

E-Tender Document

for

**SUPPLY, INSTALLATION, TESTING &
COMMISSIONING OF EQUIPMENT AND DESIGN AND
IMPLEMENTATION OF SMART CAMPUS NETWORKING
SOLUTION FOR NATIONAL SANSKRIT UNIVERSITY (NSU),
TIRUPATI**

PART-I: TECHNICAL BID



EdCIL (India) Limited

Corporate Office:

A Govt. of India, Mini Ratna Category-I CPSE

EdCIL House, Plot No. 18A, Sector 16A,

Noida-201301 (U.P.) India

Tel: 0120 – 2512001-006, FAX: 0120-2515372

Registered Office:

Vijaya Building,

5th Floor, 17-Barakhamba Road,

New Delhi-110001



NIT No- EdCIL/DES/NSU/2021/01

Dated: 17.09.2021

This document is serially numbered from page number 01 to 127

DISCLAIMER

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

This RFP is not an Agreement and is neither an offer nor invitation by EdCIL to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in making their financial offers (BIDs) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by EdCIL 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 may not be appropriate for all persons, and it is not possible for the EdCIL, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in the Bidding Documents 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 and obtain independent advice from appropriate sources.

Information provided in this RFP 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. The EdCIL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

EdCIL, its employees and advisors make no representation or warranty and shall have no liability to any person, including any 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 or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this



RFP or arising in any way for participation in this BID Stage.

EdCIL 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. EdCIL 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. The issue of this RFP does not imply that EdCIL is bound to select a Bidder or to appoint the Selected Bidder, as the case may be, for the Project and EdCIL reserves the right to reject all or any of the Bidders or BIDs without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its BID including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by EdCIL, site visits, investigations, studies or any other costs incurred in connection with or relating to its BID. All such costs and expenses will remain with the Bidder and EdCIL 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.



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Notice Inviting Tender

(e-Tendering mode)

EdCIL (INDIA) LIMITED
(A Govt. of India Mini Ratna CATEOGRY-I CPSE)
SECTOR 16A, NOIDA

Date: 17.09.2021

N.I.T. No.: EdCIL/DES/NSU/2021/01

Name of work	SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF EQUIPMENT AND DESIGN AND IMPLEMENTATION OF SMART CAMPUS NETWORKING SOLUTION FOR NATIONAL SANSKRIT UNIVERSITY (NSU),
The Currency in which payment shall be made	Indian Rupees (INR)
Date of Issue/e-Publishing	17.09.2021
Document Download Start Date	17.09.2021
Document Download End Date and Time	12.10.2021 at 12:30 Hrs
Date for Pre-Bid Conference and Time	27.09.2021 at 15:00 Hrs
Bid queries should reach by	26.09.2021 at 17:00 Hrs Bid queries received later than the date and time as mentioned above shall not be entertained. Pre-bid queries should be emailed to destenders@edcil.co.in & kssahni@edcil.co.in as per format at Annexure-XVI
Venue of Pre-Bid Conference	EdCIL House,18 A, Sector-16 A, Noida, U.P. 201301
Last Date and Time for receipts of Bids	12.10.2021 up to 13:00 Hrs. In case a Holiday is declared on the day of the event, the same will be held on the next working day at the same time & venue.
Date and Time of Opening of Technical Bids	12.10.2021 at 15:00 Hrs
Date and Time of Opening of Financial Bids	To be informed later



Earnest Money Deposit	Rs. 5,25,000/- in form of Bank Guarantee from a Scheduled Commercial/ Nationalized Bank in India/ Demand Draft. Scanned copy to be uploaded with tender documents and original BG/ DD has to be submitted along with documents as per the Instructions to bidders. In case EMD is submitted in the form of BG, the BG should be at least valid for 45 days beyond the bid validity date and should be as per Annexure-X
No. of Covers	02 (Two Packets)
Bid Validity days	180 days (From last date of opening of tender)
Performance Bank Guarantee (PBG)	10% of the total work value from the successful bidder. PBG is required to be submitted within 7 days from the date of issue of LOI/LOA as per Annexure-XI
Purchaser and Place of delivery	Billing to be submitted to EdCIL (India) Ltd. Successful bidder shall be responsible for Supply, Installation, Testing & Commissioning of Equipment and Design & Implementation of Smart Campus Networking Solution for National Sanskrit University, Tirupati as per the scope of work mentioned in the tender document.
Email Address	destenders@edcil.co.in & kssahni@edcil.co.in
Corporate Office	EdCIL House, 18-A, Sector 16A, Film City, Noida, Uttar Pradesh 201301
Registered Office	Vijaya Building 5 th Floor, 17-Barakhamba Rd, Connaught Place, New Delhi, Delhi 110001

1. Tender document shall be downloaded from electronic tender portal link available at www.tenderwizard.com/EDCIL or EdCIL's website or NSU's website or central procurement portal. Aspiring bidders who have not yet registered in online portal should get registered/enrolled before participating. Interested bidders are advised to go through instructions provided at "Instructions to Bidders for e-tendering."
2. No manual bids shall be accepted. All bids (both Technical and Financial) should be submitted in the online portal. However, all the credentials mentioned in clause 1.1 should be submitted offline, after submission of online bids.
3. Bidders are advised to visit the EdCIL Website/www.tenderwizard.com/EDCIL for getting



themselves updated for information on this tender. Corrigendum and addendum may be issued on the changes required. Reply on pre-bid queries received by EdCIL shall be displayed on EdCIL website/e-tendering website. Bidders are advised to visit the webpage regularly and update themselves. The Pre-Bid queries, Corrigendum/addendum are the part of tender document and Bidders are supposed to upload the same accordingly, duly signed as per the guidelines given in the tender document.

Chief General Manager (DES)
EdCIL (India) Limited,
18 A, Sector-16A, Noida-201 301
Tel: 91-120-2512001 to 2512006



CHAPTER- I

Offline and Online Bid Submission Documents

1.1 Offline Submissions:

The bidder is requested to submit the hardcopy of the below mentioned documents in a Sealed Envelope and the proposed services for ICT components in the bid to the under mentioned address before the start of Public Online Tender Opening Event.

The envelope shall bear the project name, the tender number and the words 'DO NOT OPEN BEFORE' (due date & time).

- I. Original copy of the EMD Security in the format as applicable.
- II. Original copy of the power-of-attorney.

Note: The Bidder should also upload the scanned copies of all the above-mentioned original documents as Bid-Annexure during Online Bid-Submission.

1.2 Online Submissions:

The Online bids (complete in all respect) must be uploaded online in **two** envelopes as explained below: -

Envelope – 1 (Following documents to be provided as single PDF file) *file size shall be less than 5 MB each.			
Sl. No.	Documents	Content	File Types
1.	Technical Bid	Technical Compliance as per Annexure-I	.PDF
2.		Organization Declaration Sheet as per Annexure-II	.PDF
3.		Letter of Undertaking as per Annexure-III	.PDF
4.		Undertaking of Non Blacklisting as per Annexure-IV	.PDF
5.		Annual Average Turnover as per Annexure-V	.PDF
6.		Performa for declaration on proceedings under insolvency and bankruptcy code, 2016 as per ANNEXURE- VI	.PDF
7.		List of orders executed for Govt. Organizations as per Annexure VII	.PDF
8.		Power of Attorney as per Annexure VIII	.PDF



9.		Letter of Bid Submission as per Annexure IX	.PDF
10.		Earnest Money Deposit as per Annexure X	.PDF
11.		Proforma pre contract integrity pact Annexure XII	.PDF
12.		Manufacturer Authorization Form as per Annexure XIII	.PDF
13.		Tender Checklist as per Annexure XIV	.PDF
14.		Equipment Specification Compliance as per Annexure- XVIII	.PDF
15.		Solvency certificate for minimum value of Rs. 3 Crore; not more than 6 months old	.PDF
Envelope-2			
Sl. No.	Documents	Content	
1.	Financial Bid	Financial bid submission form as per ANNEXURE- XX and Price bid as per Bid Forms (Form-I)	.PDF



CHAPTER-II

Term of Reference & Definitions

Term	Definition
Supplier/Successful bidder/Selected bidder	“Supplier” means any company or firm responding to the Tender “Supply, Installation, Testing & Commissioning of Equipment And Design And Implementation Of Smart Campus Networking Solution For National Sanskrit University, Tirupati, Andhra Pradesh.”
Authorized Signatory	The bidder’s representative (explicitly, implicitly, or through conduct) with the powers to commit the authorizing organization to a binding agreement. Also called signing officer/authority having the Power of Attorney from the Competent authority of the respective Bidding firm.
Bid	"Bid" means the response to this document presented in Two Packets, Technical Cum Commercial Bid and Financial Bid, which are supplied with necessary documents and forms as given in Annexure, complete in all respect adhering to the instructions and spirit of this document.
Bidder	“Bidder” means any company or firm responding to Request for Proposal and who makes a Bid.
Contract	“The Contract” means the agreement entered into between EdCIL and the selected bidder(s) in terms of clauses mentioned.
Day	“Day” means a working day as per rules of EdCIL.
EMD	Earnest Money Deposit
D.D	Demand Draft
EdCIL	EdCIL (India) Limited, Noida (A Mini Ratna Category -I CPSE)
TC	Tender Committee
PBG	Performance Bank Guarantee
Security Deposit (SD)	Amount of the Order Value deposited by the Bidder and retained till the successful completion of the project (as long as the bidder fulfills the contractual agreement).
Services	“Services” means the services to be delivered by the successful bidder and as required to run the project successfully as per the Contract.
RFP/Tender	“ RFP ”/Tender means the Request for Proposals
Goods and Materials	“Goods and Materials” shall mean the articles, materials, equipment, IT Equipment, supplier’s drawings, data and other property and all services-including design, delivery, installation, inspection and maintenance support specified or required to complete the order and incidental thereto.
Order	“Order” shall mean the Purchase Order/Work order and its attachments and exhibits.



Consignee	“Consignee” shall mean System Analyst, National Sanskrit University, Located at Tirupati, Andhra Pradesh, where the items are to be supplied, installed and commissioned.
EdCIL/ Purchaser	“EdCIL/ Purchaser” shall mean EdCIL (India) Limited.
Client	National Sanskrit University, Tirupati, Andhra Pradesh
Similar type of work	Similar type of work means Design, Planning, Supply, Installation, Testing, Commissioning and Maintenance of LAN System Work as mentioned in the tender document elsewhere.



CHAPTER-III

Instructions for e-Tendering

3.1 Instructions for Online Bid Submission:

- 1) E-tendering is new technology for conducting public procurement in a transparent and secured manner. As per Government of India's directives, EdCIL (India) Limited has adopted E-tendering.
- 2) For conducting electronic tendering, EdCIL (India) Limited has decided to use Electronic tender portal link available with detailed information on e-tendering process. This portal built using Electronic tender's software is referred to as <http://www.tenderwizard.com/EDCIL>.
- 3) The bidders are required to submit soft copies of their bids electronically on <http://www.tenderwizard.com/EDCIL> e-tendering website, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the Tender Wizard E-Tendering Portal, preparing their bids in accordance with the requirements and submitting their bids online on the Tender Wizard E-Tendering Portal.
- 4) The scope of work to be tendered is available in the complete bid documents which can be viewed /downloaded from Tender Wizard E-Tendering Portal of <http://www.tenderwizard.com/EDCIL>. Both Technical Bid and Financial Bid will be submitted concurrently duly digitally signed in the website <http://www.tenderwizard.com/EDCIL>. No claim shall be entertained on account of disruptions in internet service being used by the bidders. Bidders are advised to upload their bids well in advance to avoid last minute technical snags.
- 5) All Corrigendum/Amendment/Corrections, if any, will be published on the website <http://www.tenderwizard.com/EDCIL> as well as on EdCIL's website/NSU's website.
- 6) It is mandatory for all the applicants to have class-III Digital Signature Certificate (in the name of person who will sign the bid document) from any of the licensed certifying agencies (Bidders can see the list of licensed Certifying Agencies from the link www.cca.gov.in) to participate in e-Procurement of EdCIL.
- 7) It is mandatory for the bidders to get their firm/company registered with e-procurement portal of EdCIL i.e. www.tenderwizard.com/EDCIL to have user ID & password by submitting non-refundable annual registration charges as follows:



1	Registration charges for 1 year	Rs. 2,000/-
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(exclusive of taxes, levies, etc.) which can be paid online using the e-payment gateway to KEONICS through the portal address mentioned above. The registration so obtained by the prospective bidder shall be valid for one year from the date of its issue and shall be subsequently renewed.

(i) Participant shall safely keep their User ID and password, which will be issued by the service provider i.e. KEONICS Ltd. upon registration, and which is necessary for e-tendering.

(ii) Bidders are advised to change the password immediately on receipt of activation mail.

(iii) Bidders shall not disclose their User ID as well as password and other material information relating to the e-tendering to anyone and safeguard their secrecy.

- 8) Submit your bids well in advance by relevant documents along with copy of EMD of tender submission deadline on **Tender Wizard E-Tendering Portal** <http://www.tenderwizard.com/EDCIL>, as there could be last minute problems due to internet timeout, breakdown, etc.
- 9) Bids should be submitted only through Tender Wizard E-Tendering Portal and obtain the Tender Acknowledgement copy as a proof of successful submission.
- 10) Vendors are requested to contact at Tender wizard Helpdesk for any information regarding E-tendering / training.
 - a) For online registration, intended bidders may write us at harishkumar.kb@etenderwizard.com or contact no. 080-40482100 / 9964074577 / 9650520101.
 - b) For any further query related to Training Session, Tender Uploading/downloading or any other query related to tender, please contact Tender wizard Helpdesk.
 - c) Telephone: 080-40482100/9650520101/9964074577 or write us mail on Email Id:- harishkumar.kb@etenderwizard.com, ratan.thakur@etenderwizard.com, varun.b@etenderwizard.com.

3.2 PREPARATION OF BIDS

- I. **Bidders should take into account any corrigendum/addendum published on the portal before submitting their bids.**



- II. **Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.** Please note the number of covers in which the bid documents have to be submitted, the number of documents (including the names and content of each of the document) that need to be submitted. Any deviations from these may lead to rejection of the bid.
- III. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ schedule and generally, these can be in PDF format. Bid documents may be scanned with 100dpi with black and white option.

3.3 SUBMISSION OF BIDS

- I. Bidders should log into the site well in advance for bid submission and complete all formalities of registration (at least two days in advance of the closing date) so that they upload the bid in time i.e. on or before the bid submission deadline. Bidders will be solely responsible for any delay in uploading of bid within the stipulated time.
- II. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- III. Bidder has to pay EMD as applicable through demand draft/BG as per tender condition in favour of “**EdCIL (India) Ltd**” payable at **Noida** and enter details of the instruments. Original demand draft/BG for EMD are required to be submitted.
- IV. A standard Financial Bid form has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the financial bid format is found to be modified by the bidder, the bid will be rejected.
- V. The server time will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- VI. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no., date & time of submission of the bid and all other relevant details.

3.4 ASSISTANCE TO BIDDERS



Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority. For any other tender related queries, bidders are requested to contact below given numbers/email.

Telephone/ Mobile/ E-mail ID	<p>Vendors' Training Program: Vendors are requested to contact Tender wizard Helpdesk Office for any information regarding E-tendering / training.</p> <p>a) For online registration, intended bidders may write to us at harishkumar.kb@etenderwizard.com or contact no. 080-40482100/9964074577/9650520101.</p> <p>b) For any further query related to Training Session, Tender Uploading/downloading or any other query related to tender, please contact Tender wizard Helpdesk.</p> <p>Telephone: 080-40482100/9650520101/9964074577 or write tous mail on Email:Id:- harishkumar.kb@etenderwizard.com, ratana.thakur@etenderwizard.com, varun.b@etenderwizard.com & cc to: destenders@edcil.co.in</p>
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3.5 Offline Submissions: (AS PER TENDER REQUIREMENT)

The bidder is requested to submit documents as mentioned in **Clause 1.1**

3.6 MINIMUM REQUIREMENTS AT BIDDER'S END

- Computer System having configuration with minimum Windows 7 or above, and Broadband connectivity
- Digital Certificate(s)



CHAPTER-IV

Instruction to Bidders

- 4.1 Due date:** The tender has to be submitted on or before the due date and time. The offers received after the due date and time will not be considered.
- 4.2 Preparation of Bids:** The offer/ bid shall be submitted in two bid-system i.e. Technical Bid and Financial Bid. The technical bid shall consist of all technical details along with commercial terms and conditions. Financial bid shall indicate component wise price for components mentioned in the financial bid in the given format.
- 4.3 Language of Proposal:** The proposal prepared by the firm and all correspondence and documents relating to the RFP exchanged by the bidder and the Client, shall be written in the English language, provided that any printed literature furnished by the firm may be written in another language so long as accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.
- 4.4 Cost of Bidding:** The bidder shall bear all costs associated with the preparation and submission of its bid, including cost of presentation for the purposes of clarification of the bid, if so desired by the client, and the client will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. The firm is expected to carefully examine all instructions, forms, terms and specifications in the bid document. Failure to furnish all information required in the bid document or submission of a bid not substantially responsive to the bid document in every respect will be at the firm's own risk and may result in rejection of the bid.
- 4.5 EMD:** The Bidder should submit EMD through Bank Guarantee/ Demand Draft drawn in favour of "EdCIL (India) Limited" payable at NOIDA from any scheduled commercial bank/ Nationalized Bank. The Bid sent without EMD would be considered as UNRESPONSIVE and will not be considered.

In case EMD is submitted in the form of BG, the BG should be at least valid for 45 days beyond the bid validity date and as per Annexure-X

The bidders are requested to submit EMD in the form of Bank Guarantee/ Demand Draft drawn in favour of EdCIL (India) Limited and payable at NOIDA, with the Technical Bid.

Note:

Bidders registered with MSME and having valid registration certificate issued by NSIC/MSME are exempted from submission of EMD. However, all bidders including MSMEs/Start-Ups must submit their financial solvency certificate issued not earlier than 6 months of last date of submission of Bid.



4.6 Refund of EMD:

- i. The EMD will be returned to unsuccessful Bidder(s) after the award of work to the successful bidder.
- ii. Earnest money will be forfeited if a bidder unilaterally withdraws the offer, or Unilaterally amends, impairs or rescinds the offer within the period of its validity.
- iii. In Case of Successful Bidder, the EMD shall be refunded after receipt of 10% Performance Bank Guarantee from a Scheduled commercial bank/Nationalized operating in India.

4.7 Acceptance/ Rejection of bids:

EdCIL reserves the right to reject any or all offers without assigning any reason.

EdCIL, based on the requirement and without assigning any reason to the Bidders may split the work/Scope/Bid and/or offer in stages or in parts according to the need of work and/or for ease of execution of work.

4.8 Performance Security

1. The successful bidder shall deposit Performance Bank Guarantee equivalent to 10% of contract value to EdCIL within 7 days from the date of receipt of Letter of Intent (LOI). The Performance Bank Guarantee (PBG) should be issued by a scheduled commercial bank/Nationalized Bank in favor of "EdCIL (India) Limited" and be valid for at least 90 days beyond the target date of completion of Contract (including warranty period of 3 years & Commissioning period of 06 months) and further as specified in the LOI.
2. This Performance Bank Guarantee will be retained throughout the currency of the contract and should be extended by the bidder from time to time, as required by EdCIL.
3. PBG shall be returned to the successful bidder only after 90 days of the successful completion of the Contract (including warranty period of 3 years & Commissioning period of 06 months). In case of any shortfall of any activity/ specification/ other terms and conditions of the contract, EdCIL reserves the right to recover damages or loss from the due payment and or by the encashment of PBG.

4.9 Amendment in Tender Document:

At any time up to the last date for receipt of RFP, EdCIL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective firm, modify the Bid Document by an amendment. **The amendment will be notified on EdCIL's website and NSU's website.**



4.10 Site Survey

Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (as far as practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. Bidders shall be deemed to have full knowledge of the site whether they inspect it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed.

Bidders should make a comprehensive site survey in order to learn existing backbone infrastructure of the client in a large perspective so that the procured components are fully compatible with existing network infrastructure.

The successful bidder has to carry out site survey at all locations and prepare actual Bill of Materials required and project schedule within two weeks from the date of award of the contract/issue of Work Order.



CHAPTER-V

Scope of Work

INTRODUCTION

On the recommendations of the Central Sanskrit Commission appointed by the Government of India during 1950s, a Central Sanskrit Institute was established at Tirupati in 1961 by the Ministry of Education, Government of India in partial fulfilment of the recommendations, for the preservation and propagation of Traditional Sanskrit learning combining it with the modern methods of research. The Government of India constituted an autonomous registered body called 'Kendriya Sanskrit Vidyapeetha Tirupati Society' for the administration of the institution. The foundation stone for the Kendriya Sanskrit Vidyapeetha was laid by the then Vice-President of India, Dr.S.Radhakrishnan on 4th January 1962

Rashtriya Sanskrit Vidyapeetha was established as National Sanskrit University under Central Sanskrit Universities Act, 2020. From 30-04-2020, this act came into force and Vidyapeetha became National Sanskrit University (Central University), Tirupati.

NSU wishes to set up LAN for the entire campus and thus providing high connectivity, scalable, reliable, secure and robust network architecture. It is intended to build a new network for NSU that will provide latest technology benefits like data security, guaranteed application response, reliability etc. The network will also support multimedia, audio and video streaming and accessing other latest facilities which can be integrated in the future. High speed connectivity will be offered to various department users across the buildings.

The network infrastructure as well as the IT setup should offer minimal downtime due to failure or breakdown of links or devices. The redundant network backbone shall ensure that there is no delay in the flow of information and data, irrespective of file size or amount of network traffic at any given point in time.

The network shall be scalable as well as flexible so that future expansions and enhancements can be made in keeping with the rapid growth of technology and growing demands. Future augmentations and expansions should not require forklift upgrades for any of the ICT components to be deployed now.

General purpose from the Network:

The purpose of the project is to provide internet connectivity including Wi-Fi facilities to students, faculty, officers and staff. The classrooms, hostels, academic/admin buildings, VC bungalow, Type V Quarters (2 in number), dining halls, indoor stadium, open air auditorium (Prathibham), Health Centre, Guest House etc. shall be provided with the connectivity of internet.

The network should provide stability for uptime, performance, security, redundancy, scalability, reliability on all passive components, easy manageability, easy maintenance and support and be based on open standards for easy interoperability between heterogeneous OEM's.

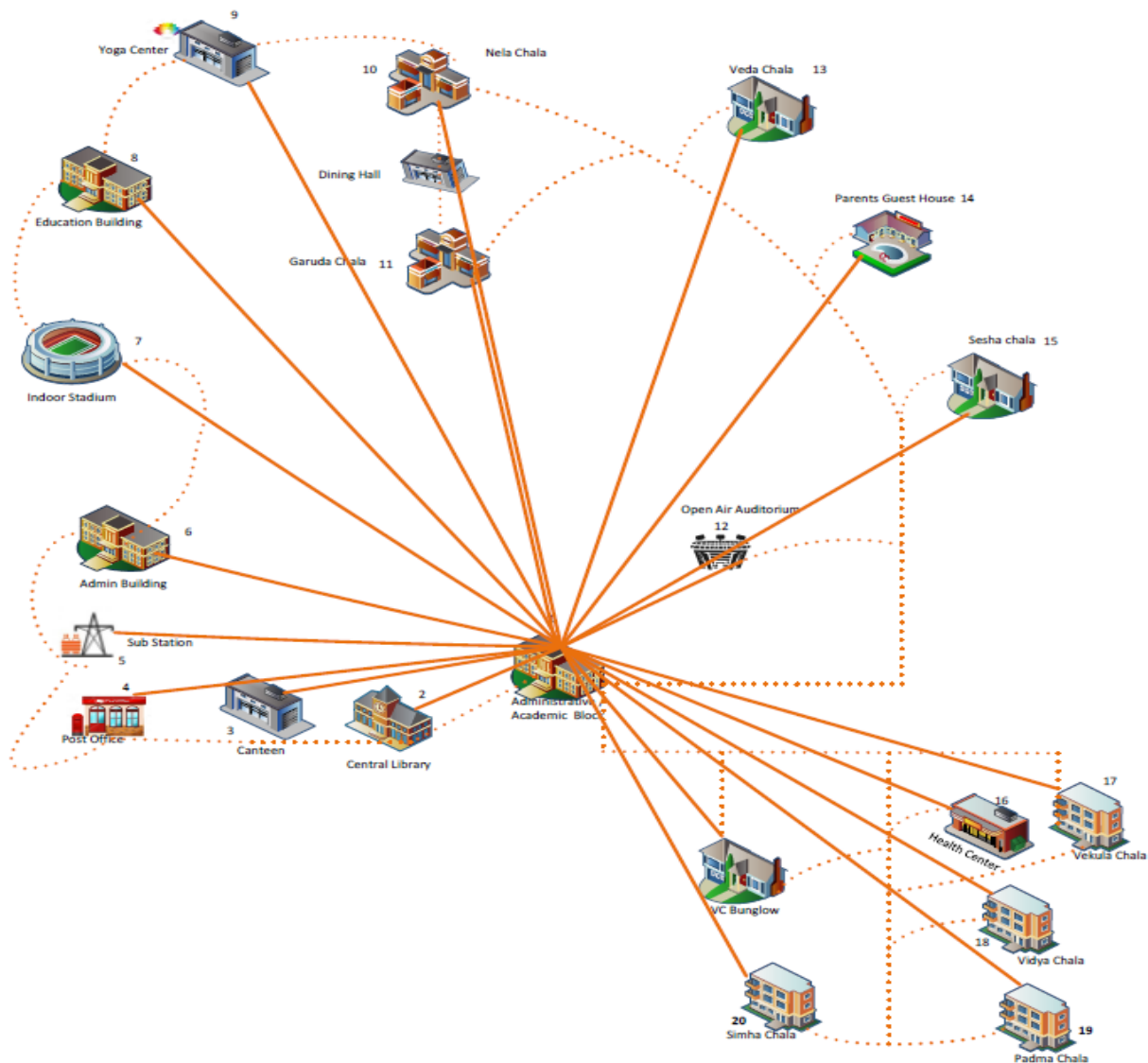
The scope of the work of the Implementing bidder will upgrade the existing campus LAN of the institute. The scope shall include a survey of the existing setup, supplying of passive and active components, route survey for laying of cables, route map diagram & laying, testing of laid cables



(fiber and copper), installation of passive and active components, connectivity, testing of the upgraded campus LAN, post implementation network audit, post implementation maintenance of the LAN for 99.75% uptime and a roadmap for support for the next 6 years.

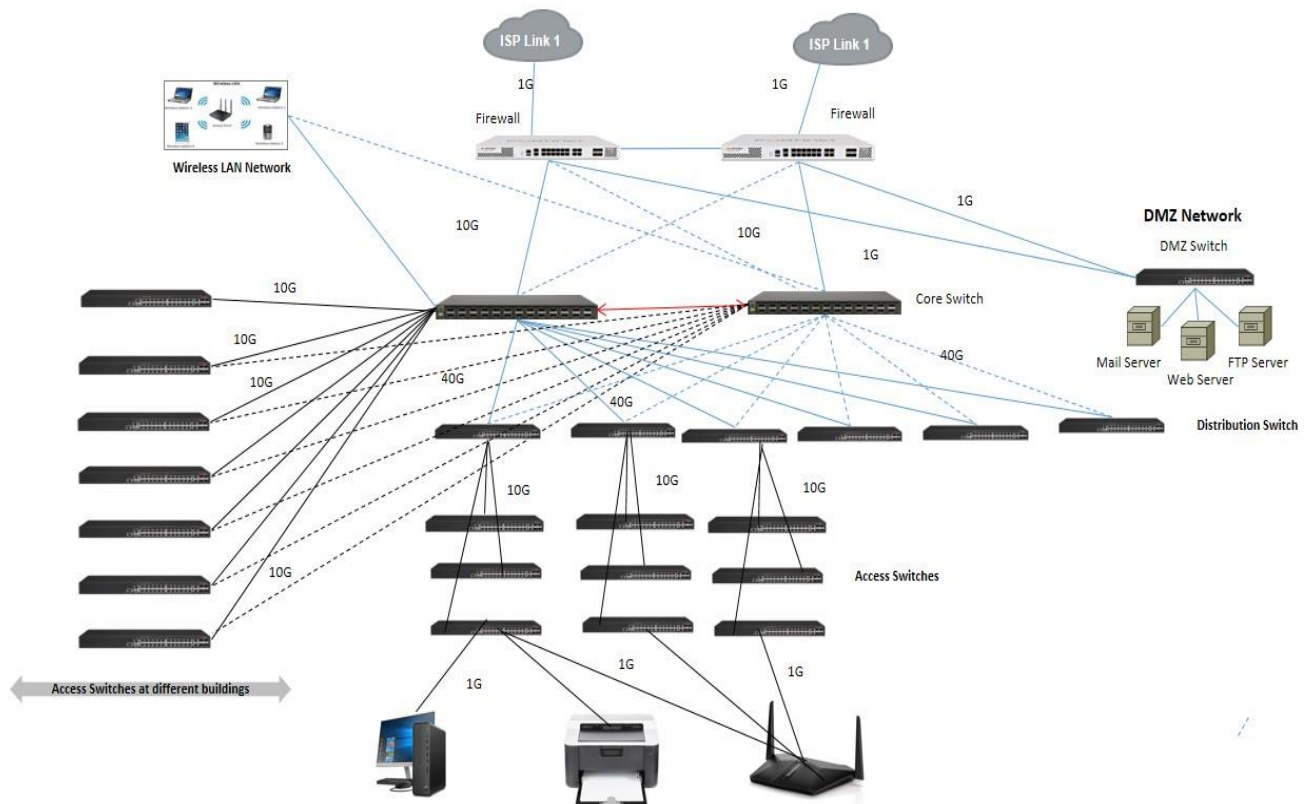
Network Plan

Two internet connection links would be made available by the ISP at a central location (i.e Sansknet building). The NGFW and core switch will be installed at the central building i.e., Sansknet building. Distribution switches will be placed at six different buildings. There are also plans to place Access point (AP) in each of the required locations like academic building and student hostels.



A centralized wireless LAN controller will control and manage the entire wireless LAN (WLAN) setup. The wireless controller will be placed in the Sansknet Building network enclosure of Academic Block and connected directly to the core switch.

Proposed Network Connectivity Diagram



- 5.1** EdCIL (India) Limited has been entrusted by NSU for Supply, Installation, Testing & Commissioning of Equipment and Design & Implementation of Smart Campus Networking Solution for National Sanskrit University, Tirupati, Andhra Pradesh.
- 5.2** The selected Bidder shall perform the activities for Supply, Installation, Testing & Commissioning of Equipment and Design & Implementation of Smart Campus Networking Solution for National Sanskrit University, Tirupati, Andhra Pradesh, as per the scope of work and maintain the same until completion of Contract.
- 5.3** The bidder has to assure the following towards the support of the passive networking components:-
- I. All passive networking components shall be covered under replacement warranty for 3 years from the OEM and thereafter 3 years AMC (responsibility of bidder). However, the ultimate responsibility towards this shall lie with the bidder. Bidder must submit the OEM contract warranty copy (or certification from OEM that the product offered to the respective SI are with 3 years warranty.)
 - II. The structured Cabling components shall be certified for 25 years from the OEM.

5.4 Scope of Supply

- Supply of all components as per BOQ at NSU's campus, with 3 years of OEM



warranty and thereafter Comprehensive Maintenance Contract (CMC) of three (03) years under back-to-back arrangement with the OEM.

- The successful bidder must not bid/supply any equipment that it is likely to be declared end of sale / support within six years from the date of supply. The bidder would have to replace any such equipment with latest or atleast the equivalent configuration.

5.5 Inspection and Tests

- The successful Bidder shall facilitate and make available a random 5% sample of each equipment type being supplied by them for a Pre-dispatch Inspection (PDI) by a committee comprising EdCIL/ NSU representatives at a centralised location in India from a lot of 10% of total quantities. The PDI will be a key requirement prior to shipment of the equipment to site. The PDI will be carried out as per the list of parameters provided in Annexure XVIII.
- In the event of any hardware or software failing to pass the PDI, as per the specifications given, a period not exceeding 3 days will be given to the selected Bidder to rectify the failure and clear the inspection, failing which EdCIL reserves the right to cancel the Work Order and levy appropriate penalties in addition to the Liquidated Damages. EdCIL will not be responsible for any costs associated with such rejection.
- Additionally, the bidder shall replace the complete lot of equipment belonging to an equipment type, if more than 5% of the sample size for the equipment types are found defective during the PDI. If consecutive lots of the same type of equipment are rejected, the entire shipment of equipment by the manufacturer shall stand rejected and shall have to be replaced by the selected Bidder with a fresh batch of equipment for shipment and related PDI. Any cost impacts of rejection at any stage shall be borne by the Bidder. If the complete shipment is rejected, EdCIL reserves the right to cancel the Work Order and levy penalties in addition to the Liquidated Damages. All penalty calculations are explained in detail in SLA.

5.6 Scope of Installation, Configuration and Integration

- Physical installation and powering of all supplied components as per approved layout.
- Complete configuration and integration of all the components.
- **Any structure, permanent or temporary, dismantled or destroyed during the execution of the work shall be refilled/remade or restored to its previous condition by the successful bidder at its own cost.**

5.7 Scope of Cable plan Implementation

- The successful bidder has to carry out a site survey at all locations and prepare the network layout, cable routing diagram, actual Bill of Materials required and project schedule within two weeks from the date of awarding the contract. The document



should clearly indicate the site preparation requirements to be carried out by NSU and site clearance and permissions to be obtained from NSU.

- The implementation shall commence only after approval of the network diagram and cable route by authorities of NSU.
- The cabling plan has to be implemented and documented as per the EIA/TIA standards. The bidder has to submit a documentation schema along with the tender.

5.8 Scope of Fiber-Optic Cabling Installation Practice to be followed:

- Wherever necessary to take the Optical Fiber cable underground it should be laid in trenches of at least 4ft depth. No aerial link is allowed.
- The trench should be filled with at least 1 feet of sand before and after laying the fiber.
- Above the sand bed, the HDPE pipe has to be laid. The HDPE Pipe should be covered using another layer of sand. Then the trench should be filled with one layer of bricks.
- PVC warning tapes should be placed at 1ft depth
- Cabling bend radius should not be less than 10 times the diameter of the Fiber Cable as per the ISO/IEC standards.
- At the point of entry into the building, at least 5m. cable should be rolled in the trench. The cable roll should be filled with sand.
- Cable should be properly protected at the entry.
- The entry should be sealed so that rodents, insects and rain water do not enter.
- For road crossing it should be laid through ISI Mark G.I pipe of 2” or higher diameter as required depending upon no. of Fiber Cables put inside the Pipe and the trench should be with standard 4 feet digging & filling using sand as per the standard practice. All required materials shall be arranged by the Successful Bidder.
- Route markers have to be installed every 50m. and at corners. The drawings and specification for the route markers have to be approved by NSU.
- The fiber cables and LIU Ports should be neatly labelled as per standards for easier identification.
- All digging / road crossing and related civil works should be carried out by the Network Integrator.
- Termination of rack–mountable Light Interface Unit (LIU).
- Splicing of fibers cores in the said LIU. All materials shall be arranged by the bidder including SM LC pigtails.
- Installation of floor standing rack / wall mounted rack with all accessories as per the instructions of site engineer.

5.9 Scope of STP Cabling Installation Practice to be followed:

- The STP cables shall be laid in PVC Pipes / Channels of appropriate sizes.
- The cables should not be exposed anywhere.



- The bend radius for STP Cables should be maintained as per standards and it should not be less than 4 times the diameter of the STP cable.
- The conduits should be clearly marked with reflective paints / stickers for easier identifications.
- The ends should be clearly labelled using ferrules or self-laminating labels.
- Cables should be terminated at the Jacks confirming to the specifications of the OEM and sufficient relief has to be provided so that the termination is not loaded.
- The Information outlets and the Jack panel ports should be clearly labelled. The labelling plan should be pre-approved by NSU.
- Fixing termination and testing of Information Outlet Box as per the requirements during execution of work.

5.10 Scope of Acceptance Testing and Commissioning

- After installation of each and every item, test shall be conducted for system's performance at the end point with the help of testing equipment.
- Commissioning shall mean end-to-end commissioning of the complete System with testing of test parameters, commitments etc and shall be submitted along with implementation plan, which shall be approved by EdCIL/NSU.
- Successful Bidder shall provide detailed and clear cable layout diagram and machine generated (OTDR / Cable tester etc.) test report (both OFC & STP). The diagram should depict connection indicating from room no., I/O Box no., patch panel (or LIU) no. and port no.
- STP Cable terminations have to be tested with suitable instrument and measurements required for EIA/TIA certification.
- The supplier shall ensure that the cabling and terminations are done in accordance with the industry standard. The supplier shall submit a certificate from OEM of LAN passive components for STP & Fiber optic cabling products that these components can be used continuously for a minimum period of 25 years. The Certificate should be issued by the OEM to NSU as being end user.
- Repair / Refurnishing work owing to damage caused due to cabling or any other work related to this project. There should not be any hanging or uncovered wire.
- In the event, the test parameters, commitments are not submitted or not accepted explicitly in writing/minutes by EdCIL/ NSU; the test parameters, commitments etc. as decided by EdCIL/ NSU will be final and binding.
- Upon Self-testing and Commissioning, the system shall be offered for inspection to EdCIL/ NSU.
- The successful Bidder, along with EdCIL/ NSU shall prepare an inspection and acceptance schedule with details of each activity.



5.11 Scope of Documentation

- The System Integrator has to prepare division-wise documentation of the cabling plan with maintenance and troubleshooting procedures.
- The System Integrator shall submit a complete set of Floor Layout Drawings, Single Line diagram, a complete cabling system layout (as installed), including cable routing. The layout shall detail locations of all components and indicate all wiring pathways.
- Providing original manuals of all hardware items supplied.
- Technical writeup of the network design and functioning, system and network architecture diagram with details of interconnectivity between all ICT components.
- To provide complete low level and high level design architecture of network.
- Build network configuration details (portwise) with IP address, subnet, VLAN, Port description etc. for all ICT components.
- Security implementation including VPNs, Firewall rules, IDS/IPS, ACL details etc.
- Implementation plan, to be approved by EdCIL/ NSU, before initializing the installation and configuration activity.
- Test parameters, commitments etc. for acceptance testing to be enclosed along with implementation plan.
- Acceptance test reports, performance test reports of all components.
- Any other relevant documentation.

5.12 Scope of Training

- Training on the design and functioning, operational aspects and maintenance of the complete system.
- The duration of the training shall be minimum 5 days, subject to satisfaction of the end customer. Similar trainings should be imparted upon the update in technology/ update in network till the tenure of the project prevails.
- Course material for the above (one copy each per participant), along with the soft copy, to be provided.
- The bidder shall also provide information such as Do's & Don'ts of equipment and list of service centres at various places in vicinity of NSU.

5.13 BOQ

The equipment specification sheet is mentioned in Annexure XVIII:

- a. **Quantity mentioned in below bill of materials is the minimum quantity, which bidder must provide. Bidder is not allowed to propose quantity less than the quantity mentioned in the BOM. However, the bidder is free to increase the quantity to meet the solution functionality as per its Technical Proposal. Bidder shall be paid for lower of actual number of items installed and the**



number quoted in the bid.

- b. During finalization of order for procurement of the total ordered quantities, at client's request, EdCIL reserves the right of varying the quantities upto $\pm 20\%$ (as per Form 1), without any increase in the prices and/or other terms and conditions.
- c. The procurement shall be valid for entire duration of contract. A firm work order for the remaining quantities shall be issued on case to case basis on confirmation from the client, without any deviation in the ordered prices.

5.14 The detailed specifications are given in the Annexure XVIII of the RFP. Following are the important conditions for all IT Hardware proposed:

- i. All IT Hardware supplied under the contract must be brand new (the release date should not be more than one year prior), and in good working condition & should comply with the minimum specifications given in this Tender Document in Annexure XVIII.
- ii. The selected Bidder needs to supply all the required equipment in single lot/maximum quantities per lot with prior intimation to EdCIL within the stipulated timeline.
- iii. The successful Bidder shall submit Satisfactory Quality Check Pass Reports from the OEM(s) for 100% of the equipment being supplied prior to offering them for pre-dispatch inspection.
- iv. In addition, prior to pre-dispatch inspection, the successful bidder should satisfy that all equipment supplied conforms to applicable quality control parameters.

5.15 Delivery and Documents

Delivery/ Commissioning of all the goods at the campus(es) of NSU should be made within a maximum of 14 weeks/19 weeks from the date of placement of LOI/LOA. The successful bidder/supplier to provide absolute supply schedule within 7 days from the receipt of LOI. Within 24 hours of dispatch, the supplier should notify EdCIL and the insurance company by cable/ telex/ fax/ e-mail the full details of the shipment including contract number, railway receipt number etc. and date, description of goods, quantity, name of the EdCIL, invoice etc. Till the NSU consignee takes over/ receives the equipment/ items, the supplier should be responsible to keep the same in safe custody and the charges (if any) to be borne by the successful bidder. The successful bidder will be responsible for all equipment supplied till these are successfully installed and commissioned at the designated place. The successful bidder should submit the following documents to EdCIL with a copy to the insurance company:

- a) 4 Copies of the Supplier invoice showing Work Order number, description of goods, quantity, unit price, total amount;
- b) Insurance Certificate, if applicable;
- c) Manufacturer's/Supplier's warranty certificate;
- d) Inspection Certificate issued by EdCIL/NSU/ nominated inspection agency, if any;



- e) Supplier's factory inspection report;
- f) Two copies of the packing list identifying the contents of each package.

The above documents should be received by EdCIL before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.

5.16 Insurance & Transportation

The selected Bidder shall be responsible for acquiring comprehensive insurance including transit insurance, liability insurance and any other insurance for all the equipment till the delivery and commissioning at NSU/ Respective delivery warehouses along with Insurance against fire, theft, damages and loss of all property owned by the Executing Agency at the construction site, if any extending to third party liability.

For delivery of goods at the end client's location, the insurance should be obtained by the Supplier in an amount equal to 110% of the value of the goods from "supplier location to end client location" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance should be valid for a period of not less than 3 months after the completion of installation and commissioning. If orders placed on CIF/CIP basis, the insurance should be up to End Client place

The Supplier should make all arrangements towards safe and complete delivery at End Clients Location. Such responsibility on part of the supplier will include taking care of insurance, freight, octroi, state level permits etc. as applicable.

The supplier should also take care of transit insurance, comprehensive insurance or any other insurance as required which may have direct bearing on the delivery of the items / equipment at End Client's location.

It is the total responsibility of supplier to complete all formalities to transit of goods from the place of dispatch to End Clients Location.

The successful bidder should ensure that no person can engage in the business of a common carrier unless he has been granted a certificate of registration to do so for supply of items at End Client's Location.

The transportation of goods through unregistered common carrier is illegal. The successful bidder should ensure to comply with the latest carriage by Road Act and any other relevant laws.

Further, Group Personnel Accident Insurance covering the Executing Agency's employees, operating from the site as per the Executing Agency's established practices. Workman's Compensation Insurance, covering employee's / contract workers of the Executing Agency covered under Workman's Compensation Act and any other mandatory insurance governed by the prevailing laws of Central or State government shall be taken care of by the selected bidder.

All costs related to insurance shall be borne by the selected Bidder for goods supplied under



the Agreement against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery etc. A copy of Insurance Certificate should be provided along with the delivery challan before shipping of the equipment.

5.17 Indemnity

- I. The selected Bidder shall execute and furnish to EdCIL a Deed of Indemnity in favor of “EdCIL” in a form and manner acceptable to EdCIL, indemnifying EdCIL from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the contract period out of:
 - a) Any negligence or wrongful act or omission by the selected Bidder or the selected Bidder’s Team in connection with or incidental to this contract or
 - b) A breach of any of the terms of selected Bidder Bid as agreed in the RFP by the Bidder or the selected Bidder’s Team.

- II. The indemnity shall be to the extent of 100% in favor of EdCIL.

5.18 Commissioning of all Equipment

- I. As part of commissioning of the delivered equipment, the selected Bidder shall depute its technically qualified representative(s) to facilitate in the conduct of inspection of 100% of the delivered quantity in presence of NSU/ EdCIL representative. For commissioning, the inspection shall be done against the compliance checklist of the product features given in the RFP – Annexure XVIII along with complete documentation.

Against the commissioning of all the hardware, the selected Bidder shall get an Installation and Commissioning Sign-off receipt from authorized representative of the end client. The bidder shall submit invoices along with the list of serial numbers of all the equipment supplied and corresponding Commissioning Sign-off receipt from the end client. The damaged/defective equipment, if any, shall be taken back by the selected Bidder’s representative and the corresponding serial numbers shall neither be included in the serial number list enclosed with invoice nor will the cost of returned equipment be reflected in the submitted invoice.

5.19 Warranty Services

- I. The Selected Bidder is required to provide a next business day warranty service from OEM for the requisite ICT equipment and related Hardware supplied under the contract for a period of 3 years. Records of all calls/emails/visits made to the service center shall be kept in a computerized system for easy tracking of complaints and calculating SLA. The period of warranty for all equipment shall commence after successful installation and commissioning sign-off with end client.



- II. Three level escalation matrix for the complaint's resolution and support.

5.20 Warranty and Maintenance Support Services

- I. The Selected Bidder is required to provide service support for the requisite ICT equipment and related Hardware supplied under the contract for a period of 3 years warranty and thereafter CMC period of 03 years.

5.21 Service Centre Setup

- I. The selected Bidder should have a service centre in Andhra Pradesh for the maintenance and warranty of all equipment supplied under this RFP.
- II. In case a bidder has no presence in Andhra Pradesh, he/she shall establish the same within 4 weeks from the date of award of contract, **failing which the Work Order/Contract will be terminated**. The responsibility of providing satisfactory services solely remains with the selected bidder.

5.22 Service Level Agreement

1. The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service which shall be provided by the Selected Bidder to EdCIL/ NSU for the duration of this Agreement. The selected Bidder shall regularly review the performance of the services being provided by the Selected Bidder and the effectiveness of this SLA.

2. Definitions:

For purposes of this Service Level Agreement, the definitions and terms as specified in the Contract along with the following terms shall have the meanings set forth below:

- a. "Incident" refers to any event specifying the defect in connectivity (in case of cabling and related accessories) or service breakage (in case of racks).
- b. "Resolution Time" shall mean the time taken (after the incident has been reported, in resolving (diagnosing, troubleshooting and fixing) the issue.

3. Category of SLAs

- I. This document provides for minimum level of services required as per contractual obligations based on performance indicators and measurements thereof. The Bidder shall ensure provisioning of all required services while monitoring the performance of the same to effectively comply with the performance levels. The services provided by the Bidder shall be reviewed by EdCIL as the following:



- a. Adherence to delivery schedule.
- b. Regularly check performance of the Bidder against this SLA.
- c. Obtain suggestions for changes to improving the service levels.
- d. Periodic inspection of selected Bidder's Help Desk Records like:
 - Types of Incidents and requests
 - Time to resolve and number of unclosed tickets
 - Systems involved
 - Codal life of document after the completion of project. Codal life of document will be adopted by NSU.

II. The SLA shall be logically segregated in the following categories:

- a. Pre-Dispatch Inspection
- b. Implementation Service levels/Delivery Schedule
- c. Warranty obligations
- d. AMC
- e. Compliance and Reporting Procedures

III. The following measurements and targets shall be used to track and report performance on a regular basis. The targets shown in the following tables are applicable for the duration of the Contract. All penalties shall be paid by the Selected Bidder to EdCIL.

IV. Delivery Schedule

Sl. No.	Measurement	Target	Penalty
1.	Start of shipment of Hardware/ equipment	Within 2 Weeks of issuance of Work Order.	Penalty of 1% for every week, subject to a maximum of 10% of the relevant Milestone payment.
2.	Delivery of Hardware/ equipment at NSU	Within 14 Weeks of issuance of Work Order.	
3.	Commissioning of all IT Hardware/ equipment.	Within 19 weeks of issuance of Work Order.	

* GST shall be charged extra over and above the penalty amount for delay in delivery schedule and penalty for breach of SLA.

V. Warranty and Post Warranty Support obligations:

The support services delivery of the bidder should be governed by the following architecture, a single point of contact with a 24 X 7 available number. An Engineer



or an authorized person should be able to log their complaint on this central number, following a predefined process, so as to raise a service request. The request will be attended to, resolved and escalated as per the standard operating procedures.

Support Services Provisioned

Service Entitlement		Standard
Telephone Technical Support	Access to Live Agents at our Support Centre	7 x 24 x 365
On-Site Engineering Services	Service Availability	8 x 6
	Response Time	4 hours

Point of Contacts

Successful bidder should assign a point of contact Manager for NSU.

Manager will be responsible for following:

- Ensuring on timely rectification and/or replacement of ICT components.
- Arranging Standby Hardware, whenever possible.
- Tracking Complaint status and periodic update to customer.
- Provide regular updates to customer contact.

The successful bidder shall depute requisite number of Engineers to address faults as raised by NSU to its support helpdesk within the Response Time. The Engineer should be adequately apprised of the network infrastructure deployed at NSU. The Engineer so deputed during the delivery, installation, testing and handover phases and till the completion of the project will be responsible for the following:

- Day-to-day network management and monitoring activities on site for the devices deployed;
- Technically competent to handle usual issues generated in the network management or the devices supplied;
- Capable of articulating the complicated technical challenges onsite to expert offsite and work as hands-n-eye for the offsite technical team;
- Capable of understanding the client's requirement for MACs (Move-n-Change);
- Reports to off-site Manager;
- If on leave, a substitution will be done with another adequately informed and competent engineer to continue the as usual operations smoothly.



Fault Notification

The helpdesk should be operational 24 X 7 and E-mail address and Phone numbers should be made available that can be reached on. The Service Desk Agent will provide the Customer (Client) with a Service Request Number which the support team will refer to in any correspondence related to this case, and which the Customer should refer to when the Customer wishes to make enquiries about the progress of the case. The service request number will be communicated to the customer immediately via phone & email.

Severity Level Definitions

Severity Level	Critical	Major	Minor
Alternate description	P1	P2	P3
Alternate description	Severity 1	Severity 2	Severity 3
Definition	Complete loss of a core organizational or business process where work cannot reasonably continue. Catastrophic impact on business. Workflow cannot move forward with the product until the issue is resolved. The issue may be caused by a critical failure that causes data failure or precludes the use of function of the product.	High impact on organizational or business processes. Operation of an existing network is severely degraded, or significant aspects of customer's business operation are negatively impacted by inadequate performance of the products. Inability to deploy a key feature or function. Product usage is affected, but can continue for a reasonable amount of time before the problem becomes catastrophic.	Minimal organizational or business impact. Anything which is not Out of service or Major is classified as Minor.
SI's priority	SI's immediate priority is to restore service and not to debug the problem.	SI's immediate priority is to restore/improve service, not debug the problem.	SI's priority is to begin collecting data to debug the problem.



Escalation and Notifications:

The SI ensures that all the stakeholders are notified in timely manner on the status of event/ticket. SI Service Desk system notifies users during following events:

- Logging of ticket.
- Status change of ticket.
- Support engineers initiated notifications.

In order to ensure issues are resolved within SLA, SUCCESSFUL SI will have to use defined escalation mechanisms.

Below is standard Functional Escalation process followed for different severity calls.

Severity of call	Type of call	Tier-II	Tier-III
Severity-1: Critical	Incident	4 th Hour	6 th Hour
Severity-2: Major	Incident	6 th Hour	24 th Hour
Severity-3: Minor	Incident	24 th Hour	48 th Hour

Penalty for breach of SLA

S.no	Fault Resolution – SLA	Time Allocated	Penalty (in % percentage or Rs)
1	Call Resolution (in case of Severity-1 type incident)	< 4 Hrs.	0%
		> 4 Hrs < 6 Hrs	0.5 % of the unit hardware cost
		> 6 Hrs < 8 Hrs	2 % of the unit hardware cost
		> 8 Hrs < 12 Hrs	5 % of the unit hardware cost
		> 12 hrs.	10 % of the unit hardware cost
2	Call Resolution (in case of Severity-2 type incident)	< 6 Hrs.	0%
		> 6 Hrs < 24 Hrs	0.5 % of the unit hardware cost
		> 24 Hrs < 36 Hrs	2 % of the unit hardware cost
		> 36 Hrs < 48 Hrs	5 % of the unit hardware cost
		> 48 hrs.	10 % of the unit hardware cost
3	Call Resolution (in case of Severity-3 type incident)	< 24 Hrs.	0%
		> 24 Hrs < 36 Hrs	0.5 % of the unit hardware cost
		> 36 Hrs < 48 Hrs	2 % of the unit hardware cost
		> 48 Hrs < 60 Hrs	5 % of the unit hardware cost
		> 60 hrs.	10 % of the unit hardware cost

* GST shall be charged extra over and above the penalty amount for delay in delivery schedule and penalty for breach of SLA.



VI. SLA Review Process

- a. Either EdCIL or the selected Bidder may raise an issue, by documenting the business or technical problem, which presents a reasonably objective summary of both points of view and identifies specific points of disagreement with possible solutions.
- b. A meeting or conference call will be conducted to resolve the issue in a timely manner. The documented issues will be distributed to the participants at least 24 hours prior to the discussion if the issue is not an emergency requiring immediate attention.
- c. EdCIL and the selected Bidder shall develop an interim solution, if required, and subsequently permanent solution for the problem at hand. The selected Bidder will then communicate the resolution to all interested parties.
- d. In case the issue is still unresolved, the arbitration procedures described in arbitration clause will be applicable.

5.23 Manuals, Drawings and Videos

- a. Before the goods and equipment are taken over by NSU, the Supplier should supply operation and maintenance manuals. These should be in such detail as will enable the NSU to operate, maintain, adjust and repair all parts of the works as stated in the specifications.
- b. The Manuals should be in the ruling language (English).

5.24 Requirement of Key Personnel (Technical Manpower) for the NSU Campus.

1. The successful bidder shall deploy experienced resources (Network/Software Engineer) at the premise of university, who must be a full-time employee of the successful bidder, during installation, Contract/Agreement/CMC Periods. The Network/Software Engineer shall function under the aegis of Contact Manager of the bidder, will be responsible at project site office and report to the System Analyst, National Sanskrit University, Tirupati.
2. Minimum qualification and experience with Job description is mentioned in the table given below:

Role	Qualification	Job-Description & relevant experience
Network/Software Engineer	B.E/B.Tech (CS/IT)	Atleast 04 years of experience in working on Switching, Routing, VLAN, Firewall, UTM, Server/Users Configuration, HCI Trained etc. CCNA /



		CCNP Certified candidates with exposure on LINUX and Windows”.
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3. Job-Description:

- a) Fully support, configure, maintain and upgrade networks and servers/systems.
- b) Install and integrate new server hardware and applications.
- c) Keep an eye out for needed updates.
- d) Support and administer third-party applications.
- e) Ensure network security and connectivity.
- f) Monitor network performance (availability, utilization, throughput, goodput, and latency) and test for weaknesses.
- g) Set up user accounts, permissions and passwords.
- h) Resolve problems reported (hardware/software) by end user.
- i) Define network policies and procedures.
- j) Specify system requirements and design solutions.
- k) Research and make recommendations on server system administration.

**Resume Format:**

Name:	Role ()
Qualification(s)	
Overall work experience (in years)	
Relevant experience	
Employed by bidder company since	
Details of relevant professional experience	
Engagement Type	
Entity	
Nature of Entity (PSE / Private)	
Period of engagement	
Role	
Key work performed	



CHAPTER-VI

Eligibility and Bid Evaluation

6.1 Bid Evaluation Process

The bid evaluation shall consist of the following phases:

- i) Phase I – Evaluation of Technical bid in accordance to the Pre-Qualification criteria and other tender compliances. QCBS evaluation of the Technical Bid of Pre-Qualified Bidder as per the Marking Scheme mentioned in the bid document.
- ii) Phase II - Evaluation of Financial bid

Note: - It is mandatory for the bidder to qualify all the Pre – qualification stages to be eligible for QCBS evaluation including presentation as per Marking Matrix. Only technically qualified bidders shall be considered for opening of their Financial Bids and evaluation thereof.

Phase I: Evaluation of Technical Bid:

Bidder has to upload all documentary evidences in support of the following mentioned Eligibility Criteria. In the absence of such supporting documents, as mentioned against each criterion, the bid will be rejected summarily. The QCBS rating/markings and financial bid opening will be carried out for only those bidders who qualify in the Technical bid.

6.2 Pre-Qualification/Eligibility Criteria

The minimum pre-qualification criteria for the bidders to be eligible for this RFP process are specified below. Responses not meeting the minimum pre-qualification criteria will be rejected as soon as such proposals are received, and will not be considered for Technical evaluation and QCBS marking.

S. No.	Pre-Qualification/Eligibility Criteria	Supporting Document
1.	The Bidder should be either a firm or a company registered under Companies Act, 1956 or 2013 in India and should have been in operation in India for at least last 5 years as on the date of submission of the bid. Consortium of companies/firms is not allowed. Copies of VAT/CST/ GST registration certificates of the Firm should be submitted to establish the date of start of business.	Certificate of Incorporation/ Any other relevant supporting document for its constitution
2.	The bidder shall be in IT & ITES business for the	Work Order + Satisfactory



	<p>last 5 years and shall have 5 years of experience as on date of floating of tender in all of the following areas:</p> <ol style="list-style-type: none"> i. Supply and maintenance of servers, storage and computer systems ii. Supply and maintenance of End User Computing and peripherals iii. Supply and maintenance of networking devices like I/Os, wireless Access Points with controller, switches, routers, network cabling, NGFW etc. 	Certificate of Completion
3.	<p>The Bidder should have satisfactorily completed at least three work orders for similar type of work each costing not less than Rs. 3,00,00,000/- in any Govt. department/ institutes in the last five years (executed as on date of submission of bid).</p> <p style="text-align: center;">OR</p> <p>The Bidder should have satisfactorily completed at least two work orders for similar type of work each costing not less than Rs. 3,75,00,000/- in any Govt. department/ institutes in the last five years (executed as on date of submission of bid).</p> <p style="text-align: center;">OR</p> <p>The Bidder should have satisfactorily completed at least one work order for similar type of work costing not less than Rs. 6,00,00,000/- in any Govt. department/ institutes in the last five years (executed as on date of submission of bid).</p>	Work Order + Satisfactory Certificate of Completion
4.	<p>The Bidder should have an average annual turnover of at least INR 30 Crore from IT/ ITES services mentioned in Serial number 2 of Pre-Qualification/Eligibility Criteria during the last three financial years i.e. 2018-19, 2019-20 & 2020-21 respectively, with net profit and positive net-worth.</p> <p>For MSMEs and Start-Ups duly registered with the Government of India the turnover criteria shall be relaxed by 20% (i.e. these firms should have Annual turnover of at least INR 24 Crore in the last three financial years (FY 2018-19, 2019-20 & 2020-21)), Subject to meeting of quality, scope technical specification and other criteria asked in this document.</p>	<p>Audited Profit and Loss Statement and Balance sheets. Auditor Certificate clearly specifying the turnover from IT/ ITES services.</p> <p>Valid registration certificate issued by NSIC/MSME or other appropriate government authorities.</p>



5.	The bidder should be a certified ISO 9000/9001 and ISO 27001-2013 certified company. Relevant Organizational Level Certificates to be provided	Copy of the valid ISO Certificate issued from the accreditation organization to be submitted as documentary proof.
6.	The bidder shall be a registered firm or company in India with valid GST Registration and PAN number allotted by the respective authorities.	GST Registration Certificate and PAN number
7.	The bidder should not have been debarred by any Central Government/ State Government/ PSU/ Government Bodies/Autonomous Bodies/Private Sector	The bidder shall furnish an undertaking duly attested by notary on a non-judicial stamp paper of value INR100/- (Rupees One Hundred Only)
8.	The bidder should submit valid undertaking from the OEM for Hardware/ Equipment, confirming the following: <ul style="list-style-type: none"> • OEM(s) of the proposed product(s) shall provide support, for the quoted products for the entire contract period and; • That the proposed products meet the technical & functional requirements & also products quoted are of the latest version. 	A written undertaking by manufacturer (OEM) should be submitted as per Annexure XIII provided in this RFP.
9.	The Authorized Signatory signing the Bid on behalf of the Bidder - should have the Power of Attorney duly authorized by the Board of Directors to sign the Bid.	Power of attorney shall be submitted in prescribed format on Non-Judicial stamp paper.
10.	The firm should be a profit-making concern for each of the last three consecutive financial years (FY 2018-19, 2019-20 & 2020-21).	Audited and CA Certified financial statements.
11.	Solvency certificate issued from bank of bidder for minimum value of Rs. 3 crores; not more than 6 months old	Solvency certificate issued by bidders bank (scheduled commercial bank/Nationalized Bank).

- Technical bids will also be reviewed for compliance with the necessary Instructions, terms and conditions, scope of work, formats etc. as outlined in this tender.



- Notwithstanding anything stated above, the EdCIL reserves the right to assess bidder's capability and capacity to perform the contract, should circumstances warrant such an assessment in the overall interest of the EdCIL/NSU.

The bidder who fulfilled the eligibility criteria shall be further evaluated as per the following marking matrix:

Marking Matrix: In the below table, marking parameters for technical evaluation are mentioned:

S.no	Marking Parameters	Marking Scheme	Maximum Marks	Document required
1.	The bidders shall have minimum Technical manpower strength of 100 persons on its rolls at least for 3 years before the last date of submission of RFP.	>=100 Engineers and <150 = 5 Marks >=150 and <200 = 10 Marks >200 Engineers = 15 Marks	15	Proof of PF/ESI Documents along with declaration and An Undertaking to be submitted by designated authority (Company Secretary) of the organization.
2.	The bidder shall be in IT & ITES business for the last 5 years and shall have at least 5 years of experience as on as on the date of floating of tender in each of the following areas: <ol style="list-style-type: none"> Supply and maintenance of servers, storage and computer systems; Supply and maintenance of End User Computing and peripherals; 	5 years of experience = 5 Marks 6 Years of experience = 10 Marks 7 years or more of experience = 15 Marks	15	Valid PO/Completion Certificate/On going certificate.



	<p>iii. Supply and maintenance of networking devices like I/Os, wireless Access Points with controller, switches, routers, network cabling, NGFW etc.</p> <p>iv. Supply and maintenance of networking passive components like Optical fiber, cat 6/6a cable, Racks, UPS,</p> <p>* Minimum project value considered for evaluation should be more than 3 crores.</p>			
3	<p>Experience of Setting Up big Campus Network* project in the last five financial years</p> <p>* Note 1: Setting up of Campus area Networking (Active and Passive components) and related security (NGFW/ equivalent) & monitoring system software (NMS, WLC)</p>	<p>i. One Project of value more than Rs. 7 Crore - 8 Marks</p> <p>ii. One Project of value more than Rs. 15 Crore - 15 Marks</p> <p>iii. One Project of value more than Rs. 30 Crore – 20 Marks</p>	20	Valid PO and Satisfactory Completion Certificate
4	<p>Bidder should have experience in maintaining at least two networks having 1000 nodes in the past three financial years.</p>	<p>2 Contracts = 5 Marks</p> <p>3 Contracts = 10 Marks</p> <p>>= 4 contracts = 15 Marks</p>	15	Valid PO and satisfactory Completion Certificate
5.	<p>Bidder shall have average annual turnover of Rs.30 Crore in the areas specified in all the items specified above put</p>	<p>>=Rs.30 Cr and <=Rs.50 Cr = 5 Marks</p> <p>>Rs.50 Cr and</p>	15	Only completed projects shall be considered for marking



	together, in the last three (3) financial years. (Chartered Accountant certificate as proof of turnover showing the services mentioned is also accepted)	<p><=Rs.100 Cr = 10 Marks</p> <p>>Rs.100 Cr = 15 Marks</p>		<p>criteria.</p> <p>Documents required are:</p> <p>Copy of work order + Completion certificates</p>
6.	<p>Technical Presentation - Expert Committee for the Technical Presentation will evaluate</p> <p>i) Value addition to current system</p> <p>ii) Resource Planning: the bidder's capability and product quality (Project Team deployment plan, System Configurability and Upgradation, Quality Previous project implementation timelines (From Project kick-off time to Handover date and Time))</p> <p>iii) Technical Expertise: technology and other suitability related aspects (Solution Architecture)</p> <p>However this list is not the final list and committee may modify it at any later stage.</p> <p>Note- The Technical Presentation will be held at NSU, Tirupati Campus and Bidder will have to make all the arrangements to attend the same according to the notified date and time at their own.</p>		20	
Total (Maximum)			100	

The bidder who scores minimum 70 marks as per marking scheme shall be declared qualified in technical evaluation stage and notified for opening of their financial bids. Qualified bidders would also be advised to attend opening of the financial bid.



6.3 Evaluation of Financial bids:

The Financial bid of only those bidders who are found technically eligible shall be opened. The financial bids shall be opened in the presence of representative of technically eligible bidders, who may like to be present. EdCIL shall inform the date, place and time for opening of financial bids.

- Financial bids will be inspected to ensure their conformity to the format provided in the tender document.
- If there is any discrepancy between words and figures in any part of the financial bid, the amount indicated in words will prevail.

1) Final Proposal shall be given scoring as below:

- a) Normalization factor (N1) to obtain the Normalized Technical score of the bidders shall be calculated as below: -

$$N1 = T/Th$$

Where:

N1 = Normalization factor for calculation of Technical score.

T = Technical Marks obtained by the bidder under consideration as per marking scheme

Th = Highest Technical Score obtained by any bidder

- b) Normalized technical score for the Bidder under consideration will be calculated using the following relation:

$$Tn = (N1) * (\text{Weightage of the Technical Score i.e. } 70)$$

Where

Tn = Normalized technical score for the Bidder under consideration

- c) Normalization factor (N2) to obtain the Normalized Financial Score of the other bidders shall be calculated as below: -

$$N2 = FL / F$$

Where:

N2 = Normalization factor for calculation of Financial score. F = the quoted price of Financial Proposal under consideration

FL = the price of lowest priced Financial Proposal

- d) Normalized financial score for the Bidder under consideration will be calculated using the following relation:

$$Fn = (N2) * (\text{Weightage of the Financial Score i.e. } 30)$$

Where



F_n = Normalized Financial score for the Bidder under consideration

2) **Combined Quality and Cost Based Selection (QCBS) Evaluation**

The score of technical proposal including presentation would be given 70% weightage, and the financial proposal would be given 30% weightage. The weighted combined score of the Technical bid including presentation (T_n), and Financial proposals (F_n) shall be used to rank the bidders on the basis of formula given as below:

Combined Score= Normalized Technical Score (T_n) + Normalized Financial Score (F_n)

Bidder with highest Combined Score shall be declared selected Bidder.

In the event of two or more Bidders/organizations with the same final score, the Bidder with more marks in technical evaluation shall be ranked higher i.e. will be given preference.



Chapter-VII

Timeline & terms

7.1 Payment Terms:

Only those bidders, who are confident and willing to carry out the work within the prescribed time period, are requested to participate in this tender.

S.No	Milestone	Payment % of the Contract Value (including all taxes, duties and levies, as applicable)
1.	<p>(a) Payment of “X”% of charges for the comprehensive project work (except post warranty AMC charges), towards supply of complete material any, against documentary evidence, shall be released only after receipt of material at NSU on receipt of the following documents:-</p> <ul style="list-style-type: none"> · Invoice. · Warranty Certificate. · Delivery Challan (duly signed & stamped by authorized officials of consignee). · PDI report · E-way bills for delivery of the material and equipment at site 	X=40
2.	<p>“Y” % of charges for the comprehensive project work (except post warranty AMC charges), towards successful Installation and commissioning shall be released after receipt of the following:</p> <ul style="list-style-type: none"> • Clearance from NSU/ EdCIL Representative regarding successful completion of work • Inspection report (Installation and commissioning report duly signed and stamped by authorized officials of consignee) 	Y=40
3.	<p>“Z”% of charges for the comprehensive project work (except post warranty AMC charges), shall be released in 3 instalments paid at the end of first, second and third year. The payment shall be as per the following schedule:</p> <p>At the end of first year: 10% At the end of second year: 5%</p>	Z=20



	<p>At the end of third year: 5%</p> <p>The payment shall be released on receipt of the following:</p> <p>(i) Clearance from NSU regarding Contractor had rectified/replaced the faulty component/ item as per SLA on intimation from NSU.</p> <p>(ii) Certificate of satisfactory performance from NSU incharge and preventive maintenance reports.</p>	
4.	<p>Technical Manpower charges for on-site support during the warranty tenures.</p> <p>(i) Certificate of satisfactory performance from NSU in Charge and preventive maintenance reports and log reports</p> <p>(ii) The contractor shall comply with the provision of all applicable labour laws like Provident fund, Employee State Insurance etc. for the technical manpower deployed for onsite support for (3+3) years. Statutory challans or documentary evidences for payment of applicable statutory dues toward PF, ESI etc. with the statutory authorities to the satisfaction of NSUT have to submitted at the time of payment failing which EdCIL reserve the right to withhold the payment to that extent</p> <p>Note* In future; at the sole discretion of the end customer (i.e. NSU) the billing for technical manpower charges may be raised directly to NSU.</p>	<p>To be paid annually on the satisfactory report given by the end client.</p>
5.	<p>AMC charges</p> <p>The payment shall be released at the end of every year on receipt of the following:</p> <p>(i) Clearance from NSU regarding Contractor had rectified/replaced the faulty component/ item as per SLA on intimation from NSU.</p> <p>(ii) Certificate of satisfactory performance from NSU in Charge and preventive maintenance reports.</p> <p>Note* In future; at the sole discretion of the end customer (i.e. NSU) the billing for AMC charges may be raised directly to NSU.</p>	<p>To be paid annually on the satisfactory report given by the end client.</p>

Note:

- Payments will be done only on the back to back basis on receipt of the related payment/funds from the end client, subject to satisfactory acceptance of the deliverables from the end client as per the submission of the required document.



- Warranty start will be reckoned from the date of installation and commissioning as approved by the end client. Part payment can be made against commissioning in accordance with the progress of the project.

7.2 Performance Security/Performance Bank Guarantee:

The successful bidder shall be required to deposit Performance Bank Guarantee equivalent to 10% of contract value to EdCIL within 7 days from the date of receipt of LOI. The Performance Bank Guarantee shall be issued by a scheduled commercial bank/Nationalized Bank in favour of "**EdCIL (India) Limited**" and be valid for at least 90 days beyond the target date of completion of Contract (including warranty period of 3 years & Commissioning period of 06 months) and further as specified in the LOI. This Performance Bank Guarantee should be retained throughout the currency of the contract and shall be extended by the bidder from time to time, as required by EdCIL.



Chapter-VIII

Key Contract Terms

8.1 Force Majeure

The selected bidder shall not be liable for forfeiture of its performance security, liquidated damages or termination for default if, and to the extent applicable, its delay(s) in performance or other failure(s) to perform its obligations under the Contract is/are the result of Force Majeure.

- I. For purposes of this Clause, "Force Majeure" means an event beyond the control of the selected bidder and not involving the selected bidder's fault or negligence and not foreseeable. Such events shall include, but are not limited to, acts of the EdCIL either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- II. If a Force Majeure situation arises, the selected bidder should promptly notify EdCIL in writing of such conditions and the cause thereof. Unless otherwise directed by EdCIL in writing, the selected bidder shall continue to perform its obligations under the Contract as far as is reasonably practical, and should seek all reasonable alternative means for performance not prevented by the Force Majeure event.

8.2 Prices:

- I. The price should be quoted in per unit and must include all packing, delivery, commissioning charges etc. The offer/bid should be exclusive of taxes and duties, which will be paid as applicable. However, the percentage of taxes should be clearly indicated. The inter se merit position of the bids however shall be decided based on the composite price of the product including taxes, transportation, Warranty & AMC with all other incidental expenses indicated.
- II. The prices must be quoted in the Proforma given in Financial Bid failing which the Bid would be treated as unresponsive.
- III. The price quoted should be inclusive of 3 years on-site comprehensive warranty including deployment of technical manpower during this period (Three Network/Software Engineers), providing basic training and demonstration to the end client.

8.3 Notices:

For the purpose of all notices, the following should be the address:

Chief General Manager (DES)
EdCIL (India) Limited,
18 A, Sector-16A,
Noida-201301, Uttar Pradesh



Tel: 91-120-2512001 to 2512006

8.4 Governing Language

The contract should be written in English language. English language version of the Contract should govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.

8.6 Applicable Law

The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction. The place of jurisdiction would be New Delhi (Delhi) INDIA.

8.7 Taxes

Selected Bidder shall be entirely responsible for all taxes, duties, road permits, etc., incurred until delivery of the contracted Goods/Services. EdCIL shall only make payment towards the GST Charged in the invoice other than that no other taxes/ duties/ Charges will be paid.

8.8 Termination for Default

The EdCIL should, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- I. If the Supplier fails to complete the work within the period(s) specified in the order, or within any extension thereof granted by the EdCIL; or
- II. If the Supplier fails to perform any other obligation(s) under the Contract.
- III. If the Supplier, in the judgment of the EdCIL, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

IV. For the purpose of this Clause:

- **“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.
- **“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 Borrower, 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 Borrower of the benefits of free and open competition.

- In the event EdCIL terminates the Contract in whole or in part, EdCIL may procure, at the risk and cost of the supplier and upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

8.9 Disputes and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within New Delhi.

8.10 Compliance certificate:

This certificate must be provided on their letterhead indicating conformity to the technical specifications. (Annexure XVIII)

8.11 Price Information

Price information shall not be there in Technical Bid.

8.12 Rates in Figures and Words:

Rates Quoted by the Bidder in tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the bidder shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words then the rates quoted by the bidder in words shall be taken as correct. Where the rates quoted by the bidder in figures and in words tally but the amount is not worked out correctly, the rates quoted by the Bidder will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s) and amount blank, it will be presumed that the Bidder has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

In the case of any tender where unit rate appear unrealistic, such tender will be considered as unbalanced and in case the tender is unable to provide satisfactory explanation such a tender is liable to be disqualified and rejected.

8.13 Arbitration

- a. If any dispute arises out of the contract with regard to the interpretation, meaning and breach of the terms of the contract, the matter shall be referred to a sole arbitrator as per Arbitration and Conciliation Act, 1996 of Government of India or any statutory modifications or re-enactment thereof.



- b. All legal proceedings shall have to be lodged in courts situated in New Delhi (India) and not elsewhere.
- c. All arbitration proceedings shall be conducted in English. Recourse against any Arbitral award so rendered may be entered into court having jurisdiction or application may be made to such court for the order of enforcement as the case may be.
- d. The Arbitral Tribunal shall consist of the sole Arbitrator appointed by competent authority, EdCIL (India) Ltd.
- e. Each of the parties agree that notwithstanding that the matter may be referred to Arbitrator as provided herein, the parties shall nevertheless pending the resolution of the controversy or disagreement continue to fulfil their obligation under this Agreement so far they are reasonably able to do so.
- f. The seat and venue of arbitration shall be Delhi.

8.14 Non-Disclosure

The firm and their personnel shall not, either during the term or after expiration of this contract, disclose any proprietary or confidential information relating to the services, contract, terms, prices or details of the client's business or operations without the prior written consent of the client.

8.15 Supplier Integrity

The selected bidder is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.

8.16 Right to Use Defective Goods

- I. If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, NSU should have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with NSU's operations.
- II. Replacement of Goods broken, damaged or short: In the event of any material or part thereof found broken or damaged or received short during transit or during installation or Commissioning or testing at site, before commissioning in service, the suppliers shall replace the same free of cost. However, EdCIL may recover amount equivalent to the cost of such damaged / broken / short supplied materials and will repay when actual replacement is given.
- III. Substitution and Wrong Supplies: Unauthorized substitution or materials delivered in error of wrong description or quality or supplied in excess quantity or rejected goods shall be returned to the supplier at their own cost and risk.

8.17 Award of Contract



- I. EdCIL reserves the right to accept or reject any proposal and to annul the bidding process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the Bidders. In case of annulment, all proposals submitted and specifically, proposal securities shall be promptly returned to the Bidder.
- II. EdCIL has the right to review at any time, prior to award of contract, that the pre-qualification criteria are still being met by the Bidder whose offer has been determined as first rank. A proposal shall be rejected if any eligibility criterion is no longer met by the Bidder whose offer has been determined as first rank.

8.18 Risk Purchase Clause

In event of failure of supply of the item/equipment within the stipulated delivery schedule, the EdCIL has all the right to purchase the item/equipment from any other source on the total risk and cost of the supplier under risk purchase clause.

8.19 Compensation

EdCIL India Limited shall be entitled to deduct from applicable payments to successful BIDDER, any tax on successful BIDDER' income deductible at source at the rates applicable as per the provisions of Income Tax Act 1961. TDS as per GST law or any other applicable statutory deduction also can be made at the time of payment to the successful bidder and provide successful BIDDER with evidence or certificate of payment of such tax to the taxing authorities. Successful BIDDER shall submit invoices to EdCIL India Limited in accordance with the payment schedule in Commercial of this document.

8.20 Confidential Information

Each Party (the "Receiving Party") acknowledges and agrees to maintain the confidentiality of Confidential Information (as hereafter defined) provided by the other Party (the "Disclosing Party") hereunder. The Receiving Party shall not disclose or disseminate the Disclosing Party's Confidential Information to any person other than those employees, agents, contractors, subcontractors and licensees of the Receiving Party, or its affiliates, who have a need to know it in order to assist the Receiving Party in performing its obligations, or to permit the Receiving Party to exercise its rights under this Agreement. In addition, the Receiving Party (i) shall take all such steps to prevent unauthorized access to the Disclosing Party's Confidential Information, as it takes to protect its own confidential or proprietary information of a similar nature, which steps shall in no event be less than a reasonable standard of care, (ii) shall not use the Disclosing Party's Confidential Information, or authorize other persons or entities to use the Disclosing Party's Confidential Information, for any purposes other than in connection with performing its obligations or exercising its rights hereunder, and (iii) shall require all persons and entities who are provided access to the Disclosing Party's Confidential Information, to execute confidentiality or non-disclosure agreements containing provisions substantially similar to those set forth in this Clause. The provisions of this Clause respecting Confidential Information shall not apply to the extent, but only to the extent, that such Confidential Information is: (a) already known to the Receiving Party free of any restriction at the time it is obtained from the Disclosing Party, (b) subsequently learned from an independent third party free of any restriction and without breach of this provision; (c) is or becomes publicly available through no wrongful act of the Receiving Party or any third party; (d) is independently developed by the Receiving Party without reference to or use of any



Confidential Information of the Disclosing Party; or (e) is required to be disclosed pursuant to an applicable law, rule, regulation, government requirement or court order, or the rules of any stock exchange. Upon the Disclosing Party's written request at any time, or following the completion or termination of this Agreement, the Receiving Party shall promptly return to the Disclosing Party, or destroy, all Confidential Information of the Disclosing Party provided under or in connection with this Agreement, including all copies, portions and summaries thereof.

8.21 Fall Clause

The Bidder undertakes that the rates quoted by him in the financial bid for each item is not higher than the rate offered by him for similar work to any other PSU/ Educational Department/ Govt. Educational Department. In case, if the price charged by bidder is more, EdCIL will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier, provided all conditions of the work including time, scope, logistics, specifications and country are same.

8.24 Tender Conditions with Implementation of Insolvency and Bankruptcy Code, 2016 (IBC)

- a) It shall be the responsibility of all bidders to inform EdCIL within 15 days from the date of order of insolvency resolution process or liquidation or bankruptcy proceeding passed by the Adjudicating Authority namely, National Company Law Tribunal (NCLT) or Debt Recovery Tribunal (DRT) under the Code.
- b) If a bidder refuses or fails to share the information regarding their status of insolvency resolution process or liquidation or bankruptcy proceeding in their bid or at any later stage, their offer is liable to be rejected by EdCIL.
- c) EdCIL reserves the right to cancel/terminate the contract without any liability on the part of EdCIL immediately on the commencement of insolvency resolution process or liquidation or bankruptcy proceeding of any party under the contract.
- d) EdCIL reserves its right to evaluate and finalize the bid without considering the bid of any party undergoing insolvency resolution process or liquidation or bankruptcy proceeding under the Code regardless of the stage of tendering.
- e) A declaration / undertaking shall be submitted by bidders in the Format (as per ANNEXURE) along with their techno commercial bids.

Guidelines for Evaluation & Short closure:

- a) After opening of price bid but before award, if a bidder(s) is(are) rejected due to initiation of insolvency resolution process or liquidation or bankruptcy proceeding under Insolvency and Bankruptcy Code, 2016 (Code), tender will be finalized ignoring such bid(s).
- b) During execution of contract, if insolvency resolution process or liquidation or bankruptcy proceeding under Insolvency and Bankruptcy Code, 2016 (Code) are initiated against the successful bidder, EdCIL shall have the right to short close the contract.



ANNEXURE-I

Technical Compliance Declaration Sheet

We hereby confirm that we are complying with the technical specifications as specified in the tender document and the offer is submitted in accordance with the technical requirements. All relevant documents in support of our claims are enclosed at the following pages:

Signature of Bidder: _____

Name of Bidder: _____

Designation: _____

Organization Name: _____

Contact No.: _____

Email: _____

Mobile: _____

**ANNEXURE-II**

<< **Organization Letter Head** >>
DECLARATION SHEET

We, _____ hereby certify that all the information and data furnished by our organization with regard to this tender specifications are true and complete to the best of our knowledge. I have gone through the specifications, conditions and stipulations in detail and agree to comply with the requirements and intent of specification.

We further certify that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, we will support the project on regular basis with technology / product updates and extend support for the warranty.

We further specifically certify that our organization has not been Black Listed/ De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.	NAME & ADDRESS of the VENDOR/ MANUFACTURER/ AGENT
1 Phone	
2 Fax	
3 E-mail	
4 Contact Person Name	
5 Mobile Number	
6 TIN Number	
7 PAN Number	
(In case of on-line payment of Tender Fees)	
8 UTR No. (For Tender Fee)	
(In case of on-line payment of EMD)	
9 UTR No. (For EMD)	
10 Kindly provide bank details of the bidder in the following format:	
a) Name of the Bank	
b) Account Number	
c) Kindly attach scanned copy of one Cheque book page to enable us to return the EMD to unsuccessful bidder	

(Signature of the Bidder)

Name: _____

Seal of the Company



ANNEXURE III

Letter of undertaking
(ON THE LETTER HEAD OF THE BIDDER)

To

Chief General Manager (DES)
EdCIL (India) Limited (EdCIL)
EdCIL House, 18 A, Sector-16 A,
NOIDA – 201301 (U.P.)

Sir,

SUBJECT- Selection of System Integrator for Supply, Installation, Testing & Commissioning of Equipment and Design & Implementation of Smart Campus Networking Solution for National Sanskrit University, Tirupati

This bears reference to EdCIL Bid No. **EdCIL/DES/NSU/2021/01** Dated We hereby, accept all the terms and conditions for submitting bid as mentioned in this Bid Document.

We hereby certify that no terms and conditions have been stipulated by us in the Financial Bid.

We warrant that the services do not violate or infringe upon any patent, copyright, trade secret or other property right of any other person or other entity. We agree that we shall not prevent EdCIL from any claim or demand, action or proceeding, directly or indirectly resulting from or arising out of any breach or alleged breach of any of the terms & conditions of bid document and contract.

The above document is executed on at (place) _____ and we accept that if anything out of the information provided by us is found wrong, our bid/ work order shall be liable for rejection.

Thanking you,

Yours faithfully,

Signature of Bidder: _____

Name of the Bidder _____

Designation _____

Seal of the Organization _____

Date:

Place:



ANNEXURE IV

SELF-DECLARATION – NON BLACKLISTING

To,
Chief General Manager (DES)
EdCIL (India) Limited
EdCIL House, 18 A, Sector-16 A
NOIDA – 201301 (U.P.), India

Sir,

In response to the Tender _____ dated _____ for **Selection of System Integrator for Supply, Installation, Testing & Commissioning of Equipment and Design & Implementation of Smart Campus Networking Solution for National Sanskrit University, Tirupati**, I/We hereby declare that presently our Company/Service provider M/s _____ is having unblemished record and is not blacklisted for corrupt or fraudulent practices or non-performance either indefinitely or for a particular period of time by any State/ Central Government/PSU/Autonomous Body on the date of bid submission.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/ our EMD may be forfeited in full and the tender if any, to the extent accepted be cancelled.

Thanking you,
Yours faithfully,

Signature of Bidder
Name of the Bidder:

Designation:

Seal of the Organization:

Date:
Place:

Note: The undertaking regarding the non-blacklisting of firm is to be submitted on a non-judicial stamp paper of Rs. 100/- (Rupees Hundred only).

**ANNEXURE V****Annual Average Turnover**

Sl. No.	Financial Year	Annual Turnover, Rs.	Net Worth, Rs.	Net Profit, Rs.
1.	2018-19			
2.	2019-20			
3.	2020-21			
Total				
Average				

Note: Certificate from Statutory Auditors / Chartered Accountant certifying above information for all three years to be enclosed.

Signature with Seal of the Chartered Accountant

Signature with Seal of the Bidder



ANNEXURE-VI

**PERFORMA FOR DECLARATION ON PROCEEDINGS UNDER
INSOLVENCY AND BANKRUPTCY CODE, 2016**

Tender No. :
Name of Work :
Bidder 's Name :

I/ We, M/s. _____ declare that:-

- a) I /We am / are not undergoing insolvency resolution Process or liquidation or bankruptcy proceeding as on date.
- b) I/We am / are undergoing insolvency resolution process or liquidation or bankruptcy proceeding as on date as per Details mentioned below. (Attached detail with technical bid)

Note: Strike out one of above which is not applicable.

It is understood that if this declaration is found to be false, EdCIL (India) Ltd. shall have the right to reject my / our bid, and forfeit the EMD, if the bid has resulted in a contract, the contract will be liable for termination without prejudice to any other rights or remedies (including holiday listing) available to EdCIL (India) Ltd.

Place:
Date: Signature of Bidder Name of Signatory



Annexure VII

List of Orders Executed for Govt. Organizations

List of Government Organizations for whom the Bidder has undertaken such work during last seven years (must be supported with work orders)

S.No	Name of the Client with addresses	Name of the Project and brief description	Value (Exc Tax)	Date of award	Date of Completion	Current Status and duration of maintenance period for ongoing project	Name of Contact Person and other details
1.							
2.							
3.							
4.							
5.							
6.							
7							
8							

Signature of Bidder

Name: _____

Designation: _____

Organization Name: _____

Contact No. : _____



ANNEXURE-VIII

Power of Attorney

Know all men by these presents, we..... (name of firm and address of the registered office) do hereby constitute, nominate, `appoint and authorize Mr./Ms..... son/daughter/wife of and presently residing at....., who is presently employed with /retained by us and holding position of.....as our true and lawful attorney

(hereinafter referred to as the “Authorized Representative”) to do in our name and on our behalf, all such acts, deeds and things are as necessary or required in connection with or incidental to submission of our proposal for and selection as the <project title> for the <name of the client> (EdCIL).....project, proposed to be developed by the..... (the “client” (EdCIL)) including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre bid and other conferences and providing information /responses to the client, representing us in all matters before the Client (EdCIL), signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with the client (EdCIL) in all matter in connection with or relating to or arising out of our Proposal for the said project /or upon award thereof to us till the entering into of the Agreement with the client (EdCIL).

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawful done or caused to be done by our said Authorized Representative pursuant to and in exercise of the powers conferred by this power and Attorney and that all acts, and things done by our said Authorized Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

[IN WITNESS WHEREOF WE.....THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON

THIS DAY OF2020.

For (Name and registered address of client (EdCIL))

(Signature, name, designation, and address)

Witness:



1. (Signature, name and address)

2. (Signature, name and address)

Notarized

Accepted

.....

(Signature, name, designation, and address of the attorney)

Notes:

1. The mode of the execution of the power of Attorney shall be in accordance with the procedure, if any, lay down by the applicable law and the charter documents of the executants (s) and when it is so required the same should be under seal affixed in accordance with the required procedure.
2. Wherever required, the applicant should submitted for verification the extract of the charter documents and other documents such as a resolution/Power of Attorney in favor of the person executing this Power of Attorney for delegation of power hereunder on behalf of the applicant.



ANNEXURE-IX

LETTER OF BID SUBMISSION

To
Chief General Manager (DES),
EdCIL (India) Limited,
EdCIL House, 18A, Sector- 16A,
NOIDA- 201 301 (U.P)

SUBJECT- Selection of System Integrator for Supply, Installation, Testing & Commissioning of Equipment and Design & Implementation of Smart Campus Networking Solution for National Sanskrit University, Tirupati

-Submission of Bid -

Sir,

Having examined the details given in Press Notice, Notice Inviting Bid & Bid Document for the above work, I/we hereby submit the relevant information.

1. I/We hereby certify that all the statements made and information supplied in the enclosed form _____ and accompanying statements are true and correct.
2. I / we certify that we have not changed/alterd any word/sentence or any figure in number/s or words appearing the original tender document uploaded by EdCIL on the designated web page for e-tendering. In case, if a fraudulent activity is found at any stage between tender submission to final closure of the tender/contract, our candidature/bid/contract shall be immediately cancelled and EMD/Performance security/ security deposit along with the due amount towards the work executed or advance shall be forfeited. EdCIL will not entertain any claim or entertain any reason for this intentional act. EdCIL may go for the legal action against the bidder for recovering any one or all damages caused to EdCIL or its client on this account.
3. I/We have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
4. I/We submit the requisite **certified solvency certificate** and authorize the EdCIL to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/We also authorize EdCIL to approach individuals, employers, firms and corporation to verify our competency and general reputation.
5. I/We submit the following **certificates** in support of our suitability, technical knowledge and capability for having successfully completed the following works:



S.No.	Name of Work	Certificate From

6. Earnest Money Deposit amounting to Rs. ----- in the form of DD/Pay Order No. ----- dated ----- issued by ----- Bank is submitted.
7. Demand Draft of Rs. _____ towards Bid document cost.: If applicable.
8. We confirm that each page of our submission including all supporting documents bears signature with date, name of the signatory, designation of the signatory and company seal.

Enclosures:

Date of Submission :

Signature of Bidder

Name of the Bidder:

Designation:

Seal of the Organization:

Date:

Place:



ANNEXURE – X

Bank Guarantee towards Bid Security (EMD)

Bank Guarantee No. _____

To,

**EdCIL (India) Limited
EdCIL House, 18 A,
Sector-16 A NOIDA – 201301 (U.P.), India**

Whereas..... (herein after called "the Bidder") has submitted its Bid dated(Date) in response to the RFP No:..... for Selection of System Integrator for Supply, Installation, Testing & Commissioning of Equipment and Design & Implementation of Smart Campus Networking Solution for National Sanskrit University, Tirupati (here in after called "the Bid")

KNOW ALL MEN by these presents that We having our registered office at..... (hereinafter called the "Bank") are bound onto EdCIL India Limited, Noida (hereinafter called "EdCIL") in the sum of for which payment well and truly to be made to the said EdCIL itself, its successors and assignees by these presents.

The conditions of these obligations are:

1. If the Bidder withdraws its Bid during the period of Bid validity or
2. If the Bidder, having been notified of the acceptance of its Bid by EdCIL during the period of Bid validity:
 1. fails or refuses to execute the Agreement form if required; or
 2. fails or refuses to furnish the performance security, in accordance with the Bid requirement

We undertake to pay EdCIL up to the above amount upon receipt of its first written demand, without EdCIL having to substantiate its demand, provided that in its demand EdCIL will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to (Date) and any demand in respect thereof should reach the Bank not later than the above date.

Dated: the Day of

for (indicate the name of bank)
Signature of Banks Authorized official
Witness (Name) _____
Designation with Code No. -----
1 Full Address-----



Annexure XI

Name of the Bank: _____

To

EdCIL (India) Limited
EdCIL House, 18 A, Sector-16 A
NOIDA – 201301 (U.P.)

PERFORMANCE BANK GUARANTEE FORMAT

In consideration of the EdCIL acting through _____ (Designation & address of Contract Signing Authority), (hereinafter called “The EdCIL (India) Ltd”) having agreed under the terms and conditions of agreement/ Contract Acceptance letter No. _____ Dt : _____ Made between _____ (Designation & address of contract signing Authority) and _____ (here in after called “the said Agency” for the work _____ (here in after called “the said agreement”) having agreed for submission of a irrevocable Bank Guarantee Bond for ₹ _____ (₹ _____ only) as a performance security Guarantee from the Agency for compliance of his obligations in accordance with the terms & conditions in the said agreement.

1. We _____ (Indicate the name of the Bank) hereinafter referred to as the Bank, undertake to pay to the EdCIL (India) Ltd an amount not exceeding ₹ _____ (₹ _____ only) on demand by the EdCIL (India) Ltd.
2. We _____ (Indicate the name of the bank, further agree that (and promise) to pay the amounts due and payable under this guarantee without any demur merely on a demand from the EdCIL (India) Ltd through the Chief General Manager (DES), EdCIL (India) Ltd, Noida or _____ (Designation & Address of contract signing authority), stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the EdCIL (India) Ltd by reason of any breach by the said Agency of any of the terms of conditions contained in the said agreement or by reason of the Agency failure to perform the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding ₹ _____ (₹ _____ Only).



3. (a) We _____ (indicate the name of Bank) further undertake to pay to the EdCIL (India) Ltd any money so demanded notwithstanding any dispute or dispute raised by the Agency in any suite or proceeding pending before any court or Tribunal relating to liability under this present being absolute and unequivocal.
- (b) The payment so made by us under this Performance Guarantee shall be a valid discharge of our liability for payment there under and the Agency shall have no claim against us for making such payment.
4. We _____ (Indicate the name of bank) to further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the EdCIL (India) Ltd under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged by _____
- (Designation & Address of contract signing authority) on behalf of the EdCIL (India) Ltd, certify that the terms and conditions of the said agreement have been fully and properly carried out by the said Agency and accordingly discharges this guarantee.
- 5 (a) Notwithstanding anything to the contrary contained herein the liability of the bank under this guarantee will remain in force and effect until such time as this guarantee is discharged in writing by the EdCIL (India) Ltd or until (date of validity/ extended validity) whichever is earlier and no claim shall be valid under this guarantee unless notice in writing thereof is given by the EdCIL (India) Ltd within validity/ extended period of validity of guarantee from the date aforesaid.
- (b) Provided always that we _____ (indicate the name of the Bank) unconditionally undertakes to renew this guarantee or to extend the period of guarantee form year to year before the expiry of the period or the extended period of the guarantee, as the case shall be on being called upon to do so by the EdCIL (India) Ltd. If the guarantee is not renewed or the period extended on demand, we _____ (indicate the name of the Bank) shall pay the EdCIL (India) Ltd the full amount of guarantee on demand and without demur.
6. We _____ (indicate the name of Bank) further agree with the EdCIL (India) Ltd that the EdCIL (India) Ltd shall have the fullest liberty without our consent and without effecting in any manner out of obligations hereunder to vary any of the terms and conditions of the said contract from time to time or to postpone for any time or from time to time any to the powers



exercisable by the EdCIL (India) Ltd against the said Agency and to forbear or enforce any of the terms and conditions of the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Agency for any bearance act or omission on the part of the EdCIL (India) Ltd or any indulgence by the EdCIL (India) Ltd to the said Agency for by any such matter or thing whatsoever under the law relating to sureties for the said reservation would relive us from the liability.

- 7. This guarantee will not be discharged by any change in the constitution of the Bank or the Agency.
- 8. We, _____ (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the EdCIL (India) Ltd in writing.
- 9. This guarantee shall be valid for at least 90 days beyond the target date of completion of Contract (including warranty period of 3 years & Commissioning period of 06 months) and further as specified in the LOI, unless extended on demand by EdCIL (India) Ltd. Notwithstanding anything to the contrary contained hereinbefore, our liability under this guarantee is restricted to Rs..... (Rs.....only) unless a demand under this guarantee is made on us in writing on or before..... we shall be discharged from our liabilities under this guarantee thereafter.

Dated: The Day of For

(indicate the name of bank)

Signature of Banks Authorized official

Witness (Name)_____

Designation with Code No. -----

1 Full Address-----

2.



ANNEXURE-XII

PROFORMA PRE CONTRACT INTEGRITY PACT

GENERAL

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on ___ day of the month of 2021, between, on one hand, acting through Shri/Smt. _____, Designation, EdCIL (India) Limited (hereinafter called the “BUYER”/ “EdCIL” interchangeably, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part

AND

M/s _____ represented by Shri _____, Chief Executive Officer (hereinafter called the “BIDDER/Seller” which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the EdCIL proposes to procure services towards “**Selection of System Integrator for Supply, Installation, Testing & Commissioning of Equipment and Design & Implementation of Smart Campus Networking Solution for National Sanskrit University, Tirupati**”.

For its clients and BIDDER/Seller is willing to offer the said services and related items as referred to in the Bid document No. **EdCIL/DES/NSU/2021/01** Dated 2021.

WHEREAS the BIDDER is a private company /public company / Government undertaking / partnership / registered expert agency, constituted in accordance with the relevant law in the matter and the EdCIL is a Public Sector Undertaking under Ministry of Human Resource Development performing its functions.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence / prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:

Enabling the EdCIL to obtain the desired services as referred to in the Bid document No.



EdCIL/DES/NSU/2021/01 dated2021 at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement and Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the EdCIL will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

1. Commitments of the EdCIL

- 1.1 The EdCIL undertakes that no official of the EdCIL, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3 All the officials of the EdCIL will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the EdCIL with full and verifiable facts and the same is prima facie found to be correct by the EdCIL, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings shall be initiated by the EdCIL and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the EdCIL the proceedings under the contract would not be stalled.

3. Commitments of Bidders

The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in



particular commit itself to the following:

- 3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the EdCIL, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the EdCIL or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavor to any person in relation to the contract or any other contract with the Government.
- 3.3 Bidders shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
- 3.4 BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- 3.5 The BIDDER further confirms and declares to the EdCIL that the BIDDER is the original manufacturer/integrator/authorized government sponsored export entity and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the EdCIL or any of its functionaries, whether officially or unofficially to the award to the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation, as the case shall be for satisfactory performance of the proposed terms of Bidder.
- 3.6 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the EdCIL or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.



- 3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the EdCIL as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.12 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the EdCIL, or alternatively, if any relative of an officer of the EdCIL has financial interest / stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of Bid.
- 3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the EdCIL.

4. **PREVIOUS TRANSGRESSION**

- 4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this integrity pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the bid process.
- 4.2 The BIDDER agrees that if it makes incorrect statement on this subject. BIDDER can be disqualified from the Bid process or the contract, if already awarded, can be



terminated for such reason.

5. **EARNEST MONEY DEPOSIT**

- 5.1 While submitting Technical bid, the BIDDER shall deposit EMD in form of Bank Guarantee from a Scheduled commercial bank/Nationalized Bank in India/ Demand Draft in favour of EdCIL (India) Limited, payable at Noida.
- 5.2 The instrument for Security Deposit made shall be valid up to the specified period and the bidder shall be liable to keep the said instrument valid for such extended period as the case shall be for satisfactory performance of the terms of Bidder above referred till the complete conclusion of the contractual obligations to the complete satisfaction of both the BIDDER and the EdCIL, including O&M period, whichever is later.
- 5.3 In case of the successful BIDDER a clause would also be incorporated in the Article pertaining of Performance Bond in the corresponding Contract governing such agreement that the provisions of Sanctions for Violation shall be applicable for encashment of Performance Bank Guarantee deposited towards forfeiture of said amount in case of a decision by the EdCIL to forfeit the same without assigning any reason for imposing such sanction.
- 5.4 No interest shall be payable by the EdCIL to the BIDDER on Earnest Money Deposit for the period of its currency.

6. **SANCTIONS FOR VIOLATIONS**

- 6.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the EdCIL to take all or any one of the following actions, wherever required:
- i. To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
 - ii. The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit / Performance Bond (Bank Guarantee) (after the contract is signed) shall stand forfeited either fully or partially, as decided by the EdCIL and the BUYER (EdCIL) shall not be required to assign any reason therefore.



- iii. To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
 - iv. To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the EdCIL, along with interest.
 - v. To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the EdCIL resulting from such cancellation/rescission and the EdCIL shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
 - vi. To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which shall be further extended at the discretion of the EdCIL.
 - vii. To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
 - viii. In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the EdCIL with the BIDDER, the same shall not be opened.
 - ix. Forfeiture by way of encashment of Performance Bond in case of a decision by the EdCIL to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 6.2 The EdCIL will be entitled to take all or any of the actions mentioned at Para 6.1(i) to (ix) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of any offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 6.3 The decision of the EdCIL to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, an Independent Monitor(s) shall be appointed by EdCIL, in case of breach of the provisions of the pact.



7. **FACILITATION OF INVESTIGATION**

In case of any allegation of violation of any provisions of this Pact or payment of commission, the EdCIL or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

8. **OTHER LEGAL ACTIONS**

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that shall follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

9. **VALIDITY**

9.1 The validity of this Integrity Pact shall be governed by the terms of the Bid No. EdCIL/DES/NSU/2021/01 towards complete execution of the contract to the satisfaction of both the EdCIL and the BIDDER/Seller, including O&M period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract awarding the Bidder with successful bidder.

9.2 Shall one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

10. The parties hereby sign this Integrity Pact at _____ on _____.

EdCIL (India) Limited
Name of the Officer :
Designation:

BIDDER
CHIEF EXECUTIVE OFFICER



Witness:

1. _____

2. _____

Witness:

1. _____

2. _____

(The Pre Contract Integrity Pact shall be modified based in line with the conditions of the Bid Documents).



Annexure XIII

Original Equipment Manufacturer (OEM) Authorization Form

No. _____ dated _____

To

Dear Sir/Madam:

Bid No. _____

We _____ who are established and reputed manufacturer of _____ (name and description of goods offered) having factories at _____ (address of factory) with factory registration no. _____ do hereby authorize M/s _____ (Name and address of Agent) to submit a bid, and sign the contract with you for the goods manufactured by us against the above bid.

We hereby extend our full warranty as per the required conditions of Contracts, for the goods and services offered for supply by the above firm against this Invitation for Bid. We further certify that we shall support vendor with all related spares and maintenance during the entire contract period including the period of warranty and AMC; as per tender and we also declare that the product proposed in this contract will not be end of life till the contract period. We also ensure to provide the warranty support documents after successful installation with start and end date mentioned on contract copy.

We also certify that the proposed products meet the technical & functional requirements & also products quoted are of latest version (the release date should not be more than one year).

Yours faithfully,

(Name): _____

(Name of manufacturers): _____

Note: This letter of authority should be on the letterhead of the manufacturer or OEM and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.



Annexure XIV

Tender Checklist

S. No.	Description	Yes/No with Page No.
1.	BID SECURITY(EMD) Whether the bidder has attached the Bid Security as per format of the Bid Security form?	
2.	Amount of Bid Security (EMD) as per bid requirement or not?	
3.	Form in which Bid security (EMD) enclosed (Bank Guarantee/Demand Draft).	
4.	Date of issue of Demand Draft for EMD with name of the bank, amount and number.	
5.	Bid validity 180 days beyond the last date of tender opening or not?	
6.	Legal Status/ Constitution of firm (any document & partnership deed etc.)	
7.	Whether the bidder has quoted for all the items in the Schedule?	
8.	Whether price as per Financial Bid quoted or not?	
9.	Whether Project Timeline as per bid agreed or not?	
10.	Payment terms as per bid agreed or not?	
11.	Undertaking as per Annexure-III or not?	
12.	A brief write-up, backed with adequate data, explaining his available capacity and experience (both technical and commercial) for the above said work is attached or not?	
13.	Letter of financial proposal signed and enclosed with the financial bid offer	
14.	Signed copy of Pre-contract integrity pact	
15.	Letter of Bid submission	
16.	Signed copy of the tender document and all its supporting documents submitted	



S. No.	Description	Yes/No with Page No.
17.	Power of Attorney	
18.	Declaration Sheet with all the balance of required credentials.	
19.	Valid registration certificate issued by NSIC/MSME or other appropriate government authorities. (For MSMEs and Start-Ups only)	
Pre-qualification Criteria		
20.	The Bidder should be either a firm or company registered under Companies Act, 1956 or 2013 in India and should have been in operation in India for at least last 5 years as on the date of submission of the bid. Consortium of companies/ firms is not allowed. Copies of VAT/CST/ GST registration certificates of the Firm should be submitted to establish the date of start of business.	
21.	<p>The Bidder should have at least three work orders for similar type of work each costing not less than Rs. 3,00,00,000/- in any Govt. department/ institutes in the last seven years (successfully executed as on date of submission of bid).</p> <p style="text-align: center;">OR</p> <p>The Bidder should have at least two work orders for similar type of work each costing not less than Rs. 3,75,00,000/- in any Govt. department/ institutes in the last seven years (successfully executed as on date of submission of bid).</p> <p style="text-align: center;">OR</p> <p>The Bidder should have at least one work order for similar type of work costing not less than Rs. 6,00,00,000/- in any Govt. department/ institutes in the last seven years (successfully executed as on date of submission of bid).</p>	



S. No.	Description	Yes/No with Page No.
22.	<p>The Bidder should have an average annual turnover of at least INR 30 Crores from IT/ ITES services during the last three financial years i.e. 2018-19, 2019-20 & 2020-21 with net profit and positive net-worth.</p> <p>For MSMEs and Start-Ups duly registered with the Government of India the turnover criteria shall be relaxed by approx. 20% (i.e. these firms should have Annual turnover of at least INR 24 Crores in the last three financial years (FY 2018-19, 2019-20, 2020-21)), Subject to meeting of quality, scope technical specification and other criteria asked in this document.</p>	
23.	The bidder should be a certified ISO 9000/9001 and ISO 27001-2013 certified company. Relevant Organizational Level Certificates to be provided	
24.	The bidder shall be a registered firm or company in India with valid GST Registration and PAN number allotted by the respective authorities.	
25.	The bidder should not have been debarred by any Central Government/ State Government/PSU/Government Bodies/Autonomous Bodies/Private Sector	
26.	<p>The bidder should submit valid undertaking letter from the OEM for Hardware/ Equipment, confirming following:</p> <ul style="list-style-type: none"> • OEM(s) of the proposed product(s) shall provide support including spares, for the quoted products for the entire contract period and; • That the proposed products meet the technical & functional requirements & also products quoted are of the latest version. 	
27.	The Authorized Signatory signing the Bid on behalf of the Bidder - should have the Power of Attorney duly authorized by the Board of Directors to sign the Bid. Power of attorney shall be submitted in prescribed format on Non-Judicial stamp paper.	
28.	The firm should be a profit-making concern for each of the last three consecutive financial years (FY 2018-19, 2019-20 & 2020-21). Firm should not have incurred any loss (profit after tax should be positive) in last three years and certified by the Chartered Accountant.	
29.	Solvency certificate issued from bank of bidder for minimum value of Rs. 3 Crores; not more than 6 months old	

**Annexure XV****Contract Form**

THIS AGREEMENT made the day of 2021 between EdCIL (Hereinafter called "the Purchaser") of the one part and (Name & address of Supplier) (Hereinafter called "the Supplier") of the other part:

WHEREAS the Purchase is desirous that certain Goods and ancillary services viz. (Brief Description of Goods and Services) and has accepted a bid by the Supplier for the supply of those goods and services in the sum of (Contract Prize in words and Figures) (Hereinafter called "the Contract Price")

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and constructed as part of this Agreement, viz.,
 - a. The Price Schedule submitted by the Bidder;
 - b. The Schedule of Requirements;
 - c. The Terms & Conditions
 - d. The EdCIL's Notification of Award/ Work Order
3. In consideration of the payments to be made by the EdCIL to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the EdCIL to provide the goods and services and to remedy defects herein in conformity in all respects with the provisions of the Contract.
4. The EdCIL hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract prices or such other sum as shall become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Brief particulars of the goods and services, which shall be supplied/ provided by the Supplier, are as under:

S. No.	Brief Description of Goods & Services	Quantity to be supplied	Unit Price	Total Price	Delivery Terms

TOTAL VALUE:

DELIVERY SCHEDULE:



IN WITNESS where of the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the
said (For the EdCIL)

in the presence of

Signed, Sealed and Delivered by the
said (For the Supplier)

in the presence of



Annexure XVI

Pre-Bid Query Format

Pre-bid queries should be submitted in .XLS format.

RFP Description				
RFP No.				
Organization				
Address				
Contact Person				
Contact No.				
Mail Id				
S.No.	Chapter No.	Page No.	Clause as per RFP	Clarification Sought



Annexure XVII

INSTALLATION CERTIFICATE

1. The following goods/equipment, supplied by the Supplier at NSU have been successfully installed and commissioned by the Supplier.

Sl. No.	Description of Equipment	Serial No of Device(Wherever possible)	Make	Model	Quantity
1					

Note: 1.In case of need, a fresh form on these lines shall be prepared & issued by EdCIL.

Remarks:

Signature of Supplier or its representative

Name: _____

Designation: _____

Date: _____

Rubber Seal: _____

Signature of NSU

Name: _____

Designation: _____

Date: _____

Rubber Seal of the institution

Verified by EdCIL representative

Signature: _____

Name: _____

Designation: _____

Date : _____



Annexure XVIII

Equipment Specification and Compliance

ICT COMPONENTS SPECIFICATION

FIBER CABLE OUTDOOR 12 CORE SM				
Make:		Model No:		
S.NO	ITEM WISE SPECIFICATION	Description	Compliance Yes/No	Reference page number of Data Sheet/Remarks
1	Cable type	Optical fibres in water blocked loose tube, taped, corrugated steel tape armoured (STA) polyethylene (HDPE) outer sheathed embedded with two steel wires on the periphery. The cables are with UV Stabilized PE Jacket and protected from Rodent attacks, complying to ISO/IEC 11801, EN50173, ANSI/TIA 568-C.3, Telcordia GR-20; suitable for use in indoor / outdoor ducts, direct burial and backbone cabling		
2	Fiber Type	Single Mode, 9/125 micron primary coated buffers, OS2 (IEC 60793-2-50, B1.3 and ITU T G652.d). Shall be manufactured using Vapor Axial Deposition technology.		
3	Tube:	Polybutylene Terephthalate(PBT)/ Water Swellable tape		
4	Tube diameter	3.0/2.0 mm nominal OD/ID		
5	No of fibres:	12		
6	Fibre colour sequence	Blue, Orange, Green, Brown, Slate (Grey), White, Red, Black, Yellow, Violet, Pink, Aqua		
7	Water Blocking	Thixotropic Gel (Tube) Petroleum Jelly (Interstices) / Fiber should be Gel-Free with water block protection.		
8	Core Wrapping	Polyethylene Terephthalate		
9	Armouring:	Corrugated Steel Tape Armour (ECCS Tape) Thickness > 0.125mm		
10	Peripheral Strength Member	Two Steel wires (0.9 mm dia)		
11	Ripcord:	Polyester based yarns below armoured tape for easy ripping		
12	Outer Sheath	UV Stabilised, Polyethylene (HDPE)		
13	Standards	Complying to ISO/IEC 11801 2nd Edition, type OS2; AS/NZS 3080 ; TIA/EIA 568.C.3; IEC-60793-1, 60793-2 EN50173, ANSI/TIA 568-C.3, Telcordia GR-20; suitable for use in indoor / outdoor ducts, direct burial and backbone cabling.		



14	Mechanical characteristics	Dimensions and Mass Overall Cable (Nominal):9.0 MM		
		Mass (Nominal) 75 to 110 kg/km		
		Cable length;2 km \pm 10%		
		Max. Bending Radius (during installation);20 X Overall diameter		
		Max. Bending Radius (during full load):10 X Overall diameter		
		Max. Tensile Strength-Short Term;1500N		
		Max. Crush Resistance-Short Term:2000N/10 cm		
		Operating Temperature range -40°C to + 70°C		
15	Optical characteristics			
16	Core Diameter @ 1310nm	9 + 0.6 μ m		
17	Cladding Diameter	125 + 1.0 μ m		
18	Cut-off wavelength	< 1260 nm		
19	Mode field diameter at 1310	9.3 \pm 0.5 μ m		
20	Mode field diameter at 1550	10.4 \pm 0.8 μ m		
21	Supplier Should submit MAF certificate from OEM.			

19" 1U SM LIU loaded with LC Duplex adapters			
Make:		Model No:	
S.no	SPECIFICATIONS	Compliance Yes/No	Reference page number of Data Sheet/Remarks
1	The fibre enclosure has to be designed to accommodate various termination types and adapter configurations		
2	The enclosure must, have a sliding drawer for ease of reconfiguring fibres, and lockable, incorporates a heavy duty ball bearing slide mechanism, allowing easy access to fibres		
3	The adapter plates must be an interchangeable front plate which can facilitates upgrades as & when required required. OR Optical Fiber Adapters or Adapter with Plates, LC / SC style should be Optional.		
4	The enclosure/LIU should have locks to secure all the fiber terminations & must have front cable management to properly route patch cords.		
5	Fibre management enclosures that can be used as a wall mount enclosure for isolated applications or rack mount enclosure for integrated applications.		
6	Material	Powder coated Mild Steel/ Galvanized Steel	
		Rugged steel/ Galvanized Steel construction in graphite finish	
		Rear, side & base access for Incoming / Outgoing fiber cables	



7	Cable Management rings	Management rings within the system to accommodate excess fibre cordage behind the through adapters and maintain fibre bend radius.		
8	Sliding cover	Panel cover is of slide out for easy maintenance.		
9	Splice Tray	24Fiber Splice Tray of Moulded ABS material should be supplied for the LIU.		
10	Supplier Should submit MAF certificate from OEM.			

SM LC Pigtail				
Make:		Model No:		
S.no	Specifications		Compliance Yes/No	Reference page number of Data Sheet/Remarks
1	Type of connectors	SC / LC LSOH Jacket - Reduces toxic / corrosive		
2	Length	1.5 Mtrs		
3	Polishing	100% Factory polished, tested and Guaranteed Performance		
4	Standards	ROHS Compliant		
5	Supplier Should submit MAF certificate from OEM.			

SM LC-LC Dx Patch cord				
Make:		Model No:		
S.no	Specifications		Compliance Yes/No	Reference page number of Data Sheet/Remarks
1	Type of connectors	SC or LC LSOH Jacket - Reduces toxic / corrosive		
2	Length	Minimum 1 meters		
3	Polishing	100% Factory polished and tested		
4	Insertion Loss	Less than 0.35dB per connector		
5	Attenuation	0.4dB/km over 1310nm to 1625nm		
6	Standards	ROHS Compliant		
7	Jacket colour	Industry Standard Colour - OS1-Yellow, OM3-Aqua, OM2-Grey, OM1-Orange		
8	Make and Type	LC to LC Duplex Fiber Optic Patch Cord 9/125 Micron		
9	Cable Sheath	LSZH		
10	Cable Diameter	1.6 mm		
11	Ferrule	Ceramic		
12	Buffer	Tight buffered		
13	Temperature Range	.-40 Degree C to +60 Degree C		
14	Buffer Diameter:	900µm		
15	Primary Coating	245µm		



	:			
16	Strength Member:	Aramid Yarn		
17	Jacket Material:	LSOH IEC 61034-1 & 2, IEC-60332-1, IEC-60754- 1 & 2		
18	Supplier Should submit MAF certificate from OEM.			

CAT6A U/FTP / SFUTP Cable			
Make:		Model No:	
S.no	SPECIFICATIONS	Compliance Yes/No	Reference page number of Data Sheet/Remarks
1	Category 6A 4 pair U/FTP LSOH cable shall be compliant with TIA/EIA-568-C.2		
2	Category 6A U/FTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, 23 AWG, U/FTP LSOH cable jacket.		
3	Should be ETL/3P verified to TIA/EIA-568-C.2 Category 6A standard for 500MHz (ETL/3P certificate to be enclosed along with the bid)		
4	Screen: Each individual pair shall be enclosed in laminated Aluminum foil with drain wire.		
5	Third party report of Full Cat6A 3/4 Connector Channel/Performance Test should be enclosed along with the technical bid.		
6	The Category 6A cables shall meet or exceed the following characteristics:		
7	Conductor: Solid Copper, Conductor Size: 23 AWG		
8	Insulator: Polyolefin, Jacket/ Sheath Type: LSOH (Low Smoke Zero Halogen) Cable should be certified by UL/3P		
9	Weight LSOH per 500m reel: 30kg		
10	Supplier Should submit MAF certificate from OEM.		

24 PORT JACK PANEL UNLOADED			
Make:		Model No:	
S.no	SPECIFICATIONS	Compliance Yes/No	Reference page number of Data Sheet/Remarks
1.	It must be made of cold rolled steel / Galvanized steel materials, in 24 port configurations. Should come with 24 port /Jack, Each jack / Port for the patch panel must provide a Cap or Shutter to avoid dust and contaminates entering the jack & for 100% dust free environment.		
2.	Have port identification numbers on the front of the panel.		
3.	Should have self-adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, with optional color labels / icons.		



4.	Each port / jack on the panel should be individually removable on field from the panel.		
5.	Should be supplied with metallic integrated rear cable management shelf as for cable strain relief and neat cable dressing.		
6.	Port numbering is provided on the front panel.		
7.	Panel shall be RoHS Compliant.		
8.	Panel shall be of shielded type.		
9.	The entire CAT6A Shielded Solution must be compliant with the latest ISO 11801 AMD 1 Class EA.		
10.	Supplier Should submit MAF certificate from OEM.		

INFORMATION OUTLET for FACE PLATE AND PATCH PANEL SIDE

Make:		Model No:	
S.no	SPECIFICATIONS	Compliance Yes/No	Reference page number of Data Sheet/Remarks
1.	Category 6A Shielded Jack shall be specifically designed for high-speed data transmission and must be compliant with latest ISO/IEC.		
2.	TIA/EIA 5 for the support of 10G BASE-T.		
3.	All information outlets for 22-24 AWG copper cable shall use insulation displacement connectors (IDC).		
4.	Allow for a minimum of 5 re-terminations & minimum 750 insertion without signal degradation below standards compliance limits.		
5.	Be constructed of high impact, flame-retardant thermoplastic and robust die cast zinc alloy housing plated with Nickel/Cu with icon options for better visual identification & the contact plating should be more than 0.8 Micrometers of Gold/Ni.		
6.	IO Cap or the shutter on the IO must be provided to avoid dust entering the jacks during idle condition. OR Faceplate should have Spring Loaded shutter or Jack with hinged dust cover for 100% dust protection.		
7.	IDC posts should have mounts / pointed so that to avoid the untwisting of CAT6A cable at the time of punching / termination.		
8.	568A/B configuration & Color options in jacks should be available.		
9.	The jack should be UL/ETL/3P Verified and Plastic Housing must be Polycarbonate, UL94V-0 rated.		
10.	3x3 Gang Box with Dual Face plate.		
11.	All Passive items should be same Brand/Make.		
12.	Supplier Should submit MAF certificate from OEM.		

FACE PLATE DUPLEX

Make:		Model No:	
S.NO	Description	Compliance Yes/No	Reference page number of Data Sheet/Remarks
1	Square plate, 86mmx86mm		
2	Write on labels in transparent plastic window – supplied with plate		



3	Material :ABS Plastic		
4	Face plate should have option to attach Hinged dust cover in different colors		
5	Face Plate dust cover should be replaceable without removing patch cord		
6	Faceplate for 1/2 RJ45 ports, including fastening screws		
7	Supplier Should submit MAF certificate from OEM.		

MOUNTING CORDS CAT 6A (2/3 meter)			
Make:		Model No:	
S.NO	Description	Compliance Yes/No	Reference page number of Data Sheet/Remarks
1	Category 6A Equipment cords (Length – 2/3mtr)		
2	The work area equipment cords shall, be comply with TIA/EIA- 568-B.2-10 Commercial Building Cabling Standards Transmission Performance Specifications for 4 pair Category 6A Cabling.		
3	Category 6A modular equipment cords: Shall be round, and consist of eight insulated 26AWG, stranded bare copper conductors, arranged in four color-coded twisted-pairs with aluminium foiled ,shield and tinned copper drain wire.		
4	Equipped with modular 8-position modular shielded plugs on both ends, wired straight through with standards compliant wiring.		
5	ROHS Compliant & should have 50 micro inches of gold plating over nickel contacts.		
6	CAT6A patch cords must be provided at the server room / hub room as this solution prevents unauthorised changes in patch cable connections within the telecommunication outlet zone or patching zone.		
7	Should be covered by UL / ETL/3P certification program.		
8	Conductor size: 26 AWG stranded bare copper.		
9	The jacket of the patch cord must be LSZH.		
10	Temperature range: 0°C to +60°C		
11	Operating life: Minimum 750 insertion cycles		
12	The Contact plating must be 1.25um Gold & The Contact Material should be Copper alloy.		
13	Plug dimensions & tolerances compliant with FCC Part 68 / IEC 60603-7.		
14	Supplier Should submit MAF certificate from OEM.		

Minimum Technical Specifications for UPS System				
Make:		Model No:		
S.no	Description	Specification	Compliance Yes/No	Reference page of Specification sheet/Remarks
1	Rating	Rackmount 1 kVA/800W UPS		
		Rackmount 2 kVA/1600W UPS		



		Rackmount 3 kVA/2400W UPS		
		Rackmount 10 kVA/8000W UPS		
2	Make	The Manufacturer of the product (OEM) should be ISO 9001:2008 Process Certified for manufacturing (Pls submit ISO certificate along with bid)		
3	UPS Topology	UPS systems with pulse width modulation (PWM) technology in True On-line Configuration, with double conversion using IGBTs in the Inverter and converter		
4	In/Out phase Configuration	Single phase- Single phase		
5	Neutral	Neutral Passing through		
6	Waveform Type	Sine wave		
7	Transfer time	0 ms (Mains to Battery) <10ms (Inverter to Bypass)		
8	Overall Efficiency at Full load	>85%		
9	Protection	(1) Surge Protection: UPS should have UL recognized internal/external SPD with TCO (Thermal Cutoff) with LED indication		
		Line-Neutral: (In=15kA, I _{max} >=40kA)		
		Earth-Neutral:(In=15kA, I _{max} >=40kA)		
		(2) EMI Filter Card: UPS should have inbuilt EMI Filter card in PI configuration		
		(3) OVCD (Over Voltage Cutoff Device): UPS should have inbuilt OVCD card which has cutoff values beyond UPS's specified Input range		
		(4) Current limiting protection		
		(5) Over voltage / under voltage protection		
		(6) overload/short circuit protection		
		Input		
10	Nominal Voltage	230 single phase Nominal		
11	Voltage range	160 - 300V @ 100% & 110V - 300V @ 50% load, +/- 5V		
12	Frequency	50/60 Hz +- 3 Hz		
13	Power Factor	> 0.98 from 50% to 100% of nominal load		
		Output with mains (AC - AC)		
14	Nominal Voltage	230V single phase +/- 2%		
15	Frequency	50/60 Hz +/- 3 Hz		
16	Current Crest Factor	3 : 1		
		Overload capability:		



17	1 min	105% load rate with no bypass intervention		
18	30 sec	115% load rate with no bypass intervention		
Output In battery Run (DC-AC)				
19	Nominal voltage	230V single phase +/- 2%		
20	Frequency	50/60 Hz +/- 0.5 Hz		
21	Cold Start	Yes		
Battery				
22	Make	The battery make should be a reputed brand having 1S09001:2000 and ISO 14001 • 2004 Certified for Quality & environment		
23	Type	SMF VRLA		
24	Battery Backup	Minimum 60 min		
25	Minimum VAH	1 kVA : 1512 VAH		
		2 kVA : 3024 VAH		
		3 kVA : 4680 VAH		
		10 kVA : 14400 VAH		
26	Battery set details to be Mandatorily Filled by the Supplier	(1) Make: _____		
		(2) No. of batteries: _____		
		(3) Each battery DC voltage: _____		
		(4) Ampere-Hour capacity of each battery: _____		
		(5) Total VAH: _____		
27	Charging Cycle	2 stage charging with temperature compensation		
28	Max Charging Current	6 A (1/2/4/6A - Selectable)		
29	OEM Letter For Warranty Assurance of Batteries	OEM Letter Head with Warranty Assurance of 3 year with make and model of the offered product must be submitted with bid.		
Miscellaneous				
30	Communication Interface	1 serial port RS232, 1 USB Optional, SNMP Compatible		
31	Bypass type	UPS must have Manual and Automatic Bypass		
32	Input breaker	Yes, Required & Resettable		
33	Output connections	Minimum 3nos Indian Type 5A/6A socket with Continuous UPS Output for Critical load		
		1no Programmable Outlet for Non-critical load. Power to Non-Critical load segment should be automatically cut-off after 15min of mains failure.		
34	Battery Connection	ANEN 2 poles		



35	Standards	RoHS Compliant (Pls submit certificates along with bid)		
		EN/IEC 62040-1 or EN/IEC 62040-2 or EN/IEC 62040-3 (Pls submit certificates along with bid)		
36	Certification	CE certified (Pls submit certificates along with bid)		
		BIS Registration for Indian Manufacturing Location		
37	Indicators	Over Temperature, Load On Battery, Battery On Charge, Battery Low, Main, Dc, Inverter, Inverter - Tripped, Output Over Voltage, Output Low, Over Load System		
38	Digital Meters	Input Voltage, Input Frequency, Output voltage, Output Frequency, Battery Voltage, Battery Current, UPS Status, Load Level, Battery Level, Discharge Timer, Battery Disconnect and Fault Conditions		
39	OEM letter For Warranty Assurance of UPS	OEM letter For Warranty Assurance of UPS: OEM Letter Head with Warranty Assurance of 3 years with make and model of the offered product must be submitted with bid. Letter should have the clarity on what parts will be covered under the warranty and what parts are excluded.		
General				
40	Cables	Bidder should provide necessary cables, plug and Battery links to complete the Installation Of UPS.		
41	General	UPS shall be free from workmanship defects, sharp edges, nicks, scratches, burs etc. All fasteners shall be fixed properly. The equipment shall be complete with all parts and all parts shall be functional		
42	Non-Removable Sticker	Successful bidder has to past non-removable sticker on UPS with details of Tender no., bidder's name, address, contact detail, toll free number and warranty Expiry date		
Warranty				
43	Onsite warranty	3 yrs		

Minimum Technical Specifications for Rack

Make:		Model No:			Compliance Yes/No	Reference page number of Data Sheet/Remarks
S.NO	Feature	Description				
1	Height	Rack	Usable Height	Overall Height		
		24U	1066	1250		
		15U	666.8	731.25		
2	Width	550MM.				
3	Depth	500MM.				
4	Front Door	Front Glass toughened, with easy detachable hinges.				



		Single Door		
5	Power Distribution Unit	PDU 1U,19" indian round pin socket 6x5Amp, with Indicator + 10 Amp fuse and 1.5 meter feed cable and 3 pin plug . Single PDU offered.		
6	Hardware Packet	HRDWRE,FRNT PNL,SQR,PKT OF 10		
7	Load Carrying Capacity	40KG		
8	Color	Black		
9	DIN Standard	Confirms to DIN 41494 standards		
10	Environmental	ROHS Compliant		
11	ISO Certification	ISO 9001- 2000, ISO 14001-2004		
12	Powder Coating	Nano Ceramic pre treatment process using zirconium coat (Thickness 80 to 100 Micron)		
13	19" Mounting Angle	Adjustable 19" Mounting Angle pair with U marking position at front		
14	Cover Top	Top cover with cable entry cutout & fan mounting provision with figure guard.		
15	Cover Bottom	Bottom cover with cable entry cutout.		
16	Cable Manager	CABLE MANAGER,1U,19" PVC LOOPS.		
17	Lock	CAM LOCK, COMMON KEY		
18	CANTILEVER SHELF	CANTILEVER SHELF,19",1U/255mmD		
19	FAN	FAN 230VAC 90 CFM – 1 No.		

Minimum Technical Specification - Smart Rack			
Make:		Model No:	
S.no	Description	Compliance Yes/No	Reference page of Specification sheet /Remarks
1	System:		
1.1	Rack should be designed to provide Compatible, Secure, Monitored, Manageable, simplifying infrastructure deployment in Edge Environment.		
1.2	Rack should be self-Contained with proper air circulation.		
1.3	Rack should be designed so that it is compatible with latest converged and hyper-converged IT System.		
1.4	The Racks should be minimum 2000mm 42U in height with 800mm Width and 1100mm Depth for Server & Networking application.		
1.5	Power supply input: Dual Feed AC 230V/1P/50-60Hz.		
1.6	IT Load: Shall not be more that 7KW.		
2	Physical Requirement:		
2.1	The Rack should support a static load of 1200 kg.		



2.2	The Rack Front door shall have toughened Glass and Rear Metal Plain door with Multi Point Locking.		
2.3	Front Door Shall be integrated with access control system and Rear Door shall be with Keyed Swing Handle Lock.		
2.4	The Rack shall have Magnetic Door sensors at front and rear for intrusion protection.		
2.5	The Rack should have one pair of side panels, Top & Bottom cover, grounding and bonding accessories pre-installed by the OEM.		
2.6	The Rack shall have based plinth of min 100mm height with A.V Pad.		
3	Equipment Access & Installation		
3.1	Space inside the cabinet to be suitably designed for optimum use of available space inside cabinet. Equipment area to be positioned at left and component mounting at right with proper air sealing. The Rack should have minimum 36U available usable Space.		
3.2	The Rack should have 4 Nos. 19" verticals equipment mounting angles with 'U' marking, screen printed.		
3.3	The front and rear doors should be easily detachable and openable for ease of accessing.		
3.4	Side panels shall be fixed within the frame without effecting the overall width of the cabinet i.e. 800mm.		
4	Material Requirements		
4.1	19" equipment mounting angle should be 2MM.		
4.2	All sheet metal parts should be Pre Treated and powder coated.		
5	Certifications, Environmental and Safety Requirements		
5.1	Racks should be manufactured by ISO9001:2008, ISO14001:2004 & ISO 45001:2018 Certified company and should have proper EHS Policy.		
5.2	Manufacturing process shall comply with ROHS standards.		
5.3	The Rack shall Comply to DIN41494 and Equivalent EIA/ISO/EN /CEA Standard		
6	Thermal Management		
6.1	The Rack shall have Energy Efficient Precision AC of 7KW. The same shall be Environmental Friendly R410A. The unit shall not occupy usable space of more than 8U height inside the Rack. The outdoor ambient temperature shall be in a range of -20°C ~ + 50°C. IDU-ODU connectivity shall be upto maximum of 20mtr running distance to provide full capacity. Shall be provided with both top & bottom connectivity options. Gravitational drain outlet with drain pipe provided.		
6.2	For cooling redundancy Emergency Fan Cooling shall be made available		
6.3	EFC unit should gets triggered automatically		
6.4	During the utility power failure if the active cooling unit stops working until the power is restored by standby generator, the EFC should come on automatically and continue to provide airflow so that rise of temperature shall not be rapid.		
6.5	To avoid recirculation of hot air, blanking panel to be provided.		



6.6	To fill the gaps at the sides, air seal kits shall be provided in the Rack.		
6.7	The Rack shall have rodent proof cable entry into the cabinet.		
7	Rack Power Distribution Units		
7.1	Type Of PDU : Basic (2 No. per rack)		
7.2	Input Connection: IEC 309 32A 2P+E		
7.3	Current: 32 Amp		
7.4	Type Of Out Let: C13 & C19		
7.5	No of Outlet: (24) IEC 320 C13, (4) IEC 320 C19.		
7.6	PDU Mounting: Vertical		
7.7	Cord Length: 3.05 Mtrs		
7.8	Load Capacity: 7400VA		
7.9	Space Requirement: 0		
8	Cable Management		
8.1	The Rack shall have dedicated cable management space. Vertical High Density Cable Manager - 2nos & 2nos of 1U Horizontal Cable Manager to take care of front cable management & on rear side with metal loops on both sides of 19" angles		
9	Local Interface Display:		
9.1	Colour TouchScreen Display for real time monitoring of Energy Consumption, Supply & return Temperatures for IT Loads, Humidity Inside the cabinet, Input Supply Parameters, UPS Output Parameters, Load Percentage, Alarms and event Logging. Beacon & hooter for local alert.		
9.2	Local Monitoring of MDC through HMI.		
9.3	Web GUI: Remote display of real time parameters.		
9.4	Language:English		
10	Cabinet Interior Lightning:		
10.1	Front & back LED Lights to be provided.		
11	Power subsystem:		
11.1	19" Rack Mountable Raw Power Distribution Panel with incomer breaker, energy meter, outgoing breakers for Cooling Units, UPS, Enclosure Light etc.		
12	The Rack Shall have 19" Rack Mountable UPS and External Battery modules - 1 Set		
12.1	UPS capacity: 10 Kva (Without Redundancy)		
12.2	UPS rated input: 230VAC		
12.3	Rack Mounting Usable Space: 3U		
12.4	Input Voltage Range: 160 V - 285 V		
12.5	Input Frequency Range: 40-70Hz		
12.6	Input Power Factor: Unity Power Factor		
12.7	Output Max Power: 10kVA/10KW		
12.8	Efficiency: 94% in online & 98%in Green Mode		
12.9	Backup Time: Minimum of 10 Min on 7KW IT load.		
12.10	Should include UPS Maintenance Bypass.		
13	Environmental monitoring:		
13.1	Rack shall have		



13.2	Temperature sensor		
13.3	Temperature & Humidity Sensor		
13.4	Smoke sensor		
13.5	Spot Fluid Sensor.		
13.6	Beacon & Hooter		
13.7	Door contact sensor		
14	Stand along Fire detection and supression with NOVEC 1230 / FITEC 1230 Gas		
15	Warranty and Support		
15.1	All round service support through Customer care center		
15.2	The Products manufactured should provide warranty for 3 years from date of installation		

Point to Point Solution				
Make:			Model:	
Sl. No.	Features	Description	Compliance Yes /No	Reference page of Specification sheet /Remarks
1	Band Support	Radio System should operate in India ISM Band as per WPC Regulation GSR 1048(E)		
2	NLOS,nLOS opreation	Radio Must support LOS,nLOS condition with iOFDM		
3	Throughput	System should support minimum of 500 Mbps aggregate throughput, upgradable more than 1 Gbps		
4	Channel Bonding	System must support the channel Bonding/Aggregation feature		
5	Channel Bandwidth	Radio must support 10Mhz / 20 MHz / 40 / 80 MHz		
6	Spectral Efficiency	Should support more than 8 bps/Hz		
7	Channel Selection	Fixed frequency or Dynamic Spectrum Optimization		
		Automatic selection on start-up		
		Continual Self-optimization to avoid interference		
8	Max Output Power at Antenna port	Should support maximum 26 dBm, can vary with modulation and settings		
9	Modulation	System should adaptive modulation from MCS 0 to MCS 9 (QPSK to 256 QAM)		
10	Asymmetric modulation	System should support the assymetric modulation in channel bonding configuration		
11	Duplex Scheme	Time Division Duplex (TDD)		
12	Sensitivity	-90 dBm		
13	VLAN Support	VLAN support based on IEEE 802.1Q		
14	Security	AES 128 Encryption		
		Identity-Based user account		
		Configurable password rules		
		User Authentication and Radius Support		



15	Bandwidth	System should be able to configure symmetric & asymmetric bandwidth.		
16	MIMO	Physical Layer 2X 2x2 MIMO		
17	Interfaces	Should have 1 Gigabit Ethernet and 1 SFP port		
18	IPv6 support	System must support IPv6/IPv4 Dual stack support		
19	Spectrum analyzer mode	Built in Online Spectrum analyzer. Running spectrum should not affect the link performance		
20	Support for Dynamic Spectrum Optimization	System should support DSO or equivalent Technology to deliver the hitless performance. There must not be any outage in case of Spectrum analyzer run		
21	INSTALLATION	Built-in alignment using GUI on Radio to assist in installation		
22	Management	System should support SNMPv2 , HTTPS for management		
23	Quality of Service	Should support as per 802.1p / DiffServ		
24	ARQ	System should have the support of ARQ		
25	Ethernet Latency	Latency should be below 20ms with 90% Load condition		
26	Antenna Type	Integrated antenna or External Dual Polarized Antenna support of desired gain		
27	GPS synchronization	System should support GPS synchronization technique to eliminate mutual interference		
28	Operation Temp.	40°C to 60°C Outdoor		
29	Wind survival	Minimum 200 km/h		
30	Protection	IP66 and IP67		
31	Certificates	FCC Part 15E ; RSS 247 Issue 2; EN 302 502; EN 301 893		
		Safety: UL60950-1/22; IEC60950-1/22; EN60950-1.22; CSA-C22.2 No. 60950-1/22		
		EMC: US Part 15B, Canada RSS-GEN, Europe – EN 301 489-1 and -17		

UTM FIREWALL			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1	Next generation firewall should have minimum following Interfaces: 2 x 10GE SFP+ Slots, 4 x GE RJ45 Interfaces, 8 x GE SFP Slots, 1 x GE RJ45 Management Ports, 1 x USB Port.		



2	NGFW Should Support: IPS, Application Control, Content Filtering, Advanced Threat Protection, Sandboxing & Botnet from day 1 and these should be included as a bundle of services in the NGFW for a minimum period of 03 years with 24X7 Support.		
3	NGFW should be loaded with 2 nos of 10GE SFP+ SR SM Module from day one.		
4	NGFW should have Redundant Hot Swappable Power Supply		
5	NGFW should have Redundant FAN		
6	NGFW should have Local Storage : Minimum 240 GB SSD Drive or more from day 1 must be in-built in the device - to keep the logs stored in the device		
7	Should support minimum NGFW Throughput - 9 Gbps , Threat Protection Throughput - 5.5 Gbps , Firewall 1518B (UDP)/ Firewall 1024B - 19 Gbps, Concurrent Session - 8 Million, IPSEC VPN Throughput - 18 Gbps ,New Sessions Per Second-160000.		
8	NGFW should be loaded with 4 nos of 1GE SFP SX MM Module from day one.		
9	3 year 24X7 Support should be provided from the OEM		
10	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for the last three years (2020,2019, and 2018).		
11	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		

Core Switch			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1.	Each Core Switch should have Minimum Forty-Eight (48) 1G/10G/25G SFP28 Slots and Minimum Eight (8) 40G/100G QSFP28 Slots.		
2.	The Core Switch should support Virtual Switching System (VSS) or Virtual Chassis (VC) or VPC or equivalent Switch Clustering feature, where the Switch Clustering feature should combine multiple switches into a single network element.		
3.	Switch can be a chassis based or standalone switch with redundant power supply and fan with above port combination		
4.	Switching Bandwidth: The Core Switch should provide Non-Blocking switch fabric capacity of 4 Tbps (4,000 Gbps) or more.		



5.	Forwarding Capacity: The Core Switch should provide wire-speed packet forwarding of minimum 1 Bpps (1000 Mpps) or better.		
6.	Switch should have minimum 16GB RAM, 8GB flash/SSD and 32MB packet buffer		
7.	Switch Should support minimum 100K Mac Table		
8.	Switch should support highavailability with MC-LAG or equivalent. Required modules and cables to be provided from day 1		
9.	Switch hardware or software should be certified by EAL/NDPP. Certificate to be submitted at the time bidding.		
10.	Layer 3 features License to support:		
	1. Minimum 200K IPv4 and IPv6 routes		
	2. Basic IPv4 and IPv6 Static Routing, OSPF, BGP, ECMP, VXLAN and EVPN, Host Routes, Data center bridging (DCBX), PIM SM/DM multicast, Virtual Interfaces, Routed Interfaces, Route Only and Routing between directly connected subnets from day 1.		
	3. Dynamic IPv4 & IPv6 Routing protocols (OSPFv2 and OSPFv3) and Multicast Routing Protocols from day 1.		
11.	Power Supply - Each Switch should be loaded with Hot-Swappable load sharing Power Supply		
12.	Switch should have minimum 4 x Hot-Swappable FAN Assemblies with airflow options		
13.	Should have Rack Mount Kit		
14.	Should have AC Power Chord		
15.	Each Core Switch should be loaded with one (1) 100G Direct Attached Cables (DAC) with a length of Three (3) Meters for Inter-Core-Switch Connectivity.		
16.	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		
17.	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019 and 2018).		
18.	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
19.	All the above-mentioned features should be available from day 1. If required, licenses to be factored from day 1.		
20.	Bidder has to submit Part Coded Bill of Materials of the offered Product		



21.	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		
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Distribution Switch			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1.	Aggregation /Distribution Switch should have minimum Twenty-Four (24) 1G/10G SFP+ Slots and minimum two (2) 40G QSFP+ Slots.		
2.	Switch should support high availability with MC-LAG or equivalent.		
3.	The Switch should support Virtual Switching System (VSS) or Virtual Chassis (VC) or VPC or equivalent Switch Clustering feature, where the Switch Clustering feature should combine multiple switches into a single network element.		
4.	Switching Bandwidth: Switch should provide Non-Blocking switch fabric capacity of 880 Gbps or better.		
5.	Forwarding Capacity: Switch should provide wire-speed packet forwarding of 500 Mpps or better		
6.	Switch should have minimum 4 GB RAM, 4GB flash/SSD		
7.	Switch Should support minimum 200K Mac Table		
8.	Switch hardware or software should be certified by EAL/NDPP . Certificate to be submitted at the time bidding.		
9.	Layer 3 features License to support on Aggregation /Distribution Switch :		
	1. Minimum 200K IPv4 and IPv6 routes		
	2. Basic IPv4 and IPv6 Static Routing, OSPF, BGP, ECMP, VXLAN and EVPN, Host Routes, Data center bridging (DCBX), PIM SM/DM multicast, Virtual Interfaces, Routed Interfaces, Route Only and Routing between directly connected subnets from day 1.		
	3. Dynamic IPv4 & IPv6 Routing protocols (OSPFv2 and OSPFv3) and Multicast Routing Protocols from day 1.		
10.	Power Supply - Each Switch should be loaded with Hot-Swappable load sharing Power Supply.		
11.	Switch should have minimum 3 x Hot-Swappable FAN Assemblies with airflow options		
12.	Should have Rack Mount Kit		



13.	Should have AC Power Chord		
14.	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		
15.	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019 and 2018).		
16.	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
17.	All the above mentioned features should be available from day 1. If required licenses to be factored from day 1.		
18.	Bidder has to submit Part Coded Bill of Materials of the offered Product		
19.	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		

DMZ switch			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1.	The switch should have at least 24* 10/100/1000 BaseT ports and 4-port SFP+ (1/10 Gbps)		
2.	Switch should have internal redundant power supplies with fan module from day 1		
3.	The switch should have Modular operating system		
4.	The switch shall have switching capacity of minimum 128 Gbps or more without stacking port		
5.	Should support Stacking of minimum 05 Switches or more in a stack or equivalent and should be configured with stacking ports from day 1.		
6.	The Core Switch should support Virtual Switching System (VSS) or Virtual Chassis (VC) or VPC or equivalent Switch Clustering feature, where the Switch Clustering feature should combine multiple switches into a single network element.		
7.	Switch Should support minimum 32K Mac Table		



8.	Switch should support OSPF, BGP, VXLAN and EVPN, RIPng, PIM SM/DM multicast routing from day 1.		
9.	Switch should support REST APIs and Python scripting for fine-grained programmability of network tasks		
10.	Switch hardware/software should be certified by EAL/NDPP or equivalent common criteria certification Or should be same OEM of Core switch and Distribution Switches		
11.	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		
12.	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019 and 2018).		
13.	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
14.	All the above mentioned features should be available from day 1. If required licenses to be factored from day 1.		
15.	Bidder has to submit Part Coded Bill of Materials of the offered Product		
16.	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		

48 Port PoE/PoE+/Non PoE			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1	Should have minimum: Type 1: 48-Port 10/100/1000 Mbps, 4 x 1G/10G SFP+ slots Type 2: 48-Port 10/100/1000 Mbps PoE/PoE+, 4 x 1G/10G SFP+ slots		
2	Should support up to 720 W PoE Budget		
3	Should offer Wire-Speed Non-Blocking Switching & Routing Performance at Layer 2 & Layer 3.		
4	Should support Stacking of minimum 05 Switches or more in a stack or equivalent and should be configured with dedicated stacking port (in addition to the above port count) stacking ports from day 1.		
5	Stacking bandwidth: 40 Gbps or more		



6	Should provide Non-Blocking switch fabric capacity of 176 Gbps or more.		
7	Forwarding Capacity: wire-speed packet forwarding of 110 Mpps or more.		
8	The switch should support IPv4 and IPv6 Static Routing, RIP v1/v2, IPv4/v6 QOS/ACLs, IGMP V1/V2/V3, MLD V1/V2, IGMP and MLD snooping from day 1		
9	Should have AC Power Chord		
10	Switch Should have internal redundant power supplies with fan module from day one		
11	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		
12	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last 3 years (2020,2019,and 2018).		
13	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
14	All the above-mentioned features should be available from day 1. If required licenses to be factored from day 1.		
15	Bidder has to submit Part Coded Bill of Materials of the offered Product		
16	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		

24 Port Switch Non PoE			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1	Should have Minimum twenty-Four (24) 10/100/1000 Mbps RJ45 ports and minimum Four (4) 1GbE/10GbE SFP+ Slots.		
2	Switch should offer Wire-Speed Non-Blocking Switching & Routing Performance at Layer 2 & Layer 3.		
3	Should support Stacking of minimum 05 Switches or more in a stack or equivalent and should be configured with stacking ports from day 1.		
4	Stacking Bandwidth : 40 Gbps or more;		
5	Switching Bandwidth: should provide Non-Blocking switch fabric capacity of 128 Gbps or more.		



6	Forwarding Capacity: should provide wire-speed packet forwarding of 90 Mpps or more.		
7	The switch should support IPv4 and IPv6 Static Routing, RIP v1/v2, IPv4/v6 QOS/ACLs, IGMP V1/V2/V3, MLD V1/V2, IGMP and MLD snooping from day 1		
8	Should have AC Power Chord		
9	Switch Should have internal redundant power supplies with fan module from day one		
10	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		
11	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019, and 2018).		
12	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
13	All the above-mentioned features should be available from day 1. If required licenses to be factored from day 1.		
14	Bidder has to submit Part Coded Bill of Materials of the offered Product		
15	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		

12 Port PoE+			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1.	Should have minimum 12×10/100/1000 Mbps PoE+ ports, , 2×10 GbE SFP+ uplink-ports		
2.	Should provide minimum 190 W PoE budget		
3.	The switch should support IPv4 and IPv6 Static Routing, RIP v1/v2, IPv4/v6 QOS/ACLs, IGMP v1/v2/v3, MLD v1/v2 and IGMP and MLD snooping from day 1		
4.	Switches must support switch virtualization/stacking feature to extend the control plane across multiple active switches forming a single virtual switching fabric. Any modules/cables required for the same shall be provided from Day 1		



5.	Should have AC Power Chord		
6.	Switch Should support internal/ external redundant power supply from day one		
7.	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		
8.	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019, and 2018).		
9.	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
10.	All the above-mentioned features should be available from day 1. If required licenses to be factored from day 1.		
11.	Bidder has to submit Part Coded Bill of Materials of the offered Product		
12.	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		

WLC			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1.	<p>WLAN Controller should be hardware/appliance-based controller OR software/virtual machine-based controller loaded with 500 AP Licenses from day one and should be scalable and support up to 1000 APs in a single 1 RU chassis with licenses upgrade.</p> <p>Note: Software/COTS VM based WLAN controller should be accompanied with all the requisite hardware, licenses, software without incurring any extra cost/burden on NSU and the cost quoted for Software/COTS VM based WLAN Controller should comprise the total incurred cost of the entire system (hardware, license, software and all other requisite components).</p>		
2.	High availability should be provided for controllers. In the event of a failure of the hardware/VM Based controller, another controller shall automatically take over the role.		



3.	Controller should have capacity to handle minimum 10000 or more Concurrent devices and Minimum 60,000 for future support either through cluster or through a single hardware.		
4.	Controller should support minimum 256 WLAN's.		
5.	Should support internal DHCP server.		
6.	WLAN Solution IEEE 802.11r roaming standard and shall support L2/L3 mobility that allows a client to roam between APs on the same network but different client subnets, while preserving its IP address and existing data sessions.		
7.	WLAN controller must have at least 2 x 10Gbps of uplink interfaces.		
8.	Must Support AP Load Balancing on the Active Controllers		
9.	RF Management: Must support an ability to dynamically adjust channel and power settings based on the RF environment.		
10.	Radio coverage algorithm must allow adjacent APs to operate on different channels, in order to efficient utilization of available bandwidth and avoid interference		
11.	User / band balancing. Interference detection and mitigation: RF spectrum analyzer support and rectification of channel & Tx power accordingly		
12.	Must support RF Management with 160 MHz channels with 802.11ac/ax.		
13.	IPv6 Features : WLC should support L2/L3 roaming of IPv6 clients, WLC should support IPv4/IPv6 access control lists, WLC should support Guest-access functionality for IPv4/IPv6 clients		
14.	Guest Wireless: Must support internal and external web authentication.		
15.	Controller should support mesh configuration from day one and Option for mesh backhaul on either 2.4 or 5GHz from day one		
16.	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019 and 2018).		
17.	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
18.	All the above-mentioned features should be available from day 1. If required licenses to be factored from day 1.		
19.	Bidder has to submit Part Coded Bill of Materials of the offered Product		



20.	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		
21.	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		

AP Type 1			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1	Access Point radio should be minimum 2x2 MIMO with 2 on 5ghz and 2x2 on 2.4 Ghz radio. The AP should have Dual Radio 802.11ax access point.		
2	AP should have four 10/100/1000 Mbps speed LAN port and Auto-sensing link speed		
3	Access Point should be 802.11ax ready from day one and support WPA3 or Enhanced Open security from day one		
4	The access point should support installations on wall, Mounting Kit should be included from OEM.		
5	Access point should be IoT-ready with built in Bluetooth 5 or Zigbee support		
6	Minimum data rates of 1200 mbps		
7	Access Point can have integrated internal antenna		
8	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019 and 2018).		
9	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
10	All the above-mentioned features should be available from day 1. If required licenses to be factored from day 1.		
11	Bidder has to submit Part Coded Bill of Materials of the offered Product		
12	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		



13	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		
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AP Type 2			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1	It should be Dual-band 802.11abgn/ax, Wireless Indoor Access Point with Multi-Gigabit Ethernet backhaul, 4x4:4 streams, MU-MIMO.		
2	It should provide minimum concurrent data rate of 4800 Mbps		
3	It Should have minimum two (2) 1GbE RJ45 ports.		
4	It Should support 802.3af/at PoE		
5	Should have mounting kit from same OEM.		
6	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019 and 2018).		
7	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
8	All the above-mentioned features should be available from day 1. If required licenses to be factored from day 1.		
9	Bidder has to submit Part Coded Bill of Materials of the offered Product		
10	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		
11	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		

AP Type 3			
Make:		Model No:	
Sl.No	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
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1	It Should be Dual-band 802.11abgn/ax, Wi-Fi 6 AP that supports 4 spatial streams in 5GHz & 4 spatial stream in 2.4GHz. AP should support dual 5GHz (2.4GHz radio can be configurable to 5GHz mode)		
2	It should provide minimum concurrent data rate of 4800 Mbps.		
3	It Should have minimum two (2) 1GbE RJ45 ports.		
4	It should support Power over Ethernet (802.3af/at/bt)		
5	It should support Multi-Gigabit Ethernet backhaul and on-board BLE / Zigbee /IoT		
6	It should support minimum 500 Clients per AP or more.		
7	It should support Smart Mesh/Self-healing Mesh		
8	Should have mounting kit from same OEM.		
9	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019 and 2018).		
10	Switches, NMS and wireless equipment should be from same OEM for ease of integration and management		
11	All the above-mentioned features should be available from day 1. If required licenses to be factored from day 1.		
12	Bidder has to submit Part Coded Bill of Materials of the offered Product		
13	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		
14	3 year 24X7 Support should be provided from the OEM (any other support warranty type shall deemed to be rejected), must submit the OEM contract warranty copy to customer as said date of warranty.		

PoE Power Injectors			
Make:			Model No:
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1	Should have 2 1G RJ 45 Port (1 In & 1 Out for PoE) 802.3at 30W Midspan		
2	Should have AC Power Chord		
3	PoE Power Injectors should be from the same OEM as Access point		

NMS	
Make:	Model No:



Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1	The NMS tool should provide a complete view of the devices that are monitored and managed by tool. It also allows end-end provisioning, management, monitoring, and maintenance operations for the devices. NMS tool should simplify network operations by providing zero-touch setup, centralized management of networks, historical data reporting, and troubleshooting for networks located around city or around the state.		
2	NMS should be hardware/appliance-based controller OR software/virtual machine-based. Must be able to support minimum 500 devices from day one and should be scalable to support minimum 2500 devices on the same appliance		
3	Software/COTS VM based NMS should be accompanied with all the requisite hardware, licenses, software without incurring any extra cost/burden on NSU and the cost quoted for Software/COTS VM based NMS should comprise the total incurred cost of the entire system with 3 years support (hardware, license, software and all other requisite components).		
4	Must provide centralized management that should be able to manage wired, wireless & security components of 3rd party OEMS's Must provide a system wide deployment of VLAN configuration and monitoring capabilities.		
5	Tool should have Single dashboard for IT operators for readily assess the state of the network with views into global and site-level details. Selecting a site changes the interface to only show network devices and connected clients specific to that location. IT operators can swiftly identify potential problems, as well as zero-in on specific locations that require their immediate attention.		
6	NMS tool should simplify Onboarding and Provisioning of network infrastructure. Tool should accelerate this process with an easy setup wizard, flexible configuration options, and zero touch provisioning		
7	NMS tool should provide simplify network device configurations with templates and a User interface option with guided, step-by-step workflows. For devices with common configuration requirements, network admins can use groups to instantly apply or modify settings across large sets of devices.		
8	NMS tool should provide Zero touch provisioning, intuitive workflow for setting up network devices without onsite IT		



	involvement. Configuration parameters can be defined within monitoring and management tool based on network- or site-specific requirements. To get started, simply plug in and power on a device. Administrator should be able to choose and stay on a firmware and tool should not have forced firmware upgrade policy. Must be able to integrate with NAC and Wireless devices		
9	Monitoring tool should have Detailed health and analytics dashboards, broad visibility into network-wide performance, and drill-in to specific sites with summaries of device utilization and other statistics. IT operators gain visibility into the health and utilization of switches. This includes port status, PoE consumption, VLAN assignments, device and neighbor connections, power status, and more-with built-in alerts and events that accelerate wired network troubleshooting.		
10	NMS Tool should have Built-in troubleshooting capabilities include live events, logs, and rich command line tools. Tool should have Diagnostic checks such as ping tests and device-level performance tests. NMS tool should have debug capability from day one.		
11	Management tool should provide reporting features Reports should cover device connectivity, network health, capacity planning. A reporting wizard is also provided to generate scheduled and on-demand reports that highlight network and application health, throughput and usage data, device and client inventory and much more. Tool should have minimum 30 days of statistic and 90 days of reporting data.		
12	Must provide web-based flexible view, device views and event logs for the entire infrastructure. Must support the ability to download firmware to single or multiple devices simultaneously and should support automatic or manual backup of configuration		
13	Management tool should have GUI-based workflow to upgrade firmware on deployed network devices. This includes the ability to complete live upgrades to reduce maintenance windows and ensure continuous operations. Upgrades can be completed at the site level, and can also be scheduled during non-peak hours of operation. Management tool should support rules governing firmware compliance for all managed devices.		
14	Must be able to write Python scripts/REST APIs to integrate with IoT solutions.		



15	The OEM shall be consistently present in Leaders quadrant of Gartner's Magic Quadrant for Wired and Wireless LAN Access Infrastructure for the last three years (2020,2019 and 2018).		
16	Switches, Transceivers, NMS and wireless equipment should be from same OEM for ease of integration and management		
17	All the above-mentioned features should be available from day 1. If required licenses to be factored from day 1.		
18	Bidder has to submit Part Coded Bill of Materials of the offered Product		
19	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		

40G Transceiver			
Make:		Model No:	
Sr. No	Specifications	Compliance (Yes/No)	Remarks
1	Speed : 40Gbps		
2	Type: Single Mode		
3	Connection : LC		
4	OEM: Same as Switch OEM		

10G Transceiver QTY			
Make:		Model No:	
Sr. No	Specifications	Compliance (Yes/No)	Remarks
1	Speed : 10Gbps		
2	Type: Single Mode		
3	Connection : LC		
4	OEM: Same as Switch OEM		

Large Format Professional Display				
Make:		Model No:		
Sl. No	Feature	Description	Compliance Yes/No	Reference page of Specification sheet /Remarks
1	Diagonal Size	55		
2	Type	Edge LED BLU		
3	Resolution	UHD (3840 x 2160)		
4	Brightness (Typ.)	350nits or More		



5	Native Contrast Ratio (Typ.)	3000:1 or More		
6	Viewing Angle(H/V)	178/178		
7	Response Time (G to G)	8ms or less		
8	Operation Hour	16/7		
9	Haze	2%		
10	Connectivity Input			
11	DVI-D	1 or More		
12	HDMI 2.0	2 or More		
13	HDCP	HDCP 2.2		
14	AUDIO	Stereo Mini Jack, DVI/HDMI/Audio		
15	USB	2 or More		
16	RJ 45	1 Port		
17	Connectivity Output			
18	Audio	Stereo Mini Jack		
19	External Control	RS232C(in/out) thru stereo jack		
20	Power Consumption			
21	Power Supply	AC 100 - 240 V~ (+/- 10 %), 50/60 Hz		
22	Typical[W/h]	110 or less		
23	Operating Temperature	0°C~ 40°C		
24	Humidity	10~80%		
25	WiFi	Integrated		
26	Web Browser	Integrated		
27	Media Player	Integrated		
28	Speaker Type	Built in Speaker(10W + 10W)		
29	Storage (FDM)	8GB Or more		
30	EMC	Class B		
31	Certifications	BIS, UL, FCC		
32	Accessories Included	Quick Setup Guide, Power Cord, Remote Controller, Batteries		
33	Warranty	3 Years onsite		

Laptop Specifications				
Make:		Model No:		
Sl. No.	Feature	Technical Specification	Compliance Yes/No	Reference page of Specification



				sheet /Remarks
1	Processor Generation	11th Gen		
2	Processor	Intel® Core™ i5-1135G7 or higher, 8 MB Cache, 4 Core, 8 Threads, 2.40 GHz to 4.20 GHz, 15 W		
3	RAM size (GB)	Minimum 8 GB DDR4 3200MHz		
4	Operating system	Windows 10 Professional (OEM declaration of Genuine OS to be enclosed)		
5	DIMM Slots	Minimum 2, No memory to be soldered onto motherboard		
6	RAM expandable (in GB) using spare DIMM slot on MotherBoard	Minimum 32 GB		
7	Graphics	Integrated Graphics Intel/AMD		
8	Graphics Details	Intel Iris Xe		
9	Hard Disk Type	SSD		
10	Hard disk drive size (GB)	512		
11	Ports	1x USB 3.2 Gen 1 (Always On) 1x USB 2.0 1x Type C 1x HDMI 1.4b 1x Ethernet (RJ-45) 1x headphone / microphone combo jack (3.5mm)		
12	Network connectivity	Ethernet gigabit 10/ 100/ 1000 Compatible		
13	Wi-Fi connectivity	Intel® AX201, 2x2 MIMO, 2.40 Gbps, 2.40 Ghz/5 GHz, Wi-Fi 6 (WiFi 802.11ax)		
14	Bluetooth	Minimum 5.1		
15	LCD LED backlit	Non touch		
16	Display size	Minimum 14"		
17	BIS registration under CRS of Meity	Yes		
18	Display resolution(pixel)	1366x768 (HD)		
19	Webcam	Integrated HD Camera		
20	Trusted Platform	Hardware TPM 2.0		



	Module			
21	Battery	4-Cell 54 WHr		
22	Battery warranty (year)	3 Year		
23	On site OEM warranty (year)	3 Year		
24	Certification	UL,FCC Compliance, ; EPEAT Silver, Energy Star, MIL STD 810G		
25	Performance Optimization/Improvement Software	AI-Based Optimization Software		
26	Body	Metallic/Aluminum		
27	Antivirus	Latest antivirus with 3year license		
27	Office 365	With 3 Year License		
28	IDC Report	OEM for laptop should have been one of the top 4 brands in at least 3 out of last 4 quarters as per IDC India Reports.		

HCI Hardware

Make:		Model No:		
Sl. No.	Feature	Technical Specification	Compliance Yes/No	Reference page of Specification sheet /Remarks
Comodity x86 Servers - Minimum 4				
1	Processor	Latest Generation Intel® Ice Lake or AMD Milan with Minimum 16C 2.2 GHz,		
2	No. of Processor	2		
3	RAM	Min 256 GB (8 x 32 GB) DDR4 3200 MT/s Min 8 DIMMs slots available on board for future expansion.		
4	Boot	BOSS controller card + with 2 M.2 Sticks 240G (RAID 1) or boot disks.		
5	Drives with Storage Controller	Minimum 2 SSD disks must be used for caching in each node. The nodes must be provided with atleast 16TB raw capacity in each of them, making sure SSD capacity is at least 20%, while remaining 80% can be on HDD's. Bidder must ensure 30000 IOPS from each node with a workload of 70:30 read:write ratio and up-to 8KB block size.		
6	Ethernet NIC	2 x Dual Port 10GbE SFP+ Adaptor		



7	Operating systems	Microsoft® Windows Server® with Hyper-V Red Hat® Enterprise Linux SUSE® Linux Enterprise Server		
8	PCIe slots	Min 4 x PCIe Gen 3/4 slots		
9	USB Ports	Min 2 x USB 2.0/3.0 ports		
10	Power Supply/Fan	Redundant, hot-swappable power supplies and fans		
11	Server Management Software	<p>1./ The System Management software should be included with appropriate licenses to integrate with the centralized management utility of compute and storage virtualization solution to provide BIOS and firmware updates, detail for hardware inventory and warranty information, Hardware Monitoring and alerting along with Compliance baselines for compute and storage virtualization for Single Pane of Glass Management.</p> <p>2./ OEM's Management Software should be provided</p> <p>2a. Scope based access control to limit OME Users to specific group of devices</p> <p>2b. Bare-metal server deployment and cloning</p> <p>2c. Power and thermal Monitoring, alarm, and automatically execute rules based remediation</p> <p>3./The System Management Software should be included with appropriate licenses</p> <p>3a. to view, analyze, and report the Subsystem power and Compute Usage Per Second (CUPS) values,</p> <p>3b. Access to Device/Groups summary, events, policies, and power and thermal threshold settings,</p> <p>4./ The management software should collect system information (including impending component failure) from the device that generated the alert and sends the information securely to OEM to Support to troubleshoot the issue and provide an appropriate solution.</p>		
Network Switches				
Make:		Model No:		
12	Network Switch - 2 Nos	28 Ports 10GbE SFP+ and 2x 100Gb QSFP28 Layer 3 Switch with 960Gbps Switching Capacity and 720 Mpps Throughput		



13		Redundant, hot-swappable power supplies and fans		
14	OOB / Management Switch- 1 Nos	48 line-rate GbE ports of copper, two combo ports for fiber/copper flexibility, and two integrated 10GbE SFP+ ports Stackable up to 12-units for high-density, high-availability aggregation and distribution		
15	Cabling	Vendor has to provide required cables & transceiver and lay them to integrate all equipment supplied		

HCI Software			
Make:		Model No:	
Sl.No.	Specifications	Compliance (Yes/No)	Reference page of Specification sheet /Remarks
1	Compute Virtualization - minimum 8 Sockets		
2	Sits directly on the bare metal server hardware with no dependence on a general-purpose OS for greater reliability & security and should be Leaders in the Gartner's Magic Quadrant for at least last 3 years.		
3	Windows client, Windows Server, Linux (at least Red Hat, SUSE, Ubuntu and CentOS) etc.		
4	Live Virtual Machine migration between different generations of CPUs in the same cluster with and without the need for shared storage option. Should support Live Virtual Machine migration long distances from one site to another with no disruption to users or loss of services, eliminating the need to schedule application downtime or business downtime.		
5	Proactive High availability capability that utilizes server health information and migrates VMs from degraded hosts before problem occurs.		
6	Should support HA for migration of VMs in case one server fails all the Virtual machines running on that server shall be able to migrate to another physical server running same virtualization software. Should support HA for VMs with a passthrough PCIe device or a NVIDIA vGPU.		
7	It should support affinity and anti-affinity rules to set constraints that restrict placement of a virtual machine to a subset of hosts in a cluster and to keep virtual machines paired or separated.		



8	Zero data loss for the applications running in virtual machines in the event of physical host failure, without the cost and complexity of traditional hardware or software clustering solutions.		
9	Add CPU, Memory & devices to virtual machines on the fly when needed, without disruption or downtime of working VMs for both windows and Linux based VMs.		
10	Create a cluster out of multiple HCI Nodes and automate load balancing by using storage characteristics to determine the best place for a virtual machine's data to reside, both when it is created and when it is used over time.		
11	Should support feature which provides workload balancing.		
12	Should support storage QoS to ensure performance on per VM basis		
13	HCI or VM-level encryption with no modifications in guest OS to protects unauthorized data access both at-rest and live migration.		
14	Should support TPM 2.0 and secure boot which provides protection for both the hypervisor and guest operating system by ensuring images have not been tampered with and preventing loading of unauthorized components.		
15	Should support Integration of 3rd party endpoint security to secure the virtual machines with antivirus, antimalware, firewall and hips solutions.		
16	Should provide a centralized virtual switch which span across HCI cluster and multiple hosts should be able to connect to it. This should simplify and enhance virtual-machine networking in virtualized environments.		
17	It Should provide restful APIs which can be consumed with any automation tool like Puppet, Chef, Ansible.		
18	Direct OEM 24x7x365 days with unlimited incident support including the unlimited upgrades and updates.		
19	Storage Virtualization - minimum 8 Sockets		
20	The proposed solution shall provide software based providing enterprise class storage features/services on commodity x86 servers		
21	Solution must be configured using SSD and HDD. Minimum 15% SSD.		
22	The Proposed Solution must be in leader quadrant of latest Gartner's Magic Quadrant for Hyperconverged Infrastructure from last 3 years.		
23	Should support all Virtualization benefits like VM HA, Live Migration, Resource Scheduling		



24	Should be compatible with Disaster Recovery solutions.		
25	Should support snapshots and clones in a Virtual environment.		
26	Should be Hardware independent to provide flexibility of choosing hardware from any server manufacturer & should support mixing of different compatible Server brands in same Cluster.		
27	Should support nondisruptive Scale-Up (Upgrade by inserting drives in existing empty drive-slots) & Scale-Out (Upgrade by adding nodes) upgrades to grow capacity and/or performance whenever required.		
28	Scalability should be supported with minimum building block expansion like a single disk		
29	The solution should provide a single unified management console for the management of the entire environment including virtualized environment as well as software defined storage environment. This would simplify the manageability of the entire solution.		
30	Provide granular VM-Centric controls for managing storage service levels		
31	The solution should deliver zero data loss capability in case of disk, host, network or rack failure.		
32	The solution should support Proactive Health Analytics and provide predictive alerts.		
33	Should be enabled with data efficiency features like Erasure Coding, Deduplication & Compression on All- disk tiers.		
34	Should provide Integrated file services thus providing unified storage control plane for both block and file storage		
35	Should provide a unique, software-based approach for disaggregation of compute and storage resources.		
36	Built in solution to provide data-at-rest and data-in-transit security at the cluster level		
37	Should provide a Data persistence framework offers modern stateful services, such as object storage and NoSQL databases, to integrate with the underlying virtual infrastructure		
38	There should be no dependency on any proprietary or specialized interconnects.		
39	The solution should support checksum of data to ensure data integrity & to enable automatic detection and resolution of silent disk errors.		



Annexure XIX

Equipment Pre-Dispatch Inspection

All Test criteria need to be assessed with respect to compliance and the specification submitted by the successful bidder in the proposal. Pre-Dispatch Inspection will not pass any item which even if meets the compliance but deviates from the specification submitted by the bidder during proposal submission.

With aforesaid clause, test criteria will imply –

During pre-dispatch inspection, the equipment under test must satisfy both the following conditions

1. Actual result should comply with test criteria
2. Actual result should match with the specification submitted by the bidder as part of the proposal submission

Technical Specification Required	Test Criteria(Bidder's Proposed Specs)	Actual Result	Test Outcome (Pass/Fail)
Compliance for the equipment as per annexure XVIII			



FINANCIAL BID
Instructions to Bidders

1. Financial Bid shall be submitted with full price details.

Financial Bid shall contain only the prices duly filled in as per the format given in Schedule of Rates provided in the tender document. Price bid should not have any Commercial and/or Technical stipulation.

Financial Bid Standard Forms (**Form-1**) shall be used for the preparation of the price quote according to the instructions provided.

2. The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
 3. The changes displayed in the corrigendum/addendum to the bid documents, particularly with the financial bid should be attached with the **Financial Bid Submission Form**, in the same packet, duly signed and stamped by the authorized signatory of the Bidder firm.
 4. The financial bid should be filled in all respect and uploaded in “.PDF” format (only) duly signed and sealed by the authorized representative. In case the financial bid documents are not complete in all respects the same shall be treated as incomplete at financial bid opening stage and shall be considered non-responsive.
-



Annexure XX

FINANCIAL BID SUBMISSION FORM

To:
CGM (DES),
EdCIL (India) Limited,
EdCIL House, 18A, Sector- 16A,
NOIDA- 201 301 (U.P)

Dated: ___/___/2020

Dear Sir,

We, the undersigned, offer to provide “**Supply, Installation, Testing & Commissioning of Equipment and Design & Implementation of Smart Campus Networking Solution for National Sanskrit University, Tirupati**” In accordance with your request for proposal dated ___/___/2021 and certify that no terms and conditions have been stipulated by us in the Financial Bid.

Our attached Financial Bid is for the amount of _____ *[Indicate the corresponding to the amount(s), currency(ies) {Insert amount(s) in words and figures}]*.

Please note that all amounts shall be the same as in Form-1. Our Financial Bid shall be binding upon by us subject to the modifications resulting from Contract negotiations, if any, up to expiration of the validity period of the Proposal.

We remain,
Yours sincerely,

Authorized Signature {In full and initials}:

Name and Title of Signatory:

In the capacity of:

Address:

E-mail:

**Form-I**

FORMAT FOR SUBMISSION OF FINANCIAL BID

From					To					
					EdCIL India Ltd.					
					Noida Sec 16A,UP					
Sub:		Price Bid with reference to Tender Document No: EdCIL/DES/NSU/2021/01 dated 17/09/2021								
SN	Description of Material	Make & Product No	Unit	Qty	Unit Price including 3yr OEM warranty, Rs.	Basic Price, Rs.	Any other prevailing tax/Duty, Rs.	GST %	GST, Rs.	Total Price, Rs.
1	2	3	4	5	6	7(5*6)	8	9(a)	9(b)	10(7+8+9b)
1	Networking Passive Component									
1.1	12F, SM, OS2, Loose Tube, Gel-filled, ECCS tape Armored, Outdoor, Anti Rodent, Anti Termite, UV Protected, 652.D, HDPE, Black Fiber Cable		Mtr.	15150						
1.2	24 port Fiber Rack Mount LIU, Loaded with Single Mode 24 port with LCPC adapters, Splice trays & Pigtails		Nos	23						
1.3	12 port Fiber Rack Mount LIU, Loaded with Single Mode 12 port with LCPC adapters, Splice trays & Pigtails		Nos.	27						
1.4	LC-LC Fiber Optic Patch Cord 3 meters		Nos.	212						
1.5	Cat 6A U/FTP or SFTP cable LSZH 305 MTRS		Box	221						
1.6	19" 1U CAT 6A 24 Port Straight Patch Panel unloaded		Nos	82						
1.7	Cat 6A Shielded Jack		Nos	945						



	User Side IDC Type Halogen free - Data									
1.8	Cat 6A Shielded Jack User Side IDC Type Halogen free - WiFi		Nos	415						
1.9	Dual/Single Faceplates		Nos	1360						
1.10	Cat 6A U/FTP or SFTP Patch Cord Grey 3 meter IDC type LSZH		Nos	1360						
1.11	Cat 6A U/FTP or SFTP Patch Cord Grey 2 meter IDC type LSZH		Nos	1400						
1.12	wall mount racks 15U Rack		Nos	45						
1.13	wall mount racks 24U		Nos	5						
1.14	42U Smart Rack		Nos	1						
1.15	Information Outlet for Face Plate AND Patch Panel Side		Nos	1360						
1.16	Rack Mount UPS of 1 kVA		Nos	38						
1.17	Rack Mount UPS of 2 kVA		Nos	9						
1.18	Rack Mount UPS of 3 kVA		Nos	6						
1.19	Rack Mount UPS of 10 kVA		Nos	1						
2	Networking Active Component									
2.1	Network Firewall		Nos	2						
2.2	Core Switch		Nos	2						
2.3	Distribution Switch		Nos	7						
2.4	24 Port Access Switch Non PoE		Nos	11						
2.5	48 Port Access Switch Non PoE		Nos	20						
2.6	48 Port Access Switch PoE		Nos	6						
2.7	12 port PoE Switch		Nos	33						
2.8	NMS		Nos	1						
2.9	10G SFP+ LC LR 10km SMF Transceiver.		Nos	182						
2.10	40G QSFP Module		Nos	26						
2.11	Wireless Lan Controller		Nos	2						



2.12	Wireless Access Point: Type - I		Nos	179						
2.13	Wireless Access Point: Type - II		Nos	222						
2.14	Wireless Access Point: Type - III		Nos	14						
2.15	PoE Power Injector		Nos	46						
2.16	10G SFP+ to SFP+ 1m DAC Cable		Nos	20						
2.17	Point to Point Solution		Nos	2						
3.	HCI Solution									
3.1	Comodity x86 Servers with 3 Years Support Subscription as per Specification		Nos	4						
3.2	Network Switches with 3 Years Support Subscription as per Specification		Nos	1						
3.3	Compute and Storage Virtualization Software with Central Management Software - minimum 4 SKTs with 3 years Support Subscription as per Specifications		Nos	1						
3	Laptop		Nos	140						
4.1	Technical Manpower charges for on-site support during 1 st year warranty		No.	3						
4.2	Technical Manpower charges for on-site support during 2 nd year warranty		No.	3						
4.3	Technical Manpower charges for on-site support during 3 rd year warranty		No.	3						
4	AMC charges (after warranty of 3 years)	Charges for 4th year (including technical manpower cost)								
		Charges for 5th year (including technical manpower cost)								



		Charges for 6th year (including technical manpower cost)						
		Gross Total →Net offered Price→						
		Net offered Price (In Words)						
	We Confirm and undertake that:							
A		The total price quoted above are inclusive of basic price, statutory duty & taxes, Transportation, Incidental services (including Insurance, Loading/ unloading, Packing & Forwarding charges, Installation etc.) at site.						
B		Offer price shall be valid for a period of 180 days from the date of opening of Technical bid of this tender						
C		We agree to offer on-site comprehensive warranty on all ICT components supplied through this tender for three (03) years & further AMC for three (03) years.						
D		AMC charges for 4 th , 5 th and 6 th year must include the cost of the licences for services running in active equipment.						
			Signature of Authorized Bidder with proper rubber stamp					
Date:			Name:					
			Designation:					
			Mobile No:					