



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची- 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.::2411221, 2411665

No. JVM/PS/OT-05/2024-2025

Date: 25.10.2024

**INVITATION TO TENDER**

**Subject: Tender for Supply, Installation, Commissioning, and Comprehensive AMC (for 5 years) of Campus Wide Local Area Network (CWLAN) at Jawahar Vidya Mandir, Shyamali, Ranchi**

**Salient Features of the Invitation to Tender**

1	<b>Tender Enquiry No. &amp; Date</b>	JVM/PS//OT-05/2024-2025 Dated : 25.10.2024
2	<b>Project Description</b>	<b>Tender for Supply, Installation, Commissioning, and Comprehensive AMC (for 5 years) of Campus Wide Local Area Network (CWLAN) at Jawahar Vidya Mandir, Shyamali, Ranchi</b>
3	<b>Pre Bid Meeting</b>	04.11.2021 at 12.30 PM at JVM Shyamali
4	<b>Last date &amp; time of submission of tender document</b>	11.11.2024 by 01.00 PM
5	<b>Date &amp; Time of Opening of Tender</b>	On 11.11.2024 at 1.30 PM. The representatives from the tenderer may be present while opening of the tender.
6	<b>Validity of tender</b>	03 (Three) months from the due date of opening of Techno-Commercial part of the tender document.
7	<b>Completion Time</b>	Four months from the date of issue of work order.
8	<b>Earnest Money Deposit</b>	Rs. 1,80,000/- (One Lakhs eighty thousand) only
9	<b>Cost of the tender document</b>	Rs. 1000/- (One Thousand only)

*Jana*  
25/10/2024

**Samarjit Jana**  
**Principal**  
Jawahar Vidya Mandir  
Shyamali, Ranchi-2.  
Aff. No.- 3430004 (66230)



Dated: 25.10.2024

**INVITATION TO TENDER**

**Subject: Tender for Supply, Installation, Commissioning, and Comprehensive AMC (for 5 years) of Campus Wide Local Area Network (CWLAN) at Jawahar Vidya Mandir, Shyamali, Ranchi**

Sealed tenders are invited for award of Supply, Installation, Commissioning, and Comprehensive AMC (for 5 years) of Campus Wide Network at Jawahar Vidya Mandir, Shyamali, Ranchi as per the Technical Specification attached as **Annexure – II** from reputed, experienced and eligible firms who have executed similar nature of work in Schools/ Institutions/Organizations and satisfying all the terms and conditions in this tender document.

**1.0 Instructions to Tenderers**

1.1 Tenders are invited in three parts (i) Commercial Eligibility Bid (ii) Technical Eligibility Bid & (iii) Price Bid.

The '**Commercial Eligibility Bid**' shall be made and put in the first envelope containing the title '**Commercial Eligibility Bid**' along with the documents duly page numbered and mentioned in **Annexure IV**, the **second envelope titled Technical eligibility**. Bid should contain full information as sought in **Annexure – II, III, V & VI** and documents mentioned in **eligibility criteria 2.0** duly page numbered and mentioned on the sheet. **These two envelopes should be kept in one envelope**. The '**Price Bid**' shall be made and put in the third envelope containing the title '**Price Bid**'. It could include full information as required in **Annexure – VII**.

Both bids should be put in the fourth envelope which should be prominently super-scribed as "**Tender for Supply, Installation, Commissioning, and Comprehensive AMC (for 5 years) of Campus Wide Local Area Network at Jawahar Vidya Mandir, Shyamali, Ranchi.**" and addressed to "The Principal, Jawahar Vidya Mandir, Shyamali colony, Ranchi – 834002" on or before **11.11.2024 till 1.00 PM**. The tenders shall be opened on the same date at **1.30PM on 11.11.2024**.

1.2 The tentative Bill of Quantity is mentioned in **Annexure - I**

1.2 Tenders received after due date and time mentioned above, as well as those received without separate sealed envelopes as specified above shall not be accepted and liable for rejection.

1.3 It may be noted that incomplete in any respect or conditional tender shall not be accepted.

*Sang*  
25/10/2024



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:- 66230  
Ph.:2411221, 2411665

**2.0 MINIMUM ELIGIBILITY CRITERIA**

**2.1 Minimum Commercial Eligibility Criteria -BIDDER**

Sl. No.	Criteria	Documents to be submitted
1.	The Bidder must be a company registered under Companies Act, 1956/2013 or Partnership or LLP and in operation for a period of 3 years in India.	Documentary (Certificate of Incorporation / Relevant Document) evidence to be submitted
2.	The Bidder should have valid GST Registration Certificate & PAN.	Photocopy of the documents to be submitted.
3.	The Bidder should have an average annual turnover of minimum Rs.04 (four) Crore and a positive networth in each of the last three financial years (2021-22, 2022-23 and 2023-24).	Audited Accounts statement and CA certificate ( <b>UDIN</b> ) in support of their claim should be submitted with Techno-Commercial bid
4.	The Bidder shall not have been blacklisted by any State / Central Government or PSU Organization or Public Sector Bank for breach of ethical conduct or fraudulent practices as on date of submission of the proposal.	Declaration on bidder's letter head to be submitted.
5.	The bidder should have their presence in Eastern India from last three years.	Proof of establishment to be submitted along with techno-commercial bid

**2.2 Minimum Technical Eligibility Criteria -BIDDER**

Sl. No.	Criteria	Documents to be submitted
1. (a)	The Bidder should have successfully completed supply & installation of active network components for campus network in India within last 05 years from the date of NIT with at-least - <ul style="list-style-type: none"><li>• 01 (One) project with work-order value of 50 lakhs INR</li></ul> OR <ul style="list-style-type: none"><li>• 02 (two) projects with work-order value of 40 lakhs INR each,</li></ul> OR <ul style="list-style-type: none"><li>• 03 (three) project with work-order value of 30 lakhs INR each</li></ul> At-least one (01) work-order should be with supply & installation of minimum 20 (twenty) numbers of switches.	Copy of Order and completion certificate is to be submitted with Techno-Commercial bid
1. (b)	In case the Bidder is a wholly owned subsidiary, then the relevant experience of the parent company should also be acceptable.	
2.	Bidder should submit escalation matrix with all details for resolutions of technical and administrative issues.	Escalation matrix in the letter head of bidder.

*25/10/2024*



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.::2411221, 2411665

3.	The Bidder must have valid certification for the following ISO standards: <ul style="list-style-type: none"><li>• ISO 9001:2015</li><li>• ISO / IEC 27001:2013</li></ul>	Copy of valid Certificates need to be submitted.
4.	The Bidder shall submit tender document duly signed by the authorized signatory of the Company. Deviation of any tender clause may not be accepted.	Signed copy of the document
5.	Tender specific OEM authorization certificate for both active and passive components is required.	Tender specific OEM authorization to be submitted.
6.	All active components should be from a single OEM.	Declaration on letter head.
7.	All passive components should be from a single OEM.	Declaration on letter head.
8.	The bidder should not be black listed by any Govt./ PSU in India.	Declaration on letter head.
9.	Escalation matrix	Declaration on letter head.
10.	Details of minimum two experts on the direct payroll of the bidder for each active and passive component is to be provided.	Details to be provided on bidder's letter head certified by HR.

**2.3 Minimum Eligibility Criteria for OEM – ACTIVE Components**

Sl. No.	Criteria	Documents to be submitted
1	The OEM must be listed Leaders in Gartner Magic Quadrant for Wired and Wireless LAN Infrastructure as per last 5 years reports.	Copy of Gartner Report
2	The OEM should have well established manufacturing plant/ Research & Development Lab in India.	Proof of establishment in the letter head of the OEM
3	The OEM should have Technical Assistance Centre (TAC) support in India.	Certification from OEM in the letter head of the OEM
4	The OEM should have presence in India from at least past 10 years.	Supporting document endorsed by the OEM
5	The OEM should have posted profit in last 7 years.	Supporting document endorsed by the OEM
6	All products being quoted should be available as on date with the OEM and should be publicly referenceable.	List of references from OEM
7	Shall support Single Operating System for all switch models proposed as part of the design.	Declaration from OEM
8	Next business day support required	Declaration from OEM
9	OEM should provide 10 years support for the offered product	Declaration from OEM

*J. Singh*  
25/10/2021



#### 2.4 Minimum Eligibility Criteria for OEM – PASSIVE Components

Sl. No.	Eligibility Criteria	Documents to be submitted
1	OEM must be presence in India at-least 10 years	Proof of establishment
2	OEM should have members participating in Telecommunications Industry Association (TIA) committee	Supporting document to be provided
3	All components shall be ROHS compliant. Declaration of ROHS shall be available in product datasheets.	Supporting document to be provided
4	OEM shall have RCDD certified technical manpower in India and regional technical manpower based in Eastern India,	Declaration from OEM on letter head
5	OEM shall have ISO 9001 manufacturing facility in India functioning for min 10 years.	ISO certificates to be provided
6	OEM Should be ISO9001 ISO14001 and ISO 45000 certified for design, Development for LAN & WAN product.	ISO certificates to be provided

2.5 **Earnest Money Deposit:** The tender must be accompanied by earnest money deposit (EMD) in the form of a Demand draft drawn on any Nationalized/ Schedule Bank in favour of Jawahar Vidya Mandir. The earnest money shall be kept deposited up to a period of 06 (six) months from the date of the Tender. The earnest money shall not earn any interest. Tenders not accompanied by earnest money shall be rejected. On acceptance of the tender (but not earlier than the expiry date of validity of tender) the earnest money shall be returned to the unsuccessful tenderers on request.

2.6 **Cost of the Tender :** The cost of the tender shall be Rs.1000/- (One thousand only) non-refundable in the form of a Demand draft/ AT PAR CHEQUE drawn on any Nationalized/ Schedule Bank in favour of Jawahar Vidya Mandir.

**IF A FIRM FILING TENDER DOES NOT FULFILS ALL OR ANY OF THE ABOVE ELIGIBILITY CRITERIA MENTIONED ABOVE, THE TENDER OF THE FIRM SHALL NOT BE CONSIDERED FOR EVALUATION.**

### 3 SCOPE OF WORK:

- 3.1 The scope work shall include but not limited to supply, installation, commissioning and testing of the equipment/ Software as per Technical Specification enclosed at **Annexure-I**, on FOR, JVM, Ranchi.
- 3.2 All cabling shall be structured cabling.
- 3.3 All passive components including I/O patch panels, pig tails, patch cord etc. as required for structured cabling shall be provided by the bidder based on the actual requirement.
- 3.4 All pipe and cable laying including termination accessories like PVC/ conduits/ Channels/ Cable trays/racks/supporting structure, clamps, identification tags/labels etc. as required for laying of cables shall be provided by the bidder.
- 3.5 Storage of all equipment in proper environmental condition is the responsibility of the bidder.

*Jang*  
25/10/2014



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

- 3.6 The requirement given in this technical specification is broad, minimum and tentative. The bidder may study the requirement in detail.
- 3.7 The successful bidder shall work-out & submit drawings/ datasheets for approval by JVM.
- 3.8 5% Spare shall be considered while doing detail engineering.
- 3.9 Successful tenderer shall give presentation of design system before finalization of scheme. Any change/ modifications suggested by JVM shall be included in the scope.
- 3.10 Power Calculation shall be submitted by the successful bidder for approval by JVM.
- 3.11 Physical Space consumption requirement due to placement of active & passive equipment shall also be included.
- 3.12 Single Line Diagram (SLD) & IT layout drawing shall be part of the drawing list for approval by JVM.
- 3.13 Supply of all special tools and tackles as required for erection, testing, commissioning and warranty, maintenance of system at tenderer own cost.
- 3.14 Electronic earth pit (As per IS 3403) shall be provided by the successful bidder.
- 3.15 Minor civil works as required for executing the Campus Wide Local Area Network shall be in the scope of the bidder. The bidder shall restore the finish to its original shape & finish after completion of the execution.
- 3.16 OEM bidding for the Project, should ascertain, that the System Integrator Proposed has adequate / Trained manpower to delivery, Physical & Logical installation, integrate the project. Failing which, OEM would stand complete responsibility of delivering the said project, whether with same/ its own resources or alternate Solution Provider.
- 3.17 The proposed tentative network diagrams (4 nos.) are enclosed as Annexure-III.
- 3.18 Record drawings shall include but not be limited to: -
- Schematic system diagrams.
  - Main equipment diagrams and layout, installations details of equipment indicating proposed location, layout and arrangement, and other items that must be shown to assure a coordinated installation.
  - Drawings shall indicate adequate clearance for operation, maintenance, and replacement of operating equipment devices. If equipment is disapproved, the Solution Provider shall revise drawings to show acceptable equipment and resubmit.
  - Overall wiring / networking diagrams and distribution.
  - SLD - detailing As-built back haul and switching arrangements. Network diagrams shall indicate the internal wiring for each item of equipment and the interconnection between each item of equipment.
  - Cable/pipe/duct routing layouts (both internal and external) and mounting details.
  - Manufacturer's equipment drawings.
  - Sections and Elevations to show all wall mounted equipment and coordination of services demonstrating how the required ceiling heights are maintained.

*Jaw*  
25/10/2024



- 3.19 All submitted drawings shall meet the following requirements.
- Drawings shall be a minimum of ISO A1 size.
  - All layout drawings shall be to minimum scale of 1:100 for general areas and 1:50 or 1:20 for Class rooms and sections.
  - All drawings shall be prepared using latest AutoCAD Release. A soft copy (in both PDF & AutoCad format) of all submitted drawings shall be provided on CD-ROM.
  - A set of reduced size A3 drawings shall also be provided.
- 3.20 Cloud Service Provider (CSP) (if required) for management of active components shall be as per the Govt. of India guidelines.
- 3.21 Cloud license/ Cloud usage cost for 5 years for management of active components shall be borne by the successful bidder.  
Necessary support, co-ordination with the CSP shall be in the scope of the bidder.
- 3.22 **METHOD STATEMENTS & CHECKLIST**
- On completion of all testing, the bidder shall submit the completed test sheets, signed off by the Solution Provider's authorized engineers & JVM official(s).
  - On handing over of the system the tender shall provide complete set of all test sheets and commissioning certificate stating that the system has been installed and commissioned to the requirement of the specification.
- 3.23 The following Tools and tackles to be provided:
- RJ connector crimping tool: 01 No.
  - Digital Multi meter: 01 No.
  - Power driven screwdriver: 01 set
  - LAN Tester: 02 nos.
  - Rapid Punch Down Tool: 01 no
- 3.24 Deputation of onsite skilled Manpower for a period of 6 months after commissioning for handholding. Work profile of the deputed official should be duly approved by JVM.
- 3.25 Responsibilities of the successful bidder during hand-holding period-
- System Monitoring and Maintenance
  - Issue Resolution and Troubleshooting
  - Knowledge Transfer
  - Performance Monitoring and Optimization
  - System Tuning
- 3.26 The bidder shall arrange Vulnerability Assessment & Penetration Testing (VA&PT) on the proposed network. Supply, installation & configuration of any required software, hardware & expert services (if required) for compliance of the VA&PT observations, are in the scope of the bidder. The bidder must ensure successful closure on VA&PT observations with at-least 80% VA score. The purchaser reserves the right to change the satisfactory VA score.

The VA&PT shall be preferably carried out by STQC. In-case of non-availability of STQC for this project, VA&PT shall be carried out by CERT-IN empaneled Information Security

*Ramya*  
25/10/2024



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची- 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

Auditing Organization with following experiences as per information available in Cert-IN website-

- Carried out at-least 08 (eight) Network security audit in last 12 Months.
- Carried out at-least 10 (ten) Information Security Audits in Govt./ PSUs in last 12 Months.

Note: The successful bidder & VA&PT Auditing Organisation shall not be same.

3.27 The training should be provided to the JVM employees. The list shall be provided by JVM.

Sl. No.	Item	Quantum of Training	Location	Agency
	Network maintenance, administration, and configuration of different type of switches.  Bidder should arrange OEM personnel (2 days )	3 days including (2 days OEM)	Site / OEM premises.	Implementer and OEM

3.28 The scope of work also includes post warranty support i.e., comprehensive annual maintenance services (CAMC support) for the complete hardware, software & cabling system of the proposed networking system for a period of five (05) years.

#### 4.0 ACCEPTANCE TESTING

It's essential to have a certified test report, with regard to the testing of Fiber in this FTTx Environment. The testing should happen on all the three wavelengths of 1550, 1490 & 1310nm, for loss Budget & performance. Equipment's used, should be OTDR's, Point to Point power meters & Power source, Visual fault Locators, Optical loss test sets (OLTs), to be very specific. Penta-scanning test to be conducted on all Copper components (all test reports to be attached).

5.0 **Price:** The Tenderer shall quote for the items indicated above on FOR JVM, Shyamali, Ranchi basis. The quoted price shall be firm and binding and shall not be subject to any variation whatsoever on any account till completion of supply and installation. All applicable taxes & duties shall be indicated separately. **(Un-priced copy of Price Bid indicating "quoted" against each item should be submitted along with Techno-commercial bid).**

6.0 **Taxes & Duties:** Except as otherwise specifically provided in the order, the TENDERER shall bear and pay all taxes, duties, levies as charges for the subject work.

7.0 **Validity of Rates:** The rate quoted by the tenderer shall remain valid for a period of 90 (ninety) days from the date of opening of quotation.

#### 8.0 Time Schedule:

8.1 The successful tenderer shall be required to complete the supply, installation, commissioning and testing of above item within four (04) months from the date of receipt of order.

8.2 In the event the supplied material is not conforming to the ordering specification and approved make/brand, the material so supplied shall be rejected without paying any price/ compensation. The decision of JVM in this regard shall be final.

*Bana*  
25/10/2024





**9.0 Warranty/ AMC**

- 9.1 The hardware, software and networking components (Active/Passive) shall be covered under comprehensive onsite Next business day (NBD) warranty/support for a period of minimum 5(five) year from the date of acceptance and completion certificate (The tenderer shall indicate standard OEM warranty details).
- 9.2 The warranty shall cover faulty design, improper material, manufacturing defects and unsatisfactory performance of system/ network. In case the equipment fails to function inspite of necessary repairing work during the warranty period, the defective equipment shall be replaced with a new one free of cost.
- 9.3 During 5 years of warranty/ AMC the bidder/ OEM has to provide support and services on NBD basis.
- 9.4 The successful bidder shall provide comprehensive AMC for 5 years with NBD support for the proposed network system with all active and passive components.

**10.0 Payment Terms:**

- 10.1 No advance payment shall be made.
- 10.2 M1: 10% of order value shall be released after approval of detailed drawing, layout plan and data sheet as mentioned in scope of work.
- 10.3 M2: 40% of order value shall be released after supply of materials (Active/ Passive components) within 30 days of submission bill along with receipted challan, Inspection & Acceptance Certificate of the materials.
- 10.4 M3: 30% on Network Testing & User Acceptance Test (UAT) post commissioning
- 10.5 M4: 10% after successful completion of hand-holding period (post successful commissioning) & submission of all As-Built drawings.
- 10.5 M5: The remaining 10% amount shall be paid along with M4 against a bank guarantee for 10% (Order value) of total contract price towards performance guarantee to be kept valid until completion of warranty period.

In absence of bank guarantee for 10% of total contract price shall be on hold until completion of warranty/ AMC period.

All certificates and approval will be issued by IT In-charge/ Project Supervisor/ IT Committee as assigned by the school.

- 11.0 Inspection:** The inspection of materials shall be carried out by IT In-charge/ Project Supervisor/ IT Committee as assigned by the school after receipt of materials at destination.

- 12.0 LIQUIDATED DAMAGES:** Time and date stipulated in the Contract for completion of delivery and installation of CWLAN shall be deemed to be the important activity of the Contract. If, however, the SUPPLIER fails to fulfill the delivery and installation within the time schedule, or within such extended time schedule as may be further granted, the SUPPLIER shall be liable to pay as Liquidated Damages (LD) and by way of penalty a sum of 0.5% of the contract price per week of delay or part thereof, and such liquidated damages shall be limited to a maximum ceiling of 5% of the Contract Price. In case the reasons for delay in supply & installation of CWLAN are not attributable to the SUPPLIER, then the LD clause shall not be applicable for such delay.

*Ranchi*  
*25/10/2024*



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

- 13.0 Acceptance of Order:** JVM is not bound to accept lowest or any Tender or to assign reasons whatsoever for non-acceptance. JVM also reserves the right to cancel the tender without assigning any reason whatsoever.
- 14.0 Evaluation of Tender:** Tenderer should quote for all the items as per enclosed price bid format (Annexure-VI). Part offer or incomplete offer shall be liable to be rejected. Price of the techno-commercially eligible tenderer shall be evaluated on overall basis.
- 15.0 NO CLAIM OR COMPENSATION FOR SUBMISSION OF TENDER:** The Tenderer whose Tender is not accepted shall not be entitled to claim any costs, charges, expenses of and incidental to or incurred by him through or in connection with his submission of Tender, even though JVM may elect to withdraw the Invitation of Tender ✓
- 16.0 TRANSIT INSURANCE:** SUPPLIER shall arrange transit insurance on his own and at his own cost for transportation of equipment to JVM, Ranchi.
- 17.0 NEGLIGENCE, DEFAULT AND RISK PURCHASE**
- 17.1** If the SUPPLIER fails to execute the work with due diligence or expedition or shall refuse or neglect to comply with any order given to him in writing by JVM in Contract, JVM may give notice in writing to the SUPPLIER calling upon him to make good the failure, neglect or contravention within such time as may be deemed reasonable and in default of the compliance with the said notice, JVM without prejudice to its rights under the Contract, may rescind or cancel the Contract holding the SUPPLIER liable for the damages that JVM may sustain in this regard.
- 17.2** Should the SUPPLIER fail to comply with such notice within a reasonable period from the date of serving thereof, JVM shall have the option and shall be at liberty to take the work wholly or in part out of the SUPPLIER's scope and may get the same executed by alternate agency at SUPPLIER's risk and cost. This shall be without prejudice to JVM's rights under other clauses of this Contract.
- 18.0 SUSPENSION AND TERMINATION**
- 18.1** JVM may at any time temporarily stop the work under the Contract or any part thereof by serving notice in writing to the SUPPLIER. Work so suspended shall be resumed by the SUPPLIER on receipt of instructions from JVM in writing. JVM shall not be liable to the SUPPLIER for any damage or loss caused by such period of suspension of work.
- 18.2** JVM shall be at liberty to terminate the Contract without prejudicing its right and affecting the obligations of the SUPPLIER by giving 15 days' notice in writing in the following events:
- a) If the SUPPLIER fails to comply with the provision/provisions of the Contract.  
b) If the SUPPLIER is involved in any action involving moral turpitude.
- 19.0 Arbitration:**
- 19.1** Any disputes, differences, whatsoever, arising between the parties, the arbitration shall be governed and regulated in all respect according to Laws of India.

*Sam*  
25/10/2024



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

- 19.2 The Arbitration proceedings in case of other Indian companies shall be regulated and governed by Indian Arbitration and Conciliation Act 1996, or such modification thereof.
- 19.3 The venue of arbitration proceeding shall be Ranchi.
- 19.4 Work under this Order shall be continued by the Supplier during the arbitration proceedings, unless otherwise directed in writing by PURCHASER or unless matter is such that the work cannot possibly be continued until the decision of the arbitrator is obtained.

The tenderers are requested to confirm acceptance of all terms & conditions as per tender enquiry.

*Sang*  
25/10/2024  
**PRINCIPAL**

**Samarjit Jana**  
*Principal*  
Jawahar Vidya Mandir  
Shyamali, Ranchi-2.  
Aff. No.- 3430004 (66230)



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

Annexure -I

**TENTATIVE BILL OF QUANTITY (BOQ)**

<b>A. ACTIVE COMPONENTS</b>			
<b>Sl. No.</b>	<b>Product</b>	<b>UOM</b>	<b>Qty</b>
1	Core Switch 10G	NOS	2
2	24 PORT(POE) 10G SWITCH	NOS	8
3	24 PORT(POE) 1G SWITCH	NOS	22
4	10G Base LR Single-Mode -FO Module	NOS	34
5	1000Base LX Single-Mode -FO Module	NOS	120
6	1 GbE SFP Copper Module	NOS	20
<ul style="list-style-type: none"><li>• The core switch should be in physical stack for HA.</li><li>• All other switches should be in physical/ virtual stack wherever necessary.</li></ul>			
<b>B. PASSIVE COMPONENTS</b>			
<b>Sl. No.</b>	<b>Product</b>	<b>UOM</b>	<b>Qty</b>
1	Cat 6 I/O with Face Plate and Back Box	NOS	258
2	9U Network Rack Loaded	NOS	13
3	CAT6 24 Port Jack Panel Loaded	NOS	28
4	12 Port Rack Mountable LIU loaded	NOS	14
5	6 Port Rack Mountable LIU loaded	NOS	06
6	36U Network Rack Loaded	NOS	02
7	LC-LC/SC Patch cable Single Mode - 3M	NOS	152
8	CAT6 UTP Patch Cable - 1M	NOS	400
9	CAT6 UTP Patch Cable - 2M/3M	NOS	241
10	UTP CAT-6 Cable	METER	10000
11	PVC Conduit	METER	4650
12	HDPE duct along with associated accessories	METER	1500
13	Media Converter for Gates Connection	NOS	6
14	6 Core Single Mode Fiber Optic Cable	METER	4500
15	6 Port wall Mountable LIU loaded	NOS	6
16	Tools and Tackles one set	SET	01
17	Laptop with windows latest edition	NOS	01

*Scanned  
25/10/2024*

*Jan 22*



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

Sl. No.	Product	UOM	Qty
<b>C. Installation &amp; Commissioning</b>			
1	Splicing per core	As required	
2	OFC laying in conduit	Meters	3000
3	OFC laying + Digging and resurfacing of hard soil Laying of FO cable, in 1.5" HDPE Pipe (Underground) in meters If required.	Meters	1500
4	Cat 6 cable Laying	Meters	10000
5	Earthing	As required	
6	Installation & Commissioning	Lot	01
7	Training	Lot	01
8	Cloud License for 5 years (if required)	Lot	01
9	Onsite deputation of Manpower for hand holding for the period of 6 months after commissioning.	As required	
10	VA&PT Testing	Lot	01

**Note:**

1. Any equipment, materials or supplies which may not be specifically mentioned (like installation of rack Fixing I/O with Face Plate and Back Box and punching/termination, 9U Network Rack installation, CAT6 24 Port Jack Panel Loaded installation and Termination, 12 Port Rack Mountable LIU installation, 36U Network Rack Loaded Installation and 6 Port wall Mountable LIU Installation etc.), but are necessary for carrying out the contract work shall be in the scope of the Bidder and the systems must be complete in all respects. Any item other than those mentioned above for successful commissioning of the campus wide networking are included in the scope.
2. Actual quantities of cables shall be estimated by the bidder based on the site visit. However, the quantities indicated in BOQ shall be minimum required being included in the scope of work. Unit rate quoted by the tenderer shall be valid till successful commissioning of the system for changes (increase or decrease) in the quantities. No payment shall be made for increased quantities, which may be necessary within the scope of work till successful completion. However, if actual quantities executed are less than the quantities indicated in Price schedule, payment shall be made for the actual quantities executed by the Contractor.

*Rang*  
25/10/2024  
*J. Singh*



**TECHNICAL SEPCIFICATION**

- Bidder need to provide complete technical details of the offered components. Only mentioning YES / NO in the compliance is not acceptable. Cross references to proper technical datasheets / spec sheet / website links need to be provided against each parameter.
- All active components from any single OEM make.

**A. Technical Specifications for Active Items:**

Sl. No	General Solution Requirements (All products)	Page No.
1	The solution must not require on-site controllers or management hardware/software as part of the solution	
2	The solution must not have a single point of failure – all devices should run autonomously in the event of a disconnect from the Cloud Management Platform or internet.	
3	The solution must include a cloud management platform that is fully redundant across multiple based data centers.	
4	Data Centers utilized by the solution must have at least a 99.99% SLA, be SSAE16 Certified, and have penetration tests run daily.	
5	The solution must offer a “single-pane-of-glass” management platform for managing access points, switches, security appliances, video surveillance and mobile device management.	
6	The system must allow for packet captures to be generated via the management console for directly connected clients.	
7	Licensing for the solution should include ALL current and ALL future features	
8	Licensing for the solution shall include next business day hardware replacement and 24x7 support.	
9	The solution must provide in depth Layer 7 analytics with respect to client traffic.	
10	The solution must alert administrators if the status of hardware changes, or if a change is made to the system. Additionally, all system changes must be logged and tracked by user and values changed.	
11	The management application must support two factor authentication.	
12	The management application must allow for multiple sites, and multiple levels of administrative roles, including “read-only”, “monitor-only” and Guest Ambassador (for creating guest Wireless Access)	
13	The management solution must include a free Mobile App for basic management and reporting, which must run on the latest iOS and Android platforms.	
14	All equipment must be made by the same manufacturer.	
15	OEM Warranty should be of 5 years.	
16	Bidders support for 5 years	
17	Cloud subscription required (if any) required for 5 years	



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची- 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

**1. Core Switch - 10G**

Sl. No	Minimum Technical requirement specification	Page No.
1	Shall support 24 x 10Gb SFP+ Ports and 8 x 1/10/25Gb SFP Ports.	
2	The switch shall be loaded with 6 x 10G -SFP+, 6 x 1G- SFP, 8 x 1G- Copper module.	
3	Shall support 2000 Gbps Switching capacity, forwarding rate 1488 Mbps and Mac forwarding entries 32k	
4	The proposed solution shall support complete management of all Switches using single management dashboard for configuring, deploying, monitoring & troubleshooting the Switches	
5	Shall be able to send notification alerts upon down time, configuration changes, power loss, etc.	
6	Shall be capable of Zero-touch remote provisioning	
7	Shall have Detailed historical per-port and per-client usage statistics DHCP, client, and hostname fingerprinting SNMP and SYSLOG support for integration with other network management solutions	
8	Shall have application layer visibility with automatic operating system, client, and hostname fingerprinting	
9	User fingerprinting shall allows administrators to easily identify and control individual users, PCs, iMacs, iPads, Androids, and other devices	
10	Should support quality of-service (QoS) functionality for prioritizing data, voice, and video traffic	
11	Shall be able to do automatic firmware upgrades with scheduling control. The solution must allow for 1-click mass upgrades for all switches simultaneously, regardless of model. Additionally, the solution must notify Network Administrators when a new feature or firmware version is available	
12	Shall support live remote packet capture	
13	Shall support 802.1p Quality of Service, 8 queues and configurable DSCP to CoS mapping	
14	Shall support 802.1Q VLAN and trunking support for up to 4,095 VLANs	
15	Shall support 802.1w, 802.1D Rapid Spanning Tree Protocol (RSTP, STP)	
16	Shall support Broadcast storm control	
17	Shall support 802.1ab Link Layer Discovery Protocol (LLDP)	
18	Shall support 802.3ad Link aggregation with up to 8 ports per aggregate.	
19	Shall support Port mirroring	
20	Shall support IGMP snooping for multicast filtering	
21	Shall support Layer 3 Features: 1. Dynamic routing (OSPFv2) 2. DHCP Server 3. Static routing 4. VRRP 5. DHCP Failover	
22	Shall support Layer 7 visibility and control	
23	Shall support physical stacking of up to 8 switches	
24	The Switch Should support redundant power supplies	
25	The switch should support an auto-ranging power supply with input voltages between 100 and 240V AC	

*Handwritten signature*



Sl. No	Minimum Technical requirement specification	Page No.
26	The Switch Should support redundant fans	
27	5 years comprehensive manufacturer authorized warranty	
28	The switch should support next business day delivery of replacement hardware where available	
29	When a switch needs to be replaced due to hardware failure, the system must allow configurations to be automatically copied to the replacement switch.	
30	Switch Ports must track uptime history for troubleshooting purposes	
31	Switches must include network wide search capabilities, in which a specific device, a group of devices, type of device, or type of port configuration can be located and configured.	
32	Switches must allow for mass port changes on multiple switches simultaneously from a GUI, without the use of CLI or 3rd party management applications.	
33	Switches must alert Network Administrators of changing port status or configuration change.	
34	Switch Ports must have the ability to run cable tests and packet captures via the management console	
35	Shall have Detailed historical per-port and per-client usage statistics DHCP, client, and hostname fingerprinting SNMPd and SYSLOG support for integration with other network management solutions	
36	Should be able to use an over-the-wire tag which segments traffic into security groups to deliver scalable security.	

## 2. ACCESS SWITCH 10G - 24 PORT(POE)

Sl. No	Minimum Technical requirement specification	Page No.
1	The OEM should be in the Leader quadrant of the Latest Gartner magic quadrant for Wired and Wireless LAN	
2	Shall support 24 x 1Gbps Ethernet Ports, 30 W per port PoE and Layer 2 Switch	
3	Shall support 4 x 10Gbps SFP+ Ports	
4	The switch shall be loaded with 2 x 10G -SFP+, 2 x 1G- SFP, 22 x 1G- Copper module.	
5	Shall support 146 Gbps Switching capacity, forwarding rate 510 Mbps, Mac forwarding entries 32k	
6	The proposed solution shall support complete management of all Switches using single management dashboard for configuring, deploying, monitoring & troubleshooting the Switches	
7	Shall be able to send E-mail and SMS notification alerts upon down time, configuration changes, power loss, etc.	
8	Shall be capable of Zero-touch remote provisioning	
9	Shall have Detailed historical per-port and per-client usage statistics DHCP, client, and hostname finger printing SNMPd and SYSLOG support for integration with other network management solutions	
10	Shall have application layer visibility with automatic operating system, client, and hostname fingerprinting	

*[Handwritten signature]*





**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची- 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

Sl. No	Minimum Technical requirement specification	Page No.
11	User fingerprinting shall allows administrators to easily identify and control individual users, PCs, iMacs, iPads, Androids, and other devices	
12	Should support quality of-service (QoS) functionality for prioritizing data, voice, and video traffic	
13	Shall be able to do automatic firmware upgrades with scheduling control. The solution must allow for 1-click mass upgrades for all switches simultaneously, regardless of model. Additionally, the solution must notify Network Administrators when a new feature or firmware version is available	
14	Shall support live remote packet capture	
15	Shall support 802.1p Quality of Service, 8 queues and configurable DSCP to CoS mapping	
16	Shall support 802.1Q VLAN and trunking support for up to 4,095 VLANs	
17	Shall support 802.1w, 802.1D Rapid Spanning Tree Protocol (RSTP, STP)	
18	Shall support Broadcast storm control	
19	Shall support 802.1ab Link Layer Discovery Protocol (LLDP)	
20	Shall support 802.3ad Link aggregation with up to 8 ports per aggregate.	
21	Shall support Port mirroring	
22	Shall support IGMP snooping for multicast filtering	
23	Shall have Detailed historical per-port and per-client usage statistics DHCP, client, and hostname finger printing SNMP and SYSLOG support for integration with other network management solutions	
24	Shall support Layer 7 visibility and control	
25	Shall support virtual stacking of multiple switches to push configuration on multiple switches at the same time.	
26	The switch should support an auto-ranging power supply with input voltages between 100 and 240V AC	
27	5 year comprehensive manufacturer authorized warranty	
28	The switch should support next business day delivery of replacement hardware where available	
29	When a switch needs to be replaced due to hardware failure, the system must allow configurations to be automatically copied to the replacement switch.	
30	Switch Ports must track uptime history for troubleshooting purposes	
31	Switches must include network wide search capabilities, in which a specific device, a group of devices, type of device, or type of port configuration can be located and configured.	
32	Switches must allow for mass port changes on multiple switches simultaneously from a GUI, without the use of CLI or 3rd party management applications.	
33	Switches must alert Network Administrators of changing port status or configuration change.	
34	Switch Ports must have the ability to run cable tests and packet captures via the management console	



**3. ACCESS SWITCH 1G : 24 PORT(POE)**

Sl. No	Minimum Technical requirement specification	Page No.
1	The OEM should be in the Leader quadrant of the Latest Gartner magic quadrant for Wired and Wireless LAN	
2	Shall support 24 x 1Gbps Ethernet Ports, 30 W per port PoE and Layer 2 Switch	
3	Shall support 4 x 1Gbps SFP Ports	
4	The switch shall be loaded with 4 x 1G- SFP, 24 x 1G- Copper module.	
5	Shall support 56 Gbps Switching capacity, Forwarding rate 131 Mpps, Mac forwarding entries 16k	
6	The proposed solution shall support complete management of all Switches using single management dashboard for configuring, deploying, monitoring & troubleshooting the Switches	
7	Shall be able to send E-mail and SMS notification alerts upon down time, configuration changes, power loss, etc.	
8	Shall be capable of Zero-touch remote provisioning	
9	Shall have Detailed historical per-port and per-client usage statistics DHCP, client, and hostname fingerprinting SNMPd and SYSLOG support for integration with other network management solutions	
10	Shall have application layer visibility with automatic operating system, client, and hostname fingerprinting	
11	User fingerprinting shall allows administrators to easily identify and control individual users, PCs, iMacs, iPads, Androids, and other devices	
12	Should support quality of-service (QoS) functionality for prioritizing data, voice, and video traffic	
13	Shall be able to do automatic firmware upgrades with scheduling control. The solution must allow for 1-click mass upgrades for all switches simultaneously, regardless of model. Additionally, the solution must notify Network Administrators when a new feature or firmware version is available	
14	Shall support live remote packet capture	
15	Shall support 802.1p Quality of Service, 8 queues and configurable DSCP to CoS mapping	
16	Shall support 802.1Q VLAN and trunking support for up to 4,095 VLANs	
17	Shall support 802.1w, 802.1D Rapid Spanning Tree Protocol (RSTP, STP)	
18	Shall support Broadcast storm control	
19	Shall support 802.1ab Link Layer Discovery Protocol (LLDP)	
20	Shall support 802.3ad Link aggregation with up to 8 ports per aggregate.	
21	Shall support Port mirroring	
22	Shall support IGMP snooping for multicast filtering	
23	Shall have Detailed historical per-port and per-client usage statistics DHCP, client, and hostname fingerprinting SNMPd and SYSLOG support for integration with other network management solutions	
24	Shall support Layer 7 visibility and control	



Sl. No	Minimum Technical requirement specification	Page No.
25	Shall support virtual stacking of multiple switches to push configuration on multiple switches at the same time.	
26	The switch should support an auto-ranging power supply with input voltages between 100 and 240V AC	
27	5 years comprehensive manufacturer authorized warranty	
28	The switch should support next business day delivery of replacement hardware where available	
29	When a switch needs to be replaced due to hardware failure, the system must allow configurations to be automatically copied to the replacement switch.	
30	Switch Ports must track uptime history for troubleshooting purposes	
31	Switches must include network wide search capabilities, in which a specific device, a group of devices, type of device, or type of port configuration can be located and configured.	
32	Switches must allow for mass port changes on multiple switches simultaneously from a GUI, without the use of CLI or 3rd party management applications.	
33	Switches must alert Network Administrators of changing port status or configuration change.	
34	Switch Ports must have the ability to run cable tests and packet captures via the management console	

**B. Technical Specifications for Passive Items:**

- Bidder need to provide complete technical details of the offered components. Only mentioning YES / NO in the compliance is not acceptable. Cross references to proper technical datasheets / spec sheet / website links need to be provided against each parameter.
- All passive items must be from any single OEM make.

**1. CAT6 UTP CABLE**

SI No.	Details	Specification	Page No.
1	<b>Type</b>	Unshielded Twisted Pair, Category 6 23 AWG cable, 4 pair with cross filler, compliant to ANSI/TIA 568.2-D, IEEE 802.3bt & ISO/IEC 11801 Class E.	
2	<b>Jacket</b>	LSZH jacket complying to: Fire rating IEC 60332-3-22 Acid gas IEC 60754-2 Smoke density IEC 61034-2	
3	<b>Approvals</b>	Intertek 4 connector channel certified for upto 600Mhz, for 100mtr channel. Transmission tested for Zero BER performance to the requirements of IEEE 802.3 for 1000BASE-T protocol. Shall be certified by Intertek for 4 connector channel compliance as per ANSI/TIA 568-C.2 for CAT6, under Short channel (<= 15m) configuration. (Intertek lab Reports to be submitted with bid.)	



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची- 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

Sl No.	Details	Specification	Page No.
4	Frequency tested up to	Performance spec upto 600 MHz to be mentioned with datasheet;	
5	Application support	Shall comply to the requirements of IEEE 802.3bt (Type 4) for the safe delivery of power over LAN cable	
6	Mutual Capacitance	5.6 NF MAX /100 Mtr.	
7	DC Resistance, maximum	7.61 ohms/100 m	
8	Safety Voltage Rating	300 V	
9	Test report	All factory test reports for the cable shall be available online at OEM website using unique print string on Cable packaging.	
10	Certification	Cable must be ETL verified for ANSI/TIA 568-C.2 and ISO/IEC 11801. Report to be submitted.	
11	Manufacturing	Cabling OEM shall have ISO 9001 manufacturing facility in India.	

**2. CAT6 UTP JACKS**

Sl No.	Details	Specification	Page No.
1	Type	Category 6, UTP Modular Outlet Jack, Complying to ANSI/TIA 568.2-D and ISO/IEC 11801	
2	Min Mating cycle life	3000 mating cycles under 90W POE load	
3	Min termination Punch down support	200 termination cycles	
4	Cable strain protection	Integrated bend-limiting and strain-relief unit for cable entry	
5	Clutter free access	Jack shall not have any internal shutter or dust cap.	
6	Termination procedure	Bidder should have a mechanism to maintain the quality of the termination ir-respective of the skill level of the termination staff.	
7	Housing	Polyphenylene oxide, UL 94V-0 rated.	
8	Jack contacts	Beryllium copper, plated with 1.27 mm [.000050] thick gold	
9	Approvals	(a) UL Listed. (b) Shall be Intertek / ETL certified for 4 connector channel performance in compliance with – ANSI/TIA 568-C.2 ISO/IEC 11801 (c) Zero BER certified to IEEE 802.3 for 1000BASE-T applications. (d) Complies to IEEE 802.3bt (type 4) transmission requirements and safe unmating under electrical load as per IEC 60512-99	

*Trisheng*



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:.2411221, 2411665

Sl No.	Details	Specification	Page No.
10	Plug performance	Shall be IEC 60603-7 compliant Min Insulation resistance 500 mOhm. Current rating 1.5A	
		OEM Should be ISO9001 ISO14001 and ISO 45000 certified for design, Development for LAN & WAN product.	

### 3. FACE PLATE

Sl. No.	Details	Specification	Page No.
1	Type	Single Gang shuttered, supplied with admin labels and label covers.	
2	Material	Shall be UL 94 V-0 rated	
3	No. of ports	One/Two/Four	
4	ROHS Compliant	ROHS/ELV Compliant	

### 4. CAT6 UTP JACK PANELS 24 PORT

Sl No.	Details	Specification	Page No.
1	Type	24-port, Modular, 1U, UTP Patch Panel, Category 6, ANSI/TIA 568-C.2 and ISO/IEC 11801	
2	Port arrangement	Configured as 6 Port Module with individually replaceable CAT-6 Jacks	
3	Port Identification	9mm or 12mm Labels on each of 24-ports (to be included in supply)	
4	Mating cycle life	750 mating cycles	
5	Punch downs supported	Min 200 times	
6	Accessories	Integrated bend-limiting strain-relief unit for cable entry	
7	Cable support	Shall be supplied with removable rear cable manager.	
8	Materials		
	Housing	Polyphenylene oxide, 94V-0 rated	
	Jack contacts	Beryllium copper, plated with 1.27 mm [.000050] thick gold	
	Panel	Black, powder coated steel	
9	Approvals	UL and cUL listed.	
10	Termination Pattern	T568 A and B;	
11	ROHS Compliant	ROHS/ELV Compliant	



**5. CAT6 UTP PATCH CORDS**

SI No.	Details	Specification	Page No.
1	Type	CAT6 UTP RJ45 Patch Cord complying to ANSI/TIA 568.2-D, ISO/IEC 11801 and IEEE 802.3bt (Type 4)	
2	Conductor	24 AWG 7 / 32, stranded copper conductors 100 Ohm	
3	Length	Shall be available in multiple length and jacket color.	
4	Plug Protection	Factory fitted strain relief boots on either side	
5	Jacket	LSZH as per IEC 60332-1	
6	Wiring	Shall be available in universal B-wiring	
7	Performance	In Compliance with IEC 60603-7	
8	Compliance	EN50575 compliant with Dca or better rating.	
9	Approval	Intertek - ETL 4 connector channel compliant. UL 1863 compliant.	

**6. 6 Core Fiber outdoor armored SM cable, OS2**

SI No.	Specifications	Requirement	Page No.
1	Cable Type	6 core fiber Single Mode, Armored, Loose-tube, Gel filled cable complying to ISO/IEC 11801, EN50173, ANSI/TIA 568-C.3: suitable for use in direct burial, outdoor ducts and backbone cabling	
2	Fiber Type	Single Mode, 9/125-micron primary coated buffers, OS2 (IEC 60793-2-50, B1.3 and ITU T G652.d)	
3	Armour	Corrugated Steel Tape Armour of min. 0.15 mm thickness	
4	Cable Construction Type	BELLCORE GR 20 / IEC 794-1	
5	Attenuation	@ 1310nm <=0.34 db/Km MAX @1550nm <=0.22 db/Km MAX @ 1380-1386nm <= 0.31db/Km	
6	Loose tube material	Single PBTP Loose tube filled with water blocking Thixotropic gel	
7	Jacket material	HDPE outer jacket 2mm thickness	
8	Strength members	Water Swellable Glass yarn strength members	
9	Tensile Strength	1250 N	
10	Crush Resistance	3000 N	
11	Min Proff Strength (Kpsi)	100	
12	Cable Diameter	10.0 + - 0.5 mm	
13	Operating Temperature	-40 Degree C to +70 Degree C	
14	Test Reports	OEM factory test reports must be provided against each drum / roll of fiber cable.	
15	3 <sup>rd</sup> Party Tests	Must be approved by Intertek ETL labs for ANSI/TIA 568C Fiber channel requirement.	



**7. Fiber LIU Rack- mountable, 1U fully loaded, SM**

Sl No	Specifications	Requirement	Page No.
1	<b>Fiber Management shelf</b>	Should be fully loaded and factory fitted assembly with no assembling required during installation at site	
2	<b>Capacity</b>	1U: 12 Fiber terminations (for LC type)	
3	<b>Loaded configuration</b>	• Should be supplied loaded with LC or SC duplex adapters, Pigtails, splice trays, and fiber management rings	
4	<b>Cable entry ports</b>	• Min 4 cable entry points at rear of shelf	
5	<b>Ease of access</b>	o Easy access to splicing tray and connectors o Should have front locking latches on both side of shelf	
6	<b>Accessories</b>	Fiber management guides, secure tie downs and all splicing accessories Pre loaded with labeling strips, 2 grounding lugs Sealed cable inlets for dust and rodent protection	
7	<b>Material</b>	Min 1.6mm CRCA Sheet steel with powder coating	
8	<b>Fiber / buffer tube storage</b>	Min of 320 mm depth for storage of fiber slack.	
9	<b>Pigtails loaded in Shelf:</b>	<b>Fiber / buffer tube storage</b>	
i	Type	LC Type, SM 1.5 Mtr.	
ii	Attenuation	<=0.3 dB, at 1310 nm	
iii	Return Loss	>= 45 dB	

**8. Fiber Optic Patch Cord SM**

Sl No.	Specifications	Requirement	Page No.
1	<b>Type</b>	LC/UPC to LC/UPC Duplex tuned Fiber Optic Patch Cord, 9/125 Micron compliant to ANSI/ICEA S-83-596 and Telcordia GR-409 specifications	
2	<b>Standard</b>	ITU-T G.652.D and ITU-T G.657.A1 Bend Insensitive Single mode OS2 Fiber	
3	<b>Cable Sheath</b>	LSZH in Yellow Color	
4	<b>Cable Diameter</b>	1.6 mm duplex cord	
5	<b>Flame Test Listing</b>	NEC OFNR-LS (ETL) and c(ETL)	
6	<b>Flame test compliance</b>	IEC 60332-3, IEC 61034-2 and IEC 60754-2	
7	<b>UL Listings</b>	Shall be UL 1666 and UL 1685 compliant.	
8	<b>Tensile rating</b>	Upto 150N or better	
9	<b>Insertion Loss</b>	< 0.35 dB	
10	<b>Return Loss</b>	> 50 dB	
11	<b>Temperature Range</b>	-10 Degree C to +60 Degree C	
12	<b>Compliance</b>	ROHS and EN50575 Compliant	



**9. 6 Port wall Mountable LIU loaded**

Sl. No	Specifications	Requirement	Page No.
1	Type	Outdoor Wall / pole mountable fiber splicing closure, suitable for distribution and drop fibers in FTTX networks. Shall be supplied loaded with 6F / 12 LC or SC SM adapters, pigtails and splice trays.	
2	Dimension (mm)	L x W x H: 250 x 210 x 70	
3	Outdoor usability	Anti UV and IP 65 rated	
4	Cable sealings	All cable ports and door openings to be securely sealed using rubber seals.	
5	Mounting options	Wall mount or pole mountable. Wall mounting kits to be included in supply.	
6	Cable entry ports	Shall have multiple cable entry ports for cables ranging from 3mm – 13mm.	
7	Capacity	Shall have splicing capacity of upto 12 fibers. Storage space for 1.5m pass through cable. Upto 12 standard LC adapters.	
8	Operating temp.:	-10 °C to + 65 °C	
9	Material	ABS grade plastic.	
10	Door access	Shall have front door with lock	

**10. 9U Wall Mount Enclosure**

Sl. No	Description	Page No.
1	<b>TECHNICAL SPECIFICATION FOR 9U Wall Mount RACK:</b>	
2	Racks manufactured out of steel sheet punched, formed, welded and Powder coated	
3	Rack should be from ISO 14001 ,27000 Certified Company & UL Listed	
4	Standard for Racks configuration shall be welded frame Cable entry provision on top cover	
5	Rack should have Front tinted Glass door with lock & key.	
6	Rack should be 9(1U = 44.45 mm) in Height.	
7	It should be minimum 550MM Wide & 600MM Deep	
8	Rack should Conform to DIN 41494 or Equivalent EIA /ISO / EN/CEA Standard	
9	Rack should have Adjustable mounting depth,	
10	Rack 4 No Adjustable, 19" verticals with Punched 10mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space.	
11	Rack should have Numbered U positions,	
12	Rack should have 100% assured compatibility with all equipment conforming to DIN 41494 (General industrial standard for equipment)	
13	Powder coated finish with seven Tanks pre-treatment process meeting IS	
14	Rack should have one Hoz. Cable Manager.	





**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

Sl. No	Description	Page No.
15	Rack should have one shelf.	
16	Rack should have Fan module Mount Provision on top Cover with minimum 1 no. 90 CFM Fan	
17	Rack should have one power distribution unit, 1Ph, 230V, 16A, 50/60Hz, 2U standard with 6 X Indian Round Pin 5/15A, Inlet Plug type 16A Indian Round Pin, 16A MCB - PDU Rating 3.6KVA/Side feed-1.5Mt/ Black	
18	Rack should have 1 Packet of mounting hardware, Pack of 20.	

**11. 36U Floor Mount Rack**

Sl. No	Description	Page No.
1	<b>TECHNICAL SPECIFICATION FOR 36U Floor Mount RACK:</b>	
2	Racks manufactured out of steel sheet punched, formed, welded and Powder coated	
3	Rack should be from ISO 14001 ,27000 Certified Company & UL Listed	
4	Standard for Racks configuration shall be welded frame with side panel and vented top cover	
5	Rack should have Front tinted Glass door and Metal perforated dual door at Rear.	
6	Rack should have provision to mount racks on Floor. It should be with castor & levellers.	
7	Rack should be 36U(1U = 44.45 mm) in Height.	
8	It should be 800MM Wide & 1000MM Depth with 19 inch adaptor kit	
9	Rack should Conform to DIN 41494 or Equivalent EIA /ISO / EN/CEA Standard	
10	Rack should have Adjustable mounting depth,	
11	Rack 4 No Adjustable, 19" verticals with Punched 10mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, maximizes usable mounting space.	
12	Rack should have Numbered U positions,	
13	Rack should have 100% assured compatibility with all equipment conforming to DIN 41494 (General industrial standard for equipment)	
14	Powder coated finish with seven Tanks pre-treatment process meeting IS	
15	Rack should have one Hoz. Cable Manager.	
16	Rack should have one Heavy duty shelf.	
17	Rack should have Fan module Mount Provision on top Cover with 4 Fan Housing unit	
18	Rack should have two Nos. Server /IT Rack mount power distribution unit, Vertical standard with 12 X Indian Round Pin 5/15A, Inlet Plug type 16A Indian Round Pin, 16A MCB	
19	Rack should have provision for cable entry Exit from Both top & Bottom.	
20	Rack should have 1 Packet of mounting hardware, Pack of 20.	

**12. PVC Conduits**

Sl No.	Details	Specification	Page No.
1	Type	PVC Pipe Medium Duty	
2	Length	3 Meters Length	
3	Standard	ISI Standard	

*Handwritten signature*



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:- 66230  
Ph.:2411221, 2411665

**13. HDPE Pipes**

Sl No.	Details	Specification	Page No.
1	Type	HDPE Pipe	
2	DIA	32mm	
3	Standard	ISI Standard	
4	Pulling Rope	Yes with PPE Rope	

**14. Network Tools**

Sl No.	Details	Specification	Page No.
1	RJ45/RJ11 Crimper	One Set	
2	Digital Multi meter	One Set	
3	Power driven screwdriver	One Set	
4	RJ45 LAN Tester	One Set	
5	Punch Down Tools	One Set	

**12.Laptop**

Sl No.	Details	Specification	Page No.
1	CPU	CPU – Core-i7 13 <sup>th</sup> GeN or Higher	
2	RAM	16GB DDR5 or better	
3	Hard Disk	1TB SSD or better	
4	Display	14" Full HD Display	
5	Connectivity	Wi-Fi, Bluetooth, Wireless Mouse, FHD Camera, Card Reader Slots etc.	
6	Ports	1x 1G RJ45 Port, HDMI/Display, 3.0 USB x3 or better	
7	OS	Factory preloaded Windows 11Pro or latest	
8	Keyboard	Backlit keyboard	
9	Antivirus	Paid AV with 05 year subscription	
10	Utility Software	Latest version of MS-OFFICE professional edition perpetual license.	
11	Weight	Maximum 1.6 kg	

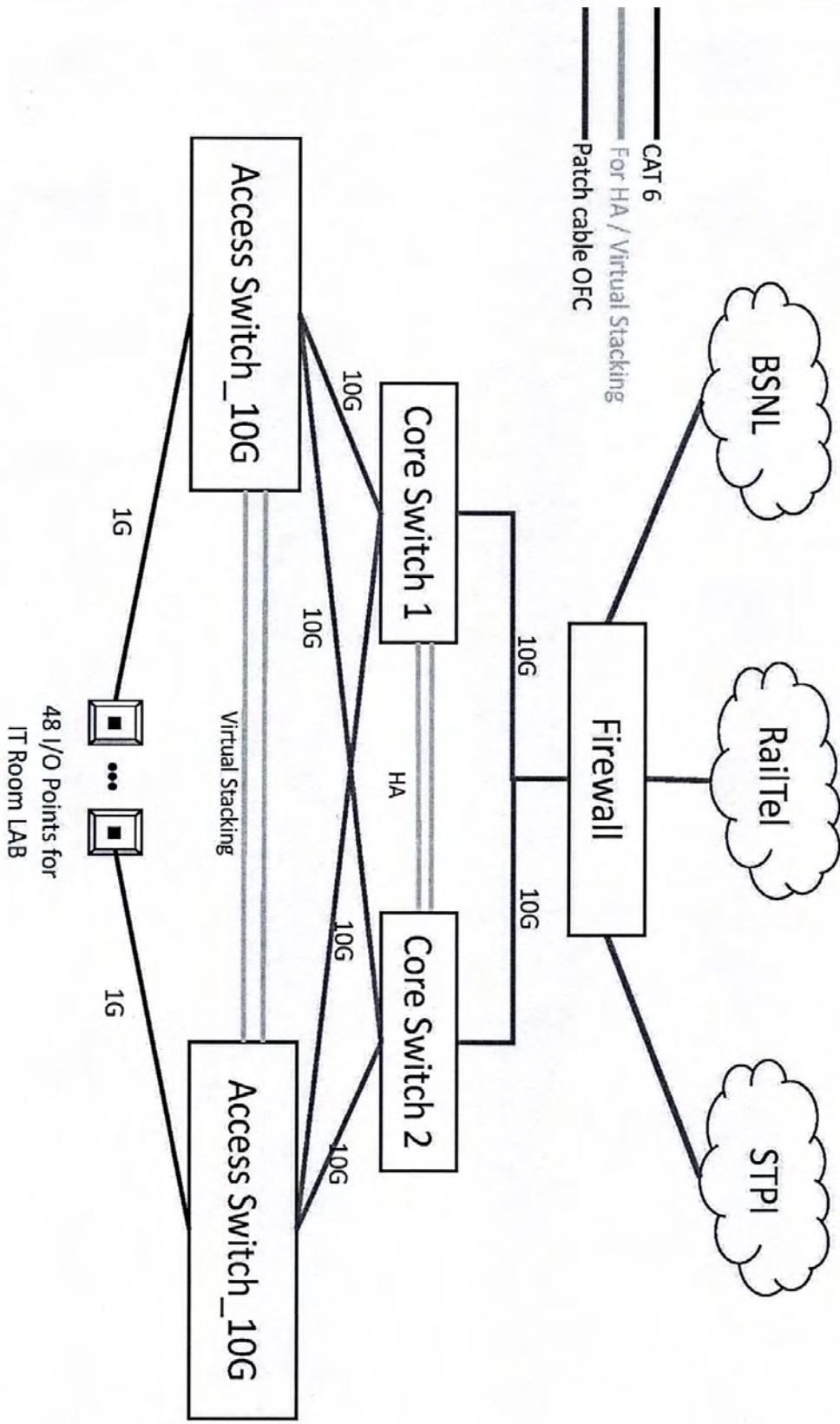
*Friday*



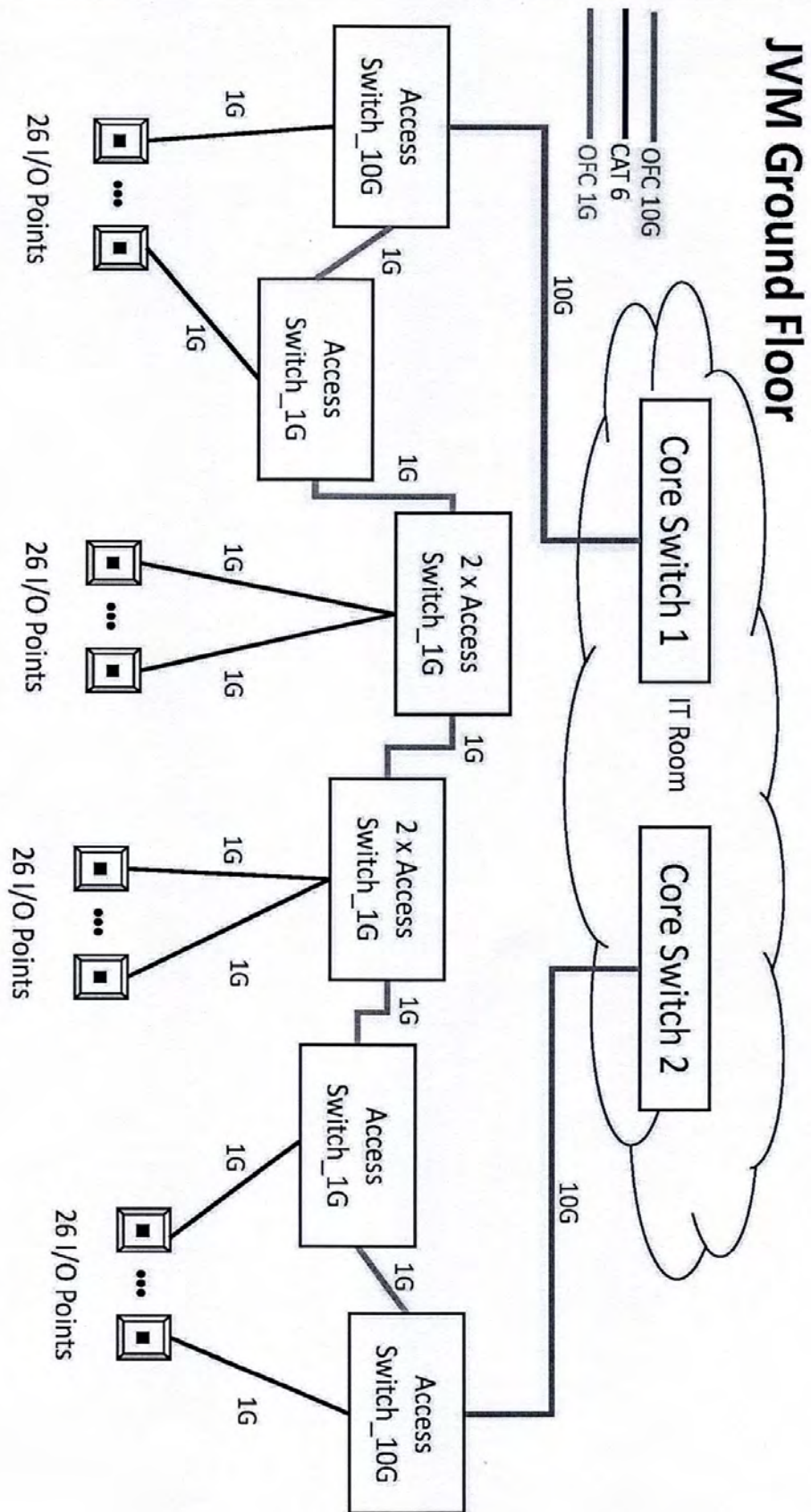
# JVM IT Room

ISPs

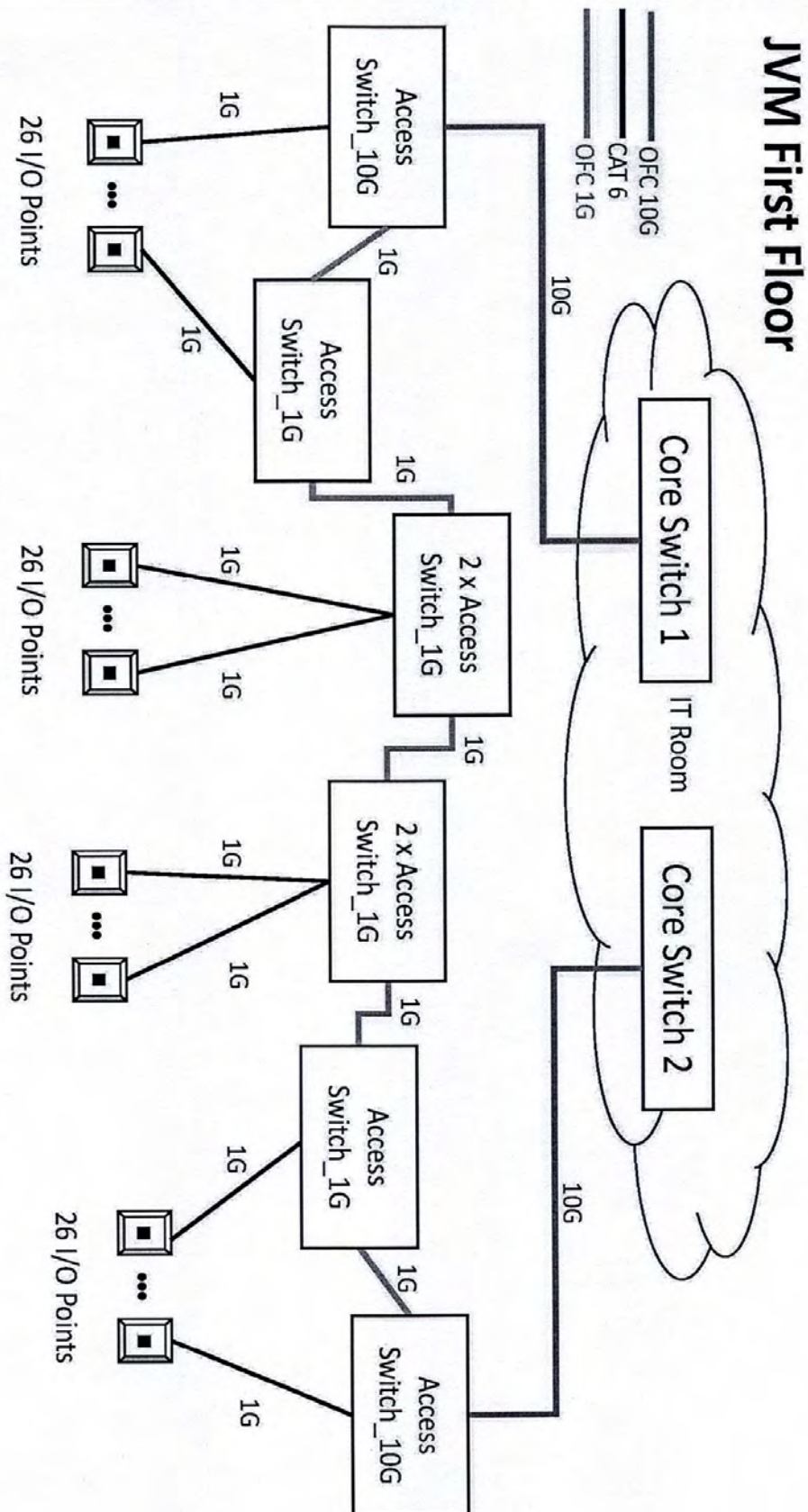
ANNEXURE - III



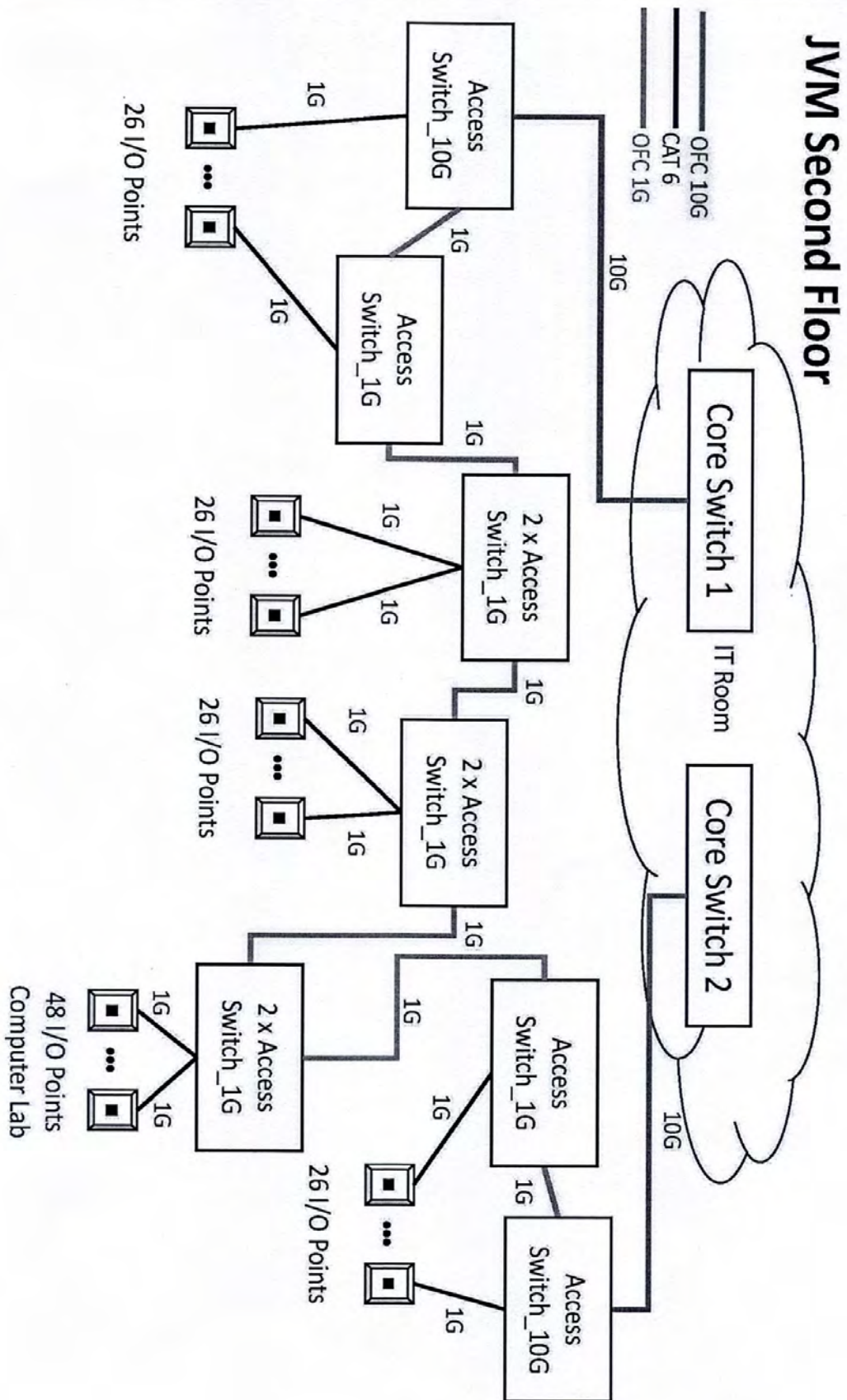
*Signature*



*Handwritten signature*



*Handwritten signature*



*Handwritten signature*



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची- 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

**Annexure - IV**

**Commercial Bid Declaration by the Bidder:**

Sl.No	Description	Indicate also page number where attached	Page No.
1.	Name, address & telephone number of the agency / firm		
2.	Name, Designation, Address and telephone No. of authorized person		
3.	Please specify as to whether Tenderer is sole Proprietor / Partnership firm / Private or Limited Company		
4.	Details of cost of tender document deposit: a) Amount: b) Demand Draft / Banker's Cheque No: c) Name of issuing Bank:		
5.	Details of Bid Earnest Money Deposit: a) Amount: b) Demand Draft / Banker's Cheque No: c) Name of issuing Bank:		
6.	The Bidder must be a company registered under Companies Act, 1956/2013 or Partnership or LLP and in operation for a period of 3 years in India.		
7.	GST Registration (Please attach)		
8.	Copy of PAN card issued by Income Tax Department		
9.	Average annual turnover of minimum Rs.04 (four) Crore and a positive networth in each of the last three financial years (2021-22, 2022-23 and 2023-24).		
10.	Proof of presence of bidder company in Eastern India from last three years		

This is to certify that I / We before signing this tender have read and fully understood all the terms and conditions contained in the tender document and undertake myself / ourselves to strictly abide by them.

Signature of the Tenderer with Seal



**TECHNICAL COMPLIANCE**

**Minimum Technical Eligibility Criteria –BIDDER**

Sl. No.	Criteria	Documents	Page No.
1.	<p>The Bidder should have successfully completed supply &amp; installation of active network components for campus network in India within last 05 years from the date of NIT with at-least -</p> <ul style="list-style-type: none"><li>• 01 (One) project with work-order value of 50 lakhs INR</li></ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"><li>• 02 (two) projects with work-order value of 40 lakhs INR each,</li></ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"><li>• 03 (three) project with work-order value of 30 lakhs INR each</li></ul> <p>At-least one (01) work-order should be with supply &amp; installation of minimum 20 (twenty) numbers of switches.</p> <p>In case the Bidder is a wholly owned subsidiary, then the relevant experience of the parent company should also be acceptable.</p>	Copy of Order and completion certificate is to be submitted with Techno-Commercial bid	
2.	Bidder should submit escalation matrix with all details for resolutions of technical and administrative issues.	Escalation matrix in the letter head of bidder.	
3.	<p>The Bidder must have valid certification for the following ISO standards:</p> <ul style="list-style-type: none"><li>• ISO 9001:2015</li><li>• ISO / IEC 27001:2013</li></ul>	Copy of valid Certificates need to be submitted.	
4.	The Bidder shall submit tender document duly signed by the authorized signatory of the Company. Deviation of any tender clause may not be accepted.	Signed copy of the document	
5.	Tender specific OEM authorization certificate for both active and passive components is required.	Tender specific OEM authorization to be submitted.	
6.	All active components should be from a single OEM.	Declaration on letter head.	
7.	All passive components should be from a single OEM.	Declaration on letter head.	
8.	The bidder should not be black listed by any Govt./ PSU in India.	Declaration on letter head.	
9.	Escalation matrix	Declaration on letter head.	
10.	Details of minimum two experts on the direct payroll of the bidder for each active and passive component is to be provided.	Details to be provided on bidder's letter head certified by HR.	





**Minimum Eligibility Criteria for OEM – ACTIVE Components**

Sl. No.	Criteria	Documents	Page No.
1	The OEM must be listed Leaders in Gartner Magic Quadrant for Wired and Wireless LAN Infrastructure as per last 5 years reports.	Copy of Gartner Report	
2	The OEM should have well established manufacturing plant/ Research & Development Lab in India.	Proof of establishment in the letter head of the OEM	
3	The OEM should have Technical Assistance Centre (TAC) support in India.	Certification from OEM in the letter head of the OEM	
4	The OEM should have presence in India from at least past 10 years.	Supporting document endorsed by the OEM	
5	The OEM should have posted profit in last 7 years.	Supporting document endorsed by the OEM	
6	All products being quoted should be available as on date with the OEM and should be publicly referenceable.	List of references from OEM	
7	Shall support Single Operating System for all switch models proposed as part of the design.	Declaration from OEM	
8	Next business day support required	Declaration from OEM	
9	OEM should provide 10 years support for the offered product	Declaration from OEM	

**Minimum Eligibility Criteria for OEM – PASSIVE Components**

Sl. No.	Eligibility Criteria	Documents	Page No.
1	OEM must be presence in India at-least 10 years	Proof of establishment	
2	OEM should have members participating in Telecommunications Industry Association (TIA) committee	Supporting document to be provided	
3	All components shall be ROHS compliant. Declaration of ROHS shall be available in product datasheets.	Supporting document to be provided	
4	OEM shall have RCDD certified technical manpower in India and regional technical manpower based in Eastern India,	Declaration from OEM on letter head	
5	OEM shall have ISO 9001 manufacturing facility in India functioning for min 10 years.	ISO certificates to be provided	
6	OEM Should be ISO9001 ISO14001 and ISO 45000 certified for design, Development for LAN & WAN product.	ISO certificates to be provided	



**Annexure VI**

**COMPLIANCE OF TECHNICAL SPECIFICATION OF ACTIVE & PASSIVE COMPONENTS**

Sl. no	Equipment	UOM	Tentative Qty	Make & Model	T.S. Complied (Yes/ No)	Price Quoted (Yes/ No)
<b>ACTIVE ITEMS</b>						
1	Core Switch 10G	NOS.	02			
2	24 PORT(POE) 10G SWITCH	NOS.	08			
3	24 PORT(POE) 1G SWITCH	NOS.	22			
4	10G Base LR Single-Mode -FO Module	NOS.	14			
5	1000Base LX Single-Mode -FO Module	NOS.	66			
6	1 GbE SFP Copper Module	NOS.	20			
<b>PASSIVE ITEMS</b>						
7	Cat 6 I/O with Face Plate and Back Box	NOS.	258			
8	9U Network Rack Loaded	NOS.	13			
9	CAT6 24 Port Jack Panel Loaded	NOS.	28			
10	12 Port Rack Mountable LIU loaded	NOS.	14			
11	36U Network Rack Loaded	NOS.	02			
12	LC-LC/SC Patch cable Single Mode - 3M	NOS.	152			
13	CAT6 UTP Patch Cable - 1M	NOS.	400			
14	CAT6 UTP Patch Cable - 2M/3M	NOS.	241			
15	UTP CAT-6 Cable (305M)	NOS.	32			
16	PVC Conduit	NOS.	4650			
17	HDPE duct along with associated accessories	NOS.	1500			
18	Media Converter for Gates Connection	NOS.	06			
19	6 Core Single Mode Fiber Optic Cable	METER	4500			
20	6 Port wall Mountable LIU loaded	NOS.	06			
21	Tools and Tackles one set	SET	01			
22	Laptop with windows latest edition	NOS.	01			
<b>C. Installation &amp; Commissioning</b>						
23	Splicing per core	Lot : As required				
24	OFC laying in conduit	Meters	3000			
25	OFC laying + Digging and resurfacing of hard soil Laying of FO cable, in 1.5" HDPE Pipe (Underground) in meters If required.	Meters	1500			
26	Cat 6 cable Laying	Meters	10000			
27	Earthing	As required				
28	Installation & Commissioning	Lot	01			
29	Training	Lot	01			
30	Cloud License for 5 years (if required)	Lot	01			
31	VA & PT Testing	Lot	01			

Signature of the Tenderer with Seal



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची - 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

Annexure – VII

Price Bid Format

SL. No.	Items	UOM	Tentative Quantity	Unit Rate	GST	Total Amount
<b>A. ACTIVE ITEMS</b>						
1	Core Switch 10G	NOS	02			
2	24 PORT(POE) 10G SWITCH	NOS	08			
3	24 PORT(POE) 1G SWITCH	NOS	22			
4	10G Base SR Multi-Mode -FO Module	NOS	14			
5	1000Base SX Multi-Mode -FO Module	NOS	66			
6	1 GbE SFP Copper Module	NOS	20			
<b>B. PASSIVE ITEMS</b>						
1	Cat 6 I/O with Face Plate and Back Box	NOS	258			
2	9U Network Rack Loaded	NOS	13			
3	CAT6 24 Port Jack Panel Loaded	NOS	28			
4	12 Port Rack Mountable LIU loaded	NOS	14			
5	12 Port Rack Mountable LIU loaded	NOS	06			
6	36U Network Rack Loaded	NOS	02			
7	LC-LC/SC Patch cable Single Mode - 3M	NOS	152			
8	CAT6 UTP Patch Cable - 1M	NOS	400			
9	CAT6 UTP Patch Cable - 2M/3M	NOS	241			
10	UTP CAT-6 Cable	Meter	30000			
11	PVC Conduit	Meter	4650			
12	HDPE duct along with associated accessories	NOS	1500			
13	Media Converter for Gates Connection	NOS	06			
14	6 Core Single Mode Fiber Optic Cable	METER	4500			
15	6 Port wall Mountable LIU loaded	NOS	06			
16	Tools and Tackles one set	SET	01			
17	Laptop with windows latest edition	NOS	01			



**JAWAHAR VIDYA MANDIR**  
**SHYAMALI, RANCHI – 834002**  
**जवाहर विद्या मंदिर, श्यामली, राँची- 834002**

AFF.NO.-3430004  
School No.:-66230  
Ph.:2411221, 2411665

SL. No.	Items	UOM	Tentative Quantity	Unit Rate	GST	Total Amount
<b>C. Installation &amp; Commissioning</b>						
1.	Splicing per core	Lot : As required				
2.	OFC laying in conduit	Meters	3000			
3.	OFC laying + Digging and resurfacing of hard soil Laying of FO cable, in 1.5" HDPE Pipe (Under ground) in meters If required.	Meters	1500			
4.	Cat 6 cable Laying	Meters	10000			
5.	Earthing	As required				
6.	Installation & Commissioning	Lot	01			
7.	Training	Lot	01			
8.	Cloud License for 5 years (if required)	Lot	01			
9.	Onsite deputation of Manpower for hand holding for the period of 6 months after commissioning.	As required On monthly basis				
10.	VA&PT testing	Lot	01			

**Note:**

1. Any equipment, materials or supplies which may not be specifically mentioned (like installation of rack Fixing I/O with Face Plate and Back Box and punching/termination, 9U Network Rack installation, CAT6 24 Port Jack Panel Loaded installation and Termination, 12 Port Rack Mountable LIU installation, 36U Network Rack Loaded Installation and 6 Port wall Mountable LIU Installation etc.), but are necessary for carrying out the contract work shall be in the scope of the Bidder and the systems must be complete in all respects. Any item other than those mentioned above for successful commissioning of the campus wide networking are included in the scope.
2. Actual quantities of cables shall be estimated by the bidder based on the site visit. However, the quantities indicated in BOQ shall be minimum required being included in the scope of work. Unit rate quoted by the tenderer shall be valid till successful commissioning of the system for changes (increase or decrease) in the quantities. No payment shall be made for increased quantities which may be necessary within the scope of work till successful completion. However, if actual quantities executed are less than the quantities indicated in Price schedule, payment shall be made for the actual quantities executed by the Contractor.

**Declaration by the Bidder:**

I have carefully gone through the Terms and Conditions contained in the Tender Document (JVM/PS/OT-05/2024-2025 Dated 25.10.2024) Supply, Installation, Commissioning and comprehensive AMC (5 year) of Campus Wide Local Area Network (CWLAN) at Jawahar Vidya Mandir, Shyamali, Ranchi. All the Terms and Conditions of the tender enquiry are acceptable to us.

Signature of the Tenderer with Seal