
9	Topographic data (2.5D) Capture, QA/QC and handling of city assets up to LOD 4 Level with integration with topographic data and rendering.	10
9	Cartographic document creation using OGC/ISO/BIS and other standards .OGC SLD(Styled Layer Descriptor), using Topographic symbols of Survey of India, extended for additional requirement, if any and approved by competent Authority.	10
10	Four color printing from the spatial data from RDBMS using standards.	05

Minimum score required for eligibility: 60

Top 3 vendors will be considered for next phase evaluation, if there are many vendors qualifying.

Phase 2:

Qualifying after phase 1, Commercial bids for successful vendors will be opened and further merit list will be prepared with Quality and Cost Based Selection (Quality 70: Cost 30).