

E-Tender Document

for

**DESIGN, SUPPLY, INSTALLATION, TESTING,
COMMISSIONING OF EQUIPMENT,
IMPLEMENTATION AND MAINTENANCE OF SMART
CAMPUS ICT SOLUTION FOR SINDHU CENTRAL
UNIVERSITY, KHALATSE, LADAKH, INDIA**

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:

**Amba Deep Building, 7th Floor, 14 KG, Marg,
New Delhi-110001**



NIT No- EdCIL/DES/SCU/ICT/2025/01

Dated: 18.02.2025

This document is serially numbered from page number 01 to 154

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.



Table of Contents

NOTICE INVITING TENDER.....	5
CHAPTER- I.....	7
OFFLINE AND ONLINE BID SUBMISSION DOCUMENTS.....	7
CHAPTER-II.....	9
TERM OF REFERENCE & DEFINITIONS.....	9
CHAPTER-III.....	11
INSTRUCTIONS FOR E-TENDERING.....	11
CHAPTER-IV.....	15
INSTRUCTION TO BIDDERS.....	15
CHAPTER-V.....	18
SCOPE OF WORK.....	18
CHAPTER-VI.....	37
ELIGIBILITY AND BID EVALUATION.....	37
CHAPTER-VII.....	44
TIMELINE & TERMS.....	44
CHAPTER-VIII.....	47
KEY CONTRACT TERMS.....	47
ANNEXURE-I.....	54
TECHNICAL COMPLIANCE DECLARATION SHEET.....	54
ANNEXURE-II.....	55
DECLARATION SHEET.....	55
ANNEXURE-III.....	56
LETTER OF UNDERTAKING.....	56
ANNEXURE-IV.....	57
SELF-DECLARATION – NON-BLACKLISTING.....	57
ANNEXURE-V.....	58
PERFORMA FOR DECLARATION ON PROCEEDINGS UNDER INSOLVENCY AND BANKRUPTCY CODE, 2016.....	58
ANNEXURE-VI.....	59
LIST OF AUTHORISED BANKS FOR BG.....	59
ANNEXURE-VII.....	60
POWER OF ATTORNEY.....	60
ANNEXURE-VIII.....	62
LETTER OF BID SUBMISSION.....	62
ANNEXURE-IX.....	64
BANK GUARANTEE TOWARDS BID SECURITY (EMD).....	64
ANNEXURE-X.....	65



PERFORMANCE BANK GUARANTEE FORMAT	65
ANNEXURE-XI	68
PROFORMA PRE CONTRACT INTEGRITY PACT	68
ANNEXURE-XII	76
ORIGINAL EQUIPMENT MANUFACTURER (OEM) AUTHORIZATION FORM (GENERAL PROFORMA)	76
ANNEXURE-XIII	77
CONTRACT FORM	77
ANNEXURE-XIV	79
PRE-BID QUERY FORMAT	79
ANNEXURE-XV	80
INSTALLATION CERTIFICATE	80
ANNEXURE-XVI	81
EQUIPMENT SPECIFICATION AND COMPLIANCE.....	81
ANNEXURE-XVII	139
EQUIPMENT PRE-DISPATCH INSPECTION	139
ANNEXURE-XVIII	141
FINANCIAL BID SUBMISSION FORM.....	141
ANNEXURE-XIX	149
LAND BORDER SHARING DECLARATION.....	149
ANNEXURE-XX	150
SOLVENCY CERTIFICATE	150
ANNEXURE- XXI	151
DECLARATION / CERTIFICATE TO BE PROVIDED BY STATUTORY AUDITOR OR COST AUDITOR OF THE COMPANY (IN CASE OF COMPANIES) OR FROM A PRACTICING COST ACCOUNTANT OR PRACTICING CHARTERED ACCOUNTANT (IN RESPECT OF SUPPLIERS OTHER THAN COMPANIES).....	151
ANNEXURE- XXII	153
ANNUAL AVERAGE TURNOVER	153
ANNEXURE- XXIII	154
LIST OF CAMPUS NETWORKING PROJECTS IN THE LAST FOUR FINANCIAL YEARS.....	154



Notice Inviting Tender

(e-Tendering mode)

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

Date: 18.02.2025

N.I.T. No.: EdCIL/DES/SCU/ICT/2025/01

Name of work	DESIGN, SUPPLY, INSTALLATION, TESTING, COMMISSIONING OF EQUIPMENT, IMPLEMENTATION AND MAINTENANCE OF SMART CAMPUS ICT SOLUTION FOR SINDHU CENTRAL UNIVERSITY, KHALATSE, LADAKH, INDIA
Tender Type	Open Tender
The Currency in which payment shall be made	Indian Rupees (INR)
Date of Issue/e-Publishing	18.02.2025
Document Distribution Date	18.02.2025
Date for Pre-Bid Conference and Time	25.02.2025 at 15:30 Hrs
Bid queries should reach by	24.02.2025 at 17:00 Hrs Bid queries received later than the date and time 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-XIV
Venue of Pre-Bid Conference	EdCIL House, 18 A, Sector-16 A, Noida, U.P. 201301 as well as online
Last Date and Time for receipts of Bids	10.03.2025 up to 12:30 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	10.03.2025 at 15:30 Hrs
Date and Time of Opening of Financial Bids	To be informed later



Earnest Money Deposit	Rs. 3,25,000/- Bidders must submit an Earnest Money Deposit (EMD) via Bank Guarantee/Demand Draft or Direct Bank Transfer to the specified bank account. Bids without EMD will be rejected. MSME/Startup bidders are exempt from EMD but must provide a recent financial solvency certificate.
No. of Covers	02 (Two Packets)
Bid Validity days	180 days (From last date of opening of tender)
Performance Bank Guarantee (PBG)	5% of the total work value from the successful bidder. PBG is required to be submitted within 7 days from the date of receipt of Letter of Acceptance/LOA as per Annexure-X
Purchaser and Place of delivery	Billing to be submitted to EdCIL (India) Ltd. Successful bidder shall be responsible for Design, Supply, Installation, Testing, Commissioning of Equipment, Implementation and Maintenance of Smart Campus ICT Solution for SCU, Ladakh 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	Amba Deep Building, 7 th Floor, 14 KG, Marg, New Delhi-110001

1. This is an open tender.
2. Tender document shall be downloaded from electronic tender portal link available at www.tenderwizard.com/EDCIL. 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.”
3. 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.
4. 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 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).

Address:

EdCIL (India) Limited
18 A EdCIL House, Film City,
Sector 16A, Noida, Uttar Pradesh 201301

- 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.		Performa for declaration on proceedings under insolvency and bankruptcy code, 2016 as per ANNEXURE- V	.PDF



6.		Power of Attorney as per Annexure VII	.PDF
7.		Letter of Bid Submission as per Annexure VIII	.PDF
8.		Earnest Money Deposit as per Annexure IX	.PDF
9.		Proforma pre contract integrity pact Annexure XI	.PDF
10.		Manufacturer Authorization Form as per Annexure XII	.PDF
11.		Equipment Specification Compliance as per Annexure-XVI on backend OEM letterhead	.PDF
12.		Undertaking from Bidder for Land Border as per Annexure XIX	.PDF
13.		Solvency certificate for minimum value of Rs. 3.5 Crore; not more than 6 months old as per Annexure XX	.PDF
14.		Declaration/Undertaking as per Annexure XXI	.PDF
15.		Annual Average Turnover as per Annexure XXII	.PDF
16.		List of campus networking projects in the last four financial years as per Annexure XXIII	.PDF
Envelope-2			
Sl. No.	Documents	Content	File Types
1.	Financial Bid	Financial bid submission form as per ANNEXURE-XVIII 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 firm that stands winner to the RFP “Design, Supply, Installation, Testing, Commissioning of Equipment, Implementation and Maintenance of Smart Campus ICT Solution for SCU, Ladakh.”
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 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
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 SCU located at Ladakh, where the items are to be supplied, installed and commissioned.



EdCIL/ Purchaser	“EdCIL/ Purchaser” shall mean EdCIL (India) Limited.
Client	Sindhu Central University (SCU), Ladakh



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/SCU'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 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/-
---	---------------------------------	-------------

(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 proof of successful submission.
- 10) Vendors are requested to contact Tender wizard Helpdesk for any information regarding E-tendering / training.

EdCIL / Tender Wizard E-Tendering Portal Helpdesk
Customer Support: 080-49352000 (Multiple Telephone lines) Emergency Mobile Numbers: 9686115318 / 8800496478 / 8800445981 (Please contact in case of emergency during non-working hours.)
To Tender Wizard harishkumar.kb@etenderwizard.com ambasa@etenderwizard.com arijeet@etenderwizard.com twhelpdesk963@gmail.com sandeep.g@etenderwizard.com & cc to: destenders@edcil.co.in & kssahni@edcil.co.in



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 documents) 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/Direct Bank Transfer 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 in by all the bidders. Bidders are requested to note that they should 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.

EdCIL / Tender Wizard E-Tendering Portal Helpdesk
Customer Support: 080-49352000 (Multiple Telephone lines) Emergency Mobile Numbers: 9686115318 / 8800496478 / 8800445981 (Please contact in case of emergency during non-working hours.)
To Tender Wizard harishkumar.kb@etenderwizard.com ambasa@etenderwizard.com arijeet@etenderwizard.com twhelpdesk963@gmail.com sandeep.g@etenderwizard.com & cc to: destenders@edcil.co.in & kssahni@edcil.co.in

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 enclose EMD of the amount mentioned above in Earnest Money Deposit column in the form of Bank Guarantee/ Demand Draft/ Direct Bank Transfer.
- In case of Direct Bank Transfer, NEFT/RTGS to the bank details for the transfer of funds is as below:
Bank Name - BANK-SBI-DELHI 36830596465
A/c No.- 36830596465
Branch & IFSC Code - New Delhi & SBIN0000691
 - In case of Demand Draft, The Bidder should submit EMD through Demand Draft drawn in favour of "EdCIL (India) Limited" payable at Noida from any Scheduled Commercial Bank.
 - In case of BG, EMD to be submitted as per Annexure-IX from Scheduled Commercial Banks (Annexure-VI). The BG should be valid till 90 days after the bid validity date.

**Note:**

- **The Bid sent without EMD would be considered as UNRESPONSIVE and will not be considered.**
- Bidders registered with MSME/Startup and having valid registration certificate issued by NSIC/MSME are exempted for submission of EMD. However, MSMEs/Startup are advised to submit their financial solvency certificate issued not earlier than 6 months from the last date of bid submission.

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 5% Performance Bank Guarantee from a Scheduled Commercial Bank as mentioned in Annexure VI 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 5% of contract value to Sindhu Central University within 7 days from the date of receipt of Letter of Acceptance/LOA. The Performance Bank Guarantee (PBG) should be issued from a Scheduled Commercial Bank as mentioned in Annexure VI in favor of "Sindhu Central University" 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 amendment. **The amendment will be notified on-EdCIL tenderwizard portal.**

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 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

The government has established a central university viz. 'Sindhu Central University' (SCU) in the UT of Ladakh to ensure increase in accessibility and quality of higher education, and to facilitate and promote avenues of higher education and research for the intellectual development of the people.

In August 2021, a bill seeking to establish a central university was passed in the Lok Sabha covering the entire UT of Ladakh including Leh, Kargil, and beyond which were earlier left out of the jurisdiction of central universities in Jammu & Kashmir after the state was bifurcated into two Union Territories. Subsequently, the Central Universities Act, 2009 was further amended as 'The Central Universities (Amendment) Act, 2021 and included establishment of 'Sindhu Central University (SCU) having its territorial jurisdiction extending to the whole of the UT of Ladakh.

The University will conceptualize innovative programmes offering holistic & multi-disciplinary education and research-based master programmes. The University will also inculcate provisions of Online and Distance Learning (ODL) courses in line with NEP 2020 and UGC guidelines offering multi-entry/exit options and accumulation of the credits in the Academic Credit Bank.

The University will be a unique proposition amongst the Central Universities to meet the geographical needs and higher education demands in a new and emerging trend of education.

The university academic programmes will be mentored by IITs in achieving excellence, quality and relevance taking into the vision, mission & objectives.

General purpose from this ICT Solution:

1. **Seamless Connectivity:** Provide reliable and high-speed internet connectivity across the campus, ensuring uninterrupted access to digital resources and communication platforms for students, faculty, and staff.
 - **Design and Deploy Campus-Wide Network-** Deploy a campus-wide network ensuring seamless and secure wireless connectivity across all campus areas, including lecture halls, administrative offices, hostels, faculty rooms, and guest houses.
 - **Supply and Install LAN Infrastructure-** Supply and install LAN infrastructure for wired connectivity in critical locations, including lecture halls, administrative rooms, and faculty offices.



2. **Enhanced Communication and Collaboration:** Facilitate efficient communication through IP telephony, video conferencing, and collaborative tools, enabling smooth interactions across various departments and with external stakeholders.
3. **Smart and Interactive Learning:** Implement smart classrooms with interactive panels and integrate digital tools for remote learning, enhancing the teaching and learning experience for students and faculty.
4. **Security and Surveillance:** Ensure campus safety with a comprehensive CCTV surveillance system, integrated with the network for real-time monitoring and remote access to security feeds.
5. **Scalable and Future-Ready Infrastructure:** Design a scalable ICT infrastructure that can accommodate future growth and technological advancements, ensuring the university's network remains adaptable to evolving needs.

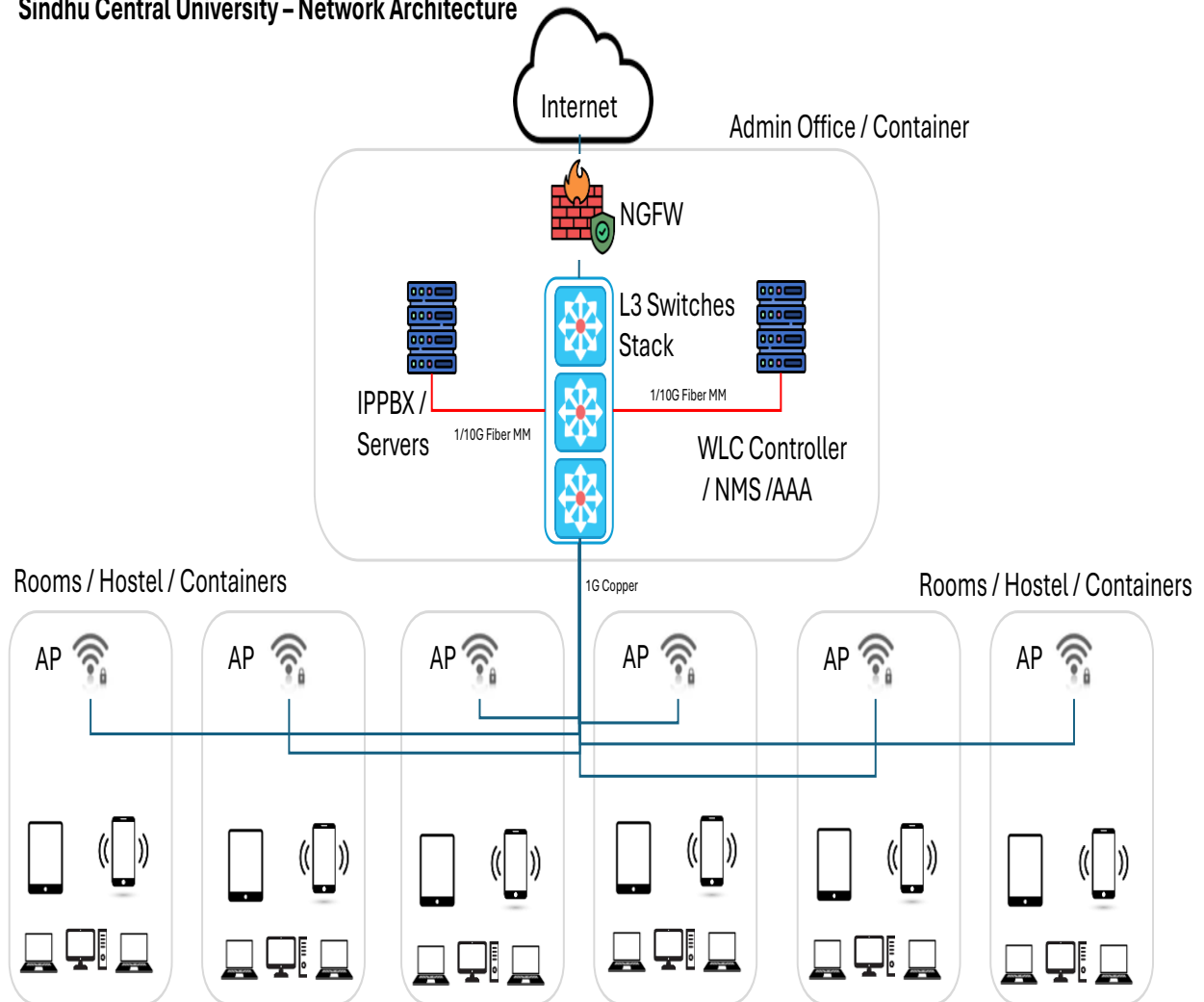
The network should provide stability in terms of uptime, performance, security, redundancy, scalability, and reliability across all passive components. It should also ensure easy manageability, easy maintenance, and support, while being based on open standards for seamless interoperability between heterogeneous OEMs.

The scope will include:

- Survey of the existing setup
- Supply and installation of active components
- Connectivity setup
- Testing of the upgraded campus solution
- Post-implementation network audit
- Post-implementation maintenance ensuring 99.75% uptime
- A roadmap for ongoing support throughout the project tenure.

Proposed Network Connectivity Diagram

Sindhu Central University – Network Architecture



- 5.1 EdCIL (India) Limited has been entrusted by Sindhu Central University for Design, Supply, Installation, Testing, Commissioning of Equipment & Implementation of Smart Campus ICT Solution for SCU, Ladakh.
- 5.2 The selected Bidder shall perform the activities for Design, Supply, Installation, Testing, Commissioning of Equipment & Implementation of Smart Campus ICT Solution for SCU, Ladakh, 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:-

All passive networking components shall be covered under replacement warranty for 3 years from the OEM and thereafter 3 years AMC (responsibility of AMC service provider). 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.)



5.4 Scope of Supply

- Supply of all components as per BOQ at SCU's campus, with 3 years of OEM warranty and thereafter Annual Maintenance Cost (AMC) of three (03) years under back-to-back arrangement with the OEM.
- The successful bidder must not bid/supply any equipment that 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 at least 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/SCU 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 XVI.
- 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 type is 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 impact 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 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 the approved layout. The implementing bidder is required to install LAN in critical locations, including lecture halls, administrative rooms, and faculty offices, as well as Wi-Fi access points across all campus areas, including lecture halls, administrative offices, hostels, faculty rooms, and guest houses.
- **Network Management System (NMS)** should be provided to manage the network, along with the necessary software, hardware, underlying infrastructure, and licenses, which should be quoted as part of the proposed solution.



- 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.**

1. Physical Installation

- LAN Infrastructure: Installation of CAT6A 10G Ethernet cables and single-mode optical fiber cables in critical locations as per the approved layout.
- Wi-Fi Access Points: Installation of Wi-Fi access points across all campus areas ensuring seamless wireless connectivity.
- Active Network Components: Installation of all required network switches, firewalls, and other active network components for connectivity, ensuring high-speed data transmission and secure communication.
- Smart Classrooms: Installation of interactive boards, all-in-one desktops, and other smart classroom equipment in the designated lecture halls and other places.
- CCTV Cameras: Installation of CCTV cameras at strategic locations and common areas for security surveillance.
- IP Telephony: Installation of IP phones in administrative offices, faculty rooms, hostels, and guest houses, integrated with the existing IP-PBX system.
- Video Conferencing Systems: Installation of video conferencing equipment in designated areas, including cameras, microphones, and large display screens.

2. Configuration

- LAN Configuration: Configuration of network switches to ensure seamless data transfer, load balancing, and redundancy across the campus network.
- Wi-Fi Network Setup: Configuration of the Wi-Fi access points to provide stable and secure wireless connectivity across all campus locations, ensuring proper segmentation and security policies for users.
- Network Management System (NMS): Configuration and integration of a Network Management System (NMS) to monitor and manage network performance, ensuring smooth operation, uptime, and security.
- IP Telephony Setup: Configuration of IP-PBX systems and integration with the existing network infrastructure to enable internal and external communication through IP telephony.
- Smart Classroom Integration: Configuration of the interactive boards, all-in-one desktops, and digital tools for seamless integration with the university's internet and LAN infrastructure.
- Video Conferencing Setup: Configuration of video conferencing equipment, including integration with the campus network to ensure smooth virtual meetings and collaboration.



3. Integration

- **System Integration:** Integration of all network infrastructure components (switches, Wi-Fi access points, firewalls) into a cohesive network, ensuring smooth communication between various campus buildings and departments.
- **Security Systems:** Integration of CCTV cameras with the network infrastructure for real-time monitoring and remote access, ensuring proper storage and retrieval of video data.
- **Unified Communication Tools:** Integration of IP telephony and video conferencing systems into the campus network, allowing seamless communication across administrative, faculty, and student bodies.
- **Software and Hardware Licensing:** Ensure the proper installation and licensing of all required software, including the Network Management System (NMS), video conferencing software, and any additional software required for managing the ICT infrastructure. All necessary licenses for hardware and software should be provided as part of the proposed solution.
- **Future Scalability:** Integration of infrastructure to allow future expansion and easy upgradeability of active components (such as switches, access points) to meet increasing bandwidth demands.

4. Testing and Validation

- **Network Testing:** Conduct thorough testing of all network components, including LAN connectivity, Wi-Fi coverage, and bandwidth performance, ensuring they meet the specified requirements for speed, redundancy, and security.
- **System Validation:** Perform testing and validation of video conferencing systems, IP telephony, smart classroom setups, and CCTV surveillance to ensure all systems are operational and integrated properly.
- **Uptime and Reliability Testing:** Verify the redundancy and load-balancing configurations, ensuring 99.75% uptime and optimal performance across the entire campus network.

5. Training and Handover

- **User Training:** Provide training for the university's IT staff on how to operate and maintain the Network Management System (NMS), handle network issues, and ensure the smooth operation of the network.
- **Documentation:** Deliver comprehensive documentation on the installation, configuration, and integration of all ICT systems, including network diagrams, device configurations, and troubleshooting guides.
- **Handover:** After successful installation, configuration, testing, and training, the project will be handed over to the university with a clear support and maintenance roadmap for ongoing operations.



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 Sindhu Central University and site clearance and permissions to be obtained from Sindhu Central University/ EdCIL.
- The implementation shall commence only after approval of the network diagram and cable route by authorities of EdCIL.
- 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 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 EdCIL.
- Fixing termination and testing of Information Outlet Box as per the requirements during execution of work.

5.9 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 and reported to Sindhu Central University.
- 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.
- Repair / Refurnishing work owing to damage caused due to cabling or any other work related to this project should be taken care by the vendor in coordination with EdCIL. There should not be any hanging or uncovered cables.
- In the event, the test parameters, commitments are not submitted or not accepted explicitly in writing by EdCIL/ Sindhu Central University; the test parameters, commitments etc. as decided by EdCIL and subsequently accepted by Sindhu Central University will be final and binding.
- Upon Self-testing and Commissioning, the system shall be offered for inspection to EdCIL.
- The successful Bidder, along with EdCIL shall prepare an inspection and acceptance schedule with details of each activity and subsequently submit to Sindhu Central University.

5.10 Scope of Documentation

- 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.
- Implementation plan and deployment diagram (as built), to be approved by EdCIL and accepted by Sindhu Central University, 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.

5.11 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 Sindhu Central University.

5.12 BOQ

The equipment specification sheet is mentioned in Annexure XVI:

- a. During finalization of order for procurement of the total ordered quantities or any subsequent order, at client's request, EdCIL reserves the right of varying the quantities of total project value upto $\pm 30\%$ (as per Form 1), without any increase in the prices and/or other terms and conditions.
- b. 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.

5.13 The detailed specifications are given in the Annexure XVI 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 XVI.
- 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.

5.14 Delivery and Documents

Delivery/ Commissioning of all the goods at the campus(es) of Sindhu Central University should be made within a maximum of 10 weeks/14 weeks from the date of placement of LOI/LOA. The successful bidder/supplier to provide absolute supply schedule within 14 days from the receipt of LOI. Within 24 hours of dispatch, the supplier should notify EdCIL and the insurance firm 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 Sindhu Central University 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 firm:

- 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; if applicable;
- d) Inspection Certificate issued by EdCIL/nominated inspection agency and subsequently accepted by Sindhu Central University, if any;
- e) Supplier's factory inspection report; if any
- 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.

5.15 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 Sindhu Central University / 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.

5.16 Liquidated Damages

The timely delivery is the essence of this tender. Liquidated damages will be applicable at the rate of one percent (0.5%) per week or part thereof for undelivered portion of ICT components subject to a maximum of 10% of the cost of Purchase order for any reason whatsoever attributed to failure of tenderer. EdCIL will have the right to cancel the order, place order on alternative source besides levying the liquidated damages as above.

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

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 EdCIL and Sindhu Central University representative. For commissioning, the inspection shall be done against the compliance checklist of the product features given in the RFP – Annexure XVI 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 EdCIL and Sindhu Central University. 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 EdCIL and Sindhu Central University. 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 Sindhu Central University.
- II. Three level escalation matrix for the complaint's resolution and support.

5.20 Warranty and Maintenance Support Services

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 AMC period of 03 years (at sole discretion of client).

5.21 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 and Sindhu Central University 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 Sindhu Central University.

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 4 Weeks of issuance of Work Order.	Penalty of 0.5% for every week, subject to a maximum of 10% of the relevant Milestone payment.
2.	Delivery of Hardware/ equipment at Sindhu Central University	Within 10 Weeks of issuance of Work Order.	
3.	Commissioning of all IT Hardware/ equipment.	Within 14 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	7 x 24 x 365 (staggered shifts)
	Response Time	4 hours

Point of Contacts

Successful bidder should assign a point of contact Manager for Sindhu Central University.

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 Sindhu Central University to its support helpdesk within the Response Time. The Engineer should be adequately apprised of the network infrastructure deployed at Sindhu Central University. 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 complicated technical challenges onsite to experts offsite and working 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 substitute will be made 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	High impact on organizational or business processes. Operation of an existing network is severely degraded,	Minimal organizational or business impact. Anything which is not Out of service or Major is



	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.	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.	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.



5.22 Manuals, Drawings and Videos

- a. Before the goods and equipment are taken over by Sindhu Central University, the Supplier should supply operation and maintenance manuals. These should be in such detail as will enable the Sindhu Central University 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).

5.23 Requirement of Key Personnel (Technical Manpower) for the Sindhu Central University Campus

1. The successful bidder shall deploy experienced resources (Network/Software Engineer) at the premise of the university, who must be a full-time employee of the successful bidder, during installation, Contract, Agreement, warranty and post warranty Periods (as specified in the agreement). 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 SCU, Ladakh.
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/EC)/MCA	Atleast 02 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”

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 firm 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. Bid Evaluation

6.1 Bid Evaluation Process

The bid evaluation shall consist of the following phases:

- 1) 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.
- 2) 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/marking 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 4 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	Certificate of Incorporation issued by Registrar of Companies/Ministry of Corporate Affairs



	business.	
2.	<p>The bidder shall be in IT & ITES business for the last 4 years and shall have 4 years of experience as on date of floating of tender in all of the following areas: Supply and maintenance of networking devices like wireless Access Points/ controllers/ switches/ routers/NGFW/passive network cabling etc.</p>	Work Order + Satisfactory Certificate of Completion
3.	<p>The Bidder should have satisfactorily completed at least one work order for similar type of works each costing not less than Rs. 2,80,00,000/- in any Govt. department/ institutes in the last four years.</p> <p>However, for MSME AND START-UPS duly registered with government of India, this amount shall be 2,24,00,000/- (executed as on date of submission of bid).</p> <p>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. 1,75,00,000/- in any Govt. department/ institutes in the last four years.</p> <p>However, for MSME AND START-UPS duly registered with government of India, this amount shall be 1,40,00,000/- (executed as on date of submission of bid).</p> <p>OR</p> <p>The Bidder should have satisfactorily completed at least three work orders for similar type of work each costing not less than Rs. 1,40,00,000/- in any Govt. department/ institutes in the last four years. However, for MSME AND START-UPS duly registered with government of India, this amount shall be 1,12,00,000/- (executed as on date of submission of bid).</p>	Work Order + Satisfactory Certificate of Completion



4.	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.
5.	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
6.	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)
7.	The firm should be a profit-making concern for each of the last three consecutive financial years (FY 2021-22, 2022-23, 2023-24).	Audited and CA Certified financial statements.
8.	The Bidders shall have minimum technical manpower strength (B. Tech/MCA) of 10 persons on its rolls till financial ending year 2023-24	Proof of PF/ESI Documents along with declaration and An Undertaking to be submitted by designated authority (Statutory Auditor/CA) of the organization. (Brief resume of each technical manpower (B. Tech/MCA) should be attached herein with.
9.	Solvency certificate issued from bank of bidder for minimum value of Rs. 3.5 crores; not more than 6 months old.	Solvency certificate issued by bidder's bank (scheduled commercial bank as mentioned in Annexure XX)

- 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/Sindhu Central University.



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 (B. Tech/MCA) of 10 persons on its rolls till financial ending year 2023-24	<p>≥ 10 Engineers and $< 20 = 5$ Marks</p> <p>≥ 20 and $< = 30 = 10$ Marks</p> <p>> 30 Engineers = 15 Marks</p>	15	Proof of PF/ESI Documents along with declaration and An Undertaking to be submitted by designated authority (Statutory Auditor/CA) of the organization. (Brief resume of each Technical manpower(B.Tech/MCA) should be attached herein with.
2	Experience of Setting Up ICT networking infrastructure project of networking devices like (wireless Access Points/ controllers/ switches/ routers/NGFW/passive network cabling etc). in Government Department/ Institutes in last four financial years with minimum project value of 2.8 crores.	<p>i. One Contract of value more than Rs. 2.8 Crore - 9 Marks</p> <p>ii. One Contract of value more than Rs. 5.6 Crore - 18 Marks</p> <p>iii. One Contract of value more than Rs. 11.2 Crore – 27 Marks</p>	27	Valid PO and Satisfactory Completion Certificate
3	Bidder should have experience in SITC of at least one work having network of minimum 100 nodes in the past Four 4) financial years.	<p>Contract having 100 nodes= 5 Marks</p> <p>Contract having 200 nodes= 10 Marks</p>	15	Valid PO and satisfactory Completion Certificate



		Contract having 300 nodes= 15 Marks		
4	Bidder shall have an average minimum annual turnover of Rs. 10.5 Crore in the last three (3) financial years (FY 2021-22, 2022-23, 2023-24).	>=Rs.10.5 Cr and <=Rs.21 Cr = 9 Marks >Rs.21 Cr and <=Rs.42 Cr = 18 Marks >Rs.42 Cr = 27 Marks	27	Audited and CA Certified financial statements.
5	<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 Up gradation, 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 the committee may modify it at any later stage.</p> <p>Note-The Technical Presentation will be held at Sindhu Central University 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>		16	
Total (Maximum)			100	



The bidder who scores minimum 60 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.

- 1) Financial bids will be inspected to ensure their conformity to the format provided in the tender document.
- 2) 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:

$$Tn = (N1) * (\text{Weight age of the Technical Score i.e. } 30)$$

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:

$$Fn = (N2) * (\text{Weightage of the Financial Score i.e. } 70)$$

Where

Fn = 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 30% weightage, and the financial proposal would be given 70% weightage. The weighted combined score of the technical bid including presentation (Tn), and financial proposals (Fn) shall be used to rank the Bidders on the basis of formula given as below:

Combined Score= Normalized Technical Score (Tn) + Normalized Financial Score (Fn)

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.

6.4 Compliance to Make in India:

Compliance to Make In India (Make in India Circular No. P-45021/2/2017-PP(BE-II) of DPIIT dated 16.09.2020) and Land Border sharing OM & Order (Public Procurement No.1) ref. F.No.6/18/2019-PPD dated 23.07.2020 and subsequent addendums/ amendments:

- a) The MII Declaration / Certificate (as per annexure XXI) to be provided by Statutory Auditor or Cost Auditor of the Company (in case of companies) or from a practicing Cost Accountant or practicing Chartered Accountant (in respect of suppliers other than companies).
- b) Only “Class-I local supplier” having minimum 50% local content and “Class-II local supplier” having minimum 20% local content for the overall solution, shall be eligible to bid in this procurement.
- c) The System Integrator (SI) / Bidder has to submit the consolidated MII (local content) % for the complete solution being offered as per Annexure XXI.
- d) MII Purchase Preference shall be provided as per the provision of the said MII order.
- e) The Bidder and offered product should also comply with the provision of Land Border sharing OM & Order (Public Procurement No.1) ref. F.No.6/18/2019- PPD dated 23.07.2020 and subsequent addendums/ amendments
- f) Consortium/ JV of companies/ firms is not allowed.

6.5 MTCTE Certificate

Bidder has to submit the certification letter (on OEM’s Letter Head) that supplying products are approved by MTCTE under this NIT as per Circular No 14/02/2021-UR&SI-II-Part(1) (E-258136) by Govt. of India.



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.	(a) Payment of “X” % of charges for the comprehensive project work (except post warranty AMC charges and Technical Manpower charges for on-site support during the warranty tenures), towards supply of complete material any, against documentary evidence, shall be released only after receipt of material at Sindhu Central University on receipt of the following documents: - <ul style="list-style-type: none"> · Invoice · Warranty Certificate, if applicable · Delivery Challan (duly signed & stamped by authorized officials of consignee), if any · PDI report, if any · E-way bills for delivery of the material and equipment at site(if applicable) 	X=75
2.	“Y” % of charges for the comprehensive project work (except post warranty AMC charges & Technical Manpower charges for on-site support during the warranty tenures), towards successful Installation and commissioning shall be released after receipt of the following: <ul style="list-style-type: none"> • Clearance from EdCIL and Sindhu Central University Representative regarding successful completion of work • Inspection report (Installation and commissioning report duly signed and stamped by authorized officials of consignee) 	Y=20



3.	<p>“Z” % of charges for the comprehensive project work (except post warranty AMC charges & Technical Manpower charges for on-site support during the warranty tenures), 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: 1.5% At the end of second year: 1.5% At the end of third year: 2%</p> <p>The payment shall be released on receipt of the following: (i) Clearance from Sindhu Central University regarding Contractor had rectified/replaced the faulty component/ item as per SLA on intimation from Sindhu Central University. (ii) Certificate of satisfactory performance from Sindhu Central University in charge and preventive maintenance reports.</p>	Z=5
4.	<p>Technical Manpower charges for on-site support during the warranty tenures.</p> <p>(i) Certificate of satisfactory performance from Sindhu Central University 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 years during warranty + 3 years during AMC period (at sole discretion of Client). Statutory challans or documentary evidence for payment of applicable statutory dues toward PF, ESI etc. with the statutory authorities to the satisfaction of Sindhu Central University have to be 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. Sindhu Central University) the billing for technical manpower charges may be raised directly to Sindhu Central University.</p>	To be paid half yearly on the satisfactory report given by the end client.
5.	<p>AMC charges</p> <p>The payment shall be released at the end of 06 months on receipt of the following: (i) Clearance from Sindhu Central University regarding Contractor had rectified/replaced the faulty component/ item as per SLA on intimation from Sindhu Central University. (ii) Certificate of satisfactory performance from Sindhu Central University in Charge and preventive maintenance reports.</p>	To be paid half yearly on the satisfactory report given by the end client.



	Note* In future; at the sole discretion of the end customer (i.e. Sindhu Central University) the billing for AMC charges may be raised directly to Sindhu Central University.	
--	---	--

Note:

- Payments will be made only on a 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 5% of contract value to Sindhu Central University within 7 days from the date of receipt of Letter of Acceptance/LOA. The Performance Bank Guarantee shall be issued from a Scheduled Commercial Bank as mentioned in Annexure VI in favour of " Sindhu Central University " 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 (One Network/Software Engineer), 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.

8.5 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.

8.6 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.

8.7 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.

V. In case supplier fails to submit PBG within stipulated time, EdCIL reserves the right to terminate the contract without any further notice

8.8 Termination for convenience

EdCIL reserves the right to terminate the contract at any time without assigning any reason thereof.

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 XVI)

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. Any dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration administered by the India International Arbitration Centre (“IIAC”) in accordance with the India International Arbitration Centre (Conduct of Arbitration) Regulations (“IIAC Regulations”) for the time being in force, which regulations are deemed to be incorporated by reference in this clause.
- b. The place/seat of the arbitration shall be New Delhi, India.
- c. The Tribunal shall consist of one arbitrator.
- d. The law governing the arbitration agreement shall be Indian Law.
- e. The language of the arbitration shall be English.
- f. The governing law of the Contract shall be Indian Law.
- g. Arbitration cost to be borne by the Supplier.
- h. 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.

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, Sindhu Central University 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 Sindhu Central University’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, 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.

8.22 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 V) 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 these 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 Blacklisted/ 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 EMD) 8 UTR No. (For EMD)	
9 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 Firm



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 Design, Supply, Installation, Testing, Commissioning of Equipment and Implementation of Smart Campus ICT Solution for SCU, Ladakh.

This bears reference to EdCIL Bid No. **EdCIL/DES/SCU/ICT/2025/01** 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 Design, Supply, Installation, Testing, Commissioning of Equipment and Implementation of Smart Campus ICT Solution for SCU, Ladakh**, I/We hereby declare that presently our Firm/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**

**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-VI****LIST OF AUTHORISED BANKS FOR BG**

Following banks are permissible for accepting Bank Guarantees:

SCHEDULED PUBLIC SECTOR BANKS

Sr. No	Name of the Bank
1	Bank of Baroda
2	Bank of India
3	Bank of Maharashtra
4	Canara Bank
5	Central Bank of India
6	Indian Bank
7	Indian Overseas Bank
8	Punjab & Sind Bank
9	Punjab National Bank
10	State Bank of India
11	UCO Bank
12	Union Bank of India

SCHEDULED PRIVATE SECTOR BANKS

Sr. No	Name of the Bank
1	HDFC Bank Ltd
2	ICICI Bank Ltd
3	Axis Bank Ltd
4	Kotak Mahindra Bank Ltd
5	IndusInd Bank Ltd



ANNEXURE-VII

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 OF2025.

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 be 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-VIII

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 Design, Supply, Installation, Testing, Commissioning of Equipment and Implementation of Smart Campus ICT Solution for SCU, Ladakh

-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 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 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 corporations 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 firm seal.

Enclosures:

Date of Submission :

Signature of Bidder

Name of the Bidder:

Designation:

Seal of the Organization:

Date:

Place:



ANNEXURE-IX

Bank Guarantee towards Bid Security (EMD)

Bank Guarantee No. _____

To,

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

Whereas..... (herein after called "the Bidder") has submitted its Bid dated(Date) in response to the RFP No:..... for Selection of System Integrator for Design, Supply, Installation, Testing, Commissioning of Equipment and Implementation of Smart Campus ICT Solution for SCU, Ladakh (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-X**

Name of the Bank: _____

To,

The Director
SCU, Ladakh

Performance Bank Guarantee Format

In consideration of the **Director**, Sindhu Central University acting through _____ (Designation & address of Contract Signing Authority), (hereinafter called “Sindhu Central University”) 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 Sindhu Central University an amount not exceeding ₹ _____ (₹ _____ only) on demand by the Sindhu Central University.
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 Sindhu Central University through the **Director**, Sindhu Central University 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 Sindhu Central University 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 Sindhu Central University 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 Sindhu Central University 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 Sindhu Central University, 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 Sindhu Central University 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 Sindhu Central University 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 Sindhu Central University. If the guarantee is not renewed or the period extended on demand, we _____ (indicate the name of the Bank) shall pay the Sindhu Central University the full amount of guarantee on demand and without demur.

6. We _____ (indicate the name of Bank) further agree with the Sindhu Central University that the Sindhu Central University 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 Sindhu Central University 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 or any forbearance act or omission on the part of the Sindhu Central University or any indulgence by the Sindhu Central University to the said Agency or any other matter or thing whatsoever which under the law relating to sureties would but for the said provision would relieve 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 Sindhu Central University in writing.
9. This guarantee shall be valid up to (Date of Completion plus 90 Days). Unless extended on demand by Sindhu Central University. 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-XI

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 2025, 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 Design, Supply, Installation, Testing, Commissioning of Equipment and Implementation of Smart Campus ICT Solution for SCU, Ladakh”**.

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/SCU/ICT/2025/01** Dated 2025.

WHEREAS the BIDDER is a private firm /public firm / 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 Education 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/SCU/ICT/2025/01**dated2025 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 disfavour 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 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 or firm 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 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 firm 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 as mentioned in Annexure VI in India/Demand Draft in favour of EdCIL (India) Limited, payable at Noida or Direct Bank Transfer.
- 5.2 The instrument for EMD 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 EdCIL to the BIDDER on Earnest Money Deposit for the period of its currency.
- 5.5 Bidder's bid security will be forfeited if the successful bidder fails to sign the contract or furnish the required PBG within the specified period

6. SANCTIONS FOR VIOLATIONS

- 6.1 Any breach of the aforesaid provisions by the BIDDER or anyone 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) /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 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/SCU/ICT/2025/01 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 to the 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-XII

Original Equipment Manufacturer (OEM) Authorization Form (General Proforma)

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 support till the contract period.

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-XIII

Contract Form

THIS AGREEMENT made the day of 2025 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.,
3. 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
4. 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.
5. 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 Contact 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-XIV****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-XV****INSTALLATION CERTIFICATE**

1. The following goods/equipment, supplied by the Supplier at Sindhu Central University 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: 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 Sindhu Central University

Name: _____

Designation: _____

Date: _____

Rubber Seal of the institution

Verified by EdCIL representative.

Signature: _____

Name: _____

Designation: _____

Date : _____



ANNEXURE-XVI

Equipment Specification and Compliance
(Certified on backend OEM's Letterhead)

ICT COMPONENTS SPECIFICATION			
Core L3 Switch			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Switch should have minimum 48 x 1G UPoE copper (supporting upto 90W per port and overall power budget of 1440W) ports and 4x1/10G based 10G ports and required stacking support for upto 8 switches. Each switch to be supplied with 1no. 3m DAC / stacking cable.		
	Each switch should also be capable to deliver additional up to 4x10/25G uplinks for expansion or servers connectivity.		
2	Switch should have at least 296Gbps switching fabric performance and 214Mpps forwarding rate or better		
3	each switch should support at least 32K entries in the MAC table and 4000 user configurable VLANs		
4	The switch should support 9K Jumbo frames, dual-stack IPv4 and IPv6 interfaces, VRRP for IPv4 and IPv6, 6in4 tunnelling.		
5	Should support Port-based VLAN, 802.1Q Tagged VLAN & Voice VLAN along with user VLAN, Port mirroring.		
6	Should support 802.1D spanning tree control/RSTP support and MSTP Support. Also support spanning-tree portfast for fast convergence, spanning-tree root guard, spanning-tree bpdu guard, bpdu filter or similar functionality.		
7	Should support IGMP v1/v2/v3, IGMP Snooping. MLD v1/v2, SNMPv2c/v3, LLDP, VXLAN/tunnelling.		
8	Should support console port and telnet/ssh based management.		
9	The switch should have RIPv2, OSPFv2 , BGP4, PIM for IPv4 and IPv6 routing, Policy based routing, unicast reverse path forwarding (uRPF), VXLAN, ISIS etc day-1.		



10	Should support routing protocol like eBGP and advance multicast protocol PIM-DM for future scalability in same hardware		
11	Should support minimum 10K IPv4 routes and 5K IPv6 routes.		
12	Should Support for minimum 256 VLANs SVI or RVI interfaces and 8K Multicast routes/entries.		
13	Should Support VRRP, DHCP local server, DHCP relay and DHCP snooping, SNMP, NTP, RADIUS authentication		
14	Should support IEEE 802.1Q VLAN, 802.1p priority queues, IEEE 802.1ad, IEEE 802.1ag, 802.1ae.		
15	Should support 8 hardware queues per port and shall support ingress policing and egress shaping.		
16	Should support Quality Of Service (QoS) features viz.: i) Priority Queue, ii) Class of Service (CoS), iii) Rate Limiting (Bandwidth Control), iv) Strict Priority Queue (SPQ), v) Weighted Round Robin (WRR)		
17	Should have dual redundant hot-swappable AC Power Supply 100 to 240 V AC with 50 to 60 Hz without any external adaptors		
18	The Core Switches shall be installed in Maintenance office in controlled environment with CHS, however, it must support the Operating Temperature : 0°C to 40°C (32°F to 104°F) and Storage Temperature: -40°C to 60°C (-40°F to 140°F).		
19	Switch should have EMI CERTIFICATE of FCC/IC and CE, SAFETY CERTIFICATE of UL, ENVIRONMENTAL of RoHS or equivalent Indian Standard		
20	Switch should support L2 and L3 VXLAN/BGP/EVPN/fabric capabilities and all the hardware/software and licenses for NMS/orchestration/Controller should be provided from day 1.		
21	Switching System should be quoted with TAC support 24x7 and 8x5x NBD support for 5 years and must submit the support contract copy from OEM with customer.		
22	Bidder has to submit Part Coded Bill of Materials of the offered Product		
23	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		



24	The bidder needs to ensure - The OEM SWITCH MANUFACTURED IN A COUNTRY SHARING A LAND BORDER WITH INDIA CANNOT PARTICIPATE IN THIS BID.	
----	--	--

Indoor Access Points			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Access Point should support latest technology WiFi-6E (802.11ax) technology with integrated / external antenna and backward 802.11 standard compatible and proposed with all necessary licenses to function seamlessly with the required features.		
2	Access Point must support dual-band / tri-band radio with minimum 2x2 & Two spatial streams (MIMO) at all radio.		
3	Access Point should support minimum 573 Mbps on 2.4GHz, 1200 Mbps on 5GHz and 2400 Mbps on 6GHz.		
4	Must have 2x IEEE 802.3 GE or one smart rate/multi-gigabit up to 2.5Gbps auto-sensing port. Access point should have USB support.		
5	Access point should have Operating Temperature of -20°C to 50°C and storage temperature of -40°C to 60°C		
6	Must support minimum 2x2 with two spatial streams (MIMO)		
7	Access Point should support minimum 1.7 Gbps or more aggregate data rate including both the radio.		
8	Access points have Maximum conducted transmit power shall be 18 dBm or more or as per approved by Indian regulatory on all 2.4, 5, 6 GHz bands.		
9	Access Point to support the antenna gain of min. 3dbi or higher on its radio bands		
10	The access point via the controller should be capable of running a local DHCP Server, Captive Portal with local database authentication.		
11	Must have an dynamic or smart -RF management features which allows WLAN to automatically and intelligently adapt to changes in the RF environment		



12	RF management features should support Automatic Channel selection, Interference Avoidance, Coverage Hole Recovery, Deadspot Recovery.		
13	The access point should support wireless security capabilities, IP filtering, WPA2, WPA3 support.		
14	The solution should support to provide wireless security, Rogue AP detection, air termination of Rogue APs.		
15	WLAN solution should support features that provides no touch AP discovery, adoption, provisioning		
16	WLAN solution should support features that provides other management functions including firmware push and statistics		
17	Access point should have Integrated BLE / Zigbee for Location services.		
18	Must support telnet and/or SSH login to APs directly for troubleshooting flexibility		
19	Support for Voice-over-wireless LAN (VoWLAN) quality of service (QoS) ensures toll quality, even with many simultaneous calls on a single access point.		
20	Access point should be UL2043 - Plenum Rated, 802.3af and 802.3at support.		
21	Wireless System should be quoted with TAC support 24x7 and 8x5x NBD support for 5 years and must submit the support contract copy from OEM with customer.		
22	Bidder has to submit Part Coded Bill of Materials of the offered Product		
23	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		
24	The bidder needs to ensure - The OEM CONTROLLER HARDWARE/SOFTWARE MANUFACTURED IN A COUNTRY SHARING A LAND BORDER WITH INDIA CANNOT PARTICIPATE IN THIS BID.		



Wireless Controller			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Controller should be dedicated hardware appliance and support HA functionality. must support min. 2x1 copper/ SFP interfaces for the network connectivity.		
2	Proposed Controller must support 1+1 redundancy and should have scalability to support upto 200 AP. Required AP licenses (as per AP count) should be provided from day 1.		
3	The controller shall be installed in Maintenance office in controlled environment with CHS, however, it must support the Operating Temperature : 0°C to 40°C (32°F to 104°F) and Storage Temperature: -40°C to 60°C (-40°F to 140°F) and should be able to operate seamlessly at 100-240 volts AC Power.		
4	Controller should support seamless roaming access over L2/L3 network.		
5	The Solution should support 802.11ax primarily, WPA3 and should be backward compatible to 802.11n/a/b/g/ac. The Solution should support 20Mhz or 40Mhz or both channels on 2.4Ghz and 20Mhz/40Mhz/80Mhz/160Mhz channel width on 5 and 6Ghz.		
6	Wireless solution configuration should be scalable with a field-upgradeable license to add APs in a granular fashion. Mention the lowest granularity of the upgrade.		
7	The solution should support Guest Portal / Captive Portal (with customization) and local database for authentication.		
8	The solution should support at least 2000 concurrent devices/users per node.		
9	Support hardware/software encrypted data plane between Access Point and Controller.		
10	Support deep visibility into the network like RF health metrics, app utilization, device type and user data in an easy-to-integrate open supportive format.		



11	Wireless solutions should have the technology to eliminate sticky clients and boost Wi-Fi performance by ensuring that clients associate with the best access point.		
12	The wireless solution should support internet group management protocol (IGMP) snooping and the access point should transmit multicast packets only if a client associated with the access point is subscribed to the multicast group.		
13	Support dynamic RF management that provides the capability to do channel scanning and automatic channel selection to minimize interference. Should support dynamically adjust channel and power settings based on the RF environment.		
14	The controller should support new latest generation WiFi6 and 6E AP hardware as well.		
15	Should support Rest API integration or equivalent		
16	Solution to support social media login		
17	Solution should be capable to Priorities traffic for different applications, Self-healing (on detection of RF interference or loss of RF coverage), fast roaming features.		
18	Dynamic load balancing to automatically distribute clients to the least loaded 802.11 channel and AP.		
19	Support band steering where 5 GHz clients preferred to connect over 5Ghz Radio to provide better load balancing among 2.4Ghz and 5Ghz Radios.		
20	Encryption/decryption of 802.11 packets should be able to perform at the controller level.		
21	The solution should provide options for profiling devices and mapping specific VLANs.		
22	Support External AAA servers: RADIUS, LDAP and Active Directory and SSO.		
23	Support Open, 802.1x, EAP, EAP-TLS, EAP-SIM, EAP-TTLS, EAP-AKA, PEAP, EAP-MD5, EAP-FAST, PSK, WPA, WPA2-AES, WEP, WPA3 and enhance security.		
24	Support user management features like rate limiting and user profile per WLAN/User etc.		
25	Support Command-line interface: Telnet/Secure Shell (SSHv1, SSHv2) Protocol or Serial port. Should support NTP, SNMPv2c,v3, HTTPS for web management, FTP/TFTP etc.		
26	Support network security to detect intrusion or threat on wireless network.		



27	Wireless System should be quoted with TAC support 24x7 and 8x5x NBD support for 5 years and must submit the support contract copy from OEM with customer.		
28	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		
29	The bidder needs to ensure - The OEM WIRELESS MANUFACTURED IN A COUNTRY SHARING A LAND BORDER WITH INDIA CANNOT PARTICIPATE IN THIS BID.		
30	Switches, Transceivers, Wireless - APs, Wireless controller HW all should be same OEM for better integration. All the devices to include NMS licenses.		

Network Monitoring & Management System			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	NMS should be virtual / hardware-based appliance and from the same OEM providing switching and wireless solution. Vendor should provide necessary server hardware for NAC/AAA solution in case of virtual appliance).		
2	Must quote with all the required device/feature / assurance licenses as required from day 1 and should be scalable to support minimum 1000 Devices on the same virtual / physical appliance for future expansion for the main university campus.		
3	Must provide centralized management that should be able to manage wired/wireless and security components of 3rd party OEM's.		
4	The NMS shall be installed in Maintenance office in controlled environment with CHS, however, it must support the Operating Temperature : 0°C to 40°C (32°F to 104°F) and Storage Temperature: -40°C to 60°C (-40°F to 140°F) and should be able to operate seamlessly at 100-240 volts AC Power.		
5	Must allow system-level operations such as device discovery, event management, logging and application maintenance to be performed centrally.		



6	Must be able to generate valuable, in-depth reports for network inventory for planning purposes, detailed inventory of products organized by device type and centralized history of inventory management operations.		
7	Must be able to create correlated topology based on LLDP, SNMP , STP connectivity hierarchy and Ability to group devices into sites or by other criteria and perform operations on the group		
8	Must be able to provide organized representation of data collected from device, Archive/backup configuration and support for multiple archives and restore configuration & Compare configuration.		
9	Must support the ability to present detailed configuration information including date and time of configuration saves, firmware version, and file size, serial number/asset tag and memory.		
10	Must be able to provide history of device attributes, and reports any changes made to the device and also have ability to download firmware to single or multiple devices simultaneously including 3rd party switches.		
11	Must have ability to deploy configuration through scripts. custom scripts & Built-in scripts for VLAN Management should be supported, facility to Pre-provision a device connect in network through ZTP.		
12	Must provide the capabilities to modify, filter, and create your own flexible views of the network, Must allow for graphing or viewing in table format and multiple MIBs that are user selectable		
13	Must provide application visibility, application and network latency / response time, Efficient root cause analysis, Shadow IT prevention, Real-Time Application Insights, Application Fingerprinting, Rich Contextual Data etc thus providing collective intelligence in the network.		
14	Solution should be able to provide deep packet inspection and application visibility for the entire network.		
15	Solution must provide details on Layer 4-7 application visibility using Network-based Application Recognition to help identify and improve the performance of business-critical applications day-1		
16	Solution should support troubleshoot performance problems consistently using detailed flow-and packet-based analytics and also have ability to get actionable business insights and speeding up troubleshooting by separating network from applications day-1		



17	Solution support any topology regardless of the number of switches connected and regardless of how they are connected. The tool should be able to identify path taken from source to destination		
18	The proposed solution should provide Network infrastructure hierarchy visualization for fault impact.		
19	The tool should be able to provide visibility of services/applications configured on specific switches in the campus SDN fabric, schedule routine device configuration back-ups.		
20	Solution must be able to support recognizing minimum 10000+ fingerprints and 2000+ applications. Should also support option to add signature for customized inhouse application day-1		
21	Solution should be based on unsampled flow/Application telemetry and data collection so as to support giving accurate reports and stat analysis.		
22	Must be able to write Python scripts to integrate with IoT solutions and Ability to configure customizable workflows to automate tasks		
23	The solution must have ability to manage network infrastructure from anywhere in the world and should support mobile based mgmt. application for real time configuration / notification / alerts on admin devices and should have capability to even view / manage 3rd party devices.		
24	The network solution should support working over rings, mesh, partial mesh networks and any combination for provide network operator the freedom to build services wherever and whenever needed on demand for a loop free STP free architecture. The same to be managed completely by NMS.		
25	The Campus network solution must support transportation of L2 traffic over public and private networks. Software-defined virtualized networking solution capabilities must be standards based to extend fabric services to the network edge. The NMS should be able to manage complete network end-to-end.		
26	Network Management System should be quoted with 24x7 TAC support and 8x5x NBD support for 5 years and must submit the support contract copy from OEM.		
27	Bidder has to submit Part Coded Bill of Materials of the offered Product		



28	Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.		
29	The bidder needs to ensure - The OEM NMS APPLICATION MANUFACTURED IN A COUNTRY SHARING A LAND BORDER WITH INDIA CANNOT PARTICIPATE IN THIS BID.		

AAA/NAC			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Dedicated virtual/Physical Appliance. Should be supplied with 500 AAA (concurrent end-point/system) licenses day-1 and scalable up to min.10K endpoints. Vendor should provide necessary server hardware for NAC/AAA solution in case of virtual appliance).		
2	Should be able to integrate with all makes of manageable network devices which are capable of supporting open standards-based protocols required for NAC operation		
3	Must provide Network Access Control and visibility in single pane of glass for the entire infrastructure from day 1 spread across multiple Network Locations / Zones		
4	Detect and protect any device with IP address without the need for a client application on each endpoint including detection of VoIP phones, printers, wireless devices, machinery, cameras, sensors or other various profiles.		
5	Able to build Interactive topology maps to locate the end systems per network connectivity and support Support event logging of Device Access and Activity Time Stamp.		
6	Device search functionality by attributes such as username / OS type / IP- MAC address / System Name.		
7	Must support automated onboarding and self-registration of all IP end points. Must also offer the option of sponsorship capabilities to validate guest registration without involvement of IT staff.		



8	Must Support location-based Registration portals to redirect Users entering through common location to different portals for different Network Zones and Must support automated context based policy provisioning of network services for mobile devices.		
9	Support Management Access Authentication and Authorization for Network Device Access and also support IPv6 for NAC implementation in networks with IPv6 end systems.		
10	Support Manipulation of Radius Attributes for Authentication as well as Radius Accept and provide capability to bind together the username, IP address and MAC address, and physical port of each endpoint for forensic analysis		
11	The AAA/NAC solutions must be able to seamlessly integrate with the NMS and provide single dashboard network manageability and identity-based access control.		
12	Must be able to interact with network security devices and push template based automated response to security events and thus remediating real time threats.		
13	Must provide open APIs for integration with third party applications, user customizable reports creation, event logs for the entire infrastructure of Network devices.		
14	Must provide easy-to-use dashboards and detailed 360 view of the end systems attached or trying to attach to the network.		
15	Must provide the ability for analysts to be able to easily tailor the dashboard views to present the information in their preferred format.		
16	Should be capable of reporting for historical and real-time data. Should be equipped with Custom report designer to meet the needs of specific data attributes and periodic email of the same to relevant administrative team.		
17	Must allow IT administrators to easily define a number of pre-configured network policies and designate select personnel to activate/deactivate these policies as appropriate.		
18	Must Support location-based Registration portals to redirect Users entering through common location to different portals for different Network Zones.		
19	AAA/NAC should be quoted with Direct OEM TAC Support and Warranty for 5 years Support contract must be shared/Submit with customer.		



20	The AAA/NAC solution must be from same OEM as switches and wireless for seamless integration in overall network.		
----	--	--	--

10G Transceiver			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Speed: 10Gbps		
2	Type: Multi Mode		
3	Connection: LC		
4	OEM: Same as Switch OEM		

1G Transceiver			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Speed: 1Gbps		
2	Type: Multi Mode		
3	Connection: LC		
4	OEM: Same as Switch OEM		

2MP Bullet Camera with 2.7~13.5mm Motorized Lens			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Video Compression:"H.265 or above The camera OEM Should be an official valid H.265 HEVC licensee and should be listed on HEVC website at the time of submitting bid. "		
2	Video Resolution:1920×1080 or better		
3	Frame rate:1920×1080 @ 25/30 FPS		
4	Operating frequency:50 Hz		
5	Image Sensor:1/2.8" Progressive scan CMOS or better		



6	Lens Type: Varifocal Motorized with Remote Focus & Zoom		
7	Lens:2.7~13.5mm		
8	Electronic Shutter:1s to 1/1,00,000 s or better		
9	Multiple Streams: The Camera shall be able to set up and stream out minimum three (3) stream profiles simultaneously. Each stream profile can have its own compression resolution, frame rate and quality independently.		
10	Minimum Illumination: "Color mode: 0.01 lux @ F1.6 or better, B/W: 0 lux with IR illumination on"		
11	IR Cut Filter: Automatically Removable IR-cut filter		
12	Day/Night Mode: Yes, with IR Cut Filter.		
13	S/N Ratio: ≥ 55 dB		
14	Auto adjustment + Remote Control of Image settings: Brightness, Sharpness, Contrast, Saturation, Hue, White Balance, Exposure Control, Backlight Compensation, Gain Control, 3DNR, HLC, Defog, EIS, Scheduled Profile Settings, Video Title and Time Stamp Overlay		
15	Wide Dynamic Range: True WDR 120 db or better		
16	Privacy Masks: Minimum 4		
17	Audio: Full duplex, line in and line out, G.711/ G.726, External microphone input, External line output, Built-in Mic		
18	Local storage: Minimum 128GB and should support up to 512 GB. In the event of failure of connectivity to the central server the camera shall record video locally on the SD card automatically. After the connectivity is restored, these recordings shall be automatically merged with the server recording such that no manual intervention is required to transfer the SD card based recordings to server.		
19	Protocol: IPv4, HTTP, TCP/IP, UDP/IP, DHCP, NTP/SNTP, RTSP, DNS, DDNS, FTP, UPnP, ONVIF Profile S, G & T		
20	Security: User Authentication, IP Address Filtering, RTSP Authentication & AES Video Encryption		
21	Intelligent Video: Motion Detection, Tempering/Masking, Crossing line/Tripwire, Perimeter		
22	Event Trigger: Camera tampering detection, digital input, manual trigger, motion detection, SD card full & r/w error		



23	Event Action: "Event notification via digital output, HTTP, FTP, SD card File upload via HTTP, FTP, SD card"		
24	Alarm I/O: Minimum 1 Input & 1 Output contact for 3rd party interface		
25	Operating conditions: -20 °C ~ 60 °C		
26	Interface: RJ 45, 100 Base TX		
27	Humidity: Humidity 10-95% RH (condensing)		
28	Casing: IP66/IP67, IK10, NEMA 4X or higher		
29	Certification: UL 62368-1, CE, FCC, RoHS, BIS, IP66/67, IK10 & NEMA-4X		
30	Power: PoE IEEE 802.3af/PoE+ IEEE 802.3at and 12VDC/24AC/24VDC		
31	IR illuminator: Internal IR Illuminator with range of 60 meters based upon requirement of site/focus/area of interest.		
32	General Security: OEM of the camera should not be blacklisted in India or anywhere globally for security reasons from any organization including ONVIF. And camera should be NDAA compliant.		

32Ch Embedded Network Video Recorder with 4 SATA Interfaces				
MAKE:			MODEL:	
S.No.	Parameter	Specification	Compliance Yes/No	Reference page of Specification sheet/Remarks
1	Operating system	Embedded Linux		
2	Video channels Support	Minimum 32 channels IP Cameras		
3	Storage	Should support 4 SATA hard disk slot and each should support 10TB HDD		
		Should support JBOD & RAID 0, 1, 5, 6, 10		
4	Image and Video specification:	Enhanced (H.265, H.264), H.265, H.264 compression		
		Video Input – 32 IP camera minimum		
		Video Resolution support: 12MP/8MP/6MP/5MP/4MP/3MP/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF		



		Adjustable Image Quality		
		VBR and CBR support		
		Each channel should support multi-level motion detection		
		Matrix Display: 1/3/4/6/8/9/10/13/16/20/25/32		
		OSD Display		
5	Physical Ports	Video Output: 1ch VGA and 1ch HDMI		
		Audio Interface: 1ch In & 1ch Out		
		Serial Interfaces: 1# RS232, 1# RS485		
		Network: 2 RJ45, 10M/100M/1000M LAN port		
		Alarm Interface: 16ch In & 4ch Out		
		USB Port: 1# USB3.0, 1# USB2.0 ports		
6	Recording and playback	Should support schedule, motion and alarm-based recording		
		Incoming Bandwidth should be 320 Mbps or better and Outgoing Bandwidth should be 320 Mbps or better		
		Synchronous Playback		
		Time/Date based search mode		
		Alarm based search		
7	Alarm	VCA detection alarm should be supported		
8	Network Protocols	IPV4, IPV6, TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, NFS, DHCP, DNS, DDNS, RTP, RTSP, RTCP, RTMP, PPPoE, NTP, UPnP, SMTP, IGMP, QoS, Multicast, ARP, SNMP, SSL, Telnet		
9	Backup	Should Supports data transfer via USB & Network for easy and fast backup of data.		



10	General	Support megapixel HD network video preview, storage and playback		
		Digital Zoom support on any user specified area in live screen		
		Should support digital zoom in both Live and Playback		
		Should support Playback and backup based on event search		
11	User Interface	Internet Explorer 6.0 or later		
		Multiple Language GUI		
		Iphone, Android Phone Support		
12	Operating Temperature	AC 110-240V/ DC 12-48V Supply or OEM should give appropriate power supply		
		Operating: -10° to +50° C		
		Humidity: 10% to 90% (non-condensing)		
13	Certifications	UL 62368-1, CE, FCC, RoHS & BIS Note: In case of Make in India Product UL certification is not required, however, MII product should have a certification from a NABL approved lab with equivalent IEC standard (IEC 62368-1) before the date of publishing of the RFP.		
14	Compatibility	All the cameras and NVR from Same OEM		
15	HARD Disk	8 Tb Surveillance HDD 2 numbers		

Cat 6 S/FTP Double Jacket Steel Tape Armoured External Cable			
MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type: Shielded Twisted Pair, Category 6, TIA / EIA 568-C.2 & ISO/IEC 11801		
2	Conductors:23 AWG solid bare copper		



3	Insulation Material: PE		
4	Individual Sheild Material: Mylar Tape		
5	Overall Braiding: Tinned Copper		
6	Inner Sheath Material: FRPVC		
7	Armour: ECCS Tape		
8	Outer Sheath Material: PE		
9	Operating temperature: -20 °C to +60 °C		
10	Frequency: Tested up to Minimum 250 MHz		
11	Packing Box :305 Meters/Box		
12	Cable Outer Diameter:12.6±1.5 mm		
13	Bend Radius:15x Diameter(min.)		
14	Impedance:100 Ohms + / - 15 ohms, 1 to 250 MHz		
15	Conductor Resistance: Max. 93.8 Ω/KM		
16	Propagation Delay Skew:40ns/100 Mtrs. MAX		
17	Performance characteristics: Performance characteristics to be provided along with bid Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR		
18	Standard Compliance: ANSI/TIA-568 C.2 category 6, ISO/IEC-11801, Class E/ IEC 61156-5: category 6		

CAT6 STP Patch Panel, Unloaded - Tool Less

MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type: Category 6 Shielded		
2	Material: Powder Coated Steel		
3	Ports:24 Port		
4	Size:1U		
5	Colour: Black		
6	Mounting Style: Toolless (Module)		
7	Compatible: "Compatible with both T568A and T568B wiring options. Backward compatible with Category 5e cabling standards"		
8	AWG Support: Supports solid 22-24 AWG wires and stranded 24-26 AWG		
9	Connector Module Holder: High Impact, Flame-Retardant Plastic Compound		
10	Flammability Rating: UL 94V-0		



11	Safety Rating: UL1863		
12	Identification: Each port of the panel is numbered and has a designated label area for clear port identification		
13	Cable Management: Rear cable management bar which should act as stress reliever for terminated cables		
14	Standards Compliance:ISO/IEC 11801 Class E, TIA/EIA-568B.2-1		
15	Application: IEEE 802.af, IEEE 802.3at for PoE applications.		
16	Certification: CE		

CAT6 STP Keystone Jack - Tool Less			
MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Material: High Impact, Flame-Retardant Plastic Compound		
2	Type: Category 6 Shielded		
3	Insertion/Extraction life:750 cycle minimum		
4	Jack Hoising & Contact Material: Zinc Alloy housing and Gold over Nickel contact material		
5	Conductor Compatibility Range:22-26 AWG, Solid or Stranded		
6	IDC Type and Housing Material: Dual (110 Or Krone) Type with Phosphor Bronze Alloy Housing		
7	Overall Shield: Fully shielded corrosion-resistant die-cast zinc-alloy casing		
8	Current rating:1.5A max		
9	Insulation resistance:500 MΩ (min)@100 Vdc		
10	Jack Contact Resistance:20 mΩ (max) per contact		
11	Retention:50N		
12	Voltage rating:230 V rms max.		
13	Flammability Rating: UL 94V-0		
14	Safety Rating: UL1863		
15	Colour Coding: As Per 568 A/B Standards		
16	Standards Compliance: ANSI/TIA/EIA 568AB.2.2001, ISO/IEC11801:2002, EN50173-2 Category 6 standards		
17	Application: IEEE 802.af, IEEE 802.3at for PoE applications		
18	Certification: CE		



1 Port face plate			
MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type: Single port faceplate as per requirement		
2	Material: High Impact Thermoplastic (ABS) UL94V-0 fire retardant		
3	Colour: White		
4	Dust protection: Spring loaded shuttered Port for Protection		
5	Standards Compliance: Conforms to ANSI/TIA/EIA 568A-B.2.2001 standards		

CAT6 STP Patch cord			
MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type: Category 6 Shielded		
2	Cable Conductor: Stranded Bare Annealed Copper		
3	Wire Insulation: SFS PE		
4	Jacket: Low Smoke Zero Halogen (LSZH)		
5	Individual Pair Shield: Polyester- Aluminium foil		
6	Overall Shield: Braided tinned copper		
7	Bend Radius:> 23 mm without load		
8	Flame Test: IEC 60332-1		
9	Gas Emissions testing: IEC 60754		
10	Smoke Density Testing: IEC 61034		
11	Conductor Resistance:< 73 Ω /km		
12	Tensile Strength:96N min		
13	Durability:1000 Mating Cycles		
14	Propagation Delay:1-250MHz: < 25 ns/100m		
15	Current rating:1.0A max		
16	Insulation resistance:150 M ohm/km		
17	Voltage rating:72 V DC		
18	Contact resistance:20 M ohm (max) per contact		
19	Length:1/2/3/5/10 meter		



20	Standards Compliance: ANSI/TIA-568-C.2 and ISO/IEC-11801 (2nd Edition), IEC 61156-2, EN 50173; EN 50288-6-2 Category 6 standard		
21	Application: IEEE 802.af, IEEE 802.3at for PoE applications		
22	Certification: UL, CE		

CAT6 Shielded Toolless Connector

MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Application: Category 6 Toolless Connectors exceed Category 6 long lasting high performance and full support of all present and emerging applications, including 1000BASE-T (Gigabit-Ethernet).		
2	Material: High Impact, Flame-Retardant Plastic Compound		
3	Type: Category 6		
4	Insertion/Extraction life:750 cycle minimum		
5	Jack Contact Material:50μ Nickel over gold		
6	Insulation resistance:500 M ohm (min)@100 Vdc		
7	Contact Resistance:10 m ohm (max) per contact		
8	Flammability Rating: UL 94V-0		
9	Colour Coding: As Per 568 A/B Standards		
10	Standards Compliance: ANSI/TIA-568-C.2, ISO/IEC-11801, EN50173-2		
11	Certification: RoHS		

12 Core Multimode Outdoor Armoured Fiber Optic Cable

MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type:6/12 core OM3 (50/125 micron) Multi mode, Loose Tube water blocking jelly, two steel wire as strengthening component, Steel tape armouring, outdoor optical Fiber cable		
2	Outer Jacket: HDPE (High Density Polyethylene)		
3	Strength Members,: Two Steel wire		



4	Armouring: Corrugated Steel tape armouring		
5	Moisture Protection: Waterproof Tape		
6	Loose Tube construction: Water blocking Jelly		
7	Loose Tube Diameter:2.3±0.2 mm		
8	Cable Outer Diameter:8.5±0.5 mm		
9	Tensile Load:2000 N as per IEC 60794-1-2-E1		
10	Crush Load:2000 N/100 mm as per IEC 60794-1-2-E3		
11	Colour Code: ANSI/TIA/EIA-598-B		
12	Max attenuation: ≤2.3 dB/km@850 nm, ≤0.60 dB/km@ 1300nm		
13	Operating temperature: - 20°C to 60°C		
14	Weight:90±10 kg/km		
15	Standard Compliance: ITU-T G.651.1 Fiber, ISO/IEC 11801, ISO/IEC24702, ANSI/TIA/EIA 568C.3, IEEE 802.3z Gigabit Ethernet, ROHS compliant Directive 2002/95/EC		
16	Certification: CE		

24 Port Rack Mountable LC Type Fiber Patch Panel, Unloaded			
MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type:19” Easy Front Access (EFA) Sliding Rack Mount LC Duplex type		
2	Material: Cold rolled carbon sheet steel with electrostatic spraying		
3	Size:1U; Upto 24 LC Ports		
4	Adaptor plate mounting:4 nos. of adaptor plate module can be accommodated		
5	Environment Temperature - Relative: -40 °C to +80 °C		
6	Intensity: ≤15kv (DC) /1min.no spark-over and no flying arc		
7	Fibre Bending Radius: ≥40 mm		
8	Clamps: Cable clamps on the inner surface for fixing cables.		
9	Splice tray type: Fixed type Splice tray to access pigtails available		
10	Lock: Lockable front door on front with push button		



11	Easy Front Access: Sliding patch panel for easy rework and maintenance.		
12	Standard Compliance: EN 61587-1, Equipment - Tests for IEC 60917 and IEC 60297, Climatic and Environment: EN 61587-1/4.2, IEC60068-2-1, IEC60068-2-2, IEC60068-2-30, Earth Bond: EN61587-1/6.2, Flammability: EN61587-1/6.3, RoHS		
13	Certification: CE		

LC Multimode Fibre Adaptor

MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type: LC Multimode Duplex Adapter		
2	Sleeves: Phosphor Bronze		
3	Adaptor Material: High Impart flame retardant thermoplastic UL94-V0		
4	Capillary diameter tolerance: $127 \pm 0.5 \mu\text{m}$ (MM)		
5	Operating Temperature: -40°C to $+75^{\circ}\text{C}$		
6	Mating durability: > 500 Mating Cycles		
7	Insert. Loss/Adaptor :0.3 dB Max. (0.25 dB typ.)		
8	Pull strength: $\geq 98 \text{ N}$		
9	Standard Compliance: IEC 61300-2-18, IEC 61300-2-19, IEC 61300-2-1, IEC 61300-2-2		
10	Certification: CE		

LC Multimode 1.5m Fibre Pigtail

MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type: LC Multimode Pigtail, 1.5 meter		
2	Fiber Type: Multimode OM3, ITU-T G651.1		
3	Tight buffered: 900 μm		
4	Jacket: Low Smoke Zero Halogen (LSZH)		
5	Flame Test: IEC 60332-1		
6	Other LSZH standard: IEC 60754, IEC 61034		



7	Crush Load:800 N		
8	Impact:0.2 Nm:50mm (min)		
9	Bend Radius:50mm (min)		
10	Operating Temperature: -10°C to +70°C		
11	Max attenuation:<=2.3 dB per km@850 nm, <= 0.6 dB per km@ 1300nm		
12	Standard Compliance: ITU-T G651.1 OM3 Fiber, ISO/IEC 11801, EN50173 -1, ANSI TIA/EIA 568B		
13	Certification: CE		

LC - LC Multimode 3m Fibre Patch Cord			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type:LC-LC Duplex type Patch cord, 3 meter		
2	Fiber Type: Multi Mode OM3, ITU-T G651.1		
3	Jacket: Low Smoke Zero Halogen (LSZH)		
4	Flame Test: IEC 60332-1		
5	Other LSZH standard: IEC 60754, IEC 61034		
6	Durability:500 cycles (0.2 dB max increase), 1000mate/demate cycles		
7	Operating Temp: -20 °C to +70°C		
8	Ferrule Concentricity:< 1µm, Other Ferrule Concentricity < 1µm		
9	Max attenuation:<=2.3 dB per km@850 nm, <= 0.6 dB per km@ 1300nm		
10	Insert. Loss/Adaptor:0.3 dB Max. (0.25 dB typ.)		
11	Pull strength: ≥ 98 N		
12	Standard Compliance: Telcordia (formerly Bellcore) GR-326-CORE, IEC 874-1, ANSI/TIA-568-C.3, ISO/IEC 11801 2nd Ed., CENELEC, EN 50173, ITU-T G651.1 , RoHS		
13	Certification: CE		



OPS			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Type Detachable : PC module		
2	CPU Intel Core : i5 10th Generation		
3	RAM :8 GB or better		
4	SSD :256 GB SSD or better		
5	Operating system : Windows10		
6	I/O Ports: HDMI x 1, USB ports x 4, LAN Port x 1		
7	Max Power :50W or less		
8	Integration: For better compatibility and to avoid any integration issues OPS & Interactive panel should be from same OEM.		
9	Operating temperature:0°C ~ 45°C or Better		
10	Storage Temperature:-10°C ~ 60°C or Better		
11	Certifications: BIS certification required.		

Technical Specifications of Room Based VC Endpoint				
The proposed system must be based on ITU standards & hardware based. No software-based solution will be accepted. All components of the VC system like Codec, Camera, Microphones and Touch Control Panel should be from the same OEM.				
S.No.	Description	Specification Parameter	Compliance	Reference page of Specification sheet/Remarks
1	Package	UHD 2160p (4K) PTZ Camera, Codec, Omnidirectional Digital Microphone and Touch Control Panel from the same OEM.		
2	Video Standards and Resolutions	It should support H.323 & SIP standards for communications.		
		It should support interoperability and bandwidth saving using video compression H.264 AVC, H.264 High Profile/ H.265		



		It should support 4K30 fps,1080p30 fps,720p 30 fps.		
3	Content Standards and Resolutions	It should support both wired and wireless content sharing using standard based H.239 and BFCP. It should also support audio from Laptop used for content sharing.		
		It should transmit content to the far end location up to 4K15fps.		
		It should support inbuilt feature for wireless content sharing from Windows, MacOS, Android, iOS Smartphones & Tables without downloading any application on the user device.		
		It should support Content Annotation and White boarding/Black boarding capability when connected to Touch Enabled Display/Monitor.		
4	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, G.719 or better		
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.		
		It should have inbuilt technology to identify and eliminate non-human distracting noises such as keyboard typing, paper shuffling and wrapper crinkling during video calls.		
		Automatic Gain Control and Automatic Noise Suppression		
5	Video and Audio Inputs	It should have ports for connecting minimum 3 cameras directly on the codec or via AV over IP functionality to connect upto 3 cameras.		
		1 x HDMI input to share 4K/Full HD content from		



		PC/Laptop/Document camera/PTZ Camera.		
		It should support minimum 3 digital omnidirectional mics. The bidder needs to quote two digital omnidirectional microphones with mute/unmute soft touch button on the microphone. Each microphone should have atleast 15 feet diameter pickup range.		
		1 x RCA/3.5mm stereo line-in		
6	Video and Audio Outputs	2 x HDMI outputs for connecting primary and secondary 4K(UHD)/Full HD displays.		
		1 x RCA/3.5 mm stereo line-out		
7	Other Interfaces	1 x 10/100/1000 Ethernet port		
		1 x USB to support system software upgrade		
		Bluetooth 5.0 and WiFi 802.11a/b/g/n/ac (MIMO) for Wireless Content Sharing for Guests using their Smartphones and Tablets (Android and iOS)		
8	Camera	The camera should support group framing and presenter tracking		
		The camera should support minimum 12X Optical Zoom, PAN +/-170°, Tilt +/- 30° & minimum 10 camera presets.		
		The camera should support 4K UHD resolution		
		Video Conference Camera and Codec should be controlled using same touch panel.		
9	Touch Panel	Display: 10-inch screen or higher		
		Aspect ratio: 16 x 10		
		Resolution: WXGA (1280 x 800)		
		Power over Ethernet (PoE) with IEEE 802.3af support		



10	Network Features	H.323 and SIP bandwidth supporting up to 6 Mbps or more.		
		Must support IPv4 and IPv6 from day one on both H.323 and SIP.		
		Auto Gatekeeper Discovery, Lost Packet Recovery (LPR) technology and IP Precedence		
11	USB Pass-Thru Mode	The system should have inbuilt functionality to use the VC system as an external camera and microphones when connected to a Laptop/PC over a single USB cable without using any external hardware components to connect to any Cloud Based VC platform like Cisco Webex, Zoom, BlueJeans, Microsoft Teams, Google Meet, etc.		
		The system should be able to support up to 1080p30fps video transmit in USB Pass-thru mode.		
12	Security	Media Encryption (H.323, SIP): AES-128, AES-256, H.235.6 support		
		Authenticated access to admin menus, web interface and APIs		
		Local account password policy configuration		
		Global Directory/Centralized Directory/LDAP support		
13	Other Standards/features	H.460.18, SSL, TLS		
14	Cloud Integration	It should be possible to natively register the VC system with Microsoft Teams Room and Zoom Room account for native cloud-based video calling features and experience. USB Pass-Thru mode functionality should also be available when the system		



		in running in Microsoft Teams Room / Zoom Room mode.		
15	Additional Feature	It should able to achieve 1080p resolution at 1024 Kbps while making video call with same set of endpoint.		
16	Warranty	The complete solution should have at least 5 years warranty from day one.		

Technical Specifications for 75" Interactive Display

MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
	Interactive display		
	Screen size	75" or higher	
	Resolution	UHD 3840 × 2160 pixels or Higher	
	Brightness (typical)	350 nits or Higher	
	Contrast ratio (typical)	1100:1 or Higher	
	Response time	4 ms or Better	
	Light life (typical)	50,000 hrs or Higher	
	Smart Eye protection	Interactive display should have smart eye protection.	
	Glass		
	Hardness	4 mm tempered AG Glass or Better	
	Anti-glare coating	Interactive display should have Anti-glare coating	
	Touch screen		
	Touch technology	Infrared touch	
	Touch response time	4 ms or Better	
	System		
	CPU	Quad core 1.9 Ghz. or Better	
	Memory	4GB DDR3/DDR4 or Higher	
	Storage	32GB or Higher and expandable up to 512 GB	
	OS	Android 11.0 or Better	
	Input/ Output ports		



Input Ports (minimum)	2 × HDMI, 1x DP, 1x VGA, 1x YBPR In, 1 x AV (3.5mm), 1x PC Audio In, 1 x TF card (Micro SD), 1 x Slot-in PC (OPS) or Higher		
Output Ports (minimum)	1 × HDMI, 1 x AV (3.5mm), 1x Earphone, 1x SPDIF or Higher		
USB Ports (minimum)	3 × USB 3.0 Type A, 1 × USB Type C, 2 × USB Type B (touch) or Higher		
Communication Ports (minimum)	1x RS232 In, 2 x RJ45 10/100 ethernet port (In & Out) or better		
Built-in peripherals			
Speaker	Stereo Sound with in-built 20-Watt x 2 speakers or better		
Smart Multimedia Port	Should have Built in Type-c multimedia port on front side to deliver Video, Audio, Touch control, Internet Sharing and Fast charging using a single USB type C cable		
SD Card Support	Should have provision to connect SD card supports up to 512 GB of Storage		
Built in Wi-fi	Should have inbuilt Dual band Wi-fi (2.4 & 5Ghz)		
Built-in Hotspot	Should have inbuilt Hotspot Dual band (2.4 & 5Ghz) with internet sharing across the connected devices		
Built-in Bluetooth	Should have inbuilt Bluetooth version 5.0 or latest		
Stylus	Should have minimum 2 Nos of Stylus		
Remote control	Should have remote control to operate the Interactive display		
Software			
Whiteboard Interactive Software (Android)	Should have inbuilt whiteboard software for teaching/ training using Interactive display with features like AI Pen, Shape Pen, Handwriting Recognition, Sticky Notes, E-mail and others like (Pen, thickness of pen, colours of pen, Pixels eraser and Region eraser, Shapes (Circle, Triangle, Rectangle, arrows), Magnifier,		



	<p>Background of White board (multiple colours also use picture, shape), Redo/Undo, Next/Previous, Select & Drag option, Switching between single touch and multiple touch, Clear screen, List of pages with deleting option, Switching tool bar right to left, Many other Tools (Compass, Protector, Insert Table, Calculator, Curtain, Timer, Calendar, Camera, Spotlight, Multiscreen (divide board in 2,3,and 4 parts with background colour and different pen colour), on screen annotation. Quiz results should be imported into whiteboard application Interactive software should be of the same OEM. Interactive software of the interactive Display should detect the Visual Presenter/ Visualiser and should be able to annotate on the image captured by the Visual Presenter/ Visualiser.</p>		
Windows Interactive software for (Windows)	<p>Pen Box (Normal pen, Text pen (Fonts, Size) Gesture pen, Texture pen, Highlighter pen, Laser pointer, Fountain Pen, Stamp pen), Thickness of pen, Multiple colors for pen, Eraser (Normal eraser, circle eraser and Slide right to clear), Selection tool (circle select, Frame select and Select all), Drag option, Shapes (Lines, dotted line, Ray, dotted single side arrow, Double arrow, Square, rectangle, Circle, Triangle, Parallelogram, Quadrilateral, Octagon, Sun, Flame, Smiley, Badge , Heart, Cloud, Thumps up, Flower, Flag, Star, Sun, Brackets, Add symbol, subtract symbol, Multiply symbol, Division symbol and etc.), Text Box (Style, fonts), Screen shot (Area screenshot,</p>		



	<p>Free hand screenshot and Hide current window), Insert Table, Undo/Redo, Drag toolbar, Software minimize, Magnifier, Spot Light, Camera, screen recording, Countdown timer, Screen lock, Screen curtain, G Browser, Math tools (Roller, compass, Protractor, Set square 45 degree, set square 30 degree, 3D shapes, Draw angles with degree, Equations (symbol, Fraction, Subscript, Radical, Trigonometric function, Bracket, Logarithm and Miscellaneous symbols), Mathematical function (Linear function, Quadratic function, Log function, Exponential function, Power function and Trigonometric function. Chemical equation, Planets, Color box, Chemical symbols (Metrical instrument, instruments available for heating, An instrument for taking/storing substances and other instruments), Physical symbol (Dynamics, Calorific, Optics, Electromagnetism, Circuit diagram Legend, Create new page, Back ground color for page, Page layout (Title and content, Left Side, Content and icons, section titles, content only, Title only), Page animation (Fade in, Push, Circle, Erase, Blinds, Resolve and Wave), Toolbar switching (Right to left and Left to right), Page percentage (Increase/Decrease), Aspect ratio, New course, Import, Save, save as, settings, About us, Exit, Mind map, The Software should be of same OEM as Interactive Display.</p>		
Wireless screen sharing	Interactive display should allow user to share/mirror the content of Laptop/Desktop and mobile		



	device(Android) wirelessly and should have Screen Share software to show up to 4 Multiple screen at same time.		
Wireless File Transfer	Should have built in feature to transfer Data from Mobile to IFPD via QR Code.		
Quick access tool	Floating Tool should be available on all screen for quick access tools and same should be customized as per user requirement.		
Play Store Support	Should have Built in Google Play store to download applications direct from Play store		
YouTube	Should have Built in YouTube application and should support up to 4K resolution.		
Inbuilt Cloud drive	Interactive display should have inbuilt cloud drive access from Google drive & one drive		
Software based Video conferencing	Device should support software based VC with internal android platform like Google meet, Cisco WebEx , Skype, Microsoft teams & zoom applications.		
Multiple controlling menu	Should have Multi Controlling menu including Side menu, floating menu and pull up menu.		
Gesture Control	Should have gesture control like Hold five fingers on screen for Interactive display sleep mode, hold and move three fingers on screen for Floating menu & swipe the screen Upside for Pull up menu control.		
Split Screen	Interactive display should have inbuilt split screen user should be able to split the screen to operate multitask like play a video in half of screen and open whiteboard in other half side also capable to choose any two application side by side use.		
Smart USB Port	All USB 3.0 port should support Smart USB sharing for Android, Internal PC or other External PC / Device		



Multilanguage GUI	Device should have GUI interface in both Hindi and English Language		
Virtual Keyboard	Device should have inbuilt virtual keyboard with English to Hindi writing support.		
Enhanced Security	Should have provision to lock all the USB port, Screen Lock, application lock to restrict unwanted access.		
Interactivity On/Off Button	Should have physical button on front of panel to enable and disable the touch functionality of Display (Touch feature on/off)		
Sound enhancement	Should have inbuilt Volume equalizer and surround sound support to enhance the sound quality.		
Screen Recording	Should have built in Screen recording feature supports up to full HD resolutions or better		
Screen Shot	Should have built-in screen shot option using single click		
Power			
Power	AC 100-240V 50/60Hz		
Maximum Power Consumption	350 W or Better		
Standby Power Consumption	<0.5 W or Better		
Environment			
Operating temperature	0°C ~ 45°C or Better		
Storage Temperature	-10°C ~ 60°C or Better		
Operating Humidity	10% ~ 80% RH Non-Condensing or Better		
Accessories	Wall mount Kit, 1x HDMI Cable (1.5 Meter), 1x USB A to B cable (1.5 Meter), 1x Power Cable (1.5 Meter)		
Certifications	BIS certification required		



65" Interactive Display			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Interactive display		
2	Screen size:65" or higher		
3	Resolution: UHD 3840 × 2160 pixels or Higher		
4	Brightness (typical):350 nits or Higher		
5	Contrast ratio (typical): 1100:1 or Higher		
6	Response time:4 ms or Better		
7	Light life (typical):50,000 hrs or Higher		
8	Smart Eye protection: Interactive display should have smart eye protection.		
9	Glass		
10	Hardness:4 mm tempered AG Glass or Better		
11	Anti-glare coating: Interactive display should have Anti-glare coating		
12	Touch screen		
13	Touch technology: Infrared touch		
14	Touch response time:4 ms or Better		
15	System		
16	CPU: Quad core 1.9 Ghz. or Better		
17	Memory :4GB DDR3/DDR4 or Higher		
18	Storage:32GB or Higher and expandable up to 512 GB		
19	OS: Android 11.0 or Better		
20	Input/ Output ports		
21	Input Ports (minimum):2 × HDMI, 1x DP,1x VGA, 1x YBPR In, 1 x AV (3.5mm), 1x PC Audio In, 1 x TF card (Micro SD), 1 x Slot-in PC (OPS) or Higher		
22	Output Ports (minimum):1 × HDMI, 1 x AV (3.5mm), 1x Earphone, 1x SPDIF or Higher		
23	USB Ports (minimum):3 × USB 3.0 Type A, 1 × USB Type C, 2 × USB Type B (touch) or Higher		
24	Communication Ports (minimum):1x RS232 In, 2 x RJ45 10/100 ethernet port (In & Out) or Better		
25	Built-in peripherals		
26	Speaker: Stereo Sound with in-built 20-Watt x 2 speakers or better		



27	Smart Multimedia Port: Should have Built in Type-c multimedia port on front side to deliver Video, Audio, Touch control, Internet Sharing and Fast charging using a single USB type C cable		
28	SD Card Support: Should have provision to connect SD card supports up to 512 GB of Storage		
29	Built in Wi-fi: Should have inbuilt Dual band Wi-fi (2.4 & 5Ghz)		
30	Built-in Hotspot: Should have inbuilt Hotspot Dual band (2.4 & 5Ghz) with internet sharing across the connected devices		
31	Built-in Bluetooth: Should have inbuilt Bluetooth version 5.0 or latest		
32	Stylus: Should have minimum 2 Nos of Stylus		
33	Remote control: Should have remote control to operate the Interactive display		
34	Software		
35	Software: Should have inbuilt whiteboard software for teaching/ training using Interactive display with features like AI Pen, Shape Pen, Handwriting Recognition, Sticky Notes, E-mail and others like (Pen, thickness of pen, colours of pen, Pixels eraser and Region eraser, Shapes (Circle, Triangle, Rectangle, arrows), Magnifier, Background of White board (multiple colours also use picture, shape), Redo/Undo, Next/Previous, Select & Drag option, Switching between single touch and multiple touch, Clear screen, List of pages with deleting option, Switching tool bar right to left, Many other Tools (Compass, Protector, Insert Table, Calculator, Curtain, Timer, Calendar, Camera, Spotlight, Multiscreen (divide board in 2,3,and 4 parts with background colour and different pen colour), on screen annotation. Quiz results should be imported into whiteboard application Interactive software should be of the same OEM. Interactive software of the interactive Display should detect the Visual Presenter/ Visualiser and should be able to annotate on the image captured by the Visual Presenter/ Visualiser.		
36	Windows Interactive software for (Windows):Pen Box (Normal pen, Text pen (Fonts, Size) Gesture pen, Texture pen, Highlighter pen, Laser pointer, Fountain Pen, Stamp pen), Thickness of pen, Multiple colors for pen, Eraser (Normal eraser, circle eraser and Slide right to clear), Selection tool (circle		



	<p>select, Frame select and Select all), Drag option, Shapes (Lines, dotted line, Ray, dotted single side arrow, Double arrow, Square, rectangle, Circle, Triangle, Parallelogram, Quadrilateral, Octagon, Sun, Flame, Smiley, Badge, Heart, Cloud, Thumps up, Flower, Flag, Star, Sun, Brackets, Add symbol, subtract symbol, Multiply symbol, Division symbol and etc.), Text Box (Style, fonts), Screen shot (Area screenshot, Free hand screenshot and Hide current window), Insert Table, Undo/Redo, Drag toolbar, Software minimize, Magnifier, Spot Light, Camera, screen recording, Countdown timer, Screen lock, Screen curtain, G Browser, Math tools (Roller, compass, Protractor, Set square 45 degree, set square 30 degree, 3D shapes, Draw angles with degree, Equations (symbol, Fraction, Subscript, Radical, Trigonometric function, Bracket, Logarithm and Miscellaneous symbols), Mathematical function (Linear function, Quadratic function, Log function, Exponential function, Power function and Trigonometric function. Chemical equation, Planets, Color box, Chemical symbols (Metrical instrument, instruments available for heating, An instrument for taking/storing substances and other instruments), Physical symbol (Dynamics, Calorific, Optics, Electromagnetism, Circuit diagram Legend, Create new page, Back ground color for page, Page layout (Title and content, Left Side, Content and icons, section titles, content only, Title only), Page animation (Fade in, Push, Circle, Erase, Blinds, Resolve and Wave), Toolbar switching (Right to left and Left to right), Page percentage (Increase/Decrease), Aspect ratio, New course, Import, Save, save as, settings, About us, Exit, Mind map, The Software should be of same OEM as Interactive Display.</p>		
37	<p>Wireless screen sharing: Interactive display should allow user to share/mirror the content of Laptop/Desktop and mobile device(Android) wirelessly and should have Screen Share software to show up to 4 Multiple screen at same time.</p>		
38	<p>Wireless File Transfer: Should have built in feature to transfer Data from Mobile to IFPD via QR Code.</p>		
39	<p>Quick access tool: Floating Tool should be available on all screen for quick access tools and same should be customized as per user requirement.</p>		



40	Play Store Support: Should have Built in Google Play store to download applications direct from Play store		
41	YouTube: Should have Built in YouTube application and should support up to 4K resolution.		
42	Inbuilt Cloud drive: Interactive display should have inbuilt cloud drive access from Google drive & one drive		
43	Software based Video conferencing: Device should support software based VC with internal android platform like Google meet, Cisco WebEx , Skype, Microsoft teams & zoom applications.		
44	Multiple controlling menu: Should have Multi Controlling menu including Side menu, floating menu and pull up menu.		
45	Gesture Control: Should have gesture control like Hold five fingers on screen for Interactive display sleep mode, hold and move three fingers on screen for Floating menu & swipe the screen Upside for Pull up menu control.		
46	Split Screen: Interactive display should have inbuilt split screen user should be able to split the screen to operate multitask like play a video in half of screen and open whiteboard in other half side also capable to choose any two-application side by side use.		
47	Smart USB Port: All USB 3.0 port should support Smart USB sharing for Android, Internal PC or other External PC / Device		
48	Multilanguage GUI: Device should have GUI interface in both Hindi and English Language		
49	Virtual Keyboard: Device should have inbuilt virtual keyboard with English to Hindi writing support.		
50	Enhanced Security: Should have provision to lock all the USB port, Screen Lock, application lock to restrict unwanted access.		
51	Interactivity On/Off Button: Should have physical button on front of panel to enable and disable the touch functionality of Display (Touch feature on/off)		
52	Sound enhancement: Should have inbuilt Volume equalizer and surround sound support to enhance the sound quality.		
53	Screen Recording: Should have built in Screen recording feature supports up to full HD resolutions or better		
54	Screen Shot: Should have built-in screen shot option using single click		



55	Power		
56	Power: AC 100-240V 50/60Hz		
57	Maximum Power Consumption:250 W or Better		
58	Standby Power Consumption:<0.5 W or Better		
59	Environment		
60	Operating temperature:0°C ~ 45°C or Better		
61	Storage Temperature: -10°C ~ 60°C or Better		
62	Operating Humidity:10% ~ 80% RH Non-Condensing or Better		
63	Accessories: Wall mount Kit, 1x HDMI Cable (1.5 Meter), 1x USB A to B cable (1.5 Meter), 1x Power Cable (1.5 Meter)		
64	Certifications: BIS certification required		

Firewall			
MAKE:		MODEL:	
S. No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Eligibility Criteria		
2	The proposed NGFW appliance vendor should have security effectiveness minimum 97.4% or Block Rate minimum 97.9% in 2019 SVM NGFW report of NSS Labs. Also, OEM should feature in the top quadrant of the Security Value Map (SVM) of NSS Labs report 2019 for Next Generation Firewall (NGFW)		
3	The proposed NGFW appliance should not be declared End of Sales on or before the bid date.		
4	The Proposed product should be having security functions like Firewall, VPN (IPsec Site to Site & Client VPN), Gateway level antivirus, Category based web and application filtering, Intrusion prevention system, Zero-Day Threat Detection, Anti-Bot, DNS Security, File-Blocking, Traffic shaping and DoS/DDoS in the same appliance.		
5	Hardware, Architecture and Performance Requirement		
6	The proposed NGFW solution architecture should have Control Plane separated from the Data Plane in the Device architecture itself, whereby Control Plane should handle Management functions like configuration, reporting and route update & Data		



	Plane should handle Signature matching (like exploits, virus, spyware, CC#), Security processing (like apps, users, content/URL, policy match, SSL decryption, app decoding etc) & Network Processing (like flow control, route lookup, MAC lookup, QoS, NAT etc).		
7	The device or any of its family should not have any feature of wireless within its hardware or software.		
8	The Proposed NGFW appliance must have minimum 6 CPU Cores.		
9	The Proposed NGFW appliance must have 16 GB RAM.		
10	Should support Dual power supplies.		
11	Should have minimum 7 x10/100/1000 Copper Ports & 1 SFP port.		
12	Should have dedicated out-of-band management port		
13	<p>The proposed firewall shall support Dual Stack IPv4 / IPv6 application control and threat inspection support in:</p> <ul style="list-style-type: none"> - Tap Mode - Transparent mode (IPS Mode) - Layer 2 - Layer 3 <p>- Should be able operate mix of multiple modes(should be flexible and allow the firewall to use as perimeter firewall with interface working in layer 3 inspection mode and use other interfaces in TAP mode to monitor traffic of other segments such as MPLS, server zone without requiring any IP configuration on such monitoring interface)</p>		
14	<p>Next Gen Firewall throughput – 2.5 Gbps</p> <p>A Minimum 2.5 Gbps of Firewall Throughput measured with application control and logging enabled in real world/production environment/Application Mix.</p> <p>The bidder shall submit the performance test report reference from public documents or Legal Attested Test Reports from Global Product Engineering department / Global Testing Department/ Global POC team of OEM certifying the mentioned performance and signed by person with PoA.</p>		
15	<p>Next Gen Threat prevention throughput – 1 Gbps</p> <p>A Minimum 1 Gbps of Threat prevention throughput</p>		



	<p>measured with Application-ID/AVC, NGIPS, Anti-Virus, Anti-Spyware, Anti Malware, File Blocking, Sandboxing, DNS Security and logging enabled in real world/production environment/app-mix environment.</p> <p>The bidder shall submit the performance test report reference from public documents or Legal Attested Test Reports from Global Product Engineering department / Global Testing Department/ Global POC team of OEM certifying the mentioned performance and signed by person with PoA.</p>		
16	Minimum IPsec VPN throughput – 1 Gbps or more with 64KB HTTP transaction and logging enabled considering 100% HTTP flows		
17	Remote Access VPN – 1,500 Concurrent SSL VPN License from Day-1		
18	Site to Site IPSEC VPN - should be able to support upto 2500 Site to Site IPSEC VPNs		
19	New Layer 7 sessions per second – Minimum 30 K or New Layer 4 sessions/connections per second - Minimum 200,000		
20	Concurrent Layer 7 sessions – 200K or Concurrent Layer 4 connections/sessions - Minimum 1.5 Million		
21	The administrator must be able to view report on the CPU usage for management activities and CPU usage for other activities.		
22	The device or any of its family should not have any feature of wireless within its hardware or software.		
23	Next Generation Firewall Requirement		
24	The proposed firewall shall have network traffic classification which identifies applications across all ports irrespective of port/protocol/evasive tactic.		
25	The proposed firewall shall be able to handle (alert, block or allow) unknown / unidentified applications like unknown UDP & TCP		
26	The proposed firewall shall be able to create custom application signatures and categories using the inline packet capture feature of the firewall without any third-party tool or technical support.		
27	The proposed solution must support policy-based forwarding based on zone, source or destination address and port, application, AD/LDAP user or user group and services or ports		
28	The proposed firewall shall be able to implement Zones, IP address, Port numbers, User id, Application id and threat protection profile under the same firewall rule or the policy configuration		



29	<p>Firewall must have inbuilt Capabilities to identify port-protocol based policies and convert the same into true application-based policies.</p> <p>For example-Firewall is configured with Security policy to allow port 80/443 and multiple applications (Facebook/Rapidshare etc.) traffic going through the same policy, then the firewall should automatically identify those risky applications and help to add more application specific security policies which might be using the same ports (80/443). This will help us to tighten the application flow control and reduce the attack surface area.</p>		
30	The firewall must support creation of policy based on wildcard addresses to match multiple objects for ease of deployment		
31	The proposed firewall shall delineate different parts of the application such as allowing Facebook chat but blocking its file-transfer capability inside the chat application based on the content.		
32	Solution should be have machine learning capabilities on the dataplane to analyze web page content to determine if it contains malicious JavaScript or is being used for credential phishing. Inline ML should prevent web page threats from infiltrating network by providing real-time analysis capabilities.		
33	<p>The proposed firewall shall be able to identify, decrypt and evaluate SSL traffic in an outbound connection (forward-proxy) and inbound connection. The proposed firewall shall be able to identify, decrypt and evaluate SSH Tunnel traffic in an inbound and outbound connections.</p> <p>TLSv1.3 decryption should also be supported in SSL Forward Proxy, SSL Inbound Inspection modes.</p>		
34	The Firewall should always be accessible irrespective of the load of traffic on the firewall. There should not be an instance when the firewall becomes inaccessible during heavy traffic situations. There should be dedicated resources allocated within the firewall for firewall management, logging, reporting etc.		
35	Security Features Requirement		
36	Intrusion prevention signatures should be built based on the vulnerability itself, A single signature should		



	stop multiple exploit attempts on a known system or application vulnerability.		
37	Should have protocol decoder-based analysis which can statefully decodes the protocol and then intelligently applies signatures to detect network and application exploits		
38	The proposed firewall shall have on box Anti-Virus, Anti Spyware signatures and should have minimum signatures update window of every one hour		
39	All the proposed threat functions like IPS, Antivirus, Anti Spyware C&C protection etc should work in isolated air gapped environments without any need to connect with the Internet.		
40	All the protection signatures should be created by vendor based on their threat intelligence and should not use any 3rd party IPS or AV engines.		
41	The proposed firewall should be able to perform Anti-virus scans for SMB traffic		
42	The proposed firewall should be able to perform Anti-virus scans for HTTP, smtp, imap, pop3, ftp and SMB traffic with configurable AV action such as allow, deny, reset, alert etc		
43	The proposal firewall should perform stream-based Antivirus inspection and not store-and-forward traffic inspection to keep the maximum firewall performance Stream based Antivirus scanning should be used for scanning the contents of the files being transferred over the wire for virus/malwares and should block the file transfer when a virus or malware signatures is triggered.		
44	Should support inspection of headers with 802.1Q for specific Layer 2 security group tag (SGT) values and drop the packet based on Zone Protection profile		
45	The proposed firewall should detect and prevent malicious DNS request from inside hosts to outside bad domains, sinkhole / block the DNS request and should be able to integrate and query third party external threat intelligence databases to block or sinkhole bad IP address and Domain		
46	The device should have protection for min 20000 IPS signatures excluding custom IPS signatures		
47	Should have threat prevention capabilities to easily import IPS signatures from the most common definition languages Snort and Suricata		
48	The solution must be able to define AV scanning on per application basis such that certain applications		



	may be excluded from AV scan while some applications to be always scanned		
49	The proposed firewall should be able to call 3rd party threat intelligence data on malicious IPs and Domains to the same firewall policy to block those malicious attributes and list should get updated dynamically with latest data		
50	The proposed firewall must have the capability to create DOS prevention policy to prevent against DOS attacks on per zone basis (outbound to inbound, inbound to inbound and inbound to outbound) and ability to create and define DOS policy based on attacks like UDP Flood, ICMP Flood, SYN Flood (Random Early Drop and SYN cookie), IP Address Sweeps, IP Address Spoofs, port scan, Ping of Death, Teardrop attacks, unknown protocol protection etc.		
51	URL Filtering Requirement		
52	Same Hardware platform should be scalable to provide URL filtering and web protection capabilities.		
53	The proposed firewall shall have custom URL-categorization		
54	The proposed firewall shall customizable block pages		
55	The proposed firewall shall block and continue (i.e. allowing a user to access a web-site which potentially violates policy by presenting them a block page with a warning with a continue option allowing them to proceed for a certain time)		
56	The proposed firewall shall have logs populated with end user activity reports for site monitoring within the local firewall		
57	The proposed firewall shall have Drive-by-download control		
58	The proposed firewall shall have URL Filtering policies by AD user, group, machines and IP address/range		
59	The proposed firewall should have full-path categorization of URLs only to block re categories the malicious malware path not the full domain or website		
60	The proposed firewall should have zero-day malicious web site or URL blocking update less than 15 minutes for URL DB update for zero-day malware command and control, spyware and phishing websites access protection		



61	The proposed firewall should protect against evasive techniques such as cloaking, fake CAPTCHAs, and HTML character encoding based attacks		
62	The proposed Firewall should offer advanced URL filtering capabilities including Inline Real-Time Web Threat Prevention, Anti-Evasion Measures, Multicategory Support, Real-Time Credential Theft Protection, Phishing Image Detection, Criteria Matching, Translation Site Filtering.		
63	The solution should protect against never-before-seen phishing and JavaScript attacks inline. Solution should be capable to use both signature based and ML based signature less technology		
64	The proposed firewall should have URL or URL category base protection for user cooperate credential submission protection from phishing attack with malicious URL path		
65	The NGFW should prevent credential theft attacks by preventing users from submitting credentials to phishing sites.		
66	<p>The NGFW should prevent this kind of credential theft attack (without the need of endpoint agents). Vendors should provide features with the ability to prevent the theft and abuse of stolen credentials, one of the most common methods cyber adversaries use to successfully compromise and maneuver within an organization to steal valuable assets. It should also complement additional malware and threat prevention and secure application enablement functionality, to extend customer organization's ability to prevent cyber breaches.</p> <p>1.) Automatically identify and block phishing sites 2.) Prevent users from submitting credentials to phishing sites 3.) Prevent the use of stolen credentials</p>		
67	The URL filtering service should be able to categorize a site by multiple categories and not just a single and custom category		
68	Zero-Day / Sandboxing		
69	The proposed solution should have zero-day protection on the same appliance. The zero-day protection should be a cloud based unknown malware analysis service with guaranteed protection signature delivery time not more than 10 minutes.		



70	The device should support zero day prevention by submitting the executable files and getting the verdict back in five minutes post detection.		
71	Advanced unknown malware analysis engine should be capable of machine learning with static analysis and dynamic analysis engine.		
72	Cloud based unknown malware analysis service should be certified with SOC2 or any other Data privacy compliance certification for customer data privacy protection which is uploaded to unknown threat emulation and analysis		
73	The solution must support sandboxing on Linux OS.		
74	This solution should prevent malicious file-based content, such as portable executable files and dangerous fileless attacks stemming from PowerShell, completely inline with no cloud analysis step. The ML models should be updated daily for the most up-to date detection capabilities.		
75	Solution should be have machine learning capabilities on the dataplane to analyze web page content to determine if it contains malicious JavaScript or is being used for credential phishing. Inline ML should prevent web page threats from infiltrating network by providing real-time analysis capabilities.		
76	The proposed solution should have Intelligent real-time memory analysis capability to capture snapshots of malicious activity in memory and conducts real-time analysis to identify malicious behaviour, detecting highly evasive malware that would've otherwise gone undetected.		
77	The proposed next generation security platform should be able to detect and prevent zero day threats infection through HTTP, HTTPS, FTP, SMB, SMTP, POP3, IMAP use by any of application used by the users (eg: Gmail, Facebook, MS outlook)		
78	The solution should support PE files (EXE, DLL, and others), all Microsoft Office file types, Mac OS X files, Linux (ELF) files, Android Package Kit (APK) files, Adobe Flash and PDF files, archive (RAR and 7-Zip) files, script (BAT, JS, VBS, PS1, Shell script, and HTA) files, analysis of links within email messages, and encrypted (SSL/TLS) files.		
79	The protection signatures created for unknown malware emulation should be payload or content based signatures that could block multiple unknown		



	malware that use different hash but the same malicious payload.		
80	The proposed solution should be able to analyse upto 80M unique files per day.		
81	DNS Security Service		
82	The Solution should support DNS security in line mode and not proxy mode.		
83	The Solution should offer Inline analysis of DNS request and response data for end-to-end protection of the DNS query journey and real-time enforcement delivered from the cloud to prevent patient zero		
84	The solution should provide threat reporting capabilities that allow full visibility into DNS traffic, along with the full DNS context around security events and traffic trends over time.		
85	Should support DNS sinkholing for malicious DNS request from inside hosts to outside bad domains and should be able to integrate and query third party external threat intelligence databases to block or sinkhole bad IP address, Domain and URLs		
86	DNS Security should have predictive analytics to disrupt attacks that use DNS for Data theft and Command & Control.		
87	DNS security should block known Bad domains and predict with advanced technology like machine learning		
88	It should prevent against new malicious domains and enforce consistent protections for millions of emerging domains.		
89	The Proposed Firewall should support simple policy formation for dynamic action to block domain generation algorithms and sinkhole DNS queries.		
90	The solution should integrate and correlate to provide effective prevention against C2 domains, file download source domains, and domains in malicious email links.		
91	Should have simple policy formation for dynamic action to block domain generation algorithms or sinkhole DNS queries.		
92	Solution should prevent against DNS tunneling which are used by hackers to hide data theft in standard DNS traffic by providing features like DNS tunnel inspection		
93	The solution should have capabilities to neutralize DNS tunneling and it should automatically stop with the combination of policy on the next-generation		



	firewall and blocking the parent domain for all customers.		
94	The Solution should be capable to detect and prevent advanced DNS Based Threats Including Call Back Domains (Botnet Domains, Fast Flux Domains , Dictionary DGA) , High Risk Domains (Newly Registered Domains , Parked Domains , Strategically Aged Domains) , DNS Record Attacks (DNS Misconfiguration , Compromised DNS Registrar , DNS Injection) , Covert Channels (for Stealthy data theft and C2 using DNS Tunneling , DNS Infiltration , Ultra Slow DNS Tunneling).		
95	Network Services, Authentication, Management and Monitoring Features Requirement		
96	The proposed solution should support the ability to create QoS policy on a per rule basis: -by source address -by destination address -by application (such as Skype, Bittorrent, YouTube, azureus) -by static or dynamic application groups (such as Instant Messaging or P2P groups) -by port and services		
97	The proposed solution should support the following authentication protocols: - LDAP - Radius (vendor specific attributes) - Token-based solutions (i.e. Secure-ID) - Kerberos		
98	The proposed solution shall provide the functionality of Auto-Check for latest firmware/software versions & download the same manually as well as automatically.		
99	The proposed solution shall provide and support the Comprehensive event logging, Historical Reporting , Report generation , Syslog , SNMP v2 & v3 , Real Time Monitor , Email Notification , GUI based interface , Command Line Interface (SSH).		
100	The proposed solution must provide Restful APIs for integration with 3rd party Software Defined Networking solutions & Cloud Automation & Orchestration tools for management, Logging & monitoring.		
101	The proposed solution should have separate real time logging based on all Traffic, Threats, User IDs, Data filtering, Content filtering, unknown malware analysis, Authentication, Tunneled Traffic and correlated log view based on other logging activities		



102	The proposed solution offered reports shall be available based on various factors such as Source / Destination IP Address, TCP/UDP Port Number, Protocol, ID, Traffic flow between the Zones, Timestamp, Human readable description of event and action taken (Block / log / email) etc.		
103	Should allow the report to be exported into other formats such as PDF, HTML, CSV, XML etc.		
104	Should be able to create a report based on SaaS application usage		
105	There should be provision to log query based on different logging attributes and generate reports, central management should dynamically pull the relevant logs from its log storage and presents the results to the user.		
106	The bidder must provide relevant tools to ensure that the configuration is deployed as per the OEM recommendation and industry standards, such as the Centre for Internet Security's (CIS) Critical Security Controls and the National Institute of Standards and Technology (NIST).		
107	The solution should be proposed with 3 Years of support bundle with 24x7x365 days TAC support, RMA, software updates and subscription update support. The NGFW should be proposed with 3 years subscription licenses for NGFW, NGIPS, Anti-Virus, URL Filtering, Anti Botnet/Anti Spyware, Anti APT, and DNS Security Licenses.		

50 INCH TV			
MAKE:		MODEL:	
S.No	Description	Compliance	Reference page of Specification sheet/Remarks
1	Display:127cm (50)		
2	Resolution:3840*2160(UHD)		
3	Refresh rate:60HZ		
4	Video: HDR_HDR 10 Pro		
5	Audio output:10W+10W		
6	Speaker system:2.0ch		
7	AI sound/Pro		
8	Processor: a5 AI processor 4k Gen7		
9	Home Dashboard		
10	Web Browser		



11	Pre-loaded APP		
12	Magic remote Compatibility		
13	Connectivity: HDMI eARC/wifi/screen share/google chromecast/airplay/Bluetooth/Google Assistant/Amazon alexa/voice Recognition		
14	Ports: HDMI IN-3,RF in-1,USB-2,Rj45-1		
15	Power(unit: watts):voltage HZ-Ac100~240v,50-60Hz		
16	Stand by: under 0.5w		
17	Certification: BIS		
18	Remote type: Magic Remote		
19	Power cable: 1.5M		

Minimum Technical Specification - Smart Rack			
MAKE:		MODEL:	
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 should have one pair of side panels, Top & Bottom cover, grounding and bonding accessories pre-installed by the OEM.		
2.5	The Rack shall have based plinth of min 100mm height.		
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 34U 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 drainpipe provided.		
6.2	The air-conditioning unit will have fans with backward-curved blades made from reinforced		



	ultra-light and highly resistant polymer material. The motors are coupled directly to the fans (plug-fan) and are EC (Electronically Commuted) brushless motors: this technology allows continuous modulation of air flowrate by continuously controlling fan speed via a 0-10V signal. Fan rotation speed can also be controlled directly on the user terminal, so as to allow adjustment of the flowrate or external static pressure (ESP)		
6.3	The motor can be powered at either 50 or 60Hz and will have IP54 ingress protection. All the fans are statically and dynamically balanced, have self-lubricating bearings and are mounted on vibration-damping supports.		
6.4	The fans are designed to allow “hot replacement” in the event of faults, i.e. an individual faulty fan can be replaced without having to stop the entire unit, thus reducing system down time		
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	In normal operating mode the screen should display unit number, temperature and relative humidity set points and actual, operating status.		



9.2	The unit must have a large screen LCD display on controller with user friendly menus and minimum two-level password protections.		
9.3	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 Maximum		
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	Fluid Sensor.		
13.6	Beacon & Hooter		
13.7	Door contact sensor		
14	Stand along Fire detection and suppression with NOVEC 1230 / FITEC 1230 Gas		
15	Warranty and Support		
15.1	All round service support through Customer care centre		
15.2	The Products manufactured should provide warranty for 3 years from date of installation		



Minimum Technical Specification - IPPBX			
MAKE:		MODEL:	
S.no	Description	Compliance Yes/No	Reference page of Specification sheet /Remarks
1	Architecture Features		
	30 SIP trunk accounts, 15 SIP Users expandable upto 100 users		
	Supports up to 30 concurrent calls		
	Built-in Call Recordings features (CDR)		
2	Telephone FXS Ports		
	2 RJ 11 Ports All ports have lifeline capability in case of power outage; number of ports can be expanded by peering with an FXS gateway		
3	PSTN Line		
	2 FXO Ports		
4	Network & Protocols		
	TCP/UDP/IP, RTP/RTCP, ICMP, ARP, DNS, DDNS, DHCP, NTP, TFTP, SSH, HTTP/HTTPS, PPPoE, SIP(RFC3261), STUN, SRTP, TLS, LADP		
5	Network Interface		
	Two self-adaptive Gigabit ports (switched, routed or dual mode)		
6	Peripheral Ports		
	One USB 3.0, TF and 1*SD card interface		
7	Voice-over-Packet Capabilities		
	LEC with NLP Packetized Voice Protocol Unit, 32~128ms-tail-length carrier grade Line Echo Cancellation		
8	Voice/Video and Fax Codecs		
	G.711 A-law/U-law, G.722, G.723.1, G.726, G.729A/B, GSM		
9	Security Features		
	Media Encryption: SRTP, TLS, HTTPS, TELNET, Whitelist, Blacklist, alerts and more to protect against attacks		
10	Call Features		
	Call park call forward		



call transfer DND Ring/hunt group paging/ intercom IVR (Interactive Voice Response)		
---	--	--

Technical Specification For VoIP Phone			
MAKE:		MODEL:	
S.no	Description	Compliance Yes/No	Reference page of Specification sheet /Remarks
1	6 SIP lines with Two port 10/100/1000 Ethernet switch		
2	Integrated POE on IEEE 802.3af		
3	Full-duplex speaker phone with AES		
4	2.8-inch (320x240) color screen		
5	8 Line key with LED		
6	Further paperless DSS key programming possible (up to 2 page)		
7	XML/LDAP remote phonebook, Message Waiting Indicator (MWI), Auto Provision		
8	SIP v2 (RFC3261)		
9	Dual-port Gigabit Ethernet port		
10	6-Way Audio Conference Support		
11	NAT transverse: STUN mode, Proxy mode		
12	IP assignment: static/DHCP , Time and date synchronization using SNTP		
13	UDP/TCP/DNS-SRV (RFC 3263)		
14	QoS: 802.1p/Q tagging (VLAN), Layer 2 ToS DSCP, SRTP/TLS		
15	HTTPS certificate manager		
16	AES encryption for configuration file , Digest authentication using MD5/MD5-sess, Open VPN, IEEE802.1X		
17	LLDP/CDP/DHCP VLAN, IPv4/IPv6 ,		
18	All necessary accessories to connect the switch and SIP phones will be included in the scope of supply.		



Technical Specification For All in One Workstation			
MAKE:		MODEL:	
Component Model	Description Bidder to Specify	Compliance Yes/No	Reference Page of Specification Sheet/Remarks
Processor	13 th Generation Processor with minimum 30 MB cache , 2.1 GHz or higher frequency .		
Chipset	Compatible Q670 Chipset with the above processor.		
Form factor	All-IN-ONE		
Memory	16 GB DDR5 5600 Mhz memory with support for memory expandability up to 64 GB or higher		
Memory Slots	Min 2 Memory DIMM/SODIMM slots or more.		
Internal Storage	Minimum 256 GB PCIe NVMe SSD or higher		
Graphics	Integrated / Intel UHD Graphics		
Ports : USB / HDMI / Display Port (Integrated in the motherboard)	Integrated USB Port: (Minimum 2 USBType C port. and Minimum 2 USB type A port.1 dual mode display port and RJ 45 port		
	Integrated Min 1 x Display Port & 1 x HDMI or more		
	Audio: 1 x Audio Line-out port		
Audio and Camera	5W stereo speaker,headset & headphone side ports (3.5m) camera with IR for face authentication and cloud array digital micro phones		
Cabinet	All in One		
SMPS	Minimum 160 Watt or higher (Internal Power supply) upto 92% efficiency.		
Wireless	Intel Wi-Fi 6E AX211 (2X2) and Bluetooth 5.3 wireless card or higher.		
Operating system	Windows 11-Professional 64 Bit to be preloaded.		



Manageability	System Serial No, OEM Name, Storage, RAM, Processor Information, to be available into the BIOS (CMOS)		
Security	TPM 2.0 , embedded security chip.		
Monitor / Display	Viewing Size not less than 27" diagonal with Minimum Resolution of 1920 x 1080 or better. Panel Type: Antiglare, IPS with stand.		
Keyboard	Standard full size USB keyboard (Same AIO OEM make)		
Mouse	Standard USB Optical scroll mouse (Same AIO OEM make)		
Production Unit, Certification and Compliance	Windows and Linux Certification for the quoted AIO model (certification must be available in the public domain)		
	EPEAT India for the quoted AIO model/series. Proof of certification to be submitted.		
	Energy Star certified . Proof of certification to be submitted.		
	OEM must ISO 9001,14001 and 45001 Certified.		
Warranty	3 years onsite comprehensive OEM warranty (OEM supplied model warranty must be visible in the OEM website in respect to each product serial number)		
Manufacturer Criteria (OEM)	Minimum 10 Years presence in India. OEM letter confirming that Operating system pre-loaded / pre-installed from OEM factory and service request would be placed directly with the Desktop OEM for the duration of warranty. OEM Toll free service phone no, Email ID and chat option must require along with the bid offering.		
Operating Temperature Range	10 to (Positive) 35 Degrees Celsius		



Internet Leased Line & SIP Trunk.

Internet Leased Line shall be facilitated by the successful bidder with the following mentioned features and benefits. However, all the connections, wiring, hardware connectivity from a nodal point shall lie in the purview of the successful bidder. Successful bidder has to ensure that ISP should be facilitated from a National ISP which should have a valid Category “A” ISP license from Government of India. Internet leased line shall be purchased on the name of Sindhu Central University wherein successful bidder shall only be facilitator. For the same a tri-party agreement will be signed including the successful bidder. However, the quotation for the same has to be facilitated by successful bidder in the financial sheet.

Features & Benefits

Attribute	Feature
Best in class Internet Experience at Khaltse	- Largest peering capacity with leading content providers like Google, Akamai, Facebook etc.
Scalable Infrastructure	- End to End Fiber/ Air fiber UBR based IP network
Future Ready	- IPv6 and IPv4 Dual stackarchitecture

Technical Specifications

Parameters	Specifications
Bandwidth	Granularity at 50 MBPS
Access Media	UBR: Bandwidth up-to 100 Mbps

SIP Trunk

SIP Trunk shall be facilitated by the successful bidder. SIP Trunk is an IP based Voice service that allows to make and receive calls through IP-PBX over a single link. It should be scalable from 10 to 10000 simultaneous call sessions. The same shall be facilitated to the successful bidder with the following mentioned features and benefits. However, all the connections, wiring, hardware connectivity from a nodal point shall lie in the purview of the successful bidder.

Successful bidder has to ensure that SIP trunk should be facilitated from a National ISP which should have a valid Category “A” ISP license from Government of India. SIP trunk should be purchased on the name of Sindhu Central University wherein successful bidder shall only be facilitator. For the same a tri-party agreement will be signed including the successful bidder.



Features & Benefits

Attribute	Feature	Customer Benefit
Call Type	- Inbound only/ Outbound only/ Both	- User can configure the SIP trunk for optimum usage
Network Architecture	- Multi-level redundancy at converged core and access	- Higher availability of service



ANNEXURE-XVII

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 XVI			



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-XVIII

FINANCIAL BID SUBMISSION FORM

To,

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

Dated: ___/___/2025

Dear Sir,

We, the undersigned, offer to provide **“Design, Supply, Installation, Testing, Commissioning of Equipment and Implementation of Smart Campus ICT Solution for SCU, Ladakh”** In accordance with your request for proposal dated ___/___/2025 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, Noida, UP					
Sub:	Price Bid with reference to Tender Document No: EdCIL/DES/SCU/ICT/2025/01									
S No.	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.	Core/ L3 Switch		No	3						
2.	Wireless LAN Controller		No	1						
3	Wireless access points (indoor)		No.	17						
4	NMS Server		No.	1						
5	AAA Server		No.	1						
6	Transceiver 1G Fiber		No.	6						
7	Transceiver 10G Fiber		No.	7						



8	Bullet Cameras (CCTV)		No.	15						
9.	32 Channel NVR with 2 numbers 8 TB Hard Disk		No.	1						
10.	CAT 6 STP Double Jacket Steel Tape Armoured Cable (305 Metres)		No.	23						
11.	CAT6 STP Patch Panel (Loaded)		No.	10						
12.	1 Port face plate		No.	100						
13.	CAT6 STP Patch cord (1 metre/ 2 metre/ 3 metre/ 10 metres) As per requirement		No.	250						
14.	CAT6 Shielded Toolless Connector		No.	100						
15.	12 Core Multimode OM3 Outdoor Armoured Fiber Optic Cable		Metre	120						
16.	24 Port Rack Mountable LC		No.	2						



	Type Fiber Patch Panel, Loaded								
17.	LC - LC Multimode 3m Fibre Patch Cord		No.	6					
18.	Installation Testing and commissioning for all Active, passive & Electrical works including all type of Electricals items and any other project related accessories like wires, plate, switch, Racks, conduit, HDPE Pipe, Fastner, Gang box etc..., trenching, digging / and any type of civil works or any other items necessary item required to		Job	1					



	complete this project.									
19	NGFW (Firewall)		No.	2.						
20	Video Conferencing system along with 75” interactive display		No.	1						
21	Smart Classroom with 65” interactive display		No.	4						
22	Workstations All in One		No.	37						
23	Electronics amenities like TV		No.	4						
24	Smart Rack		No.	1						
25	Technical support manpower to be deployed at site for 3 years		No.	1						
26	IP-PBX System with 30 SIP Trunk and 15 SIP User License		No.	1						



	expendable upto 100 users , Inbuilt Multi level Auto attendant, In built IVR and call recording.									
27	VoIP Phone		No.	15						
28	ISP for 3 years service for 100 Mbps leased line as well as SIP Trunk		Service	1						
29.1	Technical manpower charges for on-site support during 1 st year warranty(8X6)		No.	1						
29.2	Technical manpower charges for on-site support during 2 nd year warranty(8X6)		No.	1						
29.3	Technical manpower charges for on-		No.	1						



	site support during 3 rd year warranty(8X6)								
	AMC charges (after warranty of 3 years) (8 X 6) * at sole discretion of Sindhu Central University	Charges for 4th year (including technical manpower cost)							
		Charges for 5th year (including technical manpower cost)							
		Charges for 6th year (including technical manpower cost)							
	AMC Charges (after warranty for three years) quoted in the financial bid shall not be taken into account for calculation of successful bidder. However, it depends on the sole discretion of Sindhu Central University to accept or reject these AMC charges (after warranty for three years).								
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.								



Date:	Signature of Authorized Bidder with proper rubber stamp	
	Name:	
	Designation:	
	Mobile No:	



ANNEXURE-XIX

Land Border Sharing Declaration

(To be submitted in the Bidder's letter head)

I have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries.

- a. I certify that this Bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.
- b. I hereby certify that this Bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”.

For and behalf of _____ (Name of the Bidder)

(Signature, date & seal of authorized representative of the Bidder)”



ANNEXURE-XX

Solvency Certificate

Dated:

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

This is to certify that M/S..... having their office at..... is a regular customer of our bank. They are solvent to an extent of Rs.....

Seal & Signature for the Bank

NOTE: Banker's certificate should be on letter head of the Bank.



ANNEXURE- XXI

Declaration / Certificate to be provided by Statutory Auditor or Cost Auditor of the Company (in case of companies) or from a practicing Cost Accountant or practicing Chartered Accountant (in respect of suppliers other than companies)

Please submit the certificate as per format given below:

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

Sub: Tender for

Ref: Tender No. EdCIL/DES/SCU/ICT/2025/01

We hereby certify that the goods / software being offered by us vide our proposal, comply with the provisions of Make In India Order No P-45021/2/2017-PP (BE-II), dated 16th Sept 2020 issued by Public Procurement Division, Department of Investment and Internal Trade, Ministry of Commerce, GoI, read with order number W-43/4/2019-IPHW- MeitY, dated 7th September, 2020 issued by IPWH division of MeitY, GoI for respective items.

We also certify that, we are not from a country sharing land border with India as defined in order No. F/No/6/18/2019-PPD dated 23 July 2020 issued by public procurement Division, Dept. of Expenditure, Ministry of Finance, GoI and the goods offered by us comply with the provisions of said order (details provided below).

We hereby certify the details pertaining to goods / software offered by us, against the tender requirement is given below:

Sr No.	Item Description, Make, Model	Country of origin of OEM	Country of Manufacture of item	Percentage of local contents as defined by order number W43/4/2019-IPHW- MeitY, dated 7th September, 2020 issued by IPWH division of MeitY, GoI *	Details of the location(s) at which the local value addition is made
1	Category I & II Items with description			Consolidated MII / Local Content for the complete solution declared by System Integrator (SI)/ Bidder	



Note 1: The Country of origin / manufacturing, should be declared for individual items being offered for both Category I & II items.

Note 2: EdCIL (India) Limited reserves the right to Accept / Reject / Cancel the bid / Bidder, at its sole discretion, based on the responses received against the MII and Land border sharing declarations submitted by the Bidders / vendors.

Note 3: The System Integrator / Bidder, needs to provide the MII / Local content declaration as a consolidated figure for the complete solution. However, location of value addition should be declared for each item.

For (Name of Bidder):

Authorized Signatory Name & Designation:

Mobile No:

**ANNEXURE- XXII****Annual Average Turnover**

Sl. No.	Financial Year			
1.	2021-22			
2.	2022-23			
3.	2023-24			
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- XXIII

List of campus networking projects in the last four financial years

List of campus networking projects for whom the Bidder has undertaken such work during last four years (must be supported with work orders)							
S. No	Name of the Client with address	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. : _____