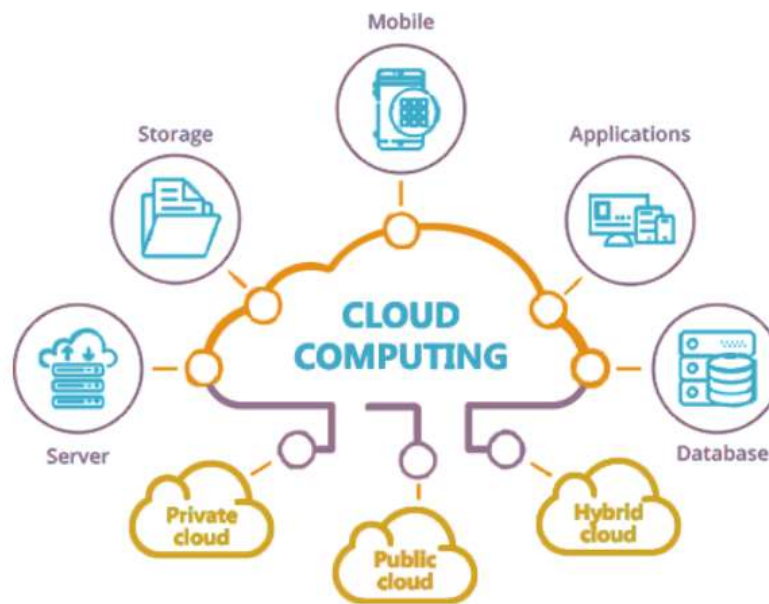# Expression of Interest (EoI)
for
Cloud Technology Solution in the State of Nagaland

Proprietary & Confidential

Prepared by the

NAGALAND STATE E-GOVERNANCE SOCIETY (NSeGS) /

DIRECTORATE OF INFORMATION TECHNOLOGY & COMMUNICATION

GOVERNMENT OF NAGALAND

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1. **Data Sheet**
    1.1 **EOI Call Notice:**

Expression of Interest (EoI) for Identifying the Cloud Service Providers (CSPs)

Sl.No.	Information	Details
1	EoI Reference Number	No. NSeGS/SDC-4/2013/57
2	Issue of EOI document	www.nagaland.gov.in
3	EoI calling date	28-04-2022
4	Last date and Time for submission of queries for clarifications vide email	12 noon, 12-05-2022 Email: dit-ngl@nic.in
5	Last date for submission of EOI Response	12 Noon, 17-05-2022
6	Presentation on EOI Proposal by the Agencies	The date and time for presentations schedule will be informed to all applicants.
7	Addressee and Address at which proposal in response to EOI notice is to be submitted	**Er. Tongtiliba Longkumer,** Member Secretary, NSeGS and Director IT&C Directorate of Information Technology & Communication, Thizama Road Kohima- 797001, Nagaland Email: dit-ngl@nic.in
8	Contact Person for queries	**Mr. Souman Pradhan,** Email: dit-ngl@nic.in (M) 7016223847

Please visit our web site at https://www.nagaland.gov.in EoI document is free and full copy of the EoI document can be downloaded from the above website.

Director

Directorate of Information Technology & Communication,

Thizama Road, Kohima-797001, Nagaland

Email: dit-ngl@nic.in

2. Introduction

NSeGS is a nodal agency for common IT infrastructure of Government of Nagaland such as Naga State wide area network (Naga SWAN), Nagaland State Data Centre (NSDC) and Common Service Centre (CSC) etc. The Naga SWAN would be the network and communication backbone across the state administration cum governance that would be integrated to both NSDC as well as CSC. NSDC with its robust infrastructure is envisioned as the shared, reliable and secure services centre for hosting and managing the e-governance websites/applications of the state and its constituent departments and enable the Government to deliver the services quickly and effectively to its stakeholders.

3. Project Background

MeitY has announced MeghRaj Policy to provide strategic direction for adoption of cloud services by the Government. The aim of the cloud policy is to realize a comprehensive vision of a government cloud (GI Cloud) environment available for use by central and state government line departments, districts and municipalities to accelerate their ICT-enabled service improvements.

MeghRaj policy of MeitY states that "Government departments at the Centre and States to first evaluate the option of using the GI Cloud for implementation of all new projects funded by the government. Existing applications, services and projects may be evaluated to assess whether they should migrate to the GI Cloud."

Taking demand into consideration, MeitY has initiated Provisional Empanelment of the cloud service offerings of Service providers that the end-user departments can leverage in addition to the National Cloud services offered by NIC for their e-governance solutions.

MeitY has recently revised the empanelment strategy and floated additional requirements for CSPs whose Cloud services are already empanelled with MeitY. The revised strategy for empanelment of Cloud Service Offerings of CSPs is based on the three key views - (i) ease in offering Cloud services to government and public sector organizations, (ii) faster procurement by the government and public sector organizations, and (iii) continuous monitoring of Cloud Service Providers and their offerings. The revised empanelment strategy allows CSPs to offer Cloud services under all three categories of Cloud Service Models. The following cloud service offerings offered by the Cloud Service Providers (www.meity.gov.in) for a combination of the Deployment Models (Public Cloud, Virtual Private Cloud and Government Community Cloud) have been provisionally empanelled by Meity.

1. Infrastructure as a Service (IaaS)
2. Platform as a Service (PaaS)
3. Software as a Service (SaaS)

Nagaland State Data Centre (NSDC) was built under NeGP Scheme (GoI) at Kohima, Nagaland. The Data Centre operations are currently operated and managed by NSeGS / DITC internally. Now, NSeGS / DITC invites Expression of Interest (EoI) from interested Cloud Service Providers (CSPs), on behalf of the DITC department, to express their interest on the service/deployment models offered.

3.1 Eligible Vendors

This EoI is limited to MeitY cloud empanelled CSPs. The MeitY empanelled Cloud Service Providers (CSPs) shall submit a copy of the MeitY cloud empanelment letter.

4. Scope

4.1 Objective

The objective of the EoI is to identify the CSP with best technology model and cost effectiveness.

In the above context, NSeGS/DITC desires to make use the cloud services to achieve the cost effectiveness, scalability and ease of operations etc.

NSeGS/DITC invites EOIs from prospective cloud vendors for submitting their proposals on offering the best practices and the various advantages of uses of Cloud Technology. The objective of the EoI is to identify the CSP with best technology model and cost effectiveness.

4.2 Requirements

The outcome of the EoI is to get the proposals for only 2 (IaaS & PaaS) models. Therefore, the cloud service providers shall offer their technical and commercial proposals:

4.3 IaaS Requirements

Sl. No	Category	Type	Configuration	Requirements
1	Compute (Virtual Machines)	Windows(Windows Server 2019 Standard)	vCPU-24 RAM- 128 GB HDD- 300 GB	2
2		Redhat Linux (Red Hat Enterprise Server 7.7)	vCPU-12 RAM- 64 GB HDD- 50 GB	1
3		Linux (Ubuntu-18, CentOS-7)	vCPU-96 RAM- 192 GB HDD- 1.2 TB	6
4	Storage	Block Storage	2TB	2TB
5		Backup Storage(D2D)	2TB	2TB
6	Sever Load balancer	Sever Load balancer	Sever Load balancer	2 Instances
7	Firewall	Firewall	Firewall	2 Instances
8	Web Application Firewall	WAF	Web Application Firewall	2 Instances
9	DDoS Mitigator	DDoS Mitigator	DDoS Mitigator	2 Instances
10	Switches	L3 / L2 Switches	Switches	2/2
11	Public IPs	Public IPs	Public IPs	/24
12	Active Directory Service	NA	Active Directory Service	NA
13	Backup Service	Backup Service	Backup Service	1

14	Anti-Virus	Anti-Virus	Anti-Virus	1
15	Internet	BW	1Gbps	1Gbps
16		Data Utilization	15 TB/Month	15 TB/Month
17	VPN	VPN Connectivity	100 SSL VPN Users with two factor authentication	100
18		VPN Data Utilization	1 TB/Month	1 TB/Month
19	Virtual Network	There is no Service Procurement Parameter for this service. All CSPs provide virtual network / subnet capability by default to their customers without any extra cost.	NA	NA
20	Enterprise Support Service	Example: (i) 24x7 access to email, chat and phone support to notify and register the incidents (ii) 24x7 support for general guidance (iii) Response to be made available within 15 minutes for Business-Critical System outage		1
21	Dashboard	Cloud dashboard		1

4.4 PaaS Requirements

Sl. No	Category	Type	Configuration	Requirements
1	DB Servers with Storage	MSSQL	(8vCPUs, 64GB Memory, 100GB OS Drive/Server	2
2		MYSQL	(8vCPUs, 64GB Memory, 50GB OS Drive/Server	8

5. Functional Requirements

5.1 Infrastructure as a Service (IaaS) Requirements

5.1.1 Production Environment Requirement Environment Requirements

The CSP shall provide the compute, storage, networks, and other fundamental resources where NSeGS/DITC is able to deploy and run software. The CSP shall be responsible for managing and controlling the underlying Cloud infrastructure including operating systems, storage, network, security, etc. and the deployed applications shall be managed and controlled by the NSeGS/DITC.

The environment should be logically isolated, i.e., the pre-production environment shall be in a different VLAN from the production environment and the users of the different environments shall be in separate networks (e.g., development environment logically isolated from the other pre-production and production environments). A change release management and configuration management procedure shall be defined and implemented to process any change to the cloud environment / services.

5.1.1.2 Specific Requirements for Infrastructure as a Service (IaaS)

The below mandatory requirements are applicable in addition to common technical controls for services offered by CSP from service model Infrastructure as a Service (IaaS)

1) The CSPs shall make the services available online, on-demand and dynamically scalable up or down as per request for service from the end users (NSeGS/DITC Department/user Department) with two-factor authentication via the SSL through a web browser.
2) The Service shall provide auto-scalable, redundant and dynamic computing capabilities.
3) Service shall allow users to securely and remotely, load applications over the SSL VPN clients from the public internet.
4) Perform an Image backup of VM Image information or support the ability to take an existing running instance or a copy of an instance and export the instance into NSeGS/DITC required format.
5) Configuration and management of the Virtual Machine shall be enabled via a Web browser over the SSL VPN client from the public internet.
6) In case of suspension of a running VM, the VM shall still be available for reactivation for a reasonable time without having to reinstall or reconfigure the VM. In case of suspension beyond a reasonable time, all the data within it shall be immediately deleted / destroyed and certify the VM and data destruction to the NSeGS/DITC /Government User Department as per stipulations and shall ensure that the data is not forensically recovered.
7) CSP shall ensure that VMs receive OS patching, health checking, Systematic Attack Detection and backup functions.
8) Monitor VM up/down status and resource utilization such as RAM, CPU, Disk, IOPS and network.
9) The NSeGS/DITC /respective Government Department shall retain ownership of all virtual machines, templates, clones and scripts/application created for departments

applications. The respective Government Department retains the right to request (or should be able to retrieve) full copies of these virtual machines at any time.

10) The NSeGS/DITC /respective Government Department retains ownership of Department loaded software installed on virtual machines and any application or product that is deployed on the Cloud by the NSeGS/DITC.

11) CSPs shall manage CSP provisioned infrastructure including VMs as per the ITIL standards.

12) The CSP to give details of the elastic capacity of the cloud during the traffic ups and downs.

5.2 Platform as a Service (PaaS) Requirements

1) The PaaS Offerings shall support for the development, deployment and operation of custom applications.

2) The CSP shall provide the Cloud infrastructure and platform (such as Oracle, MSSQL, PostgreSQL, DB2, JBoss, Weblogic, websphere) to run the applications created using programming languages, libraries, services, and tools supported by the CSP. Further, PaaS shall provide abroad range of application infrastructure (Middleware) that supports a range of capabilities such as database management (with both SQL and NoSQL database), integration services, business process management, business analytics services, rules engines, event processing services and mobile back-end services. The NSeGS/DITC shall not manage or control the underlying Cloud infrastructure including network, security, servers, operating systems, or storage, but has control over the deployed applications and possible configuration settings for the application-hosting environment

3) PaaS offerings shall provide developers and operators with a "Push and pull" mechanism for deploying and running applications

4) The PaaS offerings shall support a range of runtime environments [Government Department /NSeGS/DITC may indicate the runtime environments required]

5) Configuration requirements shall be kept to a minimum by default, at the same time offering the capability to control the configuration if required

6) The platform should include a database of the full application ecosystem (including what software is running on each host, who owns the application, and which versions are being used). This information should be available for the platform or for individual platform tenants.

7) Shall provide API Management capabilities - for ex: providing a level of control, so that only authorized users can access the API and each user can only access those capabilities for which they have permission.

8) PaaS offerings shall assist the application lifecycle by providing development tools including code editors, code repositories, build tools, deployment tools, test tools and services and security tools. The tools shall also include a set of application monitoring and analytics services, including capabilities such as logging, log analysis and app usage analytics and dashboards.

9) PaaS offerings shall provide dashboards and APIs that enable customers to plug in their own operations toolsets. So, for example, capabilities to increase or decrease the number of running instances of an application to deal with varying application load.

10) PaaS offerings shall provide built-in Security Capabilities or meet the security

requirements as indicated by Government, reducing the load on developers and operators to provide these capabilities that include firewall, secure protocol handling, access and authorization, encryption of data in motion and at rest, integrity checking, etc. PaaS systems shall offer these capabilities with minimal or no impacts on application mode, simplifying the programmers task

11) PaaS shall provide support for porting the existing applications so that the ported application will function correctly without the need for making modifications to the application

5.2.1 Specific Requirements for Platform as a Service (PaaS)

The below mandatory requirements are applicable in addition to common technical controls for services offered by CSP from Platform as a Service.

1) CSPs shall be responsible for development, deployment, operations and support of custom applications or any application procured by the NSeGS/DITC Department/User Department from Platform as a Service.

2) CSPs shall ensure multiple range of runtime environments are supported to enable User Departments to choose the most appropriate technology for the task.

3) CSPs shall be able to control the number of parallel running instances of an application in order to handle the anticipated workload or to meet resiliency goals.

4) CSPs shall ensure that any services offered from Platform as a Service are portable

5) CSPs shall ensure that services offered from Platform as a Service are available with automatic scale up and scale out to meet NSeGS/DITC Department/User Departments performance requirements.

6) CSPs shall ensure that any service offered from Platform as a Service shall have uptime of Tier-III standard and there is no compromise on performance of the application

7) CSPs shall be responsible to clearly demonstrate to NSeGS/DITC Department/3rd party assessor appointed by NSeGS/DITC at the time of getting its services finalized.

8) CSPs shall ensure that User Departments are provided with Central web-based tool for monitoring and management of services

6. EoI Submission Process

6.1 Completeness of the EoI Document

Submission of the EOI response shall be deemed to have been done after careful study of the EOI document with full understanding of its implications. The same shall be submitted to NSeGS/DITC on or before 17th May 2022, 12 Noon.

7. Preparation and submission of EoI

a) All the pages of the EoI response paper must be sequentially numbered and must contain the list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the application.
b) All pages of the EoI shall be initialled and stamped by the person who signs the application.

8. Language

The response proposal shall be filled by the Applicant in English language only. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Applicants. For purposes of interpretation of the Proposal, the English translation shall govern.

9. Venue & Deadline for Submission of EoI

Proposals, in its complete form in all respects as specified in the EoI, must be submitted online on or before the last date and time of submission of EoI. No other way of submission of EoI shall be considered. The applicant shall ensure that the infrastructure/network is intact while submitting the EoI online and ESD shall not take the responsibility for this.

10. Evaluation Process:

After examining the submission of the EoI proposals, the vendors shall be called for a technical presentation of the proposed solutions.

10.1 Technical Presentation of Solution

a) Presentation for purpose of this EoI is to design for the solution (IaaS/PaaS) defined in the scope and functional requirement of this EoI. CSP shall give a technical demonstration on Cloud services with the capabilities, pros and cons, commercials involved in each solution to prove the idea and feasibility as envisioned by NSeGS/DITC
b) The applicant shall validate initial productivity rates and cost/benefit projections
c) Each Applicant shall demonstrate the process flow as mentioned above for the purpose of Presentation which shall be assessed based on the following test criterions:
   i.   Ease of provisioning
   ii.   Types of CSP Model
   iii. Migration Model
   iv.   Security Feature
d) Vendors can demonstrate value added features and functionalities as part of their solution.

10.2 Evaluation committee

NSeGS/DITC will constitute an Evaluation Committee to evaluate the responses of the Applicants.

a) The Evaluation Committee constituted by NSeGS/DITC shall evaluate the responses to the EoI and all supporting documents & documentary evidence. Inability to submit requisite supporting documents or documentary evidence, may lead to rejection of the EoI Proposal. The Committee may seek additional documents as it deems necessary.

b) Each of the responses shall be evaluated to validate compliance of the applicant according to the eligibility criteria, Forms and the supporting documents specified in this document.

c) The decision of the Evaluation Committee in the evaluation of responses to the Expression of Interest shall be final. No correspondence will be entertained outside the evaluation process of the Committee.

d) The Evaluation Committee will witness the technical presentation from the applicants to evaluate its suitability of their solution.

e) The Evaluation Committee reserves the right to reject any or all proposals. The EoI Proposal will be evaluated based on the documentary evidences provided along with the PPT.

11 Appendix-I: EOI Submission Forms
11.1 Form-1: Compliance Sheet

EOI No: _____, Date: _____

Please check whether following have been enclosed.

Sl. No	Enclosure description	Enclosed (Yes/No)	Annexure/Attachment/ Page No./ Envelop No. of the enclosure
1.	Copy of Certificate of Incorporation of Company or Registration Firm		
2.	Copy Goods Service Tax Registration		
3.	Copy of PAN no allotted by Income Tax Department		
4.	Copies of Annual audited accounts statements (P&L and Balance Sheets last three FY certified by a chartered Accountant		
5.	Application Letter (From 2)		
6.	ISO 9001:2008 , ISO 27001:2013, ISO 20000:2011		
7.	Particulars of the Applicant (Form 3)		
8.	listed / performance issues by any Govt./PSU (Form 4,5)		
9.	Authorization Letter (Form 6)		
10.	Acceptance Of Terms & Conditions Contained In The EoI Document (Form 7)		
11.	Project Experience (Form 8)		
12.	Signed EOI Document		
13.	Signature with Date & Seal		
14.	Name		

Signature of the Applicant Date:

Place:
Company Seal

11.2 Form-2: Cover Letter

EOI No: _____, Date: _____

<Location, Date>

To

<CSP Address)

Subject : Submission of the EOI (--------------------------------------)

Dear Sir/Madam,

We, the undersigned, offer to provide our services against your EOI No. <Insert EOI no> dated <insert date>. We are hereby submitting our Expression of Interest in printed format. We hereby declare that all the information and statements made in this EOI Response are true and accept that any misinterpretation contained in it may lead to our disqualification.

We agree to abide by all the terms and conditions of the EOI document. We understand you are not bound to accept any proposal you receive.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the short listing process or unduly favours our company in the short listing process, we are liable to be dismissed from the EOI selection process or termination of the contract during the project.

We hereby declare that our proposal submitted in response to this EOI is made in good faith and the information contained is true and correct to the best of our knowledge and belief.

Yours sincerely,

Authorized Signature [In full and initials]: Name andTitle of Signatory:
Name of Firm:
Address:
Location:
Date:

11.3 Form-2: Particulars of the Applicant

No: _____, Date: _____

1.	Name of the Organisation	
2.	Organisation Status of Registration	
3.	Address of Corporate Office	
4.	Address of Office in AP (if any)	
5.	Telephone No	
6.	Email Address	
7.	Website	
8.	Registration No of Certificate of Incorporation & Date	
9.	Registration No of G.S.T & Date	
10.	Permanent Account Number of Income Tax & Date of Regn	
11.	No. of years of proven experience of providing similar Services	

Signature of witness   Signature of the Applicant
Date: Date:
Place: Place:

                                                    Company Seal

11.4   Form-3: Acceptance of terms & Conditions contained in the EoI Document

EOI No: _____, Date: _____
, Location: _____

To

<Address of Applicant)

Dear Sir/Madam,

I have carefully gone through the Terms & Conditions contained in the EOI No:_____,
regarding EOI:. <………………………………………………>.

I declare that all the provisions of this EOI Document are acceptable to my company. I further certify
that I am an authorised signatory of my company and am, therefore, competent to make this
declaration.

Signature of witness   Signature of the Applicant
Date: Date:
Place: Place:

                                                                           Company Seal

11.5 Form-4: Format for List of Previous Work Orders Executed

EOI No: _____, Date: _____

SL. No	Name of Client, Contact Person, Contact Telephone No, Mobile No, Physical Address	Name of Project	Project Start Date and End Date, Brief of Project	Project Cost	Status (Complete/ In Progress/ Delay)

Note: The information provided in the above table must supported by copies of relevant work order and completion certificate.

Signature of witness   Signature of the Applicant

Date: Date:
Place: Place:
                                                                             Company Seal

11.6 Cost Proposals

11.6.1 Form-F.1: Consolidated cost sheet for Public Cloud:

S.No	Description		Total price (In
1.	Primary Site (DC) Cost	Form-F.1.1	
	Total Cost		
(In words: Rupees			

Signature of the applicant with Seal

11.6.2 Cost Proposals Cloud

Sl.No.	Type	Private Cloud at DC	Unit cost (In Rs)	Tax (In Rs)	Total Cost for 1 year	Year on year discounted amount				Total cost for 5 years
						Y2	Y3	Y4	Y5	
1	Windows Server 2019 Standard	2								
2	Red Hat Enterprise	1								
3	Linux (Ubuntu-18,CentOS-7)	6								
4	Block Storage	1 TB								
5	Backup Storage (D2D)	1 TB								
6	Server Load balancer	2 Instances								
7	Firewall	2 Instances								
8	WAF	2 Instances								
9	DDoS Mitigator	2 Instances								
10	Switches	2/2								
11	Public IPs	/24								
12	Active Directory	NA								
13	Backup Service	1								
14	Anti Virus	1								
15	Internet	1 Gbps								
16	Internet Data Utilization	1 TB/ Month								
17	VPN	100								
18	VPN Data Utilization	1 TB/ Month								
19	Enterprise Support Service	1								
20	Dashboard	1								
21	MSSQL (PaaS)	2								
22	MYSQL (PaaS)	8								
	Total									