eProcurement System Government of India

Tender Details

Date : 03-Apr-2025 11:35 AM

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Basic Details

Organisation Chain	Directorate General of Shipping
Tender Reference Number	11-33/11/2023-COMP-DGS

Tender ID	2025_DGS_855441_1	Withdrawal Allowed	Yes
Tender Type	Limited	Form of contract	QCBS
Tender Category	Services	No. of Covers	2
General Technical Evaluation Allowed	Yes	ItemWise Technical Evaluation Allowed	No
Payment Mode	Offline	Is Multi Currency Allowed For BOQ	No
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No

Payment Instruments

Offline	S.No	Instrument Type
	1	Demand Draft

Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.pdf	Technical Qualification Documents 1
		.pdf	Technical Qualification Documents 2
2	Finance	.xls	BOQ

Tender Fee Details, [Total Fee in ₹ * - 0.00]

Tender Fee in ₹	0.00		
Fee Payable To	Nil	Fee Payable At	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	12,50,000	EMD Exemption Allowed	Yes
EMD Fee Type	fixed	EMD Percentage	NA
EMD Payable To	Directorate General of Shipping	EMD Payable At	Mumbai

Click to view modification history

Work /Item(s)

Title	Request for Proposals for Network infrastructure upgradation, Implementation of Network Management Solutions and establishment of Network Operation Centre including Support Services at Directorate General of Shipping
Work Description	Request for Proposals for Network infrastructure upgradation, Implementation of Network Management Solutions and establishment of Network Operation Centre including Support Services at Directorate General of Shipping
Pre Qualification Details	Please refer Tender documents.
Independent External	NA

Monitor/Remarks					
Show Tender Value in Public Domain	No				
Tender Value in ₹	0.00	**Product Category**	Miscellaneous Services	**Sub category**	NA
Contract Type	Tender	**Bid Validity(Days)**	180	**Period Of Work (Days)**	NA
Location	Directorate General of Shipping, Mumbai	**Pincode**	400042	**Pre Bid Meeting Place**	Online, Link is available at the RFP Document
Pre Bid Meeting Address	Online, Link is available at the RFP Document	**Pre Bid Meeting Date**	15-Apr-2025 12:00 PM	**Bid Opening Place**	Online
Should Allow NDA Tender	No	**Allow Preferential Bidder**	No		

Critical Dates

Publish Date	03-Apr-2025 01:00 PM	**Bid Opening Date**	06-May-2025 03:00 PM
Document Download / Sale Start Date	03-Apr-2025 01:00 PM	**Document Download / Sale End Date**	05-May-2025 03:00 PM
Clarification Start Date	04-Apr-2025 10:00 AM	**Clarification End Date**	16-Apr-2025 06:00 PM
Bid Submission Start Date	17-Apr-2025 03:00 PM	**Bid Submission End Date**	05-May-2025 03:00 PM

Tender Documents

NIT Document	S.No	Document Name	Description		Document Size (in KB)
	1	Tendernotice_1.pdf	Notice Inviting RFP		281.11

Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	Tender Documents	RFP.pdf	RFP Document	2443.75
	2	BOQ	BOQ_899354.xls	BOQ	371.00

View GTE /QCBS Details - NOC-QCBS

S.No	Particulars	Expected Value	Mandatory	Points (Weightage)
1.0	**Network Operation Centre**		Yes	
1.01	Bidder Experience-as per RFP	Yes	Yes	40
1.02	Resource Requirements-as per the RFP	Yes	Yes	20
1.03	Technical Solution-as per RFP	Yes	Yes	40

Limited Bidders List

S.No.	Bidder Name	Bidder Login Id
1.	Agmatel India Pvt. Ltd	tender.it@agmatel.com
2.	Immortal Technologies Pvt Ltd	info@immortal-technologies.com
3.	Netcon Technologies India Pvt Ltd	sangeetha.t@netcon.in
4.	Pentagon Network Solutions Pvt. Ltd.	amitbob@pentagon-asia.org

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	amit.v-dgs@gov.in	Amit Verma	AMIT VERMA

| 2. | j.jadhav@gov.in | Jitendra Shankarrao Jadhav | Jitendra Shankarrao Jadhav |
| 3. | ravinder-dgs@gov.in | Ravinder Kumar | RAVINDER KUMAR |

GeMARPTS Details

GeMARPTS ID	BCGPSTSSGE54
Description	Not Available
Report Initiated On	03-Apr-2025
Valid Until	03-May-2025

Tender Properties

Auto Tendering Process allowed	No	**Show Technical bid status**	Yes
Show Finance bid status	Yes	**Stage to disclose Bid Details in Public Domain**	Technical Bid Opening
BoQ Comparative Chart model	Normal	**BoQ Compartive chart decimal places**	2
BoQ Comparative Chart Rank Type	L	**Form Based BoQ**	No

TIA Undertaking

S.No	Undertaking to Order	Tender complying with Order	Reason for non compliance of Order
1	PPP-MII Order 2017	Agree	
2	MSEs Order 2012	Agree	

Tender Inviting Authority

Name	DDG
Address	9th Floor Beta Building, I-Think Techno Campus, Kanjurmarg (East), Mumbai - 400 042

Tender Creator Details

Created By	Ravinder Kumar
Designation	UDC
Created Date	03-Apr-2025 11:12 AM

नौवहन महानिदेशालय, मुंबई
DIRECTORATE GENERAL OF SHIPPING, MUMBAI
Ref. – FAAPP-MTC-1/19102024, dtd. 19/10/24, ver 1.0

QUALITY & COST BASED SELECTION (QCBS)
(Using E-Procurement mode on Central Public Procurement Portal)

Request for Proposals (RFP)
for
Network infrastructure upgradation,
Implementation of Network Management
Solutions (NMS) and establishment of
Network Operation Centre (NOC) including
Support Services
at
Directorate General of Shipping
Kanjurmarg(E), Mumbai

Tender Ref. No.: 11-33/11/2023-COMP-DGS

Date of Issue: 03/04/2025

ISSUING AUTHORITY:
DIRECTORATE GENERAL OF SHIPPING, MUMBAI
Postal Address: 9th Floor Beta Building, I-Think Techno Campus, Kanjurmarg (East),
Mumbai - 400 042 (India)

E-Mail: dgship-dgs[at]nic[dot]in
Tel. No.: 91-22-25752040/41/42/43/45
(From 9:30 A.M. to 6:00 P.M.)

Key information at a glance

SN	Item	Description
1	Tender Ref. No.	
2	Tender Title	Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services at Directorate General of Shipping Kanjurmarg(E), Mumbai **- 400078**
3	Cost of Request for Proposals	Request for Proposals can be downloaded **free of cost** from the following websites: https://eprocure.gov.in/epublish/app https://www.dgshipping.gov.in/Content/TenderNotices.aspx
4	Date of Tender Publishing	03/04/2025; 01:00 PM
5	Date and time till which physical visits prospective Bidders to DGS premises are permissible	
6	Seek clarification start date	04/04/2025; 10:00 AM
7	Seek Clarification end date	16/04/2025; 06:00 PM
8	Date and time of Pre-Proposal Meeting	15/04/2025; 02:00 PM
9	Start date and time for Submission of Proposals (Technical + Financial Proposals)	17/04/2025; 03:00 PM
10	Last date and time for Submission of Proposals (Technical + Financial Proposals)	05/05/2025; 03:00 PM
11	Date and time of opening of Technical Proposals	06/05/2025; 03:00 PM

12	Help Desk No. (For E -Procurement)	E-Mail: dgship-dgs[at]nic[dot]in
		Tel. No.: 91-22-25752040/41/42/43/45
		
		Primary Custodian number: 7393031987
		Email ID: amit.v-dgs@gov.in
		
		eProcurement Helpdesk no.s (New Delhi)
		      0120-4200462,
		      0120-4001002,
		      0120-4001005

13	Link for accessing training schedule	https://eprocure.gov.in/cppp/trainingdisp

	regarding use of e-procurement portal by Bidders may be found at:	
14	Authority to be contacted in case of any clarification / request for entry permission for physical visit	Name: - Shri Deependra Singh Bisen Designation: DDG IT and E - Governance Email: - singh.deependra@gov.in

Table of Contents

Section 1 – Letter of Invitation

Proposal Reference No.: 11-33/11/2023-COMP-DGS   **Date**: 03/04/2025

Tender Title:

1. The DGS invites online Proposals from eligible Bidders for Selection of Bidder Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services at Directorate General of Shipping Kanjurmarg(E), Mumbai **- 400078**
2. More details pertaining to the scope of work may be seen under the Terms of Reference (Section V).
3. The process of Quality & Cost Based Selection (QCBS) shall be followed for selection of suitable Bidder. The Bidding process shall be conducted in an online mode on the Central Public Procurement Portal (CPPP) which is publicly accessible using the following web address: https://eprocure.gov.in/eprocure/app. Bidders can download the Request for Proposals free of cost from this portal.
4. Interested Bidders must register on the e-procurement portal and upload their technical and financial proposals separately within the stipulated time and date i.e. 05/05/2025; 03:00 PM
5. Detailed instructions regarding online submission of proposals may be seen under Annexure I.
6. The Bidder is solely responsible for timely uploading of Proposals on the e-procurement portal. DGS shall not be liable for resolving any queries / issues raised on the day of Proposal submission.
7. Technical Proposals shall be opened 06/05/2025; 03:00 PM. Bidders can see the tender opening status by logging on to the e-procurement portal using their registered IDs.
8. Financial Proposals of only technically qualified Bidders shall be opened at a date which shall be pre-disclosed on the e-procurement portal.
9. DGS reserves the right to accept or reject any or all of the Proposals at any time during the Bidding process.

Deputy Director General

Section 2 – Instructions to Bidders (ITB)

1. General
1.1 Introduction

a) This Section provides the relevant information as well as instructions to assist prospective Bidders in preparation and submission of Proposals. It also includes the mode and procedure to be adopted by the DGS (hereinafter referred to as the 'Client') for receipt and opening as well as scrutiny and evaluation of Proposals and subsequent placement of award of contract.

b) The Client named in the **Data Sheet** will select an eligible consulting firm / organization (the Bidder), in accordance with the method of selection specified in the **Data Sheet**.

c) Before preparing the Proposal and submitting the same to the Client, the Bidder should read and examine all the terms & conditions, instructions etc. contained in the Request for Proposals. Failure to provide required information or to comply with the instructions incorporated in this Request for Proposals may result in rejection of Proposals submitted by Bidders.

d) The successful Bidder will be expected to complete the Services by the Intended Completion Date as provided in the **Data Sheet** and communicated in the services contract.

1.2 Language of Proposals
Proposal submitted by the Bidder and all subsequent correspondences and documents relating to the Proposal exchanged between the Bidder and the Client, shall be written in English language. However, the language of any printed literature furnished by the Bidder in connection with its Proposal may be written in any other language, provided the same is accompanied by a self-certified English translation and, for purposes of interpretation of the Proposal, the English translation shall prevail.

1.3 Code of Integrity

a) The Client and all officers or employees of the Client, whether involved in the procurement process or otherwise, or Bidders and their representatives or employees participating in a procurement process or other persons involved, directly or indirectly in any way in a procurement process shall maintain an unimpeachable standard of integrity in accordance with the code of integrity prescribed under GFR 175.

b) In case of breach of the code of integrity by a Bidder or a prospective Bidder, the DGS, after giving a reasonable opportunity of being heard, may take appropriate measures including –
   i. exclusion of the Bidder from the procurement process.
   ii. calling off of pre-contract negotiations and forfeiture or encashment of Proposal security;
   iii. forfeiture or encashment of any other security or bond relating to procurement;
   iv. recovery of payments made by the Client along with interest thereon at bank rate;
   v. cancellation of the relevant contract and recovery of compensation for loss incurred by the Client;
   vi. debarment of the Bidder from participation in any future procurements of any Client for a period of up to three years.

1.4 Eligibility

a) This Request for Proposals is open to all Bidders eligible as described in the instructions to Bidders. DGS employees, Committee members, Board members and their relatives (Spouse or Children) are not eligible to participate in the tender. Bidders involved in corrupt and

fraudulent practices or debarred from participating in Public Procurement by any state government or any procuring entity of the central government shall not be eligible.

b) The specific eligibility conditions shall be as prescribed under the **Data Sheet**.

c) Bidders shall submit a declaration regarding its eligibility vis-à-vis all the criteria mentioned under the instructions to Bidders and the Proposal data sheet.

1.5 Online Proposal Submission Process

The e-tender is available on CPPP portal, https://eprocure.gov.in/eprocure/app as mentioned in the tender. The tenders duly filled in should be uploaded and submitted online on or before the end date of submission. More details regarding the online Proposal submission process may be found under Annexure-II attached to this Request for Proposals.

2. Request for Proposals

2.1 Contents of Request for Proposals

a) The Request for Proposals include the following Sections, which should be read in conjunction with any amendment issued in accordance with ITB.

- ➤ Section 1   Invitation for Bidders
- ➤ Section 2   Instructions to Bidders (ITB)
- ➤ Section 3   Data Sheet
- ➤ Section 4   Evaluation Criteria
- ➤ Section 5   Terms of Reference
- ➤ Section 6   Service Level Agreement
- ➤ Section 7   Bidding Forms
- ➤ Section 8   General Conditions of Contract (GCC)
- ➤ Section 9   Special Conditions of Contract (SCC)
- ➤ Section 10   Contract Forms
- ➤ Financial Proposal Template in MS Excel format

b) Unless downloaded directly from the DGS website (https://www.dgshipping.gov.in) or the e-procurement portal https://eprocure.gov.in/eprocure/app as specified in the **Data Sheet**, Client shall not be responsible for the correctness of the Request for Proposals, responses to requests for clarification, the Minutes of the Pre-Proposal meeting, if any, or Amendment(s) to the Request for Proposals in accordance with ITB.

c) Bidders are expected to examine all instructions, forms, terms, and specifications in the Request for Proposals and to furnish with its Proposal all information or documentation as is required by the Request for Proposals.

2.2 Clarification of Request for Proposals

a) A Bidder requiring any clarification of the Request for Proposals shall contact the DGS in writing / email at the Client's address specified in the D**ata Sheet**.

b) The Client will respond in writing / email / through the e-procurement portal to any request for clarification, provided that such request is received prior to the deadline for submission of Proposals within a period specified in the **Data Sheet**. The Client shall also promptly publish brief description of the enquiry but without identifying its source and its response at its website or on the e-procurement portal.

c) Should the clarification result in changes to the essential elements of the Request for Proposals, the Client shall amend the Request for Proposals following the procedure given under ITB.

d) The queries should necessarily be submitted in the following format

Name of Person	Designation	Email ID(s)	Tel. Nos. & Fax Nos.

S. No	RFP Document Reference (s) (Page Number and Section Number)	Content of RFP Requiring Clarification	Points of Clarification
1.			
2.			
3.			
4.			
5.			

e) DGS shall not be responsible for ensuring that the bidders' queries have been received by them. Any requests for clarifications after the indicated date and time may not be entertained by the DGS.

f) Queries must be strictly submitted only in the prescribed format (.XLS/.XLSX). Queries not submitted in the prescribed format will not be considered/ responded at all by the procuring entity.

2.3 Pre-Proposal Meeting

a) In order to provide response to any doubt regarding Request for Proposals, or to clarify issues, a pre-Proposal meeting may be scheduled, as specified in the **Data Sheet**.

b) During the pre-Proposal meeting, the clarification sought by representative of prospective Bidders shall be responded appropriately. However, they shall be asked to submit their written request by close of office next day or by e-mail for electronic record thereof. The Client shall publish written response to such requests for clarifications, without identifying its source. In case required, amendment(s), in terms of ITB below shall be issued, which shall be binding on all prospective Bidders.

2.4 Amendments to Request for Proposals

a) At any time prior to the deadline for submission of Proposals, the DGS may, for any reason deemed fit by it, amend or modify the Request for Proposals by issuing Amendment(s)/corrigendum.

b) Such Amendment(s)/corrigendum will be published on DGS's website or on the e-procurement portal and the same shall be binding on all prospective Bidders.

c) To provide prospective Bidders reasonable time for taking the corrigendum into account, DGS

> may, at its discretion, extend the last date for the receipt of Proposals. Notifications regarding extensions, corrigendum, will be published on the website mentioned in the tender schedule and there shall be no paper advertisement.
> Bidder

d) Any Bidder who has downloaded the Request for Proposals should check the Amendment(s), if any, issued on the DGS website and on the e-procurement portal.

3. Preparation of Proposals
3.1 Documents Comprising Proposal

a) Bidder's pre-qualification / eligibility submission shall comprise the documents listed under ITB Clause 4 and corresponding Data Sheet entry.

b) Bidders are required to enrol on the e-Tendering website on the link provided in the Proposal Data sheet

c) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

d) 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 e-Tendering Portal.

e) 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 with their profile.

f) 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 DSCs to others which may lead to misuse.

g) Bidder shall then log in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

h) The proposal should contain ATLEAST the following submission on the e-Tendering Portal. However, this is not an exhaustive list, bidder is expected to go through the tender and provide documents as necessary

i) During Online Bid Preparation stage, bidders are allowed to make any changes or modifications in the bid data uploaded by them in Technical as well as Commercial envelope. Once a bidder successfully completes the Bid Preparation stage (by generating the Hash Values), system won't allow him/her to make any further changes or modifications in the bid data.

j) Technical Bid: The list of Documents to be submitted as part of Technical Bid is provided below.

Covering Letter – Technical Bid	Please refer Tech 1
Prequalification compliance sheet	Please refer Tech 17
Bidder Details	Please refer Tech 2
Financial Capabilities	Please refer Tech 3
Profile of Resource	Please refer Tech 4
Manpower Details	Please refer Tech 5
Technical Solution	Please refer Tech 6
Unpriced Bill of Material	Please refer Tech 18
Approach and Methodology	Please refer Tech 7
Project Plan and development	Please refer Tech 8
Deployment of Personnel	Please refer Tech 9
Details of Experience of Bidder in Various Projects	Please refer Tech 10
List of Sub-Contractors and OEMs and their details	Please refer Tech 11
Black-listing Certificate	Please refer Tech 12
Format of Consortium Agreement	Please refer Tech 13
Bank Guarantee for Earnest Money Deposit	Please refer Tech 14
Certificate of Conformity / No Deviation	Please refer Tech 15
Declaration for No Conflict of Interest	Please refer Tech 16
Compliance sheet for Functional Requirements	Please refer Annexure
Compliance sheet for Technical Requirements	Please refer Annexure

k) Bidder's financial Proposal shall comprise the financial quote submitted in the excel template published along with these Request for Proposals.

Financial Proposal

The Bidder shall use the financial proposal template uploaded along with this RFP for preparation of their financial proposal. The Bidder shall enter the remuneration and reimbursable rates along with applicable taxes. The Bidder shall quote the price in INR only.

3.2 Period of Validity of Proposals

a) Proposals shall remain valid for a period of 180 days from the deadline of submission of Proposals unless otherwise specified in the **Data Sheet**.

b) In exceptional circumstances, prior to the expiration of the Proposal validity period, the Client may request Bidders to extend the period of validity of their Proposals. The request and the responses shall be made in writing. A Bidder may refuse the request without any penal repercussions. A Bidder granting the request shall not be required or permitted to modify its Proposal.

3.3 Format and Signing of Proposals

a) Documents establishing Bidder's eligibility shall be compiled into a single PDF file. All pages in the document should be serially numbered and an index specifying contents of the Proposal should be populated at the beginning of the document.

b) The technical Proposals comprising all documents specified under ITB Clause 10 a) may be compiled into a single PDF document. All pages in the document should be serially numbered and an index specifying contents of the Proposal should be populated at the beginning of the document.

c) Authorized signatory of the Bidder shall sign, either physically or digitally, on each page of the Proposal. This signature should be accompanied by Bidder's official seal.

d) The financial Proposal must be submitted in the MS excel template provided with the Request for Proposals. Any financial quotation in Request for Proposal (RFP) will result in disqualification of the bid.

4. Submission and Opening of Proposals
4.1 Sealing, Marking and Submission of Proposals

a) Bidders shall submit their pre-qualification (eligibility) documents as well as the technical and financial proposals online.
b) Online submission of Proposals shall be carried out in accordance with the instructions given under Annexure I.

4.2 Deadline for Submission of Proposals

a) Proposals must be received by the Client online on the e-procurement portal no later than the date and time specified in the **Data Sheet**.

b) The date of submission and opening of Proposals shall not be extended except when:
   - ➢ sufficient number of Proposals have not been received within the given time and the Client is of the opinion that further Proposals are likely to be submitted if time is extended; or
   - ➢ the Request for Proposals are required to be substantially modified as a result of discussions in pre-Proposal meeting or otherwise and the time for preparations of Proposals by the prospective Bidders appears to be insufficient for which such

extension is required.

c) In cases where the time and date of submission of Proposals is extended, an amendment to the Request for Proposals shall be issued.

4.3 Late Proposals

The e-procurement portal does not permit late submission of Proposals.

4.4 Opening of Proposals

a) The pre-qualification (eligibility) documents and the technical proposals shall be opened online on the date and time stipulated in the **Data Sheet**.

b) After due evaluation of the technical Proposals, the Client shall notify the technically qualified Bidders regarding the date of financial Proposal opening by giving at least 3 days' advance notice on the e-procurement portal.

c) The financial Proposals of only technically qualified Bidders shall be opened.

5. Evaluation and Comparison of Proposals

5.1 Confidentiality

a) Information relating to the evaluation of Proposals and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the bidding process until the same is published officially on the e-procurement portal for information of all Bidders.

b) Any effort by a Bidder to influence the Client in the evaluation or contract award decisions may result in the rejection of its Proposal.

5.2 Preliminary Examination of Proposals

a) The Proposal Evaluation Committee constituted by the Client shall conduct a preliminary scrutiny of the opened Proposals at the beginning to assess the prima-facie responsiveness and record its findings thereof particularly in respect of the following:
  ➢ that the Proposal is complete and duly signed by authorized signatory;
  ➢ that the Proposal is valid for the period, specified in the Request for Proposals;
  ➢ that the Proposal is unconditional and that the Bidder; and
  ➢ any other specific requirements put forth in the Request for Proposals.

b) Proposals failing to meet these preliminary requirements shall be treated as non-responsive and shall not be considered further for evaluation.

5.3 Immaterial non-conformities

a) The Proposal Evaluation Committee may waive non-conformities in the Proposal that do not constitute a material deviation, reservation or omission and deem the Proposal to be responsive;

b) The Proposal Evaluation Committee may request the Bidder to submit necessary information or documents which are historical in nature like audited statements of accounts, tax clearance certificate, PAN, etc. within a reasonable period of time. Failure of the Bidder to comply with the request within the given time shall result in the rejection of its Proposal;

c) The Proposal Evaluation Committee may rectify immaterial non-conformities or omissions on the basis of the additional information or documentation received from the Bidder.

5.4 Determination of Responsiveness

a) The Proposal Evaluation Committee constituted by the Client shall determine the responsiveness

of a Proposal to the Request for Proposals based on the contents of the Proposal submitted by the Bidder;

b) A Proposal shall be deemed to be substantially responsive if it meets the requirements of the Request for Proposals without any material deviation, reservation, or omission where: -
    i.   "deviation" is a departure from the requirements specified in the Request for Proposals;
    ii.   "reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Request for Proposals; and
    iii.   "omission" is the failure to submit part or all of the information or documentation required in the Request for Proposals.

c) A "material deviation, reservation, or omission" is one that, if accepted, shall:-
    i.   Effect in any substantial way the scope, quality, or performance of the subject matter of procurement specified in the Request for Proposals; or
    ii.   Limit in any substantial way, inconsistent with the Request for Proposals, the rights of the Client or the obligation of the Bidder under the proposed contract; or
    iii.   If rectified shall unfairly affect the competitive position of other Bidders presenting responsive Proposals;

d) The Proposal Evaluation Committee shall examine the technical aspects of the Proposal in particular to confirm that all requirements of Request for Proposals have been met without any material deviation, reservation or omission;

e) The Proposal Evaluation Committee shall regard a Proposal as responsive if it conforms to all requirements set out in the Request for Proposals, or contains minor deviations that do not materially alter or depart from the characteristics, terms, conditions and other requirements set out in the Request for Proposals, that is, there is no material deviation, or if it contains errors or oversights that can be corrected without any change in the substance of the Proposal;

f) Proposals that are not responsive or contain any material deviation shall be rejected. Proposals declared as non-responsive shall be excluded from any further evaluation.

5.5 Non-conformities, Errors and Omissions

a) Provided that a Proposal is substantially responsive, the Proposal Evaluation Committee may waive any nonconformity in the Proposal.

b) Provided that a Proposal is substantially responsive, the Client, being DGS or authorized representative may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Proposal related to documentation requirements. Such omission shall not be related to any aspect of the price of the Proposal. Failure of the Bidder to comply with the request may result in the rejection of its Proposal.

c) Provided that a Proposal is substantially responsive, the Proposal Evaluation Committee shall rectify quantifiable nonmaterial nonconformities related to the Proposal Price. To this effect, the Proposal Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non- conforming item or component.

5.6 Evaluation of Proposals

a) Technical evaluation of proposals shall be carried out based on the criteria stipulated under 'Section 4 – Evaluation Criteria'. The evaluation committee shall not adopt any other criteria other than the ones already stipulated in the Request for Proposals.

b) The evaluation of financial Proposal will shall be including GST.

c) The Client's evaluation of a proposal may require the consideration of other factors, in addition to the Bidder's financial offer. These factors may be related to the characteristics, performance, and terms and conditions of Consultancy Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of Proposals, shall be specified in 'Section 4 - Evaluation Criteria'.

d) Bidders shall be asked to deliver presentation on their technical proposals as per the details provided in the **Data Sheet**. This presentation shall only cover contents of the technical proposals submitted by the Bidder. No marks shall be assigned to the presentation. The objective of the presentation round is to summarize the contents of Bidder's technical proposal for better understanding of the evaluation committee.

5.7 Right to Accept Any Proposal and to Reject Any or All Proposals

The Client reserves the right to accept or reject any Proposal, and to cancel / annul the Bidding process and reject all Proposals at any time prior to contract award, without thereby incurring any liability to the Bidders for which the Client shall keep record of clear and logical reasons properly for any such action / recall of Bidding process. In case of cancellation / annulment, all Proposals submitted and specifically, Proposal securities, shall be promptly returned to the Bidders

6. Award of Contract

6.1 Award Criteria

The Bidder obtaining the highest combined evaluation score i.e. sum of weighted technical and financial scores shall be considered for award of contract (in case of QCBS evaluation)

6.2 Notification of Award

a) Prior to the expiration of the period of Proposal validity, the Client shall notify the successful Bidder, in writing, that its Proposal has been accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the accepted contract price. The expected date of award of contract is as stipulated under **Data Sheet**.

b) Until a formal Contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.

6.3 Other Statutory Requirements

Successful Bidder shall be required to fulfill insurance and other statutory requirements including submission of signed undertakings assuring compliance with the various standards stipulated in the conditions of contract. Failure of the successful Bidder to submit the same shall constitute sufficient grounds for the annulment of the award. In that event the Client may award the Contract to the next highest evaluated Bidder, whose Proposal is substantially responsive and is determined by the Client to be qualified to perform the Contract satisfactorily.

6.4 Signing of Contract

Promptly after notification of Award, the Client shall send the successful Bidder the Contract Agreement. Within twenty-eight days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Client.

Section 3 – Data Sheet

The following specific data for the Selection of the Bidder to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidder (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB

ITB Para Reference	Particulars
ITB 1b)	The Client is: DGS, Address: _____ The Method of Selection of Bidder is: Quality & Cost Based Selection (QCBS)
ITB 1 d)	The intended completion date is <enter date>
ITB 4	In order to be considered for technical evaluation, the Bidder must satisfy the eligibility requirements stipulated under Section 4.
ITB 6 b)	The official website of DGS is: https://www.dgshipping.gov.in/ The e-procurement portal is: https://eprocure.gov.in/eprocure/app
ITB 7 a)	The Client's address for seeking clarifications is: Directorate General of Shipping, 9th Floor Beta Building,i-Think Techno Campus, Kanjurmarg (East), Mumbai - 400 042 (India) Tel. No.: 91-22-25752040/41/42/43/45 Fax.No. :91-22-25752029/35; Email: dgship-dgs[at]nic[dot]in Primary Custodian:- Sri Amit Verma Mail Id: - amit.v-dgs@gov.in Contact of Primary Custodian: - 7393 031 987 Queries may also be raised by using the 'seek clarifications' option available on the e-procurement portal.
ITB 7 b)	The Bidders may submit their requests for clarification before the seek clarification end date as will be mentioned in the E-Procurement portal.
ITB 8 a)	The pre-Proposal meeting shall be held electronically 15/04/2025; 02:00 PM. **The web-link to attend the pre-Proposal meeting is as follows**: https://tinyurl.com/48rfuf5u

ITB 12 a)	No change. Proposals shall remain valid for a period of 180 days from the deadline of submission of Proposals.
ITB 14	Bid Security / Earnest Money Deposit of INR 12,50,000(Rupees Twelve lakh fifty thousand Only) valid for 90 days in the form of Demand Draft from the date of submission of bid as mentioned in the Scope of Work. Or if the Bidder is exempted from submission of EMD Bid Security Declaration shall be submitted duly signed on the letterhead of the bidder, in pursuance of Govt. of India O.M. No. F.9/4/2020-PPD dated 12/11/2020, as per the format provided. The demand draft shall be drawn in favor of "**Directorate General of Shipping Mumbai**," and shall be payable at Mumbai.
ITB 17 a)	The web-address of e-procurement portal is: https://eprocure.gov.in/eprocure/app The address for submission of hard copies of technical proposal, EMD, Performance Guarantee is: Directorate General of Shipping, 9th Floor Beta Building,i-Think Techno Campus, Kanjurmarg (East), Mumbai - 400 042 (India) Tel. No. : 91-22-25752040/41/42/43/45 Fax.No. :91-22-25752029/35; Email: dgship-dgs[at]nic[dot]in The deadline for submission of Proposals is 03:00 PM on. 05/05/2025
ITB 17 a)	The technical Proposals shall be opened online at 03:00 PM on. 06/05/2025
ITB 23 d)	The presentations shall be held online using Microsoft Teams / offline within a week after opening of the technical proposals. The specific dates, time and meeting links shall be notified by the client on its website i.e. https://www.dgshipping.gov.in/ and also will be communicated via respective emails.
ITB 28 a)	The expected date of award of contract is .

Annexure I - Instructions for Online Proposal Submission

Bidders are required to submit soft copies of their Proposals 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 Proposals in accordance with the requirements and submitting their Proposals online on the CPP Portal.

1. **REGISTRATION**
   i. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link "Online Bidder Enrollment" on the CPP Portal which is free of charge.
   ii. As part of the enrolment process, the Bidders will be required to choose a unique username and assign a password for their accounts.
   iii. 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 CPPP.
   iv. Upon enrolment, the Bidders will be required to register their valid Digital Signature Certificate (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.
   v. 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.
   vi. 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.

2. **SEARCHING FOR TENDER DOCUMENTS**
   i. There are various search options built in the CPP Portal, to facilitate Bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the Bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
   ii. Once the Bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the Bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
   iii. The Bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

3. **PREPARATION OF PROPOSALS**
   i. Bidder should take into account any corrigendum published on the tender document before submitting their Proposals.
   ii. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the Proposal. Please note the number of covers in which the Proposal 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 Proposal.
   iii. Bidder, in advance, should get ready the Proposal documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Proposal documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

iv. 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 Proposal, 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 Proposal, and need not be uploaded again and again. This will lead to a reduction in the time required for Proposal submission process.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Proposal.

4. SUBMISSION OF PROPOSALS

i. Bidder should log into the site well in advance for Proposal submission so that they can upload the Proposal in time i.e. on or before the Proposal submission time. Bidder will be responsible for any delay due to other issues.

ii. The Bidder has to digitally sign and upload the required Proposal documents one by one as indicated in the tender document.

iii. Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.

iv. 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 Proposal 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 Proposal submission time, otherwise the uploaded Proposal will be rejected.

v. Bidders are requested to note that they should necessarily submit their financial Proposals in the format provided and no other format is acceptable. If the price Proposal has been given as a standard BoQ format with the tender document, then 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 Proposal will be rejected.

vi. 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 Proposals by the Bidders, opening of Proposals etc. The Bidders should follow this time during Proposal submission.

vii. 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 Proposal opening. The confidentiality of the Proposals is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done. Any Proposal 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/Proposal opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized Proposal openers.

viii. The uploaded tender documents become readable only after the tender opening by the authorized Proposal openers.

ix. Upon the successful and timely submission of Proposals (i.e. after Clicking "Freeze Proposal Submission" in the portal), the portal will give a successful Proposal submission message & a Proposal summary will be displayed with the Proposal no. and the date & time of submission of the Proposal with all other relevant details.

x. The Proposal summary has to be printed and kept as an acknowledgement of the submission of the Proposal. This acknowledgement may be used as an entry pass for any Proposal opening meetings.

5. ASSISTANCE TO BIDDERS

i. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

ii. Any queries relating to the process of online Proposal submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

Bidders may avail the free training on the use of e-procurement system as per the schedule published at the following link: https://eprocure.gov.in/cppp/trainingdisp. In case of any further queries, please contact Shri Vikram Satre at +91-82865-87409 during office hours i.e. between 10 AM till 6 PM on weekdays.

Section 4 – Evaluation Criteria

This Section contains all the criteria that the DGS shall use to evaluate Proposals and qualify the Bidders. No other factors, methods or criteria shall be used for the purpose of evaluation.

i. The overall objective of this evaluation process is to select the capable and qualified firm in the business domain of developing and rolling out the integrated application, related hardware and other infrastructure, providing associated capacity building, training and handholding support as well as associated managed services and who will provide a comprehensive solution towards Supply, Installation, Integration, Commissioning, Development, Deployment, Operation & Management of the said system and hardware provisioning at DGS.

ii. First the Pre-Qualification Proposal will be evaluated and only those bidders who qualify the requirements will be eligible for next set of evaluations. Technical Proposal and Commercial Proposal of Bidders who do not meet the Pre-Qualification criteria shall not be evaluated.

iii. The technical score of all the bidders would be calculated as per the criteria mentioned below. All the bidders who achieve at least 70% marks in the technical evaluation would be eligible for the next stage, i.e., Financial Bid opening.

iv. Proposals of bidders would be evaluated as per Technical Evaluation Criteria.

1. Assessment of Eligibility

The Bidder's proposals shall be first assessed for eligibility based on the eligibility criteria stipulated below. Only those Bidders who are found to be eligible as per the stipulated criteria shall be considered for evaluation of technical proposals.

i. The prospective Bidders shall enclose documentary evidence in support of the Pre-Qualification Criteria along with the Bid.

ii. An indicative format for the Pre-Qualification Proposal is as follows [Please customize this list on the basis of Pre-Qualification Criteria Finalized below.

iii. Here is the information in a clear tabular format:

EC #	Condition	Criteria	Supporting Document
EC1	Legal Entity	The bidder/Lead Bidder must be: - A private entity (Consulting Company/LLC/LLP/Partnership firm/Society) registered in India under the Companies Act, 1956, 2013, 2020 / LLP Act, 2008 and subsequent amendments. - A public entity (Government-owned enterprise or institution). - A Joint Venture/Consortium (as per Section II: Appendix).	Copy of registration certificate. **To be submitted for:** - Single Bid – Bidder - Consortium Bid – Lead Bidder
EC2	Registration Certification	The bidder/Lead Bidder must have valid registration for GSTIN, PAN, EPF, ESI, Labour, or equivalent issued by the concerned authority/government as applicable.	Copy of registration certificate. **To be submitted for:** - Single Bid – Bidder - Consortium

EC #	Condition	Criteria	Supporting Document
			Bid – Lead Bidder
EC3	Declaration of Insolvency, Bankruptcy, etc.	The bidder/Lead Bidder must not be: - Insolvent, in receivership, bankrupt, or being wound up. - Under court or judicial administration. - Subject to business suspension or legal proceedings for any of the above reasons.	Declaration by authorized signatory. **To be submitted for:** - Single Bid – Bidder - Consortium Bid – All members
EC4	Blacklisting by Govt.	The bidder/Lead Bidder must: 1) Not be declared ineligible / blacklisted /banned / debarred by the Procuring Organization or its Ministry/Department. 2) Not be convicted (within three years preceding EOI submission) or debarred by Government agencies for: - Offenses under the Prevention of Corruption Act, 1988 or other laws. - Offenses causing loss of life/limbs/property or endangering public health. - Suspected disloyalty or National Security risk. 3) Not have changed its name or created a new "Allied Entity" to bypass debarment.	Declaration by authorized signatory. **To be submitted for:** - Single Bid – Bidder - Consortium Bid – All members
EC5	Financial Strength	The bidder/Lead Bidder must have an average annual turnover of at least **INR 10 Crores** in the last three financial years.	Extracts from audited Balance Sheet and Profit & Loss Statements. Certificate from the Statutory Auditor. **To be submitted for:** - Single Bid – Bidder - Consortium – All members jointly
EC6	Compliance	The bidder/Lead Bidder must have **ISO 20000** and **ISO 27001** certifications.	Copy of compliance certificates. **To be submitted for:** - Single Bid – Bidder

EC #	Condition	Criteria	Supporting Document
			- Consortium Bid – Lead Bidder
EC7	Conflict of Interest	The bidder/Lead Bidder must not: - Have a conflict of interest that affects fair competition. - Attempt to induce other bidders to submit or not submit an EOI to restrict competition.	Declaration by authorized signatory. **To be submitted for:** - Single Bid – Bidder - Consortium Bid – All members

2. OEMS's Eligibility Criterion:

i. Eligibility Criteria for OEM of Passive cabling system

Sr. No.	Eligibility Criteria	Compliance (Yes/No)
1	OEM of passive components shall be registered in INDIA.	
2	All LAN component (i.e. items with Sr. no. 6 to 11 in BoQ) shall be from single OEM.	
3	OEM must be EIA/TIA Committee Member.	
4	Data Sheets of all proposed products should be available on the OEM public website. The data sheets provided on the OEM public website and submitted data sheets should be the same.	
5	The OEM of passive products when installed should carry and provide 30 years of end-to-end channel performance warranty.	
6	The product quoted for cabling should be ROHS complied (ROHS logo to be in the data sheet).	
7	The Cabling product quoted should be in accordance latest global standard to EIA/TIA, IEE, ISO/IEC and should be mentioned the data sheet.	
8	OEM of passive components should have valid ISO 9001, ISO 14001 and ISO 45001 certificate on Design, development, and manufacture of solutions for communication networks.	
9	All Product should when delivered to be submitted with FTC (Factory Test Certificates).	

Sr. No.	Eligibility Criteria	Compliance (Yes/No)
10	Given Specifications are Minimum Criteria and OEM/Contractor may suggest products which are at least meeting or exceeding the product specifications.	
11	Note: Failing to comply with any of these terms and condition will lead to rejection of the offer.	

ii. **Eligibility Criteria for OEM of Network Management Solution (NMS):** *(For items with Sr. no.13 in BoQ)*

Sr.No.	Eligibility Criteria	Compliance (Yes/No)
1	The proposed EMS solution should have at least 3 deployments (in state/central Government/ PSU) in India with 10,000 devices being monitored in each of these deployments in the last three (3) financial years excluding the current financial year. Reference PO copy and completion/ sign-off document need to be submitted at the time of submission.	
2	The OEM of the proposed NMS should be "Make In India" company with 100% local content with presence of min. 10 years in the market.	
4	The Proposed OEM of NMS should have at least 150 number of employees working on company payroll and should have TAC in India with toll free number and Ticketing System for technical assistance. OEM need to provide declaration along with details on OEM letter head during bid submission.	
5	The NMS solution and its data store should be virtual appliance and deployable on Linux / Windows operating systems to reduce the overall Total cost of ownership (TCO)	
6	NMS OEM must have average annual turnover of at least INR 20 Cr. or above in last 3 financial years excluding the current financial year with positive net worth. CA certificates need to be submitted at time of bid submission.	

3. Technical Evaluation Process

The evaluation committee shall carry out the preliminary examination of Proposals and shall determine the responsiveness of Proposals based as per the procedure stipulated under ITB.

1. Evaluation Criteria (QCBS)

The DGS shall evaluate the **technical proposals** on the basis of the following criteria:

#	PARAMETER	MAX. MARKS	EVIDENCE TO BE SUBMITTED
A	Bidder Experience	40	

#	PARAMETER	MAX. MARKS	EVIDENCE TO BE SUBMITTED
A.1	System Integration Experience The Bidder / Lead bidder in case of a consortium must have bidder experience of executing IT infrastructure projects for a client in the last 5 years. The implementation must include any 2 of the following: - Third-Party Data Center setup and operations - Training & Capacity Building - Providing Technical Manpower Support - Operation and maintenance services These work orders should be from any State/Central Government Departments / Organizations / Public Sector Undertakings. 2 marks per project (max. 4 projects, 8 Marks). Additional Marks: - For Indian Government / Indian PSU client – 2 Marks per project (max. 4 projects, 8 Marks) - If project value > 5 Crores – 1 Marks per project (max. 4 projects, 4 Marks)	20	Completed Projects: - Copy of work order / MSA / PO and Completion Certificate from the client. - In case of ongoing projects, proof of 80% payment received up to UAT. - Chartered Accountant's certificate confirming project value and payment received. - If under NDA, Company Secretary/certifying authority to provide completion certificate from the client.
A.2	NOC Experience The Bidder / Lead bidder must have experience of successful Go-Live / completed project in NOC infrastructure management in India or abroad in the last 5 years.(From the date of publication of RFP) 2 marks per project (max. 2 projects).	4	Completed Projects: - Copy of work order / MSA / PO and Completion Certificate from the client. - In case of ongoing projects, proof of 80% payment received up to UAT. - Chartered Accountant's certificate confirming project value and payment received. - If under NDA, Company Secretary/certifying authority to provide completion certificate from the client
A.3	Cloud Experience The Bidder / any consortium member should have experience in setting up cloud infrastructure solutions in India in the last	8	Completed Projects: - Copy of work order / MSA / PO and Completion Certificate from the client. - In case of ongoing projects, proof of 80%

#	PARAMETER	MAX. MARKS	EVIDENCE TO BE SUBMITTED
	five years, including procurement, installation, and commissioning of cloud hardware. 4 marks per project (max. 2 projects).		payment received up to UAT. - Chartered Accountant's certificate confirming project value and payment received. - If under NDA, Company Secretary/certifying authority to provide completion certificate from the client
A.4	Bidders must provide ISO 27001 & ISO 20000 certifications valid at the time of bid submission.	8	Valid certification at the date of bid submission. Certificate must remain valid throughout the contract.
B	Resource Requirements	20	
B.1	Project Manager (Full Time) (01 Nos) - BE/BTech/MCA/MTech/MBA with 15+ years of experience. - Must have managed NOC infrastructure projects. Marks based on experience: - >6 Projects – 3 Marks - 5-6 Projects – 2 Marks - 2-4 Projects – 1 Marks - <2 Projects – 0 Marks Additional 2 Marks for PMP/Prince2 Certification.	8	Signed Technical Bid + CVs in prescribed format (refer Profile of resources format)
B.2	Network Architect (01 Nos.) - BE/BTech/MCA/MTech/MBA with 10+ years of experience in IT infrastructure design. Marks based on experience: - >5 Projects – 2 Marks - 3-5 Projects – 1 Marks - <3 Projects – 0 Marks Additional 2 Marks for projects with PSU/Government Bodies. Additional 1 Marks for TOGAF/Zachman certification.	6	Signed Technical Bid + CVs in prescribed format (refer Profile of resources format)

#	PARAMETER	MAX. MARKS	EVIDENCE TO BE SUBMITTED
B.3	**Technical Support Personnel (02 Nos.)** - BE/BTech/MCA/MTech with 8+ years of experience. Marks based on experience: - >8 years – 2 Marks - 6-8 years – 1 Marks - 5-7 years – 1 Marks Marks for NOC infrastructure experience: - >4 projects – 1 Marks - 2-4 projects – 1 Marks - <2 projects – 0 Marks	6	Signed Technical Bid + CVs in prescribed format (refer Profile of resources format)
C	Technical Solution	40	
C.1	Solution Design - Implementation and Operations & Maintenance – 3 Marks - Solution Architecture – 2 Marks - Infrastructure Design – 2 Marks - Project Plan – 3 Marks - External Systems Integration -2 Marks - Project Governance -2 Marks - Change Management & Training - 1 Marks	15	Signed Technical Bid.
C.2	Technical Presentation - Approach & methodology of the proposed solution– 15 marks	15	Presentation to Authorities.
C.3	Compliance to Technical Specifications - Compliance with all technical specifications in the tender – 5 Marks - OEM MAF certification for proposed solutions- 5 Marks	10	Signed Compliance Sheet + OEM MAF.
	Total Marks	100	

Please note that:
All Resources proposed by the Bidder should be Full Time Employee with the Bidder organization for a minimum of 6 months

Bidders are required to use the format provided below and respond to each of the functional requirement, (excluding, sample forms and logic) with one of the below mentioned answer keys:

F = Fully provided "Out-of-the-Box" in proposed product /solution
C = Configuration / Customization required
N = New Development

Sr. No.	Process Type	System Requirement	Response (F/C/N)	Comments (if any)

The Bidders may also add explanatory details as necessary in the "comments" column.

Please note that: Bidders must use only one response code per requirement.

In case of any unanswered response OR more than one response against any requirement it will be treated as "non-response"
While evaluating the key experts' CVs, 20% weightage shall be given for their educational qualifications and remaining 80% for relevance of their work experience. The client reserves the right to assign zero marks to any key expert not meeting the minimum requirements stipulated in the Terms of Reference, and to seek replacement of the proposed key expert with a better qualified expert in case the Bidder is selected for award of contract.

Bidders must ensure that the documentary evidence submitted by them as part of their technical proposal must provide necessary information in adequate details to establish the facts without a scope for doubt. Any scanned documents being submitted must possess adequate resolution to ensure legibility without confusion. In case any information necessary for establishing Bidder's qualifications is not clear from the documents submitted, the evaluation committee's interpretation in that regard shall be final. Incomplete or unclear documents may lead to disqualification of the Bidder.

The minimum qualifying technical score is 70 out of 100. Financial proposals of only those Bidders shall be opened who obtain at least 70 marks in the technical evaluation.

4. **Commercial Bid Evaluation**
   i.   The Financial Bids of technically qualified bidders (i.e., 70% marks) will be opened on the prescribed date in the presence of bidder representatives.
   ii. Only fixed price financial bids indicating total prices for all the deliverables and services specified in this bid document will be considered.
   iii. The bid price will include all taxes and levies and shall be in Indian Rupees and mentioned separately.
   iv. Any conditional bid would be rejected.
   v.   Errors & Rectification: Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail".
   vi. Bidder should provide all prices as per the prescribed format provided in Annexure.
   vii. Bidder should not leave any field blank. In case the field is not applicable, Bidder must indicate "0" (Zero) in all such fields.
   viii. All the prices (even for taxes) are to be entered in Indian Rupees ONLY (%age values are not

allowed)

ix.   It is mandatory to provide breakup of all Taxes, Duties and Levies wherever applicable and/or payable. DGS shall consider all Taxes, Duties & Levies for the purpose of Evaluation

x.   DGS reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated.

xi.   The Bidder needs to account for all Out-of-Pocket expenses related to Boarding, Lodging and other related items in the commercial bids. Any additional charges have to be borne by the bidder. For evaluation of Commercial Bids, the DGS shall make appropriate assumptions to arrive at a common bid price for all the Bidders. This however shall have no co-relation with the Contract value or actual payment to be made to the Bidder

xii.   The price quoted in the Commercial Proposal shall be the only payment, payable by DGS 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 commercial bid or the one agreed between DGS and the Bidder after negotiations.

xiii.   It is mandatory to provide break up of all taxes, duties, and levies wherever applicable and/or payable. The taxes quoted in the offer should be as per the prevailing tax rates. Any subsequent increase in the tax rates or introduction of new tax will be paid by DGS. Similarly, any benefits arising due to downward revision in tax rates, or any exemptions availed by the Bidders organization should be passed on to DGS. The bid amount shall be inclusive of packing, forwarding, transportation, insurance till Go live, delivery charges and any other charges as applicable. Any other charges as applicable shall be borne by the bidder.

xiv.   Percentage (%) of taxes etc. if any, to be claimed shall be indicated in the Price bid, otherwise it will be presumed that rates are inclusive of all taxes and no plea would be accepted in this regard after opening of the tenders and during the validity of the contract.

xv.   The Bidders are advised not to indicate any separate discount. Discount, if any, should be merged with the quoted prices. Discount of any type, indicated separately, will not be considered for evaluation purpose. However, in the event of such an offer, without considering discount, is found to be the lowest, DGS shall avail such discount at the time of award of Contract. For future purposes, Unit prices of all individual components will be discounted accordingly (by the overall discount % in case overall discount % is given or by the individual component discount % in case item wise discount given) to arrive at component-wise unit prices.

5. Appointment of Bidder

5.1 Award Criteria

i.   Evaluation criteria proposed to be adopted will be Quality cum Cost Based System (QCBS) where Technical Bid Score will get a weightage of 70% and Commercial Bid Score a weightage of 30%.

ii.   The bidder would be technically evaluated out of 100 marks. All the bidders who secure overall minimum of 70% (70 Marks out of 100 across all the components together) will be considered as technically qualified. Technical score of all bidders will be calculated based on the following formula:

iii.   Technical Score of bidders (TS) = Technical Marks received by the bidder x 70%

iv.   The Bid having the Lowest Commercial Quote shall be termed as the Lowest Evaluated Bid and will be awarded 100 marks. Commercial score of all the other bidders will be calculated based on the following formula:

v.   Commercial score of bidder (CS) = $\dfrac{\text{Commercial Quote of the lowest bidder} \times 100 \times 30\%}{\text{Commercial Quote of the bidder}}$

vi.   Final Score of the bidder: Final Score of each bidding party will be computed by adding the technical score and Commercial Score on the basis of the following formula:

Total Score = TS + CS

vii.   The bidder whose bid has secured the "Highest Total Score" out of 100 as per above evaluation will be considered as best evaluated Bid. In case of a tie where two or more bidders achieve the same highest overall score, the bidder with the higher technical score will be invited first for negotiations

viii.   DGS is not bound to accept the best evaluated bid or any bid and reserves the right to accept any bid, wholly or in part.

Example demonstrating the calculation of Technical Score and Commercial Scores is provided below:

Bidder	Marks Received by bidder	Technical Score of bidders (TS)
Bidder 1	88	61.6
Bidder 2	90	63
Bidder 3	80	56
Bidder 4	95	66.5

Commercial Score of a bidder (CS) = {lowest discounted quote / Bidder's discounted quote} X 100 (adjusted to 2 decimals)

Bidder	Commercial Quote Provided by Bidder	Calculation of commercial score	Commercial Score of Bidder (CS)
Bidder 1	110	(110/110) *100*30%	30
Bidder 2	140	(110/140) *100*30%	23.57
Bidder 3	160	(110/160) *100*30%	20.63
Bidder 4	130	(110/130) *100*30%	25.39

Total Score for each bidder

Bidder	Technical Score (TS)	Commercial Score (CS)	Total Score
Bidder 1	61.6	30	91.6
Bidder 2	63	23.57	86.57
Bidder 3	56	20.63	76.63
Bidder 4	66.5	25.39	91.89

The bidder with the highest final score shall be treated as the successful bidder. In the above example, Bidder 4 will be treated as successful bidder.

5.2 Right to Accept Any Proposal and To Reject Any or All Proposal(s)

DGS reserves the right to accept or reject any proposal, and to annul the tendering process / Public procurement 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 for DGS action.

5.3 Notification of Award

i.   Prior to the expiration of the validity period, DGS will notify the successful bidder in writing or by fax or email, that its proposal has been accepted. In case the tendering process has not been completed within the stipulated period, DGS may like to request the bidders to extend the validity period of the bid.

ii.   The notification of award will constitute the formation of the contract. Upon the successful bidder's furnishing of Performance Bank Guarantee DGS will notify each unsuccessful bidder and return their EMD.

5.4 Contract Finalization and Award

i.   The written advice to any change shall be issued by DGS to the bidders up to 4 (four) weeks prior to the due date of commencement of services.

ii.   The selected Bidder/s should convey acceptance of the award of contract by returning duly signed and stamped duplicate copy of the award letter within 7 days of receipt of the communication.

iii. Upon notification of award to the successful Bidder, DGS will promptly notify each unsuccessful Bidder.

5.5 Performance Bank Guarantee

DGS will require the selected bidder to provide a Performance Bank Guarantee, within 15 days from the Notification of award, for a value equivalent to 3% of the total bid value and should be valid till 6 months post the Contract Period. The Performance Guarantee shall contain a claim period of three months from the last date of validity. In case the Contract Term is extended, the Performance Bank Guarantee should also be extended within 15 days of approval of contract extension and should be valid till 6 months post the Contract Extension Term. The selected bidder shall be responsible for extending the validity date and claim period of the Performance Guarantee as and when it is due on account of non-completion of the project and Warranty period. In case the selected bidder fails to submit performance guarantee within the time stipulated, DGS at its discretion may cancel the order placed on the selected bidder without giving any notice. DGS shall invoke the performance guarantee in case the selected Bidder fails to discharge their contractual obligations during the period or DGS incurs any loss due to Bidder's negligence in carrying out the project implementation as per the agreed terms & conditions.

5.6 Signing of Contract

After the DGS notifies the successful bidder that its proposal has been accepted, DGS shall enter into a contract, incorporating all clauses, pre-bid clarifications and the proposal of the bidder between DGS and the successful bidder.

5.7 Failure to Agree with the Terms and Conditions of the RFP

i. Failure of the successful bidder to agree with the Draft Legal Agreement and Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event DGS may award the contract to the retender as per CVC guidelines or call for new proposals from the interested bidders.

ii. In such a case, the DGS shall invoke the PBG of the successful bidder.

6. Rejection Criteria

Besides other conditions and terms highlighted in the RFP document, bids may be rejected under following circumstances:

6.1 General Rejection Criteria

i. Bids not qualifying under Pre-qualification criteria.
ii. Bids submitted without or improper EMD
iii. Bids received through Fax / E-Mail except wherever required
iv. Bids which do not confirm unconditional validity of the bid as prescribed in the Tender
v. If the information provided by the Bidder is found to be incorrect / misleading at any stage / time during the Tendering Process
vi. Any effort on the part of a Bidder to influence DGS' s bid evaluation, bid comparison or contract award decisions
vii. Bids received by the DGS after the last date for receipt of bids prescribed by the DGS
viii. Bids without signature of person (s) duly authorized on required pages of the bid
ix. Bids without power of authorization and any other document consisting of adequate proof of the ability of the signatory to bind the Bidder.
x. If it is found that multiple bidders have submitted separate tenders/ quotations under different names of firms/ establishments but with common address for such establishments/ firms, are managed or governed by the same person/ persons jointly or severally, such tenders shall be liable for penal and legal action including blacklisting.
xi. If it is found that firms have tendered separately under different names for the same contract, all such tender(s) shall stand rejected and tender deposit of each such firm/ establishment shall be forfeited. In addition, such firms/ establishments shall be liable at the discretion of the DGS for further penal action including blacklisting.
xii. The Bidders not confirming unconditional acceptance of full responsibility of providing services in accordance with the Scope of work, General Terms & Conditions and Service Level

Agreements of this tender.

xiii. Bidders not complying with the General Terms and conditions as stated in the Tender Documents.

xiv. Failure to furnish all information required by the Tender Document or submission of a bid not substantially responsive to the Tender Document in every respect.

6.2 Technical Rejection Criteria

i. Technical Bid containing commercial details.

ii. Revelation of Prices in any form or by any reason before opening the Commercial Bid

iii. Failure to furnish all information required by the Tender Document or submission of a bid not substantially responsive to the Tender Document in every respect.

iv. Bidders not quoting for the complete scope of Work as indicated in the Tender documents, addendum (if any) and any subsequent information given to the Bidder.

v. Bidders not complying with the Technical and General Terms and conditions as stated in the Tender Documents.

vi. The Bidder not confirming unconditional acceptance of full responsibility of providing services in accordance with the Scope of work and Service Level Agreements of this tender.

vii. If the bid does not conform to the timelines indicated in the bid.

viii. Bidder not complying with the eligibility criteria.

6.3 Commercial Rejection Criteria

i. Incomplete Price Bid

ii. Price Bids that do not conform to the Tender's price bid format.

iii. Total price quoted by the Bidder does not include all statutory taxes and levies applicable.

iv. If there is an arithmetic discrepancy in the commercial bid calculations the bidder shall rectify the same. If the Bidder does not accept the correction of the errors, its bid may be rejected.

v. Financial Bids that are less than 50% of the average bid price will be disqualified. The average bid price is computed by adding all Financial Bid values of ALL the technically qualified bidders and dividing the same by the number of technically qualified bidders.

vi. Bidders not quoting for the complete scope of Work as indicated in the Tender documents, addendum (if any) and any subsequent information given to the Bidders.

vii. Revelation of Prices in any form or by any reason before opening the Commercial Bid

6.4 Constitution of Team

i. Key Personnel involved in the project shall be on the permanent payrolls and have a minimum tenure of six months with the company of the Lead Bidder or any of the consortium members.

ii. The bidder should have a defined hierarchy and reporting structure for various teams that would be part of the project.

iii. All the concerned staff should log an attendance on a daily basis at their respective reporting location.

iv. The bidder shall ensure that all the personnel identified for this project have high level of integrity. The bidder shall undertake necessary due diligence to ensure that the personnel have high standard of trustworthiness. The bidder should obtain an undertaking from each of the personnel assigned and the same should be submitted to the DGS or its nominated agencies/ partners as and when demanded by DGS or its nominated agencies/ partners. In addition, DGS could also get the background verification checks of the bidder personnel. Any information needed for this activity by DGS should be provided immediately by bidder.

v. Bidder can provide additional manpower on the basis of their estimate of effort required to complete the scope of work given in of the tender.

vi. The bidder should provide sufficient Non-Key Personnel to complete the scope of work. Bidder need not submit the names of such Non-Key Personnel along with the tender.

vii. Bidder can offer more than one key personnel for a role to improve the quality of key personnel keeping in mind the scope of work as provided in the tender.

viii. For successful completion and execution of project the bidder shall have to deploy minimum resources as provided in the table below.

ix. The bidder is free to propose and deploy as many resources as possible apart from the below

list for the successful and timely completion of the project. DGS or its nominated agencies / partners will provision space for Bidder personnel in its premises. For the key personnel working out of DGS' / its nominated agencies / partners office, DGS will provide them with basic office infrastructure like seating space, fan, etc. The bidder team is expected to bring their own laptops and data cards (as required).

Sr. No.	Level	Min. No. of People
1.	**Project Manager:** Qualification: BE / B. Tech / MCA / M. Tech / MBA Experience: 10 years and above experience of implementing end to end Projects. The implementation must include any 2 of the following: • IT infrastructure installation, commissioning and maintenance • Network Operation Center setup and operations • Network Setup and Management • Operation and maintenance services • Training & Capacity Building Certifications: PMP / PRINCE2® / CSM / ITIL, or any other relevant	1
2.	**Network Architect:** Qualification: Any Graduate. A bachelor's degree in computer science or information technology is preferred but not mandatory. Experience: 8 years and above experience, proficiency in network design, protocols, and infrastructure, such as LAN/WAN, SDN, and cloud networking. Familiar with IPv4/IPv6, QoS, MPLS, and BGP, hands-on experience with Routers, Network Switches, Firewalls, etc. Certifications: CCNA / CCNP / CISSP, or any other relevant	1
3.	**Technical Support Personnel:** Qualification: Diploma or Associated degree in IT, Computer Science or a related field. Experience: 5 years and above experience, proficiency in troubleshooting, configuring and maintaining network devices. Proficiency with network management and monitoring tools. Certifications: CCNA / CompTIA Network+, or any other relevant	2

Section 5 – Terms of Reference

1. Organizational Background of DGS

The Directorate General of Shipping (DGS), an attached office of the Ministry of Ports, Shipping and Waterways, Govt. of India, deals in matters relating to merchant shipping. The DGS deals with all matters concerning the Maritime Administration, Maritime Education and Training, development of Shipping Industry and other related subjects.

This Directorate deals with implementation of shipping policy and legislation so as to ensure the safety of life and ships at sea, prevention of marine pollution, promotion of maritime education and training in co-ordination with the International Maritime Organization, regulation of employment and welfare of seamen, development of coastal shipping, augmentation of shipping tonnage, `ination and certification of Merchant Navy Officers, Supervision and Control of the allied departments and officer under its administrative jurisdiction.

The details about DGS and its functions are available at website https://www.dgshipping.gov.in

2. Scope of Work:

Bidder needs to design, implement and operate the DGS network infrastructure on turnkey basis. Bidder needs to do the appropriate solution design and sizing for the project as per the scope of work and other terms and conditions of the RFP. In case bidder has not considered any component/service which is necessary for the project requirement, the same needs to be brought by the Bidder at no additional cost to DGS. The scope includes:

i. The Bidder will review existing DGS LAN configurations for performance issues and plug the gaps if any.

ii. Procurement/Supply of Network infrastructure components as per indicative bill of materials mentioned in the RFP.

iii. Designing, Deployment, Implementation, Operationalization and Maintenance of Network infrastructure.

iv. The selected Bidder(s) to undertake installation, configuration, maintenance & support of Network equipment procured through this RFP.

v. The selected Bidder to provide equipment/component at the contracted rate during period of contract as per terms of RFP.

vi. The selected Bidder to execute activities related to network tuning during its implementation & configuration so that DGS network is free from performance issues even during O&M period as per SLA.

vii. Bidder shall provision manpower for DGS to support their ongoing operations during the Implementation, Operations and Maintenance phase of the project.

viii. The purpose behind issuing this RFP is to invite technical and commercial bids for selection of service provider for providing Network equipment, its implementation and support service as defined in this document.

ix. It may also be noted that all the activities in the Network and IT operation are subject to audit /inspection by DGS appointed Authorities/Auditors.

2.1 Network Infrastructure Design, Installation, Configuration, and Implementation

i. Bidder shall carry out a detailed assessment of the LAN, internet connectivity and Internet leased line networking requirements considering sufficient redundancy of the proposed system with respect to the scope of work.

ii. Offices and selective DGS officials will access the systems for accessing the services. Such access would be through the intranet of the DGS.

iii. Officials as may be authorized by DGS shall be allowed to access the systems or its components including databases, subject to such rights & privileges as DGS may decide from time to time for the purpose of testing, audit, certification, review, inspection etc.

iv. The key expectation from bidder in setting up a robust networking infrastructure for DGS including passive network optimization of existing setup within DGS.

v. Bidder is encouraged to carry out a site visit of key DGS offices and locations in order to understand the existing network infrastructure setup.

vi. The bidder will be responsible for the supply of the cabling and associated hardware as part of this scope. All hardware required (including, but not limited to. copper cable, optical fiber cable, connectors, cabinets, patch and fly leads, patch panels etc.) shall be supplied by the bidder to perform all activities in relation to the design, construction, implementation, and maintenance of this hardware as outlined below.

vii. Bidder shall install, commission and / or configure the supplied / existing infrastructure at DGS for optimum working with performance of the proposed solution.

2.2 Bidder will carry out site survey.

Before execution of the work, the bidder shall carry out the required survey of the routes for network infrastructure at DGS Building at no additional cost. The bidder shall prepare the survey report of these routes, furnishing all distances, details regarding position of joint boxes, etc. The survey report shall have to be submitted by Bidder to DGS for approval and requisite clearances need to be obtained before the work is commenced.

i. Examine existing cable pathways and their suitability for use.

ii. Identify new or modified cable pathways that would be required at DGS, particularly ones that relate to the backbone connectivity.

iii. Examine suitability of any existing backbone and distribution cabling for use of DGS.

iv. Present all documentation generated out of thus carried out survey to DGS and relevant stakeholders.

2.3 Technical Design Drawings

i. The bidder shall produce detailed documentation, design calculations and technical design drawings for the DGS campus.

ii. Bidder drawings shall be created using computer aided design (CAD) software enabling the accuracy and flexibility required for this project.

2.4 Cable Installation general guidelines

i. Cabling Systems shall only to be installed by properly qualified and experience personnel in a professional and tradesman like manner.

ii. All installation methods, standards of workmanship and equipment supplied shall fully comply with the technical procedures, practices, specifications and standards published in conjunction with the planning and installation guidelines published or established by the Cabling Systems equipment manufacturers.

iii. The bidder shall consult with relevant parties, including (as a minimum) the relevant DGS official who shall be responsible for approving the design, scope of works and installation schedule prior to any works commencing.

iv. Optical Fiber Cables (hereinafter referred to as OFC) shall also be installed in designated cable pathways provided by DGS.

v. It is the responsibility of the bidder to ensure that cable pathways provided by DGS are adequate for the installation work.

vi. Prior to installation the bidder shall inspect all cable pathways and notify DGS if they are not free of burrs and sharp edges.

vii. At no time shall the cabling bidder penetrate walls, ceiling tiles or other permanent infrastructure without the written approval of DGS.

viii. Cables emanating from equipment cabinets and/or equipment racks shall be neatly loomed in the cabinet. All cable looms shall be installed towards the rear of the rack.

ix. All cabling shall be installed in a neat manner and run in an inconspicuous manner. Approved

cable fasteners shall be used at intervals for all OFC cabling.

x. Where cabling is run through a false (suspended) ceiling it shall be supported by means of suspension, from purpose installed flat cable trays or by one or more catenary cables. Fixing of the cable tray and/or catenary shall be directly to the walls and slab above. Under no circumstances are cable tray and catenary to be secured to any other fittings.

xi. DGS must be consulted for any circumstance where cabling cannot be located in building spaces.

xii. All cabling shall be adequately protected from damage, not run through hazardous environments, away from hot water and heating pipes, flues or chimneys and power sources.

xiii. All cable runs shall be continuous between the termination points specified. No joints, splices, junctions, or similar are permitted except for specific requirements identified within the detailed design documentation. All Unshielded twisted pair (hereinafter referred to as UTP) cabling, terminations, jumpering, and/or patching shall be at the chosen manufacturers' distribution frames.

xiv. The installation of all cables shall be in accordance with the installation requirements of the cable manufacturer with specific reference to cable bend radius, pulling and static, and maximum pulling tension.

xv. OFC shall not be installed under residual tension or pressure except as required to secure to cable tray or catenary cable.

xvi. Inter-building pathways may be underground, buried and aerial. Segregations must comply with applicable international standards. Installation on cable pathways where segregation standards cannot be achieved shall not be used.

xvii. Where cable is run in an exposed area, it shall be enclosed in PVC ducting or conduit. External grade cable must be used where appropriate in accordance with applicable international standards.

2.5 Optical Fiber Cabling guidelines:

i. All OFC should be selected based on internationally accepted standards and appropriate for their intended use (whether multi-mode or single-mode type).

ii. OFC shall be clearly marked as such to distinguish them from other cables. Such marking may include tracer marking on the sheath and/or distinctive sheath colors.

iii. Provision is to be made for an additional 3 meters of cable (looped) at the end of each cable run, to provide additional cable for unscheduled fiber cable re-termination. This spare cable shall be provided within the point of presence typically in the FOBOT at both ends of the link.

iv. Cable looping shall not exceed the manufacturer's minimum bend radius requirements. The bidder must conduct an audit and notify DGS if any protective ducting or enclosures are not suitable to ensure all optical fiber cables shall be protected from breakage or stress.

v. All fittings, accessories and associated works for proper and safe installation of fiber assets to be taken into consideration by the Bidder.

vi. Laying, jointing, live line installation, testing and commissioning of all optical fiber and its accessories

vii. All connectors shall be supplied with protective caps.

viii. Where the fiber is run through external conduit and pit systems, there shall be an allowance of 2 meters of fiber looped within the first pit located closest to the communications cabinet or originating end, and an allowance of 2 meters looped within the final pit before the termination point.

ix. OFC shall be terminated with SC type fiber connectors.

x. Network equipment that uses Small Form Factor (hereinafter referred to as SFF) optical connectors shall be interfaced to the SC connectors at the patch panel using optical patch cords to provide adaptation between SC and the particular SFF connector.

xi. The OFC end-to-end loss shall not exceed 0.25db/Km at 1550 nm and 0.40 dB/Km at 1310 nm.

2.6 Copper Cable cabling guidelines:

i. The cable used for permanent and overlay distribution cabling installation shall be UTP Category 6 (hereinafter referred to as CAT6) cable for data applications.

ii.   To provide an allowance for cable re-termination at some future time, provision is to be made for an additional 1 meter of cable to be looped at each end of each cable run. This spare cable shall be provided within the communications cabinet and also within the area located at the outlet position, typically in the ceiling space or under floors.

iii.   Bidder to provide fluke test report for copper cable installations.

2.7 Labels and Marking

i.   All outlets, patch panels and cables (including backbone copper and OFC) shall be systematically and permanently labelled. OFC shall be labelled in accordance with relevant standards to indicate the potential hazardous light source.

ii.   The labelling format must be uniform across all DGS locations and agreed in writing by DGS prior to the commencement of installation works. It is expected that all outlets will be labelled with the distribution point identifier, unique number, and usage signifier: 'DA' for data.

iii.   A schematic diagram showing the arrangement of circuit groups for the distribution frames shall be provided.

iv.   Labels for cables and cable cores, as applicable, shall be computer generated using a system used for equivalent works. The marking system characters shall be sized to suit the cable and the amount of text required for proper and legible identification.

v.   Labels for the enclosures and outlets shall be machine generated permanent labels clearly indication the service contained within that enclosure. All hazard identification labels shall be affixed to relevant enclosures.

vi.   For outlets, the label shall be clearly visible and securely mounted to the outlet surface box as applicable. Each outlet shall be identified by a color bezel corresponding with the cabling color.

vii.   All labels must be clearly visible.

2.8 Installation testing

i.   The installation of all Cabling Systems shall be thoroughly tested to ensure the as-built performance meets the requirements specified within the detailed design document and such other specifications referenced either explicitly or implicitly.

ii.   Testing is to be conducted in accordance with industry standard testing and expectations.

iii.   The bidder shall supply all labour, materials and equipment required for fully testing and commissioning the installation.

iv.   All optic fibre links shall be tested with an approved Light Loss Power Meter. The length/loss method of loss calculation shall be used to calculate the total loss value using the values consistent with international standards.

v.   Test reports (in original form i.e. not presented in MS Word) must be submitted to DGS within two days of test completion.

vi.   The installation shall not be deemed complete until all wiring and equipment supplied by the bidder has been checked and tested to the satisfaction of DGS.

vii.   Any structure, permanent or temporary, dismantled or destroyed during the execution of the work shall be refilled/remake or restore to its original condition by the bidder at his own cost.

viii.   Detailed Bill of material included in this tender. However, DGS reserves the right for quantity variation due to increase/decrease in requirements. The bidder shall also provide all required equipment which may not be specifically stated herein but are required to meet the intent of ensuring completeness, maintainability and reliability of the total system covered under this specification.

ix.   The firm should satisfy themselves of the prevailing conditions (corrosion, power surge, rodents' intrusion etc.) in the DGS and should guarantee and ensure that the equipment's would work / be made to work in case of any failure during the contract period.

2.9 Implementation of NMS and establishment of NOC

The primary role of a NMS is to facilitate the effective and efficient oversight of individual components within a larger network framework, and NOC is a centralize location where IT / EDP division can monitor, manage, and maintain company's network infrastructure. It shall present a Consolidated Operating Picture of the real time events in the area of purview. The responsibility of providing the space for Network Operation Centre, Desk and seating arrangements, Air Conditioners, and necessary electrical connectivity lies with DGS. Bidder is responsible to implement and establishment of the following features at NOC but not limited to:

i. Continuous surveillance of network traffic, performance metrics and overall health of network. Ensuring network performance meets the required service levels.
ii. Detecting, diagnosing, and resolving network incidents. Providing support to users and resolving technical issues with identifying the underlying causes of network problem to prevent future occurrences.
iii. Generation regular reports on network performance, incidents, and uptime. Analyzing data to predict potential issues and optimize network performance.
iv. The bidder is expected to integrate the existing Routers, Firewalls, and Wireless devices into NMS to ensure comprehensive management.
v. Bidder to make necessary arrangements for DGS NOC certification for IT service management i.e. ISO/IEC 20000.

2.10   NMS Key Highlights:

i. Unified console for network management, flow & log monitoring
ii. ITIL / ITSM compliant processes - Incident, Problem, Change, Knowledge, Service Catalogue, Asset Management
iii. Provide Early warning on Performance issues
iv. Capacity management and augmentation
v. Supports multi-tenancy
vi. Notification via email, SMS and provision to interface
vii. Risk Visibility Dashboards
viii. Supports Fault, Configuration, Accounting, Performance, and Security (FCAPS)
ix. Supports IPv4 and IPv6
x. Packet loss monitoring
xi. Support Traps and Alarms
xii. Different Management modules
xiii. Enforce Policies for remediation
xiv. Link up/down (real-time as well as periodic)
xv. Supports SNMP traps and syslog
xvi. Web based intuitive & user-friendly GUI for NMS and Help-desk
xvii. Multiple concurrent Admin web sessions
xviii. Network Topology View
xix. Alarm/Event Suppression
xx. NMS Security Management capability
xxi. Pro-actively Troubleshoot & Reduce Downtime
xxii. Predefined & customized reports
xxiii. Correlate, integrate & visualize all sort of IT data from a single platform

2.11   Log Management:

Collect, consolidates, indexes, stores any log and machine generated data, whether structured or unstructured. The data is then used to search, correlate, analyze and report any operational or security related issues in the network quickly.

Key Highlights:

i. Manage security breaches with Security Forensic Analytics Detect and manage policy violations

ii. Retain larger volume of raw log data
iii. Unified data modelling to structure different log formats
iv. Use pre-built patterns to customize notifications
v. Drill-down conversion from data model mapping
vi. Analyse machine data to identify trends and unleash undiscovered insights
vii. Detect and identify operational and configuration issues immediately

2.12 Application Flow Monitoring:

Monitoring network traffic from network devices supporting NetFlow v5 and v9, sFlow, jFlow and IPFIX etc. It helps you get deep-level invaluable insights about how network is being used to identify abnormal traffic patterns, applications/users causing network traffic performance issue and to fight potential threats proactively.

Key Highlights:
i. Investigate critical transaction down to the deepest level
ii. Retain unique transaction between IP to IP and IP to application.
iii. Application-centric traffic analysis
iv. End-to-end network traffic monitoring
v. Capture, view, log and analyze all conversation
vi. Gain deep level insights into bandwidth usage & traffic patterns Identify user, application or network element consuming maximum bandwidth
vii. Network traffic visibility in real-time to keep network under control

2.13 Network backbone infrastructure management.

i. List of items to be handed over to purchaser / designated authority before handing over the respective section / location for maintenance of optical fiber communication system.
ii. The Cable Route Plan in electronic form preferably using AUTOCAD. Distances from fixed reference structures like Centre of track, bridges, culverts, etc. shall be indicated in the route plan for easy reference in future.
iii. The Fiber Distribution Plan
iv. Measurements of Optical Parameters that includes sectional losses splice wise losses; records of dispersion measurement shall be handed over to the maintenance organization.
v. Bidder shall prepare maintenance schedule for fiber optic system. Reports on adherence to the maintenance schedule shall be submitted as part of SLA compliance along with quarterly invoices. This maintenance which shall include but not be limited to following areas:
- Optical fiber cable
- Cable route
- Integrity of cable route
- Cable route markers
- Earthing of sheath of cable

2.14 Typical Network Infrastructure Management Services at all locations shall include:

i. Bidder shall ensure that the network is available 24x7x365 as per the prescribed SLAs.
ii. Bidder shall provide services for management of network environment to maintain performance at optimum levels.
iii. Bidder shall be responsible for attending to and resolving network failures and snags.
iv. Bidder shall support and maintain overall network infrastructure.
v. Bidder shall provide information on performance of Ethernet segments, including capacity utilization and error statistics for the segment and the top-contributing hosts, WAN links and routers.
vi. Bidder shall create required facilities for providing network administration services including administrative support for user registration, creating and maintaining user profiles, granting

     user access and authorization, providing ongoing user password support, announcing and providing networking services for users.

vii.   Bidder shall provide a single-point-of-contact for requesting any service. The Network Administrator shall respond to the initial request from the user groups within the agreed service levels and service coverage hours.

viii.   Bidder shall provide support as required to assist in hardware and software problem isolation and resolution in the LAN/WAN environment.

ix.   Bidder shall perform LAN/WAN problem determination.

x.   Bidder shall maintain LAN/WAN configuration data.

xi.   Bidder shall be responsible for polling / collecting of network devices security logs from all the systems. All these logs shall be made available to the NMS solution.

2.15   NOC Site preparation (Civil, Electrical, Mechanical, Others):

The allocated space will be provided to the Bidder on as –is where -is basis within the DGS HO. Currently DGS has one server room (6 feet x 14 feet) equipped with three numbers existing 42U rack. The Bidder shall provision all items and facilities to setup NOC facility centres as per the Bill of Materials provided.

Detailed site preparation drawings:

Architectural drawings
- All floor plans, elevations and sections
- Integrated service drawings showing electrical, air-conditioning, fire-detection systems
- Details of built-in furniture
- Location of Furniture/ Electrical & Electronics/Hardware/ Racks/Other components

Electrical Drawings
- Internal and external electrical layout showing the distribution systems, emergency circuits, Power/Plug points, etc. The internal electrical layout should be integrated with furniture and air conditioning system also
- Design of electrical back up (UPS / Diesel generator sets)
- Location of Furniture/ Electrical & Electronics/Hardware/ Racks/Other components

Network Drawing
- Network and Telecommunication Layout

General requirements:

i.   Electrical work and point wiring within centres

ii.   Electrical connection (last mile) from main tap off point confirmed by DGS

iii.   Light fixtures and lighting arrangements at the centres

iv.   Electrical fit outs in NOC area and at workstations

v.   Wooden / Gypsum / Glass / Aluminium partitions at required places

vi.   Anti-static Flooring and False celling

vii.   Civil works with respect to internal setup of the facility.

viii.   Patch work in the walls, window and door

ix.   Painting of walls, windows and doors

x.   Curtains or Blinds for windows

xi.   Furniture at workstations, and other required places.

xii.   Cabling work within the NOC facility centres

xiii.   Implementation of CCTV and access control system with required infrastructure for specific locations

xiv.   Hardware /Network fittings to keep the centre ready for operation

xv.   Ergonomic design and colours for furniture and other items, walls / ceilings color etc.

xvi.   Interior plants to form green zones in the facility.

xvii.   Appropriate signage at appropriate locations within the NOC facility.

2.16 Annual Maintenance Contract

i. Post go-live and stable operations, Bidder is expected to provide operations and maintenance services for the entire solution deployed for a period as defined. This includes Bidder to Manage Operations and Maintenance (O & M) of network infrastructure and associated network components:

ii. The bidder should enter into a comprehensive AMC for 3 years from the date of expiry of the warranty period of 1 year (from the date of Final Acceptance Test of the Networking infrastructure).

iii. Provision, deployment and supervision of personnel required at DGS for the operational support to the envisaged system.

iv. Obtain relevant Certifications and adherence to respective Industry Standards as detailed later in this RFP.

v. Networking system should be up for more than 99% in a Quarter.

vi. In case the system downtime is less than 99% in a quarter, a penalty as admissible will be imposed. Please refer to the Service Level Agreement (SLA) section in the RFP.

vii. Uptime for a quarter is calculated as under:

viii. 24 Hrs X 90 days (in a quarter) = 2160 Hours

ix. The cost of the repairing or replacement of faulty part/component/device during AMC period of 03 (Three) years has to be entirely borne by the Bidder.

x. All expenses related to part/component/device, including hiring of specialized technical expertise, in case required, has to be borne by the Bidder during AMC period.

xi. The Bidder also has to make alternate arrangement in case of major failure happening in the network, due to which services may be affected for longer period. After repairing or replacement of the part/component/device, the Bidder needs to put the same into operation.

xii. All the Hardware problems should be resolved immediately. In case of replacement of the Spares, a spare with similar configuration or a spare of Higher configuration (at no extra cost) should be provided.

xiii. The AMC is comprehensive, covering all repairs and replacements.

xiv. Network backbone infrastructure management.

xv. The Cable Route Plan in electronic form preferably using AUTOCAD.

xvi. Bidder shall prepare maintenance schedule for fiber optic system. Reports on adherence to the maintenance schedule shall be submitted as part of SLA compliance along with quarterly invoices. This maintenance which shall include but not be limited to following areas:

- Optical fiber cable
- Cable route
- Integrity of cable route
- Cable route markers

xvii. Bidder shall ensure that the network is available 24x7x365 as per the prescribed SLAs.

xviii. Bidder shall provide services for management of network environment to maintain performance at optimum levels.

xix. Bidder shall be responsible for attending to and resolving network failures and snags.

xx. Bidder shall provide information on performance of Ethernet segments, including capacity utilization and error statistics for the segment and the top-contributing hosts, WAN links and routers.

xxi. Bidder shall provide a single-point-of-contact for requesting any service. The Network Administrator shall respond to the initial request from the user groups within the agreed service levels and service coverage hours.

xxii. Bidder shall provide support as required to assist in hardware and software problem isolation and resolution in the LAN/WAN environment.

xxiii. Bidder shall perform LAN/WAN problem determination.

xxiv. Bidder shall maintain LAN/WAN configuration data.

xxv. Manage entire project from conceptualization to operationalization and maintenance as well as subsequent transfer of infrastructure/ applications and handholding for a period of six months from the end of this contract.

xxvi. Defining exit management program and knowledge transition to respective DGS officials through document and appropriate skill training (i.e. LMS).

2.17 Manpower Support Services

Onsite manpower support to be provided by the Bidder in terms of Technical Support personnel (Network Engineer) for warranty period and AMC period. The Technical support person should have a Diploma or Associated degree in IT, Computer Science or a related field, 5 years and above experience, proficiency in troubleshooting, configuring and maintaining network devices. Proficiency with network management and monitoring tools. Technical support personnel must be available on site during working hours on all weekdays or at a mutually agreed time. Following are the responsibilities of technical support personnel but not limited to.

i. Provide support to all Network related issues related to DGS office connectivity within dedicated campus.

ii. Continuous monitoring of NMS and ITSM tools.

iii. Address all network related issues raised via ITSM tool.

iv. Responsible for providing Level 2 support immediately. In case of major hardware failure raise ticket with respective hardware OEMs.

Sr. No.	Level	Min. No. of People
1.	Project Manager: Qualification: BE / B. Tech / MCA / M. Tech / MBA Experience: 10 years and above experience of implementing end to end Projects. The implementation must include any 2 of the following: IT infrastructure installation, commissioning and maintenance Network Operation Center setup and operations Network Setup and Management Operation and maintenance services Training & Capacity Building Certifications: PMP / PRINCE2® / CSM / ITIL, or any other relevant	1
2.	Network Architect: Qualification: Any Graduate. A bachelor's degree in computer science or information technology is preferred but not mandatory. Experience: 8 years and above experience, proficiency in network design, protocols, and infrastructure, such as LAN/WAN, SDN, and cloud networking. Familiar with IPv4/IPv6, QoS, MPLS, and BGP, hands-on experience with Routers, Network Switches, Firewalls, etc. Certifications: CCNA / CCNP / CISSP, or any other relevant	1
3.	Technical Support Personnel: Qualification: Diploma or Associated degree in IT, Computer Science or a related field. Experience: 5 years and above experience, proficiency in troubleshooting, configuring and maintaining network devices.	2

Sr. No.	Level	Min. No. of People
	Proficiency with network management and monitoring tools. Certifications: CCNA / CompTIA Network+, or any other relevant	

2.18 Other expectations for Bidder

i. The technical specifications are the minimum requirements of the DGS. The Bidder is at liberty to indicate higher specifications than the minimum level. The DGS reserves the right to place order at the higher specifications offered by the Bidder. Similarly, the support & warranty period is the minimum required. The Tenderer is at liberty to offer a higher support &warranty period, and the Purchaser / Indenter reserves the right to avail of the longer support &warranty period offered.

ii. This is purely work completion contract, it is not a labour contract, In case any mishaps to the worker/s while on duty, DGS not responsible for his or their incident or accident or death or any claim against us.

iii. The site should be completed cleaned of waste material, rubbish etc. and handed over on completion of the site to the DGS.

iv. All the licenses and support should be in the name of DGS.

v. Validate / Assess the re-use of the existing infrastructure and inventory at DGS site.

vi. Bidder is expected to carry out an independent exercise to size the solution and accordingly provision the requirements. Bidder should ensure that all the components are sized adequately, and it should also be noted that Bidder would be responsible for meeting the performance requirements stipulated in the tender, contract and SLA for the entire solution at all times during the currency of the contract.

vii. The work is to be carried out without any hindrance to the regular activities in that area.

viii. Bidder should arrange for desktops / workstations, printers and other peripherals and consumables for its team members deployed.

ix. Considering the criticality of the infrastructure, Bidder is expected to design the solution considering of no single point of failure (Critical network infrastructure) with high level of redundancy and resilience to meet the uptime requirements.

x. During the Contract period, all project assets including data and intellectual property should be in safe custody and due reasonable care should be taken on the behalf of the Purchaser to prevent any unauthorized use.

xi. Bidder is expected to make necessary assumptions as per solution being proposed in order to meet requirements of the project and make necessary upward revision in BoM if needed.

3. Existing Network Landscape:

The present network infrastructure design at DG Shipping is dependent on the existing eGovernance System including ePariksha, eOffice, etc. projects. The network landscape details at DG Shipping as follows:

3.1 C-DAC Cloud Infrastructure:
The C-DAC Data Centre in Noida hosts various business applications for DGS, such as existing eGovernance System, ePariksha, BSID, Exit Exam, and eOffice. DGS is also availing Cloud Disaster recovery services from C-DAC.

3.2 Internet Connectivity:
Wide Area Network (hereinafter referred to as WAN): MTNL 100 Mbps internet bandwidth available at DG Shipping for business applications access from C-DAC Cloud Data Centre and internal usage purpose.

3.3 Local network infrastructure:

The Local area Network (hereinafter referred to as LAN) design considered in DGS is "Flat Switched Network (unmanaged)" with CAT6 backbone without redundancy. In flat switched networks, switches are added as more devices needed to be connected. The existing LAN infrastructure also comprising one Wireless Controller for managing 13 nos. Wireless Access Points. Please refer Annexure for more details. The following diagram shows the existing DGS site network infrastructure across divisions:
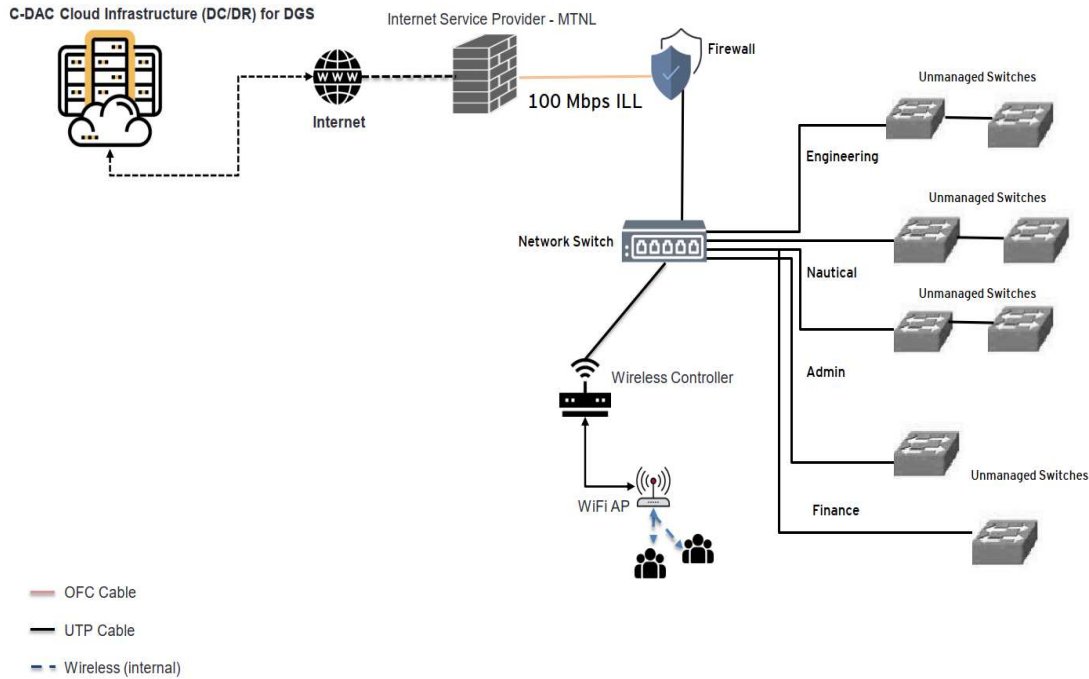
Figure 1: Existing network architecture diagram at Head Office at 9th Floor Beta Building, I-Think Techno Campus

3.4 Details of existing network components installed:

SL. No	Description	Component type	Quantity	OEM / Model no.	Status	Existing Contract
1	Internet Connectivity	Internet Leased Line	1	MTNL	Working	Available
2	Routers	-	3	-	Working	Available
3	Firewall / UTM	-	2	SOPHOS (XG135, XGS2100)	Working	Available
4	Core Switches	Unmanaged	1	-	Working	Not Available
5	Network Switches - 24 Port	Unmanaged	13	D-Link / TP-Link	Working	Not Available
6	PoE Network Switches – 24 port	Unmanaged	1	TP=Link	Working	Available
6	Wireless Controller	Managed	1	TP-Link Omada	Working	Available

SL. No	Description	Component type	Quantity	OEM / Model no.	Status	Existing Contract
				Controller		
7	Wireless Access Points	Managed	13	TP-Link	Working	Available
8	Network Rack - 42 U	-	3	-	Working	Not Available
9	Network Rack - 6 U	-	1	-	Working	Not Available
10	In-building laying of UTP cable – No. of nodes or I/O points	CAT6	264	-	Working	Not Available

4. Indicative future state network architecture

The following diagram shows the indicative future state network infrastructure at DGS across divisions:
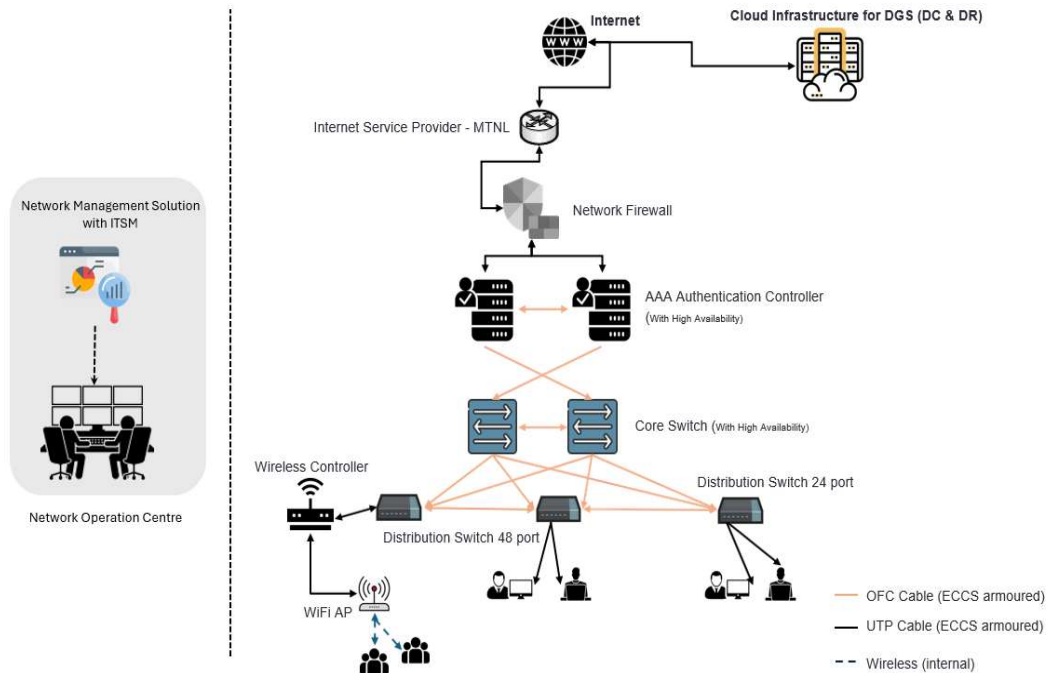
Figure 2: Indicative future state network architecture

5. Indicative Bill of Materials (BoM):

The figures provided within the Bill of material are indicative for estimation purpose only. Bidder(s) has to perform an independent assessment of the infrastructure requirements for the proposed system and provide a detailed BOM for the proposed infrastructure in line with the requirements of the project and performance on service level agreements. DGS / DGS designated authority shall review and approve the BOM of the successful bidder at the time of implementation/deployment /commissioning. BOM approved by DGS shall in no case be a lower version than the one proposed by the bidder in its technical proposal submitted to DGS and the same shall be scaled up / upgraded by the Bidder as per

the requirement for performance on the service levels at no additional cost to the DGS. Network Infrastructure hardware, and services will be billed on actuals, subject to the ceiling as per commercial bid submitted by Bidder.

Sr. No.	Description	Unit	Qty	Unit Rate	Total
1	AAA Authentication Controller for Wired users only	Nos.	2		
2	Core Switch (HA) - 24 Port OFC / SFP Port	Nos.	2		
3	Distribution Switch Type 1 - 48 port with 2 SFP	Nos.	6		
4	Distribution Switch Type 2 - 24 port with 2 SFP	Nos.	1		
5	SFP modules 1G LX	Nos.	14		
6	SFP modules 10G LX	Nos.	4		
7	Rack 6U - with all accessories	Nos.	7		
8	Rack 42U - with all accessories	Nos.	1		
9	Cat 6 U/UTP ECCS Tape Armoured Cable	Mtr.	11700		
10	CAT 6 Patch Cord 3	Mtr.	280		
11	6 core Armoured single mode OFC	Mtr.	600		
12	Fiber Patch Cord SM, LC – SC / LC-LC 3 meters	Nos.	12		
13	12 / 24 / 48 Port rack mounted LIU with single mode LC UPC pigtail and coupler	Nos.	7		
14	NMS with ITSM application and hardware with 5 years license	Nos.	1		
15	LED TV (50") For NOC to display a Consolidated Operating Picture of the real time events in the area of purview	Nos.	2		
16	Project Implementation Charges Manpower supply during implementation Installation and commissioning of components	Lump-sum	1		
17	Certification for NOC	Lump-sum	1		
18	Annual Maintenance Contract (AMC) (after completion of One Year Warranty) 1st Year 2nd Year 3rd Year	Year	3		
19	On-site manpower supply during O&M phase Warranty period 1st Year 2nd Year 3rd Year	Nos.	1		

6. Implementation schedule:

Bidder to submit the detailed implementation plan in GANTT chart format with clear indication of activities with timelines.

S. No	Item of Activity	Month-Wise Program			
		M1	M2	M3	…..
1	Activity 1	████	████		
1.1	Sub-Activity 1				
1.2	Sub-Activity 2				
2	Activity 2				
	..				
3	Activity 3			████	
3.1	Sub-Activity 1				
3.2	Sub- Activity 2				

Note: The above activity chart is just for the purpose of illustration. Bidders are requested to provide detailed activity & phase wise timelines for executing the project with details of deliverables & milestones as per their proposal.

1. Bidder to implement the equipment & associated services within FOUR MONTHS (120 DAYS) FROM THE DATE OF WORK ORDER (which includes THREE Months for implementation and ONE Month for stabilization).
2. DGS would decide and carry out acceptance testing. During the acceptance test, bidder will demonstrate and run the network in parallel to the existing network for a period of 5 working days.
3. Billing cycle will commence as per RFP payments terms after successful completion of acceptance.
4. The date of sign-off shall be treated as the start of date of billing cycle and renewal thereafter.
5. The selected bidder / bidder will conduct Network Check cum Tuning on monthly basis as an ongoing activity during the terms of contract. Bidder will submit the report to this effect on monthly basis.
6. All cost towards providing temporary connectivity has to be borne by the Bidder.

7. Methodologies to Ensure Data Security & Confidentiality in Network Operations Centre (NOC)

A. Cybersecurity Compliance and Best Practices
   i. Cloud Security: Implement robust cloud security protocols with industry-approved encryption and access control mechanisms.
   ii. Data Encryption & Access Control: Secure data in transit using SSL/TLS encryption; enforce role-based access control (RBAC).
   iii. Regulatory Compliance: Adhere to GDPR, DPDP, ISO 27001, and CERT-IN guidelines.
   iv. Security Audits & Testing: Conduct periodic security assessments, penetration testing, and vulnerability scans.
   v. Policy Updates: Continuously review and update security policies to mitigate evolving threats.
B. Network Security Measures
   i. Firewalls: Deploy firewalls at network perimeters with stateful inspection and application-

layer filtering.
   ii.   Role-Based Single Sign-On (SSO): Implement centralized authentication with RBAC policies for authentication, authorization, and accounting (AAA).

C. Network Monitoring & Threat Detection
   i.   Continuous Network Monitoring: Utilize real-time monitoring tools to detect anomalies and security incidents.
   ii.   Security Tools: Deploy Intrusion Detection Systems (IDS), Network Traffic Analysis (NTA), and Security Information and Event Management (SIEM) solutions.

D. Business Continuity & Disaster Recovery (BCP & DR)
   i.   Comprehensive BCP & DR Strategy: Establish a structured plan to ensure operational resilience.
   ii.   Recovery Objectives: Define Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO) for mission-critical systems.
   iii.   Redundant Infrastructure: Implement failover mechanisms and real-time data replication.
   iv.   Regular DR Testing: Conduct periodic disaster recovery drills and failover simulations.
   v.   Stakeholder Communication: Establish clear escalation protocols for disruptions.

E. Disaster Recovery Architecture & Security
   i.   Multi-Factor Authentication (MFA): Implement Keycloak (SSO & MFA) for secure authentication.
   ii.   Data Protection: Utilize AES and RSA encryption for data security.
   iii.   VPN Implementation: Secure remote access using IPsec or SSL/TLS encrypted VPN solutions.

F. Security Monitoring & Incident Response
   i.   SIEM Implementation: Deploy SIEM solutions for real-time threat detection and automated response.
   ii.   Incident Response Plan:
   iii.   Define roles and responsibilities for security incidents.
   iv.   Establish escalation and resolution protocols.
   v.   Conduct periodic security training and simulations.
   vi.   Ensure cloud-native security with CSPM, Zero Trust, and automated compliance monitoring.

G. Security Assessment Framework
   i.   Regular Security Assessments & Testing:
   ii.   Vulnerability Assessment & Penetration Testing (VAPT): Conduct structured assessments using OSSTM guidelines.
   iii.   Internal Vulnerability Assessment: Identify network assets, conduct automated scans, and validate results.
   iv.   External Penetration Testing: Simulate real-world cyber threats, conduct reconnaissance, and controlled intrusion testing.
   v.   Continuous Security Audits & Compliance Monitoring:
   vi.   Conduct periodic security audits for compliance.
   vii.   Validate adherence to ISO 27001, CERT-IN, and NIST guidelines.

H. Security Awareness & Training Programs
   i.   User Awareness Training: Conduct regular sessions on cybersecurity best practices.
   ii.   Phishing & Social Engineering Awareness: Train personnel on identifying and mitigating attacks.
   iii.   Password Hygiene & Access Control: Promote strong authentication practices and RBAC.
   iv.   Incident Reporting & Response: Establish clear reporting protocols for security incidents.

8. Implementation and Adherence to Policies for Network Operations Centre (NOC) as per DGS

A. Compliance with Open Standards
   i.   The proposed NOC system should be designed based on open standards to ensure

interoperability with multiple platforms and avoid technology lock-in.
ii. The system must adhere to all open standards guidelines and other relevant directives issued by the Government of India (GoI).

B. Compliance with Security and Industry Standards
i. The bidder must obtain and maintain STQC certification for the project. Costs incurred for certification will be borne by the bidder. Certification must be obtained within defined timelines, failing which subsequent payments will be deferred.
ii. The NOC infrastructure should comply with industry and government security standards, including but not limited to:
- Agreement for Model RFP Templates for Implementation Agencies
- Interoperability Framework for e-Governance (IFEG) in India by MeitY
- MeitY Guidelines for Procurement of Cloud Services - V 2.0
- DPDP Act 2023
- GIGW Guidelines 3.0
- W3C's Web Content and Accessibility Guidelines (WCAG 2.1)
- Rights of Persons with Disabilities Act, 2016

C. Compliance with NOC-Specific Standards
i. The NOC system should be scalable, modular, and flexible to accommodate evolving requirements and facilitate seamless integration with other network and security infrastructures.
ii. The network architecture must ensure robust security measures, including real-time monitoring, secure access controls, and encryption as per industry best practices.
iii. The web interface and associated portals must comply with Government UX Design Guidelines to enhance user experience and accessibility.
iv. The NOC must implement stringent data security measures, ensuring compliance with DGS standards and secure network operations.
v. D. Security and Compliance Measures
vi. Ensure strict adherence to DGS data and security standards, implementing security best practices across the NOC environment.
vii. The bidder must conduct periodic security assessments to validate compliance with government-mandated cybersecurity frameworks.
viii. The network infrastructure must align with established security guidelines, including cloud security policies, data protection laws, and interoperability requirements.

9. Quality Audits
i. The bidder must align all NOC operations and sustenance with industry best practices such as CMMI, ITIL, ISO 20000, and ISO 27001.
ii. An independent Quality Team of the bidder shall conduct regular audits to ensure adherence to these standards and the processes laid down by the bidder.
iii. Audit Frequency: At least once every six months for all critical NOC processes.
iv. Audit Reporting: The audit findings must be shared directly with DGS, along with an action plan for mitigating any identified observations or non-compliances.
v. Independent Audits: DGS reserves the right to engage independent auditors for auditing NOC security and operational compliance. The bidder must facilitate these audits as per an agreed schedule.
vi. Audit Follow-up: The bidder must provide corrective action plans to address any observations/non-compliances identified in the audit reports.

10. Resource Requirements

The BIDDER shall be responsible for sourcing of the personnel and the management of all matters relating to such personnel, to carry out the responsibilities assigned to the BIDDER under the agreement with the BIDDER. In particular, these include:

i.   Recruitment of the personnel possessing the qualifications prescribed in the RFP.
ii.   Training of the personnel.
iii. Payment of salaries and benefits to the personnel on time
iv.   Meeting all statutory obligations / payments arising out of engaging the personnel.
v.   Meeting all the liabilities arising out of the acts of the personnel

Below table gives the indicative number of resources which need to be deployed across locations for this project.

#	Non-Key Resources	No. of Resources	Essential Qualification
1	To be proposed		

During the course of the contract, if it becomes necessary to replace any of the Key Personnel, the BIDDER shall forthwith with due approval from DGS, provide as a replacement, a person of equivalent or better qualifications and experience than the resource being replaced / or proposed in the bid.
The team proposed in the proposal should be on the rolls of the bidder(s) at the time of submission of the proposal. For any change of the resource or any resource being proposed for operations, the bidder should have to submit the CV of the resource, at least 2 weeks in advance for DGS to decide on the replacement.

Support Provided by Client
i.   The client shall provide office space to the Bidder's team. Laptops and peripherals are to be provided to its team by the Bidder.
ii.   The client shall provide access to relevant documentation, reports, budget documents, etc. to enable Bidder's team to prepare a comprehensive vision document.
iii. The client shall grant necessary access permissions to the Bidder's team to visit DGS office and other parts of the premises for carrying out field visits.
iv.   The client shall make available its conference hall facility which is equipped with Cisco WebEx hardware to carry out offline and online consultations with stakeholders.

11. Payment Schedule
11.1   sPayment Schedule:

A. Payment applicability conditions during Implementation:
1st Milestone Pay-out: 40% of equipment cost on supply / delivery of equipment on actuals.

Acceptance Criteria:
i.   Approved Bill of Materials
ii.   Approved list of materials (Make, Models)
iii. The original Delivery Challan to be submitted by Bidders to the DGS Nodal Officer
iv.   The delivered goods shall remain under the safe custody of Bidder in the specified allotted space and subsequently the DGS Nodal Officer may be intimated.

2nd Milestone Pay-out: 40% of equipment cost on installation of equipment on actuals.

Acceptance Criteria:
Bidder to submit an Installation Completion Report (ICR) capturing the followings:
i.   Installation Report
ii.   Warranty card and its details
iii. Username and Password, as required.
iv.   User Manuals/CDs/DVDs of the goods, as required.
v.   Established connectivity via demonstration.
vi.   Network testing report. e.g. OTDR report for OFC, Fluke test report for CAT6, etc.
vii. A detailed account of goods installed along with its location.

viii.   Further, warranty/ maintenance support contact details to be highlighted.

3rd Milestone Pay-out: Balance 20% will be made against after testing and stabilization.

Acceptance Criteria:
This phase would have the complete rollout of the envisaged system and all its components across all locations. It would end when all operations have stabilized for a period of one month.

Payment applicability conditions during **Annual Maintenance Contract**:
Annual Maintenance Contract amount will be paid on quarterly basis.

Acceptance Criteria:
  i.   Bidder to submit system generated report for SLA adherence as follows:
 ii.   Networking system should be up for more than 99% in a Quarter.
iii.   Uptime for a quarter is calculated as under:
 iv.   24 Hrs X 90 days (in a quarter) = 2160 Hours
  v.   In case the system downtime is less than 99% in a quarter, a penalty as admissible will be imposed as per SLA.

11.2   Terms of payment
i.   In consideration of the obligations undertaken by the bidder under this Agreement and subject to the provisions of this Agreement, DGS shall pay the bidder for successful delivery of Services / Deliverables / Goods and System in pursuance of this Agreement, in accordance with the Terms of Payment Schedule set out in this clause.
ii.   DGS shall not be required to make any payments in respect of the Services, Deliverables, obligations and scope of work mentioned in the RFP and Agreement other than those covered in the table as per Payment Schedule. For the avoidance of doubt, it is expressly clarified that the payments shall be deemed to include all ancillary and incidental costs and charges arising in the course of performance of obligations under the RFP and Agreement including consultancy charges, infrastructure costs, project costs, implementation and management charges and all other related costs including taxes which are addressed in this Clause.

11.3   Invoicing and settlement
The bidder shall submit its invoices in accordance with the following principles:
i.   Generally, and unless otherwise agreed in writing between the Parties, the bidder shall raise an invoice as per scheduled payment milestones; and
ii.   Any invoice presented in accordance with this Clause shall be in a form agreed with DGS.
  ▪   The bidder alone shall invoice all payments only after receiving due approval / acceptance of Deliverables / Services / Goods from DGS or any nominated agency. Such invoices shall be correct and accurate and shall be raised in a timely manner.
  ▪   Subject to accomplishment to obligations of bidder and delivery of Deliverables / Services / Goods to the satisfaction of DGS, payment shall be made by DGS within 45 working days of the receipt of invoice along with supporting documents.
  ▪   Notwithstanding anything contained in clause (III) above, DGS shall be entitled to delay or withhold payment of any invoice or part of it where DGS disputes such invoice or part of it provided that such dispute is bona fide. The withheld amount shall be limited to that which is in dispute. A notice of such withholding shall be provided within 10 days of receipt of the applicable invoice.
  ▪   The bidder shall be solely responsible to make payment to its personnel, sub-contractors, OEMs, third parties.

11.4   Taxes
i.   DGS shall be responsible for withholding taxes from the amounts due and payable to the bidder wherever applicable under extant law. The bidder shall pay for all taxes in connection with this Agreement, SLAs, scope of work and any other engagement required to be undertaken as a part of this Agreement, including, but not limited to, property, sales, use, excise, value-added, goods and services, consumption and other similar taxes or duties
ii.   DGS shall provide the bidder with the original tax receipt of any withholding taxes paid by

DGS or its nominated agencies on payments under this Agreement within reasonable time after payment. The bidder agrees to reimburse and hold DGS or its nominated agencies harmless from and against any claims, losses, expenses (including attorney fees, court fees) etc. arising out of deficiency (including penalties and interest) in payment of taxes that is the responsibility of the bidder.

iii. If, after the date of this Agreement, there is any unforeseen change in the levies or rate of levy under the applicable laws of India with respect to indirect taxes and duties, which are directly payable by the bidder for providing the Deliverables/Services i.e. service tax or any such other applicable tax from time to time, which increase or decreases the cost incurred by the bidder in performing the Services, then the remuneration and reimbursable expense otherwise payable by the DGS under this Agreement shall be increased or decreased accordingly by correspondence between the Parties hereto, and corresponding adjustments shall be made. However, in case of any new or fresh tax or levy imposed after submission of the proposal the bidder shall be entitled to reimbursement on submission of proof of payment of such tax or levy.

11.5   Invoicing and settlement

i. The bidder shall submit its invoices in accordance with the following principles:
   - Generally, and unless otherwise agreed in writing between the Parties, the bidder shall raise an invoice as per scheduled payment milestones; and
   - Any invoice presented in accordance with this Clause shall be in a form agreed with DGS.

ii. The bidder alone shall invoice all payments only after receiving due approval / acceptance of Deliverables / Services / Goods from DGS or any nominated agency. Such invoices shall be correct and accurate and shall be raised in a timely manner.

iii. Subject to accomplishment to obligations of bidder and delivery of Deliverables / Services / Goods to the satisfaction of DGS, payment shall be made by DGS within 45 working days of the receipt of invoice along with supporting documents.

iv. Notwithstanding anything contained in clause (III) above, DGS shall be entitled to delay or withhold payment of any invoice or part of it where DGS disputes such invoice or part of it provided that such dispute is bona fide. The withheld amount shall be limited to that which is in dispute. A notice of such withholding shall be provided within 10 days of receipt of the applicable invoice.

v. The bidder shall be solely responsible to make payment to its personnel, sub-contractors, OEMs, third parties.

11.6   Taxes

i. DGS shall be responsible for withholding taxes from the amounts due and payable to the bidder wherever applicable under extant law. The bidder shall pay for all taxes in connection with this Agreement, SLAs, scope of work and any other engagement required to be undertaken as a part of this Agreement, including, but not limited to, property, sales, use, excise, value-added, goods and services, consumption and other similar taxes or duties

ii. DGS shall provide the bidder with the original tax receipt of any withholding taxes paid by DGS or its nominated agencies on payments under this Agreement within reasonable time after payment. The bidder agrees to reimburse and hold DGS or its nominated agencies harmless from and against any claims, losses, expenses (including attorney fees, court fees) etc. arising out of deficiency (including penalties and interest) in payment of taxes that is the responsibility of the bidder.

iii. If, after the date of this Agreement, there is any unforeseen change in the levies or rate of levy under the applicable laws of India with respect to indirect taxes and duties, which are directly payable by the bidder for providing the Deliverables/Services i.e. service tax or any such other applicable tax from time to time, which increase or decreases the cost incurred by the bidder in performing the Services, then the remuneration and reimbursable expense otherwise payable by the DGS under this Agreement shall be increased or decreased accordingly by correspondence between the Parties hereto, and

corresponding adjustments shall be made. However, in case of any new or fresh tax or levy imposed after submission of the proposal the bidder shall be entitled to reimbursement on submission of proof of payment of such tax or levy.

11.7   Adherence to Deliverables

i.   The bidder has to deliver the deliverables mentioned in Deliverables Schedule to DGS as part of an assurance to fulfil the obligations under the SLA. The table given in Project Timeline & Deliverables Schedule may not be exhaustive and bidder is responsible to provide all those deliverables which may be specified in this RFP but not listed here and those agreed by bidder in response to any request from DGS. The timelines for producing each of these deliverables will be in line and closely linked with the overall project timelines.

ii. Any conflict with respect to project and/or deliverable timelines will have to be resolved by bidder in consultation with DGS and / or its designated agencies and approved by DGS. Thereafter the approved timelines will have to be adhered to by bidder, unless specified otherwise. It is to be noted that upon completion of Go-live, bidder is required to submit all the updated system design documents, specifications, source code, application deployment files, user manuals, administration manuals and all other applicable deliverables listed in Deliverables Schedule.

Section 6 – Service Level Agreement

Structure

This SLA shall operate as a legally binding services agreement specifying terms which apply to the Parties in relation to the provision of the Services by the Bidder to DGS and its nominated agencies under the Agreement and the MSA

THIS AGREEMENT is made on this the <***> day of <***> 20---- at <***>, India.

BETWEEN
-- having its office at ------------------
-- India hereinafter referred to as '*DGS*' or '*Buyer*', which expression shall, unless the context otherwise requires, include its permitted successors and assigns);

AND

<***>, a Company incorporated under the *Companies Act, 1956*, having its registered office at <***> (hereinafter referred to as '*the Bidder/Bidder'* which expression shall, unless the context otherwise requires, include its permitted successors and assigns).

Each of the parties mentioned above are collectively referred to as the '*Parties*' and individually as a '*Party*'.

WHEREAS:

DGS is desirous for Implementation and Operations Management of network infrastructure.

2. DGS and Bidder have entered into a Master Services Agreement dated <***> (the "*MSA*").

NOW THEREFORE, in consideration of the mutual covenants, promises, assurances, representations and provisions set forth herein, the Parties hereto agree as follows:

The following parties are obligated to follow the procedures as specified by this Agreement:

DGS

Bidder

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN

SIGNED, SEALED AND DELIVERED For and on behalf of the Bidder by:	SIGNED, SEALED AND DELIVERED For and on behalf of DGS by:
(Signature) (Name) XXX (Designation) XXXX (Address) XXXX (Fax No.)	(Signature) (Name) (Designation) (Address) (Fax No.)

In the presence of:

1._____

2._____

1. **Objective of SLA**

i.   The Bidder / Bidder shall be required to ensure that the Service Levels which shall ensure the following:

▪ Improving the efficiency of network operations for the DGS Head Office.

▪ Leveraging the benefits in new system in order to:

  o Reduce of manual records and replace with computerized standardized documents.

  o Infuse transparency in operations by enabling the stakeholders to have easy access to the records and provision of login ids to infuse accountability in operations

  o Enable faster request processing in delivery of services with better turnaround time.

  o Facilitate automated data transfer with connectivity to prevent unnecessary duplication & simplify preparation of registers and reports.

  o Generate meaningful MIS from the system.

  o Provide inbuilt mechanism of IT service management and SLA monitoring.

ii.   To meet the aforementioned objectives the Bidder will provide the Service Levels in accordance with the performance metrics as set out in detail in this Agreement. Further this Agreement shall govern the provision of the contracted services of the Bidder / Bidder to DGS after the Go-Live Date.

2. Details of SLA Penalty Mechanism and Calculations

This SLA shall operate as a legally binding services agreement specifying terms which apply to the Parties in relation to the provision of the Services by the Bidder to DGS. The Bidder will get 100% of Quarterly Payout for the concerned quarter if the performance metrics are complied with for all the parameters and the total SLA percentage score in a quarter is 99% or above. The Bidder will get lesser payment in case of a lower performance exhibited by a SLA percentage score of less than 99%. The maximum penalty to be levied is 10% of Quarterly Payout. The payments will be as per terms defined under Section 13 of this tender.
The Bidder will be eligible for an SLA holiday period wherein the SLAs shall not be applicable. This SLA holiday period will not be more than a month from the date of GO-Live of the project, until and unless decided or agreed with DGS. The SLA holiday period is for streamlining the SLA measurement and monitoring process of the project.
The payment and SLA penalty applicability will be against the specific SERVICE LEVEL PARAMETERS depending on the impact. The values will be calculated separately, and payment will be made against invoices raised for the port.
DGS reserves the right to modify the SLAs in terms of addition, alteration or deletion of certain parameters, based on mutual consent of all the parties i.e. DGS and BIDDER.

The MSP will get 100% of Quarterly Payout for the concerned quarter if the performance metrics are complied with for all the parameters and the total SLA score in a quarter is 50 or above. The Bidder will get lesser payment in case of a lower performance exhibited by a SLA score of less than 50. The maximum penalty to be levied is 10% of Quarterly Payout.

The payment will be made by DGS to the bidder on quarterly basis. The quarterly invoice will be submitted by the Bidder to the DGS, who will in turn release the 80% of the payment if there is no dispute and after verification/audit of the invoices and necessary documents, release balance 20% payment.

The Bidder will be eligible for an SLA holiday period wherein the SLAs shall not be applicable. This SLA holiday period will not be more than a quarter from the date of GO-Live of the project, until and unless decided or agreed with DGS. The SLA holiday period is for streamlining the SLA measurement and monitoring process of the project.

The payment and SLA penalty applicability will be against the specific SERVICE LEVEL PARAMETERS depending on the impact. The values will be calculated separately, and payment will be made against invoices raised for the port.

DGS reserves the right to modify the SLAs in terms of addition, alteration or deletion of certain parameters, based on mutual consent of all the parties i.e. DGS and BIDDER.
The Penalties will be calculated based on the following table:

S. No.	SLA Score Range	Deductions (Penalties)
Deductions		
1	=20	No Penalty
2	<20 & >=15	0.25% penalty for every point < 20

S. No.	SLA Score Range	Deductions (Penalties)
3	<15 & >=10	0.5% penalty for every point < 20
4	<10	0.75% for every point < 20

Note: The percentage penalty would be calculated on the bill raised by the Bidder for the concerned quarter.

Example:
SLA Score of 18 will lead to a Penalty of 0.5% (i.e. 2 x 0.25 = 0.5%)
SLA Score of 13 will lead to a Penalty of 3.5% (i.e. 7 x 0.5 = 3.5%)
SLA Score of 08 will lead to a Penalty of 9% (i.e. 12 x 0.75 = 9%)

Note

1 Annual review SLA shall be done by DGS and appropriate modifications/amendments to the SLAs may be carried out.

2 Cascading effect (effect on multiple SLA criterions) of failure or non-performance of a particular project component on SLAs shall be avoided.

3 Web-based Incident and SLA monitoring tool providing reports against the parameters mentioned below will be used for measurement. DGS may request for supporting documents in certain cases if required. Such tool needs to be deployed after certification from a Third-Party CERT-IN agency such as STQC before Go-live of the project.

4 Implementation of a Web-based Project Management Information System (PMIS) for Project progress and ITIL based SLA monitoring and Incident Management (EMS) has to be carried out by before Go-live in order to receive any payment for the project

3. SLA Measurement and Monitoring

3.1 SLA applicable during Implementation Phase

Implementation of a Web-based Project Management Information System (PMIS) for Project progress and SLA monitoring has to be carried out by before Go-live in order to receive any payment for the project.

#	Services	Parameter	Validation	Penalty
1	Adherence to project timelines	Up to 4 calendar weeks delay from the timelines as mentioned in the project timelines Volume	Measurement Tool: Monthly Project Progress Reports	No Penalty
		Delay beyond 4 weeks		Rs. 50,000 per week of delay If the delay exceeds more than 12 weeks, DGS may decide to invoke breach

					clause	

3.2 SLA parameters during Operations and Maintenance Period

All complaints shall be lodged with the service desk managed by the BIDDER, which will allot ticket number for each complaint indicating departments, time of registration and severity of the complaint. Centrally managed web-based ticketing tool for lodging the complaints will be provided by Bidder, as a part of the NMS solution.

SLA shall become the part of contract between DGS and the Bidder. The Bidder has to comply with Service Levels requirements to ensure adherence to quality and availability of services, throughout the period of this contract – Warranty period 1 years + 3 years from the date of expiry of the warranty period. The performance of the support shall be tracked on a monthly basis as per the SLA service levels detailed in this section.

Please note that the Bidder shall be responsible for overall monitoring and management of DGS network infrastructure as mentioned in the RFP. The Bidder shall monitor the uptime of all associated network infrastructure components available at DGS Head Office such as Firewall, Internet connectivity, Routers, Wireless and Wired Network infrastructure.

SLA Parameters during Operations and Maintenance Period							
Parameter	**Baseline**		**Lower Performance**		**Breach**		**Measurement**
	Metric	Score	Metric	Score	Metric	Score	
Network Infrastructure							
Uptime of all network components at DGS, (Network infrastructure related) but not limited to: - Internet - Firewall - Routers - Core Switches - Distribution Switches - Wireless Controller Wireless APs Any downtime for maintenance shall be with prior written intimation and approval of DGS. Uptime = {1 - [(Component downtime – maintenance Downtime) /	>=99%	4	<99% and >=95%	3	<95%	-1	Automated system generated report of SLA monitoring tool to provide metric values against this parameter. End-to-end loop back mechanism must be established for checking the availability of services.

SLA Parameters during Operations and Maintenance Period							
Parameter	Baseline		Lower Performance		Breach		Measurement
	Metric	Score	Metric	Score	Metric	Score	
(Total Time – Maintenance Downtime)]}							
Network Infrastructure monitoring solution availability (NMS)							
Availability of IT Infrastructure Monitoring Tools at the active site.	>99%	4	< 99% to >= 95%	3	<95%	-1	Automated System generated report from NMS tool to provide metric values against this parameter.
Network Operations Infrastructure							
Tickets / Incident Response time *							
Time taken for sending email response & ticket assignment from the time of registering of request. Must be achieved within agreed timeline for resolution for at least 95% of the cases in a month.	<=1 hrs	2	>1 hrs and <=4 hrs	1	> 4 hrs	-1	Automated measurement report from NMS (ITSM) system to be submitted as part of SLA monitoring to provide metric values against this parameter.
Resolution for Critical incident	<=2 hours	2	> 2 hours to <= 4 hrs	1	> 4 Hours	-1	Automated measurement report from NMS (ITSM) system to be submitted as part of SLA monitoring to provide metric values against this parameter.
Resolution for High level incident	<=4 hours	2	> 4 hours to < = 8 hrs	1	> 8 Hours	-1	Automated measurement report from NMS (ITSM) system to be submitted as

Parameter	Baseline		Lower Performance		Breach		Measurement
	Metric	Score	Metric	Score	Metric	Score	
							part of SLA monitoring to provide metric values against this parameter.
Resolution for Medium / Low level incident	<= 1 day	2	>1 day to < = 3 days	1	> 3 Days	-1	Automated measurement report from NMS (ITSM) system to be submitted as part of SLA monitoring to provide metric values against this parameter.
Human Resource availability							
Human Resource availability measures the availability of the required skill sets as proposed by the Bidder in its proposal. This parameter shall also take into account the quality of resources in terms of skill set, experience and ability to perform in similar environment. In case of replacements, the new resource should be of similar or higher skill set. The skill sets to be taken into account for measuring this parameter	No Deviation	2	NA	NA	In case of deviations	-1	All deviations would be recorded, and monthly report shall be made available to the DGS.

SLA Parameters during Operations and Maintenance Period

SLA Parameters during Operations and Maintenance Period							
Parameter	**Baseline**		**Lower Performance**		**Breach**		**Measurement**
	Metric	Score	Metric	Score	Metric	Score	
includes the following at a minimum: • Resource requirements as per RFP • Team members for various skills required for carrying out the activities of the project							Occurrences such as national / public holidays, force majeure, labour laws, etc. shall not be considered as an occurrence for deduction
Monthly Project Report							
Submission of monthly progress report including the following: - Progress against maintenance plan - Key dependencies - Details of non-compliances if any - Issues list - Activities completed within the reporting period - Activities to be completed in the next reporting period	Within 2 days from month end	2	NA	NA	Greater than 2 days	-1	To provide metric values for this parameter, it is required to submit a monthly progress report and SLA measurement report sourced from NMS.

4. SLA Categories
The SLA has been classified into two broad categories as given under.

i. Category I: These are system delivery level targets which shall be adhered to during the implementation of the system, these services may be considered as pre-requisites to the service level targets mentioned in the post implementation phase.

ii. Category II: These are business critical level targets which shall be adhered to post implementation/commissioning of the system. Default on any of the service levels mentioned under this will incur penalties as defined in this section.

The Service level agreement would be valid for the complete period of contract. This SLA may be reviewed and revised according to the procedure detailed in SLA Change Control Mechanism.

5. Cumulative Downtime

i. The recording of downtime shall commence at the time of registering the call with bidder for any downtime situation for the equipment.

ii. Downtime shall end when the problem is rectified, and the application/ service is available to the user.

iii. Down time will not be considered for following:

- Pre-scheduled preventive maintenance and health checks (Scheduled Downtime).
- Failover time (30 minutes) in case of cluster environment. Beyond which the service would be considered to be not available, and appropriate penalty shall be imposed on the SI.
- If the DGS elects to continue the operation of the machine / equipment, when a part of the machine is giving problem and leading to downtime, the commencement of downtime shall be deferred until the DGS releases the machine / equipment to the Bidder for remedial action.

6. Exclusions

The bidder shall be exempted from any delays on SLA parameters arising from the delay in approvals, reviews, suggestions etc from the DGS's side. Any such delays shall be notified in written by the DGS.

7. Non-Adherence to SLA

i. In case the bidder is unable to adhere to the target levels mentioned in the SLA and the percentage of penalty due to defaults exceeds 5 percent for four consecutive months, then the penalty would be doubled in the fourth month and subsequently till the same is rectified for two consecutive months.

ii. In case the bidder defaults in the same category for four consecutive months, then the penalty would be doubled in the fourth month and subsequently for that category till the same is rectified for two consecutive months.

iii. The breach clauses will be relaxed for the two quarters after go-live.

8. Breach of SLA

For every hour of downtime exceeding 99.9% uptime, a penalty of 0.5% of monthly invoice value shall apply. If the penalty continues for 6 consecutive months for the same category or over 10% across all categories, DGS may invoke breach and terminate the contract. The decision of DGS in this regard shall be final and binding on the bidder, the DGS will treat it as a case of breach of Service Level Agreement. The following steps will be taken in such a case: -

- *DGS issues a show cause notice to the SI.*
- *bidder should reply to the notice within three working days.*
- *If the DGS authorities are not satisfied with the reply, the DGS will initiate termination process.*

9. Monitoring and Auditing

DGS will review the performance of bidder against the SLA parameters each month, or at any periodicity defined in the contract document. The review / audit report will form basis of any action relating to imposing penalty or breach of contract. Any such review / audit can be scheduled or unscheduled. The results will be shared with the bidder as soon as possible. DGS reserves the right

to appoint a third-party auditor to validate the SLA.

9.1 Reporting Mechanism

The bidder's representative will submit SLA performance reports from centrally managed web-based SLA monitoring tool in an agreed upon format by the 5th working day of subsequent month of the reporting period. The reports will include "actual versus target" SLA performance, a variance analysis and discussion of appropriate issues or significant events.

9.2 Issue Management Procedures

General

This process provides an appropriate management structure for the orderly consideration and resolution of business and operational issues in the event that quick consensus is not reached between DGS and bidder. It is expected that this pre-defined process will only be used on an exception basis if issues are not resolved at lower management levels.

Issue Management Process

i. Either DGS or Bidder may raise an issue by documenting the business or technical problem, which presents a reasonably objective summary of both points of view and identifies specific points of disagreement with possible solutions.

ii. DGS and the SI's representative will determine which committee, or executive level should logically be involved in resolution.

iii. A meeting or conference call will be conducted to resolve the issue in a timely manner. The documented issues will be distributed to the participants at least 24 hours prior to the discussion if the issue is not an emergency requiring immediate attention.

iv. The DGS and the Bidder shall develop an interim solution, if required, and subsequently the permanent solution for the problem at hand. The Bidder will then communicate the resolution to all interested parties.

v. In the event a significant business issue is still unresolved, the arbitration procedures described in the Contract will be used.

10. SLA Change Control

10.1   General

It is acknowledged that this SLA may change as DGS business needs evolve over the course of the contract period. As such, this document also defines the following management procedures:

i. A process for negotiating changes to the SLA.

ii. An issue management process for documenting and resolving particularly difficult issues.

iii. DGS and Bidder management escalation process to be used in the event that an issue is not being resolved in a timely manner.

iv. Any changes to the levels of service provided during the term of this agreement will be requested, documented and negotiated in good faith by both parties. Either party can request a change. Changes will be documented as an addendum to this document and consequently the contract.

10.2   SLA Change Process

Both the parties may amend this SLA by mutual agreement in accordance. Changes can be proposed by either party. Normally the forum for negotiating SLA changes will be DGS monthly review meetings.

10.3   Version Control

All negotiated SLA changes will require changing the version control number. As appropriate, minor changes may be accumulated for periodic release (e.g. every quarter) or for release when a critical threshold of change has occurred.

11. Management Escalation Procedures

The purpose of this escalation process is to provide a quick and orderly method of notifying both parties that an issue is not being successfully resolved at the lowest possible management level. Implementing this procedure ensures that DGS and Bidder management are communicating at the appropriate levels. Escalation should take place on an exception basis and only if successful issue resolution cannot be achieved in a reasonable time frame.

- All issues would be raised to the project management team, which is completely responsible for the day-to-day aspects of the implementation. The project management team shall classify the issues based on their severity level and resolve them within appropriate timelines.
- If project management team is unable to resolve an issue, the issue would be escalated to the top management with options/ risks detailed for decision. Top management will make decisions based on the options/ risks presented.
- In case one or both the parties are unsatisfied with the decision of the top management of the DGS, the dispute will be resolved as specified in this RFP

12. Updating of this Agreement

a) The Parties anticipate that this Agreement shall need to be re-evaluated and modified to account for changes in work environment and technology from time to time. Hence, they herby agree to revise the terms of the Agreement on an annual basis.

b) The Parties hereby agree upon the following procedure for revising this Agreement:

    i. Any and all changes to this Agreement will be initiated in writing between the Buyer and the Implementation Agency, the service levels in this Agreement shall be considered to be standard for the Buyer and shall only be modified if both Parties agree to an appended set of terms and conditions.

    ii. Only the Buyer or the Bidder may initiate a revision to this Agreement.

    iii. A notice of the proposed revision ("SLA Change Request") shall be served to the Buyer or the Bidder as the case may be.

    iv. The SLA Change request would be deemed to be denied in case it is not approved within a period of 45 days.

    v. In the event that Buyer/Bidder approves of the suggested change the change shall be communicated to all the Parties and the SLA

    vi. Change request would be appended to the Agreement.

The Buyer shall update and republish the text of Agreement annually to include all the SLA Change Requests that have been appended to the Agreement during the course of the year. Such republished Agreement shall be circulated to all the Parties within <***> days of such change taking place

13. Document History

All revisions made to this Agreement shall be listed in chronological order as per the format set out below and a copy of the same shall be provided to the Parties:

Version	Date	Description of Changes
<***>	<***>	<***>

14. Scope of Services

a) Bidder shall ensure that Services are available as per the requirements of the project;

b) Bidder shall provide support services for addressing problems related to the provision of services through the POC. Such POC shall be available over telephone on <***> number / email 24 hours a day, 7 days a week

c) Bidder guarantees that he shall achieve the Service Levels for the Project;

d) Bidder shall be liable to Service Credits in case of failure to comply with the Service Levels. However, any delay not attributable to the Implementation Agency shall not be taken into account while computing adherence to the Service Levels.

15. Performance Review

The POC's of both the Buyer and the Implementation Agency shall meet on a quarterly basis to discuss priorities, service levels and system performance. Additional meetings may be held at the request of either the Bidder or the Buyer. The agenda for these meetings shall be as follows:

a) Service performance.

b) Review of specific problems/exceptions and priorities; and

c) Review of the operation of this Agreement and determine corrective action to overcome deficiencies.

16. Indemnities

The Parties agree to indemnify each other under this Agreement in accordance with the terms and principles set out in the MSA.

17. Dispute Resolution

Any dispute, difference or claim arising out of or in connection with the Agreement which is not resolved amicably shall be decided in accordance with the dispute resolution procedure as set out in the MSA.

18. Miscellaneous

a) Assignment and Charges

This Agreement shall be binding on and ensure for the benefit of each Party's successors in title. No Party shall assign or declare any trust in favor of a third party over, all or any part of the benefit of, or its rights or benefits under, this Agreement.

b) Governing Law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at the State of Maharashtra shall have jurisdiction over matters arising out of or relating to this Agreement.

c) Waiver of sovereign immunity

The Parties unconditionally and irrevocably:

i. agree that the execution, delivery and performance by them of the Agreement constitute commercial acts done and performed for commercial purpose.

ii. agree that, should any proceedings be brought against a Party or its assets, property or revenues in any jurisdiction in relation to the Agreement or any transaction contemplated by the Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of such Party with respect to its assets.

iii. waive any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and

iv. consent generally to the enforcement of any judgment or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgment that may be made or given in connection therewith).

d) Variation

This Agreement may only be varied in writing and signed by both Parties

e) Waiver

Waiver including partial or conditional waiver, by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement: -

i. Shall be in writing

ii. Shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement.

iii. Shall not be effective unless it is in writing and executed by a duly authorized representative of the Party; and

iv. Shall not affect the validity or enforceability of this Agreement in any manner.

f) Exclusion of implied warranties

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

g) Survival

- Termination or expiration of the Term shall:

    i. not relieve the Bidder or the Buyer, as the case may be, of any obligations hereunder which expressly or by implication survive hereof; and

    ii. except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such termination or expiration or arising out of such termination or expiration.

- All obligations surviving termination or expiration of the Term shall cease on termination or expiration of the Term.

h) Entire Agreement

This Agreement and the Annexure together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED   SIGNED, SEALED AND DELIVERED

For and on behalf of the Implementation   For and on behalf of the Nodal
Agency by DGS   Agency by:

(Signature)   (Signature)

(Name): Shri.   (Name)
(Designation):   (Designation)

(Address)

                                                                (Address)

(Fax No.)   (Fax No.)

In the presence of:
1.
2.

Section 7 – Bidding Forms

Letter of Proposal

The Consultant must prepare the Letter of Proposal on its letterhead clearly showing the Consultant's complete name and address.

Note: All italicized text is for use in preparing these forms and shall be deleted from the final products.

Date:

Proposal Ref. No.:

To,
Directorate General of Shipping, 9th Floor Beta Building,
i-Think Techno Campus, Kanjurmarg (East), Mumbai - 400 042 (India)
Tel. No. : 91-22-25752040/41/42/43/45 Fax.No. :91-22-25752029/35; Email: dgship-dgs[at]nic[dot]in

1. We have examined and have no reservations to the Request for Proposals, including Addenda issued in accordance with Instructions to BidderBidders;
2. We meet the eligibility requirements in accordance with ITB 4 and have no Conflict of Interest in accordance with GFR 175;
3. We offer to provide, in conformity with the Request for Proposals, the following Consultancy Services: RFP for Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services
4. Our final price offer is as submitted in our financial Proposal.
5. Our Proposal shall remain valid for 180 days from the last date of submission of the Proposal and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
6. We are not participating, as a Bidder or as a sub-Bidder, in more than one proposal in this bidding process;
7. We, along with any of our sub-Bidders, key experts or joint venture partners for any part of the contract, are not debarred by any Client under the State Government, the Central Government or any State Government or any Public Undertaking, Autonomous body, Authority by whatever name called under them;
8. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any activities which is in contravention of the Code of Integrity proscribed in GFR 175;
9. We hereby certify that we neither are associated nor have been associated directly or indirectly with the Bidder or any other individual or entity that has prepared the design, specifications and other documents for the subject matter of procurement or is being proposed as Project Manager for the contract from the DGS;
10. We hereby certify that we have fulfilled our obligations to pay all such taxes as payable to the Central Government or the State Government or any local authority;
11. We hereby certify that we are not insolvent, in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities

suspended and must not be the subject of legal proceedings for any of the foregoing reasons;

12. We hereby certify that our directors and officers have not been convicted of any criminal offence related to their professional conduct or the making of false statements or misrepresentations as to their qualifications to enter into a procurement contract within a period of three years preceding the commencement of the procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;

13. We understand that this Proposal, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and

14. We understand that DGS is not bound to accept the highest evaluated Proposal or any other Proposal that DGS may receive and that the decision of the DGS shall be final & binding.

Name of the Bidder:
Name of Bidder's Authorized Signatory:
Designation of the person signing the Proposal:

Signature of the person named above
Date signed

Checklist of documents comprising Proposal

Document	Form	Included (Y/N)	Page No.
Covering Letter – Technical Bid	Please refer Tech 1		NA
Prequalification compliance sheet	Please refer Tech 17		
Bidder Details	Please refer Tech 2		
Financial Capabilities	Please refer Tech 3		
Profile of Resource	Please refer Tech 4		
Manpower Details	Please refer Tech 5		
Technical Solution	Please refer Tech 6		
Unpriced Bill of Material	Please refer Tech 18		NA
Approach and Methodology	Please refer Tech 7		
Project Plan and development	Please refer Tech 8		
Deployment of Personnel	Please refer Tech 9		
Details of Experience of Bidder in Various Projects	Please refer Tech 10		
List of Sub-Contractors and OEMs and their details	Please refer Tech 11		
Black-listing Certificate	Please refer Tech 12		
Format of Consortium Agreement	Please refer Tech 13		
Bank Guarantee for Earnest Money Deposit	Please refer Tech 14		
Certificate of Conformity / No Deviation	Please refer Tech 15		
Declaration for No Conflict of Interest	Please refer Tech 16		
Bid Security Declaration	Form of Bid security declaration		
Compliance sheet for Functional Requirements	Please refer Annexure Consolidated		
Compliance sheet for Technical Requirements	Please refer annexure Consolidated		

Tech 1: Technical Bid - Covering Letter

<<On Bidder / Lead Bidder Letterhead>>
Date:

To:
Directorate General of Shipping

9th Floor, Beta Building,

i-Think Techno campus

Kanjurmarg (East), Mumbai - 400042

Subject: RFP for Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services, administratively controlled by the Ministry of Ports, Shipping and Waterways, Govt. of India.

Dear Sir,
We hereby request to be qualified with the Directorate General of Shipping as a Tenderer **for "**RFP for Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services administratively controlled by the Ministry of Ports, Shipping and Waterways, Govt. of India."

 I / We declare that all the services shall be performed strictly in accordance with the RFP documents, and we agree to all the terms and conditions in the RFP.
I / We confirm that I / we am / are withdrawing all the deviations, counter clauses, proposed modifications in the Scope of work, Terms and Conditions, Functional Requirement Specifications and Technical Specifications which may have been mentioned in our proposal.

We authorize Directorate General of Shipping or its authorized representatives to conduct any investigations to verify the statements, documents and information submitted and to clarify the financial and technical aspects of this application. For this purpose, we hereby authorize (any public official, engineer, bank, depository, manufacturer, distributor, etc.) or any other person or firm to furnish pertinent information deemed necessary and requested by Directorate General of Shipping to verify statements and information provided in this application or regarding our competence and standing.

The names and positions of persons who may be contacted for further information, if required, are as follows:
Name: _____
Designation: _____
Telephone: _____
E-mail id: _____

We declare that the statements made, and the information provided in the duly completed application are complete, true and correct in every detail. On verification at any time in the future if it is found that information furnished with this application and statements made therein are not true, incomplete or incorrect, we hereby authorize Directorate General of Shipping to reject our application.

We confirm having submitted the information as required by you in Qualification Criteria. In case you require any other further information / documentary proof in this regard before evaluation of our bid, we agree to furnish the same in time to your satisfaction.

We undertake, if our proposal is accepted, to provide all the services related to RFP for Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services, administratively controlled by the Ministry of Ports, Shipping and Waterways, Govt. of India. Put forward in the bid document or such features as may subsequently be mutually agreed between us and DGS or its appointed representatives.

I. We agree for unconditional acceptance of all the terms and conditions set out in the bid document and also agree to abide by this bid response for a period of 180 days from the date fixed for bid opening and it shall remain binding upon us with full force and virtue. Till 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 us and DGS.

II. We hereby declare that in case the contract is awarded to us, we will submit Performance Bank Guarantee equivalent to 10 % of total contract value as quoted in the commercial bid in the form prescribed in the RFP.

III. I/We understand that Directorate General of Shipping reserves the right to reject any application without assigning any reason thereof.

IV. I/We hereby undertake that I/We have not made any payment or illegal gratification to any person/authority connected with the bid process so as to influence the bid process and have not committed any offence under the PC Act in connection with the bid.

V. All the prices mentioned in our Tender are in accordance with the terms as specified in the RFP documents.

VI. We hereby confirm that our prices include all taxes. However, all the taxes are quoted separately under relevant sections.

VII. We understand that the actual payment would be made as per the existing tax rates during the time of payment.

VIII. We have indicated in the relevant forms enclosed, the unit rates for the purpose of on account of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

IX. We further confirm that the prices stated in our bid are in accordance with your Instruction to Bidders included in Tender documents.

X. In case you require any other further information/documentary proof before/during evaluation of our Tender, we agree to furnish the same in time to your satisfaction.

XI. We declare that our Bid Price is for the entire scope of the work as specified in the tender document. These prices are indicated in Commercial Bid submitted as part of the requirements of Tender.

XII. Our commercial proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal.

XIII. We understand you are not bound to accept any Proposal you receive.

XIV. We hereby declare that our Tender is made in good faith, without collusion or fraud and the information contained in the Tender is true and correct to the best of our knowledge and belief.

XV. I/We shall disclose any payments made or proposed to be made to any intermediaries (agents, etc.) in connection with the bid.

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

XVII. We declare that we have read through the Tender document, all related clarifications and corrigendum.

Thanking you,
Yours faithfully

(Signature of the Authorized signatory of the Bidding Organization)
Name   :
Designation   :
Date   :
Company Seal   :
Business Address   :

Tech 2: Particulars of the Bidder (please fill separate sheet for each consortium members)

SI No.	Information Sought	Details to be Furnished
A	Name and address of the bidding Company	
B	In case of consortium, please indicate name of Lead Bidder	
C	Incorporation status of the firm (public limited / private limited, etc.)	
D	Year of Establishment	
E	Date of registration	
F	ROC Reference No.	
G	Details of registration with appropriate authorities for service tax	
H	Name, Address, email, Phone nos. and Mobile Number of Contact Person	

(Signature of the Authorized signatory of the Bidding Organization)

Name   :
Designation   :
Date   :
Company Seal   :
Business Address   :

Tech 3: Financial Capability

<<To be completed by the Bidder / In case of consortium, by each partner as appropriate to demonstrate that they meet the requirements>>
<<On the letterhead of the Chartered Accountant >>
<<To be submitted along with Audited Financial Statements>>

Date
To:
Directorate General of Shipping

9th Floor, Beta Building,

i-Think Techno campus

Kanjurmarg (East), Mumbai - 400042

We have examined the books of accounts and other relevant records of <<Bidder / consortium Partner Name along with registered address>>. On the basis of such examination and according to the information and explanation given to us, and to the best of our knowledge & belief, we hereby certify that the annual turnover, Profit before Tax and Profit after tax for the three years i.e., from 2020-21, 2021-22 and 2022-23 was as per details given below:

Information from Balance Sheets (in Indian Rupees)			
	2020-21	**2021-22**	**2022-23**
Annual Turnover			
Profit before Tax			
Profit After Tax			

(Signature of the Chartered Accountant)
Name   :
Designation   :
Membership Number   :
Date   :
Company Seal   :
Business Address   :

Tech 4: Profile of Resource

Name of the employee	
Name of the employer	<<Name of the Bidder / Consortium Member >>
Proposed position	
Date of Birth	
Nationality	
Total years of relevant experience	
Certifications	Note: Please attach copies of relevant certificates

Education	Qualification	Name of School / College / University	Degree Obtained	Date Attended
	Note: Please attach copies of relevant certificates			

Language	Language	Read	Write	Speak

Employment Record	Employer	Position	From (MM / YYYY)	To (MM / YYYY)	Exp. in Months
	(Starting with present position list in reverse order)				

Relevant Experience	*(Give an outline on the experience most pertinent to tasks mentioned in the project. Describe degree of responsibility held on these relevant assignments).*
	(Details shall be provided as per the number of project experience in the evaluation criteria specified in section 6.5 of the RFP. Bidders are expected to clearly state the total number of projects for the respective criterion as applicable.)
	Maximum 8 Projects:

Name of Assignment/Project	
Year	
Location	
Client	
Main project features	
Positions held	
Activities performed	

Certification	I, the undersigned, certify that to the best of my knowledge and belief, this bio-data correctly describes myself, my qualifications, and my experience.
	Date:
	Place: Signature of the employee / Authorized Signatory

Tech 5: Certificate from HR demonstrating its Organization Strength

<<On the letterhead of the Bidding Organization>>
<<In case of consortium, separate certificates to be submitted from respective HR authorized representatives>>

Date:
To:
Directorate General of Shipping

9th Floor, Beta Building,

i-Think Techno campus

Kanjurmarg (East), Mumbai - 400042

This is to certify that the number of full-time employees having experience in implementing all the major modules/solution components of the proposed solution in <<Organization Name>> is greater than <<Number>> as on DD/MM/YYYY

For <Organization Name>

HR Signature (with Organization Stamp)
HR Name

Tech 6: Technical Solution

The Bidder is required to describe the proposed Technical Solution in this section. The Technical Solution would be evaluated on the following broad parameters. The DGS reserves the rights to add, delete, or modify these parameters at any time during the Tender process, without assigning any reasons whatsoever and without being required to intimate the Bidders of any such change.

Clear articulation and description of the design and technical solution and various components
Extent of compliance to functional and technical requirements specified in the scope of work and in accordance with leading practices.
Technical Design and clear articulation of benefits to DGS of various components of the solution vis-à-vis other options available.

The Bidder should provide **detailed design** for the following listing all assumptions that have been considered:
  i.   Proposed Solution, in detail (including various tools to be used)
  ii.   Proposed Technical architecture
  iii. Capabilities of the proposed solution to address the functional requirements
  iv.   Database design considerations
  v.   Application Security Architecture
  vi.   Cloud DC DR Considerations
  vii. Data Migration approach
  viii. Testing approach
  ix.   Risk Management Plan

Tech 7: Approach & Methodology

    i.   The Bidder should cover details of the methodology proposed to be adopted for planning and implementation of solutions relating to establishment of the DGS solution.

    ii.   The Bidder may give suggestions on improvement of the scope of work given and may mention the details of any add on services related to this project over and above what is laid down in the tender document. List of deliverables should also be identified and explained.

    iii.   The Bidder shall describe the knowledgebase, best practices and tools that will be used by the project team for the execution of scope of work activities.

    iv.   The Bidder should cover details of the methodology proposed to be adopted for operations and maintenance of the DGS solution.

    v.   The bidder shall cover the details for best practices from imparting similar kind of training for users in an organization similar to the DGS based on bidder's prior implementation experience in the same

    vi.   Detailed Methodology and approach provided for training of the different stakeholders within DGS

    vii.   Best practices from undertaking Change Management for users in an organization similar to DGS based on bidder's prior implementation experience in the same.

    viii.   Detailed Training Plan indicating the number of training sessions, batch sizes and number of batches with respect to all the stakeholders, and all different kinds of training vis-à-vis the requirements in the tender.

    ix.   Project Methodology should contain, but not limited to the following
- Overall implementation methodology (Objective of phases, deliverables at each phase, etc.)
- Methodology for performing business design
- Methodology for quality control and testing of configured system
- Methodology of internal acceptance and review mechanism for deliverables by the bidder.
- Proposed Acceptance criteria for deliverables
- Methodology and approach along with proposed tools and processes which will be followed by the bidder during project implementation
- Change Management and Training Plan
- Risk and Quality management plan

Tech 8: Project Plan & Deployment of Personnel

S. No	Item of Activity	Month-Wise Program					
		M1	M2	M3	M4	M5	…..
1	Activity 1	███	███				
1.1	Sub-Activity 1	░░░					
1.2	Sub-Activity 2		░░░				
2	Activity 2						
	..						
3	Activity 3					███	
3.1	Sub-Activity 1					░░░	
3.2	Sub- Activity 2					░░░	

Indicate all main activities of the assignment, including delivery of reports (e.g.: inception, interim, and final reports), and other benchmarks such as Bidder approvals. For phased assignments indicate activities, delivery of reports, and benchmarks separately for each phase.

Duration of activities shall be indicated in the form of a bar chart.

Note: The above activity chart is just for the purpose of illustration. Bidders are requested to provide detailed activity & phase wise timelines for executing the project with details of deliverables & milestones as per their proposal.

Tech 9: Format of Deployment of Personnel

The Bidder should provide a detailed resource deployment plan in place to ensure that technically qualified staff is available to deliver the project.

The Bidder should provide the summary table of details of the manpower that will be deployed on this project along with detailed CVs of each key personnel

No.	Name of Staff	Education Qualification and Designation	Area of Expertise	Deployment Period (In Months)						Total Man-Months Proposed	Full Time/ Part Time
				M1	M2	M3	M4	M5	n		
1											
2											
3											

Tech 10: Details of Experience of Bidder in Various projects

The bidder should provide information for each project on similar assignments required for pre-qualification and technical evaluation criteria as per the format mentioned below

Sr. No.	Credential for < Prequalification Criteria No. / Technical Criteria No>		
	Name of the Organization - <<Name of the Bidder / Consortium Member that have executed / executing the project>>		
	Parameter	Details	
General Information			
	Customer Name		
	Name of the contact person and contact details for the client of the assignment		
	Whether client visit can be organized	(YES / NO)	
Project Details			
	Project Title		
	Start Date and End Date		
	Date of Go-Live		
	Total Cost of the project		
	Current Status (Live / completed / on-going / terminated / suspended)		
	No of staff provided by your company		
	Please indicate the current or the latest AMC period with the client *(From Month –Year to Month-Year)*		
	Please indicate whether the client is currently using the implemented solution		
Size of the project			
	Number of total users and concurrent users of the solution at the client location(s):	Total users	
		Concurrent users	
	Training responsibilities of Bidder		
	Any other information to be shared with DGS		
Narrative Description of the Project:			
Detailed Description of actual services provided by Bidder:			
Documentary Proof:			

Tech 11: List of Sub-Contractors and OEMs and their details

List of Sub-Contractors

Sr. No.	Role	Name of Sub-Contractor / OEM	Responsibility	Products/Services Offered

List of OEMs

Sr. No.	Role	Name of OEM	Responsibility	Products/Services Offered

(Signature of the Authorized signatory of the Bidding Organization)
Name   :
Designation   :
Date   :
Company Seal   :
Business Address   :

Tech 12: Details of ineligibility for corrupt or fraudulent practices / blacklisted with any of the Government or Public Sector Units

<<On the letterhead of the Bidding Organization>>
<<In case of consortium, separate certificates to be submitted from respective authorized representatives>>

Date:
To:
Directorate General of Shipping
9th Floor, Beta Building,
i-Think Techno campus
Kanjurmarg (East), Mumbai - 400042

Subject: Declaration for not being under an ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government or Public Sector Units in India

Dear Sir,

We, the undersigned, hereby declare that
We are not under a declaration of ineligibility / banned / blacklisted by any State or Central Government / any other Government institutions in India for any reason as on last date of submission of the Bid or convicted of economic offence in India for any reason as on last date of submission of the Bid

Thanking you,
Yours faithfully

(Signature of the Authorized signatory of the Bidding Organization)
Name   :
Designation   :
Date   :
Company Seal   :
Business Address   :

Tech 13: Format for Consortium Agreement
<<On the letterhead of the Bidding Organization>>
<<In case of consortium, separate certificates to be submitted from respective authorized representatives>>

[Date]

To
Directorate General of Shipping
9th Floor, Beta Building,
i-Think Techno campus
Kanjurmarg (East), Mumbai - 400042

Sir,
Sub: Declaration on Consortium
 I / We as Lead Partner of the Consortium, hereby declare the Roles and Responsibilities of the Consortium members:

Sr. No.	Member	Role	Responsibilities

I / We understand that as Lead Partner, I / we are be responsible for executing at least one component of the scope of work from the following components:
1. Application Development and Maintenance
2. Transitioning and Change Management
I / We understand that if this information / declaration is found to be false or incorrect, Directorate General of Shipping reserves the right to reject the Bid or terminate the Contract with us immediately without any compensation to us.

Yours faithfully,
Authorized Signatory of the Lead Partner
Designation
Date
Time
Seal
Business Address

Pre-qualification Bid Forms

Tech 14: Bank Guarantee for Earnest Money Deposit

WHEREAS _____ (Name of Tenderer) (hereinafter called 'the tenderer') has submitted its tender dated _____ (date) for the execution of _____ (Name of work) (hereinafter called 'the tender')

KNOW ALL MEN by these presents that we _____ (Name of Bank) having our registered office at _____ (hereinafter called 'the Bank') are bound unto the Directorate General of Shipping, Mumbai appointed by Government of India under Merchant Shipping Act 1958 (hereinafter called 'the Employer') in the sum of Rs. _____/- (Rs. _____)
for which payment well and truly to be made to the said Employer the Bank binds itself, its successors and assigns by these presents.
The CONDITIONS of this obligation are
If the Tenderer withdraws its Tender during the period of Tender validity specified in the Tender; or
If the Tenderer having been notified of the acceptance of his Tender by the Employer during the period of Tender Validity;
fails or refuses to execute the Agreement, if required; or
fails or refuses to furnish the Performance Security, in accordance with the General Conditions of Contract.
We undertake to pay the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or both of two conditions, specifying the occurred condition or conditions.
This guarantee will remain in force up to and including the date upto _____ (it shall be valid upto one eighty (180) days after the date of expiry of the period of tender validity), and any demand in respect thereof should reach our _____ branch situated in Mumbai limits for encashment not later than the date of expiry of this guarantee.

Dated _____ day of _____ 2020
Name of the Bank
Signature & Name & Designation
Seal of the Bank

Tech 15: CERTIFICATE OF CONFORMITY/ NO DEVIATION

<<To be submitted on the Company Letter head of the Lead Bidder>>

Date:
To:
Directorate General of Shipping
9th Floor, Beta Building,
i-Think Techno campus
Kanjurmarg (East), Mumbai – 400042

This is to certify that, the specifications of Software/ hardware which I/ We have mentioned in the technical bid, and which I/ We shall supply if I/ We am/ are awarded with the work, are in conformity with the minimum specifications of the bidding document and that there are no deviations of any kind from the requirement specifications.

Also, I/ we have thoroughly read the RFP and by signing this certificate, we hereby submit our token of unconditional acceptance to all the terms & conditions of the bidding document without any deviations.

I/ We also certify that the price I/ we have quoted is inclusive of all the cost factors involved in the end-to-end implementation and execution of the project, to meet the desired Standards set out in the bidding Document.

Thanking you,
Yours faithfully

(Signature of the Authorized signatory of the Bidding Organization)
Name   :
Designation   :
Date   :
Company Seal   :
Business Address   :

Tech 16: Format – Declaration for No Conflict of Interest

<<To be submitted on the Company Letter head of the Lead Bidder>>

Date:
To
Directorate General of Shipping,
9th Floor, Beta Building,
i-Think Techno campus
Kanjurmarg (East), Mumbai – 400042

Sir,
Sub: Undertaking on No Conflict of Interest

I / We as Bidder (SI) do hereby undertake that there is absence of, actual or potential conflict of interest on our part, on part of our Consortium partner (in case of a Consortium) due to prior, current, or proposed contracts engagements, or affiliations with Directorate General of Shipping, Government of India.
I / We also confirm that there are no potential elements (time frame for service delivery, resource, financial or other) that would adversely impact our ability to complete the requirements of this RFP.
We undertake and agree to indemnify and hold Directorate General of Shipping, Government of India harmless against all claims, losses, damages, costs, expenses, proceeding fees of legal advisors (on a reimbursement basis) and fees of other professionals incurred (in the case of legal fees & fees of professionals, reasonably) Directorate General of Shipping, Government of India and / or its representatives, if any such conflict arises later.

Yours faithfully,

Authorized Signatory
Designation
Date
Time
Seal
Business Address

Tech 17: Compliance Sheet for Pre-Qualification Proposal

The Bidder is required to fill relevant information in the format given below. The pre-qualification bid must contain documentary evidences and supporting information to enable DGS to evaluate the eligibility of the Bidder without ambiguity.

Sr. No	Qualification Criteria	Documents / Information to be provided in the submitted proposal	Compliance (Yes / No)	Reference & Page Number
	PQ 1			
	PQ 2			
	PQ3			
	PQ4			
	PQ5			
	PQ6			
	PQ7			
	PQ8			

Form of Bid Security Declaration

{Use Company Letterhead}

BID SECURITY DECLARATION

I/We, M/s (Name of bidder) am/are aware that I/We have been exempted from submission of Bid Security/Earnest Money Deposit in lieu of this Bid Security Declaration. I/We understand and accept that if I/We withdraw my/our bid within bid validity period or if awarded the tender and on being called upon to submit the performance Guarantee/Performance Security fail to submit the same within the stipulated time period mentioned in tender documents or on being called upon to sign the contract agreement fail to sign the same within stipulated period mentioned in tender documents, I/We i.e., the bidder shall be banned from submission of bids in any Works/Service Tender issued by DGSfor a period of 24 months from the date of such banning order.

Authorized
SignatorySign
and Stamp

Section 8 – General Conditions of Contract (GCC)

1. General Provisions	
1.1 Definitions	Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:
	a) "Completion Date" means the date of completion of the Services by the Bidder as certified by the Client;
	b) "Contract" means the Contract signed by the Parties, to which these General Conditions of Contract (GCC) are attached, together with all the documents listed in Clause 1 of such signed Contract, **as named in SCC**;
	c) "Contract Price" means the financial proposal of the successful Bidder duly accepted by the client;
	d) "Client" means the agency, **as named in SCC**, that signs the Contract for the Services with the Selected Bidder;
	e) "Bidder" means a legally-established professional consulting firm or entity selected by the Client to provide the Services under the signed Contract **as specified in SCC**;
	f) "Day" means a working day unless indicated otherwise.
	g) "Experts" means, collectively, Key Experts, Non-Key Experts, or any other Experts of the Bidder, Sub-Bidder or JV member(s) assigned by the Bidder to perform the Services or any part thereof under the Contract;
	h) "GCC" means these General Conditions of Contract;
	i) "Party" means the Client or the Bidder, as the case may be, and "Parties" means both of them;
	j) "Bidder's Proposal" means the completed Request for Proposals submitted by the Bidder to the Client;
	k) "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented;
	l) "Services" means the work to be performed by the Bidder pursuant to this Contract, as described in **Appendix A** – Terms of Reference;
	m) "Third Party" means any person or entity other than the Government, the Client, the Bidder or a Sub-Bidder.
1.2 Applicable Law	The Contract shall be interpreted in accordance with the laws of the Union of India.
1.3 Language	This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.
1.4 Notices	Any notice given by one party to the other pursuant to the Contract shall be in writing to the address **specified in the SCC**. The term "in writing" means communicated in written form with proof of receipt. A notice shall be effective from the date of delivery or on the notice's effective date, whichever is later. In case of electronic mode of communication, a notice shall be effective from the time of sending of the electronic communication.

1.5 Location	The Services shall be performed at such locations as are specified in **Appendix A** hereto
1.6 Authorized Representatives	Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Client or the Bidder may be taken or executed by the officials **specified in the SCC**.
1.7 Authority of Member in Charge	In case the Bidder is a Joint Venture, the members hereby authorize the member **specified in the SCC** to act on their behalf in exercising all the Bidder's rights and obligations towards the Client under this Contract, including without limitation the receiving of instructions and payments from the Client.
1.8 Taxes and Duties	The Bidder and their Experts shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.
1.9 Code of Integrity	a) The Client, the Bidder and their representatives shall strictly adhere to the code of integrity as stipulated under GFR 175. b) The Client requires the Bidder to disclose any commissions, gratuities or fees that may have been paid or are to be paid to agents or any other party with respect to the selection process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee. Failure to disclose such commissions, gratuities or fees may result in termination of the Contract

2. Commencement, Completion, Modification, and Termination of Contract

2.1 Effectiveness of Contract	This Contract shall come into effect on the date the Contract is signed by both parties or such other later date as may be **stated in the SCC**.
2.2 Commencement of Services	
2.2.1 Program	Before commencement of the Services, the Bidder shall submit to the Client for approval a Program showing the general methods, arrangements, order and timing for all activities. The Services shall be carried out in accordance with the approved Program as updated.
2.2.2 Starting Date	The Bidder shall start carrying out the Services thirty (30) days after the date the Contract becomes effective, or at such other date as may be **specified in the SCC**.
2.3 Intended Completion Date	Unless terminated earlier pursuant to Sub-Clause 2.6, the Bidder shall complete the activities by the Intended Completion Date, as is **specified in the SCC**. If the Bidder does not complete the activities by the Intended Completion Date, it shall be liable to pay liquidated damage as per Sub-Clause 3.8. In this case, the

	Completion Date will be the date of completion of all activities.
2.4 Modification	Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.
2.5 Force Majeure	
2.5.1 Definition	For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.
2.5.2 No Breach of Contract	The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.
2.5.3 Extension of Time	Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.
2.6 Termination	
2.6.1 By the Client	The Client may terminate this Contract, by not less than thirty (30) days' written notice of termination to the Bidder, to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Sub-Clause 2.6.1: a. if the Bidder does not remedy a failure in the performance of its obligations under the Contract, within thirty (30) days after being notified or within any further period as the Client may have subsequently approved in writing; b. if the Bidder become insolvent or bankrupt; c. if, as the result of Force Majeure, the Bidder is unable to perform a material portion of the Services for a period of not less than sixty (60) days; or d. if the Bidder, in the judgment of the Client has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract.
2.6.2 By the Bidder	The Bidder may terminate this Contract, by not less than thirty (30) days' written notice to the Client, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) of this Sub-Clause 2.6.2: a. if the Client fails to pay any monies due to the Bidder pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Bidder that such payment is overdue; or

	b. (b) if, as the result of Force Majeure, the Bidder is unable to perform a material portion of the Services for a period of not less than sixty (60) days.
3. Obligations of the Bidder	
3.1 General	The Bidder shall perform the Services in accordance with the Specifications and the Terms of Reference, and carry out its obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Bidder shall always act, in respect of any matter relating to this Contract or to the Services, as faithful adviser to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub-Bidders or third parties.
3.2 Conflict of Interests	3.2.1 The Bidder shall hold the Client's interest paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.
	3.2.2 The Bidder agrees that, during the term of this Contract and after its termination, the Bidder and any entity affiliated with the Bidder shall be disqualified from providing goods, works or non-consulting services resulting from or directly related to the Services for the preparation or implementation of the project, unless otherwise **indicated in the SCC**.
	3.2.3 The payment of the Bidder pursuant to GCC shall constitute the Bidder's only payment in connection with this Contract and the Bidder shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its obligations hereunder, and the Bidder shall use its best efforts to ensure that any Sub-Bidders, as well as the Experts and agents of either of them, similarly shall not receive any such additional payment.
	3.2.4 Furthermore, if the Bidder, as part of the Services, has the responsibility of advising the Client on the procurement of goods, works or services, the Bidder shall comply with the applicable rules and guidelines of the Government of India, and shall at all times exercise such responsibility in the best interest of the Client. Any discounts or commissions obtained by the Bidder in the exercise of such procurement responsibility shall be for the account of the Client.
	3.2.5 The Bidder shall not engage, and shall cause its Experts as well as its Sub-Bidders not to engage, either directly or indirectly, in any business or professional activities that would conflict with the activities assigned to them under this Contract.
	3.2.6 The Bidder has an obligation and shall ensure that its Experts and Sub-Bidders shall have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Bidder or the termination of its Contract.

3.3 Confidentiality	Except with the prior written consent of the Client, the Bidder and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Bidder and the Experts make public the recommendations formulated in the course of, or as a result of, the Services. In the event that the Firm or its representatives are requested pursuant to, or required by, applicable law or regulation or by legal or administrative process to disclose any Confidential Information, or where the Firm wishes to disclose to its professional indemnity insurers or to its advisers, the Firm agrees that it will, as far as is legally and practically possible, provide the Client with prompt notice of such request or requirement in order to enable the Client to seek an appropriate protective order or other remedy. In the event that such protective order or other remedy is not obtained, the Firm or its representatives, as the case may be, shall disclose only the portion of the Confidential Information which is legally or professionally required to be disclosed.
3.4 Insurance to be Taken Out by the Bidder	The Bidder (a) shall take out and maintain, and shall cause any Sub-Bidders to take out and maintain, at its (or the Sub-Bidders', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage, as shall be **specified in the SCC**; and (b) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums have been paid. The Bidder shall ensure that such insurance is in place prior to commencing the Services.
3.5 Bidder's Actions Requiring Client's Prior Approval	The Bidder shall obtain the Client's prior approval in writing before taking any of the following actions: a. entering into a subcontract for the performance of any part of the Services, b. changing the Program of activities; and c. any other action that may be **specified in the SCC**.
3.6 Reporting Obligations	The Bidder shall submit to the Client the reports and documents specified in **Appendix A**, in the form, in the numbers and within the time periods set forth in the said Appendix**.**
3.7 Documents Prepared by the Bidder to Be the Property of the Client	3.7.1 All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Bidder in accordance with Sub- Clause 3.6 shall become and remain the property of the Client, and the Bidder shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Client, together with a detailed inventory thereof. The Bidder may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be **specified in the SCC**. 3.7.2 If license agreements are necessary or appropriate between the Bidder and third parties for purposes of development of the plans, drawings, specifications, designs, databases, other documents and software, the Bidder shall obtain the Client's prior

	written approval to such agreements, and the Client shall be entitled at its discretion to require recovering the expenses related to the development of the program(s) concerned.
4. Bidder's Experts	
4.1 Description of Key Experts	The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Bidder's Key Experts are described in Appendix B. The Key Experts listed by title as well as by name in Appendix B are hereby approved by the Client.
4.2 Removal and/or Replacement of Experts	4.2.1 Except as the Client may otherwise agree, no changes shall be made in the Key Experts. If, for any reason beyond the reasonable control of the Bidder, it becomes necessary to replace any of the Key Experts, the Bidder shall provide as a replacement a person of equivalent or better qualifications.
	4.2.2 If the Client finds that any of the Experts have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Experts, then the Bidder shall, at the Client's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Client.
	4.2.3 In the event that any of Key Experts, Non-Key Experts or Sub-Bidders is found by the Client to be incompetent or incapable in discharging assigned duties, the Client, specifying the grounds therefore, may request the Bidder to provide a replacement.
	4.2.4 The Bidder shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Experts.
	4.2.5 Notwithstanding the above, the substitution of Key Experts during Contract execution may be considered only based on the Bidder's written request and due to circumstances outside the reasonable control of the Bidder, including but not limited to death or medical incapacity. In such case, the Bidder shall forthwith provide as a replacement, a person of equivalent or better qualifications and experience, and at the same rate of remuneration.
5. Obligations of the Client	
5.1 Assistance and Exemptions	The Client warrants that the Bidder shall have, free of charge, unimpeded access to the project site in respect of which access is required for the performance of the Services. The Client shall use its best efforts to provide the Bidder such assistance and exemptions as **specified in the SCC**.
5.2 Services, Facilities and Property of the Client	The Client shall make available to the Bidder and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described in the Terms of Reference (**Appendix A**) at the times and in the manner specified in said Appendix A.
5.3 Counterpart Personnel	5.3.1 The Client shall make available to the Bidder free of charge such professional and support counterpart personnel, to be

	nominated by the Client with the Bidder's advice, if specified in **Appendix A**.
	5.3.2 Professional and support counterpart personnel, excluding Client's liaison personnel, shall work under the exclusive direction of the Bidder. If any member of the counterpart personnel fails to perform adequately any work assigned to such member by the Bidder that is consistent with the position occupied by such member, the Bidder may request the replacement of such member, and the Client shall not unreasonably refuse to act upon such request.
5.4 Payment Obligation	In consideration of the Services performed by the Bidder under this Contract, the Client shall make such payments to the Bidder for the deliverables specified in **Appendix A** and in such manner as is provided by GCC 6 below.
5.5 Change in the Applicable Law	If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Service Provider, then the remuneration and reimbursable expenses otherwise payable to the Bidder under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Sub-Clause 6.1.
6. Payments	
6.1 Contract Price	6.1.1 The Bidder's Contract Price shall be a fixed lump-sum net of all costs incurred by the Bidder in carrying out the Services described in Appendix A. The Contract Price is **set forth in the SCC**. The Contract price breakdown is provided in Appendix C.
	6.1.2 Any change to the Contract price specified in Clause 6.1.1 can be made only if the Parties have agreed to the revised scope of Services pursuant to Clause GCC 2.4 and have amended in writing the Terms of Reference in **Appendix A**.
6.2 Taxes and Duties	6.2.1 The Bidder, Sub-Bidders and Experts are responsible for meeting any and all tax liabilities arising out of the Contract.
	6.2.2 As an exception to the above and **as stated in the SCC**, the GST is reimbursed to the Bidder.
6.3 Mode of Billing and Payment	6.3.1 The total payments under this Contract shall not exceed the Contract price set forth in Clause GCC 6.1.1.
	6.3.2 The payments under this Contract shall be made in lump-sum installments against deliverables specified in **Appendix A**. The payments will be made according to the payment schedule **stated in the SCC**.
	6.3.3 The Client shall pay the Bidder within forty-five (45) days after the receipt by the Client of the deliverable(s) and the cover invoice for the related lump-sum installment payment. The payment can be withheld if the Client does not approve the submitted deliverable(s) as satisfactory in which case the Client shall provide comments to the Bidder within the same forty-five

	(45) days period. The Bidder shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated.
	6.3.4 The final payment under this Clause shall be made only after the final report l have been submitted by the Bidder and approved as satisfactory by the Client. The Services shall then be deemed completed and finally accepted by the Client. The last lump-sum installment shall be deemed approved for payment by the Client within sixty (60) calendar days after receipt of the final report by the Client unless the Client, within such sixty (60) calendar day period, gives written notice to the Bidder specifying in detail deficiencies in the Services, the final report. The Bidder shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated.
	6.3.5 All payments under this Contract shall be made to the accounts of the Bidder **specified in the SCC**.
6.4 Interest on Delayed Payments	If the Client had delayed payments beyond fifteen (15) days after the due date stated in Clause GCC 6.3.3, interest shall be paid to the Bidder on any amount due by, not paid on, such due date for each day of delay at the annual rate **stated in the SCC**.
7. Settlement of Disputes	
7.1 Amicable Settlement	The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.
7.2 Dispute Settlement	Any dispute between the Parties arising under or related to this Contract that cannot be settled amicably may be referred to by either Party to the adjudication / arbitration in accordance with the provisions **specified in the SCC**.
8. Good Faith	
	The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.
9. Limitation of Liability	
	The total aggregate liability of the Bidder, whether in contract, tort (including negligence) or otherwise, under or in connection with this agreement, shall in no circumstances exceed a sum equal to 110% of the contract value.
10. Indemnity	
	The Bidder shall at all times indemnify and keep indemnified the Client against all claims/damages for any infringement of any Intellectual Property Rights (IPR) while providing its services under the Contract. The Bidder shall indemnify the Client in full for any failure in performance on account of its default or non-fulfilment of its obligations and the same is performed by the client or any other agency engaged by the client. In such case all the costs and expenses incurred by the client are recoverable from the

	Bidder. The Client shall also indemnify the Bidder for losses/damages suffered due to any fraud, misrepresentation or omission of facts by the Client or any of its personnel.

Section 9 – Special Conditions of Contract (SCC)

Number of GCC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1(b)	The contract name is RFP for Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services.
1.1(d)	The Client is *Directorate General of Shipping, 9th Floor Beta Building,i-Think Techno Campus, Kanjurmarg (East), Mumbai - 400 042 (India)*
1.1(e)	The Bidder is _____
1.4	**The addresses are**: Client: Directorate General of Shipping (DGS), Attention: Shri Ravi K Moka, DDG IT and E - Governance Email: - ravi.k43@gov.in Bidder: Attention: Facsimile: E-mail: _
1.6	**The Authorized Representatives are:** **For the Client:** _____ . **For the Bidder:** *[name, title]* _____
1.7	**The authorized member in charge is** _____
2.1	No change to the GCC clause
2.2.2	The Starting Date for the commencement of Services is seven (7) days after contract signing.
2.3	The Intended Completion Date is

Number of GCC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
3.2.2	The Client reserves the right to determine on a case-by-case basis whether the service should be disqualified from providing goods, works or non-consulting services due to a conflict of a nature described in Clause GCC 3.2.2
3.4	The risks and coverage by insurance shall be: (i) Third Party liability – as stipulated by relevant government law. (ii) Client's liability and workers' compensation – as stipulated in the employees' compensation act. (iii) Professional liability – at least 110% of the Contract Price.
3.5 c.	The Bidder shall follow the protocol stipulated in the Terms of Reference regarding entering-exiting Client's premises and for weighting and carrying the investment powder waste.
3.7	There are no specific restrictions.
5.1	The Client shall provide necessary assistance in providing gate-passes for smooth entry of the Bidder's vehicles and employees.
6.1	The Contract Price is: _____
6.2.2	The amount of GST reimbursable to the Bidder is: _____
6.3.2	The payment schedule shall be as stipulated under Appendix A – Terms of Reference.
6.3.5	Bidder's account details for payments under the Contract are: Account Name: Bank Name: Branch Name: IFSC Code:
6.4	The interest rate shall be 6% per annum.
7.2	Disputes shall be resolved by way of arbitration as stipulated under the Arbitration and Conciliation Act, 1996 as amended till date.

c) Appendix A – Terms of Reference

Refer to Section 5

d) Appendix B – Breakdown of Price

{Bidder shall insert the Breakdown of Contract Price in the BoQ (Excell file) uploaded separately in the E- Procurement portal}

e) Appendix C – CVs of the Key Experts

{Bidder shall insert the Key Experts' CVs here}

Section 10 – Contract Forms

Letter of Acceptance

{*On Client's Letterhead*}

Date:

To: {*Insert Name and Address of the Successful Bidder*}

Subject: Letter of acceptance of your Proposal against tender ref. no.:

This is to notify you that your Proposal dated [*insert date of Proposal submitted by the Bidder*] for the execution of services titled " RFP for Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC)" including Support Services*"* against RFP Ref. No. [*insert Proposal Ref. No.*] is hereby accepted by the Client for the Contract Price of Rs. [*insert amount in numbers and words*], as evaluated in accordance with the Instructions to Bidders.

You are requested to execute the contract agreement within 28 days of receipt of this Letter. Till a contract agreement is executed, this Letter along with your accepted proposals shall constitute a valid and mutually binding contract.

Authorized Signature: ....

Name and Designation of Signatory: ....

Name of Client: ....

Form of Contract

This CONTRACT (hereinafter called the "Contract") is made the *[number]* day of the month of *[month]*, *[year]*, between, on the one hand, ***DGS, Mumbai*** (hereinafter called the "Client") and, on the other hand, *[name of Bidder]* (hereinafter called the "Bidder").

WHEREAS

    (a)   the Client has requested the Bidder to provide certain consulting services as defined in this Contract (hereinafter called the "Services");

    (b)   the Bidder, having represented to the Client that it has the required professional skills, expertise and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the parties hereto hereby agree as follows:

1.   The following documents attached hereto shall be deemed to form an integral part of this Contract:

    (a)   The General Conditions of Contract;
    (b)   The Special Conditions of Contract;
    (c)   Appendices:
        Appendix A: Terms of Reference
        Appendix B: Key Experts
        Appendix C: Breakdown of Contract Price

In the event of any inconsistency between the documents, the following order of precedence shall prevail: the Special Conditions of Contract; the General Conditions of Contract, including Attachment 1; Appendix A; Appendix B; Appendix C. Any reference to this Contract shall include, where the context permits, a reference to its Appendices.

2.   The mutual rights and obligations of the Client and the Bidder shall be as set forth in the Contract, in particular:

    (a)   the Bidder shall carry out the Services in accordance with the provisions of the Contract; and
    (b)   the Client shall make payments to the Bidder in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of ***Directorate General of Shipping, Mumbai***

_____

Shri Shyam Jagannathan, DGS

For and on behalf of *[Name of Bidder or Name of a Joint Venture]*

[Authorized Representative of the Bidder – name and signature]

RFP for Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services

NON-DISCLOSURE AGREEMENT

THIS AGREEMENT is made on this the <***> day of <***> 20--- at <***>, India.

BETWEEN

-- having its office at -------------------- --- India hereinafter referred to as '**DGS**' or '------------------', which expression shall, unless the context otherwise requires, include its permitted successors and assigns);

AND

<***>, a Company incorporated under the Companies Act, 1956, having its registered office at <***> (hereinafter referred to as '**the Bidder/MSP**' which expression shall, unless the context otherwise requires, include its permitted successors and assigns).

Each of the parties mentioned above are collectively referred to as the 'Parties' and individually as a 'Party'.

WHEREAS:

1.   DGSis desirous to implement the project of ------------------------.

2.   DGS/ and Bidder have entered into a Master Services Agreement dated <***> (the "MSA") as well as a Service Level Agreement dated <***> (the "SLA") in furtherance of the Project.

3.   Whereas in pursuing the Project (the "**Business Purpose**"), a Party ("Disclosing Party) recognizes that they will disclose certain Confidential Information (as defined hereinafter) to the other Party ("Receiving Party").

4.   Whereas such Confidential Information (as defined hereinafter) belongs to Receiving Party as the case may be and is being transferred to the Disclosing Party to be used only for the Business Purpose and hence there is a need to protect such information from unauthorized use and disclosure.

NOW THEREFORE, in consideration of the mutual covenants, promises, assurances, representations and provisions set forth herein, the Parties hereto agree as follows:

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED	SIGNED, SEALED AND DELIVERED
For and on behalf of the Implementation	For and on behalf of the Nodal
Agency by: DGS	Agency by:
(Signature)	(Signature)
(Name): Shri.	(Name)
(Designation):	(Designation)
(Address)	
	(Address)
(Fax No.)	(Fax No.)

In the presence of:

1.

RFP for Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services

SERVICE LEVEL AGREEMENT

THIS AGREEMENT is made on this the <***> day of <***> 20---- at <***>, India.

BETWEEN

-- having its office at --------------------
-- India hereinafter referred to as '*DGS*' or '*Buyer*', which expression shall, unless the context otherwise requires, include its permitted successors and assigns);

AND

<***>, a Company incorporated under the *Companies Act, 1956*, having its registered office at <***> (hereinafter referred to as '*the Bidder/MSP'* which expression shall, unless the context otherwise requires, include its permitted successors and assigns).
Each of the parties mentioned above are collectively referred to as the '*Parties*' and individually as a '*Party*'.

WHEREAS:
1. DGS is desirous for Network infrastructure upgradation, Implementation of Network Management Solutions (NMS) and establishment of Network Operation Centre (NOC) including Support Services
2. NOC and Bidder have entered into a Master Services Agreement dated <***> (the "*MSA*").

NOW THEREFORE, in consideration of the mutual covenants, promises, assurances, representations and provisions set forth herein, the Parties hereto agree as follows:

The following parties are obligated to follow the procedures as specified by this Agreement:
DGS
Bidder

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN

SIGNED, SEALED AND DELIVERED For and on behalf of the Bidder by:	SIGNED, SEALED AND DELIVERED For and on behalf of DGS by:
(Signature) (Name) XXX (Designation) XXXX (Address) XXXX (Fax No.)	(Signature) (Name) (Designation) (Address) (Fax No.)

In the presence of:
1._____
2._____

Annexure- II – Technical Requirements Specification

MAF will be required for the technical appliances below

1. AAA Authentication Controller

Sr. No	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: AAA Authentication Controller			
General			
1	Controller shall support minimum of 5000 concurrent devices		
2	Controller shall provide at least 4 Gbps of LAN interfaces along with 2 10 Gbps of SFP+ ports		
4	Controller will provide flexibility for assigning any LAN or SFP+ port as LAN or WAN port		
5	Controller should be designed to work with any third-party access point if the access point support bridge mode configuration.		
6	Controller shall provide 1+1 redundancy with both units working in active-active configuration		
7	Controller should be installed in 1U rack-mount configuration with standard 220V power supply		
Authentication			
8	Controller will support built-in AAA server for local authentication and accounting		
9	Controller will support option to host captive portal and landing page on the controller itself for better response time.		
10	In addition, Controller should provide option to host the captive portal and landing page on remote server as needed		
11	Controller should support various login options for the end users which include		
	Username + Password		
	Vouchers		
	Mobile Number + OTP		
	Password		
	Email Verification		
12	Captive Portal should support option to edit the terms and conditions for the end users		
13	Controller should provide option to setup external AAA server for authentication		
14	Controller should support following RFC 2865, RFC 2866, RFC 3579, RFC 2868		
15	Controller should support WISPr attributes for roaming		
16	Controller should support multiple hotspot services on the sample hardware.		
17	Each hotspot service should support separate captive portal and login methods		
18	Controller should support MAC-based authentication		

Sr. No	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: AAA Authentication Controller			
19	Controller should support automatic Username – MAC binding so end users will get seamless experience when they connect to the wireless		
20	Controller should support authentication for non-browser devices like Internet TV, IP Camera, Internet terminals, etc		
21	Controller should support login pages with mobile verification via One-Time password as per the TRAI guidelines		
22	Controller should support two-factor authentication for end users using vouchers and mobile number with one-time password.		
Network			
23	Controller should support external DHCP so end users can obtain IP address settings from third party DHCP server		
24	Controller should support VLAN tagging for specific ports		
25	Controller should support creation of virtual interfaces to extend the physical interface		
26	Controller should allow assigning captive portal service to selected ports		
27	Controller should support VPN server for aggregating remote VPN client traffic		
28	Controller should support group-based routing rules		
29	Controller should support port forwarding to direct the traffic from WAN port		
20	Controller should selectively block outbound ports on specific LAN interface		
31	Controller should be able to provide dedicated Internet bandwidth from existing WAN connection to specific LAN interface to ensure QoS server for the end users		
Radio Frequency (RF)			
32	Controller should provide option to provision access points		
33	Controller should auto discover new access points on the network and provide single click option to provision the access points		
34	Controller should maintain global configuration for all access points and push the configuration changes automatically to all APs in the network		
35	Controller should display the connected clients to each access point along with the upload and download information for each client		
36	Controller should provide an option to reboot one or more access points remotely from the admin console		
37	Controller should support firmware upgrade of all access points from single console		
38	Controller should display the up and down status of all the connected access points.		

Sr. No	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: AAA Authentication Controller			
39	Controller should be able to monitor any third party access point and report the up/down status via email to the administrator		
40	Controller should be able to discover access points that are internal and external to the controller		
Compliance			
41	The system shall comply to the DoT guidelines regarding provision of Wi-Fi internet service under de-licensed frequency band		
42	The database for the system is to be provided by the bidder along with the required hardware, software, etc to maintain logs as per TRAI guidelines issued time to time.		
43	The system should maintain the connection logs for each user connected to the wireless network		
44	The system shall allow administrator to lists down the complete subscriber list in the system and allows updating or modifying subscriber information as required. Administrator can select the customer name from the list and update details.		
45	Controller shall uniquely identify each user and should perform KYC (Know-your-customer) before granting access to the end user.		
Policy Management			
46	Controller should provide provision to restrict each user based on the data usage, online time, browsing speed, number of allowed devices, etc		
47	Controller should enforce session policies for individual user or for a group of users		
48	Controller should support fair usage policy for a group of users so users misusing the system will automatically get lower speed		
49	Controller should restrict usage of the system for specific day of week or hours of the day.		
50	Controller should block end users from browsing specific category of websites while accessing the network. All activities for the users should be logged		
51	Controller should support MAC filtering so certain devices can be prevented from accessing the network		
52	Controller should support blocking certain website based on specific keywords in the domain name		
53	Controller should enforce different policies on the vouchers generated by administrator to restrict usage based on time, data usage or speed of the end devices		
User Management			
54	Controller should provide complete history of each user connected to the network including the devices user used to access Internet, login and logout times and data consumed by each individual device		

Sr. No	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: AAA Authentication Controller			
55	Controller must connect the user's device seamlessly without captive portal once the user has successfully registered for the service. The seamless login time must be configurable		
56	Controller must allow integration with external databases like LDAP or Active Directory for verifying user credentials		
57	Controller must provide API for accessing user information from third party applications		
58	Controller should allow administrators to categorize users into different group and setup policies on the users		
Dashboard & Reporting			
59	Controller should display online users and history of users in form of graphical reports.		
60	Controller should display the real-time statistics of user activity, bandwidth consumption for all users		
61	Controller should be able to monitor the connectivity to each access point, irrespective of the make and model of the access point.		
62	Controller must send automated reports to predefined email addresses via email		
63	Controller should be able to monitor the ISP bandwidth and provide historical report of speed test on each ISP connected to the controller		
64	Controller should provide reports for vouchers used and the time and data consumption on each voucher		
65	Controller should display the type and make of end user devices connected to the network		
Diagnostic			
66	Controller should provide diagnostic tools for debugging the issues with the clients remotely		
67	Controller should allow administrators to run network trace remotely to capture the data traffic between controller and end devices for troubleshooting		
68	Controller must log all the events on the network and allow historical search on the event history		
69	Controller should be able to log the connection status for each user and archive it for at least 3 months for legal compliance		
70	Controller should store the web browsing history for all the users for a period of 1 year as per the TRAI compliance standards.		
Others			
71	Controller should support creation of various packages		
72	Controller should support registration and renewal of user accounts		

Sr. No	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: AAA Authentication Controller			
73	Controller should integrate with third party payment gateway systems to charging the end users through various online billing methods like credit cards, debit cards, mobile wallets, etc		
74	Controller should support generation of vouchers		
75	Controller should support exporting of vouchers for printing		
76	Controller should provide real-time accounting of data usage for each user		
77	Controller should provide REST API for third party to retrieve end user information		
78	Controller should support templates to generate emails to the end users during billing transactions		

2. Core switch:

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Core Switch				
General				
1	Ports	• 24 x 10G SFP+ ports • 2 x 10GBASE-T ports		
2	Reliability	Redundant/Load-sharing power supplies		
		The switch shall have clustering capability or equivalent implemented, to perform as a single Layer 2 switch and Layer 3 router in active-active configuration or It should support distributed link aggregation in Active-Active mode.		
3	Port Standard & Functions	• IEEE 802.3u 100BASE-TX Fast Ethernet		
		• IEEE 802.3ab 1000BASE-T Gigabit Ethernet		
		• IEEE 802.3az Energy Efficiency Ethernet (EEE)		
		• IEEE 802.3an 10GBASE-T 10 Gigabit Ethernet• IEEE 802.3ae 10GbE over fiber • IEEE 802.3z 1000BASE-X • Auto MDI/MDIX support for 1000/10GBASE-T		
4	Network Cables for 10GBASE-T	• Cat. 6 (30 m max) • Cat. 6A or Cat. 7 (100 m max)		
5				
6	Media Interface Exchange	• Auto MDI/MDIX adjustment for all twisted-pair ports		
Performance				
7	Switching Capacity	• 560 Gbps		

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Core Switch				
8	Maximum Packet Forwarding Rate	• 416.64 Mpps		
Physical/Environmental				
9	Fans	• 2 x Smart Fan		
10	AC Input	•100 to 240 VAC		
11	Certifications	• IC		
12		• BSMI		
Software				
13	L2 Features	• LLDP-MED		
		• Spanning Tree Protocol		
		• 802.1D STP		
		• 802.1w RSTP		
		• 802.1s MSTP		
		• Flow Control		
		• 802.3x Flow Control		
		• HOL Blocking Prevention		
		• Port Mirroring		
		• One-to-One		
		• Many-to-One		
		• Supports Mirroring for Tx/Rx/Both		
		• 802.3ad Link Aggregation:		
		• Maximum of 8 groups/8 ports per group		
		• Jumbo Frame		
		• Up to 12,288 Bytes		
		• Loopback Detection		
14	VLAN	• Auto Surveillance VLAN		
		• Asymmetric VLAN		
		• 4K VLAN Groups		
		• 802.1p Priority Queue		
15	Quality of Service (QoS)	• 8 queues per port		
		• Queue Handling		
		• Strict Priority Que (SPQ)		
		• Weighted Round Robin (WRR)		
		• Bandwidth Control		
		• Port-based (Ingress/Egress, min. granularity 64 Kbps)		
		• QoS, Traffic prioritization and shaping		
		• Queue-based (Egress, min. granularity 64 Kbps)		
		• IPv6 Neighbour Discovery (ND)		
16	L3 Features	• Static Route		
		• Max. 128 IPv4 entries		

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Core Switch				
		• Max. 64 IPv6 entries		
		• Max. 1536 ingress ACL entries		
17	Access Control List (ACL)	• Max. 1024 egress ACL entries		
		• Max. 1024 Access List Numbers		
		• Traffic Segmentation		
18	Security	• SSH		
		• Support v2		
		• Support IPv4/ IPv6		
		• SSL		
		• Support TLS 1.0/1.1/1.2		
		• Support IPv4/IPv6		
		• ARP Spoofing Prevention2		
		• Max. 128 entries		
		• DoS Attack Prevention		
		• Port Security		
		• Supports up to 64 MAC addresses per port		
		• Duplicate Address Detection		
		• Support IPv4/IPv6 RADIUS Server		
19	Authentication, Authorization, and Accounting (AAA)	• Guest VLAN		
		• Trusted Host		
		• Support IPv4/v6 host		
		• Trusted host for Telnet, HTTP, HTTPS, SSH, Ping		
		• DHCP Relay		
20	Management	• DHCP Auto-image		
		• System Log		
		• BootP/DHCP Client		
		• SNTP		
		• ICMP v6		
		• IPv4/v6 Dual Stack		
		• DHCP Auto Configuration		
		• RMON v1/v2		
		• Dual Images		
		• Dual Configurations		
		• DNS Client		
		• Network Time Protocol		
		• Operating temperature of 0°C to 40°C		
		• Configuration through the CLI, console, Telnet, SSHv2		
		• System Hibernation		
21	Green V3.0	• Port Shutoff		

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Core Switch				
	Technology	• Shall be Support for RoHS/WEEE regulations		
		• RFC 4292 IP Forward MIB		
22	MIB/RFC Standards	• RFC 4836 MAU MIB		
		• RFC 4133 Entity MIB		
		• RFC 4560(80) PING-MIB		
		• RFC 4560(81) Traceroute-MIB		
		• RFC 3411 SNMP-Framework-MIB		
		• RFC 3414 SNMP-User-Based-MIB		
		• RFC 3412 SNMP-MPD-MIB		
		• RFC 3413(12) SNMP-Target-MIB		
		• RFC 3413(13) SNMP-Notification-MIB		
		• RFC 3415 SNMP-View-Based-ACM-MIB		
		• RFC 3584 SNMP-Community-MIB		
		• LLDP MIB		
		• Zone Defense MIB		
		Switch support IPv4 & IPv6 from day1.		
23	Additional Requirement	System should be tested and certified for EAL 2 or above or NDPP certified		
		Classified as leaders or challengers or niche players quadrant as per latest Gartner's / Forrester's / Others report in the last one year as on day of submission of bid. Documentary proof must be submitted at the time of submission.		

3. Distribution Switch Type 1 - 48 port:

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Distribution Switch - 48 port				
General				
1	Interfaces	• 48 x 10/100/1000BASE-T		
		• 4 x 10G SFP+ ports		
Performance				
2	Switching Capacity	• 176 Gbps		
3	Transmission Method	• Store-and-forward		
4	MAC Address Table	• 32K		

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Distribution Switch - 48 port				
5	Static MAC Addresses	• 256 entries		
6	Maximum 64 Byte Packet Forwarding Rate	• 130.95 Mpps		
7	Packet Buffer Memory	• 16 Mb		
Physical				
10	Power Input	• 100 to 240 V AC 50/60 Hz internal universal power supply		
11	MTBF	• 589,984.72 hours		
Certifications				
12	Safety	• CB, UL, BSMI, CCC		
Software				
13	L2 Features	• MAC Address Table• 16K entries• 32K entries (DGS-1250-52X/52XMP only) • IGMP Snooping• IGMP v1/v2/v3 Snooping• Supports 256 IGMP groups• Supports at least 64 static multicast addresses• IGMP per VLAN • Supports IGMP Snooping Querier• Loopback Detection • 802.3ad Link Aggregation:• Supports maximum 8 groups per per device and 8 ports per group• LLDP• LLDP-MED• Jumbo Frame• Up to 12,000 bytes • Spanning Tree Protocol• 802.1D STP• 802.1W RSTP• 802.1s MSTP• Flow Control• 802.3x Flow Control• HOL Blocking Prevention• Port Mirroring• One-to-One• Many-to-One• Supports Mirroring for Tx/Rx/Both• Multicast Filtering• Forwards all registered groups• Filters all unregistered groups• Configurable MDI/MDIX• MLD snooping v1/v2 awareness (256 groups) • PD-Alive		
14	L3 Features	• IP interface • Static routing • Supports 4 interfaces. • 124 IPv4 static route entries • IPv6 Neighbour Discovery (ND) • 50 IPv6 static route entries		
15	Security	Access Control Lists for Layer 2 to Layer 4 traffic filtering		
		Shall support global ACL, VLAN ACL, port ACL, and IPv6 ACL		

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Distribution Switch - 48 port				
		Shall support applying QoS policies on a port, VLAN, or whole switch, to set priority level or rate limit selected traffic.		
		Dynamic Host Configuration Protocol (DHCP) snooping to prevent unauthorized DHCP servers		
		Shall support applying QoS policies on a port, VLAN, or whole switch, to set priority level or rate limit selected traffic		
16	Additional requirements	Classified as leaders or challengers or niche players quadrant as per latest Gartner's / Forrester's / Others report in the last one year as on day of submission of bid. Documentary proof must be submitted at the time of submission.		

4. Distribution Switch Type 2 - 24 port:

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Distribution Switch - 24 port				
General				
1	Port Standards & Functions	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet, IEEE 802.3ab 1000BASE-T Gigabit		
		Ethernet, 802.3ae 10 GbE, IEEE 802.3x Flow Control for Full-Duplex Mode, Auto-negotiation		
2	Number of Ports	24 x 10/100/1000Mbps, 4 x 10G SFP+		
3	Network Cables	UTP Cat. 5, Cat. 5e (100 m max.); EIA/TIA-568 100-ohm STP (100 m max.)		
4	Full/Half Duplex	Full/half-duplex for 10/100 Mbps and full-duplex for 1000 Mbps speed		
5	Media Interface Exchange	Auto or configurable MDI/MDIX		
Performance				
6	Switching Capacity	128Gbps		
7	Transmission Method	Store-and-forward		
8	MAC Address Table	Up to 16,384 entries per device		
9	MAC Address Update	Up to 512 static MAC entries, Enable/disable auto-learning of		

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Distribution Switch - 24 port				
		MAC addresses		
10	Maximum 64 bytes Packet Forwarding Rate	95.24Mpps		
11	Packet Buffer Memory	1.5 MB per device		
12	MTBF	516,593 hours		
Physical & Environment				
13	Certifications	CE, FCC, C-Tick, VCCI, BSMI, CCC,		
14		IPv6 Ready		
15	Safety	cUL, CB		
16	L2 Features	• MAC Address Table: Up to 16,384 •Flow Control• 802.3x Flow Control• HOL Blocking Prevention• Jumbo Frame up to 9,216 Bytes• IGMP Snooping • IGMP v1/v2 Snooping• IGMP v3 awareness• Supports 512 IGMP groups • Supports 128 static multicast addresses• IGMP per VLAN• Supports IGMP Snooping Querier• Host-based IGMP Snooping Fast Leave• MLD Snooping• Supports MLD v1/v2 • Supports 512 groups• Supports 128 Static Multicast Addresses• Per VLAN MLD Snooping • Host-based MLD Fast Leave• MLD Snooping Querier • Spanning Tree Protocol• 802.1D STP• 802.1w RSTP• 802.1s MSTP• Loopback Detection v4.07• 802.3ad Link Aggregation• Max. 32 groups per device/8 ports per group• Port Mirroring• Support 4 mirroring groups• One-to-One, Many-to-One• Supports Mirroring for Tx/Rx/Both• Multicast Filtering• Forwards all unregistered groups• Filters all unregistered groups• Ethernet Ring Protection Switching (ERPS)		
17	L3 Features	• ARP• 256 Static ARP• Supports Gratuitous ARP• IPv6 Neighbour Discovery (ND)• 16 IP interfaces• Default Routing• Static Routing•		

Sr. No.	Parameters	Min. Acceptable Parameters	Compliance (Yes/No)	Reference page no.
Component: Distribution Switch - 24 port				
		64 IPv4 Static Route Entries• 32 IPv6 Static Route Entries• UDP helper		
18	Security	Access Control Lists for Layer 2 to Layer 4 traffic filtering		
		Shall support global ACL, VLAN ACL, port ACL, and IPv6 ACL		
		Shall support applying QoS policies on a port, VLAN, or whole switch, to set priority level or rate limit selected traffic.		
		Dynamic Host Configuration Protocol (DHCP) snooping to prevent unauthorized DHCP servers		
		Shall support applying QoS policies on a port, VLAN, or whole switch, to set priority level or rate limit selected traffic		
19	Additional requirements	Classified as leaders or challengers or niche players quadrant as per latest Gartner's / Forrester's / Others report in the last one year as on day of submission of bid. Documentary proof must be submitted at the time of submission.		

5. Core OFC (Armoured single mode)

Sr. No.	Min. Acceptable Technical Parameters	Compliance (Yes/No)	Reference page no.
Component: 6 Core OFC			
1	Armoured 6 Core Single mode (OS2) 9/125 Fiber Cable, ITU G.652.D, G.657A1, Outdoor ECCS Armoured Fiber Cable with PBT Loose Tube Filled With Thixotropic Jelly, Uni-Tube, Glass Yarn, Water Swellable Tape Under Armor, Rodent Resistant, UV-HDPE Jacket		
2	Application: The fiber cable should have Bend insensitive features to be installed in Outdoor, Duct, Trenches & Underground application.		
3	Features: The fiber cable should have excellent features of Anti rodent, Tensile, Crush, Water Prevention with Jelly & Moisture Barrier Tape		
4	Cable Construction		
5	Uni-tube (Central Loose Tube) with color coded fibers as per EIA/TIA 598		

Sr. No.	Min. Acceptable Technical Parameters	Compliance (Yes/No)	Reference page no.
Component: 6 Core OFC			
6	Loose Tube: PBT Loose Tube filled with Thixotropic Jelly		
7	Loose Tube Diameter: 2.5mm Nominal		
8	Armouring: Corrugated ECCS Tape Armouring (0.155 mm Nominal thickness)		
9	Outer Sheath: UV Resistance HDPE		
10	Moisture Barrer: Water Blocking Tape Under Armor		
11	Strength Member over Central Tube: Glass Yarns		
12	Physical / Mechanical Characteristics		
13	Outer Diameter: 9.0 +/- 1.0 mm		
14	Nominal Jacket Thickness: 1.5 mm		
15	Tensile Strength: >= 2220 Newton (IEC 60794-1-2-E1)		
16	Bending Radius: <= 20*OD (IEC 60794-1-2-E11) (OD=Cable Outer Diameter)		
17	Crush Resistance: >= 2200 Newton/100mm (IEC 60794-1-2-E3)		
18	Water Penetration: Meets IEC 60974-1-2 (24 Hr, 3Meter Sample, 1Meter Height)		
19	Weight: <= 95 Kg/km		
20	Environmental Characteristics		
21	Operating Temperature: IEC 60794-1-2-F1 @ -30℃ to +70℃		
22	Storage Temperature: IEC 60794-1-2-F1 @ -10℃ to +60℃		
23	Installation Temperature: IEC 60794-1-2-F1 @ -30℃ to +70℃		
24	Safety: ROHS complied		
25	Optical Characteristics		
26	Fiber Type: SM (9/125) OS2 as per G.657 A1		
27	Max. Attenuation: 0.36/km dB @ 1310nm, 0.23 dB/km @ 1550nm		
28	Mode Field Diameter @ 1310nm: 8.8 +/- 0.4 µm		
29	Dispersion: ≤ 3.5 ps/nm.km & ≤ 17.5 ps/nm.km		
30	Fiber cut of Wavelength: ≤ 1320		
31	Cable Cut of Wavelength: ≤ 1260		
32	Zero Dispersion Wavelength: 1300-1324 nm		
33	Zero Dispersion Slope: ≤ 0.090 ps/nm².km		
34	Coating Diameter: 250 ± 15 µm		
35	Cladding Diameter: 125 ± 0.7 µm		

Sr. No.	Min. Acceptable Technical Parameters	Compliance (Yes/No)	Reference page no.
Component: 6 Core OFC			
36	Fiber Curl: ≥ 4 m radius curve		
37	Cladding non-circularity: ≤ 1%		
38	Mode Field Concentricity error: ≤ 0.8 um		
39	Coating/Cladding Concentricity Error: ≤ 12 um		
40	Packaging: Wooden Spool of Min. 2KM roll		

6. Fiber Patch Cord SM, LC – SC / LC-LC:

S. No.	Technical Parameters	Compliance (Yes/No)	Reference page no.
Component: Fiber Patch Cord SM, LC – SC / LC-LC			
1	Length: 3 Meter		
2	SITC of Fiber Patch Cord, LC Duplex - SC Duplex, 9/125μm OS2 Single mode Duplex Zip Cord (<= 2.0mm), IL <= 0.35dB, RL>= 50dB, LSZH Jacket IEC 60332-1, Operating Temperature -40°C to +85°C, Meets ANSI/TIA 568.3-D, Length 3Meter		
3	Cable: LC/LC or LC/SC or SC/SC, 9/125μm OS2 Single mode Duplex Zip Cord (<= 2.0mm). OEM Name shall be mentioned on the patch cord cable.		
4	Connectors: The optical fiber patch leads shall comprise of Single mode 9/125μm fiber		
5	Attenuation: 1310/1550: 0.35/0.20 dB/KM		
6	Operating Temperature: -40°C to +85°C		
7	Repeatability: <= 0.2DB 1000 Times Mating Cycles		
8	Connector Insertion loss <= 0.35 dB		
9	Return Loss >= 55 for UPC and >= 65 for APC		
10	Jacket Material: LSZH complying to IEC 61034-1, IEC-60332-1, IEC-60754-1		
11	Attenuation: 1310/1550: 0.35/0.20 dB/KM		
12	Operating Temperature: -40°C to +85°C		
13	Repeatability: <= 0.2DB 1000 Times Mating Cycles		
14	OEM Name shall be printed on the Patch Cord Cable.		
15	RoHS Complied, Meets ANSI/TIA 568.3-D		

7. CAT 6 UTP ECCS Tape Armoured Cable:

Sr. No.	Description of Requirement	Compliance (Yes/No)	Reference page no.
Component: CAT 6 UTP ECCS			
1	SITC of Cat 6, 23 AWG Solid Bare Copper Conductor		

Sr. No.	Description of Requirement	Compliance (Yes/No)	Reference page no.
Component: CAT 6 UTP ECCS			
	U/UTP Unshielded, HDPE Insulation with Diameter 1.0 +/- 0.05mm, PE Cross (+) Filler Between Pairs, Inner FR-PVC Jacket IEC 60332-1 Rated, Outer HDPE Jacket, 500N Pulling Force, in accordance to ANSI/TIA 568 C.2 / ISO/IEC 11801, 250 MHz Bandwidth, Propagation Velocity: 69% (nominal), Rodent Resistant Outdoor Cable		
2	Suitable for 1GBASE-T with Min. 250Mhz of Bandwidth		
3	4 Twisted Pair alongside PE / PVC Cross Separator		
4	Conductor: 23AWG Solid Annealed Bare Copper		
5	Insulation: High Density Polyethylene, Diameter 1.0 ± 0.05mm		
6	PVC Inner Jacket		
7	Armor: ECCS Corrugated Tape, >= .125mm		
8	UV Resistant HDPE Outer Jacket		
9	Cable Outer Diameter: 10.7 ± 1.5 mm		
10	Operating Temperature: -20°C to +70°C		
11	Bend Radius: 20 X Cable Diameter (Min.) or Better		
12	Conductor Resistance: $\leq 9.38\ \Omega$ /100m		
13	Resistance Unbalance: 5% Max		
14	Mutual Capacitance: ≤ 5.6nF/100m		
15	Putup: 305M		
16	RoHS complied		

8. 6U Wall Mount Rack:

S. No.	Technical Parameters	Compliance (Yes/No)	Reference page no.
Component: 6U Wall Mount Rack			
1	Wall Mount Steel Racks shall be designed for Networking, Servers, Data Centre's, Audio Video, Telecom and Lab applications.		
2	Racks should be made out of CRCA steel, and proceeded with CNC Punching, forming, welding and powder coated.		
Rack Features			
3	Adjustable 19" equipment mounting verticals provide better mounting flexibility and maximizes the usable mounting space		
4	Depth adjustable mounting slots.		
5	Top and bottom panel with ventilation and cable entry facility.		
6	Powder coated finish with pre-treatment process meeting all industry standards.		

S. No.	Technical Parameters	Compliance (Yes/No)	Reference page no.
Component: 6U Wall Mount Rack			
7	100% assured compatibility with all equipment conforming to DIN 41494. General industrial standard for equipment.		
8	Rack Standard: Conforms to DIN 41494 or equivalent ISO standard		
9	Construction: Welded		
10	Front Door: Lockable Toughened Glass Door		
11	Basic Frame: Steel		
12	Equipment Mounting: DIN Standard		
13	Mounting Angle: 19" Mounting angles made of formed steel		
14	Standard Finish: Powder Coated		
15	Top and Bottom Cover: Welded to Frame, Vented and Field Cable entry exit cut outs		
16	Standard Color: Black/Gray		
17	Static Load: 30 kgs		
18	Cooling: Provision for heat dissipation for side-to-side and Front-to-Back units		
19	Cable Entry: Top and Bottom gland cable Entry trays with brush		
20	Support: The rack should not be an end of life / end of service product.		
Standard Accessories shall be supplied with Rack			
21	Power Distribution Units		
22	Cable managers for units		
23	Fans		
25	Mounting Hardware: Nuts and washers for mounting equipment and slides.		
Rack Dimensions			
23	6U - 550mm W x 500mm D		

9. 42U Floor Standing Rack:

Sr. No.	Item	Description of Requirement	Compliance (Yes/No)	Reference page no.
Component: 42U Floor Standing Rack				
1	Form Factor / Dimension	42 U (600x1000) Floor Mount Steel Racks shall be designed for Networking, Servers, Data Centre's, Audio Video, Telecom and Lab applications.		
2	Material	Aluminium		
3	Cooling	Provision for heat dissipation for side-to-side and Front-to-Back units		
4	Cable Entry	Top and Bottom gland cable Entry trays with brush		
5	Side Panels	Full Side Panels for both sides		
6	Front Door	Lockable Toughened Glass Door, Steel Single, Steel Dual with latch and		

Sr. No.	Item	Description of Requirement	Compliance (Yes/No)	Reference page no.
Component: 42U Floor Standing Rack				
		ventilation holes.		
7	Back Door	Back door with latch and ventilation holes.		
8	PDU	2* Dual 32 A PDU		
9	Power Outlets	2* 16 receptacle Power Connectors each connected to separate PDUs		
10	Extra Units	Keyboard Drawer, 2x fixed tray		
11	Mounting Accessories	Nuts and washers for mounting equipment and slides.		
12	Equipment Mounting	DIN Standard 10mm Sq. Slots / Direct M6 Tap		
13	Mounting Option	Castor wheels (Front 2 wheels with Break and rear without break) Or Levellers Or Base plinth		
14	Cable Managers	Adequate cable managers for units.		
15	Depth Support	4 * Depth Support channels		
16	Support	The rack should not be an end of life / end of service product.		
17	Compliance	Conforms to DIN 41494 or equivalent standard		

10. Fiber LIU

Sr. No.	Description of Requirement	Compliance (Yes/No)	Reference page no.
Component: Fiber LIU			
1	Minimum Specifications: Fiber Optic LC style fully loaded Patch Panel (FOPP), 19" Rack Mount with 12/24/48 nos. of OS2 9/125µ Pigtails.		
2	Shall have 12/24/48 nos. of ISO/IEC-11801-OS2 Pigtails with LC Type Connectors		
3	Shall have all accessories including coupler plates pre-loaded with duplex LC couplers (OS2), pigtails for terminating fibers on the FOPP		
4	Shall be Front Patching Type, 1U high for 12/24/48 fiber rack mountable on standard 19" rack with mounting arrangements		
5	Shall be supplied with fusion splicing sleeves for termination of fiber.		
6	Shall be made of powder coated steel		
7	Shall be slide-out type drawer enclosure for Easy access to splicing tray, Easy access to back side of the connector and have labels for better identification		
8	Shall have trays with hinges (book type) which allows facilitates easy Fiber management and greater access during installation and rework		
9	Shall have all necessary accessories for fiber management inside such as Fiber guides, radius controls & secure tie downs within the FOPP		

Sr. No.	Description of Requirement	Compliance (Yes/No)	Reference page no.
Component: Fiber LIU			
	Completely Enclosed without any open area to avoid any Rodent Entry		
	Pigtail Parameters Loaded inside Panel shall meet below mentioned requirements: - Pigtail Buffer Jacket Material: LSZH complying to IEC 61034-1, IEC-60332-1, IEC-60754-1 Connector Insertion loss should be better than 0.35 dB. Return Loss >= 50 for UPC and >= 65 for APC Attenuation: 1310/1550: 0.3 /0.2 dB/KM Repeatability: <= 0.2DB 1000 Times Mating Cycles		
	RoHS Complied, Meets ANSI/TIA 568.3-D		

11. Network Management Solution for Wired and Wireless with IT Service Management (ITSM):

Sr No	Technical Parameters	Compliance YES/NO	Reference page no.
Component: NMS for Wired and Wireless with ITSM			
General			
1	The proposed Network Management solution shall be a standalone, comprehensive management platform that delivers integrated, modular management capabilities across fault, configuration, accounting, performance, and security needs		
2	The software shall enable centralized management of proposed network elements with a variety of automated tasks, including discovery, categorization, baseline configurations, software images, configuration comparison tools, version tracking, change alerts, and more.		
3	The software shall be designed on a service-oriented architecture (SOA) using a business application flow model and capable of including additional modules to the base platform to provide deeper functionality		
4	The Monitoring Solution should provide Unified Architectural design offering seamless common functions including but not limited to: Event and Alarm management, Auto-discovery of the Network environment, Correlation and root cause analysis, Reporting and analytics		
5	NMS OEM must be an industry standard solution and shall be present in Gartner's / Forrester's / Others Market Guide for Network Automation and Orchestration Tools report. Documentary proof must be submitted at the time of submission.		
6	There should be a tight integration between infrastructure metrics and logs to have the single consolidated console of Infrastructure & security events.		
7	Consolidate IT event management activities into a single operations bridge that allows operator quickly identify the cause of the IT incident, reduces duplication of effort and decreases the time it takes to rectify IT issues.		

Sr No	Technical Parameters	Compliance YES/NO	Reference page no.
Component: NMS for Wired and Wireless with ITSM			
8	Shall be able to pull up security events related to a given Configuration Item, from a single console which also has NOC events, and use the security events to triage the problem. This way the Operator gets consolidated system/network event details and security events (current and historical) from the same console and save time in troubleshooting / isolating the issue.		
9	The solution should have capability to perform cross domain correlation with alarm correlation built-in algorithms from Network , Systems and other domain events as well as KPI patterns, also correlation should not be limited to only parent-child or service mapping relationships		
10	The operator should be able to build correlation rules in a simple GUI based environment where the Operator should be able to correlate cross domain events		
11	Scalability – The system should be capable of supporting at least 15 thousand network flow per second on single server with capability to capture each unique traffic conversations		
12	The solution shall provide future scalability of the whole system without major architectural changes.		
13	The Solution shall be distributed, scalable, and multi-platform and open to third party integration such as Cloud, Virtualization, Database, Web Server, Application Server platforms etc.		
14	The monitoring module of proposed solution must not use any third party database (including RDBMS and open source) to store data in order to provide full flexibility and control on collected data as well as avoiding tempering with SLA calculations		
15	Proposed NMS solution must be ISO 27001 / ISO 27034 and CIS certified to ensure security compliances.		
16	All the required modules should be from same OEM and should be tightly integrated for single pane of glass view of enterprise monitoring		
17	The software shall be compatible with Microsoft Windows/Linux operating systems/VMware		
18	The software shall come with an initial license for 200 managed devices. Additional node licenses shall be available to extend the node limit.		
19	Shall support Intelligent traffic analysis of the Network, as well as identify bottlenecks and apply corrective measures for enhanced throughput.		
Consolidated Dashboard			
1	The platform must provide complete cross-domain visibility of IT infrastructure issues which should cover all the Network Devices but not limited to Camera, Servers and other SNMP based devices.		
2	The platform must consolidate monitoring events from across layers such as Network, Wi-Fi Controller and APs, Server, Application, Database, UPS etc		

Sr No	Technical Parameters	Compliance YES/NO	Reference page no.
	Component: NMS for Wired and Wireless with ITSM		
3	The solution should support single console for automated discovery of enterprise network components e.g. network device, servers, virtualization, cloud, application and databases		
4	The solution must support custom dashboards for different role users such as Management, admin and report users		
5	The solution must allow creating custom data widget to visualize data with user preferences e.g. Refresh time, time span, background colour, unit conversion		
6	The solution must support custom query-based widget with multiple visualization methods including Chart, Guage, Grid, Top N list etc. to visualize and represent collected data with ease.		
7	The solution must provide comprehensive query language to pull and plot complex visualization with multiple arithmetic operator such as top, sum, min, max etc.		
8	The solution must support out of the box data widgets for Metric, Log and network flow data with multiple visualization methods such as gauge, grid, charts, Top N etc.		
9	The solution should provide superior view of infrastructure health across system, networks, application and other IT Infrastructure components into a consolidated, central console		
10	There should be only one dashboard/interface to collected network/server/application/log data after correlation and consolidation across the IT landscape to reduce/correlate number of metrics/alarms		
	Network Performance Management		
1	The solution must provide discovery & inventory of heterogeneous physical network devices like Layer-2 & Layer-3 switches, Routers and other IP devices and do mapping of LAN & WAN connectivity with granular visibility up to individual ports level.		
2	The solution must support custom device template to support Generic SNMP devices as well as extensive support on traffic encryption including SNMP v3 with AES-256 encryption		
3	The NMS should provide very powerful event correlation platform/engine and thus must filter, correlate & process, the events that are created daily from network devices. It should assist in root cause determination and help prevent flooding of non-relevant console messages.		
4	It shall provide Real time network monitoring and Measurement offend-to-end Network performance & availability to define service levels and further improve upon them.		
5	The Network performance operator console should provide operators with seamless transitions from fault data to performance data. For example - select a NMS fault event and fault drill down must also provide historical, near real time and correlated data without switching the page		

Sr No	Technical Parameters	Compliance YES/NO	Reference page no.
Component: NMS for Wired and Wireless with ITSM			
6	The solution should have the ability to do "baseline" performance metrics and determine normal operating values and patterns by self-learning algorithms on a day, week, month, etc. and ability to configure threshold on these values. The solution should also have built in algorithms to start the monitoring with zero threshold configurations		
7	The proposed system should be able to auto-calculate resource utilization baselines for the entire managed systems and networks and allow user choose algorithms that is more relevant to specific KPI in case of false positive		
8	The agents should be extensible and customizable allowing incorporation of any required monitoring source not included in the out-of-the-box monitoring policies. With capabilities to collect and analyze performance data from the operating system and installed applications and use historical patterns to establish performance baselines.		
9	All baseline thresholds should have lower bound, higher bound, polarity, deviation set point and reset point for ease of use.		
10	System should have anomalies detection, outlier detection and stop alarm flooding with these dynamic thresholds.		
11	The solution should be capable of performing prediction-based anomaly detection to identify unusual or unexpected events and measurements within the monitored environment.		
12	The Solution should provide AI and ML capabilities to help in preventing of Network problems before they occur. The Solution should include unsupervised learning module to gather real time network data and which learns the behaviour of devices, applications, and users on the network. It should be capable to bring together and correlate network and application data to predict anomaly and performance issues		
13	The solution must provide agentless and agent-based method for managing the nodes and have the capability of storing events / data locally if communication to the management server is not possible due to some problem. This capability will help to avoid losing critical events.		
14	The NMS admin consol must provide the ability to start, stop and restart the agent on target server infrastructure and the agent should provide collection capabilities not limited to just KPIs but also support collecting raw logs as well as packets.		
15	The proposed EMS solution must provide agentless as well as agent-based monitoring for server infrastructure. The agents should be able to set polling interval as low as 1 second with low overhead on target server infrastructure.		
16	The proposed solution should include a distributed search engine data-store to ingest various types of textual, numerical, geospatial, structured and unstructured data.		
17	It shall provide Real time network monitoring and Measurement offend-to-end Network performance & availability to define service levels and further improve upon them.		

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18	The EMS solution shall keep historical rate and protocol data for a minimum of 30 days (most recent) in its short-term operating database. All data in that database shall have a maximum 1- minute window granularity. User shall be able to select any 1-minute window over the last 30 days and display unique utilization and protocol data for every monitored interface		
19	The proposed solution should be able to take back up of running and startup configuration of network devices. It should also provide versioning for backup to track changes.		
Fault Management			
1	The proposed solution must should provide out of the box root cause analysis with multiple root cause algorithms inbuilt for root cause analysis. It should also have a strong event correlation engine which can correlate the events on the basis of event pairing, event sequencing etc.		
2	The Platform must include an event correlation automatically fed with events originating from managed elements, monitoring tools or data sources external to the platform. This correlation must perform event filtering, event suppression, event aggregation and event annotation		
3	The proposed solution should provide alert console with alert summary such as no. of correlated alert, network alert, server alert, virtualization alert, cloud alert, application alert etc.		
4	The system must have provision to overlay alert on reported metric to understand alert triggering behaviour across multiple drill down pages		
5	The proposed solution should have drill-down and correlation page to correlate cross domain historical data points and result should be exported as image and tabular format.		
6	The proposed solution should provide out of the box root cause analysis with multiple root cause algorithms inbuilt for root cause analysis. It should also have a strong event correlation engine which can correlate the events on the basis of event pairing, event sequencing etc.		
7	Powerful correlation capabilities to reduce number of actionable events. Topology based and event stream-based correlation should be made available.		
8	The solution must offer relevant remedy tools, graphs in context of a selected fault alarm/event		
9	The proposed monitoring solution shall have capability to configure actions-based rules for set of pre-defined alarms/alerts enabling automation of set tasks.		
10	The Platform must support Event or Alarm Correlation integrations with service desk to trigger automated creation of incidents, problems management		
11	The solution shall classify events based on business impact and allow defining custom severity levels and priority metrics such as Ok, Critical, Major, Down, Info etc with colour codes		

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12	The solution should allow creation of correlation or analytics rules for administrators		
13	The proposed solution must provide default event dashboard to identify, accept and assign generated alarms		
Log Management			
1	The proposed solution must provide a common classification of event irrespective of the log format		
2	The proposed solution must provide the ability to store/ retain both normalized and the original raw format of the event log as for forensic purposes for the period of 3 months and allow to extend it to further with additional hardware without any disruption to the ongoing data collection		
3	The proposed solution shall provide a minimum log compression of 8:1 for ensuring log compression to reduce overall log index storage space for the raw log format		
4	The log data generated shall be stored in a centralized server. The period upto which the data must be available should be customizable.		
5	The proposed solution must support logs collected from commercial and proprietary applications. For assets not natively supported, the solution should provide the collection of events through customization of connectors or similar integration		
6	The proposed solution must support log collection for Directories (i.e. AD, LDAP), hosted applications such as database, web server, file integrity logs etc. using agents		
7	The Log receiver or log collection component must store the data locally if communication with centralized collector/receiver is unavailable.		
8	The proposed solution must support log collection from Network infrastructure (i.e. switches, routers, etc.). Please describe the level of support for this type of product.		
9	The system shall support the following log formats for log collection: Windows Event Log, Syslog, Access Log Data, Application Log data, Any Custom Log data, Text Log (flat file), JSON Data		
10	The collection devices should support collection of logs through Syslog,		
	syslogNG and also provide native Windows Agents as well as Agentless (PowerShell) connectors		
11	The proposed solution must provide alerting based upon established policy		
12	The proposed solution must provide SDK and Rest API to write custom connectors and collectors to pull log and monitoring data from third party system		
13	The proposed solution must provide UI based wizard and capabilities to minimize false positives and deliver accurate results.		
14	The proposed solution must collect, index the log messages and support full text searching for forensic investigation		

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15	The proposed solution must support the ability to take action upon receiving an alert. For example, the solution should support the ability to initiate a script or send an email message.		
16	The solution must provide pre-defined log correlation rules to detect suspicious behaviour		
17	The solution must support real-time and scheduled alerting timeline while creating a log policy to catch specific log pattern		
18	The solution should support applying regex pattern in real-time to extract bidder specific log data for reporting and alerting purpose		
19	The system shall have the capability to drag and drop building of custom search queries & reports		
20	The system shall be capable of operating at a sustained 5000 EPS per collection instance. The system shall provide the ability to scale to higher event rates by adding multiple collection instance		
21	The NMS admin console must provide operators with seamless automation to extract fields from collected logs via drag and drop functionality to avoid log parsing complexity of collected logs from various syslog/ windows/ application sources.		
22	The proposed solution allows Correlated events to be generated by multi-KPI alerts, correlation searches, and anomaly detection algorithms.		
23	The Anomaly event configuration engine can be configured to perform actions on anomaly events, including running a script, sending an email, creating a ticket in 3rd party ticketing tools, adding a link to a ticket in an external system, and any other custom actions that are configured.		
24	The proposed solution must support anomaly and correlated event aggregation automatically or through a user defined aggregation policy that helps to group notable events to organize them in the Notable Events Review.		
25	The proposed solution must provide an aggregation policy to employ machine learning algorithms to group of polled data or KPIs		
26	The proposed solution must provide a customisable anomaly, baseline and static event aggregation policies that group notable events based on the following criteria:		
	A field matches a string does not match a string, sum of occurrences,		
	A Sum of occurrences of the field and value		
	A field value sum greater than a size or less than a size		
	A field matches a string before filter and after filter		
27	The proposed solution must provide a customisable control of grouping of log events in the following ways:		
	- Split events and log into multiple groups by one or more fields, such as source or host. Show nearby and surrounding events based on time		

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	- Extract all the fields and list them to filter data based on data indexed in each field such as top 5 values of data indexed in columns		
	- The proposed solution must allow customisation of visualizations of IT data and key business metrics, and map KPIs to these visualizations to easily view the health and performance of what matters most.		
	- Show unique log event patterns from collected data and allow drill down on these events for faster troubleshooting and investigation		
Network Flow-based Traffic Analysis			
1	The proposed traffic monitoring system must be able to track all network flow (including NetFlow v1-v9, Jflow, Sflow and IPFix) of traffic on the network and identify malicious behaviour with all IP conversations.		
2	The proposed system must provide details of applications, hosts, and conversations consuming WAN bandwidth to isolate and resolve problems.		
3	The proposed system must provide baseline network flow policy to detect anomaly in traffic usage behaviour.		
4	The solution must provide flow data explorer with capability to analyse extracted data using multiple columns, chart type, group by operators and filters. System must also provide dashboard to flow data explorer drill down capability.		
5	The proposed solution must be able to monitor and report on a variety of unique protocols (used in the overall deployed solutions) per day and display utilization data for each protocol individually. This capability must be available for each monitored interface uniquely.		
6	The proposed solution must keep historical rate and ip to ip, ip to protocol, protocol to protocol conversation data for a minimum of 3 months (most recent) in its current long term operating database. All data in that database must have a maximum 15-minute window granularity.		
7	The proposed solution shall include a distributed search engine data-store to ingest various types of textual, numerical, geospatial, structured and unstructured data.		
8	NMS should support use of policies that can detect violations based on blacklist/whitelist matches.		
9	The proposed solution must keep historical rate and protocol data for a minimum of 60 days (most recent) in its short-term operating database. All data in that database must have a maximum 1-minute window granularity with option change retention period		
10	The system must support the ability to create reports that allow the user to search all IP traffic over a specified historical period, for a variety of conditions.		
	o Search for any traffic using a specific configurable destination port, or port range.		
	o Search for any protocol in use by a specific host, interface or list of hosts or interfaces.		

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ITSM			
Service Desk - Incident Management			
1	The proposed helpdesk system shall provide flexibility of logging, viewing, updating and closing incident manually via web interface		
2	The proposed solution shall be aligned with ITIL framework principles and certified with ITIL4 with minimum 7 practices like Monitoring and Event Management, Incident Management, Service Request Management, Problem Management, Change Enablement, Release Management and Knowledge Management.		
3	Each incident shall be able to associate multiple activity logs entries via manual update or automatic update from other enterprise management tools.		
4	The proposed helpdesk system shall be able to provide flexibility of incident assignment based on the workload, category, location etc.		
5	The proposed solution shall automatically provide suggested knowledge base articles based on Incident properties with no programming		
6	The proposed solution shall automatically suggest available technicians based on workload, average ticket closure time assigning tickets with no programming		
7	The proposed solution shall tightly integrate with monitoring system to provide two-way integration - E.g. when system down alarm created, it should automatically create ticket and assign it to technician, in case system comes up before ticket is resolved by technician, it should automatically close the ticket to minimize human efforts		
8	The proposed system must not create more than one ticket for same recurring alarm to avoid ticket flooding from Monitoring system		
9	The proposed solution shall allow administrator to define ticket dispatcher workflow which automatically assign incoming tickets based on rules defined in workflow. E.g. Network fault keyword tickets gets assigned to network technician automatically within NOC team		
10	The proposed helpdesk system shall provide grouping access on different security knowledge articles for different group of users.		
11	The proposed helpdesk system shall have an updateable knowledge base for technical analysis and further help end-users to search solutions for previously solved issues		
12	The proposed solution shall allow Technician to relate Incidents to Problem, Change and vice versa to have better context while working on any of ticket type		
13	The proposed helpdesk system shall support tracking of SLA (service level agreements) for call requests within the help desk through service types.		
14	The proposed helpdesk system shall integrate tightly with the Knowledge tools and CMDB and shall be accessible from the same login window		

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15	The proposed helpdesk solution should be equipped with chatbot functionality for identifying the intent of the query and provide an accurate answer and suggest options to confirm or resolve the issue.		
16	The chatbot shall have NLP functions (Natural Language Processing) to analyse the context of the query.		
17	Proposed solution should not be dependent on any third-party NLP algorithm. It shall be inbuilt in the product.		
18	Proposed helpdesk shall have support of inbuilt conversational AI.		
19	Proposed helpdesk shall support custom theme option including color scheme of GUI, Fonts and custom logo placement.		
Asset Inventory Management			
1	A configuration management database shall be established which stores unique information about each type of Configuration Item CI or group of CI.		
2	The proposed solution allows scheduling periodic report to check current software and hardware inventory		
3	The proposed solution must allow attaching CI record to generated service tickets		
4	The Proposed solution shall provide end to end Asset Life Cycle Management: Makes it easier to handle the complete life cycle of an asset, that is, all stages/modules from procurement to disposal		
5	The Proposed solution shall support maintaining AMC/Warranty Information with Alerting when about to expire also provide Asset Deletion capabilities enabled with workflow engine		
6	The Proposed solution shall support Software License Metering: Helps to understand the software license compliance and the use of unauthorized software in the organization and helps to act proactively to curb illegal usage and problems associated with it.		
7	The proposed solution shall provide Asset Dashboards/Reporting: Graphical representation all the assets based on Category, location, aging of the asset, customer, which can be further level down to the incident record ID		
8	The proposed solution shall provide out of the box purchase and contract management modules to support end to end asset life cycle		
9	The proposed solution must provide asset baselining to manage and track asset effectively.		
Patch Management			
1	The proposed Solution shall support automated patch management for critical security patch deployment on physical machines and other infra including Windows, Linux machines and MacOS.		
2	The proposed solution should support auto patch evaluation in a test environment before distributing		
3	The proposed solution shall be able to deploy exe, msi/msp packages and scripts on end machines.		

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Reporting			
1	Reporting solution shall be able to report on Service Level status of configured business service.		
2	It should be able to collect and collate information regarding relationship between IT elements and business service, clearly showing how infrastructure impacts business service levels.		
3	The solution should be user configurable for building additional reports.		

Undertaking from Bidder:
1. Bidders must detail how their solutions meet each requirement.
2. Proposals should include references to compliance frameworks and certifications.
3. Any additional features beyond the listed requirements should be highlighted.