

**NATIONAL HIGHWAYS AUTHORITY OF INDIA  
(PLANNING & INFORMATION SYSTEMS DIVISION)  
G-5&6, SECTOR-10, DWARKA, NEW DELHI-110 075**

**Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems**

**TENDER DOCUMENT**

**E-Tender No./ RFP No. NHA/11013/IT/WI-FI/2017**

## TABLE OF CONTENTS

	PARTICULARS	PAGE NO.
PART – I: INFORMATION ABOUT THE TENDER		
SECTION I	Notice Inviting Tenders	4
	Disclaimer	6
SECTION II	Schedule of Important Events	7
SECTION III	Information to Bidders	8
SECTION IV	Terms of Reference (TOR)	22
SECTION V	Preference to domestically manufactured electronic products in Government procurement	46
PART – II : FORMS FOR SUBMISSION OF BIDS		
SECTION VI	Forms for submission of Technical Bid	49
SECTION VII	Forms for submission of Financial Bid	62
PART – III : FORMAT OF CONTRACT		
SECTION VIII	Format of Contract	69

## PART-I

### INFORMATION ABOUT THE TENDER

## SECTION – I

E-Tender No./ RFP No. NHAI/11013/IT/WI-FI/2017 Dated: 19 JUNE 2017  
NATIONAL HIGHWAYS AUTHORITY OF INDIA  
PLANNING & INFORMATION SYSTEMS DIVISION  
G-5 & 6, Sector-10, Dwarka, New Delhi-110 075

### NOTICE INVITING TENDERS (THROUGH E-TENDERING MODE ONLY)

1. Online tenders are invited for Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems at NHAI HQ along with Warranty for 3 years. ("Project").
2. The scope of work broadly comprises of upgradation of networking, IP telephony, security equipment/ software and solution, servers, operating system, storage solution, cabling and AMC of Existing Components. The Bidder after successful installation of supplied equipment at NHAI Offices and needs to provide comprehensive onsite warranty for a period of 3 years. Detailed scope of work, eligibility criteria, bidding procedure, conditions of contract and other information relating to the contract are given in the tender document.
3. The estimated cost of the Project for the contract period is Rs. 8.5 Cr plus taxes/GST as applicable (tentative)
4. Bidder(s) have to pay (a) the Tender Application Fee (non-refundable); and (b) Bid Security, in the prescribed manner.
5. **ACCESSING/PURCHASING OF BID DOCUMENTS:**
  - (i) It is mandatory for all the Applicants to have class-III digital signature certificate (with both Signing and encryption certificate) (in the name of person who will sign the Application) from any of the licensed Certifying Agency ("CAs") [Applicants can see the list of licensed CAs from the link [www.cca.gov.in](http://www.cca.gov.in)] to participate in e-tendering of NHAI. The Authorized Signatory holding Power of Attorney shall only be the Digital Signatory. In case authorized signatory holding Power of Attorney and Digital Signatory are not the same, the bid shall be considered non-responsive.
  - (ii) To participate in the submission of the bid against the RFP, it is mandatory for the Applicants to get themselves registered with the NHAI's e-tender portal and to have user ID & password.
  - (iii) Following may be noted- (a) Registration should be valid at least up to the date of submission of Bid. (b) Bids can be submitted only during the validity of registration with the NHAI's e-tender portal. (c) The amendments/clarifications to the RFP, if any, will be hosted on the NHAI's website as well as e-tender portal. (d) If the applicant is already registered with e-tendering portal of NHAI and validity of registration has not expired, the applicant is not required to register afresh.
  - (iv) For Help, please contact e-tendering Cell and Help Desk Support. Support staff at E-Tendering Help desk shall be available on all week days (Monday to Friday) from 09:30 AM to 6:00 PM except on Gazetted Holidays. Details may be seen on the NHAI website.

- (v) The authorized signatory holding Power of Attorney shall only be the Digital Signatory, In case authorized signatory holding Power of Attorney and Digital Signatory are not the same, the bid shall be considered non-responsive.
- (vi) NHAI reserves the right to accept or reject any or all the proposals without assigning any reason whatsoever.

### **Disclaimer**

The information contained in this RFP document (the "RFP document") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of NHAJ or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP document and such other terms and conditions subject to which such information is provided.

This RFP document is not an agreement and is neither an offer nor invitation by NHAJ to the prospective Bidders or any other person. The purpose of this RFP document is to provide interested parties with information that may be useful to them in making their technical/ financial offers ("Bid(s)") pursuant to this RFP document. This RFP document includes statements, which reflect various assumptions and assessments arrived at by NHAJ in relation to the Project. Such assumptions, assessments, and statements do not purport to contain all the information that each Bidder may require. This RFP document may not be appropriate for all persons, and it is not possible for NHAJ, its employees or advisors to consider the investment objectives, financial situation, and particular needs of each party who reads or uses this RFP document. The assumptions, assessments, statements and information contained in this RFP document, may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability, and completeness of the assumptions, assessments, statements, and information contained in this RFP document and obtain independent advice from appropriate sources.

Information provided in this RFP document to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. NHAJ accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

NHAJ, its employees and advisors make no representation or warranty and shall have no liability to any person, including any applicant or Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP document or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP document and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP document or arising in any way for participation in this Bid.

NHAJ also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP document. NHAJ may in its absolute discretion, but without being under any obligation to do so, update, amend, or supplement the information, assessment or assumptions contained in this RFP document.

The issue of this RFP document does not imply that NHAJ is bound to select a Bidder or to appoint the Successful Bidder for the Project and NHAJ reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all their costs associated with or relating to the preparation and submission of their Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by NHAJ or any other costs incurred in connection with or relating to Bid. All such costs and expenses will remain with the Bidder and NHAJ shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the bidding process.

SECTION – II

SCHEDULE OF IMPORTANT EVENTS

<b>Sl. No.</b>	<b>EVENT(S)</b>	<b>DATE/ TIME (Unless otherwise notified separately)</b>
1.	Publication of Notice Inviting Tenders	19 JUNE 2017 (Monday)
2.	Raising Queries on the Bid	1800Hrs(6pm),27 JUNE 2017 (Tuesday)
3.	Pre Bid Meeting	11:30AM on 30 JUNE 2017 (Friday) in NHAI HQ
4.	Reply to the queries	07 JULY 2017 (Friday)
5.	Last date for submission of online tenders and physical submission	Before 11:00Hrs 31 JULY 2017(Monday)
6.	Online Opening of Technical Tenders	11: 30 hrs, 01 AUGUST2017 (Tuesday)
7.	Online Opening of Financial Bids	To be intimated to successful pre-qualified Bidders
8.	Announcement of Successful Bidder and issuance of Letter of Award (LOA)	Normally within 4 weeks of date of opening of Financial Bids
9.	Successful Bidder to furnish acceptance along-with Performance Bank Guarantee (PBG)	Within 15 working days from the issuance of LOA
10.	Signing of Contract	Normally within 2-3 weeks from the acceptance of LOA and submission of PBG by the Successful Bidder.

**NOTE :** The above-mentioned schedule of event(s) may be changed, at the discretion of NHAI, without assigning any reason. Such change of date(s), if any, will be suitably notified only through NHAI's e-tendering portal. Interested persons/ prospective Bidders are advised to periodically monitor the information relating to this tender on the NHAI's e-tendering portal and e-tender portal.

SECTION – III

INFORMATION TO BIDDERS



## **1. BACKGROUND AND REQUIREMENT**

- 1.1. The National Highways Authority of India (NHAI) was constituted by an Act of Parliament, the National Highways Authority of India Act, 1988. It is responsible for the development, maintenance and management of National Highways entrusted to it and for matters connected or incidental thereto.
- 1.2. The Head Office at Dwarka, New Delhi already has a Local Area Network (LAN) and Wide Area Network (WAN) providing Data and IP Telephony connectivity to its users. NHAI also has co-located some of its Application Servers at the Internet Data Center (IDC)/ NHAI offices in Delhi/ NCR.
- 1.3. Considering the next stage of services to be offered at Toll plaza and Regional offices which will be now connected to the HQ bringing lot of Video, voice and surveillance traffic which needs the overall up gradation of the network
- 1.4. The Headquarters of NHAI is located at Dwarka, New Delhi. NHAI also has Field Offices viz. Project Implementation Units (PIUs) and Toll Plazas which are spread all over the country. Among these Field Offices, PIUs are responsible for implementing a work plan on a particular stretch of roads on National Highways; Corridor Management Units (CMUs) maintain a particular stretch of completed roads and Toll Plazas are responsible for collecting the Toll. This network will also be connected to all these locations for various mission critical services like Video Surveillance at Tolls
- 1.5. The System Integrator would be expected to provide “Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems” at NHAI HQ along with Onsite Warranty for 3 years. Such support would be for a definite period and will not amount to any kind of employment obligation on the part of NHAI.
- 1.6. Bidders are advised to carefully go through the detailed Terms of Reference (TOR) containing scope of work, details of existing system, specifications, service window, performance standard etc. as well as conditions of the Contract to get them acquainted with the job requirements and their cost implications before taking part in the bidding process.
- 1.7. The Contract period will be for a period of three(3) years as the bidder has to provide on-site warranty support. (“Contract Period”).

## 2. ELIGIBILITY CRITERIA:

The Criteria for selection of the System Integrator shall be as under. All criteria mentioned need to be complied by the Bidder. Any Bidder, not meeting any of the criteria shall be treated as non-responsive.

- 2.1 An applicant (referred to as “Bidder”) may be an individual or a firm or a company incorporated and registered in India under the Companies Act, 1956 and operating in India for the last five years. Certificate of incorporation / registration must be submitted as documentary proof for the same.

**Field of Business:** The Company should be in the field of Information Technology / Communication Technology for at least last 5 years (prior to the date of bid submission). Copy of relevant and valid Purchase Order(PO)/ Work order(WO)/LOA/ Contract for last 5 years before the date of bid submission should be submitted in the Technical bid.

- 2.2 A Bidder declared ineligible by NHAI or Ministry of Road Transport & Highways, Government of India for indulging in corrupt or fraudulent practices or any of its project is unfinished due to its default shall be ineligible to Bid in this tender.

- 2.3 A Bidder determined non-performing by NHAI shall also not be eligible to Bid during the period so determined.

- 2.4 The Bidder must either be an Original Equipment Manufacturer (OEM) for the equipment's quoted in this tender and/ or its Authorized System Integrator/Channel Partner for this bid or any other bidder should submit Manufacturers Authorization Form (MAF) for the equipment/services being quoted as part of this tender. The Bidder should have direct back-to-back support agreement with the OEM. The Support agreement should include the activities like Post-Sales support, Technical Assistance support, Spares support, Software Up-gradation support etc.

The Bidder, if it is an OEM, should provide a declaration to this effect strictly as per the format given at Form-T2. The Bidder, if it is an authorized System Integrator/channel partner of the OEM, should submit a declaration to this effect strictly as per the format given under Form-T3 and should submit a letter (MAF), in the letterhead of the OEM, duly signed and stamped by the authorized signatory of the OEM.

- 2.5 **Financial Strength:** The bidder's average annual financial turnover should be Rs. 4.25 Crores or more in the last three financial years i.e. The net worth of the bidder must be positive and 85 lacs or more.

Documentary proof in the form of a certificate from the Company Secretary or statutory auditor/ chartered accountant as per the specified format (Form-T4) shall be submitted to substantiate the requisite Financial Strength of the Company. Certificates, which are not in specified format or are issued with date prior to the Notice Inviting Tender, shall not be considered and the Bid accompanying such certificates is likely to be declared as non-responsive.

- 2.6 The Bidder shall be involved in provision of similar nature of work i.e. supply and installation of networking equipment, servers, storage solution, security solution, and system integration services to its clients in Central/State Government or PSU

A self-declaration statement signed by authorized signatory of the Bidder shall be enclosed with other supporting documents in the technical proposal as per proforma [Form-T5 and T6].

**Technical Strength:** The bidder must have experience of having successfully executed similar nature of work during last 5 financial years as under - a) Single work of Rs. 6.8 crores or above or b) two works of Rs. 4.25 crores each or above or c) three works of Rs. 3.4 crores each or above. Copy of subject certificate from the client shall be mandatorily be enclosed with the proposal.

- 2.7 The Bidder must have service center for repair/ maintenance of IT equipment's or having confirmed tie-up with leading service center(s) for repair of equipment which are to be maintained as per this tender. The service center shall have facility through which service be provided within 24 hours of call logging pending which warranty SLA be referred.
- 2.8 The main objects of the Memorandum of Association of the Company (Bidder) should substantiate that in the ordinary course of its business, the Company is engaged in providing similar services in the information technology field and/ or Networking Business.
- 2.9 EventhoughtheBiddersmeet thequalifyingcriteria, theyaresubjecttobe disqualifiedif theyhave:
- (a) mademisleadingorfalserepresentationsintheforms,statementsandattachments submittedinproofoftheeligibilityrequirements;
  - (b) record of poor performance such as abandoning the works, not properly completing the contract, inordinate delay in completion, delay in payment of salary to its staff deployed to client's site, litigation history, or financialfailuresetc.;
  - (c) submitted a Bid which is not substantially responsive to the requirements stated in the Tender Document.

### 3. CONFLICT OF INTEREST

- 3.1 A Bidder shall not have a conflict of interest that may affect the bidding process (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, NHAI shall forfeit and appropriate 5% of the value of Bid Security as mutually agreed genuine pre-estimated loss and damage likely to be suffered and/ or incurred by the NHAI and not by way of penalty for, inter alia, the time, cost and effort of NHAI including consideration of such Bidder's Bids, without prejudice to any other right or remedy that may be available to NHAI hereunder or otherwise.
- 3.2 NHAI requires that the selected bidder provides professional, objective, and impartial advice and at all times hold NHAI's interest's paramount, avoid conflictswith other assignments or its own interests. The selected bidder shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of NHAI.
- 3.3 A Bidder shall be deemed to have a Conflict of Interest affecting the bidding process, if:
- a) a constituent<sup>1</sup> of applicant Bidder is also a constituent of another Bidder; or
  - b) such Bidder or its associate receives or has received any direct or indirect subsidy or grant from any other Bidder or its associate; or
  - c) such Bidder has the same legal representative for purposes of this application as any other Bidder; or
  - d) such Bidder has a relationship with another Bidder, directly or through common third parties, that puts them in a position to have access to each other's information about the bids, or if they actually share or access each other's information regarding the bids or to influence the bid of either or each of the other Bidder; or
  - e) there is a conflict among this and other assignments of the Bidder (including its personnel and subordinates) and any subsidiaries or entities controlled by such Bidder or having

---

<sup>1</sup> For the purpose of this clause the word "*constituent*" shall include Promoter, Director, Shareholder, Partner, Agent, representative etc.

common controlling shareholders. The duties of the Bidder will depend on the circumstances of each case. While providing services to NHAI for this particular assignment, the Bidder shall not take up any assignment that by its nature will result in conflict with the present assignment; or

- f) a firm which has been engaged by the Authority to provide goods and/or works and/or services for a project, and its associates, will be disqualified from providing consulting services for the same project, conversely, a firm hired to provide services for the preparation or implementation of a project, and its associates, will be disqualified from subsequently providing goods or works or services related to the same project; or
- g) Bidders should be deemed to be in a conflict of interest situation if it can be reasonably concluded that their position in a business or their personal interest could improperly influence their judgment in the exercise of their duties. The process for selection of Bidders should avoid both actual and perceived conflict of interest; or
- h) the bidder, its associate (or any constituent thereof), and the Consultant, if any, for the Project, have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of an bidder, its associate (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such bidder or associate(s), if any, or its contractor(s) is less than 5% (five per cent) of the paid up and subscribed share capital of such bidder; provided further that this disqualification shall not apply to ownership by a bank, insurance company, pension fund or a public financial institution referred to in section 4A of the Companies Act, 1956
- i) For purposes of this RFP Document, Associate means, in relation to the bidder, a person who controls, is controlled by, or is under the common control with such bidder. As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law or by contract.

3.4 A bidder eventually appointed to provide services for this Project, and its associates, shall be disqualified from subsequently providing services related to the Project and any breach of this obligation shall be construed as Conflict of Interest; provided that the restriction herein shall not apply after a period of 5 (five) years from the completion of this assignment; provided further that this restriction shall not apply to services performed for NHAI in continuation of the services hereto or to any subsequent services performed for NHAI in accordance with the rules of NHAI. For the avoidance of doubt, an entity affiliated with the bidder shall include a partner in the bidder or a person who holds more than 5% (five per cent) of the subscribed and paid up share capital of the bidder, as the case may be, and any Associate thereof.

3.5 The normal way to identify conflicts of interest is through self-declaration by the Bidder. Where a conflict exists, which has not been declared, competing companies are likely to bring this to the notice of NHAI. All conflicts must be declared as and when the Bidder becomes aware of them.

#### 4. Preparation & Submission of bids:

4.1 Detailed RFP may be downloaded from NHAI'S website and / or e-tender portal of NHAI and bid shall be submitted online following the instruction appearing on the screen.

4.2 The following documents shall be submitted in **ORIGINAL to NHAI** before the prescribed date & time for submission of Bids. (a) Tender Application Fee in the manner prescribed. (b) Bid Security in the manner prescribed. (c) Original Power of Attorney\* in favour of Authorized Signatory in the Format prescribed in this document.

\*Copy of Board Resolution and/ or Power of Attorney in the prescribed format / any other supporting document indicating that the person signing the bid has the required authority to sign on behalf of the bidder.

4.3 The Technical and Financial Bid shall be digitally signed by the Authorized Signatory of the bidder & submitted "on-line" only. No hard copy of Technical and Financial bids is required to be submitted.

4.4 It may be noted that scan copies can be prepared in different file format (PDF, JPEG).

4.5 The Bid shall comprise the following:

Documents as specified in para 4 (ii) above shall be placed in a sealed envelope. The envelop should bear the following identifications: "Enclosure to Bid for Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems at NHAI HQ" and addressed to.

ATTN. OF	Sh. Shailesh Yadav
DESIGNATION	General Manager (IT)
ADDRESS	National Highways Authority of India, G-5&6, Sector 10, Dwarka, New Delhi-110 075
Phone No.	: +91-11-25074100-200 (Extn.: 1272)
E-MAILADDRESS	: <a href="mailto:shaileshyadav@nhai.org">shaileshyadav@nhai.org</a>

The envelope should also bear the bidder's name & address. If the envelope is not sealed and marked as above, NHAI will assume no responsibility for the misplacement or premature opening of the contents of the envelope and consequent losses, if any, suffered by the Bidder. Such Bids may also be declared non-responsive.

Note:

- i. Documents as specified above, if received by NHAI after the prescribed deadline (bid due date) will be returned unopened to the Bidder
- ii. If any requisite document/ certificate are not in the prescribed format the same shall not be considered while evaluating the Bids and the same may lead to Bid being declared as non-responsive.
- iii. The Technical Bid shall not include any commercial quote.
- iv. The bids should be submitted online only in the prescribed format downloaded from the e-tendering portal. No other mode of submission is accepted.

## 5. TENDER APPLICATION FEE AND BID SECURITY

- 5.1 Bidder should pay Tender Application Fee (non-refundable) INR 5,000/- (Rupees Twenty Five Thousand) only in the form of Demand Draft/ Banker's Cheque/ Pay order, drawn on a scheduled bank in India and payable to "National Highways Authority of India" at New Delhi.
- 5.2 The Bid Security of INR 16 Lakh (Rupees sixteenlakh only) shall be furnished in the form of Demand Draft/ Banker's Cheque/ Pay order, drawn on a scheduled bank in India and payable to "National Highways Authority of India" at New Delhi or Bank Guarantee of equivalent amount as per the format prescribed in the Form T7. NHAI shall not be liable to pay any interest on the Bid Security deposit.
- 5.3 Any bid not accompanied by an acceptable Bid Security and / or Tender Application Fee in the prescribed manner shall be summarily rejected.
- 5.4 The Bid Security of all unsuccessful bidders shall be returned without interest normally within 30 days after finalization of the tender process i.e. signing of the contract agreement with the successful bidder. The bidder should indicate details of their bank account number for crediting the

refund of bid security through ECS (RTGS/NEFT). This information should be provided in the technical bid.

## **6. FORFEITURE OF BID SECURITY (EMD/ EMBG)**

The Bid Security shall be forfeited and/ or appropriated by NHAI as mutually agreed genuine pre-estimated compensation and as damages payable to NHAI for, inter-alia, time, cost and effort of NHAI without prejudice to any other right or remedy that may be available to NHAI under the provisions in the RFP and/or under the Contract, or otherwise, under the following circumstances:

- (i) If a bidder submits a non-responsive bid  
Subject: however, that in the event of forfeiture and/ or appropriation of bid security occurring due to operation of this sub para, the damage so claimed by NHAI shall be restricted to 5% of the value of bid security.
- (ii) If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice; or
- (iii) If the Bid is withdrawn during the intervening period between the bid due date and the expiration of the Bid Validity; or
- (iv) If the bidder tries to influence the evaluation process; or
- (v) If a Bidder having been notified Successful Bidder by the NHAI with the issuance of LOA during the Validity Period:
  - (i) fails or refuses to execute/ sign the Contract within the stipulated time frame; or
  - (ii) fails or refuses to furnish the Performance Security, in accordance with the tender conditions.

## **7. LAST DATE FOR SUBMISSION OF TENDERS**

- 7.1 Tenders, complete in all respects, must be online submitted on or before the last date and time specified in the schedule of events.
- 7.2 NHAI may, at its own discretion, extend the last date for submission of tenders. In such a case, all the eligibility requirements shall get automatically modified for the extended timeframe.

## **8. COST OF BIDDING**

The Bidders shall bear all costs associated with the preparation and submission of his Bid and any incidental expenditure toward that, and the NHAI will in no case be responsible and liable for those costs, regardless of the conduct or outcome of the bidding process.

## **9. SITE VISIT**

- 9.1 The Bidder, at the his own responsibility and risk is encouraged to visit and examine NHAI Offices in Delhi/NCR and IDC and obtain all information that may be necessary for preparing the Bid and entering into the Contract. The costs of such visit shall be at the Bidder's own expense.

## **10. LANGUAGE OF THE BIDS**

- 10.1 The Bid and all communications in relation to or concerning the Bidding Documents and the Bid shall be in the English language. No supporting document or printed literature shall be submitted with the proposal unless specifically asked for and in case any of the documents is in another language, it must be accompanied by an accurate translation of the relevant passages in English, in which case, for all purposes of interpretations of the proposal, the translation in English shall prevail.

## **11. TECHNICAL PROPOSAL**

- 11.1 In preparing the Technical Proposal, Bidders are expected to examine the documents comprising his Bid in detail. Material deficiencies in providing the information requested may result in rejection of a Proposal.

11.2 While preparing the Technical Proposal, Bidders must give particular attention to the following:

- i. Technical Bid comprising various formats prescribed including Form T1 in Part II.
- ii. Stipulated documentary evidence attested by the authorized signatory in support of their claim for fulfilling the eligibility criteria and an undertaking on the bidder's letterheads to the fairness of these documents in support of their claim while submitting the Bids
- iii. Undertaking that the bidder has not been determined non-performing or having been terminated any of his project during last three years by Ministry of Road Transport & Highways, Government of India or its executing agencies like NHAI, NHIDCL etc.
- iv. Undertaking that the bidder has not been declared ineligible by Ministry of Road Transport & Highways, Government of India or its executing agencies like NHAI, NHIDCL etc. for indulging in corrupt or fraudulent practices shall be ineligible to apply for empanelment
- v. Self-declaration i.r.o. any conflict of interest prescribed under para 3 of section III;
- vi. Other documents
  - a. Copy of Certificate of Incorporation of Company;
  - b. MoA and/or AoA of the Company / or other document showing object clause of the firm; and
  - c. Signed copy of Integrity Pact in the prescribed format;
  - d. Any other document providing additional information in respect of technical / financial strength as well as technical experience etc.

11.3 The Technical proposal should also contain the following information:

- (i) A brief description of the firm's organization and an outline of recent experience on assignments of a similar nature. For each assignment, the outline should indicate, inter-alia, duration of the assignment along-with start date & date of completion, contract amount, payments received, and firm's involvement.
- (ii) Any additional information the Bidder may like to bring to the notice of NHAI.

11.4 The Technical Proposal shall not include any financial information.

## 12. FINANCIAL PROPOSAL

- i. Financial bid shall be submitted online on e-tender portal on the prescribed format which may be downloaded well before the bid due date from e-tender portal. Kindly note all forms and tables shall be filled and attached including Form F1
- ii. The bid should include all the charges payable in full compliance to the Scope of Work and other terms specified in the RFP document. No additional payments whatsoever are envisaged.
- iii. The bid should include all statutory taxes/ levies / surcharge on tax etc. but excluding service tax/ GST (as applicable). Any tax, and / or any other levies, if altered in future and payable under the law, the same shall be borne by the bidder.
- iv. applicable service tax/ GST (as applicable) shall be reimbursed by NHAI separately on production of proof of payment; and
- v. Applicant should note that Income tax payable by the Bidder is not reimbursable by NHAI. TDS will be applicable on all payments made by NHAI as per applicable law.
- vi. In case of any difference in figures and words, the amount mentioned in words will prevail.

## 13. CURRENCIES OF BID AND PAYMENT

13.1 The prices shall be quoted by the Bidder entirely in Indian Rupees. All payment shall be made in Indian Rupees.

## 14. BID VALIDITY

- 14.1 All the Bids must be valid for a period of 120 days from the last date of submission of the tender for execution of Contract ("Validity Period"). However, the quoted rates should be valid for the initial/ extended period of the Contract from the effective date of the Contract. No request will be considered for price revision during the Contract Period.
- 14.2 A Bid valid for a shorter period shall be declared as non-responsive.
- 14.3 During the Validity Period, the Bidder is expected to keep available capacity/ requirement for the assignment.
- 14.4 The NHAI will make its best effort to complete the tender process within this Period. In exceptional circumstances, prior to expiry of the original time limit, the NHAI may request the Bidders to extend the period of validity for a specified additional period beyond the original validity of 120 days. The request and the bidders' responses shall be made in writing or by cable. The Bidders who accept the request to extend the period of validity of their Bids shall extend the validity of their Bid Security by days equal to the period of extension of validity of the Bids. The bidders, not agreeing for such extensions will be allowed to withdraw their bids without forfeiture of their Bid Security.
15. **MODIFICATION / SUBSTITUTION/ WITHDRAWAL OF BIDS:**
- (i) The Bidder may modify, substitute or withdraw its e- bid after submission prior to the Bid Due Date. No Bid shall be modified, substituted or withdrawn by the Bidder on or after the Bid Due Date.
  - (ii) Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.
  - (iii) For modification of e-bid, bidder has to detach its old bid from e-tendering portal and upload / resubmit digitally signed modified bid.
  - (iv) For withdrawal of bid, bidder has to click on withdrawal icon at e-tendering portal and can withdraw its e-bid.
  - (v) Before withdrawal of a bid, it may specifically be noted that after withdrawal of a bid for any reason, bidder cannot re-submit e-bid again.
16. **LATE BIDS**
- 16.1 The Bid received by the NHAI after the prescribed deadline will not be accepted by the online bid submission portal.
- 16.2 **Late Submission of Document in Physical Form:**
- Any document as specified in clause 4 to be received in physical form, if received by the NHAI after the deadline prescribed will be returned unopened to the Bidder and also the e-bid submitted by such bidder will not be opened.
17. **INVALID OFFERS**
- 17.1 The offers submitted by telex/ telegram/ fax/ e-mail/ physical submission bid or any manner other than specified above shall be deemed to be invalid offer and shall not be considered. NHAI is not bound to reply/ respond to any representation/ letter or request for change in scope of the works, eligibility criteria or any relaxation in respect of the tender conditions. No correspondence will be entertained on this matter.
18. **PROCESS TO BE CONFIDENTIAL**



- 18.1 Information relating to the examination, clarification, evaluation, and comparison of Bids and recommendations for the award of a Contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the Successful Bidder has been announced. Any effort by a Bidder to influence the NHAI's processing of Bids or award decisions may result in the rejection of his Bid. NHAI will treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. NHAI may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or NHAI or as may be required by law or in connection with any legal process.

**19. OPENING, EVALUATION AND FURTHER PROCESS**

- (a) The bids will be opened by a committee of officers nominated by the NHAI on the time and date specified.
- (b) Based on the bids submitted by the Bidders, the Tender Evaluation Committee (TEC) constituted by NHAI, shall carry out an evaluation of the qualifications of the Bidders. If at any time during the evaluation process, the TEC requires any clarification in order to carry out the evaluation, it reserves the right to request information from any Bidder, and the Bidder concerned shall be obliged to respond to any request for such information and to supply the same to the TEC within such reasonable timeframe as TEC may require.
- (c) NHAI will prepare the short-list of qualified Bidders and inform the qualified Bidders of the outcome.
- (d) This tender confers neither the right nor expectation on any party to participate in the selection process. NHAI reserves the right to reject any or all of the bids, if it considers necessary to do so, or to vary any of its terms at any time without giving any reason or incurring any liability thereto.

**20. SELECTION PROCESS**

- (a) An online Single Stage, two envelope through e-tendering selection procedure will be adopted:  
  
Envelope-1: Pre-qualification-cum-Technical Stage  
Envelope -2: Financial Stage
- (b) In the first envelope the Evaluation Committee shall examine the statement of qualification, experience, technical capabilities etc. furnished by the Bidder.
- (c) Second Envelope: After completing evaluation of Technical bids, NHAI shall notify the shortlisted bidders indicating the date and time set for opening of their financial bids. The NHAI shall also notify those bidders whose technical bids were not shortlisted as per conditions of RFP. The NHAI shall also notify those bidders whose technical bids were not shortlisted as per conditions of RFP.
  - i. The Financial Bids shall be opened online. The Evaluation Committee will determine whether the submitted Financial bids are complete (i.e. whether they have included cost of all items of the corresponding proposals; if not, then the cost towards such missing items will be considered as NIL, but the bidder shall, however, be required to carry out such obligations without any additional compensation. In case under such circumstances, if NHAI feels that the work cannot be carried out within the overall cost as per the submitted financial bid, such proposals shall be considered non responsive.
  - ii. The Evaluation Committee shall also determine if the financial proposal is without computational errors.
  - iii. The lowest financial bid among shortlisted bidders would be selected for award of work. However, NHAI would be free to take an appropriate decision and is not bound to accept the lowest bid

- iv. NHAI reserves the right to reject any bid which is non-responsive and no request for alteration, modification, substitution, or withdrawal shall be entertained by NHAI in respect of such bids.

## **21. Disqualification**

NHAI may at its own sole discretion and at any time during the process, disqualify any applicant, if the applicant has:

- (a) Submitted the bid after the response deadline;
  - (b) Made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements;
  - (c) Exhibited a record of poor performance such as abandoning works, not properly completing the contract, inordinately delaying completion, being involved in litigation, or financial failures, etc.;
  - (d) Submitted a bid which is not accompanied by required documentation and non-refundable tender application fee or is non-responsive;
  - (e) Failed to provide clarifications, when sought;
  - (f) Found to be involved in anti-national activity, corruption, political or other type of canvassing in its favor;
  - (g) Violated any Act of Government of India or infringed any third party copyright.
22. Any effort by the Bidder to influence the NHAI in the NHAI's Bid evaluation, Bid comparison or Contract award decisions may result in the rejection of the Bidders' Bid.

## **23. NHAI'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS**

The NHAI reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all Bids, at any time prior to the 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 the NHAI's action.

## **24. CORRESPONDENCE WITH THE APPLICANT**

Save and except as provided in this Tender Document, NHAI shall not entertain any correspondence with any Bidder in relation to the acceptance or rejection of any Bid. NHAI is not bound to reply/ respond to any representation/ letter or request for change in scope of the works, eligibility criteria or any relaxation in respect of the tender conditions. No correspondence will be entertained on this matter.

## **25. INDEMNITY**

The Bidder shall, subject to the provisions of the Contract, indemnify NHAI for any direct loss or damage that is caused due to any deficiency in services.

## **26. AWARD OF CONTRACT**

- 26.1 Award of Contract will be limited to one Bidder only. Letter of Award (LOA) shall be issued by NHAI to the Successful Bidder and the Bidder shall be asked to submit a Performance Security and sign the Contract within the specified timeframe as per the LOA, failing which the offer will be treated as withdrawn and the Bid Security will be forfeited.
- 26.2 NHAI will have a Contract for availing the services during the Contract Period. Depending on the project requirements and past performance of the bidder, NHAI may extend the period of Contract for additional period as envisaged in this tender on such terms and conditions as NHAI may in its discretion deem fit.

## **27. NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT**

- 27.1 The Bidder whose Bids are successful ("Successful Bidder") and acceptable will be notified of the award by the NHAI in writing through email or cable or telex or facsimile confirmed by post/ courier through issue of a LOA. The LOA will state the sum that the NHAI will pay to the Successful Bidder in consideration of the execution and completion of the Works as per TOR by the Successful Bidder as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").
- 27.2 Upon receipt of LOA, the Successful Bidder, shall comply with the conditions of LOA and submit a Letter of Acceptance along with Performance Security of requisite amount within the specified timeframe. Failing which, the LOA shall stand cancelled and also lead to annulment of the award and forfeiture of the Bid Security NHAI shall be entitled to take any other remedy under the Contract, and the NHAI may resort to awarding the Contract to any other Bidder.
- 27.3 Upon furnishing of the Letter of Acceptance along-with Performance Security by the Successful Bidder, he shall be asked to sign the Contract.
- 27.4 After signing of the Contract with the Successful Bidder, the NHAI will promptly notify the other Bidders that their Bids have been unsuccessful.

**28. PROPRIETARY DATA**

All documents and other information provided by NHAI or submitted by an applicant or Bidder to NHAI shall remain or become the property of NHAI. Bidders are to treat all information as strictly confidential. NHAI will not return any proposal or any information related thereto. All information collected, analyzed, processed or in whatever manner provided by the Bidder to NHAI in relation to the services shall be the property of NHAI.

**29. PERFORMANCE SECURITY**

- 29.1 Upon issue of a Letter of Award (LoA) by NHAI, the Successful Bidder shall be required to furnish an unconditional and irrevocable Performance Security in the form of a Performance Bank Guarantee (PBG) in the prescribed format within a period of 15 days. The PBG shall be for an amount of 10% of its bid value and should be in favour of "National Highways Authority of India", New Delhi. The Performance Security shall be valid for period of contract, which may be extended appropriately such that it remains valid until one year beyond completion of the contract.
- 29.2 The PBG from following banks shall only be accepted:
- a. State Bank of India or its subsidiaries.
  - b. Any Indian Nationalized Bank.
  - c. IDBI or ICICI Bank.
  - d. A Foreign Bank (issued by a branch outside India) with a counter guarantee from SBI or its subsidiaries or any Indian Nationalized Bank.
  - e. Any Scheduled Commercial Bank approved by RBI having a net worth of not less than 500 Crores as per the latest Annual Report of the Bank. In the case of a Foreign Bank (issued by the branch of India) the net worth in respect of the Indian operations shall only be taken into account.
- 29.3 The acceptance of the PBG shall also be subject to the following condition:-
- a) The capital adequacy of the Bank shall not be less than the norms prescribed by RBI.
  - b) The bank guarantee issued by a Cooperative Bank shall not be accepted.
- 29.4 After acceptance of Performance Security by NHAI, the Bid security of the Successful Bidder shall be returned without interest.

**30. ADVANCE PAYMENT AND FINANCIAL SECURITY**

The NHAI will not make any Advance Payment or provide any financial security against the work order/ Contract.

**31. CORRUPT OR FRAUDULENT PRACTICES**

The NHAI requires Bidder observe the highest standard of ethics during the procurement and execution of the Contract. In pursuance of this policy:

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
  - (i) “corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in Contract execution;
  - (ii) “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a Contract to the detriment of the NHAI, and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the NHAI of the benefits of free and open competition;
  - (iii) “coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person’s participation or action in the bidding process;
  - (iv) “undesirable practice” means (i) establishing contact with any person connected with or employed or engaged by the NHAI with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the bidding process; or (ii) having a Conflict of Interest; and
  - (v) “restrictive practice” means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the bidding process.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract in question;
- (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a NHAI Contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a NHAI Contract.

## **32. CLARIFICATION OF BIDDING DOCUMENTS**

- 32.1 A prospective Bidder requiring any clarification of the Bidding documents may notify NHAI in writing or by cable (hereinafter "cable" includes telex and facsimile) at NHAI's address indicated in the invitation to Bid. NHAI will respond to any request for clarification which is received upto two days before the date mentioned for clarifications issuance. NHAI's response will be hosted on NHAI e-tendering portal indicating a description of the enquiry but without identifying its source.
- 32.2 To assist in the examination, evaluation, and comparison of Bids, the NHAI may, at its discretion, ask any Bidder for clarification of its Bid. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the NHAI in the evaluation of the Bids.
- 32.3 Except in case any clarification is asked by NHAI, no Bidder shall contact the NHAI on any matter relating to its Bid from the time of the Bid opening to the time the Contract is awarded. If any Bidder wishes to bring additional information to the notice of the NHAI, it should do so in writing at the address: General Manager (IT), National Highways Authority of India, G 5 & 6, Sector – 10, Dwarka, New Delhi – 110075.

## **33. AMENDMENT OF TENDER DOCUMENT**

- 33.1 At any time prior to the last date for receipt of tenders, NHAI, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the conditions specified in the Tender Document by an amendment. The amendment will be notified on NHAI's e-tendering portal and should be taken into consideration by the prospective Bidders while preparing their Bids.
- 33.2 Any amendment/ addendum thus issued shall be part of the tender document and shall be communicated by hosting the same only on e-tendering portal NHAI's web site. Bidder will provide acceptance and confirmation of such amendment/ addendum also by submitting the digitally signed document as part their proposal.
- 33.3 In order to give prospective Bidders reasonable time to take the amendment into account in preparing their tenders, NHAI may, at its discretion, extend the last date for the receipt of tenders.

#### 34. **MISCELLANEOUS**

- 34.1 This RFP document also includes a format of the Contract Agreement to be executed with the successful bidder for providing stipulated services to NHAI. Bidders are advised to study the RFP document along with its amendment/ addendum carefully. Submission of the bid will be deemed to have been done after careful study and examination of ground realities as well as all the instructions, eligibility norms, terms & conditions, requirements and specifications available in the RFP document with full understanding of its implications. The Bidder is expected to examine carefully all the instructions, conditions of Contract, forms for submitting Technical and Financial Bids and scope of work in the RFP document before submitting their Bids. Failure to comply with all the requirements of RFP document shall be at the Bidder's own risk. Bids, which are not substantially responsive to the requirements of the RFP document, shall be declared non-responsive and shall not be considered for evaluation.
- 34.2 No bidder shall submit more than one bid against this RFP. If more than one bid is received from the same bidder, all such bids shall be summarily rejected.
- 34.3 NHAI will be at liberty to keep the credentials of the bidders submitted by them at bidding stage, in public domain and the same may be uploaded by NHAI on its web site. The bidders shall have no objection if NHAI uploads/ hosts the information pertaining to their credentials as well as of their key personnel.
- 34.4 The bidding process shall be governed by, and construed in accordance with, the laws of India and courts at New Delhi shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the bidding process.
- 34.5 Any dispute arising out of this procurement process shall be referred to Society for Affordable Resolution of Disputes (SAROD). The decision of the SAROD in this regard shall be final and binding on the parties.
- 34.6 NHAI, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;
- (i) Suspend and/or cancel the bidding process and/or amend and/or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
  - (ii) Consult with any Bidder in order to receive clarification or further information;
- Retain any information and/ or evidence submitted to NHAI by, on behalf of, and/ or in relation to any Bidder; and/or;
- (iv) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/or evidence submitted by or on behalf of any Bidder.
- NHAi is not bound to reply/ respond to any representation/ letter or request for Change in Scope of work, eligibility criteria or any relaxation in respect of the tender conditions. No correspondence will be entertained on this matter.
- 34.7 It shall be deemed that by submitting the Bid, the Bidder agrees and releases NHAI, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising

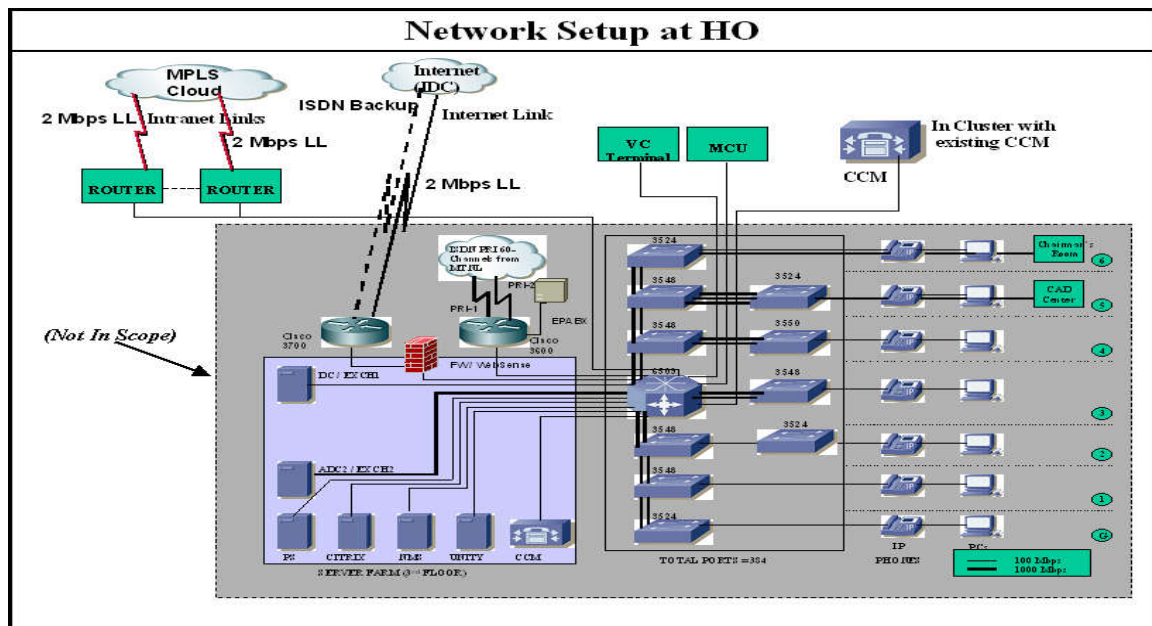
from the exercise of any rights and/or performance of any obligations hereunder, pursuant hereto and/or in connection with the bidding process and waives, to the

## SECTION – IV

### TERMS OF REFERENCE

## TERMS OF REFERENCE (TOR)

1. National Highway Authority of India (NHAI) is responsible for the implementation and monitoring of National Highways Development Projects (NHDP). Civil Contracts are executed/ implemented by the Project Implementation Units (PIUs) of National Highway Authority of India.
2. **NHAI NETWORK ARCHITECTURE – Existing Setup**  
 Network for NHAI HQ was established in 2006 supporting the local applications and internet services to the users. Further in 2013, voice and Video services were added on the same network along with additional services like mailing, web, Active directory and other financial application hosted in the Data center. Considering the next stage of services to be offered at Toll plaza and Regional offices which will be now connected to the HQ bringing lot of Video, voice and surveillance traffic which needs the overall up gradation of the network from the following perspectives
  - a. Network at Core, Distribution and Access Layer
  - b. Servers and Storage solution
  - c. Security at the perimeter like firewall and IPS
  - d. Wi-Fi solution
  - e. Network Device authentication through NAC
- 2.1 NHAI is having a Local Area Network (LAN) at Head Office providing Data and IP Telephony connectivity to its users. NHAI also has co-located some of its Application Servers and the Mail Server at the Internet Data Center (IDC) of Tata at Greater Kailash, New Delhi. Some of the Field Office users use stand-alone computers that dial out to the Internet for the data access.
- 2.2 Moreover, we are coming up with new building across the road which will be catered through the same data center and Network Core layer
- 2.3 The following diagram depicts the logical setup of the existing network at the NHAI Headquarters (dotted lines with circled numbers represent the respective floors in the building) and connectivity with Wide Area Network.



- 2.4 **Wide Area Network Architecture:** Multi-Protocol Label Switching (MPLS) technology based connectivity from the Bandwidth provider connects NHAI HQ with various RO's. The field offices, the Internet Data Center of NHAI (IDC), Office of the Ministry of Road Transport and Highways (MoRT&H) and the NHAI head office are connected to the MPLS cloud.





3. Scope of work of this tender is divided into following schedule:
  - (i) Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems
  - (ii) Passive Work including cabling, installation of racks
4. The detailed scope of work are as under:
  - 4.1 The Scope of work of the tender shall broadly cover supply and delivery of products/equipment at various sites as per bill of materials, installation and commissioning of supplied equipment's, acceptance testing, documentation, etc.
  - 4.2 The Products/equipment supplied under this contract shall conform to the Technical Specifications given in this tender. All the equipment shall operate in 240V AC power.
  - 4.3 All the latest Software Updates/Upgrades and/or Patches shall be for the entire period of Warranty by the Successful Bidder at no extra cost to the Purchaser. Acceptance Testing of the system, shall be got done by the Successful Bidder through the authority designated by NHAI for all functions of all systems after the implementation of Software Updates, Upgrades and Patches in each system.
  - 4.4 Any work/service and any product/equipment, not specifically mentioned in the tender, but considered essential for the completion of work in all respects, shall be deemed to be included in the Scope of Work of the Successful Bidder.
  - 4.5 The Scope of Work of the tender shall cover AMC of Existing Equipment's as mentioned in Table

## **5 General Scope of Work Clauses**

- a) Implementation Methodology – The Bidder shall adopt industry best practices to ensure smooth implementation of the project including but not limited to: -
  - i. Preparation of Project Schedule & Charter - a detailed location wise project schedule conforming to the overall Time frame of the project
  - ii. Understanding the requirements for the project with specific details to kick-off the project as per schedule

The Bidder shall submit the Project Schedule & charter and the Project Team Structure for approval to NHAI within 1 week from issue of Letter of Award.
- b) It shall be the responsibility of the Successful Bidder to bring all the installation equipment and tools required for the installation of the LAN/WAN.
- c) The bidder is required to provide on-call support for the contract period at all the locations envisaged under the Scope of Work.
- d) In addition to the regular support centers the bidder should provide one contact person either own employee or through franchisee. The scope of shall include:
  - Upgradation, supply, installation and implementation of upgraded versions of firmware / software (updates /upgrades)
  - Rectification of Bugs/defects if any
  - Preventive Maintenance quarterly
  - Maintenance of Hardware/Software
- 5.1 Warranty: The warranty period shall not commence unless the supply, installation, commissioning and acceptance is complete. The comprehensive warranty of supplied equipment will be for a period of 3 years. The rates quoted should include the on-call support/service for the entire contract period
- 5.2 Acceptance Test shall be conducted by the bidder at the sole discretion of NHAI in presence of NHAI officials. All the additional charges for conducting the Acceptance Test shall be borne by the bidder.
- 5.3 AMC: Bidder shall also quote for per year AMC for 4<sup>th</sup> and 5<sup>th</sup> year after initial 3years warranty period of new supplied items and 3 years AMC services of the existing equipment. NHAI management will decide on the AMC subsequently. Successful bidder will inform six months in

advance before the expiry of warranty period of the supplied hardware and software to NHAI. This will not be considered for determining the L1 bidder.

**5.4 Supply and installation of IP Phone, Servers and Storage devices and their integration with the existing IT equipments as per Below table**

(i) Table.

S. No	Hardware	Qty
1	Cisco CUCM version 9	2
2	Cisco Fabric Interconnect 6200 series	2
3	Cisco Blade Chassis 5108	2

- (ii) The above Call manager is installed in NHAI HQ on two servers, new IP phones to be integrated with the existing setup and shall be of same OEM.
- (iii) New server and storage solution shall be integrated with the existing management provided by Cisco UCS manager to get single window for all the server.
- (iv) The Bidder shall undertake minimum three-years comprehensive on-site Warranty for all the supplied products/equipment.
- (v) The Purchaser reserves the right to award the additional work or purchase the equipment during any period upto 36 months from the date of contract taking into account the same unit price for individual items as mentioned in the Price Schedule. The right of refusal of not getting the work done lies with NHAI. Exchange rate variation in case more than +/-2% of any imported item can be provided based on the variation in the exchange rate value referred from RBI or SBI
- (vi) Quantity Variation: The quantities mentioned in this contract are indicative. The total contract may vary to +/- 30%. However, the approved rate of each item and other terms and conditions shall remain unchanged during the period of the contract. The bidder is to confirm the acceptance of the same for inclusion in the contract. It will be entirely the discretion of the purchaser to exercise this option or not.
- (vii) It shall be the responsibility of the Successful Bidder to bring all the installation equipment and tools required for the installation of the supplied products/ equipment's.
- (viii) All the products/equipment supplied should be quoted with all the necessary and required cables and other accessories.
- (ix) The Servers should be rack mountable. All these components shall be quoted with rack mounting accessories also.
- (x) All software quoted should be supplied with the respective media in the form of Compact Disk (CD)/DVD for each quantity.
- (xi) Documentation: The Successful Bidder has to submit all relevant documentation pertaining to the entire solution. This should minimally cover the User Manuals, Operation Manuals, Manufacturer Supplied Technical Documentation, Configuration of all the Devices, all relevant diagrams/documentation required in hard copy as well as soft-copy.
- (xii) The System integration work would involve Installation and commissioning of the IT Infrastructure components such as Servers, Databases, Networking & Security components, Storage Solution, Software and other components required at the NHAI Offices supplied as a part of this RFP.
- (xiii) No Products supplied under the RFP should be 'end of life' and shall have serviceable life span of 7 years and certificate by the bidder shall be provided to this effect. All the hardware items which are supplied by the SI shall be brand new. SI shall not supply any Refurbished or second hand item.
- (xiv) Supplier shall undertake pre-installation planning including but not limited to Rack planning, structured cabling, SAN cabling, power points, etc.
- (xv) Supplier shall be responsible for the commissioning of the storage, network & security components and related basic infrastructure.
- (xvi) Supplier shall carry out the planning and layout design for the placement of equipment in the identified locations of NHAI.
- (xvii) The plan and design documents thus developed shall be submitted to the NHAI for approval and the acceptance would be obtained prior to commencement of installation.
- (xviii) The System Integrator at their own risk may visit NHAI HQs to see the condition of these equipment's.

## 6. SPECIAL INSTRUCTIONS TO BIDDERS

- (i) The Bidder has to ensure that all the supplied hardware should be compliant to IPV6. The Bidder has also make necessary changes in the IP addressing pool scheme to get the IPV6 implemented with the new hardware at NHA1.
- (ii) The Bidder shall submit the detailed breakup of the material list up to the card/module level of each quoted item of the Tender as separate Annexure without mentioning the prices and submit the same along with the Technical Proposal. The Bidder shall include any other hardware/software item required for installing, commissioning the system & launch of service. In case it is found that any item not provided in the bid is needed for successful implementation of the project, will have to be supplied by the Bidder free of cost. Any prices mentioned in the Technical Proposal will lead to disqualification of the bid.
- (iii) The Bidder shall also quote as optional items for all such items and their appropriate quantities that are not listed in the tender but are considered necessary for the successful implementation of the project.
- (iv) The Bidder shall submit the detailed breakup of the unit cost of the material upto the card level / module level along with the cost of each item given in the Price Schedule of the Tender and the Price Schedule for Optional Items mentioning the prices and submit the same along with the Commercial Proposal. The Bidder shall include any other hardware/software item required for installing, commissioning the system & launch of service.
- (v) The Bidder shall submit detailed specification of all the equipment quoted along with supporting technical documentation and literature. Authentic product brochures for all the products/equipment should necessarily support specifications. Equipment shall conform to the Technical Specifications laid down in Section VI and to the relevant Indian/International Standards. The standards to which the equipment conforms shall also be specified in the Technical Proposal.
- (vi) Carrying out of the required site surveys prior to submission of the proposal is the responsibility of the Bidder, if he/she may so desire, at its own cost.
- (vii) The Bidder shall include in his scope of supply, the components, materials and accessories required to render the equipment & systems offered, complete in all respects even though every individual item may not have been mentioned specifically in the tender and/or the Technical Specifications section of the tender.
- (viii) All the equipment offered by the Bidder shall also conform to the statutory requirements of Government of India, the State Governments and any other regulatory specifications.
- (ix) The Purchaser will neither issue a form nor will offer any help to the Successful Bidder to avail any concession on Sales Tax or GST or any other Tax. In case of requirement of entry permits (e.g. Form 32 in U.P.), in any state or district, the Bidder has to arrange it itself.

## 7. DELAYS

- (i) The expected timelines for the completion of the key tasks is given below:

Activity	Expected Timeline for completion
Supply of the products/equipment at respective sites	Within 100 days from the signing of Contract Agreement.
Successful completion of installation and Acceptance at all sites	Within 8 weeks from the signing of Contract Agreement.

- (ii) The Successful Bidder shall ensure that the delivery of Products/equipment and/or the delivery of the services are in accordance with the time schedules specified in Clause 6 (i). In case of any deviation from the schedule, the Purchaser reserves the right to either cancel the Contract and/or recover Liquidated Damage charges.

- (iii) The Successful Bidder, if faced with problems in timely delivery of services, which are beyond their control at any time during the contract, shall immediately inform the Purchaser in writing, about the causes of the delay and tentative duration of such delay etc. The Purchaser, on receipt of such notice, shall analyze the facts at the earliest and may at its sole discretion, extend the contract period as deemed reasonable.
- (iv) Any delay by the Successful Bidder in the delivery of Products/equipment and/or the services will make the Successful Bidder liable to any or all of the following:
  - i. Forfeiture of Performance Bank Guarantee
  - ii. Imposition of Liquidated Damage charges
  - iii. Termination of the contract for default.

## 8. **WARRANTY**

- (i) The Bidder is required to provide on-site comprehensive warranty valid for 36 months for all supplied hardware and software. This warranty, for all equipments, shall remain valid for 36 months after the final acceptance sign-off of the project.
- (ii) The Bidder shall warrant that all the equipment supplied under the contract is newly manufactured and shall have no defect arising out of design, materials or workmanship or from any act or omission of the Bidder, that may develop under normal use of the supplied equipment's in the conditions prevailing across the country.
- (iii) The Bidder shall warrant that the services provided under the contract shall be as per the Warranty Service Level Requirements. During the warranty, the Bidder shall perform all the functions as mentioned in tender document at no extra cost to the Purchaser. All the penalty clauses shall be applicable during the period of warranty in case of failure on part of Bidder. The terms and conditions for Warranty are given in the tender document.
- (iv) The Bidder shall quote for comprehensive on-site warranty for three years, which shall become effective after the Final Acceptance Sign-off. The cost, including visits of the engineers, etc, shall be quoted as part of the individual equipment prices. No separate charges shall be paid for visit of engineers or attending to faults and repairs or supply of spare parts.
- (v) NHAJ shall promptly notify the Bidder about any claims arising under this warranty. Upon receipt of such notice, the Bidder shall repair/replace/reconfigure/re-provision the defective equipment or service. Replacement under warranty clause shall be made by the contractor free of all charges at site including freight, insurance and other incidental charges within 72 hours of notifying the bidder
- (vi) The Bidder shall, at the time of submitting the bid submit the Technical Proposal specifying how the Bidder proposes to carry out repair under Warranty. The Bidder shall also indicate what spares will be kept in different locations. The infrastructure planned to be created by the Bidder to fulfill his obligations under Warranty and his action plan to deal with the various situations arising out of hardware and software faults shall be clearly indicated.
- (vii) If the Bidder, having been notified, fails to remedy the defect(s) within the period specified in the SLA, NHAJ may proceed to take such remedial action as may be necessary at the Bidder's risk and expense and without prejudice to any other rights, which NHAJ may have against the Bidder under the contract.
- (viii) The Bidder has to submit the warranty paper for three years for all the products. The payments of any or all equipments shall only be processed on the receipt of warranty papers.
- (ix) The bidder shall have back to back alignment on services with the respective OEM

## 9. **PERFORMANCE AND SPARES**

- (i) The Bidder shall specify in the Technical Proposal the complete list of spares that will be maintained by the Bidder for meeting the various Warranty Service Level Requirements specified in the tender document.

- (ii) The Successful Bidder shall guarantee that discontinuity of production of any item offered, as a part of the system shall not affect the maintainability of the system for a period of 3 years from the date of Final Acceptance.

#### 10. WARRANTY TERMS AND CONDITIONS

- (i) During the period of Warranty, the SUCCESSFUL BIDDER shall inter alia:
- Diagnose the hardware and software faults.
  - Rectify the hardware/software faults detected.
  - Repair and replace the faulty equipment or part thereof.
  - Carry out the periodic preventive maintenance.
  - Upkeep the software periodically.
- (ii) The SUCCESSFUL BIDDER shall prepare the schedule of preventive maintenance for each quarter and shall submit the same to NHAI in advance. The preventive maintenance shall not affect the normal functioning of the system.
- (iii) The SUCCESSFUL BIDDER shall be solely responsible for the maintenance, repair & Upgradation of the software/hardware systems, equipment's and parts thereof and NHAI shall not be liable to interact with any of the partners/ collaborators or subcontractors of the SUCCESSFUL BIDDER.
- (iv) The SUCCESSFUL BIDDER shall have adequate Technical support Centers to meet the criteria for fault restoration/faulty unit repair. The SUCCESSFUL BIDDER shall furnish the names, locations, complete postal address, Telephone numbers and FAX numbers of all Technical support Centers at the time of signing the Contract.
- (v) The SUCCESSFUL BIDDER shall also provide the name of alternate contact person or Technical Support Center with address & telephone /FAX no., which may be contacted by NHAI or its authorized agency staff for support in case of no response/poor response from the designated Technical support center. This, however, shall not preclude NHAI from imposing the penalties, if any, as applicable as per the terms & conditions of this tender.
- (vi) Any change in Address, Phone number, FAX Number etc shall have to be intimated in writing by the SUCCESSFUL BIDDER to the concerned In-charge of the NHAI network at the earliest. If the network in-charge of the NHAI is unable to report the faults to the normally assigned Technical support Center due to the change of phone number etc. the fault will be reported and the SUCCESSFUL BIDDER shall be responsible for rendering all the maintenance support services to the affected station as per the terms and conditions of this Agreement.
- (vii) The SUCCESSFUL BIDDER shall ensure that all the Technical support centers are manned by fully competent and responsible Engineers and are capable of attending the faults at the NHAI sites by deputing competitive technical expert.
- (viii) The SUCCESSFUL BIDDER shall ensure that adequate spares are maintained at the Technical support Centers to meet its obligation under Warranty.
- (ix) In case of any fault, abnormality in the system, partial or total failure of the system, the officer in-charge of the NHAI or its authorized agency will immediately contact the designated Technical support Center of the SUCCESSFUL BIDDER and give information about the nature of fault over phone / FAX / pager / e-mail.
- (x) In case of any fault, abnormality in the system, partial or total failure of the system, the officer in-charge of the NHAI or its authorized agency will immediately contact the designated Technical support Center of the SUCCESSFUL BIDDER and give information about the nature of fault over phone / FAX / pager / e-mail.
- (xi) The details of the faults reported shall be recorded in an agreed format, called the "FAULT DOCKET". The time of occurrence of fault, time of reporting the fault to the service center of the

successful bidder, time of restoration of fault as recorded in the fault docket shall only be taken into consideration for calculating the actual duration of faults.

- (xii) In case of any dispute arising regarding duration of fault etc, the Fault Docket as maintained at the NHAI or NHAI's outsourced/in-house team shall be the guiding documents to be agreed by both parties.
- (xiii) The "Fault Docket" shall be filled with utmost care, giving all the details of the faults and other information.
- (xiv) Once the fault has been rectified and the system & services were restored to normalcy, the visiting engineer of the SUCCESSFUL BIDDER shall record in the fault docket document, the details of the works done by him/her for restoration of the faults and also record the details of steps to be taken and procedures to be followed for not only restoration of similar faults, but also for preventing the occurrence of similar faults in future.
- (xv) The Warranty support shall survive change of location of the equipment.

#### 11. WARRANTY SERVICE LEVEL REQUIREMENTS - SLA

##### (i) Equipment Outage

- a) Equipment Outage is defined as an event when any failure occurs (even if the service is NOT interrupted) in any supplied equipment like Servers, Routers, Firewall, IP phones etc. (including modules/ power supply system(s)/software module etc.) that are a part of NHAI network.
- b) The Successful Bidder will be responsible for responding to complaints on Equipment Outage.

##### (ii) Scheduled Downtime

- a) Scheduled downtime is defined as the period of time when NHAI services will remain unavailable for conducting necessary system activities like preventive maintenance, urgent repairs etc. This is the Maximum duration, which the Successful Bidder can take for Scheduled downtime purposes.
- b) The same would be carried out with a minimum advance notice of 24 hours in writing and subsequent acceptance of the same by NHAI.

##### (iii) Mean Time To Resolve (MTTR)

- a) MTTR is defined as the arithmetic average of the time taken to attend to resolve the issues logged over a defined period of time.

- b) The Severity Levels for measuring MTTR are provided in the following table:

Severity Level	Definition
High	a) Any incident/ issue that relates to the equipment/services complete failure or complete equipment failure or problems in services delivered to MoRT&H, HO & IDC (due to problems in Servers, Routers, Core switch, storage and Firewall Services at HQ) where services to bulk or more than 25 users are getting impacted and not restored/rerouted.
Low	(i) Any incident/ issue that relates to the equipment problems (due to problems in Servers, Routers, Firewall&storage Services at HQ equipment), services to end user are impacted but immediately restored through rerouting or other mechanism (ii) Any other problems attributable to the Bidder in NHAI Offices including MoRT&H, HO and IDC.

- c) The various Service Level Requirements (SLAs) and related penalties for default are given below:

Parameter	Details	Measurement criteria	Penalties per hour of delay / per fault / per occasion
Mean time to resolve (MTTR)	(i) Within 6 Hours from the call logging time - for all High Severity events (ii) Within 24 hours from the time of attending the problem for all Low severity events	Calculation of fault duration per instance based on Fault Docket	(i) For High Severity events, Rs. 4000/- (ii) For Low Severity events, Rs. 2000/- Delay will be counted in steps of one hour. The penalty will be applicable on per fault basis even if there is a commonality of fault at any point in the system causing full or part failure of service at more than one location in the network. Penalty will be deducted from the Performance Guarantee.

- d) After the expiry of Warranty contract period, it shall be optional for NHAI not to enter the Warranty contract further with the contractor.
- e) The Successful Bidder has to maintain adequate spares for maintaining the Service Level parameters as mentioned in the tender. Any cost involved to meet the SLAs specified below is to be borne by the Bidder.
- f) The Successful Bidder needs to maintain the Service Levels as follows:
- 99.5% of the times for the MTTR of High Severity Events where whole network is effected like both Core switches going down
  - 95% of the times for the MTTR of Low Severity Events where part of network is effected
- g) In case the Service Level Requirements are violated continuously for a period of three months, the Purchaser reserves the right to terminate the Contract by giving a written notice of 30 days to the Successful Bidder.
12. Documentation: The Successful Bidder has to submit all relevant documentation pertaining to the entire solution. This should minimally cover the User Manuals, Operation Manuals, Manufacturer Supplied Technical Documentation, Configuration of all the Devices, all relevant diagrams/documentation required in hard copy as well as soft-copy.
13. Handover: After Acceptance of the respective sites (locations) are completed successfully, and the required on-site training at each site is successfully completed, the Bidder must properly handover each site's installed components to the NHAI or the authorized agency of NHAI with all required documentation. Handover will include submission of the escalation matrix, handover of documentation. The Purchaser and/or its authorized agency/agencies will certify that the site has been handed over successfully with all requisite information for the sustenance of the system being made available and the required training(s) done.



## Part A – Active Equipment

### 1. WAN Router

S. No.	Technical Requirements	Compliance (Yes/No)
1	General Hardware and Interface requirements	
1.1	Router should be chassis based and modular architecture with multicore processor for scalability and hot swappable 1:1 redundant internal power supply	
1.2	Router should have 4 nos. of 10/100/1000 Base-T Ports and at least 1 SFP MM based ports. Additional 3 10G port shall be provided with Multimode SFP+ or XFP	
1.3	Router should have minimum 8 GB RAM and 8 GB Flash from day 1.	
1.4	Router should have DES, 3DES and AES Standards through dedicated encryption module/processor. Should support IPSec with IKEv2 and Suite-B Encryption.	
2	Performance Requirements: Router should have a minimum 10 Gbps of bandwidth and scalable to 20 Gbps.	
3	Routing Protocols	
3.1	Router should support static Routes, OSPFv2, OSPFv3, BGP4, MBGP, BFD, Policy based routing, IPv4 and IPv6 tunneling, IGMP v1/v2/v3 and PIM multicast routing.	
3.2	Should support other IP Services like GRE tunnel, IPv4 tunnel, IPv6 tunnel, Virtual Router Redundancy Protocol (VRRP), Network Address Translation (NAT), Access Control Lists (ACLs).	
4	Quality of Service (QoS): Shall have 802.1p class of service, IP differentiated service code point (DSCP) and IP precedence.	
5.	System Management and Administration	
5.1	Router should support SSHv2, SNMPv2c, SNMPv3, RADIUS and TACACS+, NTPv4, configuration rollback, software upgrades via TFTP or FTP	
5.2	Support for accounting of traffic flows for network planning and security purposes. Router shall provide application recognition through analysis of flows.	
5.3	Should support extensive support for best path selection based on metrics like delay, latency, jitter, packet loss to assure business-critical IP applications.	
5.4	Router should support monitoring of network traffic with application level insight with deep packet visibility into web traffic, RTP-Based VoIP traffic and cRTP	
5.5	Router shall have traffic load balancing capability on dual WAN Links based on based on advanced criteria, such as reach ability, delay, loss, jitter and bandwidth utilization.	
6	Regulatory Compliance	
6.1	Router shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements of Information Technology Equipment. EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B	
6.2	Router / Router's Operating System should be tested and certified for EAL 2 or NDPP or above under Common Criteria Certification	
6.3	Router should be IPv6 Certified/IPv6 logo ready	

## 2. Core Switches

S. No.	Technical Requirements	Compliance (Yes/No)
1	General Hardware and Interface requirements	
1.1	Switch shall have minimum 48 nos. SFP+ ports loaded with 20 nos. of 1 Gig MMF Modules, 10 nos. of 1000 Base-T Modules and 10 nos. of 10 Gig MMF Modules. Switch shall have 4 nos. of 40 Gig QSFP ports and loaded with 2 SM Modules. Shall have 8GB of RAM and 32 GB of storage or higher	
1.2	Modular Chassis solution with all critical components like supervisor modules, fabric modules and controller modules should be redundant. Failure of one component must not degrade performance of switch. Shall have minimum 2 blank slot for scalability in addition to asked ports.	
1.3	Switch shall have hot swappable 1:1 redundant internal power supply and hot swappable fan modules.	
1.4	Switch shall have minimum 1.28 Tbps (2.56 Tbps in full duplex) switching bandwidth per slot. Shall support 40G and 100G for future requirements and minimum 1.28 Tbps of switching fabric scalable to 3.84 Tbps.	
1.5	Switch should be scalable to additional 96 no. of 10 Gig or 48 nos. of 40 Gig Ports	
2	Performance Requirements	
2.2	Shall have minimum 64K MAC Addresses and 4K Active VLANs.	
2.3	Shall have minimum 16K IPv4 and IPv6 unicast routes, 4K IPv4 and IPv6 multicast groups, minimum 4K IPv4 and IPv6 QoS and Security ACLs.	
2.4	Shall have Virtual Extensible LAN (VXLAN) bridging and routing feature with BGP based EVPN and shall have minimum nos. of 8K tunnel endpoint and VXLAN.	
2.8	Shall have static routing, OSPFv2, OSPFv3 and BGPv4. Policy based routing, virtual routing and forwarding feature.	
2.9	Shall have Protocol-independent multicast (PIM) for IP multicast routing is supported, including PIM sparse mode (PIM-SM)/PIM dense mode (PIM-DM)/PIM sparse-dense mode and source-specific multicast (SSM).	
3	IEEE Standards: Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z.	
4	Quality of Service (QoS) requirements: Switch shall have 802.1p class of service, IP differentiated service code point (DSCP) and cross stack QoS, have minimum 8 egress queues per port and strict priority queuing	
5.	System Management and Administration	
5.1	Switch should support SSHv2, SNMPv2c, SNMPv3, RADIUS, TACACS+, Switch Port Analyzer (SPAN), Remote Switch Port Analyzer (RSPAN and NTPv4.	
5.3	Switch should support IPv4 and IPv6 ACLs, VLAN, Port and Time based access list with time ranges. Per port broadcast, multicast and unicast storm control. IGMP Snooping for IPv4 and IPv6, MLD v1 and v2 Snooping.	
5.4	Switch should be Software Defined Networking Ready with Openflow protocol support.	
6	Regulatory Compliance	
6.1	Switch shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements of Information Technology Equipment.	
6.2	Switch shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements.	
7	Evaluation Compliance	
7.1	Switch / Switch's Operating System should be tested and certified or in process of certification for EAL 2/NDPP or above under Common Criteria Certification.	

7.2	Switch should be IPv6 Certified/IPv6 logo ready.	
7.43	Core Switch Migration shall be done as per required configurations.	

### 3. IP Phone

S. No.	Technical Requirements	Compliance (Yes/No)
	<b>Type-1</b>	
1	The IP Phone shall have minimum 3.5", backlit display. LED/LCD Indicator for Call Waiting and Message Waiting. SIP/H.323 protocol support	
2	Able to create Local Phone book with at least 25 contacts as well as pull information from the directory	
3	IP phones shall support industry standard audio codec viz. G.711 (A-law and Mu-law), G.729a, G.722 audio codec. SRTP and TLS support for secure calling	
4	The display shall provide features such as Date and Time, Calling Party Number and Digits Dialed.	
5	There shall be provision to provide electrical power to the IP phones either through power adapter or via PoE (IEEE 802.3af) enabled Ethernet port.	
6	It shall be possible to view call history for at least last 10 missed calls, 10 dialed calls and 10 received calls for each call taker desk.	
7	It shall be possible to set preferences such as Display Contrast	
8	Desk or wall mountable with optional wall mount adapter.	
9	Should be integrated with existing call manager and shall be from same OEM as the call manager	
	<b>Type-2</b>	
1	The IP Phone shall have minimum 5" high resolution graphical display with integrated camera for video calling	
2	The IP phones shall support industry standard audio codec viz. G.711 (A-law and Mu-law), G.729a, G.722 audio codec.	
3	The display shall provide features such as Date and Time, Calling Party Number and Digits Dialed.	
4	IP phones shall be able to work on SIP/H.323 protocols and H.264. SRTP and TLS support for secure calling	
5	There shall be provision to provide electrical power to the IP phones either through power adapter or via PoE (IEEE 802.3af) enabled Ethernet port.	
6	It shall be possible to view call history for at least last 10 missed calls, 10 dialed calls and 10 received calls for each call taker desk.	
7	The phone offers a built-in Gigabit Ethernet switch for both network connection and your PC connection	
8	It shall be possible to set preferences such as Display Contrast	
9	Should be integrated with existing call manager and shall be from same OEM as the call manager	

### 4. Rack Server

S. No.	Technical Requirements	Compliance (Yes/No)
1	Processor: 2 CPU X Intel Xeon E5-2600-v4 2.2 GHz 8Core CPU or better	
2	RAM: Shall have 24 DIMM slots and 64GB RAM shall be provided on day1	

3	HDD: 1.2 TB 12G SAS with usable space after RAID-5, 1.8TB. Shall have additional two internal 32Gb or higher mirrored SD/USB Card based storage to host OS or hypervisor	
4	RAID: 0,1,5	
5	NIC: 2X1G	
6	Power Supply: Redundant	
7	Management: Dedicated interface, Remote Console, VGA, USB-Port. Management should be integrated with existing management window of existing Blade servers in the DC	
8	Microsoft OS 2012 or higher standard	
9	Shall have 6 PCI Generation 3 slots with minimum 4 full length and full height	

## 5. Storage

S. No	Technical Requirement	Compliance (Yes / No)
1	The solution must provide hyper converged software that allows delivery of enterprise-class storage services using latest x86 server infrastructures without dependence on a separate Storage Area Network & associated components such as SAN Switches & HBAs.	
2	The proposed solution must be a factory shipped engineered & integrated system. All the components of solution such as compute nodes, hypervisor OS, storage disks, management software must be factory installed and shipped ready for fast deployment.	
3	The storage solution must support scaling hyperconverged node (compute storage), compute-only or storage-only (HDDs) independent of each other under a single cluster.	
4	No single point of failure in the solution	
5	Maximum Configuration. The storage solution software license version must be quoted for maximum scalability on day 1.	
7	The proposed solution must have min. 4 nos. of Server nodes in Hyper-converged system. Each server node must have dedicated redundant hot swap power supplies & cooling fans.	
8	Min 2 Nos. of 2.2 GHz E5-2600v4 16C/ per CPUs per server node. All software features turned on/maximum performance of the STORAGE SOLUTION node.	
9	Min. 8 qty of 32GB DDR4-2400-MHz RDIMM/PC4-19200/dual rank/x4/1.2v per server node. All software features turned on/maximum performance of the storage solution node.	
10	The hypervisor OS must be in redundant boot drives for high availability of boot partition on each node.	
11	Min. 18 nos. of hot swap 1.2T SAS 10K RPM or higher HDDs for capacity tie and min 1 *1.6 TB SSD for tiering & caching per server node. The hypervisor OS must be in redundant boot drives for high availability of boot partition on each server node. The HDDs must be presented via pass through mode without any hardware RAID on every server node. If using HDDs lower than 10K RPM, the vendor must quote 2X HDDs per server node to deliver optimal performance.	

12	It should be a distributed scalable architecture. The Hyperconvergence software must pool all SSDs from all the nodes in the cluster to present a single storage cache pool & all HDD's from all nodes to present a single storage resource pool across the nodes. If the vendor solution does not support a single storage cache pool across nodes, the vendor must quote minimum 3 nos. SSD cache tier per node to deliver optimal performance.	
13	Must support Inline Deduplication across SSD & HDD (all storage tiers). In case, the vendor solution does not support inline deduplication on HDD tier, the vendor must quote 150 % more storage for the solution.	
14	The solution must be configured with minimum of 35 TB usable storage capacity with RF=2 data replication policy solution must support various data replication methods (RF=2 & RF=3) for data protection. Any software license required to enable RF=2 & RF=3 must be quoted on day 1.	
15	Min. 2 * 10Gbps network ports per server node.	
16	The solution must include integrated network switch in the solution/ should connect to existing network switch to run the solution. In case integrating to existing network switch The solution should include necessary cables, licenses for ports, uplink ports, SFP's. Solution must support network QoS at TOR switch and also at network adapter on server side to streamline network traffic to improve network traffic filtering and segmentation. Shall be provided with required virtualization/Hypervisor license	

## 6. Network Management System

S. No.	Technical Requirement	Compliance (Yes / No)
1	NMS shall be able to monitor and configure devices as part of this RFP including new purchase and the Networking elements as part of the AMC (should be proposed against the proposed devices) and should have scalability to manage up to 5000 devices in future. NMS shall be able to manage both wired and wireless networks in single pane of glass management.	
2	NMS should be scalable to provide Deep application visibility on the WAN links, NetFlow/Sflow, application recognition or packet inspection to recognize a wide variety of applications and SNMP .NMS should be able to provide Network topology .	
3	NMS solution should deliver pinpoint visibility into the who, what, when, where, and how of wireless access through its own data collection and key integrations. It should support spatial / floor mapping; integrated location-based tracking of client	
4	Should provide a customizable at-a-glance summary of all discovered devices and existing network switches to proactively identify problem areas and help prevent network downtime. The network has to be manageable at Network Operations Center (NOC) and through secured browser.	
5	Should be able to discover, configure, monitor, manage, and deploy configurations to dynamically update groups of devices.	
6	Should allow flexible definitions of administrator roles and responsibilities with role based access control for different teams.	
7	Should enable performance management by providing customizable dashboards and historical data visibility	
8	Should be able to generate reports designed to summarize utilization of and traffic	

	patterns on network interfaces.	
9	<p>Should allow administrators to track device configuration changes, enabling viewing, retrieval, and restoration of configuration files, and monitoring of configuration drift for troubleshooting purposes.</p> <p>The system design should provide access to only authorized users, RBAC and by using Secure Digital Certificates to completely trace back an individual user, in case of Cyber Crime or any other cyber investigation, as per the NHAHQ security policy of Govt. of India policy/guidelines</p>	

## 7. Edge Switches

S. No.	Technical Requirement	Compliance (Yes/No)
1	General Hardware and Interface requirements	
1.1	Switch should have minimum 12 nos. 10G SFP+ ports with 6 populated SFP+ (MM)/XFP transceivers.	
1.2	Switch shall have minimum 240 Gbps of stacking bandwidth with dedicated stacking ports and cables. With 1:1 redundant hot swappable internal power supplies. Fan modules and transceivers modules should be hot swappable.	
2	Performance Requirements	
2.1	Switch shall have minimum 320 Gbps of switching fabric and 227 Mpps of forwarding rate.	
2.2	Shall have minimum 32K MAC Addresses, 1000 active VLANs, 15K IPv4 and IPv6 unicast routes	
2.3	Shall have RIP, OSPF and OSPFv3, Protocol-independent multicast (PIM) for IP multicast routing is supported, including PIM sparse mode (PIM-SM)/PIM dense mode (PIM-DM)/PIM sparse-dense mode and source-specific multicast (SSM).	
3	IEEE Standards: Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z.	
4	Quality of Service (QoS): Switch shall have 802.1p class of service, IP differentiated service code point (DSCP) and cross stack QoS. Minimum 8 egress queue per port, committed information rate, rate limiting and flow based rate limiting, strict queuing/priority.	
5.	System Management and Administration	
5.1	Switch should support SSHv2, SNMPv2c, SNMPv3, SPAN, RSPAN and NTP.	
5.2	Switch should support AAA using RADIUS and TACACS+ based on standard	
5.3	Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, Spanning tree root guard and IPv6 First Hop Security.	
5.4	Switch should support IPv4 and IPv6 ACLs, VLAN, Port and Time based access list with time ranges. Per port broadcast, multicast and unicast storm control.	
5.5	Switch shall have Internet Group Management Protocol (IGMP) Snooping for Ipv4 and Ipv6, MLD v1 and v2 Snooping and Multicast VLAN Registration protocol. Switch should be Software Defined Networking Ready	
6	Evaluation Compliance	
6.1	Switch / Switch's Operating System should be tested and certified for EAL 2/NDPP or above under Common Criteria Certification.	
6.2	Switch should be IPv6 Certified/IPv6 logo ready.	

## 8. Distribution Switch

S. No.	Technical Requirement	Compliance
--------	-----------------------	------------

		(Yes/No)
1	General Hardware and Interface requirements	
1.1	Switch should have minimum 16 nos. 10G SFP+/XFP ports and should be populated with 10 MM trans	
1.2	Switch shall have minimum 240 Gbps of stacking bandwidth with dedicated stacking ports, 300 Gbps switching capacity and cables and 200Mpps of forwarding Rate	
1.3	Switch should have 1:1 redundant internal power supply. Power supply modules, fan modules and transceivers modules should be hot swappable.	
1.4	Shall have minimum 32K MAC Addresses, 1000active VLAN, 16k IPv4 and 16IPv6 unicast routes	
1.5	Shall have RIP, OSPF, OSPFv3, Protocol-independent multicast (PIM) for IP multicast routing is supported, including PIM sparse mode (PIM-SM)/PIM dense mode (PIM-DM)/PIM sparse-dense mode and source-specific multicast (SSM).	
2	IEEE Standards: Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z.	
3	Quality of Service (QoS): Switch shall have 802.1p class of service, IP differentiated service code point (DSCP) and cross stack QoS. Committed information rate, rate limiting, flow based rate limiting and minimum 8 egress queues per port	
4.	System Management and Administration	
4.1	Switch should support SSHv2, SNMPv2c, SNMPv3, RADIUS,TACACS, SPAN and RSPAN	
4.2	Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, Spanning tree root guard and IPv6 First Hop Security.	
4.3	Switch shall have Internet Group Management Protocol (IGMP) Snooping for Ipv4 and Ipv6, MLD v1 and v2 Snooping and Multicast VLAN Registration protocol.	
4.4	Switch shall have per port broadcast, multicast and unicast storm control.	
4.5	Switch should be Software Defined Networking Ready with Openflow protocol support.	
5	Evaluation Compliance	
5.1	Switch / Switch's Operating System should be tested and certified for EAL 2/NDPP or above under Common Criteria Certification.	
5.2	Switch should be IPv6 Certified/IPv6 logo ready.	

## 9. Firewall

S. No	Technical Requirement	Compliance (Yes / No)
1	The appliance based security platform with multicore CPU should be capable of providing firewall, URL Filtering, IPS and Anti Malware Protection with required license should be provided	
2	The appliance should have min 12 no. of 10/100/1000 Base-T Gigabit Ethernet ports plus 4 x 10G SFP+ port	
3	The appliance hardware should be a multicore CPU architecture with a hardened 64 bit operating system to support higher memory	
4	Proposed Firewall should not be proprietary based in nature & should be open architecture based on multi-core CPU's to protect & scale against dynamic latest security threats.	
5	Firewall shall have hot swappable 1:1 redundant internal power supply	
6	Firewall should support stateful failover of sessions in Active/Standby and Active/Active mode	

7	Should have minimum Firewall throughput with multiple protocol of 4.5 Gbps. Real world profile should include but not limited to HTTP, Bit Torrent, FTP , SMTP and IMAPv4	
8	Firewall should support DES, 3DES/ AES IPSec VPN throughput of minimum 1.5 Gbps. Should support minimum 7,000 cumulative VPN including IPSec	
9	Firewall concurrent sessions 2M or higher	
10	Firewall should support URL/AVC filtering, antimalware prevention with licenses to be provided	
11	Firewall should have integrated intrusion prevention system	
13	Firewall should be provided with management software	

#### 10. Wireless Access Point (Indoor)

S.No	Technical Requirement	Compliance (Yes / No)
1	Wall/Ceiling mounted Wi-Fi access-point suitable for indoor use with at least 2 10/100/1000Mbps Ethernet ports supporting standard 802.3af/at POE+.	
2	802.11ac AP should operate in 2.4 GHz (450 Mbps or more) and 5 GHz simultaneously and capable of minimum 1.7Gbps on 5 Ghz for 802.11ac clients supporting minimum 4x4 MIMO with 4 spatial streams. It must support minimum 3 concurrent MU-MIMO users.	
3	Should support minimum 16x BSSID per AP. Should have Operating Temperature of 0-40 Deg Centigrade	
4	The access point should be capable of performing security scanning and serving clients on the same radio. It should be also capable of performing RF analysis and security scanning using same radio.	
5	Must support minimum 22dbm of transmit power in both 2.4Ghz and 5Ghz radios and minimum 3dB antenna gain. AP should support 20MHz, 40MHz and 80MHz channel size.	
6	AP should support band steering and load balance across bands and AP's	
7	Security mechanisms should be in place to protect the communication between the Access Point controller and the Access Points	
8	The access point should support WPA2 enterprise authentication and AES/CCMP encryption.	
9	AP should support 802.11k for Radios Resource management and 802.11r for fast roaming.	
10	Implement Wi-Fi alliance standards WMM, 802.11d, 802.11h and 802.11e and should support VoWLAN	
11	AP must support L7 Application Identification and spectrum analysis functions	
12	AP should support Minimum -90dB Receiving sensitivity. AP should support Receiver sensitivity Threshold to reduce noise reception in the AP to increase SNR and performance	
13	802.11 a/b/g/n/ac wave 2 functionality certified by the Wi-Fi alliance, Should be plenum rated (UL2043), and RF transmission power should be approved by WPC.	

#### 11. Wireless LAN Controller

S.No.	Technical Requirement	Compliance (Yes / No)
1	Must be compliant with IEEE CAPWAP for controller-based WLANs or equivalent feature and it should be appliance based.	
2	WLC should support IPv4 and IPv6 including IEEE 802.11a, 802.11b, 802.11g, 802.11d, WMM/802.11e, 802.11n, 802.11ac standards.	



3	WLC must have minimum 4 x 1G SFP of uplink interfaces and should be populated with Base-T ports from day 1	
4	WLC should support up to 75 Access points day 1 and up to 6,000 Devices in a single chassis. It should be scalable to 500 AP's through single appliance or through cluster with single interface management of all WLC's. It should also support AP license migration from one WLC to other, in case of future up gradation.	
5	WLC Must provide Active: Active with 1+1 or N+1 redundancy. The controllers shall be implemented in HA mode.	
6	WLC should provide air-time fairness between these different speed clients – slower clients should not be starved by the faster clients and faster clients should not adversely affected by slower clients.	
7	WLC Must support an ability to dynamically adjust channel, power settings and airtime, based on the RF environment.	
8	WLC should support L2/L3 discovery for AP's	
9	Should support adhere to the strictest level of security standards, including 802.11i Wi-Fi Protected Access 2 (WPA2), WPA, 802.1X with multiple Extensible Authentication Protocol (EAP) and 802.1x Authentication.	
10	Controller should support WIDS/WIPS includes rogue AP detection, classification and automatic containment feature and prevention for DOS attacks.	
11	WLC should support L2/L3/L4 Access Control and L2 Client Isolation so User cannot access each other's devices. Isolation should have option to apply on AP or SSID's	
12	Controller/System should support Access Control based on Identity/Role/ Device/Time or Application.	
13	Must support client roaming in L2/L3 networks and also across controllers	
14	Controller should support integrated or External AAA servers including Microsoft AD and Linux based open source AAA.	
15	The Controller/System should support L7 Application/OS/Device finger printing and device type based policies i.e allow or deny, Bandwidth rate limit, VLAN mapping	
16	Wireless Network should support deep packet inspection for all user traffic across Layer 4-7 network to analyses information about applications usage	
17	The controller/System should be able to raise critical alarms by sending an email and/ or SMS.	
18	Per SSID or dynamic Per user bandwidth Rate Limiting	
19	Support advanced multicast features and WMM support to provide best performance on Video applications.	
20	Controller/ System should have BYOD features and should support integrated/ and external captive portal integration	
21	System should provide a web-based application that allows non-technical staff to create Guest accounts with validity for fixed duration like hours or days and restricted to number of devices. Password to guest should be shared over Email and SMS (SMS gateway services shall be provided by NHA in case Service is required).	
22	Proposed solution should be an Appliance based solution	

## 12. POE Layer2 Switch

S. No.	Technical Requirement	Compliance (Yes/No)
1	General Hardware and Interface requirements	
1.1	Switch shall have minimum 48 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 360W of PoE Power and additional 2 nos. SFP+	

	uplink ports.	
1.2	Switch shall have dedicated slot for minimum 80 Gbps of stacking bandwidth with dedicated stacking ports	
1.3	Switch should support internal/external redundant power supply.	
2	Performance Requirements	
2.1	Shall have minimum 88 Gbps of switching fabric and 65 Mpps of forwarding rate.	
2.2	Shall have minimum 16K MAC Addresses, 1K Active VLANs, 1K IPv4 and IPv6 multicast groups, 1K IPv4 and IPv6 QoS and Security ACLs	
3	IEEE Standards: Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z.	
4	Quality of Service (QoS): Switch shall have 802.1p class of service, IP differentiated service code point (DSCP) and cross stack QoS. Committed information rate, rate limiting, flow based rate limiting and minimum 8 egress queues per port	
5	System Management and Administration	
5.1	Switch should support SSHv2, SNMPv2c, SNMPv3, RADIUS, TACACS, SPAN and RSPAN	
5.2	Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, Spanning tree root guard and IPv6 First Hop Security.	
5.3	Switch shall have Internet Group Management Protocol (IGMP) Snooping for Ipv4 and Ipv6, MLD v1 and v2 Snooping	
5.4	Switch shall have per port broadcast, multicast and unicast storm control.	
6	Evaluation Compliance	
6.1	Switch / Switch's Operating System should be tested and certified for EAL 2/NDPP or above under Common Criteria Certification.	
6.2	Switch should be IPv6 Certified/IPv6 logo ready.	

### 13. AAA/NAC

S. No.	Technical Requirement	Compliance (Yes / No)
1	Proposed AAA solution should be an Appliance based solution.	
2	Proposed solution must support integration and security for both wired and wireless infrastructure. It should be ready to handle 1000 users and 1500 concurrent Devices from day1 and scalable for up to 6000 users and 12000 Devices. Devices are mixture of guest users, institute staff, machine endpoints.	
3	AAA should support BYOD with Self-service authorization and device provisioning via open network.	
4	It must allow for Machine Authentication (or an appropriate alternative) by AD-joined Windows laptops/tablets allowing wireless connection before user logon.	
5	The Solution should have detailed reporting capabilities in conjunction with NMS based on sharing contextual sharing between AAA and NMS. AAA must issue certificates to mobile devices like Tabs/iPads - to allow machine authentication for non-AD joined devices.	
6	The proposed solution should have Built-in user database with per device/user credential management and should also provide Seamless	

	backend integration with RADIUS, AD, LDAP	
7	Solution should be Threat-Centric and conduct scan test for vulnerability assessment of Endpoint devices and control access based on endpoint's threat score. Solution should be Threat-Centric and conduct scan test for vulnerability assessment of Endpoint devices and control access based on endpoint's threat score.	
8	Proposed solution should address (but not limited to) the below requirements:	
	Intuitive user/device management and Unified device visibility and reporting	
	Self-service 802.1X and guest access. Should also have option for MAC authentication for selective devices and Social Login.	
	Integrated AAA server with key policy definitions. Should also support integration with external AAA server and CA server.	
9	AAA should be able to integrate with existing user databases like Microsoft AD/LDAP/Certificate Authority	
10	It should be scalable to enforce device-specific settings for antivirus, firewall and OS patches, passcodes, NAC, proxies	
11	It should be able to enforce custom user and device privileges	

## PART B – Passive, Cables and Racks

This Section Includes:

1. Copper Components
2. Fiber components
3. Labeling and administration
4. Cabinet
5. PVC Components

### 1 Copper Solution

#### 1.1 CABLE CAT-6A U/UTP

S. No	Generic Requirement	Compliance(Yes/No)
1	Exceeds requirements of ANSI/TIA-568-C.2,ISO/IEC 11801 Class EA Category 6A channel standards.	
2	Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications	
3	Cable diameter :7.239 mm, (0.285 in) nominal	
4	High performance, Category 6A, low smoke zero halogen (LSZH), 4-pair, UTP copper cable. Copper conductors are 23 AWG constructions	
5	Flame rating: LSZH	
6	Operating temperature range: -20 °C to +60 °C (-4 °F to +140 °F)	
7	Installation tension: 110 N (25 lbf) maximum	
8	Channel characterized to 550 MHz above the standard.	
9	Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap	
10	Smoke Test Method : IEC 61034-2	

11	ROHS: Compliant	
----	-----------------	--

## 1.2 MODULE

S. No	Generic Requirement	Compliance(Yes/NO)
1	Housing Material : High-impact, flame retardant, thermoplastic	
2	Exceed requirements of ANSI/TIA-568-C.2 Category 6A, IEEE 802.3an-2006, and ISO 11801 Class EA channel standards	
3	UL Flammability Rating : UL 94V-0	
4	Termination Method to Wire/Cable : Insulation Displacement Crimp (IDC)	
5	Exceed requirements of IEC 61156-5 Category 6A component standards	
6	Meet requirements of IEEE 802.3af and IEEE 802.3at for PoE applications	
7	Category 6A, RJ45, 8-position, 8-wire universal module.	
8	RoHS Compliant	
9	Terminate 4-pair, 22 – 26 AWG, 100 ohm, solid or stranded twisted pair cable	
10	Universal termination cap is color-coded for T568A and T568B wiring schemes	
11	Accept 6 and 8-position modular plugs without damage.	
12	Plug Insertion Life, minimum : 750	

## 1.3 Patch Panel

S No	Generic Requirement	Compliance(Yes/NO)
1	24-port with labels	
2	Allow labeling scheme and port identification to be visible at all times	
3	Allow front access to installed modules for easy moves, adds and changes	
4	Accept 8-position, 8-wire universal module for UTP, fiber optic, and audio/video, which snap in and out for easy moves, adds, and changes	
5	Mount to standard EIA 19" racks or 23" racks with optional extender brackets	
6	RoHS Compliant	

## 1.4 Patch Cord

S. No	Generic Requirement	Compliance(Yes/NO)
1	Exceed ANSI/TIA-568-C.2 Category 6A and ISO 11801 Class EA Edition 2.1 standards for all frequencies from 1 to 500 MHz	
2	Meet requirements of IEEE 802.3af and IEEE 802.3at for PoE applications	
3	Each patch cord is 100% performance tested and wired T568B	
4	Slender strain relief boot provides easy access in high density applications	
5	Perform in center of TIA/EIA component range, ensuring interoperability and excellent performance	
6	Labels on patch cords provide identification of performance level, length, and quality control number	
7	RoHS Compliant	
8	Operating Temperature Range : 10 °C to +60 °C (+14 °F to +140 °F)	
9	Flammability Rating : LSZH (Low Smoke Zero Halogen)	

## 1.5 Face Plate

S. No	Generic Requirement	Compliance(Yes/NO)
1	Individual modules snap in and out of provided insert	
2	Single or double gang configurations	
3	Excellent for copper and fiber applications	
4	Shutters protect modules when not in use	
5	86 x 86mm single gang faceplate frame and one 1/2 size sloped shuttered module insert. Depth to rear of modules: 18.0mm	
6	RoHS Compliant	

## 2 Fiber Solution

### 2.1 Fiber Cable:

S. No	Generic Requirement	Compliance(Yes/No)
1	1 run of Inter Building backbone cable shall meet multimode OM4 performance.	
2	1 run of Inter Building backbone cable shall meet multimode OS2 performance.	
3	Intra Building backbone shall meet Multimode OM3 performance.	
4	Fiber cable shall be indoor/Outdoor all dielectric rated.	
5	Flammability Rating : LSZH (Low Smoke Zero Halogen)	
6	Installation Temperature : -30 °C to +60 °C (-22 °F to +140 °F)	
7	Operating Temperature: -40 °C to +70 °C (-40 °F to +158 °F)	
8	Storage Temperature : -40 °C to +75 °C (-40 °F to +167 °F)	
9	Inter building backbone fiber count shall be 24 fiber.	
10	Intra building backbone fiber count shall be 12 fiber.	
11	Mounting: Integral mounting flange for installation in 19" wide EIA-310 racks	
12	Loaded with fiber pigtails and splice holder	
13	Drawer concept allows For :	
	(a) Easy access to splicing tray	
	(b) Easy access to back side of connector	
14	TIA-606-A compatible labeling.	

### 2.2 Fiber PATCH CORDS

S. No	Generic Requirement	Compliance(Yes/No)
1	Pass all TIA/EIA-568-B.3 performance requirements	
2	Insertion loss per connection: .30dB maximum at each end.	
3	Factory terminated and 100% tested for insertion loss	
4	Backward compatible for use with all 50/125µm system requirements.	
5	Insertion loss data recorded for every multimode patch cord	
6	Flammability Rating : LSZH (Low Smoke Zero Halogen)	

Note: All Single mode fiber components shall be standard compliant.

## 3. LABELLING & IDENTIFICATION SOLUTIONS

S. No	Generic Requirement	Compliance(Yes/NO)
-------	---------------------	--------------------

1	The Labeling & Identification Solution should Meet or exceed the requirements of UL, CSA, and TIA/EIA-606-B standards.	
2	All components of the infrastructure should be labeled, including, but not limited to the following:	
	a. Copper Cabling should be labeled with self-laminating labels.	
	b. Patch Panels and Fiber Enclosures with dedicated label insert locations should be labeled.	
	c. Punch-Down Blocks should be labeled with adhesive component labels.	
	d. Faceplates with dedicated label insert locations should be labeled with non-adhesive component labels	
	e. Faceplates without dedicated label insert locations should be labeled with adhesive component labels	
	f. Telecommunication Spaces should be identified with component labels	
	g. Equipment and Panels should be identified with component labels and marked with the appropriate safety markings and warnings in accordance with local regulatory requirements	
	h. Circuit Boards should be labeled with polyimide component labels.	
3	Labeling Software should be part of a complete system for identification designed to efficiently support TIA/EIA-606-B standard labeling requirements.	

#### 4. CABINETS

S. No	Generic Requirement	Compliance(Yes/No)
1	(42,) RU 800 x 1000mm and 1200mm Wide Cabinet Modular cable management fingers easily mount to the front and/or back of all four cabinet posts	
2	Adjustable rear equipment rails with infinite positioning	
3	Conforms to DIN 41494 or Equivalent EIA /ISO / EN / CEA Standard	
4	Numbered U positions	
5	Universal 25MM Pitch Holes For ETSI Standard Racks	
6	State-of-the-art manufacturing methods provide the best product quality and fastest delivery in the industry.	
7	Powder coated finish with Seven tank pretreatment process meeting ASTM standard	
8	100% assured compatibility with all equipment's conforming to DIN 41494 (General industrial standard for equipment's)	

#### 5. PVC Components

S. No	Generic Requirement	Compliance(Yes/No)
1	All PVC Components shall be ISI Marked and approved.	
2	All PVC components shall be minimum Medium grade.	
3	HDPE pipe shall be equipped with rope.	
4	All accessories shall be with same grade.	

VC Conduit shall be FRLS rated.

#### Appendix-B to Section IV

#### Important Note:-

The bidder/vendor/tenderer should have full-fledged /fully equipped service center at Delhi NCR

1. Installation of the system & training for a minimum period of a week will have to be arranged by the vendor. In case installation/training charges are to be paid extra, the same MUST be specified in the offer, failing which the offered rates will be treated as inclusive of installation/training charges. Name and postal address of the agency who will provide after sales service MUST be clearly mentioned in your offer. Installation and training clauses MUST be clearly mentioned in your offer (both in technical and commercial bids).
2. The equipment quoted shall be complete in every respect with all mounting, fittings, fixtures and standard accessories needed for installation and safe operation, though some of them may not have been detailed in the technical specification.

**IMPORTANT ADDITIONAL REQUIREMENTS:-**

- i. After sales service – the supplier should have full fledged workshop to provide after sales and support service.
- ii. Demonstration of equipments / goods should be arranged at the supplier's expense.
- iii. The offer should be for the reputed brands of item and detail specifications should be furnished for each items.
- iv. A complete list of optional utilities along with specifications and cost should be given.
- v. Installation and satisfactory operation of the supplied items will be the responsibility of the supplier
- vi. The free services, warranty, up gradation, maintenance and other facilities provided should be specified along with conditions if any.
- vii. Catalogue/Technical literature drawing to be attached with the tender document.
- viii. List of customers / offices may be mentioned to whom the items has been supplied and performance certificate, if any.

SECTION – V

PREFERENCE TO DOMESTICALLY MANUFACTURED ELECTRONIC PRODUCTS IN  
GOVERNMENT PROCUREMENT



1. **Policy for Preference to domestically manufactured electronic products in Government procurement as per Department of Electronics and Information Technology (DeitY), Ministry of Communication and Information Technology** vide Notification No.33(3)/2013-IPHW dated 23/12/2013 has been promulgated and is being adhered to.

2. Purchaser reserves the right for providing preference to domestically manufactured electronic products in terms of the Department of Electronics and Information Technology (DeitY) **Notification No.33(3)/2013-IPHW dated 23.12.2013 read with Notification No.33(3)/2013-IPHW dated 22/05/2014 and Guidelines issued there under through Notification No. 8(78)/2010-IPHW dated 12/06/2013.** A copy of the aforesaid Notifications / Guidelines can be downloaded from DeitY website i.e. URL [www.deity.gov.in/esdm](http://www.deity.gov.in/esdm). Purchase preference for domestic manufacturer, methodology of its implementation, value addition to be achieved by domestic manufacturers, self-certification, and compliance and monitoring shall be as per the aforesaid Guidelines/ Notifications. The Guidelines may be treated as an integral part of the tender documents.

1) The modalities through which the preference for Domestically Manufactured Electronic Products (DMEPs) shall be operated are as follows:

- a) The electronic products for which preference will be provided to domestic manufacturers shall be Servers, Core/Edge/Enterprise Ethernet Switches, Hubs, etc., CPE and Network Management systems. **(Item Description)**
- b) The quantity of procurement for which preference will be provided to domestic manufactures shall be 30% of the total tendered quantity.
- c) Percentage of domestic value addition, which qualifies the electronic product i.e. Servers, Core/Edge/Enterprise Ethernet Switches, Hubs, etc., CPE and Network Management systems to be classified as domestically manufactured shall be **25%** (Percentage of domestic value addition in terms of BOM of domestic manufacturers for first year then increased at 30%, 35%, 40%, 45% consequently for next four years) for the financial year **from 01/04/2016 to 31/03/2017.**
- d) The preference to DMEP shall be subject to meeting technical specifications and matching L1 price.

2) Domestic manufacturers are required to indicate the domestic value addition in terms of BoM for the quoted product, in terms of aforesaid guidelines, in their bid in the following format:

Format for Domestic Value Addition in terms of Guidelines issued for procurement of notified electronic products by Government

Item No.	Item Description	Manufacturer/ Supplier	Country of Origin	Value	Domestic Value Addition in Percentage
1					
2					
....n					

3) Bidders, claiming to bid in the status of domestic manufacturer, are required to give an undertaking in the format as given as Form 1 of the guidelines **Notification No. 8(78)/2010IPHW dated 12/06/2013.** Furnishing of false information on this account shall attract penal provisions as per Guidelines/Notification.

4) Procedure for award of contracts involving procurement from domestic manufacturers will be guided by policy mentioned above.

**Format for Affidavit of Self Certification regarding Domestic Value Addition in an Electronic Product to be provided on A100/- Stamp Paper.**

**Date :** .....

I \_\_\_\_\_ S/o, D/o, W/o \_\_\_\_\_, Resident of \_\_\_\_\_ do hereby solemnly affirm and declare as under.

That I will agree to abide by the terms and conditions of the policy of Government of India issued vide **Notification No.33 (3)/2013-IPHW dated 23.12.2013**

That the information furnished hereinafter is correct to best of my knowledge and belief and I undertake to produce relevant records before the procuring authority or any authority so nominated by the Department of Electronics and Information Technology, Government of India for the purpose of assessing the domestic value-addition.

That the domestic value addition for all inputs which constitute the said electronic products has been verified by me and I am responsible for the correctness of the claims made therein.

That in the event of the domestic value addition of the product mentioned herein is found to be incorrect and not meeting the prescribed value-addition norms, based on the assessment of an authority so nominated by the Department of Electronics and Information Technology, Government of India for the purpose of assessing the domestic value-addition. I will be disqualified from any Government tender for a period of 36 months. In addition, I will bear all costs of such an assessment.

That I have complied with all conditions referred to in the Notification No., wherein preference to domestically manufactured electronic products in Government procurement is provided and that the procuring authority is hereby authorised to forfeit and adjust my EMD and other security amount towards such assessment cost and I undertake to pay the balance, if any, forthwith.

I agree to maintain the following information in the Company's record for a period of 8 years and shall make this available for verification to any statutory authorities :

- Name and details of the Domestic Manufacturer (Registered Office, Manufacturing unit location, nature of legal entity)
- Date on which this certificate is issued.
- Electronic Product for which the certificate is produced.
- Procuring agency to whom the certificate is furnished.
- Percentage of domestic value addition claimed.
- Name and contact details of the unit of the manufacturer.
- Sale Price of the product.
- Ex-Factory Price of the product.
- Freight, Insurance and handling.
- Total Bill of Material.
- List and total cost value of inputs used for manufacture of the electronic product.
- List and total cost of inputs which are domestically sourced. Please attach certificates from suppliers, if the input is not in-house.
- List and cost of inputs which are imported, directly or indirectly.

For and on behalf of \_\_\_\_\_ (Name of firm/entity)

Authorised signatory (To be duly authorised by the Board of Directors)  
Name, Designation and Contact No.

PART-II

FORMS FOR  
SUBMISSION OF BIDS

SECTION – VI

FORMS FOR  
SUBMISSION OF TECHNICAL BID

(As per e-form for technical bid)

To,

GeneralManager(IT)  
NationalHighwaysAuthorityofIndia(NHAI),  
G 5&6,Sector-10,Dwarka,  
NewDelhi -110075

Subject: Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems.

Reference: NHAI/11013/IT/WI-FI/2017 Dated: 19 JUNE 2017

Sir,

We, the undersigned, offer to provide the services for the above mentioned project in accordance with your Tender Notice referred above. The technical proposal in the prescribed proforma is submitted for consideration.

2. We undertake that, in competing for (and, if the award is made to us, in executing) the above Contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988". We understand that NHAI is not bound to accept the lowest or any Bid received by NHAI.

Yours sincerely,

Authorized signatory  
Name & Title of Signatory:

**General instructions :**

(To be furnished by individual firm)

(a) In case the Bidder has to furnish no information against any of the items below, either 'Nil', 'No' or 'Not applicable', as the case may be, should be mentioned. If in the information supplied, against any item, a dash is marked or is left blank, it shall be treated as incomplete

1. (a) Name of Bidder

(b) Constitution of the Bidder entity e.g. Government enterprise, private limited company, limited company etc.

(c) In case of a Government enterprise, please indicate as to whether legally and financially autonomous and operate under commercial law.

Yes/ No/ Not applicable

(d) Name(s) of Partners/ Directors

2. Complete postal address with Telephone/ Fax numbers/ e-mail address

i) Corporate Office

ii) Registered Office

3. Address for correspondence with Telephone/ Fax numbers/ e-mail address. Please provide at least one fixed and one mobile telephone number on which the Authorized Person can be contacted during the tender process. It is the Applicant's responsibility to ensure that ALL these means of communications are working and being monitored regularly from the date of Application to the conclusion of the tender process:

(a) Complete postal address:  
(to which the correspondence will be made)

(b) Fixed telephone number

(c) Mobile telephone number  
(Note: the mobile telephone specified should be capable of receiving SMS)

(d) E-mail address

6. Name of the Company Secretary/ Chartered Accountant certifying the documents along with his/ her Membership number, if applicable:

7. (a) Whether the Bidder is having requisite Financial Strength: Yes/ No

(b) If yes, please indicate the average annual turnover of the Bidder:

(Note : Please attach certificate from Company Secretary/ Chartered Accountant in the prescribed format duly countersigned by the authorized signatory certifying the Net worth.)

8. Whether in the ordinary course of its business, the Company is engaged in providing similar services in the information technology field and/ or Networking Business:

Yes/ No

9. Whether the Bidder have requisite experience of having successfully completed similar works :

Yes/ No

10. Whether the Bidder have been declared ineligible by NHAI or Ministry of Road Transport & Highways, Government of India for indulging in corrupt or fraudulent practices :  
Yes/ No
11. (a) Whether the Bidder have been declared/ determined non-performing by NHAI :  
Yes/ No  
(b) If so, period of debarment:
12. Whether copy of Resolution of Board of Directors/ Power of Attorney/ Authority Letter stating that the person signing the Application is an authorized signatory has been attached :  
Yes/ No  
(Note: Copy to be certified by Company Secretary/ Director/ Managing Director of the Company and should also bear the signature of the authorized signatory)
13. Whether the Bidder has a office in Delhi/NCR :  
If yes, complete postal address with Telephone/ Fax numbers :  
Yes/ No

Certificate / undertaking:

- A. It is hereby certified that the contents of the Notice inviting tenders has been carefully gone through and the Bidder undertakes to fully comply with the terms and conditions specified in the tender document including addendum thereof.
- B. It is hereby certified that neither the Bidder nor any of its Directors are the subject of criminal or civil proceedings that could be expected to adversely affect its business or its ability to Bid in the present tender.
- C. It is hereby certified that the Bidder understands that this Technical Bid, if found incomplete in any respect and/ or if found with conditional compliance or not accompanied with the requisite Bid Security (Earnest Money Deposit/ Earnest Money Bank Guarantee), shall be summarily rejected.
- D. It is hereby certified that the Bidder do not have any record of poor performance such as abandoning the works, not properly completing the Contract, delay in payment of salary to its staff deployed to client's site, or financial failures etc.;
- E. It is hereby certified that the Bidder understands that the tender application fee is nonrefundable irrespective of whether or not the Contract is granted to it.
- F. It is hereby certified that the Bidder hasn't been blacklisted by a central/ state Government institution/ Public Sector Undertaking/ Autonomous body and there has been no litigation with any Government Department/ PSU/ Autonomous body on account of similar services.
- G. It is hereby certified that the Bidder will intimate the NHAI promptly in case of any change in the information submitted as part of this Technical Bid.
- H. It is hereby certified that the Bidder understands that all matters relating to the tender or Contract if granted to it will be subject to jurisdiction of courts/ Tribunal(s) in Delhi/ New Delhi only.
- I. It is hereby certified that the Bidder understands that if at any time, any averments made or information furnished as part of this Bid is found incorrect, then its Bid and the Contract if awarded on the basis of such Bid shall be cancelled.
- J. It is hereby certified that the Bidder offers to execute the works in accordance with the Conditions of Contract, Specifications and TOR accompanying this Bid.
- K. I hereby confirm that this Bid complies with the Bid Validity and Bid Security required by the conditions of tender document.
- L. It is hereby certified that the information provided in this Technical Bid (including the attachments) is true, accurate and complete to the best of my knowledge & belief.

Date:

Signature of the Authorized Signatory  
Name & Designation/ Title of the Authorized Signatory

Place:

(Company's Seal)

Declaration from OEM Bidder for clause 2.17.1.1 (i)

To,

GeneralManager(IT)  
NationalHighwaysAuthorityofIndia(NHAI),  
G 5&6,Sector–10,Dwarka,  
NewDelhi –110075

Subject: Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems

Reference: NHAI/11013/IT/WI-FI/2017 Dated: 19 JUNE 2017

Dear Sir/Madam,

We, the undersigned, confirm that we are the Original Equipment Manufacturers of the Networking equipments/ Servers/ SAN quoted for in our proposal for the subject tender.

Yours sincerely,

(Signature of the Authorized signatory):

Name and Designation of the Authorized signatory:

Name and Address of Firm:

Phone, Fax & E-Mail



Declaration from the Non-OEM Bidder for clause 2.17.1.1 (i)

To,

GeneralManager(IT)  
NationalHighwaysAuthorityofIndia(NHAI),  
G 5&6,Sector-10,Dwarka,  
NewDelhi -110075

Subject: Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems

Reference: NHAI/11013/IT/WI-FI/2017 Dated: 19 JUNE 2017

Dear Sir/Madam,

We, the undersigned, having our registered office at \_\_\_\_\_, declare and confirm that we are the authorized System Integrators/channel partners of M/S. \_\_\_\_\_, the Original Equipment Manufacturers (OEM) of the Networking Equipments, Servers and Desktops quoted for in our proposal for the subject tender. The OEM of Networking Equipments/Servers/ SAN quoted is having their registered office at \_\_\_\_\_.

We are also attaching the authorization letter(s) of our OEM as required in the Eligibility Criteria of the tender.

We are also attaching the letter duly signed and stamped by the authorized signatory of the above said OEM confirming the support provided by them to us will include the activities like Pre & Post-Sales Support, Integration Support, Technical Assistance Support, Spares Support, Software Up-gradation support, etc.

Yours sincerely,

(Signature of the Authorized signatory):

Name and Designation of the Authorized signatory:

Name and Address of Firm:

Phone, Fax & E-Mail

Format of Certificate showing Bidder's Annual Turnover  
(To be issued on letter-head of the Chartered Accountant)

Dated

Certificate of Annual Turnover

It is certified that we have examined the books of accounts of M/s. \_\_\_\_ (name and address of the Bidder) \_\_\_\_ and the average annual turnover of the company/ firm is not less than Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) during the last three financial years.

It is also certified that the net worth of the M/s. \_\_\_\_\_ (name and address of the Bidder) is positive during last three financial years.

The details of the annual turnover are as under:

(Amount in Rs.)				
Sl. No.	Particulars	FY 20013-14	FY 2015-16	FY 2016-17
1.	Total Annual Turnover of M/s _____			

(Signature of Company Secretary or Statutory Auditor/ Chartered Accountant)

Name of the Company Secretary or Statutory Auditor/ Chartered Accountant :

Seal:

**Important Notes:**

- (i) The above data should relate only to the Bidder who has submitted the tender.
- (ii) In the above table, FY means Financial Year i.e. a period from 1<sup>st</sup> April of preceding year to 31<sup>st</sup> March of the succeeding year.

**Self-Declaration regarding Technical Capability of Similar Nature of Work**

Date \_\_\_\_\_

We \_\_\_\_\_ (Name of the Bidder), having registered office at \_\_\_\_\_ (address) hereby declare and confirm that

- (a) We hereby declare and confirm that we, \_\_\_\_\_ (Name of the Bidder), having registered office at \_\_\_\_\_ (address) have successfully executed contracts of similar nature i.e. supply and installation of networking equipments, servers, IP telephony and system integration services to its clients in Government or PSU or private organization of repute. We certify that we had executed similar contracts as per the table below

Sl. No	Name of the Client Organization	Purchase Order (P.O) No. & Date of Issue Of P.O.	Project Value	Start Date	End Date	Brief Scope Of Work	Whether The Successful Completion Certificate As Required, Is Attached?		Whether The Copies Of The Purchase Orders / Contracts From The Client As Required, Is Attached?	
							Yes/ No	Pg. No. On The Proposal	Yes/ No	Pg. No. On The Proposal

- (b) We are also attaching the completion certificates from the respective client organizations and the copies of work orders/contracts from the client as required in the tender along with this.

Authorized Signature:

Name &amp; Title of Signatory:

Name of Bidder

Important Notes:

1. The above information should relate only to the Company (Bidder) who has submitted the tender.

## Self-Declaration regarding Technical Capability of handling similar works

Date

We hereby declare and confirm that we, \_\_\_\_\_ (Name of the Bidder), having registered office at \_\_\_\_\_ (address), are in the business of voice, video and data implementation and/or integration related activities for at least the past 3 years.

- (a) We have service center having state-of-the-art equipment for repair/ maintenance of IT equipment or having confirmed tie-up with leading service center(s) for repair of equipment which are to be maintained as per the tender. The service center shall have facility through which service be provided within 24 hours of call logging. Our main service center is located at \_\_\_\_\_ (Complete address of service center be mentioned). Through this service center, we are providing maintenance of IT equipment facility to:-

- (i) Private Customers :- Yes / No  
 (ii) Government / PSU clients :- Yes / No  
       If yes, name of client be specified \_\_\_\_\_  
 (iii) Original Equipment Manufacturer (OEM) :- Yes / No  
       If yes, name of OEM be specified M/s. \_\_\_\_\_

- (b) We also undertake that the following services towards this tender will not be sub-contracted and will be executed by our Company.

- Design Of Solution Architecture,
- Network Installation, Commissioning and Integration of Routers, Switches, Firewall, IP Phones, Servers, SAN, etc.
- Acceptance Tests,
- Trainings And Handover,
- Project Management Services.

- (c) We are intending to subcontract the following works to the respective subcontractors as found in the table below. We submit the same for your approval.

Sl. No.	Name of Subcontracted Service	Sub-Contractor Name, Address and Contact Numbers	Details of the Subcontract work	Brief Profile of the Subcontractor proposed

- (d) We also undertake that under all circumstances, the value of the works sub-contracted by us will not exceed 25% of the Services Price.

Yours Sincerely,

(Signature of Authorized Signatory)

Name and Designation of the Authorized Signatory:

Name and address of the Bidder Company:

Important Notes:

- The above data should relate only to the Company (Bidder) who has submitted the tender. Data relating to sister companies, group companies, parent company, subsidiary companies shall not be considered.

## Format for Bank Guarantee towards Bid Security

BG No. ....

Date .....

To,  
 The Chairman  
 National Highways Authority of India  
 G-5&6, Sector – 10 Dwarka,  
 New Delhi - 110075

1. In consideration of “National Highways Authority of India (NHAI)” (hereinafter referred to as the “Authority”, which expression shall unless it be repugnant to the subject or context thereof include its successors and assigns) having agreed to receive the application of M/s ..... and having its registered office at .....(hereinafter referred to as the “Bidder” which expression shall unless it be repugnant to the subject or context thereof, include its/ their successors, administrators, executors and assigns), for submission of bids for the works of ..... (hereinafter called the “Works”) pursuant to RFP document no. .... dated ..... of the Authority, and the bidder having agreed to furnish a Bank Guarantee to the Authority as “Bid Security” for the purpose indicated in the said RFP, we, ..... (Name of the Bank) having our registered office at ..... and one of its branches at ....., a body registered / constituted under the ..... (hereinafter referred to as the Bank), which expression shall, unless it be repugnant to the subject or context thereof, include its successors, administrators, executors and assigns at the request of the bidder, do hereby in terms of RFP document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfillment and compliance of the terms and conditions of the RFP document by the said bidder and unconditionally and irrevocably undertake to pay forthwith to the Authority an amount of Rs. ..../- (Rupees .....only) (hereinafter referred to as the “Guarantee”) as aforesaid at any time up to ..... as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfil or comply with all or any of the terms and conditions contained in the said RFP Document.
2. Any such written demand made by the Authority stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the RFP / Bidding Documents shall be final, conclusive and binding on the bank.
3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Authority is disputed by the Bidder or not, merely on the first demand from the Authority stating that the amount claimed is due to the Authority by reason of failure of the Bidder to fulfil and comply with the terms and conditions contained in the RFP/ Bidding Documents including failure of the said Bidder to keep its Bid open during the Bid validity period as set forth in the said RFP / Bidding Document for any reason whatsoever. Any such demand made on the bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. .... (Rupees ..... only).
4. This Guarantee shall be irrevocable and remain in full force upto ..... inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between the Authority and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.

5. We, the Bank, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfillment and compliance with the terms and conditions contained in the RFP/ Bidding Documents including, inter alia, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Bidding Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.
6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
7. In order to give full effect to this Guarantee, the Authority shall be entitled to treat the Bank as the principal debtor. The Authority shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said RFP / Bidding Documents or to extend time for submission of the Bids or the Bid validity period or the period for conveying acceptance of Letter of Award by the Bidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said RFP / Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said RFP/ Bidding Documents or the securities available to the Authority, and the Bank shall not be released from its liability under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Bidder or by any change in the constitution of the Authority or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.
8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
9. We undertake to make the payment on receipt of your notice of claim on us addressed to name of Bank along with branch address and delivered at our above branch which shall be deemed to have been duly authorized to receive the said notice of claim.
10. It shall not be necessary for the Authority to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Authority may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealized.
11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Authority in writing.
12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.
13. This guarantee shall also be operable at our \_\_\_\_\_ branch at New Delhi, from whom, confirmation regarding the issue of this guarantee or extension/ renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment thereunder claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.
14. This bank guarantee shall be valid from .....

15. Notwithstanding anything contained herein:

- (i) Our liability under this Bank Guarantee shall not exceed Rs. ....../-
- (ii) The Bank Guarantee shall be valid up to.....
- (iii) We are liable to pay the Guarantee amount or any part thereof under this Guarantee only and only if you serve upon us a written claim or demand on or before .....

Signed and Delivered by ..... Bank.

By the hand of Mr. / Ms. ...., its ..... and authorize official.

(Signature of the Authorised Signatory)  
(Name & Designation with Bank's Official Seal)

NOTE:

- (i) The bank guarantee(s) shall contain the name, designation and code number of the officer(s) signing the guarantee(s);
- (ii) The address, telephone no. and other details of the Head Office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing Branch.
- (iii) The bank guarantee shall be signed by the officials as per the norms prescribed by the RBI in this regard.

SECTION – VII

FORMS FOR  
SUBMISSION OF FINANCIAL BID



From:  
(Name and Address of the Bidder)

To  
GeneralManager(IT)  
NationalHighwaysAuthorityofIndia(NHAI),  
G 5&6,Sector-10,Dwarka,  
NewDelhi -110075

Subject: Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems

Reference: NHAI's Tender No.NHAI/11013/IT/WI-FI/2017 dated 19/06/2017

Sir,

We, the undersigned, offer to provide the services for the above mentioned project in accordance with your Tender Notice referred above and our Proposal. The amount indicated in this Financial Bid is inclusive of all the taxes, duties, fees, levies, and other charges imposed under the applicable law. The details are as follows:

(Amount in Rs.)	
Particulars	Contract period for 3 year
Cost of providing equipment/ services described under Terms of Reference (in figures). As per Grand Total for Schedule-I (Sl. 5 – Sl. 6) of <u>SUMMARY OF COST FOR SCHEDULE-I</u>	
(Amount in words) Excluding taxes as applicable	
Total Taxes as applicable	
Total Taxes Amount in Words	
Grand Total	

2. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations, if any, up to expiration of the validity period of the proposal i.e. 120 days from the last date of submission of the Bid or as extended in accordance with the tender conditions.

3. We undertake that, in competing for (and, if the award is made to us, in executing) the above Contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988". We understand that NHAI is not bound to accept any proposal it receives.

Yours sincerely,

Authorized signatory  
Name & Title of Signatory:  
Designation of the Signatory:  
Name of Bidder & Address:

**Detailed breakup of Rates of the Financial Bid****1. Up-gradation of networking, IP telephony, security equipment/ software.**

Sr. No.	Description	Qty	Unit Rate w/o taxes (INR)	Total Amount w/o taxes (INR)	Per Year AMC w/o taxes (For total Quantity)
1.	WAN Router	4			
2.	Core Switch	2			
3.	IP Phone Type1	30			
4.	IP Phone Type2	15			
5.	Rack Servers	1			
6.	Storage Solution with minimum 35TB usable storage and 4 Compute nodes with Virtualization license	1 Set			
7.	Firewall	2			
8.	Edge Switch	2			
9.	Distribution Switch	2			
10.	PoE Layer2 Switch	9			
11.	Network Management System	1			
12.	AAA/NAC	2			
13.	Wireless Access Points	72			
14.	Wireless Controller	2			
15.	Windows 2012 standard SP2 or latest	6			
16.	Installation Charges	1			
Total of Schedule-I (1)					
Applicable taxes on above					
Grand Total inclusive of all taxes for Schedule-I (1)					
Total Per Year AMC after initial Warranty Period (w/o taxes)					

Note: Shall include 3 year Product warranty in the Base Price  
Per Year AMC for each of the product to be not included in determining L1

**2. Up-gradation of Passive Components.**

Sr. No.	Description	Qty.	Unit Rate w/o taxes (INR)	Total Amount w/o taxes (INR)	Per Year AMC w/o taxes (For total Quantity)
1.	WI-FI LAN Cabling including PVC conduit & other relevant items.	1 LOT			
2.	Intra Building Backbone including PVC conduit & other relevant items.	1 LOT			
3.	Racks/Cabinets including all accessories	1 LOT			
4.	Installation/configuration Charges for computer hardware and peripherals as well as system integration at NHAI office (New Delhi).	1 LOT -			
Total for Schedule-I (2)					
Applicable taxes on above					
Grand Total inclusive of all taxes for Schedule-I (2)					
Total Per Year AMC after initial Warranty Period (w/o taxes)					

### 3 Cost for 3 Year AMC of Existing Components

S. No.	Description	Qty	Unit Rate w/o taxes (INR)	Total Amount w/o taxes (INR)
1	Cisco Rack Server UCSC-C420-M3	16		
2	Cisco Blade Chassis 5108	2		
3	Cisco Fabric Interconnect 6248	2		
4	Cisco CUCM Call Manager Licenses(Enhanced Plus ver 9.x and Unity Standard)	1 lot approx. 310 lic.		
5	Call Manager HW (UCUCS-EZ-C220M3S)	2		
6	Cisco UCSB-B200-M3 Blade server	4		
7	Cisco Switch 24 Port S-C2960S-24TS-L	6		
8	Cisco Switch 48 PortWS-C2960S-48TS-L	6		
9	Cisco Router 2921 MPLS Router	4		
10	Cisco Router 3945 MPLS Router	1		
11	Cisco Firewall ASA-5585	4		
12	Cisco IP Phone CP-7942	60		
13	Cisco IP Phone CP-8945	30		
14	Cisco IP Phone CP-9971	20		
15	Cisco VC Endpoints (CTS-INTP-C60K9) Distributed across RO offices)	25		
16	MCU 8210	1		
17	Samsung LED(Distributed Across RO offices)	25		
18	Microsoft SQL 14 Enterprise Edition	12 licenses on 2 Servers		
19	Microsoft 2013 Exchange Enterprise Edition	4 license		
Total for Schedule-I (3)				
Applicable taxes on above				
Grand Total inclusive of all taxes for Schedule-I (3)				

4. Cost for Optional Items

The Bidder is required to provide the Price Schedule for Optional Items, in the following format and attach it with the Commercial Proposal.

Sl. No.	Item Description	Qty.	Basic Unit Price inclusive of all levies & charges	Total Price inclusive of all levies & charges
1	(Description of any other optional item) (Add additional rows as required)			
2				
3				
4				
5				
Total for Schedule-I (4)				
Applicable taxes on above				
Grand Total inclusive of all taxes for Schedule-I (4)				

5. Buy-Back of existing IT equipment

SI No.	Description and Brief specifications (These equipment's are in As-Is-Where-Is Basis)	Qty.	Lump-Sum Buy-Back Amount (INR)
1.	Cisco 3800 series Router	2	
2.	Cisco 6500 series Switch	1	
Total Cost for Schedule-I (5)			

6. SUMMARY OF COST FOR SCHEDULE-I

Amount in Rupees

Sl. No.	Particulars	Amount in Figures	Amount in Words
1.	Total for Schedule-I (1)		
2.	Total for Schedule-I (2)		
3.	Total for Schedule-I (3)		
4.	Total for Schedule-I (4)		
5.	Total Cost (Schedule-I (1) + (2) + (3) + (4))		
6.	Total for Schedule-I (5)		
Grand Total for Schedule-I (Sl. 5 – Sl. 6)			

NOTE: Contract will be awarded to fully technical complied and L1 bidder based on the Grand total in the table above i.e. "Grand Total for Schedule (Sl. 5 – Sl.6) of Table "Summary of Cost for Schedule – I".

Kindly note that Taxes like GST/Service Tax/Octroi will not be considered to declare the L1 bidders and same shall not be included in the tables "SUMMARY OF COST FOR SCHEDULE-I"

## PART-III

### FORMAT OF CONTRACT

## SECTION – VIII

### FORMAT OF CONTRACT

No. ....

This Contract (hereinafter called the “Contract”) is made on this \_\_\_\_ day of the month of \_\_\_\_, 2017

BETWEEN

National Highways Authority of India (NHAI), constituted by an act of Parliament, The National Highways Authority of India Act, 1988, and having its head office at G 5 & 6, Sector 10, Dwarka, New Delhi-110075 (hereinafter referred to as the “NHAI” or the “Employer”, which expression shall, unless repugnant to or inconsistent with the context, mean and include its successors and assigns) of the FIRST PART.

AND

\_\_\_\_\_, a company incorporated under the provisions of the Companies Act, 1956 and \_\_\_\_\_ having \_\_\_\_\_ its \_\_\_\_\_ registered \_\_\_\_\_ office \_\_\_\_\_ at \_\_\_\_\_ 1 \_\_\_\_\_ (hereinafter referred to as the “\_\_\_\_\_” or the “System Integrator” which expression shall unless repugnant to or inconsistent with the context, mean and include its successors and assigns) of the OTHER PART.

WHEREAS

- (A) the System Integrator, in the ordinary course of its business, is engaged in providing Supply, Installation and Commissioning of Networking, Server, Storage, Security and Wi-Fi systems with Warranty for 3 years and have represented to the NHAI through their tender proposals, against NHAI/11013/IT/WI-FI/2017 dated 19/06/2017 (hereinafter called the “Tender”) for Comprehensive IT and Network Services Management at NHAI offices (hereinafter called the “Services”), that they have required professional skills, personnel and technical resources to provide the required Services;
- (B) the System Integrator has been adjudged the Successful Bidder and NHAI vide its Letter of Award (LOA) No. \_\_\_\_\_ dated xx.xx.2017 has requested the System Integrator to submit Performance Security along with the letter of acceptance for providing the Services;
- (C) the System Integrator has submitted the requisite Performance Security and agreed through their letter of acceptance dated \_\_\_\_\_ to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE THIS CONTRACT WITNESSETH

- 1. In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of the Contract hereinafter referred to.
- 2. The following schedules/ appendices shall be deemed to form and be read and construed as part of this agreement viz.
  - (a) Schedule – I: General Conditions of the Contract (GCC);
  - (b) List of appendices:

Appendix A	Copy of Financial Bid submitted by the System Integrator showing breakdown of Contract Price
Appendix B	Letter of Award issued by NHAI
Appendix C	Letter of Acceptance submitted by the System Integrator
Appendix D	Copy of Performance Security submitted by the System Integrator
Appendix E	Copy of authorization/ Power of Attorney in favour of authorized representative of the System Integrator authorizing him to sign this Contract
Appendix F	Copy of the Tender Document and any addendum thereof

3. The System Integrator shall submit the details as sought by the NHAI in the format provided under the appendices of this Contract. The foregoing schedules and appendices shall be construed as complementary and mutually explanatory one with another. Should any ambiguities or discrepancy be noted then the order of precedence of these schedules/ appendices shall subject to the Special Conditions be as listed above.
  - (a) This Contract together with the schedules and appendices hereto, constitutes the entire Contract between the parties with respect to the subject matter hereof and supersedes in all respects all prior proposals, negotiations, conversations, discussions and agreements between the parties concerning the subject matter hereof. Subsequent alterations, amendments, changes or additions hereto, if any, shall be binding and valid unless agreed to in writing and signed by each Party.
5. The mutual rights and obligations of the NHAI and the System Integrator shall be as set forth in the Contract, in particular:
  - (a) The System Integrator shall carry out the Services in accordance with the provisions of this Contract; and
  - (b) The NHAI shall make payments in accordance with the provisions of this Contract.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed by their respective authorized representatives on the day and year first before written.

FOR AND ON BEHALF OF  
(National Highways Authority of India)

FOR AND ON BEHALF OF  
(M/s \_\_\_\_\_)

(Authorized Representative)  
Name: \_\_\_\_\_  
Chief General Manager (P&IS)  
National Highways Authority of India  
G-5&6, Sector – 10, Dwarka  
New Delhi – 110075

(Authorized Representative)  
Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
M/s \_\_\_\_\_  
Address: \_\_\_\_\_

In the presence of following witnesses:

1. Name: \_\_\_\_\_  
Dy General Manager (P&IS)  
National Highways Authority of India  
G-5&6, Sector – 10, Dwarka  
New Delhi – 110075

1. Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
M/s \_\_\_\_\_  
Address: \_\_\_\_\_

2. Name: \_\_\_\_\_  
Manager (P&IS)  
National Highways Authority of India  
G-5&6, Sector – 10, Dwarka  
New Delhi – 110075

2. Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
M/s \_\_\_\_\_  
Address : \_\_\_\_\_



## GENERAL CONDITIONS OF THE CONTRACT

## 1. PRELIMINARY

Subject as hereinafter otherwise provided, the guidelines contained in the NHAI Works Manual (hereinafter referred to as “Works Manual”) shall apply to this Contract and in so far as they are not provided, amended or substituted by the Conditions in the GCC& SCC and hereby expressly declared that in case of any conflict between the provisions contained in the GCC& SCC hereof and the provisions of the Works Manual, the provisions contained in the GCC& SCC hereof shall prevail.

## 2. GENERAL PROVISIONS

- a. Definitions: Unless the context otherwise require, the following terms whenever used in this Contract shall have the following meanings:
  - (i) “Applicable Law” shall mean the laws and other instruments having the force of law in India as applicable from time to time.
  - (ii) “Contract” shall mean the Contract signed by the parties, to which these General Conditions of the Contract (GCC) are attached, together with all the schedules/ appendices listed in Clause 2 of such Contract.
  - (iii) “Defect Liability Period” shall mean the period of 365 days beyond the validity of this Contract during which the System Integrator shall be liable to rectify defects in the performance of Services as pointed out by the Employer.
  - (iv) “Effective Date” shall mean the date on which this Contract comes into force and effect pursuant to Clause 3.1 hereof.
  - (v) “Employer” refers to National Highways Authority of India.
  - (vi) “GCC” shall mean General Conditions of the Contract.
  - (vii) “Government” means the Government of India.
  - (viii) “NHA” shall mean National Highways Authority of India.
  - (ix) “NHA Works Manual” shall mean manual containing guidelines/ instructions issued by NHA from time to time on various aspects including selection of consultants, award of contracts, contract management, etc. A copy of the manual is available on NHA's website.
  - (x) “Party” shall mean NHA or the System Integrator, as the case may be, and “Parties” shall mean NHA and the System Integrator.
  - (xi) “Personnel” shall mean persons hired by the System Integrator or by any Sub-Contractor as employees and assigned to the performance of the Services or any part thereof under this contract.
  - (xii) “Third Party” shall mean any person or entity other than the Government, the NHA and the System Integrator.
- b. Law Governing the Contract: This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.
- c. Language: This Contract has been executed in Hindi and English. However, the English version shall be binding for all matters relating to the meaning and interpretation of this Contract.
- d. Headings: The headings shall not limit, alter or affect the meaning of this Contract.

- e. Notices: Any notice, request, consent or communication required to be made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party, as per Clause 2.6, to whom the communication is addressed, or when sent by registered/ speed post or courier to such Party's authorized representative at the address specified in SCC.
- f. Authorized Representatives: Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the NHAI or the System Integrator may be taken or executed either by the persons signing this Contract or by the officials specified in the SCC. Changes in authorized representative(s) are to be notified in writing by the Parties immediately and in any case within one (1) week of such change.
- g. Location: The Services shall be performed at such locations as are specified in this Contract or at a location approved by the Employer.
- h. Taxes and Duties: The System Integrator, their Personnel and their Sub-Contractor, if any, 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.
- i. Survival: Rights and obligations which have accrued at that time of termination or expiry of this Contract shall survive even after the termination or expiry of this Contract and any provisions hereof which, by their nature are intended to survive this Contract, will so survive.
- j. Assignment or transfer of obligations: This Contract shall ensure the benefit of each of the parties and their respective successors and neither Party shall otherwise assign the benefit or burden of this Contract to any other entity, without the prior written consent of the other Party. The System Integrator shall not outsource the work to any other associate/ franchisee/ third party, without prior written consent of the Employer, under any circumstances. If it so happens then NHAI shall impose sanctions which will include forfeiture of the Performance Security and/ or termination of the Contract for default.
- k. Relationship of Parties: It is clearly understood that the relationship of the Parties is in terms of this Contract. Neither party shall be deemed to be the legal representative or agent of the other.

### 3. COMMENCEMENT, COMPLETION, MODIFICATION, AND TERMINATION OF CONTRACT

- a. Effectiveness of Contract: The Contract shall come into effect on the date the Contract is signed by the Parties or such other date as may be stated in the SCC ("Effective Date").
- b. Expiration of Contract: Unless terminated earlier pursuant to Clause 3.6 hereinafter, this Contract shall terminate at the end of such time period after the Effective Date as is specified in the SCC.
- c. Modification: Any amendment or modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, shall be valid and binding on the Parties only if made in writing and signed on behalf of both the Parties by their respective authorized signatories. However, the Employer reserves the right to modify at any time the terms and conditions of the Contract, if in the opinion of the Employer it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of the Service. The decision of the Employer shall be final in this regard.

### 4. Force Majeure

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 reasonably to be considered impossible under the circumstances.

- a. Force Majeure includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.
- b. Force Majeure shall not include (i) any event which is caused by the negligence or intentional act of a Party or such Party's Sub-Contractors or agents or employees, nor (ii) any event which a diligent party could reasonably have expected to (A) take into account at the time of the conclusion of this Contract and (B) avoid or overcome in the carrying out of its obligations hereunder.
- c. Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.
- i. The System Integrator shall advise the Employer in writing, duly certified by the reasonable authority, the beginning and the end of the above causes of delay, within seven (7) days of the occurrence and cessation of the Force Majeure conditions. In the event of a delay lasting for more than 60 days, if arising out of clauses of Force Majeure, the Employer reserves the right to cancel the order without any obligation to compensate the System Integrator in any manner for whatsoever reason.

## 5. Termination

- i. By the Employer:
  - a. The Employer may terminate this Contract, by written notice of termination to the System Integrator, to be given after the occurrence of any of the events specified in paragraphs (a) through I below:
    - (a) if the System Integrator do not remedy a failure in the performance of their obligation under the Contract, within 15 days after being notified or within any further period as the Employer may have subsequently approved in writing;
    - (b) if the System Integrator, in the judgment of the Employer, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract;
    - (c) if the System Integrator becomes bankrupt or otherwise insolvent;
    - (d) if, as a result of Force Majeure, the System Integrator is unable to perform a material portion of the Services for a period of not less than sixty (60) days.
  - b. If the Employer, in its sole discretion, decides to terminate this Contract, it may do so, by written notice of one hundred eighty (180) days to the System Integrator.

- ii. By the System Integrator: The System Integrator may terminate this Contract, by not less than thirty (30) days' written notice of termination to the Employer, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) below:
  - (b) If the Employer fails to pay any monies due to the System Integrator pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the System Integrator that such payment is overdue; or
  - (c) if, as a result of Force Majeure, the System Integrator is unable to perform a material portion of the Services for a period of not less than sixty (60) days.
- iii. Payment upon Termination: Upon termination of this Contract, the System Integrator shall be entitled to all undisputed sums that are due for the Equipment supplied and Services satisfactorily rendered prior to the termination. In the event of such termination, the System Integrator shall refund the sums on pro-rata basis, if the advance sums are with the System Integrator, for the period unutilized, after considering the period of notice.
- iv. In case of occurrence of any of the events specified in paragraphs (a) and (b) of Clause 3.6.1.1, the Employer may, at its discretion, also take the following action against the defaulting System Integrator:

The Employer may transfer upon such terms and in such manner, as it deems appropriate, the work order for the balance work to any other agency and the defaulting System Integrator shall be liable to compensate the Employer for any extra expenditure involved towards the said balance work to complete the scope of Services.

## 6. OBLIGATIONS OF THE SYSTEM INTEGRATOR

- a. General: The System Integrator shall perform the Services and carry out their 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 in accordance with standards of the profession. The System Integrator shall always act, in respect of any matter relating to this Contract or to the Services, as faithful adviser to the Employer and shall at all times support and safeguard the Employer's legitimate interests in any dealings with the Sub-Contractors or third parties.
- b. Conflict of Interests: Further, the System Integrator and its affiliates shall not engage directly or indirectly in activities that is against the interest of the Employer under the Contract.
- c. Confidentiality:
  - i. As used herein, the term "Confidential Information" means any information, including without limitation, information created by or for the other Party, whether written or oral, which relates to internal controls, computer or data processing programs, algorithms, electronic data processing applications, routines, sub-routines, techniques or systems, or information concerning the business or financial affairs and methods of operation or proposed methods of operation, accounts, transactions, proposed transactions or security procedures of either party or any of its affiliates, except such information which is in the public domain at the time of its disclosure or thereafter enters the public domain other than as a result of a breach of duty on the part of the party receiving such information. It is the express intent of the Parties that all the business process and methods used by the System Integrator in rendering the services hereunder are the Confidential Information of the System Integrator.

- ii. The Parties shall handle any Confidential Information of the other Party with the same degree of care as it would treat its own Confidential Information. The Parties agree that the Confidential Information will be used only for the purposes of this Contract and shall not be disclosed to any Third Party for any reason whatsoever.
  - iii. The System Integrator shall not, without NHAI's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, sample of information furnished by or on behalf of the Employer in connection therewith, to any person other than a person employed by the System Integrator engaged in the performance of the Contract. Disclosure to any such employed person will be made in confidence and will be extended as may be necessary for the purposes of fulfillment of such performance. The System Integrator shall ensure that no information about the software, hardware, database and the policies of Employer is taken out in any form including electronic form or otherwise, from any of the work site by the manpower posted by them. The obligations of confidentiality under this section shall survive termination or expiration of this Contract.
  - iv. At all times during the performance of the Services, the System Integrator shall abide by all the applicable Employer's security rules, policies, standards, guidelines and procedures. The System Integrator agrees that before any of its employees or assignees is given access to the Confidential Information, each such employee and assignees shall agree to be bound by the term of this Contract and such rules, policies, standards, guidelines and procedures of the Employer, which is followed by the Employer's employees or agents.
- d. Right & Ownership of equipments or software or documents:
  - i. All specifications, designs, flow-charts, reports and other documents and software submitted by the System Integrator under this Contract shall become and remain the property of the Employer, and the System Integrator shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Employer, together with a detailed inventory thereof.
  - ii. All Services rendered by the System Integrator under this Contract and the equipments or documents of such Services including but not limited to written materials manifested in programs, design documentation, disks, and tapes shall belong to the Employer.
  - iii. All documentation, wherever called for, shall be in good, simple and concise English using accepted technical terms and symbols. All documents, except for the standard documentation that accompanies the appropriate hardware and software shall be made available in hard copy and/ or soft copy to the Employer. All such documents shall have comprehensive index to facilitate quick reference. All printed documentation shall come with ring folders and proper font size labels. The documentation shall be properly arranged and sorted.
  - iv. The System Integrator shall be responsible for the provision of adequate and suitable documentation wherever applicable. All documentation shall be completed and delivered to the Employer. The System Integrator shall provide satisfactory answers to any reasonable queries raised by the Employer concerning any information stated in the documentation.
  - v. On the completion of Contract Period, the System Integrator shall handover all related documents and shall demonstrate that the source code is executable. In summary, the System Integrator shall be responsible for technology transfer of the system in such a way that the same can be put to use by the Employer after conclusion of the Contract through alternate resources. The technology transfer procedures shall be completed before

submission of final bills on completion of the Contract or within 21 days of earlier termination of the Contract.

- vi. 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 System Integrator, then the remuneration and reimbursable expenses otherwise payable to the System Integrator under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amount referred to in Clause 7.1 hereof.

## 7. PAYMENTS TO THE SYSTEM INTEGRATOR

- a. Total Remuneration: The remuneration payable to the System Integrator shall not normally exceed the Contract Price during the validity period of the Contract. In case the Contract is extended beyond the initial Contract period as stipulated in the tender conditions, the total remuneration shall increase by an amount agreed by the Parties in accordance with the financial proposal of the System Integrator accepted by NHAI.
- b. Contract Price: The Contract Price shall be equivalent to the cost of Services for the initial Contract period payable by the Employer as per financial proposal of the System Integrator. This price shall be used for determination of amount for Performance Security.
- c. Terms and Conditions of Payment:

Payments under different schedule shall be released from:-

Sr. No.	Work/ Services	Payment to be made from	Payment Periodicity
1.	Supply, Installation and Commissioning of Networking, Server, Security, Storage and Wi-Fi systems	NHAI HQs	<ul style="list-style-type: none"><li>• 80% after supply items</li><li>• 10% after the installation of equipments</li><li>• 10% will be paid after 1 months of successful acceptance.</li></ul>

The amount due for providing the Services shall be payable quarterly in arrears on satisfactory performance and submission of Pre-receipted bills in triplicate subject to following conditions:

- (a) The payment to the System Integrator shall be made on the basis of unit rate as per actual quantity for which service is rendered by the System Integrator.
- (b) All payments to the System Integrator shall be made subject to deduction of TDS (Tax deduction at Source) as per the Income Tax Act, 1961, damages for late payments and other taxes if any as per Government of India rules.
- (c) The following conditions should be met for release of payment:
- (i) The System Integrator shall raise and submit to NHAI pre-receipted bills in triplicate for the respective quarter based on actual number of locations/ services provided and approved rates for the number of days worked in a month duly verified by the representative of the Employer.

- (ii) The System Integrator shall not receive any remuneration in connection with the assignment, except or otherwise, provided in the Contract.
- i. Changes in the Payment terms: In case the provisions of payment terms change in any manner, the parties agree to change the sum of consideration as per mutual agreement. Such changes, if any shall be treated as variation to the Contract.

ii. SETTLEMENT OF DISPUTES

- (i) 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.
- (ii) Arbitration:  
In the event of any dispute or difference arising out or connected to this Contract and/ or in relation to the implementation or interpretation hereof, the same shall be resolved initially by mutual discussion and conciliation but in the event of failure thereof, the same shall be referred to Sole Arbitrator(The Chairman of NHA or his nominee) and the decision of the Sole Arbitrator shall be final and binding upon the Parties. The arbitration shall be held in Delhi and the Sole Arbitrator shall give his award in accordance with "The Arbitration and Conciliation Act, 1996". In this clause the expression "Chairman, NHA" shall also include any person who for the time being is the administrative head of NHA or any person for the time being is officiating as Chairman, NHA.  
In the event of death of the Sole Arbitrator, or he neglects or refuses to act or resigns or is unable to act for any reason or his award being set aside by the Court for any reason it shall be lawful for the Chairman, NHA or his nominee to appoint another arbitrator in place of outgoing arbitrator in the manner aforesaid.
- (iii) Jurisdiction: This Contract shall be subject to the exclusive jurisdiction of the courts in Delhi.

8. LIMITATION OF LIABILITY

- a. One or more damages may be imposed concurrently; however, the same shall be limited to 5% of the Contract Price. Once the amount of damages is equal to 5% of the Contract Price, the Employer, at its discretion, may consider termination of the Contract as well as forfeiture of Performance Security.
- b. Notwithstanding anything to the contrary in the Contract, in no event shall either Party be liable, whether in contract, tort, or otherwise, for special, punitive, indirect or consequential damages, including, without limitation, loss of profits or revenues arising under or in connection with this Contract even if such Party has been advised in advance of their possibility.
- c. The System Integrator shall have adequate Technical Support Centers/ Network Operations Center (NOC) to meet the service level requirements defined in the tender document. The System Integrator shall provide contact number on which all calls will be logged. The System Integrator shall furnish the names, locations, complete postal address, Telephone numbers and FAX numbers of all Technical Support Centers at the time of signing the Contract. The System Integrator shall also provide escalation matrix to escalate the unresolved issues

9. REVIEW OF PERFORMANCE:

The Employer shall review from time to time, the performance reports provided by the System Integrator. The Employer may suggest any modifications/ changes considered necessary in presentation of reports for better monitoring. Based on the review of performance, the System Integrator/ its personnel shall be adjudged performing or non-performing and appropriate action shall be taken by the Employer under this Contract.

10. FORFEITURE OF PERFORMANCE SECURITY

In the event of forfeiture of Performance Security by the Employer before termination of the Contract, in accordance with the terms of this Contract, the System Integrator shall replenish the same within 10 days of the forfeiture thereof.

11. EXTENSION OF CONTRACT:

The initial duration of contract will be of 3 (three) years. The Employer reserves the right to extend the Contract by additional 2 (two) years, beyond the initial Contract Period of 3 (three) year subject to satisfactory performance by the System Integrator and continued requirement of the Employer.