



REQUEST FOR PROPOSAL

Onboarding Service Provider for LAN & Wi-Fi
Networking and Augmenting with the existing
network in the Premises of
Government Polytechnic
Sheohar

RFP: - SHR/10/2024-25

Issued on: 30.08.2024

Government Polytechnic Sheohar

Sheohar Bihar

Department of Science, Technology and Technical Education

Page 1 of 44

Ritesh

A

Ritesh

[Signature]
Principal
Government Polytechnic
Sheohar



Government of Bihar

Contents

| | | |
|-------|---|----|
| 1. | Abbreviations and Definitions | 4 |
| 2. | Notice Inviting Tenders..... | 5 |
| 3. | Instruction to Bidders | 7 |
| 4. | Inspection of Site and Equipment | 8 |
| 5. | Tendering Expense | 8 |
| 6. | Right to Accept Any Offer and to Reject Any or All Offers | 8 |
| 7. | Language of the tender | 8 |
| 8. | Taxes | 8 |
| 9. | Concessions permissible under statutes | 8 |
| 10. | Amendments to Tender Documents | 8 |
| 11. | Pre-Bid Meeting..... | 9 |
| 12. | Earnest Money Deposit (EMD) | 9 |
| 13. | Bid Validity | 9 |
| 14. | Licensing | 9 |
| 15. | Signing of the Contract | 10 |
| 16. | Duration..... | 10 |
| 17. | Modification to Contract | 10 |
| 18. | Performance Security | 10 |
| 19. | Eligibility & Evaluation Criteria | 10 |
| 20. | Technical Evaluation criteria (Annexure 1)..... | 12 |
| 21. | Financial Evaluation (As per Annexure 2) | 13 |
| 22. | Scope of Work: | 13 |
| 23. | Bill of Quantity (As per Annexure 6 & 7) | 15 |
| 24. | Warranty Services..... | 16 |
| 25. | Documentation | 16 |
| 26. | Service Level Agreement: | 16 |
| 27. | Payment Schedule: | 18 |
| 27.1. | Payment Schedule for Phase – 1 | 18 |
| 27.2. | Payment Schedule for Phase – 2 | 18 |
| 27.3. | Payment Schedule for Phase – 3 | 18 |
| 27.4. | Payment Schedule for Phase – 4 (Final Settlement) | 18 |
| 28. | Penalty | 18 |
| 29. | Indemnity..... | 19 |
| 30. | Termination, Dispute Resolution & Other..... | 19 |

| | | |
|------------------|-------------------------------|----|
| 30.1. | Termination of Contract | 19 |
| 30.2. | Force Majeure | 19 |
| 30.3. | Notices | 20 |
| 30.4. | Resolution of Disputes | 20 |
| 30.5. | Applicable Law | 20 |
| ANNEXURE-1 | | 21 |
| ANNEXURE 3 | | 24 |
| ANNEXURE 4 | | 26 |
| ANNEXURE 5 | | 26 |
| ANNEXURE 6 | | 29 |
| ANNEXURE 7 | Error! Bookmark not defined. | |


Principal
 Government Polytechnic
 Sheohar

Ritesh  Ritesh

1. Abbreviations and Definitions

| Abbreviations | Descriptions |
|---------------|---|
| AP | Access point |
| DSTTE | Department of Science, Technology and Technical Education |
| DSC | Digital Signature Certificate |
| EMD | Earnest Money Deposit |
| FAT | Final Acceptance Test |
| GST | Goods & Service Tax |
| INR | Indian Rupees |
| IP | Internet Protocol |
| LOI | Letter of Intent |
| LAN | Local Area Network |
| NIT | Notice Inviting e-Tender |
| PBG | Performance Bank Guarantee |
| PAN | Permanent Account Number |
| PSU | Public Sector Undertaking |
| SLA | Service Level Agreement |
| UOM | Unit of Measures |


Principal
Government Polytechnic
Sheohar

2. Notice Inviting Tenders

1. Government Polytechnic Sheohar has been constituted under the Department of Science, Technology and Technical Education, Government of Bihar to cater to the needs of technical education. The Government Polytechnic Sheohar intends to invite bids from eligible entities Onboarding Service Provider for LAN & Wi-Fi networking and augmenting with the existing network in the institute Premises as mentioned in the tender document.
2. The contract will be signed between Principal, Government Polytechnic Sheohar and the successful agency/bidder.
3. To participate in the e-tendering process, the bidder/agency are required to get themselves registered with eproc2.bihar.gov.in.

4. Schedule of Events:

| Sn. | Event Description | Timeline |
|------|---|--|
| 4.1 | Last date & time of downloading the RFP | Till 25.09.2024 up to 05:00 PM, on eproc2.bihar.gov.in |
| 4.2 | Pre-bid meeting (if required) | 14.09.2024 at 11:30 AM |
| 4.3 | Submission (upload) of online bidding document. | Till 25.09.2024 up to 05:00 PM, on eproc2.bihar.gov.in |
| 4.4 | Submission of EMD | Offline by Demand Draft to Principal, Government Polytechnic Sheohar |
| 4.5 | Submission of Tender Documents in Hardcopy/Original | Till 27.09.2024 at 05:00 PM at GP Sheohar Office |
| 4.6 | Opening of Technical Bid | 28.09.2024 on the eproc2.bihar.gov.in |
| 4.7 | Opening of Financial Bid | 30.09.2024 on the eproc2.bihar.gov.in |
| 4.8 | Pre- bid meeting venue | Government Polytechnic Sheohar, At- Parihara, P.O.- Chamanpur, P.S.- Piprahi, Dist.- Sheohar (Bihar), Pin- 843329 |
| 4.9 | Contact person | Principal, Government Polytechnic Sheohar Mobile no - 9470252143 Email ID- principal.gpsheohar@gmail.com Nodal Officer, Government Polytechnic Sheohar Mobile no - 7992234530 Email ID- er.ashu26@gmail.com |
| 4.10 | Method of Selection | Least Cost Selection (LCS) |

Note

- i.) Interested bidders may obtain further information about this Notice Inviting Tender (NIT) from the office of Government Polytechnic Sheohar .
 - ii) No tender will be accepted after closing date and time in any circumstances.
5. Bidder may also download the tender document available from eproc2.bihar.gov.in and submit the tender by using the downloaded document.
 6. The Government Polytechnic Sheohar will select the bidder based on Least Cost Selection (LCS) method for Onboarding Service Provider for LAN & Wi-Fi networking and augmenting with the existing network in the Institute Premises.
 7. The tender shall be accompanied by Earnest Money Deposit (EMD) of Rs. 25,000/- (Twenty-five thousand rupees only) in the shape of Demand Draft from any Schedule Bank in favour of Principal, Government Polytechnic Sheohar .

8. The technical and financial bids must be submitted through eproc2.bihar.gov.in before the date and time specified in the tender document. The Government Polytechnic Sheohar doesn't take any responsibility for the delay / Non-Submission of Tender / Non-Reconciliation of online Payment caused due to Non-availability of Internet Connection, Network Traffic/ Holidays, or any other reason.
9. The bidders shall submit their eligibility and qualification details, Certificates as mentioned in the tender document, in the online standard formats given in eproc2.bihar.gov.in at the respective stage(s) only.
10. The bidders shall upload the scanned copies of all the relevant certificates, documents etc., in support of their eligibility criteria / technical bids and other certificate /documents in the eproc2.bihar.gov.in.
11. The bids must be uploaded (e-mode/online) at the eproc2.bihar.gov.in.
12. All prospective bidders may attend the Pre-Bid meeting. The venue, date and time are indicated in Schedule of Events as in above **section 4**.
13. The Earnest Money should be deposited on or before the closing date & time indicated above in the Government Polytechnic Sheohar, failing which the tenders will be treated as late tender and would be summarily rejected. Proof of the same shall be uploaded on the eproc2.bihar.gov.in during the bid submission.
14. In the event of any of the above-mentioned dates being declared as a holiday/ closed day for the Government Polytechnic Sheohar the tenders/EMD will be opened/received on the next working day at the scheduled time.
15. Government Polytechnic Sheohar reserves the right to accept or reject any or all tender or change the terms and condition of NIT or cancel the NIT without assigning any reasons at any stage and time.
16. For further enquiry and information, contact the following officer during office hours 10:00 AM to 05:00 PM- Contact No--9470252143
17. All further notifications/Corrigendum/Addendum if any shall be posted on eproc2.bihar.gov.in.
18. When reading this document if you identify any errors or omissions, please advise Principal, Government Polytechnic Sheohar in writing, in 5 calendar days, giving a brief description of the problem, its location within document and your contact details.

Confidentiality

This document contains privileged and confidential information pertaining to the "Onboarding Service Provider for LAN & Wi-Fi networking and augmenting with the existing network in the Institute Premises" at Government Polytechnic Sheohar . The access level for the document is specified above. The addressee should honour access rights by preventing intentional or accidental access outside access scope.


Principal/ Principal In charge
Government Polytechnic Sheohar

Principal
Government Polytechnic
Sheohar

3. Instruction to Bidders

- a. Government Polytechnic Sheohar invites proposals from experienced and eligible service provider for LAN & Wi-Fi networking and augmenting with the existing network in the Institute Premises (All Academic, Examination Hall, Auditorium, Administrative, Residential, Hostel Blocks, outdoor open area etc.) of the Institute campus.
- b. The bidder shall submit his bid/tender on eproc2.bihar.gov.in.
- c. The bidder may use their Digital Signature Certificate (DSC) if they already have. They can also take Digital Signature Certificate (DSC) from any of the authorized agencies.
- d. For user-id they must get registered themselves on eproc2.bihar.gov.in and submit their bids online. Offline bids shall not be entertained by the Tender Inviting Authority (TIA).
- e. Bids not submitted, as per the above Performa / Instructions mentioned in this RFP document, will be summarily rejected.
- f. The bidders shall submit their eligibility and qualification details, technical bid, financial bid, etc., in the online standard formats given on eproc2.bihar.gov.in.
- g. The bidders shall upload the scanned copies of all the relevant certificates, documents etc. with indexing and paging, in support of their eligibility criteria / technical bids and other certificates / documents on the eproc2.bihar.gov.in.
- h. The bidder shall digitally sign the supporting statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity. The bidder shall attach all the required documents for the specific tender after uploading the same during the bid submission as per the tender notice and bid document.
- i. The rate quoted by the bidder shall remain same throughout the contract period including any extension thereon. No increment in rates would be permitted in any circumstances.
- j. The Bidder is obliged to work closely with Government Polytechnic Sheohar act within its own authority and abide by directives issued by Government Polytechnic Sheohar from time to time.
- k. All the required documents should be attached at the proper place and with proper nomenclature (as mentioned in the e-forms) otherwise the tender of the bidder will be rejected.
- l. The bid (technical and financial details of the bidder) shall be submitted on or before the last date of submission in online mode only. Tenders submitted after the stipulated date & time (closing date and time for uploading the tender and submission of EMD as mentioned in Clause 4, Notice Inviting Tender (NIT)) shall not be considered and would summarily be rejected.
- m. The decision of Principal, Government Polytechnic Sheohar in regard to interpretation of the Terms & Conditions and the Agreement shall be final and binding on the bidder.
- n. In case of any disputes on execution of the work during the period of contract, the decision of the principal, Government Polytechnic Sheohar shall be binding and final, agreeable in full by both the parties. Any legal disputes shall be subject to Bihar Jurisdiction.
- o. Any change/corrigendum/extension of closing/ opening dates in respect of this RFP shall be issued through website only and no press notification will be issued in this regard. Bidders are therefore requested to regularly visit Government Polytechnic Sheohar website (<https://www.gpsheohar.ac.in/>) for updates.
- p. All available technical literature, catalogues, and other data in support of the specifications and details of the items should be furnished along with the offer.
- q. Samples of any product, if called for, should be submitted free of all charges by the tenderer and purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to remove the samples at his own expenses.
- r. Equipment's offered should strictly conform to the specifications. The tenderer should also indicate the Make/Type number of the equipment's offered and provide catalogues, technical

Ritesh  P.M.


Principal
Government Polytechnic
Sheohar

literature, and sample, whatever necessary along with the quotation. Test certificates wherever necessary should be forwarded along with supplies.

- s. The bidder will be liable to replace if any hardware faulty during the contract period without any extra cost during the warranty period.
 - t. The bidder has to arrange necessary insurance coverage to the workmen/machines/equipment's etc deployed by him and shall arrange necessary safety measures before starting the work.
 - u. In the case of more than one Bidder has quoted same minimum price the bid shall be evaluated through a lottery system and the videography of the complete process shall be kept as a record (as per order no 2988, dated 24.03.2023 of the Department of Finance, Government of Bihar – Annexure -5).
4. Inspection of Site and Equipment
The Bidders are advised to physically visit and inspect, all the existing networking facilities, building and premises as such, etc. that may be necessary for preparing the bid and for entering into an agreement for the execution of the project. The bidder should take into account of all existing infrastructure available with the Institute during preparation of the bid. Bidder at its own expense should survey the site. No complaints of any nature would be entertained later.
 5. Tendering Expense
The bidder shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its tender including preparation, mailing and submission of its tender and subsequently processing the same. The Government Polytechnic Sheohar shall in no case be responsible or liable for any such cost, expenditure etc. regardless of the conduct or outcome of the tendering process.
 6. Right to Accept Any Offer and to Reject Any or All Offers
Government Polytechnic Sheohar reserves the right to accept or reject any tender offer, and to terminate the tendering process and reject all tenders at any time prior to award of contract, without thereby incurring any liability to the affected vendor(s) or any obligation to inform the affected vendor(s) of the grounds for such action.
 7. Language of the tender
The tender submitted by the bidder and documents relating to the tender shall be written in the English language only.
 8. Taxes
The Bidders shall fully familiarize themselves about the applicable domestic taxes (such as GST, income taxes, duties, fees, levies, etc.) on amounts payable by the Purchaser under the resultant Agreement. All such taxes must be included by Bidders in the financial proposal.
 9. Concessions permissible under statutes
The Bidders while quoting against this tender, must take cognizance of all concessions permissible, if any, under the statutes and ensure the same is passed on to the purchaser, failing which it will have to bear extra cost. In case Bidder does not avail concessional rates of levies like customs duty, excise duty, Cess etc. Government Polytechnic Sheohar will not take responsibility towards this.
 10. Amendments to Tender Documents
At any time prior to the deadline for submission of tenders, the Government Polytechnic Sheohar may, for any reason deemed fit by it, modify the tender document/s by issuing suitable amendment(s) to it. Such an amendment will be notified on Government Polytechnic Sheohar

website (<https://www.gpsheohar.ac.in/>) and the same shall be binding to all prospective bidders. Government Polytechnic Sheohar will not issue any separate communication in this regard.

11. Pre-Bid Meeting

To provide response to any doubt regarding terms and conditions, scope of work and any other matter given in the tender document, a pre-bid meeting has been scheduled to be held in the office of Government Polytechnic Sheohar or an online meeting may be scheduled. The clarification sought by representative of prospective bidders shall be responded appropriately. However, they shall clarify and will be asked to submit their written request by close of office next working day. The Government Polytechnic Sheohar shall upload written response on the Government Polytechnic Sheohar (<https://www.gpsheohar.ac.in/>) website to such requests for clarifications, without identifying its source. In case required, amendments issued, shall be binding on all prospective bidders. Further, the issue raised having been clarified shall be final. Bidders are advised to visit the Government Polytechnic Sheohar (<https://www.gpsheohar.ac.in/>) website regularly for any updates/ corrigendum/ amendments etc.

12. Earnest Money Deposit (EMD)

- a) The tender shall be accompanied by Earnest Money Deposit (EMD) of 25000/- (Twenty-five thousand rupees only) in the shape of Demand Draft from any Schedule Bank in favour of Principal, Government Polytechnic Sheohar must be submitted offline, as per the terms and conditions mentioned in this document. EMD should not have been issued on a date later than the last date for submission of bidding document i.e., 27/09/2024.
- b) The EMD of unsuccessful bidder will be returned to them without any interest, after execution of the contract. The EMD of the successful bidder will be returned without any interest, after receipt of performance security as per the terms of contract.
- c) The EMD shall be forfeited by Government Polytechnic Sheohar hereunder or otherwise, under the following conditions:
 - If a bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice, or restrictive practice.
 - If a bidder withdraws its bid during the period of bid validity as specified in this Tender and as extended by the Government Polytechnic Sheohar from time to time.
 - In the case of selected bidder, if it fails within the specified time limit:
 - i. to sign the contract and/or
 - ii. to furnish the Performance Security (PS), before signing the contract agreement, within the period prescribed in the Letter of Intent (LoI).

13. Bid Validity

The submitted bids shall remain valid for a period of 180 days after the date of submission.

14. Licensing

The Implementing Agency will follow the following licensing conditions:

- a) The bidder shall procure the licenses of the third-party software wherever applicable/ required in accordance with its procedures by payment of applicable license fees on behalf of Government Polytechnic Sheohar. The licenses thus procured would be in the Government Polytechnic Sheohar. The bidder shall ensure that third party vendors provide standards-based customer interface and considers other factors like regular updates and support etc. The Bidder should provide adequate licenses for all the modules mentioned in the scope so that all users can access their respective functionalities as per their role without any constraints.

- b) All licenses should be either supported by OEMs/subscription providers for entire contract period.
- c) All the aforesaid products should have a roadmap for updates and patch management either from OEM or Subscription provider and providing the same would be the responsibility of the bidder for the contract period.

15. Signing of the Contract

The Contract document/Agreement between Government Polytechnic Sheohar and selected bidder should be executed within 21 days of the issue of the Letter of Intent (LoI). The selected bidder will have to submit the Performance Security (PS), as applicable before signing of the agreement. Non-fulfilment of this condition will result in cancellation of the award and forfeiture of the EMD with consequential action if so desire.

16. Duration

The contract, if awarded, shall be valid for a period of one year from the date of award. In case of breach of contract or in the event of not fulfilling the minimum requirements/ statutory requirements, Government Polytechnic Sheohar shall have the right at any time to terminate the contract forthwith in addition to forfeiting the Performance Security amount deposited by the bidder and initiating administrative actions for blacklisting, etc.

17. Modification to Contract

The contract when executed by the parties (Government Polytechnic Sheohar and the bidder) shall constitute the entire contract between the parties (Government Polytechnic Sheohar and the bidder) in connection with the services and shall be binding upon the parties (Government Polytechnic Sheohar and the bidder). Modification, if any, to the contract shall be in writing and with the consent of both the parties (Government Polytechnic Sheohar and the bidder) and not otherwise.

18. Performance Security

- a. The successful bidder shall have to furnish a performance security equivalent 5% of the Project cost, in the shape of a Bank Guarantee issued by a scheduled Bank in favour of Principal, Government Polytechnic Sheohar. The Bank guarantee shall be as per proforma at "Annexure 3" and remain valid for a period, which is six months beyond the date of expiry of the contract. The Performance Security will be returned to the bidder, upon validation of completion of all contractual obligations including warranty.
- b. The performance security should be submitted before executing the contract /signing of the contract document positively.
- c. If the bidder violates any of the terms and conditions of tender document of this Notice Inviting Tender/Tender in any manner, the Performance Security shall be liable for forfeiture, wholly or partly, as decided by the Government Polytechnic Sheohar and the contract may also be cancelled/terminated. Further, the bidder may be blacklisted for a reasonable period as decided by the Department of Science, Technology and Technical Education/ Government Polytechnic Sheohar.

19. Eligibility & Evaluation Criteria

This invitation is open to organisation who fulfil the eligibility & qualification criteria specified here under.

| Sn | Eligibility Criteria | Mandatory Documents to be submitted by the bidders |
|----|--|--|
| 1 | The Bidder should be an established entity registered under Companies Act 1956/2013 or Partnership Act 1932 or Limited Liability Partnership Act 2008 or Proprietorship Firm/ Government Organization/ Public Sector Undertaking. | <ul style="list-style-type: none"> For Company- Copy of the Certificate of Incorporation issued by the Registrar of Companies (RoC) under companies act 1956/2013. For Partnership Firm- Registration Certificate issued under Partnership Act 1932, along with Partnership deed. For Limited Liability Partnership (LLP) Firm- Copy of the Certificate of Incorporation issued by the Registrar of Companies (RoC) under Limited Liability Partnership Act 2008. For Proprietorship: Registration Certificate issued under Shops and Establishment Act/Copy of Income Tax Return in the Name of proprietor / Copy of GST Registration Certificate or certificate from a Chartered Accountant under her/his seal and signature declaring the firm to be Proprietorship Firm. Certificate of registration in India |
| 2 | The bidder should have a registered office / Branch Office for operational support in the state of Bihar. | Documentary evidence |
| 3 | The Bidder must have average annual turnover of not less than INR 1 Crore in last three financial year. (FY 2020-21, FY 2021-22 & FY 2022-23) | Audited Balance sheet and Profit & Loss Account for last 3 financial year (FY 2020-21, FY 2021-22 & FY 2022-23) |
| 4 | The bidder must have at least 3 years' experience in installation, commissioning, and maintenance / LAN & WI-FI Network Services and associated software with Central / State Government Organization / Public Sector Unit (PSU)/ Private University Recognized /affiliated to UGC/ AICTE in India. | Workorder/Purchase Order along with Payment receipt |
| 5 | Number of Project Experience in Setting Up Campus Network/ City Wide Area Network / establishment of network connectivity for a Central / State Government Organization / Public Sector Unit (PSU)/ Private University Recognized /affiliated to UGC/ AICTE in India With a minimum contract value of 5 lakh | Workorder/Purchase Order along with Payment receipt |

Ritesh *A* *Pidw*
Principal
Government Polytechnic
Sheohar

| | | |
|---|--|--|
| 6 | The Bidder should have Manufacturers authorization and a direct back-to-back support agreement with the OEM for the equipment. The Support agreement should include the activities like Technical Assistance support, Spares support etc. Submit supporting documents for same | Bidder has to provide an Ink Signed Manufacturer's Authorization Form (MAF) from the OEM |
| 7 | The bidder must not be blacklisted by a Central / State / Local Government Organization / Institution / PSU | Self-declaration (As per annexure 4) |
| 8 | Bidder Must have ISO 9001, 20000 and 27001 Certificates | Certificate Attached |

Note: Bidder shall ensure compliance to Land Border Clause including amendments thereon. Self-declaration as per the clauses mentioned in Land Border Clause. Non-compliant bid(s) will be summarily rejected.

20. Technical Evaluation criteria (Annexure 1)

| Criteria | Details | Marks | Details | Marks |
|---|-----------------------------|-------|--------------|-------|
| Number of Project Experience in installation, commissioning, and maintenance / LAN & WI-FI Network Services and associated software for a Central / State Government Organization / Public Sector Unit (PSU)/ Private University Recognized /affiliated to UGC/ AICTE in India. With a minimum contract value of 5 lakh | = 2 Projects | 10 | =>3 projects | 20 |
| Average turnover of the company in the last 3 years (FY 2020-21, FY 2021-22 & FY 2022-23) | => Rs 1 crore <1.5 crore | 10 | =>1.5 crore | 20 |
| Bidder's experience in installation, commissioning, and maintenance / LAN & WI-FI Network Services and associated software with Central / State Government Organization / Public Sector Unit (PSU)/ Private University Recognized /affiliated | = 3Years & 5 years | <10 | > 5 yrs. | 20 |
| Total | | | | 60 |

Note: Bidders score 50% or more i.e., 30 marks or more, shall qualify for the financial evaluation.

21. Financial Evaluation (As per Annexure 2)

Financial bids shall be opened only for the vendors whose bids are found to be Technically fit/ substantially responsive and complying with minimum eligibility criteria.

- i) Government Polytechnic Sheohar will open the financial bids of only Technically Qualified bidders as per eproc2.bihar.gov.in.
- ii) Discrepancy in the financial bid, it will be dealt as per the following:
 - a. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail, and the total shall be corrected.
 - b. If there is a discrepancy between words and figures, the amount in words shall prevail.
- iii) Of all the Financial Bids opened, the bidder whose financial bid is lowest (hereby referred to as L1 bidder) will be considered eligible and award of contract.
- iv) In the case of more than one Bidder has quoted same minimum price the bid shall be evaluated through a lottery system and the videography of the complete process shall be kept as a record (as per order no 2988, dated 24.03.2023 of the Department of Finance, Government of Bihar – Annexure -5).

22. Scope of Work:

Broad scope of work should be:

To enable the institute premises with networking and Wi-Fi services with augmentation of existing infrastructure, (if available):

- To Set up network & WIFI services inside Institutes premises, which would consist of LAN, optical fibre, Switches, Routers, Wireless Access Points (Indoor and Outdoor), Security equipment (Firewall) etc.
- To provide wired and wireless connection in Admin Blocks, Academic Blocks, Library, Auditorium, Laboratory, Hostels, Classrooms, Examination Hall, etc. also provide internet access through wireless medium to the students, staff, faculty, and guest visitors, as per the requirement of the institute.
- To enable Authentication, Authorization, and Accounting (AAA) security service for controlling and tracking user access both in LAN and Wi-Fi network.
- To install Access Points at suitable location to receive the maximum coverage and has no interference. Access points inside the main building must be covered with a protective mesh that can withstand any human-caused damages.
- Access Points shall provide seamless coverage within its range as well as between different Access Points of the proposed Wi-Fi Network.
- Each Access point must support minimum of 50 concurrent clients/devices/users.
- Insure Installation, commissioning, and maintenance of any mounting structure for Access Points like Pole (as per requirement) along with required accessories at each site/location.
- Provide module for keeping a log of Wi-Fi services to be utilized by the end user such as IP details, URL visited, Time stamp, End user Authentication, Mobile No. MAC & IP Address, access time, duration, data consumed, Access pointwise (bandwidth, Download/ Upload Speed) etc. to meet the compliance with all regulatory and legal guidelines issued by DoT/TRAI time to time.
- Provide Solution compliant with applicable guidelines of DoT & TRAI.
- Ensure that all software / firmware etc. should be updated periodically for patches/release etc.

Ritesh A. Pinter

Principal
Government Polytechnic
Sheohar

- Solution should be scalable to efficiently support a bandwidth of 1Gbps/2 Gbps or more (as case maybe) as required by Institute in future. A certificate should be given by the bidder in this regard.
- Solution should have capabilities to support separate SSID's and Group Policies for Students, Faculty, Staff and Guest Visitors of the Institute with separate time/bandwidth-based policy for all categories.
- Ensuring adherence to the agreed Service Levels and Service Quality for each of the deliverables executed by them.
- Ensure the delivery of equipment and installation of entire network systems at the institute within 8 weeks from the date of award of contract.
- Solution should cater at least 1000 concurrent users at institute level, which should be scalable for future need. Self-declaration should be given by the bidder in this regard.
- Maximum of two devices authenticated per registered user at any point of time.
- Provide solution for the ability to filter the type of content allowed (e.g., blacklist URLs etc)
- The solution must have a Network Management System (NMS) with following features:
 - a) Web based user interface (secured).
 - b) Should support fault, and performance management.
 - c) Ability to present graphical view of the network.
 - d) Capability to view the network topology. The NMS should be able to monitor all the active components, Wired, and Wireless elements, of the network.
 - e) The NMS should have the capabilities to support all the hardware in the existing Network irrespective of OEM.
- Provide appropriate training to the designated/nominated staffs of the institute.
- Should carry necessary civil and related restoration work etc.
- Provide 24x7 helpdesk for customer support to the end users.

Ritesh

★

P. S.

Principal
Government Polytechnic
Sheohar



23. Bill of Quantity (As per Annexure 6 & 7)

| Sn. | Components | Type of Device | UOM | Quantity |
|-----|---|----------------|-------|----------|
| 1 | Firewall with minimum 8 numbers of 1G port and 2 Nos of fibre Optic port. | Physical | No's | 1 |
| 2 | Distribution Switch - L3 Switch with 24 SFP ports 2 10GBASET ports 4 10G SFP ports L3 Stackable Managed Switch | Physical | No's | 1 |
| 3 | Access Switch- 24 PoE+ port L2 with minimum 2 SFP (Managed) | Physical | No's | 6 |
| 4 | Access Switch- 16 PoE+ port L2 with minimum 2 SFP (Managed) | Physical | No's | 8 |
| 5 | Access Switch- 08 PoE+ port L2 with minimum 2 SFP (Managed) | Physical | No's | 5 |
| 6 | Indoor AP (With Mounting Kit & Controller) - II | Physical | No's | 30 |
| 7 | Rugged and waterproof Outdoor IP 65 AP (With Mounting Kit) | Physical | No's | 4 |
| 8 | 16 U Rack | Physical | No's | 1 |
| 9 | 6 U rack (With PDU) inside Gallery | Physical | No's | 7 |
| 10 | CAT6 cable (Per Box 305 meter) | Physical | Box | 20 |
| 11 | IO box for CAT-termination | Physical | No's | 102 |
| 12 | 6 Core Fibre with LIU and termination accessories | Physical | Meter | 1000 |
| 13 | LC to LC patch code | Physical | No's | 14 |
| 14 | OFC Patch Panel | Physical | Unit | 5 |
| 15 | RJ 45 Connector | Physical | No's | 500 |
| 16 | Conduit for both electrical & LAN wiring & all required material | Physical | R mtr | 3500 |
| 17 | 24 port LAN patch panel | Physical | No's | 8 |
| 18 | UPS (2KVA) | Physical | No's | 1 |
| 19 | Wireless Access Point Controller | Physical | No's | 1 |
| 20 | SFP Module | Physical | No's | 16 |
| 21 | NMS a) web base user interface (secured) b) should support fault, and performance management. C) Ability to present graphical view of the network. D) Capability to view the network topology . The NMS should be able to monitor all the active components, wired , and wireless elements, of the network. e) the NMS should have the capabilities to support all the hardware in the existing network irrespective of OEM. | Software | No's | 1 |
| 22 | Patch cord 2 meter | Physical | No's | 200 |
| 23 | Installation and Commissioning Charge | | | 1 |

Ritesh A. Pita

Principal
Government Polytechnic
Sheohar

Note:

- The detail specification of the abovementioned components is attached in Annexure-6.
- Prices should be quoted in Indian Rupee only and indicated both in figures and words. The amount mentioned in words will prevail.
- It is bidders' responsibility to install, commission, test, and go live.
- All the items' counts mentioned above is only tentative number, it may exceed or less as per the work.
- The BoQ mentioned in the RFP is for the entire scope of work and duration mentioned in this RFP. Bidders are requested to do site visits to check the feasibility and to ensure achievement of the objective and scope of work of this RFP.

24. Warranty Services

The bidders will provide comprehensive warranty details for all the Hardware/ software. It would be the bidder's responsibility to arrange all updates and upgrades through respective OEMs. The bidder must provide all updates and upgrades for the proposed devices free of cost during warranty period.

The bidder shall put in place all back-to-back support agreements for the proposed network components with respective OEMs for warranty services and submit documents in support of the same.

Note: Warranty support services for all network equipment during the execution of the project before the project is signed off shall be provided by the bidder at no cost to Government Polytechnic Sheohar .

25. Documentation


The Bidder shall provide the following documentation. The content and format of the documentation will be discussed and agreed with Government Polytechnic Sheohar prior to development/delivery of the documentation.

- a) Comprehensive configuration of all devices
- b) Manuals of all devices (hard and/or soft copies).
- c) Back up policy and procedure for various network devices.
- d) Network Monitoring Manual: A comprehensive document on what needs to be monitored daily (or at specified intervals) and how the records to be maintained.
- e) A comprehensive test report covering all the areas.

26. Service Level Agreement:

- The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service to be provided by the Bidder to Government Polytechnic Sheohar for the duration of this contract. SLA defines the terms of the Bidder's responsibility in ensuring the timely delivery of the deliverables and the correctness of the same based on the agreed Performance Indicators as detailed in the Agreement.

Ritesh  


Principal
Government Polytechnic
Sheohar

| S. No. | Activity/SLA Parameter | Target Service Level | Penalty on Breach of Service Level |
|--------|--|--|--|
| 1 | Resumption of monitoring and security services | Firewall and related items, NMS, Helpdesk solution within 1 day from reporting | Penalty of INR 5,000/ per day shall be charged. |
| 2 | Resumption of network services -switches. | Within 24 hours for unserviceability of switches and access points | Penalty of INR 1000/ day shall be charged on hourly basis (Priority shall be to resume services by shifting load to serviceable switches, in case of Access switch, reserve access switch be used. |
| 3 | Repair of un-serviceable component listed in BoQ. | Within 5 working days | Penalty of INR 5,000 shall be charged per day basis |
| 4 | Repair of cut OFC. | Underground OFC – within 48 hours Overground OFC – within 24 hours | Penalty of INR 8,000/ per day shall be charged |
| 5 | Response Time | Average Time taken to acknowledge, respond and close once a ticket/incident is logged through one of the agreed channels (like Ticketing solution, Telephone, Email etc.). This is calculated for all tickets/incidents reported within the reporting month. 95% of the incidents should be responded within 15 minutes. | <ul style="list-style-type: none"> • <95% & >=90%: 2% of the Residual amount (Payment schedule phase 4) • < 90% & >= 85%: 5% of the residual amount (Payment schedule phase 4) • < 85%: 7% of the residual amount (Payment schedule phase 4) |
| 6 | Availability of Monthly SLA Reports covering all the above SLA parameters required for monitoring within the defined time | Report of last month shall be submitted by First week of the current month. | Penalty of INR 5,000/- Per month |
| 7 | Any Security Breach <ul style="list-style-type: none"> • Successful hacking of any active component on the network by any unauthorized user. • Any cyber-attack into the network. • Or any other privacy rule is broken as per Govt. of India guidelines or Govt. of Bihar | For any reported security breach | For every security breach reported and proved, there shall be a penalty of INR 50,000/-. |

SLA Monitoring: In the duration of the contract, the selected bidder shall be required to provide the reports for monitoring the SLAs.

Ritco → A Pith.

Principal
Government Polytechnic
Sheohar

- a) The penalty shall be calculated and deducted from residual amount (Payment Schedule phase 4).
- b) All above-mentioned penalties are exclusive to each other.
- c) The maximum penalty at any point of time and for any period should not exceed 25% of residual amount (Payment Schedule phase 4).
- d) Penalties shall not be levied on the successful bidder in case of is a Force Majeure event affecting the SLA which is beyond the control of the successful bidder.
- e) The decision of Government Polytechnic Sheohar regarding interpretation of the Terms & Conditions and the Agreement shall be final and binding on the Bidder.

27. Payment Schedule:

27.1. Payment Schedule for Phase – 1

40 % of the total cost on delivery of material/equipment's –

The Bidder shall submit the invoice along with following documents: -

- a. Physical verification by the Institute supported by Delivery challan/Courier receipt or any other supporting document.
- b. Document clearly mapping list of the materials with Make, Model, Serial number.

27.2. Payment Schedule for Phase – 2

20% of the total cost – On completion of Supply and installation

The Bidder shall submit the invoice along with following documents: -

- a. Delivery challan signed by competent authority of institutes/sites.
- b. Installation report

27.3. Payment Schedule for Phase – 3

10% of the total cost - On completion Final acceptance test by the institute, commissioning and Go-Live

The Bidder shall submit the invoice along with following documents.

- a. Site visits for physical check/functionality checks of the commissioned devices/software.
- b. Link commissioning report duly signed off by the competent authority of Institute.
- c. Asset register needs to be submitted along with SOP and other documents.
- d. Training to designated staff of the institute.
- e. Self-declaration by the Bidder
- f. Warranty document form OEM.


27.4. Payment Schedule for Phase – 4 (Final Settlement)

30% of the total cost would be linked with the SLA which will be paid after deduction of the penalties. The payment terms for the phase-4 shall be mutually agreed by the bidder and Government Polytechnic Sheohar .

28. Penalty

The bidder shall ensure the delivery of equipment and installation of entire network systems at the institute within 8 weeks from the date of award of contract. If not completed in the specified timeline suitable penalty would be imposed as decided by the principal of

Ritesh  Ritesh .


Principal
Government Polytechnic
Sheohar

29. Indemnity

The supplier shall indemnify, protect, and save Government Polytechnic Sheohar against all claims, losses, costs, damages, expenses, action suits and other proceedings resulting from infringements in respect of all hardware and software supplied to Government Polytechnic Sheohar . Government Polytechnic Sheohar also stand indemnified from any compensation arising out of accidental loss of life or injury sustained by any manpower while working on the project.

30. Termination, Dispute Resolution & Other

30.1. Termination of Contract

- a) If bidder found to be involved in fraudulent practices (misrepresentation or omission of facts or suppression/hiding of facts or disclosure of incomplete facts), in order to secure eligibility to the bidding process during the submission of bid or after release of Letter of Intent (LoI) or agreement formalization after signing of contract, shall be liable for punitive action amounting to blacklisting of the bidder, including the forfeiture of concerned EMD and/or Performance Security also, whatever it relates.
- b) Notwithstanding contained here, the Government Polytechnic Sheohar prejudice to any other contractual rights and remedies available to it, shall by written notice of any default in service / installation/ testing /commissioning etc. sent to the bidder, terminate the contract in whole or in part, if the bidder fails to perform services as specified in the present contract read with the terms of the contract agreement or any other contractual obligations within the time period specified in the contract and the firm may be blacklisted, consequently the performance security may be forfeited.
- c) **Termination for Insolvency** - If the bidder becomes bankrupt or otherwise insolvent, it will inform to the Government Polytechnic Sheohar within 30 days written notice to terminate the contract. Government Polytechnic Sheohar reserves the right to terminate, without any compensation, whatsoever, to the bidder, and may forfeit the performance security.
- d) **Termination by mutual consent** - In the event the Government Polytechnic Sheohar and the bidder mutually agrees to the terminate the contract, either party shall give 90 days' written notice to the other party and after the consent of both the parties contract may be terminated without any Legal or financial obligation on any party to the contract.

30.2. Force Majeure

- a) For purposes of this clause, Force Majeure means an event beyond the control of the bidder and not involving the bidder's fault or negligence, and which is not foreseeable and not brought about at the instance of, the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, earthquake, epidemics, quarantine restrictions, strikes excluding by its employees, lockouts excluding by its management, and freight embargoes.
- b) If a Force Majeure situation arises, the bidder shall promptly notify the Government Polytechnic Sheohar in writing of such conditions and the cause thereof within 7 days of occurrence of such event. Unless otherwise directed by the bidder in writing, the bidder shall continue to perform its obligations under the contract as far as reasonably practical

Ritesh

A

Pitir

Principal
Government Polytechnic
Sheohar

and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

- c) If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding thirty days, either party may at its option terminate the contract without any financial repercussion on either side.

30.3. Notices

Notice, if any, relating to the contract given by one party to the other, shall be sent in writing or e-mail or by post. The addresses of the parties for exchanging such notices will be the addresses as incorporated in the contract between the Government Polytechnic Sheohar and the bidder.

30.4. Resolution of Disputes

- a) Any dispute, difference, or claim arising out of or in relation to this Agreement, will be settled by reaching a mutual understanding between the parties.
- b) If any further dispute arises between the parties thereupon, the same will be settled as per the extant law of land through the competent court of law under the territorial jurisdiction of Sheohar only.

30.5. Applicable Law

The contract shall be governed by and interpreted in accordance with the laws of India for the time being in force.


Principal
Government Polytechnic
Sheohar

Ritesh  Pinter

<Company Letter head>

TECHNICAL DATA SHEET

Details of contractor/ service provider


| S.I No. | Description | Information |
|---------|--|-----------------------------------|
| 1 | Name of Tenderer & Contact person with complete address, email & mobile No: - | |
| 2 | Status of the Tenderer (attach documents if registered company / partnership / proprietorship / LLP) with year of establishment. | |
| 3 | Statutory details (photocopy to be attached) a) Registration No. of the Firm- b) PAN- c) GST Reg. No.- | |
| 4 | Number of Project Experience in Setting Up Campus Network/ City Wide Area Network / establishment of network connectivity for a Central / State Government Organization / Public Sector Unit (PSU)/ Private University Recognized /affiliated to UGC/ AICTE in India. With minimum contract value of 5 lakhs | |
| | Name of the Project | Client Name & Contact information |
| | 1. 2. 3. | Project Value (INR) |
| 5 | Average turnover of the company in the last 3 years | |
| | FY 2020-21 | FY 2021-22 |
| | | FY 2022-23 |
| 6 | The bidder must have at least 3 years' experience in Campus Wide Network installation, commissioning, and maintenance with a Central / State Government Organization / Public Sector Unit (PSU)/ Private University Recognized /affiliated to UGC/ AICTE in India. | |
| | Name of the Project | Client Name & Contact information |
| | 1. 2. 3. | Duration (Year) |
| 7 | Declaration that the bidder has not been debarred / blacklisted by any Government/Semi-Government/ PSU (As per Annexure 4) | |
| 8 | Self-declaration as per the clauses mentioned in Land Border Clause | |

Note: Attach necessary documentary evidence to substantiate information mentioned above.

< Authorised Signature >

Name:

Designation:


Principal
Government Polytechnic
Sheohar

<Company Letter head>


FINANCIAL BID FORMAT (Rs in Lakh)

To,

Principal,
Government Polytechnic Sheohar ,

| Sn. | Components | Make | Model | Quantity | Amount (A) | GST/Tax amount (B) | Total Amount (C=A+B) |
|-----|--|------|-------|----------|------------|--------------------|----------------------|
| 1 | Firewall with minimum 8 numbers of 1G port and 2 Nos of fibre Optic port. | | | 1 | | | |
| 2 | Distribution Switch - L3 Switch with 24 SFP ports 2 10GBASET ports 4 10G SFP ports L3 Stackable Managed Switch | | | 1 | | | |
| 3 | Access Switch- 24 PoE+ port L2 with minimum 2 SFP (Managed) | | | 6 | | | |
| 4 | Access Switch- 16 PoE+ port L2 with minimum 2 SFP (Managed) | | | 8 | | | |
| 5 | Access Switch- 08 PoE+ port L2 with minimum 2 SFP (Managed) | | | 5 | | | |
| 6 | Indoor AP (With Mounting Kit & Controller) - II | | | 30 | | | |
| 7 | Rugged and waterproof Outdoor IP 65 AP (With Mounting Kit) | | | 4 | | | |
| 8 | 16 U Rack | | | 1 | | | |
| 9 | 6 U rack (With PDU) inside Gallery | | | 7 | | | |
| 10 | CAT6 cable (Per Box 305 meter) | | | 20 | | | |
| 11 | IO box for CAT-termination | | | 102 | | | |
| 12 | 6 Core Fibre with LIU and termination accessories | | | 1000 | | | |
| 13 | LC to LC patch code | | | 14 | | | |
| 14 | OFC Patch Panel | | | 5 | | | |
| 15 | RJ 45 Connector | | | 500 | | | |
| 16 | Conduit for both electrical & LAN wiring & all required material | | | 3500 | | | |
| 17 | 24 port LAN patch panel | | | 8 | | | |





Principal
Government Polytechnic
Sheohar

| | | | | | | | |
|----|---|--|--|-----|--|--|--|
| 18 | UPS (2KVA) | | | 1 | | | |
| 19 | Wireless Access Point Controller | | | 1 | | | |
| 20 | SFP Module | | | 16 | | | |
| 21 | NMS a) web base user interface (secured) b) should support fault, and performance management. C) Ability to present graphical view of the network. D) Capability to view the network topology . The NMS should be able to monitor all the active components, wired , and wireless elements, of the network. e) the NMS should have the capabilities to support all the hardware in the existing network irrespective of OEM. | | | 1 | | | |
| 22 | Patch cord 2 meter | | | 200 | | | |
| 23 | Installation and Commissioning Charge | | | 1 | | | |

Quoted Price: Total Amount (C=A+B) (< Price in Word and Figure>)

Note: -


- Prices should be quoted in Indian Rupee only and indicated both in figures and words. The amount mentioned in words will prevail.
- It is bidders' responsibility to install, commission, test, and go live. Any other cost for accessory or any other sundry items needed for installation would be borne by the Bidder only.
- All the items' counts mentioned above is only tentative number, it may exceed or less as per the work.
- The BoQ mentioned in the RFP is for the entire scope of work and duration mentioned in this RFP. Bidders are requested to do site visits to check the feasibility and to ensure achievement of the objective and scope of work of this RFP.
- Make & Model are mandatory.

• <Authorised Signature>

Name:

Designation:

Ritesh  P. K. 


Principal
Government Polytechnic
Sheohar

Format for Performance Bank Guarantee

Ref:

Bank Guarantee No:


Date:

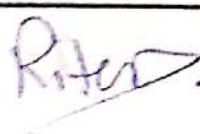
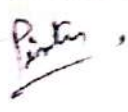
To

Principal,
Government Polytechnic Sheohar,

Against contract vide Advance Acceptance of the Tender No. Dated covering "RFP for Onboarding Service Provider for LAN & Wi-Fi Networking and Augmenting with the existing network in the Premises of the Institute Premises under Department of Science, Technology and Technical Education, Government of Bihar" (hereinafter called "the Bid"). (hereinafter called the said 'contract') entered into between Government Polytechnic Sheohar (hereinafter called the Purchaser) and M/s. _____, a Company incorporated under the Companies Act, 1956/2013 or Partnership Act 1932 or Limited Liability Partnership Act 2008 or Proprietorship Firm/ Government Organization/ Public Sector Undertaking and having its Registered Office at _____ (hereinafter called the Bidder) this is to certify that at the request of the Bidder we (name of the Bank / Branch _____) a body corporate constituted under the Banking Companies [Acquisition and Transfer of Undertakings] Act, 1970 and having its, Registered Office at _____ and a branch office at _____ are holding in trust in favour of the Purchaser, an amount of Rs (Rupees _____ only) to indemnify and keep indemnified the Purchaser against any loss or damage that may be caused to or suffered by the Purchaser by reason of any breach by the Bidder of any of the terms and conditions of the said contract and/or in the performance thereof. We agree that the decision of the Purchaser, whether by any breach of any of the terms and conditions of the said contract and/or in the performance thereof has been committed by the Bidder and the amount of loss or damage that has been caused or suffered by the Purchaser shall be final and binding on us and the amount of the said loss or damage shall be paid by us forthwith on demand and without demur to the Purchaser.

1. We (Name of the Bank / Branch) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for satisfactory performance and fulfilment in all respects of the said contract by the Bidder i.e. till hereinafter called the said date and that if any claim accrues or arises against us (Name of the Bank / Branch) by virtue of this guarantee before the said date, the same shall be enforceable against us _____ (Name of the Bank/Branch) notwithstanding the fact that the same is enforced within six months after the said date, provided that notice of any such claim has been given to us _____ (Name of the Bank/Branch) by the Purchaser before the said date. Payment under this guarantee shall be made promptly upon our receipt of notice to that effect from the Purchaser.
2. It is fully understood that this guarantee is effective from the date of the said contract and that we _____ (Name of the Bank / Branch) undertake not to revoke this guarantee during its currency without the consent in writing of the Purchaser.
3. We undertake to pay to the Purchaser any money so demanded notwithstanding any dispute or disputes raised by the Bidder in any suit or proceeding pending before any court or Tribunal relating thereto our liability under this present bond being absolute and unequivocal.


Principal
Government Polytechnic
Sheohar

4. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Bidder shall have no claim against us for making such payment.
5. We (Name of the Bank / Branch) further agree that the Purchaser shall have the fullest liberty, without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the Bidder from time to time or to postpone for any time or from time to time any of the powers exercisable by the Purchaser against the said Bidder and to forebear or enforce any of the terms and conditions relating to the said contract and we, (Name of the Bank / Branch) shall not be released from our liability under this guarantee by reason of any such variation or extension being granted to the said Bidder or for any forbearance by the Purchaser to the said Bidder or for any forbearance and or omission on the part of the Purchaser or any other matter or thing whatsoever, which under the law relating to sureties, would, but for this provision have the effect of so releasing us from our liability under this guarantee.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Bidder. Notwithstanding anything contained herein:
 - a. Our liability under this Bank Guarantee shall not exceed of Rs.....(Rupees in words only).
 - b. The Bank Guarantee shall be valid up to; and;
 - c. We..... (Name of the Bank / Branch) are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before ##.....

Authorised Signatory of the Bank

Signature

Full Name/designation/ Address of the official and date WITNESS NO. 1

Signature

Full Name/designation/ Address WITNESS NO. 2

Signature

Full Name/designation/ Address

Format for Declaration by the bidder for not being Blacklisted/ Debarred:
(To be executed on a non-judicial stamp paper of appropriate stamp duty (as per Stamp Act of Bihar)

Date:

To,

Principal,

Government Polytechnic Sheohar,

Subject: Submission of proposal in response to the Tender for
"

Ref: Tender No.:

Dear Sir,

I, authorized representative of _____, hereby solemnly confirm that the Company _____ is not blacklisted / banned / debarred/ declared ineligible / declared having dissatisfactory performance and not banned by the Government of Bihar/ Any other State Government/ Government of India which includes any Government Department, Public Sector Undertakings of the Government, Statutory Department formed by the Government, Local Bodies in the State, Co-operative Institutions in the State, Universities and Societies formed by the Government for any reason as on last date of submission of the Bid. In the event of any deviation from the factual information/ declaration, Government Polytechnic Sheohar reserves the right to reject the Bid or terminate the Contract without any compensation to the Company.

Thanking you.

Yours faithfully,


<Authorized Signatory >

Name:

Designation:

Address:

Telephone & Fax:


Principal
Government Polytechnic
Sheohar



बिहार गजट

असाधारण अंक

बिहार सरकार द्वारा प्रकाशित

३ चैत्र १९४५ (श०)
(सं० पटना २५१) पटना, शुक्रवार, २४ मार्च २०२३

सं० एम-४-०६/२०२३/२९८८/वि०,
वित्त विभाग

संक्षेप

२३ मार्च २०२३

विषय :- आउटसोर्सिंग के माध्यम से मानव बल की सेवाएँ प्राप्त करने एवं पारिश्रमिक मुगतान हेतु प्रक्रिया निर्धारण के सम्बन्ध में।

सम्बन्धित विभागों एवं विभागान्तर्गत कार्यरत बोर्ड/विभाग/सहस्रद्वी इत्यादि के द्वारा आउटसोर्सिंग के आधार पर विभिन्न प्रकार के मानव बल की सेवाएँ प्राप्त की जा रही हैं। इस क्रम में विभिन्न विभागों द्वारा आउटसोर्सिंग के माध्यम से मानव बल की सेवा प्राप्त करने की प्रक्रिया में सजा शुल्क की दर का संबंध में निम्न विभाग से परामर्श की प्रक्रिया की जा रही है।

२. ऐसा पता जा रहा है कि इस प्रकार की विविधता के क्रम में कई विविधताओं द्वारा विविध प्रकार के न्यूनतम बोली के क्रम में सजा शुल्क की अवधारणा पर (प्रधान १०० नमूने से भी कम) अंकित कर दिया जाता है। इस प्रकार के दर का अनुमान सजा में से मानव बल के पारिश्रमिक पर बढ़ता है, क्योंकि ऐसी स्थिति में एजन्सी द्वारा सजा शुल्क की भरवाई हेतु अनुचित तरीके अपनाने की संभावना रहती है।

३. ऐसी स्थिति में सजा शुल्क की दर का समझ-सझ आउटसोर्सिंग के द्वारा मानव बल के न्यूनतम पारिश्रमिक एवं अन्य वित्तिक गणना का मुगतान सम्बन्ध सुनिश्चित होगा जहाँ हेतु प्रक्रिया एवं विभाग-विभाग निर्धारित विधि जान की आवश्यकता है। वित्त मंत्रालय, व्यय प्रभाग द्वारा सरकार के Office Memorandum संख्या-F.6/1/2023-PPD दिनांक-06.01.2023 द्वारा आउटसोर्सिंग के आधार पर मानव बल की सेवाएँ प्राप्त करने हेतु सजा शुल्क की न्यूनतम एवं अधिकतम दर निर्धारित की गई है।

४. सम्बन्धित विभागों द्वारा आउटसोर्सिंग के आधार पर मानव बल की सेवा प्राप्त करने हेतु सजा शुल्क की दर एवं इस मानव बल के पारिश्रमिक का सम्बन्ध मुगतान हेतु निम्नलिखित प्रक्रिया निर्धारित की जाती है:-

Rites

A

Pia

Principal
Government Polytechnic
Sheohar

- (i) आउटसोर्सिंग के माध्यम से मानव संसाधन की सेवा प्राप्त करने हेतु सेवा शुल्क भुगतान 0.65 प्रतिशत (0 प्रतिशत खान और 0.65 प्रतिशत संसाधन शुल्क के रूप में) तथा अधिकतम 7 प्रतिशत (संसाधन शुल्क सहित) होगी। इसी आधार पर विविध आकृष्टित की जायेगी।
- (ii) उद्योग निर्धारित भुगतान सेवा शुल्क की अवधि के अंतर्गत से भुक्त एवं निर्धारित अधिकतम सेवा शुल्क की अवधि के अंतर्गत से भुक्त कर अंतिम करने वाले विविधता की दिवसीय विविधता विवरणीय नहीं होगी। सेवा शुल्क के रूप में अंतिम रूप से दरमजदारी के परमाणु 2 अंश से आगे अंतिम अंश को कटौत करने दिया जायेगा।
- (iii) विविधता से यदि एक से अधिक विविधताओं द्वारा उद्धृत (Quoted) भुक्तान सेवा शुल्क की दर समान पाई जाती है तो इसी स्थिति में शीटरी के माध्यम से विविधता को विजयानुत किया जायेगा तथा इस पूर्ण प्रक्रिया की विविधताओं को जारी जायेगी। विविधता के विजयानुत की पूर्ण प्रक्रिया में बिहार दिस विजयानुत के सुसंगत प्रमाणों का प्रमाणन अवधि होगा।
- (iv) मानव संसाधन सेवा शुल्क के अंतर्गत विभाग द्वारा निर्धारित भुक्तान मजदूरी एवं सुख पर खात वित्तिक दस्ता का भुक्तान प्रविष्टी होगा और इस विविधता (Bid) का आधार नहीं बनाया जायेगा।
- (v) चयनित एजेंसी द्वारा सेवा प्रदान कर यह मानव संसाधन के प्रतिनित परिश्रमिक का भुक्तान में अंतर्गत विभाग, बिहार सरकार द्वारा अधिकृत भुक्तान परिश्रमिक का वित्तानुत का अनुमानन किया जाना आवश्यक होगा। इससे खाद्य की परिश्रमिक का भुक्तान मानव संसाधन के आधार संवेदक के खाता में Real Time Gross Settlement (RTGS) की प्रक्रिया से किया जायेगा। यह भुक्तान सेवा प्राप्त कर यह विभाग/प्रविष्टि द्वारा आउटसोर्सिंग एजेंसी को गति विविधता की तिथि के तीन कार्य दिवस के अंतर्गत संयमित एजेंसी द्वारा किया जायेगा। संयमित कार्य/प्रविष्टि द्वारा आउटसोर्सिंग एजेंसी का प्रमाण माद की 01 लागू होना प्राप्त दिवस के आखिर में गति का भुक्तान किया जाना होगा। खाद्य की सभी वित्तिक कटौती की गति का समस्त संयमित प्रविष्टि (यथा कार्यकारी अधिक विवि संयमित एवं कार्यकारी राज्य सेवा विभाग इत्यादि) में आउटसोर्सिंग एजेंसी द्वारा जमा कराना होगा।
- (vi) आउटसोर्सिंग एजेंसी द्वारा कार्य/मानव संसाधन के माध्यम परिश्रमिक भुक्तान (अथवा संवेदक खात में) का खाद्य अंतर्गत माद के विवरण के खाद्य अनुमानन कराना आवश्यक होगा, अथवा विवरण की गति का भुक्तान अनुमानन नहीं होगा। खाद्य की वित्तिक कटौती/दस्ता (यथा कार्यकारी अधिक विवि एवं कार्यकारी राज्य सेवा विभाग) की गति जमा करने का खाद्य सहित वित्तिक वित्तिकन भी आउटसोर्सिंग एजेंसी द्वारा सेवा प्राप्त कर यह विभाग/प्रविष्टि का अनुमानन कराना आवश्यक होगा।

आवेदन- आवेदन विषय जाया है कि इस संकल्प को बिहार राजपत्र के असाधारण अंक में प्रकाशित किया जाय।

बिहार गजट के अधिन में

सेक्रेटरी गजट,
राज्य (संसाधन)।

अधीक्षक, सचिवालय मुद्रणालय,
बिहार, पटना द्वारा प्रकाशित एवं मुद्रित।
बिहार गजट (असाधारण) 251-571+10-डी0टी0पी0
Website: <http://egazette.bih.nic.in>


SPECIFICATIONS OF ITEMS MENTIONED IN BOQ

| (1) Firewall with minimum 8 numbers of 1G port and 2 Nos of fibre Optic port. | Compliance (Yes/No) | Remarks |
|--|---------------------|---------|
| The proposed firewall should not consume more than IRU Rack-mountable space. | | |
| The appliance should have multicore processor based architecture. | | |
| The appliance should have minimum 8 x 10/100/1000 Base T Ethernet Port. | | |
| The appliance should have minimum 2 Ports of 10Gbps SFP+ Port. | | |
| The appliance should have minimum 2 x USB 3.0 port and one Console Port | | |
| The appliance Should have minimum 2GB of RAM & 32 GB of more SSD Storage from day 0 | | |
| General Firewall Features | | |
| The Firewall should support BGP, OSPF, RIP v1/v2 routing protocol and IPv4 & IPv6 functionality (Both phase 1 and Phase2). | | |
| Solution should support Dead Peer Detection, DHCP Over VPN, IPSec NAT Traversal, Route-based VPN over OSPF, RIP, BGP. | | |
| The Firewall solution should support policy based routing, Application based routing and also Multi Path routing. | | |
| Should support Zero-Touch registration & provisioning using mobile App. | | |
| Proposed solution should have bandwidth quota and time quota for manageability of users. | | |
| solution should support policy based routing, Application based routing and also Multi Path routing. | | |
| Performance & Scalability | | |
| The appliance should have minimum Firewall Throughput of 5 Gbps or better | | |
| The appliance should able to handle minimum 23K new session per second or better | | |
| The appliance should able to handle minimum 3 Gbps Application inspection Throughput or better | | |
| The appliance should have minimum Antivirus/Anti-malware Throughput of 2.5 Gbps or better | | |
| The appliance should have minimum IPS Throughput of 3 Gbps or better | | |
| The appliance should have minimum Firewall Threat prevention Throughput of 2.5 Gbps or better | | |
| The appliance should have minimum IPSec-VPN Throughput of 2 Gbps or better | | |
| The appliance should have minimum 200 Number of Ipsec VPN Peers supported (Site to Site) | | |
| The appliance should have minimum 450 Number of Ipsec VPN Peers supported (Client to Site) | | |
| The appliance should have minimum 200 Number of SSL VPN Peers supported (Client to Site) | | |
| The appliance should have minimum 1.3 M Concurrent Session/Concurrent Connection | | |
| The appliance should have minimum 800 Mbps TLS/SSL inspection throughput (DPI SSL) | | |
| The appliance Should support 80+ Web categories | | |
| The appliance Should support 3000+ application Signature | | |
| The appliance Should support 5000+ IPS Signature | | |
| The appliance should have minimum 450K Deep Packet Connection. | | |
| Firewall Security Features | | |

Ritesh *[Signature]* *Ben*

| | | |
|---|--|--|
| The Firewall should scan for threats in both inbound and outbound and intra-zone traffic for malware in files of unlimited length and size across all ports and TCP streams by GAV & Cloud AV. | | |
| The proposed firewall should support Bi-directional raw TCP inspection that scans raw TCP streams on any port . | | |
| The Firewall must support Proxy-less and non-buffering inspection technology for DPI scanning without introducing file and stream size limitations. | | |
| The Firewall should support deep packet SSL to decrypt HTTPS traffic for scanning(IPS, Gateway Antivirus, Content Filtering, Application control) transparently for future requirement and then re-encrypt and send to destination if no threat found. | | |
| The firewall must support cloud & appliance based Sandbox technology and OEM must have own cloud & appliance based Sandboxing & Advanced Threat Protection solutions . | | |
| The cloud or appliance based sandbox should have technology that detects and blocks malware that does not exhibit any malicious behavior and hides its weaponry via encryption. Should detect and block mass-market, zero-day threats and unknown malware. | | |
| The Firewall should have the capability to block/prevent from Side Channel attacks, memory based attack as well as zeroday malware and Never-before-seen malware attack . | | |
| Should support both for analysis of a broad range of file types, either individually or as a group, including executable programs (PE), DLL, PDFs, MS Office documents, archives, JAR, and APK plus multiple operating systems including Windows, Android, Mac OS X and multi-browser environments. | | |
| Should have ability to prevent potentially malicious files from entering the network and those files sent to the sandbox for analysis to be held at the gateway until a verdict is determined. | | |
| The Firewall should have Pictorial view of a particular access rule, NAT and Routing rule which helps in finding real-time statistics. Displays the rules which are actively used or not being used & enabled or disabled. | | |
| The proposed system should have the future option to integrate with cloud-based management & reporting system to manage Firewall. Both solutions should be from the same OEM. | | |
| The proposed system should be SD WAN Enable without adding any additional hardware components & Necessary licenses, if required, need to be provisioned from day 1. | | |
| The integrated cloud based sandboxing must have capability to scans 10Mb of files size at a time. | | |
| The proposed Firewall should have ability to prevent potentially malicious files from entering the network and files sent to the cloud based or on-premises sandbox for analysis to be held at the gateway until a verdict is determined. | | |
| The Firewall should detect and prevent hidden attacks that leverage cryptography, blocks encrypted malware downloads, ceases the spread of infections, and thwarts command and control (C&C) communications and data exfiltration | | |
| License , Certification And Warranty | | |
| Warranty - 3 years comprehensive onsite warranty including 24x7 telephone, email and web-based technical support. | | |
| OEM should have TAC and R&D center in INDIA. | | |
| Manufacturer's warranty should be mentioned minimum 03 (three) years warranty including all services like GAV, IPS, Antispyware or antimalware, CFS, Application control, Bot protection , Advance Threat Protection, Patch & Firmware upgrade and Hardware. | | |
| Bidder must carry out on site installation, testing and commissioning. | | |

Ritesh  Ritesh


Principal
Government Polytechnic
Sheohar

| | | |
|---|--|--|
| OEM should have scored minimum 97% in Exploit Block rate in the last NSS Lab report for NGFW (2019) | | |
| The Firewall OEM must be ICSA Lab certified for Network Firewall, Anti-virus and ATD and should have detection rate of 99% or higher. | | |
| The proposed appliance should come from firewall appliance family which has ICSA labs certification/NSS/NDP/ Indian Standard, IC3S/Common Criteria. | | |

| (2) Distribution Switch - L3 Switch with 24 SFP ports 2 10GBASET ports 4 10G SFP ports L3 Stackable Managed Switch | | Compliance (Yes/No) | Remarks |
|---|--|---------------------|---------|
| Switch Specification | | | |
| Switch with at least 24 X SFP Ports, 2 x 10G Base-T and 4 X SFP+ Ports. | | | |
| Switch should have console port for accessing the CLI of the switch. | | | |
| Switch should have RJ-45 port for out-of band-management port | | | |
| Switch should have USB port for connecting a USB storage device. | | | |
| Switching capacity should be 168 Gbps or higher or non-blocking architecture. | | | |
| Switch shall have 64 Bytes packet forwarding rate should be 125 Mpps or higher | | | |
| Switch MAC table should be at least 16K or higher. | | | |
| Switch should be standard 19 inch 1U rack mountable. | | | |
| Switch should Support Internal/External Redundant Power Supply. | | | |
| Switch should support Physical Stacking up to 9 units per stack. Stacking bandwidth should be up to 80G and up to 32 devices per virtual stack. | | | |
| Operating temperature should be 0 to 50 °C. | | | |
| Switch should be EMI Certificates FCC, CE and Safety Certifications cUL/UL, CB. | | | |
| Switch Software Specification | | | |
| Should have 802.1D STP, 802.1w RSTP and 802.1s MSTP Spanning Tree Protocol and ERPS as per standard ITU-T G.8032 to provide protection for Ethernet traffic in ring topology. | | | |
| Should support BPDU Filter, BPDU restriction, Root restriction | | | |
| Should support Loopback detection (LBD) to detect the loop created by a specific port. | | | |
| Should support IGMP Snooping v1/V2/V3 & IGMP groups 1K or more IGMP groups and require support for IGMP Snooping Fast Leave. | | | |
| Should support MLD Snooping v1/v2 & MLD group 1K or more and require support for MLD Snooping Querier. | | | |
| Should support 16 L3 IP interfaces and IPv4/IPv6 Loopback interface. | | | |
| Should support IPv6 Neighbor Discovery (ND). | | | |
| Should support VRRPv3, Equal-Cost Multi-Path (ECMP) and UDP helper. | | | |
| Should support Static route for both IPv4 and IPv6, OSPFv1, v2 & v3, RIP V1/V2/ng. | | | |
| Should have Policy-based Route (PBR). | | | |
| Switch should support IEEE 802.1Q VLAN with different type of VLAN like Port based, Voice VLAN, Private, Double (Q-In-Q), Multicast VLAN (ISM) | | | |


| | | |
|---|----------------------------|----------------|
| VLAN for IPv4/IPv6), 802.1v Protocol VLAN ,VLAN Trunking, Super VLAN | | |
| should have per-port broadcast, multicast, and unicast storm control to prevents faulty end stations from degrading overall systems performance. | | |
| Should support port security to secures the access port based on MAC address. | | |
| Require prevention of DoS attacks, which include Land, Blat, TCP Null Scan, TCP Xmas Scan, TCP SYNFIN, Ping of Death Attack and TCP Tiny Fragment attack. | | |
| Should support DHCP snooping and DHCP server screening, DHCP server. | | |
| Should support 802.1X port based and 802.1X host based access control,Identity-driven Policy (VLAN, ACL or QoS) Assignment | | |
| Should support RADIUS and TACACS+ authentication. | | |
| Should support Authentication database failover. | | |
| Switch should support QoS (quality of service) IEEE 802.1P for traffic prioritization. It should support 8 queues per port. | | |
| Different type of QoS priority like Strict Priority Queue and Weighted Round Robin, Strict + WRR, Congestion control using Weighted Random Early Detection (WRED) or WTD | | |
| Should support Remark 802.1p priority, Remark ToS/DSCP and Rate limiting in Policy map. | | |
| Support at least 2K ingress & 512 egress access control entries. ACL based on MAC, IPv4 and IPv6, TCP/UDP port number, User-defined packet content, CPU Interface Filtering. Should support time based ACL. | | |
| Able to manage trough Web-GUI, Fully functional CLI interface and Telnet. | | |
| Should have multiple Image and configuration support to reduced down time for the switches. | | |
| Should support sFlow for monitoring traffic in data networks, SNMP v1, v2c, v3 and SNMP Traps and RMON. | | |
| Support for DHCP Client support for IPv4/IPv6, DHCP server, DHCP Relay and DNS client. | | |
| Should have SNTP/NTP protocol for time synchronization. | | |
| Should support CDP/UDLD, Link Layer Discovery Protocol (LLDP) and LLDP-MED. | | |
| Access Switch- 24 PoE+ port L2 with minimum 2 SFP (Managed) | Compliance (Yes/No) | Remarks |
| Switch with at least 24 X 10/100/1000 Mbps PoE Ports and 4 x 10G SFP+ Ports. | | |
| Switching capacity should be 128Gbps or higher or non-blocking architecture. | | |
| Switch packet forwarding rate should be 95.24 Mpps or higher or non-blocking architecture. | | |
| Switch Should Support IEEE 802.3af & at compliance (for PoE ports) and 370W Power Budget. | | |

Ritesh A. Pith

Principal
Government Polytechnic
Sheohar

| | | |
|--|--|--|
| Switch MAC table should be at least 16K or higher. | | |
| Switch should be standard 19 inch 1U rack mountable. | | |
| Support for the Energy Efficient Ethernet (IEEE 802.3az) standard. | | |
| Power input should be 100 to 240 VAC, 50/60 Hz, internal power supply. | | |
| Operating temperature should be -5 degree celsius to +50 degree celsius. | | |
| Certification: CE, FCC, BSMI, RoHS and cUL. | | |
| Switch Software Specification | | |
| Should support Head of Line blocking prevention for lower latency and better performance. | | |
| Support Jumbo Frame up to 12K Bytes or higher. | | |
| Should support IGMP Snooping, Able to create 250 or more IGMP groups and require support for IGMP Snooping Fast Leave, IGMP Snooping Querier | | |
| Should support MLD Snooping, Able to create 250 or more MLD groups, Per VLAN MLD Snooping and require support for MLD Snooping Fast Leave. | | |
| Should have 802.1D STP, 802.1w RSTP and 802.1s MSTP Spanning Tree Protocol. | | |
| Should support Spanning tree Root restriction | | |
| Should support Loopback detection (LBD) to detect the loop created by a specific port. | | |
| Should support Multicast Filtering to filters or forward all unregistered groups. | | |
| Switch should support IEEE 802.1Q VLAN tagging for Ethernet frames. | | |
| Different type of VLAN like Port based, Auto Surveillance, Auto Voice, Asymmetric Vlan etc. should be available for configuration. | | |
| Switch should support QoS (quality of service) IEEE 802.1P for traffic prioritization. It should support 8 queues per port. | | |
| Different type of QoS priority like Strict Priority Queue and Weighted Round Robin. | | |
| Port based ingress / egress rate limit function should be available with limit in increments as low as 16 Kbps | | |
| Switch should support Neighbor Discovery (ND) protocol for IPv6. | | |
| Switch should support to create at least 4 IP interface | | |
| Should support default routing and static routing with minimum 100 IPv4 static route entries and minimum 50 IPv6 static route entries. | | |
| Support at least 700 rules shared by IPv4, MAC, and IPv6 & Each rule can only be associated with a single port. | | |
| Should support port security to secures the access port based on MAC address. | | |

Ritesh  Pm.


Principal
Government Polytechnic
Sheohar

| | | |
|---|----------------------------|----------------|
| should have broadcast, multicast, and unicast storm control to prevents faulty end stations from degrading overall systems performance. | | |
| Support Traffic Segmentation to restricted traffic flow from a single or group of ports, to a another group of ports. | | |
| Should have SSH and SSL for IPv4 and IPv6. | | |
| Require prevention of DoS attacks, which include Land, Blat, TCP Null Scan, TCP Xmas Scan and TCP SYNFIN. | | |
| Should support 802.1X port based authentication. | | |
| Should support ARP spoofing prevention. | | |
| Should support DHCP snooping and DHCP server screening. | | |
| Switch should able to create a binding table for IP + MAC + Port to prevents a malicious user from spoofing or to restrict the unauthorized users. | | |
| Should support 802.1X RADIUS and local server database authentication. | | |
| Should have option to check the status of copper cables using the cable-diagnostics time domain reflectometer (TDR). | | |
| Able to manage trough Web-GUI, CLI, Telnet & SNMP | | |
| Should support SNMP v1, v2c, v3 and SNMP Traps and Remote Monitoring (RMON). | | |
| Should have dual Image support to reduced down time for the switches. | | |
| Switch should support dynamic host configuration protocol (DHCP) auto configuration of multiple switches through a boot server eases switch deployment. | | |
| Should have SNTP/NTP protocol for time synchronization. | | |
| Switch should be IPv6 Ready Compliance. | | |
| Should support Link Layer Discovery Protocol (LLDP) and LLDP-MED. | | |
| Note | | |
| Switch should be supplied with the all necessary components like Power cord, Rack-mount bracket, Installation Guide, etc. and necessary software image file to fulfil all above mention feature set from day 1. | | |
| Access Switch- 8 port L2 PoE with minimum 2 SFP (Managed) | Compliance (Yes/No) | Remarks |
| Switch Should Support 8 10/100/1000BASE-T PoE and 2 SFP ports | | |
| Switch Should Support Min. 20 Gbps Switching Capacity and Maximum 64 Byte Packet Forwarding Rate is 14.88 MPPS | | |
| The Switch shall have the intelligence to detect the loop occurring from the unmanaged network segment. | | |
| Switch Should Support IEEE 802.3af & at compliance (for PoE ports) and 130W Power Budget. | | |
| Switch Should Support IGMP Snooping v1, v2 and MLD snooping v1/v2 | | |

Ritesh *Star* *Patel*

[Signature]
Principal
Government Polytechnic
Sheohar

| | | |
|--|----------------------------|----------------|
| Switch shall support IEEE 802.1AB Link Layer Discovery Protocol (LLDP) & LLDP-MED. | | |
| Switch Should Support IEEE 802.3az Energy Efficient Ethernet (EEE) Power saving Technology, Power Saving by Link Status, Time-based PoE, System hibernation, Port shut off, Cable length detection Etc. | | |
| Switch Should Support 4K VLAN ID's, Min 256 static VLAN | | |
| Switch Should Support Port Mirroring One to one/Many to One | | |
| Switch should support Quality of Service (QoS), 802.1p, Strict, Weighted Round Robin (WRR), Bandwidth Control. | | |
| Switch Should Support Min 4 IP interfaces, Static routing for inter-VLAN Communication | | |
| Switch should support Access Control List (ACL), Port Base, MAC Base, IP Based, L2 & L3 ACL (IPv4 and IPv6) | | |
| Switch Should Support Security Features like Broadcast/Multicast/Unicast Storm Control, Traffic segmentation, TLS, DoS attack prevention, 802.1X Port-based Access Control, Port Security, ARP Spoofing Prevention, DHCP Server Screening, IP-MAC-Port Binding, ARP Inspection, DHCP Snooping. | | |
| Switch Should Support 802.1X Authentication local/RADIUS database (IPv4 & IPv6), port-based access control, EAP, OTP, TLS, TTLS, PEAP and Support MD5 authentication | | |
| Switch Should Support features Cable diagnostics, IPv4 & IPv6 Inspection, SSH v2 feature, 802.3x Flow Control and HOL Blocking Prevention | | |
| Switch Should Support Management thru Web-based and compact CLI. | | |
| Switch Should Support SNMP v1/v2c/v3, SNMP, ICMP v6, IPv4/v6 Dual Stack, Dual image, Dual configuration | | |
| Certifications • EMI: CE, VCCI, FCC, BSMI and Safety: CB, UL, BSMI, CCC | | |
| Indoor AP (With Mounting Kit & Controller) - II | Compliance (Yes/No) | Remarks |
| AP shall have hardened enclosures for indoor deployment and shall have a robust design for durability | | |
| It shall have dual radios for concurrent dual band (5 GHz / 2.4 GHz) operation | | |
| It shall have Simultaneous 574 Mbps on 2.4GHz and 1201 Mbps on 5GHz totals 1775 Mbps Wi-Fi speeds | | |
| Minimum 1 number of 1 Gbps Ethernet port RJ-45. | | |
| AP shall support Multi user MIMO | | |
| AP shall support Outfitted with the latest 802.11ac Wave 2 technology | | |

| | | |
|--|----------------------------|----------------|
| The AP shall comply with IEEE 802.11ac at a minimum and be backwards compatible to IEEE 802.11a/b/g/n standards. | | |
| AP shall operate at least in full 2x2:2 MIMO or more mode without any loss of features or capabilities | | |
| AP shall Support PoE 802.3af and passive PoE for convenient and affordable installation | | |
| AP must support 20 MHz, 40 MHz and 80 MHz channels. | | |
| Each AP must support minimum 50+ concurrent clients in total (including both 2.4GHz and 5GHz radios). | | |
| The AP shall provide a minimum of 20 dBm EIRP for both 2.4 GHz and 23 dBm for 5 GHz frequencies. Field deployment shall be with EIRP as per regulatory guidelines. | | |
| AP shall support QoS and WMM latest technology | | |
| AP shall support Multiple operating modes including managed AP and standalone AP mode | | |
| AP shall support Band Steering, Beamforming, Airtime Fairness and Load Balance features | | |
| AP shall support rogue access point detection | | |
| AP shall have dual-Band Omni-directional Antenna, either internal or external. Field deployment shall be with EIRP as per the WPC guideline. | | |
| AP should be compatible for Simple mounting on any wall or ceiling surface | | |
| AP should support management VLAN | | |
| AP should support Captive portal and Rate limit feature | | |
| AP shall support Reboot Schedule, Wireless Schedule and Wireless Statistics based on SSID/AP/Client | | |
| Intelligent RF control plane for self-healing, and self-optimization | | |
| AP Shall support Wireless Mac Address Filtering, Wireless Isolation Between Clients and SSID to VLAN Mapping | | |
| AP shall support 802.1X authentication and external radius server | | |
| AP shall be able to assign end User the IP address as received from backend core DHCP Server. | | |
| AP shall support Hardware controller or software controller | | |
| Shall support Operating Temperature of 32°F~144°F | | |
| Device OEM must be ISO 9001 and 14001 Certified | | |
| Shall support Operating Temperature of -30°C~70°C | | |
| Device OEM must be ISO 9001 and 14001 Certified | | |
| Rugged and waterproof Outdoor IP 65 AP (With Mounting Kit) | Compliance (Yes/No) | Remarks |
| AP shall have Durable, weatherproof enclosure for outdoor Wi-Fi deployment and shall have a robust design for durability | | |
| It shall have dual radios for concurrent dual band (5 GHz / 2.4 GHz) operation | | |

| | | |
|--|--|--|
| It shall have Simultaneous 1700 Mbps on 2.4GHz and 5GHz Wi-Fi speeds | | |
| Minimum one number of 1 Gbps Ethernet port RJ-45. | | |
| AP shall support Multi user MIMO | | |
| AP shall support Outfitted with the latest 802.11ac technology | | |
| The AP shall comply with IEEE 802.11ac at a minimum and be backwards compatible to IEEE 802.11a/b/g/n standards. | | |
| AP shall operate at least in full 2X2:2 MIMO or more mode without any loss of features or capabilities | | |
| AP shall Support PoE 802.3af and passive PoE for convenient and affordable installation | | |
| AP must support 20 MHz, 40 MHz Channel Width | | |
| The AP shall provide a minimum of 20 dBm EIRP for both 2.4 GHz and 27 dBm for 5 GHz frequencies. Field deployment shall be with EIRP as per regulatory guidelines. | | |
| AP shall support WDS or MESH networking* | | |
| AP shall support QoS and WMM latest technology | | |
| AP shall support Multiple operating modes including managed AP and standalone AP mode | | |
| AP shall support Band Steering, Beamforming, Airtime Fairness and Load Balance features | | |
| AP shall support rogue access point detection | | |
| AP shall have dual-Band Omni-directional Antenna, either internal or external. | | |
| AP should be compatible for Simple mounting on any wall or ceiling surface | | |
| AP should support management VLAN and SSID VLAN | | |
| AP should support Captive portal and Rate limit feature | | |
| AP shall support Reboot Schedule, Wireless Schedule and Wireless Statistics based on SSID/AP/Client | | |
| Intelligent RF control plane for self-healing, and self-optimization | | |
| AP Shall support Wireless Mac Address Filtering, Wireless Isolation Between Clients and SSID to VLAN Mapping | | |
| AP shall support 802.1X authentication and external radius server | | |
| AP shall be able to assign end User the IP address as received from backend core DHCP Server. | | |
| AP shall support Hardware controller or software controller and must be SDN Ready | | |
| AP Shall support ZTP (Zero Touch Provisioning) for seamless Installations | | |
| Shall support L3 management, SNMP, Email notification | | |
| Shall support Operating Temperature of -30°C~70°C | | |
| Device OEM must be ISO 9001 and 14001 Certified | | |

Ritesh

A

Putra

Principal
Government Polytechnic
Sheohar

| Cat 6 Cable (Per Box 305 meter) | | Compliance (Yes/No) |
|--|--|---------------------|
| Features | Category 6 Unshielded Twisted Pair 4 pair cable shall be compliant with ANSI/TIA/EIA-568-C.2 channel performance. | |
| | Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, 23 AWG, UTP. | |
| | The 4 pair Unshielded Twisted Pair cable shall be ETL Verified | |
| Mechanical Characteristics | | |
| Construction: 4 twisted pairs separated by internal X shaped, 4 channel, full separator. Half shall not be accepted. | | |
| Conductor dia | 23 AWG | |
| Insulation | POLYETHYLENE | |
| Pairing | TWISTED INTO TWO CORE | |
| No. of Pair | 4 PAIR TWISTED TOGETHER | |
| Color of sheath | PVC GREY- Single sheath | |
| RIP CORD | YES | |
| Sequential meter marking | YES | |
| Temperature Rating | (- 20 to +60 C) | |
| Filler Required | YES | |
| Packing | 305 Mtrs. | |
| Low Frequency Electrical Parameter | | |
| CONDUCTOR RESISTANCE (DC) | 93.8 OHMS/1000 MTR @20 Degree C. MAX. | |
| RESISTANCE UNBALANCE | 5%MAX | |
| MUTUAL CAPACITANCE | 5.6 nF/100 mtrs Max. | |
| CAPACITANCE UNBALANCE PAIR/GROUND | 330PF/100M MAX | |
| Propagation Delay Skew | 536 nS/100M | |
| Nominal Velocity of Propagation | 69% | |
| Characteristics IMPEDANCE | 100±15%OHMS | |
| Worst Case cable skew | 45ns/100m | |
| Generally confirming to EIA/TIA 568-C.2 and IEC/ISO 11801 | | |

| IO box for CAT-termination | | Compliance (Yes/No) |
|---|--|----------------------------|
| Single Port | Write on labels in transparent plastic window – supplied with plate | |
| | Face Plate with shutter | |
| | Should be able to support variety of jacks – UTP, STP etc. | |
| | Category 6, TIA568 C.2 | |
| | All information outlets for 22-26 AWG copper cable shall: | |
| | Use insulation displacement connectors (IDC) | |
| | Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limits. | |
| Insertion force: | 20N max | |
| | Jack Specification: | |
| Plastic Housing: | Polycarbonate, UL94V-2 rated or equivalent | |
| Operating Life: | Minimum 750 insertion cycles | |
| Contact Material: | Phosphor Bronze with nickel plated | |
| | Contact Plating: 50 pinches gold on plug contact area | |
| IDC : | Housing PC , UL 94 V-2, 568A/B configuration | |
| | Operating Life: Minimum 200 Re-terminations | |
| IDC Contact Plating: | Phosphor bronze with tin plated | |
| Operation Temp | : -10 C to 60 C | |
| 6 Core Fibre with LIU and termination with all accessories | | Compliance (Yes/No) |
| FIBER CABLING COMPONENTS | Optical Fiber Cable | |
| Single mode (SM) Fiber, Standard properties | | |
| GENERAL: | The 6 core armored fiber cable type is a Matched Cladding Single Mode | |
| | Fiber dual coated with acryl ate coating. | |
| | The fiber is optimized for operation at 1310 nm and at 1550 nm. | |
| | Should fulfill the requirements of: | |

[Signature]

Ritesh

[Signature]

Pintu

**Principal
Government Polytechnic
Sheohar**

| | | |
|--------------------------------|--|--|
| | · IEC 60793-1/60794-1-2 | |
| | · ISO 11801 | |
| | · ITU-T REC G.652.D | |
| GEOMETRICAL PROPERTIES: | Nominal mode field diameter: 9.2 μm | |
| | Mode field diameter tolerance: $\pm 4\%$ | |
| | Cladding diameter: 125 μm | |
| | Cladding diameter tolerance : $\pm 1 \mu\text{m}$ | |
| | Mode field concentricity error : $< 1 \mu\text{m}$ | |
| | Cladding non-circularity: $< 2 \%$ | |
| MATERIALS | Germanium doped core with no phosphorus i.e. reduced tendency for hydrogen degradation.: CORE | |
| | UV-curable dual layer acryl ate coating, which ensures excellent micro bending and abrasion resistance.: COATING | |
| | Stripping force after conditioning at 23 ± 5 °C at 40 - 60 % RH for 24 h. | |
| | Min.: 1.0 N | |
| | Max.: 3.5 N | |
| | Stripping force after ageing in water at 70 ± 5 °C for 168 h. | |
| | Min.: 1.0 N | |
| | Max.: 3.5 N | |
| OPTICAL PROPERTIES | Attenuation (of cable with fibers): | |
| | At 1310 nm: $\leq 0.36 \text{ dB/km}$ | |
| | In the range 1285-1330 nm: $\leq 0.40 \text{ dB/km}$ | |
| | At 1550 nm: $\leq 0.22 \text{ dB/km}$ | |
| | Cut-off wavelength λ_c : | |
| | High limit: 1330 nm | |
| | Low limit : 1180 nm | |
| | Cut-off wavelength λ_{cc} | |
| | High limit: 1260 nm | |
| | Loss increase at 1550 nm for 100 turns of fiber loosely wound with a 37.5 mm radius: | |
| | Max. : 0.1 dB | |
| | Dispersion: | |
| | Zero dispersion wavelength: 1310 nm | |
| | Tolerance of zero dispersion | |
| | Wavelength: -10/+12 nm | |

| | | |
|--|--|--|
| | Zero-dispersion slope: | |
| | Max.: 0.092 ps/(nm ² • km) | |
| | Chromatic dispersion coefficient: | |
| | In 1285 nm - 1330 nm interval: | |
| | Max. : 3.5ps/km • nm | |
| | In 1270 nm - 1340 nm interval | |
| | Max. : 6 ps/km • nm | |
| | At 1550 nm | |
| | Max.: 18 ps/km • nm | |
| | Polarisation Mode Dispersion (PMD): | |
| | Max.: <=0.2 ps/km | |
| | In homogeneity of OTDR trace for any two 1000 meter fiber lengths | |
| | Max.: 0.1 dB/km | |
| | Proof test level : 1% | |

LIU- RACK MOUNT – 12 port LIU Loaded Single mode

Compliance
(Yes/No)

| Characteristic | Min. Required Specification | |
|----------------|--|--|
| | 12 port Loaded LIU accommodate LC Single mode adapters. | |
| | Cold steel base material with powder coating. Aluminum top and front cover for light mounting | |
| | can manage both splices and terminations | |
| | should have fiber magic sticker provision inside for 900um tight buffered fiber storing | |
| | Accessory kit consists of cable ties, mounting ear screw earthing. | |
| | Front-Mounted Cable Saddles for jumper management | |
| | Removable Top & Front cover for better access to interior of LIU | |
| | Rubber grommet allow for pre-terminated fiber trunk installation, protects cable and minimizes dust build-up | |
| | Adapter panel - Cold steel | |



Ritesh A. Ritesh

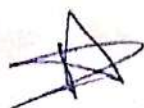
| | | |
|---|---|----------------------------|
| | Adapters should have compact design & high precision. | |
| | which perform well under various circumstances & maintain good plug retention strength. | |
| Optical Fiber Pigtail – LC Type 3 Meter | | Compliance (Yes/No) |
| Characteristic | Min. Required Specification | |
| Features | Provide a field installable Single mode LC pigtails to terminate fiber optic cables from cable-to-cable, cable-to-equipment and equipment-to-equipment. | |
| | Utilize a UPC polishing on the tip to provide high yield during installation. | |
| | Meet TIA/EIA 568.C.3 standards for repeatability. | |
| Insertion Loss (Max) | <0.3 db Max. | |
| Mating Cycle | 200 times | |
| Return Loss | >= 50 db for UPC | |
| Connector ferrule | Ceramic | |
| Operating Temp. | (- 20 deg. C to + 60 deg. C) | |
| buffer diameter | 900um Tight buffer | |
| Types | LC Type Simplex | |
| Optical Fiber Equipment Cords (minimum 1 meter) - LC-LC Duplex | | Compliance (Yes/No) |
| Characteristic | Min. Required Specification | |
| Features | Optical fiber patch leads shall comprise of Single mode 9/125µm fiber with LC-LC fiber connectors terminated at each end. The optical fiber patch leads shall comply with the following specifications: | |
| Optical Fiber – | Single mode | |
| Connector: | Zirconia ceramic ferrule | |
| | Pre-radiuses and pre-polished ferrule | |
| | Duplex Type | |
| Color-coded | yellow | |
| Insertion Loss | <0.3 db | |
| Cable | 9/125, SM | |
| Return Loss | >= 50dB for UPC | |
| Durability | 200 mating cycle | |

| | | |
|------------------------------|--|---------------------|
| Working Temp | (- 20 deg. C to + 60 deg. C) | |
| Length | 1 Meter | Compliance (Yes/No) |
| (17) CONDUIT | | |
| | PVC and Rectangular | Compliance (Yes/No) |
| (18) 24 port LAN patch panel | | |
| Characteristic | Min. Required Specification | |
| Features | Patch Panel made of powder coated steel, in 24 port configurations. | |
| | Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limit. | |
| | Have port identification numbers on the front of the panel. | |
| | Should have self adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel | |
| | IDC: Suitable for 22-26 AWG stranded and solid wire compatible with both 110 & Krone punch down tools | |
| | Improved cable management with optional cable management bar | |
| Mechanical Characteristics | The Cat-6 transmission performance is in compliance with the ANSI/TIA/EIA 568C.2 standard and ISO 11801 Class D/E/EA | |
| | Plastic Housing: PBT+Glass Fiber, UL94V-0 rated | |
| Jack Connector | Operating Life: Minimum 750 insertion cycles | |
| | Material: Phosher bronze with nickel plated | |
| | Contact Plating: 50μ" Gold plated on plug contact area | |
| | Contact Force: 20N max | |
| IDC Connector | Plastic Housing: Polycarbonate, UL94V-2 rated or equivalent | |
| | IDC Contact Plating: Phosphor bronze with tin plated | |
| | Wire Accommodation: 22-26 AWG solid | |
| | Voltage Rating: 125V AC RMS | |
| | Contact resistance: 20Milliohms | |
| | Insulation resistance: 100 MegaOhms @ 500V DC | |

| UPS (2KVA) | | Compliance (Yes/No) |
|-------------------------------|--------------------------|------------------------|
| PHASE: | SINGLE PHASE WITH GROUND | |
| ONLINE UPS CAPACITY: | 2000VA/1600W | |
| NO. OF BATTERIES REQUIRED: | 6 | |
| TYPE OF BATTERY REQUIRED: | VRLA SMF | |
| EFFICIENCY: | 87-90% | |
| WAVEFORM: | PURE SINE WAVE | |
| WARRANTY : | 24 MONTHS | |


Principal
Government Polytechnic
Sheohar

Riteo



Pinter