## APPENDIX-A

## Amendment to Tender IISERM (1634) 23/24-Pur

1. As per the requests and queries received during pre-bidding dated on 17 October 2023, clarification \& additional information is provided through this document. Bidders must comply with all conditions and specifications as per this document and all other documents along with the original NIT document. Please check carefully all the sections (Annexure -I-A, Annexure -II-A, Annexure -III-A, Annexure -IV-A and prebid-answers) for more detailed explanations wherever it is applicable. No further clarifications will be entertained.
a. Technical evaluation shall be made strictly based on the original terms and conditions of NIT as well as this document.
b. Annexure-I-A,II-A,III-A,IV-A and the replies to the questions (pre-bid answers) from the vendors also form a part of NIT.
c. If any vendor still desires to see the site, they are free to do so.
2. Bidders or vendors should adhere to the conditions outlined in the tender document, making a site visit to accurately assess the specific requirements for the network solution. These requirements encompass various components as listed in the NIT document and elsewhere in this document. The listed components specify the necessary elements for establishing both wired and wireless connectivity to hostels.
3. To ensure a fair evaluation, vendors/bidders are expected to submit bids with the specified quantities, to maintain consistency across all participants. However, any adjustments to the quantities, either an increase or decrease, will be considered on a proportional basis. The minimum requirements for each item type are defined by the number of items associated with that particular category.
4. To ensure a fair evaluation, vendors/bidders are expected to submit bids with the specified length of cables, fibres, conduits, and channels, to maintain consistency across all participants. However, any adjustments to the actual length of each of these items may, either increase or decrease, will be considered on a proportional basis.
5. The specified numbers of items associated with each item type represent the minimum requirements. Since there is no representation about new types of components/devices/cables, etc., bidders/vendors must address any missing item types essential for the successful operation, even if they are not explicitly mentioned in the NIT. This includes components, switches, connectors, devices, cables, etc., not covered in the initial specifications but necessary for the seamless functioning of the operation.
6. In view of this, all vendors and bidders are required to fully comply with IISER Mohali's requirements as per technical specifications as expressed in original NIT, corrigendum, this answer and associated annexures.

## General Comments and Amendments:

1. Changes in allowing multiple OEM across following components:
a. Passive network components: All passive network components (IO Ports, cat cables, fibres, racks, patch panel, patch cord etc.) should be from one OEM,
b. Electrical components: Electrical components (wires, conduit, PVC pipes, plugs, sockets, UPS etc) should be from one OEM.
c. Active network components: switches (CS, DS, DS-W, AS, AS-W, compatible transceivers etc.) should be from one OEM. The WIFI APs and WLC may be from a different OEM, but it must be compatible with all active components in the flow chain.
2. Annexure I-A indicates the minimum requirement of wired IO outlets. Annexure - III-A and Annexure - IV-A provide the minimum required of switches for wired and wireless networking respectively.
a. The minimum required IOs may not be the same as the available total ports (AS) as per the required switches.
b. Total ports available on DS may be larger than the sum of required ports on all AS.
c. Total ports available on CS may be larger than the sum of required ports on all DS.
3. Work Experience: The bidder must have completed similar campus/building networking works in IISERs,IITs,NITs, any other INIs or NAAC A++ Government academic Institutes/Universities during the last seven (07) years. The bidder must have successfully completed similar work during the last seven years ending on the last day of month to the one in which tender is floated.
4. The vendor/bidder must agree to perform demo by demonstration the compatibility check with existing network infrastructure. The demonstration will be considered as part of technical evaluations.
5. Modifications in BoQ (should be removed from here):

Modified items in previous BoQ:

| Items | Unit of material | Quantity |
| :--- | :--- | :--- |
| AS (24 port) | nos | $2 \times 18$ |
| AS (48 port) | nos | $2 \times 4$ |
| AS-W (24 port) PoE/PoE+ | nos | $2 \times 6$ |

## Additional items in BoQ:

| Items | Unit of <br> material | Quantity |  |
| :--- | :--- | :--- | :--- |


| PVC channels (15 x 15 mm ) and accessories for installation | Meter | 3000 |  |
| :--- | :--- | :--- | :--- |
| PVC conduit ( 32 mm ) and accessories for installation | meter | 200 |  |
| PVC Joints (T-, I, elbow and all required one) | nos | 50 |  |
| PVC flexible pipes (for 32 mm conduit pipe) | meter | 200 |  |
| PVC Channel (50x50 mm) and accessories for installation. | Meter | 2000 |  |
| Appropriate conduit/channel for underground fiber including all <br> accessories. Should also include the junction boxes. | Meter | 1500 |  |
| Jack panels with matching numbers of ports for each Access <br> switch (Both wired and wireless). | nos | $2 \times 28$ |  |
| Jack panels with matching numbers of ports for each Distribution <br> switch. | nos | $2 \times 3$ |  |
| Installation, commissioning and services of all active and <br> passive components for BOTH hostels. | nos | 1 |  |

## Annexure-I-A

| PORTS MAPPING |  | No. of ports |  |
| :--- | :--- | :--- | :--- |
| Ground Floor | Single Room | 8 | 8 |
|  | Double Room | 16 | 32 |
|  | Dining Hall | 2 | 2 |
|  | Common Activity Room | 3 | 6 |
|  | Manager Officer | 1 | 1 |
|  | Record Room | 1 | 1 |
|  | Warden Room | 1 | 1 |
|  | Office | 1 | 1 |
|  | Total Number of ports |  | $\mathbf{5 2}$ |
| First Floor | Single Room | 14 | 14 |
|  | Double Room | 18 | 36 |
|  | Common Space Activity Room | 3 | 12 |
|  | Common Room | 4 | 4 |
| Second Floor | Sotal Number of ports |  | $\mathbf{6 6}$ |
|  | Single Room | 14 | 14 |
|  | Double Room | 16 | 32 |
|  | Common Space Activity Room | 3 | 12 |
|  | Common Room | 0 | 0 |
|  | Third Floor | Single Room |  |


|  | Double Room | 24 | 48 |
| :--- | :--- | :--- | :--- |
|  | Common Space Activity Room | 3 | 12 |
|  | Rooms | 2 | 2 |
| Fourth Floor | Total Number of ports |  | 78 |
|  | Single Room | 16 | 16 |
|  | Double Room | 24 | 48 |
|  | Common Space Activity Room | 3 | 12 |
|  | Rooms | 2 | 2 |
| Fifth Floor | Total Number of ports |  | $\mathbf{7 8}$ |
|  | Single Room | 16 | 16 |
|  | Double Room | 18 | 36 |
|  | Common Space Activity Room | 3 | 12 |
| Sixth Floor | Total Number of ports |  | $\mathbf{6 4}$ |
|  | Single Room | 16 | 16 |
|  | Double Room | 18 | 36 |
|  | Common Space Activity Room | 3 | 12 |
|  | Total Number of ports |  | $\mathbf{6 4}$ |
| Seventh Floor | Single Room | 16 | 16 |
|  | Double Room | 18 | 36 |
|  | Common Space Activity Room | 3 | 12 |
|  | Total Number of ports |  | $\mathbf{6 4}$ |

## ANNEXURE - II-A



Annexure - III-A


| Floor No | No of AS -24 ports | No of AS - 48 ports |
| :---: | :---: | :---: |
| 7 | 3 | 0 |
| 6 | 3 | 0 |
| 5 | 3 | 0 |
| 4 | 0 | 2 |
| 3 | 3 | 2 |
| 2 | 3 | 0 |
| 1 | 3 | 0 |
| Ground floor | 18 | 0 |
| Total | 3 | 4 |

Total number of 48 port switch $=4$
Total number of $\mathbf{2 4}$ port switch = 18


| Floor No | No of AS -24 ports |
| :---: | :---: |
| 7 | 0 |
| 6 | 2 |


| 5 | 0 |
| :---: | :---: |
| 4 | 0 |
| 3 | 2 |
| 2 | 0 |
| 1 | 0 |
| Ground floor | 2 |
| Total | 06 |

Total number of $\mathbf{2 4}$ port AS = 6

## Answers to the prebid queries/ representations received bidders/ vendors

IISER Mohali organized a pre-bid meeting where the following vendors/bidders/OEMs participated in the meeting. Based on discussions and the queries/representations received from the vendors/bidders/OEMs, purchase committee provides following answers and comments. In view of this, all vendors and bidders are required to fully comply with our requirements as per technical specifications as expressed in original NIT, corrigendum and associated annexures.

1. RailTel India Limited
2. Takyon
3. Shreenath Enterprises
4. Molex
5. Velocis
6. Fore Solution
7. Juniper

The vendors/bidders willing to participate in tender are required to fully comply with our requirements as per technical specifications as expressed in original NIT, corrigendum, these pre-bid answer and associated annexures.

Pre-bin Answers/responses:

|  | 1.Rail Tel |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { S. } \\ & \text { No } \end{aligned}$ | Page No/ Clause No. $/$ Subclause No. | Clause Particulars | Clarification sought / Revised suggested | Response |
| 01 | 2 | Micro \& MSME/NSIC and Firms registered and the firms registered with concerned Ministries/ Departments, the bidders are exempted from payment of Tender Fee as per GOI notifications/GFR (2017) and Ministry of Finance OM No. F.9/4/2020-PPD dated 12 November 2020. | Please amend this clause Startups, Micro \& MSME/NSIC and Firms registered and the firms registered with <br> concerned Ministries/ Departments, the bidders are exempted from payment of Tender Fee and EMD as per GOI notifications/G FR (2017) and Ministry of Finance OM No. F.9/4/2020PPD dated 12 November 2020. | As per GOI notificati ons/GFR (2017) and Ministry of Finance OM No. <br> F.9/4/2020- <br> PPD dated <br> 12 November <br> 2020 |


|  |  |  | Justification <br> Startups <br> registered <br> with the <br> Department <br> for Promotion <br> of Industry <br> and Internal <br> Trade, <br> Ministry of <br>  <br> Industry, <br> Government <br> of India are <br> exempted <br> from payment <br> of tender fees <br> and EMD. |  |
| :--- | :--- | :--- | :--- | :--- |
| 02 |  | Page 5 <br> Clause <br> no 9 | The name of the manufacturer and country <br> of manufacture should also invariably be <br> stated. | Please delete <br> this clause.At <br> the time of <br> ordering OEM <br> picks the <br> manufacturing |


|  |  |  | RFP | A and IV A (Wired/wirele ss). |
| :---: | :---: | :---: | :---: | :---: |
| 04 | Page 14 Clause iii(a) | Wireless controller (WLC): This is to provide all the wireless connectivity to each hostel, and it must be placed at the network rack in CC. Uplink must be connected to the CS. | Please allow cloud based controller as well for larger participation | Please Comply |
| 05 | Page 15 Clause c | Access switch for wireless (AS-W) - must be compatible with WLC - as per the list. | Please clarify what do we mean by the as per the list. | Please comply as per Annexures III-A and IV A (Wired/wirele ss). <br> Should be read as: Access switch for wireless (ASW) - must be compatible with WLC as per the NIT. |
| 06 | Page 15 Clause d | Access points (AP) - must be compatible with WLC- as per the list. The connectivity from AS-W to APs in the hostel should be done through Cat6 or better. | Please clarify what do we mean by the as per the list. | Please comply as per Annexure III-A and IV A (Wired/wirele ss). <br> Should be read as: Access switch for wireless (ASW) - must be compatible with WLC as per the NIT. The connectivity from AS-W to APs in the hostel should be done |


|  |  |  |  | through Cat6 or better. |
| :---: | :---: | :---: | :---: | :---: |
| 07 | Page 15 Clause e | The vendor/ bidder is expected to physically visit the site (hostels at IISER Mohali) and plan for a turn-key solution to be provided to IISER Mohali and prepare a bill of material (BoM) accordingly. In case it is found at a later stage during installation some components are missing, it will be sole responsibility of the vendor/bidder to provide the missing components and make it operational. | Please delete this clause. Bidder quote for the BOM as per the quantity given in BOQ. Any addition in quantity should be payable as per actuals. | Please comply. <br> Please check the general comment (Page 15 of original NIT) and BoQ |
| 08 | Page 16 <br> 1.2.1 <br> Core <br> Switch <br> specific <br> ations, <br> S No 1 <br> a | The Switch will be populated with $24 \times 10 \mathrm{G}$ or more connectivity for uplink to DS in hostels (the vendor must check the distance of fibre for this connectivity) $2 \times 40 \mathrm{G}$ or more connectivity to Main Core Switch. <br> Should support virtual chassis functionality for integration with multiple switches | Please amend this clause to The switch should have a 24 SFP+ (10G) native fiber ports from day one. In addition to this, there should be a provision for 2 x 40/100G ports.Should support virtual chassis functionality with two dedicated 100GbE ports to support virtual chassis connections. | Please comply and should be read as: <br> $24 \times 10 G$ (Core-to-DS over fibre connection). <br> $2 \times 40 \mathrm{G}$ uplink. <br> (At least 2 ports of at 40G or more bandwidth connectivity ) <br> The uplink connectivity will be done through 10G connectivity ( fibre connection) <br> Vendor must provide cable including transceiver for uplinking. <br> Should <br> support <br> virtual <br> chassis |


|  |  |  |  | functionality for integration with multiple switches <br> OR <br> The switch should at least support stackable features, thus the vendor must provide appropriate ports and required hardwares/ite ms to support these features and it will be in the scope of the vendor to stack the switches. |
| :---: | :---: | :---: | :---: | :---: |
| 09 | Page 16 1.2.1 Core Switch specific ations, S No 1 C | Switch should have non-blocking per-slot throughput from day 1. | Please delete this clause. <br> Justification <br> Fixed <br> switches don't <br> have per slot <br> kind of <br> feature. <br> Chassis <br> based <br> switches have <br> per slot <br> configuration | Please comply |
| 10 | Page 16 1.2.1 Core Switch specific ations, S No 1 E | Switch should support field replaceable components such as Supervisor, Line cards, powersupply and Fan trays. | Please delete this clause. <br> Justification <br> This is not a Chassis based switch but if, two core switches will be used each switch in VC will be | Please comply and should be read as: Power Supply and fan: $\mathrm{N}+1$ redundant power supply fans should be provided. |


|  |  |  | backup for another in terms of supervisor |  |
| :---: | :---: | :---: | :---: | :---: |
| 11 | Page 17 <br> 1.2.1 <br> Core <br> Switch <br> specific <br> ations, <br> S No 1 <br> F | Should have minimum of 16 GB Flash or more with optional SSD to host 3rd party container-based application. | Please amend this clause to Should have minimum of 16 GB Flash or more Justification 16GB Flash is there but optional SSD to host 3rd party containerbased application is not there. This is specific to a particular OEM and hence should be removed. | Should be read as: The Switch should have at least 4 GB flash. |
| 12 | Page 17 <br> 1.2.1, S <br> No 1 J | During system boots, the systems software signatures should be checked for integrity. System should be capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware \& BIOS are authentic. | Specific to a particular OEM only, Kindly remove this clause. | This may be treated as optional. <br> Should be read as: Vendors must ensure the integrity of data, licenses, software, firmware. In case of failure of any such components (data, licenses, software, firmware) resulting in non functioning of switch(s), the |


|  |  |  |  | vendor must solve the problem within time mentioned in the T\&C. |
| :---: | :---: | :---: | :---: | :---: |
| 13 | Page 17 <br> Distribut ion <br> Switch - <br> Wired <br> Network <br> , S No 1 <br> a | Switch should have at least $24 \times 10 \mathrm{G}$ or more Copper connectivity Must have appropriate uplinks ports to connect CS for 10G Connectivity (HA mode) | Please amend this clause to The Switch should have a $24 x$ port 10GbE Copper and 2 x 10 G SFP+ ports from day-1. | Please comply <br> Should be read as: <br> Switch should have at least 24 x 10GBase-T Ethernet connectivity (Cat6a). This is for the connectivity from DS-toAS <br> Each DS must have appropriate uplinks ports to connect CS over 10G fibre connectivity from DS-toCS. <br> DS in each hostel should be configured in HA mode, thus the vendor must ensure all required items/softwar e for the same. |
| 14 | Page 18 Distribut ion <br> Switch Wired Network S No 2 | During system boots or OS upgrades, the system's software should be checked for integrity | Specific to a particular OEM only, Kindly remove this clause. | This may be treated as an optional feature. <br> Should be read as: |


|  | E |  |  | Vendors must ensure the integrity of data, licenses, software, firmware. In case of failure of any such components (data, licenses, software, firmware) resulting in non functioning of switch(s), the vendor must solve the problem within time mentioned in the T\&C. |
| :---: | :---: | :---: | :---: | :---: |
| 15 | Page 18 <br> Access <br> Switch <br> Wired <br> Network <br> S No 1 <br> a | Switch should have the minimum of 24 x 1000 Base-T ports or better compatible. Must have appropriate uplink ports to connect DS for 10G Connectivity | Please amend this clause to The Switch should have a $24 x$ ports of 10/100/1000 BASE-T and $2 \times 1 \mathrm{G} / 10 \mathrm{G}$ SFP+ ports from day-1. | Please comply <br> Should be read as: <br> Switch should have at least 10/100/1000 BASE-T Ethernet connectivity. This is for the connectivity from AS-tooutlets <br> Each DS must have appropriate uplinks ports to connect DS over 10GBase-T ethernet connectivity over Cat6a from DS-to- |


|  |  |  |  | AS. |
| :---: | :---: | :---: | :---: | :---: |
| 16 | Page 20 <br> Wireless Controll er, S No 8 | Should support Access Control Lists (ACLs). | Please delete this clause. <br> Justification <br> The Access List is for Routers, Switches or Firewall, APs support WxLAN policy creation so that even Layer-7 policies can be created. | Please comply |
| 17 | Page 20 <br> Wireless Controll er, S No 11 | WLC should support Application Visibility and Control (AVC). | Please amend this clause to allow WLC should be able to identify applications and should be able to create policies based on these applications. Justification The applications can be visible based on DNS and policies can be created to allow/deny access to particular applications but not true AVC as it is mostly a Firewall/UTM function and not a Wi-Fi AP function | Please comply |
| 18 | Page 20 | The switch should have minimum of $12 \times 10$ | Please | Please |


| Distribut ion Switch Wireless Network , S No 1 a | G or more Copper Must have appropriate uplink ports to connect CS for 10G Connectivity | amend this clause to The Switch should have a 8 x 10G copper ports, 16 GBE and $2 \times 10 \mathrm{G}$ SFP+ ports from day-1. <br> The switch should have a PoE budget of 740 Watts from day-1 \& Should also <br> support PoE <br> Standards <br> IEEE 802.3af, and 802.3at <br> Justification <br> Total number of switches for wireless networks are <br> 6, therefore 8 10GBE <br> copper ports are sufficient considering 2 for future expansion.Als <br> o 6 number of POE switches can provide power to 72 number of access points only. <br> Therefore asking for POE <br> distribution <br> switch with <br> 16GBE ad on will make sense and it will add another 16 POE ++ ports that will give power to 16 access points. Theref ore for one | comply <br> Should be read as: <br> Switch should have at least 12 x 10GBase-T Ethernet connectivity ports. This is for the connectivity from DS-toAS over Cat6a. <br> Each DS must have appropriate uplinks ports to connect to CS over 10G fibre connectivity (from DS-toCS uplink). |
| :---: | :---: | :---: | :---: |


|  |  |  | hostel one can provide power to 88 access points. |  |
| :---: | :---: | :---: | :---: | :---: |
| 19 | Page 20 Distribut ion Switch Wireless Network , S No 1 d | Switch shall have minimum of 16 GB flash | Please amend the clause to Switch shall have minimum of 8 GB flash. Justification Since only 6 access swicthes are going to connect to distribution switches, therefore 8 GB flash is enough. 16 GB flash will add to unnecessary cost. | Should be read as: The Switch should have at least 4 GB flash. |
| 20 | Page 21 Distribut ion Switch Wireless Network , S No 2 E | During system boots or OS upgrades, the system's software should be checked for integrity | Specific to a particular OEM only, Kindly remove this clause. | This may be treated as an optional feature. <br> Should be read as: Vendors must ensure the integrity of data, licenses, software, firmware. In case of failure of any such components (data, licenses, software, firmware) resulting in non functioning of switch(s), the |


|  |  |  |  | vendor must <br> solve the <br> problem <br> within time <br> mentioned in |
| :--- | :--- | :--- | :--- | :--- |
| the T\&C. |  |  |  |  |$|$


|  |  |  |  | read as: <br> Vendors <br> must ensure <br> the encrypted |
| :--- | :--- | :--- | :--- | :--- |
| traffic flow. |  |  |  |  |$|$| Page 22 <br> Wireless <br> Access <br> Point, S <br> No 10 | Access Point shall provide console- <br> based connectivity that uses standard <br> interfaces such as RJ45 |
| :--- | :--- |
|  |  |


|  |  |  | out in open it becomes a security issue as well if some unauthorized person connects to AP via Console. |  |
| :---: | :---: | :---: | :---: | :---: |
| 25 | Page 27 Clause 1 | All the components should have at least 7 years of End-of-life. | Please delete this clause. RFP already has asked for 5 years warranty from date of handover.This clause doesn't add any value insead create lot of confusion. Also OEM doesn't give this from the start date of project.Theref ore it has no purpose. | Please comply. |
| 26 | Page 27 Clause 2 | The bidder/ vendor must provide $24 \times 7 \times$ 365 days online support as and when required. In the event that an issue is not resolved within 2 hours (including public holidays), the bidder must send their engineer to the site within 24 hours of the issue being raised (including public holidays). If the vendor fails to provide support within the specified duration, a penalty of Rs. 1000 per hour of delay will be charged, and the penalty amount will be deducted from the Bank guarantee. | Please amend the clause to The bidder/ vendor must provide $24 \times 7$ x 365 days online support as and when required. In the event that an issue is not resolved within 2 hours (including public holidays), the bidder must send their engineer to | It should be read as : <br> The bidder/ vendor must provide 24 x $7 \times 365$ days online support as and when required. In the event that an issue is not resolved within 2 hours (including public holidays), the |


|  |  |  | the site within 24 hours of the issue being raised (including public holidays). If the vendor fails to provide support within 48 hours penalty of Rs. 1000 per day will be charged after 48 hours of delay and the penalty amount will be deducted from the Bank guarantee | bidder must send their engineer to the site within 24 hours of the issue being raised (including public holidays). If the vendor fails to provide support within the specified duration, a penalty of Rs. 500 per hour of delay will be charged, and the penalty amount will be deducted from the Bank guarantee. |
| :---: | :---: | :---: | :---: | :---: |
| 27 | Page 27 Clause 3 | The bidder/ vendor must ensure that all installed equipment supplied by them has a minimum uptime of $99.5 \%$, which may be calculated quarterly. In case of any downtime, a penalty of Rs 1000 will be charged on an hourly basis. Penalties for any downtimes will be deducted from the bank guarantee | Please delete this clause. This is duplicate clause. Penalty already mentioned in clause no 2 as stated above. | Please comply. |
| 28 | Page 27 Clause 11 | All Active components given in the Bill of Quantities should be from a single OEM (Original Equipment Manufacturer) only. | Please allow to quote different OEM for Switching and Wi-Fi for larger participation. | Refer to general comments at SI. no.1. |
| 29 | Page 28 Clause 17 | The vendor/bidder must agree to perform demo by demonstration the compatibility check with existing network infrastructure. | Please amend this clause to "The vendor/bidder | Please <br> comply for demonstratio n of |


|  |  |  | must agree to perform demo by demonstration the compatibility check with existing network Switches" Justification Proposed solution will not be compatible with the Existing WLC and Access Points. | integration of the solution with existing switches. The demonstratio $n$ will be considered as part of technical evaluations. |
| :---: | :---: | :---: | :---: | :---: |
| 30 | Page 29 Clause 3 | Works Experience:The bidder must have completed similar campus/building networking works in IISERs,IITs,NITs and any other Institute of National Importance during last seven (07) years. The bidder must have successfully completed similar work during last seven years ending last day of month to the one in which tender is floated | Please amend this clause to The bidder must have completed similar campus/buildi ng networking works in IISERs,IITs,NI Ts, NAAC A++ Govt Universities and any other Institute of National Importance during last seven (07) years. The bidder must have successfully completed similar work during last seven years ending last day of month to the one in which tender is floated | This should be read as: <br> Works <br> Experience: <br> The bidder <br> must have <br> completed <br> similar <br> campus/buildi <br> ng <br> networking <br> works in <br> IISERs,IITs,N <br> ITs, any other <br> INIs or NAAC <br> A++ <br> Government <br> academic <br> Institutes <br> during last <br> seven <br> (07) years. <br> The bidder <br> must have <br> successfully <br> completed <br> similar work <br> during last <br> seven years <br> ending last <br> day of month <br> to the one in <br> which tender |


|  |  |  |  | is floated. |
| :---: | :---: | :---: | :---: | :---: |
| 31 | Page 29 Clause 4 | At least one of the above orders should be with the OEM of the active component that bidder is quoting | Please amend the clause to Bidder must have executed similar order in any Govt/PSU/ educational organization with the OEM of the active component | Please comply. |
| 32 | Page 29 Clause 6 | Experience: The bidder should have at least 7 (seven) years of experience in supply, installation, integration, commissioning, and management of networking projects. Certified copies of Successful Work Completion certificates clearly state the work's nature to be submitted as proof.) | Please delete this clause since experience credentials already been asked in S No $3 \& 4$. | Clause 3 and 4 are regarding past performance. |
| 33 | Page 29 Clause 9 | All active components given in the Bill of Quantities (BoQ) should be from a single OEM <br> (Original Equipment Manufacturer) only. | Please allow to quote different OEM for Switching and Wi-Fi for larger participation. | Please refer to General conditions (SI. No. 1) |
| 34 | Page 30 <br> Clause <br> 10 | Bidders should ensure that the supplied equipment must be able to integrate with existing Network Infrastructure, the details can be obtained and can be asked by Institute to demonstrate | Please amend this clause to "the supplied equipment must be able to integrate with existing Network switches, the details can be obtained and can be asked by Institute to demonstrate Justification Proposed solution will not be | Please comply for demonstratio n of integration of the solution with existing switches. |


|  |  |  | compatible <br> with the <br> Existing WLC <br> and Access <br> Points. |  |
| :--- | :--- | :--- | :--- | :--- |
| 35 | Page 30 <br> Clause <br> 1 | Proposed Products (software, firmware, and <br> hardware) must have a comprehensive <br> OEM onsite warranty pack for 5 years on all <br> quoted hardware and software with <br> $24^{*} 7 * 365$ TAC support and NDB hardware <br> replacement from the date of installation | Please <br> amend this <br> clause to <br> proposed <br> products <br> (software, <br> firmware, and <br> hardware) <br> must have a <br> comprehensiv <br> e onsite | Please <br> warranty <br> comply <br> support for 5 <br> years on all <br> quoted <br> hardware and <br> software with |
| 24*7*365 |  |  |  |  |
| TAC support. |  |  |  |  |$\quad$.


| 36 | Page 30 Clause 2 | The OEM must have local Technical Assistance Centre (TAC) support within Tricity and in India through a toll-free number and Returned Materials Authorization (RMA) depot in India. Where customers can directly log a complaint against any failure. OEM to submit confirmation on letterhead | Please amend this clause to The OEM must have local Technical Assistance Centre (TAC) support in India through a toll-free number and Returned Materials Authorization (RMA) depot in India. OEM to submit confirmation on letterhead Justification Since OEM is not front ending the bid, Therefore any complaint will be route to OEM through bidder only. | Please comply. |
| :---: | :---: | :---: | :---: | :---: |
| 37 | Page 31 Clause 2 | Materials: The materials supplied by the bidder shall be new, i.e., manufactured not earlier than 12 months before the date of quotation opening, on OEM letterhead | Please amend this clause to The materials supplied by the bidder shall be brand new, undertaking of same should be provided on OEM letter head | Please comply |
| 38 | Page 31 Clause 3 | Site Survey: The bidder must visit to inspect \& survey site conditions before quoting their rates for the tender. Any later claims regarding site conditions will not be entertained | Please delete this clause. Site conditions may change in time duration between | Site Survey was included so that bidder quote realistically and it is understood that delay in |


|  |  |  | survey and actual award to the bidder. Justification Site conditions should be ready during the award of the contract. Any delay in site not ready cant be attributed to bidder. | site preparation outside the scope of this tender is not attributable to bidder. |
| :---: | :---: | :---: | :---: | :---: |
| 39 | ```Page 31 Clause 7``` | The Site Engineer should be OEM certified and have a minimum of 4 years of experience in passive networking | Please amend this clause to The Site supervisor should have a minimum of 4 years of experience in Active \& Passive Networking. Justification Site conditions should be ready during the award of the contract. Any delay in site not ready cant be attributed to bidder. | Please comply. |
| 40 | Page 31 Clause 8 | In-house Equipment: Bidders should have Splicing, OTDR/OLTS, and Penta scans machines in-house. The bidder must provide an undertaking document on their letterhead | Please delete this clause. Specific vendors for fiber laying only have these kind of machines.Inh ouse equipment will add to bid cost only. | This may be treated as optional. <br> Should be read as: This tender involves fibre laying and fibre connectivity, bidder/vendor must ensure |


|  |  |  |  | they have expertise for carrying out such activities and vendor should not cite the delays caused by nonavailabilit $y$ of these equipment for commissionin g. |
| :---: | :---: | :---: | :---: | :---: |
| 41 | Page 32 <br> Clause <br> 14 | Balance Material: The given BoQ is a preliminary estimate; therefore, a site visit is mandatory for bidders. Balance/Remaining material should be taken by the bidder at their own cost. | Please delete this clause. Bidder quote for the BOM as per the quantity given in BOQ. Any addition in quantity should be payable as per actuals. | Please comply |
| 42 | $\begin{aligned} & \text { Page } 32 \\ & \text { a(ii) } \end{aligned}$ | Delivery, Installation Schedule, and Penalties- Phase 1 Installation of wireless and LAN in Hostel-3: The wireless has to be implemented first before LAN, the equipment and all accessories required for installation and functioning of the wireless and it should not be more than 21 days from the date of issue of Order. The equipment and all accessories required for installation and functioning of the LAN and it should not be more than 42 days from the date of issue of Order. | Please provide delivery and installation timelines of 120 days. Timelines lesser than this only add to LD which holds no purpose to both customer and Bidder. Justification Active components OEM takes 23 months of time for delivery of hardware. | This should be read as: <br> Delivery, Installation Schedule, and PenaltiesPhase 1 Installation of wireless and LAN in Hostel-3: The wireless has to be implemented first before LAN, the equipment and all accessories required for installation and functioning of |


|  |  |  |  | the wireless and it should not be more than 30 days from the date of issue of Order. The equipment and all accessories required for installation and functioning of the LAN and it should not be more than 60 days from the date of issue of Order. |
| :---: | :---: | :---: | :---: | :---: |
| 43 | $\text { Page } 32$ \|b | Phase 2 <br> The installation of wireless and LAN in hostel 4. The implementation of the Phase-2 will commence after February 01, 2024. The installation of wireless and LAN should to be completed within 30 days from commencement of the Phase 2. | Please delete this clause and give cumulative timelines of 120 days for both the hostels. | Please comply. |
| 44 | 33 f | Warranty Terms:The complaints under warranty should be resolved within 48 hours(including public holidays) of notification. A penalty of Rs. 1000 per day will be charged. | Please delete this clause. This is duplicate clause. | Please comply |
| 45 | 33 g | Penalty: A penalty of $0.5 \%$ per week subject to maximum of $10 \%$ of the value of the order will be charged for late delivery and site handing over. IISER Mohali has the right to cancel the purchase order in case the material is not delivered within 120 days of the purchase order date. | Please amend this clause to Penalty: A penalty of 0.5\% per week subject to maximum of $10 \%$ of the value of the order will be charged for late delivery and site handing over. IISER Mohali has the right | Please comply. |


|  |  |  | to cancel the purchase order in case the material is not delivered within 120 days of the purchase order date. |  |
| :---: | :---: | :---: | :---: | :---: |
| 46 | 33 a | Payment Terms: 50\% of the material value will be paid upon receipt and verification each of the materials. | Please amend this clause to $80 \%$ of the material value will be paid upon receipt and verification each of the materials. Justification Approx 80\% cost is of hardware components which bidder pays to the OEM within 30 days.Any payment terms less than $80 \%$ only add on to bid cost only. | Please comply. |
| 47 | $33 \mathrm{~b})$ | Milestone Payment: Upon successful installation and verification of both materials and services, $70 \%$ of the services payment will be released based on the installed materials and services at stage wise. | Please amend this clause to Upon successful installation and verification of both materials and services and submission of the PBG. Remaining $20 \%$ of the payment will be released. | Please comply. |
| 48 | 33 c ) | Final Payment: Balance payment for the | Please delete | Please |


|  | materials and services, as per actual, will be <br> made upon the completion of the project on <br> the basis of completion certificate provided <br> by the contractor and Verification by the <br> Committee of the Institute and | this <br> clause.100\% <br> payment <br> details <br> already <br> covered <br> under point a <br> and b. | comply |
| :--- | :--- | :--- | :--- | :--- |$\quad$|  |
| :--- |


| 2. Takyon |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| S. <br> No | Page No/ Clause No. $/$ Subclause No. | Clause Particulars | Clarification sought / Revised suggested | Response |
| 01 | 2 | Micro \& MSME/NSIC and Firms registered and the firms registered with concerned Ministries/ Departments, the bidders are exempted from payment of Tender Fee as per GOI notifications/GFR (2017) and Ministry of Finance OM No. F.9/4/2020-PPD dated 12 November 2020. | Please amend this clause Start-ups, Micro \& MSME/NSIC and Firms registered and the firms registered with <br> concerned Ministries/ Departments, the bidders are exempted from payment of Tender Fee and EMD as per GOI notifications/G FR (2017) and Ministry of Finance OM No. F.9/4/2020PPD dated 12 November 2020. <br> Justification Startups registered | As per GOI notificati ons/GFR (2017) and Ministry of Finance OM No. <br> F.9/4/2020- <br> PPD dated <br> 12 November <br> 2020 |


|  |  |  | with the <br> Department for Promotion of Industry and Internal Trade, Ministry of Commerce \& Industry, Government of India are exempted from payment of tender fees and EMD. |  |
| :---: | :---: | :---: | :---: | :---: |
| 02 | Page 5 Clause no 9 | The name of the manufacturer and country of manufacture should also invariably be stated. | Please delete this clause.At the time of ordering OEM picks the manufacturing plant as per the availability. Please ask for land border clause undertaking from OEM instead of name of the manufactures and country of manufacture. This is as per the govt of india guidelines as well | The bidder to submit the certificate in terms with the DoE, Ministry of Finance, OM No. 6/18/2019PPD dated 23 July, 2020. Format attached. |
| 03 | Page 14 <br> Clause <br> ii(a) | DS should have a comfortable number of ports matching our requirements as mentioned in the hostel requirement | Please delete this line.This is very open statement. Bidder provide the DS as per the specifications and count given in the RFPI | Please comply and should be read as: <br> The number of DS ports has been clarified in annexures IIIA and IV A (Wired/wirele ss). |


| 04 | Page 14 Clause iii(a) | Wireless controller (WLC): This is to provide all the wireless connectivity to each hostel, and it must be placed at the network rack in CC. Uplink must be connected to the CS. | Please allow cloud based controller as well for larger participation. | Please Comply |
| :---: | :---: | :---: | :---: | :---: |
| 05 | Page 15 Clause c | Access switch for wireless (AS-W) - must be compatible with WLC - as per the list. | Please clarify what do we mean by the as per the list. | Please comply as per Annexures III-A and IV A (Wired/wirele ss). <br> Should be read as: Access switch for wireless (ASW) - must be compatible with WLC as per the NIT. |
| 06 | Page 15 Clause d | Access points (AP) - must be compatible with WLC- as per the list. The connectivity from AS-W to APs in the hostel should be done through Cat6 or better. | Please clarify what do we mean by the as per the list. | Please comply as per Annexure III-A and IV A (Wired/wirele ss). <br> Should be read as: Access switch for wireless (ASW) - must be compatible with WLC as per the NIT. The connectivity from AS-W to APs in the hostel should be done through Cat6 or better. |
| 07 | Page 15 | The vendor/ bidder is expected to physically | Please delete | Please |


|  | Clause <br> e | visit the site (hostels at IISER Mohali) and plan for a turn-key solution to be provided to IISER Mohali and prepare a bill of material (BoM) accordingly. In case it is found at a later stage during installation some components are missing, it will be sole responsibility of the vendor/bidder to provide the missing components and make it operational. | this clause. Bidder quote for the BOM as per the quantity given in BOQ. Any addition in quantity should be payable as per actuals. | comply. <br> Please check the general comment (Page 15 of original NIT) and BoQ |
| :---: | :---: | :---: | :---: | :---: |
| 08 | Page 16 <br> 1.2.1 <br> Core <br> Switch <br> specific <br> ations, <br> S No 1 <br> a | The Switch will be populated with $24 \times 10 \mathrm{G}$ or more connectivity for uplink to DS in hostels (the vendor must check the distance of fibre for this connectivity) $2 \times 40 \mathrm{G}$ or more connectivity to Main Core Switch Should support virtual chassis functionality for integration with multiple switches | Please amend this clause to The switch should have a 24 SFP+ (10G) native fiber ports from day one. In addition to this, there should be a provision for 2 x 40/100G ports.Should support virtual chassis functionality with two dedicated 100GbE ports to support virtual chassis connections. | Please comply and should be read as: <br> $24 \times 10 \mathrm{G}$ (Core-to-DS over fibre connection). <br> $2 \times 40 \mathrm{G}$ uplink. <br> (At least 2 ports of at 40G or more bandwidth connectivity ) <br> The uplink connectivity will be done through 10G connectivity ( fibre connection) <br> Vendor must provide cable including transceiver for uplinking. <br> Should <br> support <br> virtual <br> chassis <br> functionality for integration with <br> multiple <br> switches |


|  |  |  |  | OR <br> The switch should at least support stackable features, thus the vendor must provide appropriate ports and required hardwares/ite ms to support these features and it will be in the scope of the vendor to stack the switches. |
| :---: | :---: | :---: | :---: | :---: |
| 09 | Page 16 <br> 1.2.1 <br> Core <br> Switch <br> specific <br> ations, <br> S No 1 <br> C | Switch should have non-blocking per-slot throughput from day 1. | Please delete this clause. <br> Justification Fixed switches don't have per slot kind of feature. Chassis based switches have per slot configuration | Please comply |
| 10 | Page 16 1.2.1 <br> Core <br> Switch <br> specific <br> ations, <br> S No 1 <br> E | Switch should support field replaceable components such as Supervisor, Line cards, powersupply and Fan trays. | Please delete this clause. <br> Justification <br> This is not a Chassis based switch but if, two core switches will be used each switch in VC will be backup for another in terms of supervisor | Please comply and should be read as: Power Supply and fan: $\mathrm{N}+1$ redundant power supply fans should be provided. |


| 11 | Page 17 <br> 1.2.1 <br> Core <br> Switch <br> specific <br> ations, <br> S No 1 <br> F | Should have minimum of 16 GB Flash or more with optional SSD to host 3rd party container-based application. | Please amend this clause to Should have minimum of 16 GB Flash or more Justification 16GB Flash is there but optional SSD to host 3rd party containerbased application is not there. This is specific to a particular OEM and hence should be removed. | Should be read as: The Switch should have at least 4 GB flash. |
| :---: | :---: | :---: | :---: | :---: |
| 12 | Page 17 1.2.1, S No 1, No 1 | During system boots, the systems software signatures should be checked for integrity. System should be capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware \& BIOS are authentic. | Specific to a particular OEM only, Kindly remove this clause. | This may be treated as optional. <br> Should be read as: Vendors must ensure the integrity of data, licenses, software, firmware. In case of failure of any such components (data, licenses, software, firmware) resulting in non functioning of switch(s), the vendor must solve the problem within time mentioned in the T\&C. |


| 13 | Page 17 <br> Distribut <br> ion <br> Switch - <br> Wired <br> Network <br> , S No 1 <br> a | Switch should have at least $24 \times 10 \mathrm{G}$ or more Copper connectivity Must have appropriate uplinks ports to connect CS for 10G Connectivity (HA mode) | Please amend this clause to The Switch should have a 24x-port 10GbE Copper and 2 x 10 G SFP+ ports from day-1. | Please comply <br> Should be read as: <br> Switch should have at least 24 x 10GBase-T Ethernet connectivity (Cat6a). This is for the connectivity from DS-toAS <br> Each DS must have appropriate uplinks ports to connect CS over 10G fibre connectivity from DS-toCS. <br> DS in each hostel should be configured in HA mode, thus the vendor must ensure all required items/softwar e for the same. |
| :---: | :---: | :---: | :---: | :---: |
| 14 | Page 18 Distribut ion <br> Switch - <br> Wired <br> Network , S No 2 <br> E | During system boots or OS upgrades, the system's software should be checked for integrity | Specific to a particular OEM only, Kindly remove this clause. | This may be treated as an optional feature. <br> Should be read as: Vendors must ensure the integrity of data, licenses, software, firmware. In |


|  |  |  |  | case of failure of any such components (data, licenses, software, firmware) resulting in non functioning of switch(s), the vendor must solve the problem within time mentioned in the T\&C. |
| :---: | :---: | :---: | :---: | :---: |
| 15 | Page 18 Access Switch Wired Network , S No 1 a | Switch should have the minimum of 24 x 1000 Base-T ports or better compatible. Must have appropriate uplink ports to connect DS for 10G Connectivity | Please amend this clause to The Switch should have a $24 x$ ports of 10/100/1000 BASE-T and 2 x 1G/10G SFP+ ports from day- 1 . | Please <br> comply <br> Should be <br> read as: <br> Switch <br> should have <br> at least <br> 10/100/1000 <br> BASE-T <br> Ethernet connectivity. <br> This is for the connectivity from AS-tooutlets <br> Each DS must have appropriate uplinks ports to connect DS over 10GBase-T ethernet connectivity over Cat6a from DS-toAS. |
| 16 | Page 20 Wireless Controll er, S No 8 | Should support Access Control Lists (ACLs). | Please delete this clause. <br> Justification The Access | Please comply |


|  |  |  | List is for Routers, Switches or Firewall, APs support WxLAN policy creation so that even Layer-7 policies can be created. |  |
| :---: | :---: | :---: | :---: | :---: |
| 17 | Page 20 Wireless Controll er, S No 11 | WLC should support Application Visibility and Control (AVC). | Please amend this clause to WLC should be able to identify applications and should be able to create policies based on these applications. <br> Justification The applications can be visible based on DNS and policies can be created to allow/deny access to particular applications but not true AVC as it is mostly a Firewall/UTM function and not a Wi-Fi AP function | Please comply |
| 18 | Page 20 <br> Distribut ion <br> Switch - <br> Wireless Network , S No 1 a | The switch should have minimum of $12 \times 10$ G or more Copper Must have appropriate uplink ports to connect CS for 10G Connectivity | Please amend this clause to The Switch should have a $8 \times 10 \mathrm{G}$ copper ports, 16 GBE and 2 x 10 G SFP+ ports from day-1. The | Please comply <br> Should be read as: Switch should have at least 12 x 10GBase-T Ethernet |


|  |  |  |  <br> Should also <br> support PoE <br> Standards <br> IEEE 802.3af, <br> and 802.3at <br> Justification <br> Total number <br> of switches for <br> wireless <br> networks are <br> 6 , therefore 8 <br> 10GBE <br> copper ports are sufficient considering 2 for future expansion.Als o 6 number of POE switches can provide power to 72 number of access points only. <br> Therefore asking for POE distribution switch with 16GBE ad on will make sense and it will add another 16 POE ++ ports that will give power to 16 access points. Therefo re for one hostel one can provide power to 88 access points. | connectivity ports. This is for the connectivity from DS-toAS over Cat6a. <br> Each DS must have appropriate uplinks ports to connect to CS over 10G fibre connectivity (from DS-toCS uplink). |
| :---: | :---: | :---: | :---: | :---: |
| 19 | Page 20 <br> Distribut ion Switch - | Switch shall have minimum of 16 GB flash | Please amend the clause to Switch shall have | Should be read as: The Switch should have |


|  |  |  | Wireless <br> Network <br> S No 1 <br> d |  |
| :--- | :--- | :--- | :--- | :--- |


| 21 | Page 21 <br> Access <br> Switch - <br> Wireless <br> Network <br> , 1 A | The switch should have minimum of 12 $\times 1 G$ or more to provide <br> connectivity to wireless APs through $p$ roper cat cables as per requirements. Each port should provide an appropriate power budget to support the wireless APs. The number of APs per AS must be appropriately calculated as per our requirement mentioned in the Annex ure - I and must provide a detail power budget in the tender. <br> Must have appropriate uplink ports to connect DS for 10G Connectivity | Please amend this clause to The Switch should have a $24 x$ ports of 10/100/1000 BASE-T and 2 x 1G/10G SFP+ ports from day1,The switch should have a minimum PoE budget of 370 Watts from day-1 \& Should also support PoE Standards IEEE 802.3af, and 802.3at | Please <br> comply <br> Should be read as: <br> Switch <br> should have <br> at least 24 x <br> 1GBase-T <br> Ethernet <br> connectivity ports <br> (PoE/PoE+). <br> This is for the connectivity from AS-to- <br> AP. Each <br> port should <br> provide an <br> appropriate <br> power budget <br> to support the <br> required <br> number of <br> wireless APs <br> (as per <br> annexure-4). <br> Each AS <br> must have <br> appropriate <br> uplinks ports <br> to connect <br> DS over 10G <br> Base-T <br> Ethernet con nectivity <br> (from DS-to- <br> AS over Cat6a). |
| :---: | :---: | :---: | :---: | :---: |
| 22 | Page 22 <br> Wireless <br> Access <br> Point, S <br> No 5 | Access Point shall support encrypted traffic visibility | Please delete this clause. This is firewall functionality. | This may be treated as an optional feature. <br> Should be read as: Vendors must ensure the encrypted traffic flow. |
| 23 | Page 22 | Access Point shall provide console- | Please delete | Please |


| Wireless <br> Access <br> Point, S <br> No 10 | based connectivity that uses standard <br> interfaces such as RJ45 | this clause for <br> wider <br> participation <br> Justification <br> After <br> deployment | comply |
| :--- | :--- | :--- | :--- |
| the console |  |  |  |
| port becomes |  |  |  |
| useless as |  |  |  |
| someone has |  |  |  |
| to either bring |  |  |  |
| down the AP |  |  |  |
| to connect to |  |  |  |
| console or |  |  |  |
| stand on a |  |  |  |
| ladder. Also, |  |  |  |
| as APs are |  |  |  |
| out in open it |  |  |  |,


|  |  |  | connects to <br> AP via <br> Console. |  |
| :--- | :--- | :--- | :--- | :--- |
| 25 | Page 27 <br> Clause <br> 1 | All the components should have at least 7 <br> years of End-of-life | Please delete <br> this clause. <br> RFP already <br> has asked for <br> 5 years <br> warranty from <br> date of <br> handover.This <br> clause doesn't <br> add any value | Please <br> insead create |
| comply. |  |  |  |  |


|  |  |  | provide <br> support within 48 hours penalty of Rs. 1000 per day will be charged after 48 hours of delay and the penalty amount will be deducted from the Bank guarantee | public holidays). If the vendor fails to provide support within the specified duration, a penalty of Rs. 500 per hour of delay will be charged, and the penalty amount will be deducted from the Bank guarantee. |
| :---: | :---: | :---: | :---: | :---: |
| 27 | Page 27 Clause 3 | The bidder/ vendor must ensure that all installed equipment supplied by them has a minimum uptime of $99.5 \%$, which may be calculated quarterly. In case of any downtime, a penalty of Rs 1000 will be charged on an hourly basis. Penalties for any downtimes will be deducted from the bank guarantee | Please delete this clause. This is duplicate clause. Penalty already mentioned in clause no 2 as stated above. | Please comply. |
| 28 | Page 27 Clause 11 | All Active components given in the Bill of Quantities should be from a single OEM (Original Equipment Manufacturer) only. | Please allow to quote different OEM for Switching and Wi-Fi for larger participation. | Refer to general comments at SI. no.1. |
| 29 | Page 28 Clause 17 | The vendor/bidder must agree to perform demo by demonstration the compatibility check with existing network infrastructure. | Please amend this clause to "The vendor/bidder must agree to perform demo by demonstration the compatibility check with existing | Please comply for demonstratio n of integration of the solution with existing switches. The demonstratio $n$ will be considered as part of |


|  |  |  | network <br> Switches" <br> Justification <br> Proposed <br> solution will <br> not be <br> compatible <br> with the <br> Existing WLC <br> and Access <br> Points. | technical evaluations. |
| :---: | :---: | :---: | :---: | :---: |
| 30 | Page 29 Clause 3 | Works Experience:The bidder must have completed similar campus/building networking works in IISERs,IITs,NITs and any other Institute of National Importance during last seven <br> (07) years. The bidder must have successfully completed similar work during last seven years ending last day of month to the one in which tender is floated | Please amend this clause to The bidder must have completed similar campus/buildi ng networking works in IISERs,IITs,NI Ts, NAAC A++ Govt Universities and any other Institute of National Importance during last seven (07) years. The bidder must have successfully completed similar work during last seven years ending last day of month to the one in which tender is floated | This should be read as: <br> Works <br> Experience: <br> The bidder <br> must have <br> completed <br> similar <br> campus/buildi <br> ng <br> networking <br> works in <br> IISERs,IITs,N <br> ITs, any other <br> INIs or NAAC <br> A++ <br> Government <br> academic <br> Institutes <br> during last <br> seven <br> (07) years. <br> The bidder <br> must have <br> successfully <br> completed <br> similar work <br> during last <br> seven years <br> ending last <br> day of month <br> to the one in <br> which tender <br> is floated. |
| 31 | Page 29 Clause 4 | At least one of the above orders should be with the OEM of the active component that bidder is quoting | Please amend the clause to Bidder must have executed similar order | Please comply. |


|  |  |  | in any Govt/PSU/ educational organization with the OEM of the active component |  |
| :---: | :---: | :---: | :---: | :---: |
| 32 | Page 29 Clause 6 | Experience: The bidder should have at least 7 (seven) years of experience in supply, installation, integration, commissioning, and management of networking projects. Certified copies of Successful Work Completion certificates clearly state the work's nature to be submitted as proof.) | Please delete this clause since experience credentials already been asked in S No 3 \& 4 . | Clause 3 and 4 are regarding past performance. |
| 33 | Page 29 Clause 9 | All active components given in the Bill of Quantities (BoQ) should be from a single OEM <br> (Original Equipment Manufacturer) only. | Please allow to quote different OEM for Switching and Wi-Fi for larger participation. | Please refer to General conditions (SI. No. 1) |
| 34 | Page 30 Clause 10 | Bidders should ensure that the supplied equipment must be able to integrate with existing Network Infrastructure, the details can be obtained and can be asked by Institute to demonstrate | Please amend this clause to "the supplied equipment must be able to integrate with existing Network switches , the details can be obtained and can be asked by Institute to demonstrate Justification Proposed solution will not be compatible with the Existing WLC and Access Points. | Please comply for demonstratio n of integration of the solution with existing switches. The demonstratio $n$ will be considered as part of technical evaluations. |
| 35 | Page 30 Clause 1 | Proposed Products (software, firmware, and hardware) must have a comprehensive OEM onsite warranty pack for 5 years on all quoted hardware and software with | Please amend this clause to proposed products | Please comply |


|  | 24*7*365 TAC support and NDB hardware <br> replacement from the date of installation | (software, <br> firmware, and <br> hardware) <br> must have a <br> comprehensiv <br> e onsite <br> warranty <br> support for 5 |  |
| :--- | :--- | :--- | :--- |
| years on all |  |  |  |
| quoted |  |  |  |
| hardware and |  |  |  |
| software with |  |  |  |
| 24*7*365 TAC |  |  |  |
| support. |  |  |  |
| Justification |  |  |  |$\quad$.


|  |  |  | number and <br> Returned <br> Materials <br> Authorization <br> (RMA) depot <br> in India. OEM <br> to submit <br> confirmation <br> on letterhead <br> Justification <br> Since OEM is |
| :--- | :--- | :--- | :--- |
| not front |  |  |  |
| ending the |  |  |  |
| bid, Therefore |  |  |  |
| any complaint |  |  |  |
| will be route |  |  |  |
| to OEM |  |  |  |
| through |  |  |  |
| bidder only. |  |  |  |$\quad\left\{\begin{array}{l}\text { Page } 31\end{array}\right.$

$\left.\begin{array}{|l|l|l|l|l|}\hline & & & \begin{array}{l}\text { cant be } \\ \text { attributed to } \\ \text { bidder. }\end{array} & \\ \hline 39 & \begin{array}{l}\text { Page } \\ 31 \\ \text { Clause } \\ 7\end{array} & \begin{array}{l}\text { The Site Engineer should be OEM certified } \\ \text { and have a minimum of 4 years of } \\ \text { experience in passive networking }\end{array} & \begin{array}{l}\text { Please amend } \\ \text { this clause to } \\ \text { The Site } \\ \text { supervisor } \\ \text { should have a } \\ \text { minimum of 4 } \\ \text { years of } \\ \text { experience in } \\ \text { Active \& } \\ \text { Passive } \\ \text { Networking. } \\ \text { Justification } \\ \text { Site } \\ \text { conditions } \\ \text { should be } \\ \text { ready during } \\ \text { the award of } \\ \text { the contract. } \\ \text { Any delay in } \\ \text { site not ready } \\ \text { cant be } \\ \text { attributed to } \\ \text { bidder. }\end{array} & \begin{array}{l}\text { Please } \\ \text { comply. }\end{array} \\ \hline 40 & \begin{array}{ll}\text { Page } 31 \\ \text { Clause } \\ 8\end{array} & \begin{array}{l}\text { In-house Equipment: Bidders should have } \\ \text { Splicing, OTDR/OLTS, and Penta scans } \\ \text { machines in-house. The bidder must } \\ \text { provide an undertaking document on their } \\ \text { letterhead }\end{array} & \begin{array}{l}\text { Please delete } \\ \text { this clause. } \\ \text { Specific } \\ \text { vendors for } \\ \text { fiber laying } \\ \text { only have } \\ \text { these kind of } \\ \text { machines.Inh } \\ \text { ouse } \\ \text { equipment will } \\ \text { add to bid } \\ \text { cost only. }\end{array} & \begin{array}{l}\text { This may be } \\ \text { treated as } \\ \text { optional. }\end{array} \\ \begin{array}{ll}\text { Should be } \\ \text { read as: } \\ \text { This tender } \\ \text { involves fibre } \\ \text { fibre and } \\ \text { connectivity, } \\ \text { bidder/vendor }\end{array} \\ \text { must ensure } \\ \text { they have } \\ \text { expertise for } \\ \text { carrying out } \\ \text { such } \\ \text { activities and } \\ \text { vendor } \\ \text { should not } \\ \text { cite the } \\ \text { delays } \\ \text { caused by } \\ \text { nonavailabilit } \\ \text { y of these } \\ \text { equipment for }\end{array}\right\}$
$\left.\begin{array}{|l|l|l|l|l|}\hline & & & & \begin{array}{l}\text { commissionin } \\ \text { g. }\end{array} \\ \hline 41 & \begin{array}{l}\text { Page 32 } \\ \text { Clause } \\ 14\end{array} & \begin{array}{l}\text { Balance Material: The given BoQ is a } \\ \text { preliminary estimate; therefore, a site visit is } \\ \text { mandatory for bidders. Balance/Remaining } \\ \text { material should be taken by the bidder at } \\ \text { their own cost. }\end{array} & \begin{array}{l}\text { Please delete } \\ \text { this clause. } \\ \text { Bidder quote } \\ \text { for the BOM } \\ \text { as per the } \\ \text { quantity given } \\ \text { in BOQ. Any } \\ \text { addition in } \\ \text { quantity } \\ \text { should be } \\ \text { payable as } \\ \text { per actuals. }\end{array} & \begin{array}{l}\text { Please } \\ \text { comply }\end{array} \\ \hline 42 & \begin{array}{l}\text { Page } 32 \\ \text { a(ii) }\end{array} & \begin{array}{l}\text { Delivery, Installation Schedule, and } \\ \text { Penalties- Phase 1 } \\ \text { Installation of wireless and LAN in Hostel-3: } \\ \text { The wireless has to be } \\ \text { implemented first before LAN, the } \\ \text { equipment and all accessories required for } \\ \text { installation and functioning of the wireless } \\ \text { and it should not be more than 21 days from } \\ \text { the date of issue of Order. The equipment } \\ \text { and all accessories required for installation } \\ \text { and functioning of the LAN and it should not } \\ \text { be more than 42 days from the date of issue } \\ \text { of Order. }\end{array} & \begin{array}{l}\text { Please } \\ \text { provide } \\ \text { delivery and } \\ \text { installation } \\ \text { timelines of } \\ \text { 120 days. } \\ \text { Timelines } \\ \text { lesser than } \\ \text { this only add } \\ \text { to LD which } \\ \text { holds no } \\ \text { purpose to } \\ \text { both customer } \\ \text { and Bidder. } \\ \text { Justification } \\ \text { Active } \\ \text { components } \\ \text { OEM takes 2- } \\ 3 \text { months of } \\ \text { time for } \\ \text { delivery of } \\ \text { hardware. }\end{array} & \begin{array}{l}\text { This should } \\ \text { be read as: }\end{array} \\ \begin{array}{l}\text { Delivery, } \\ \text { Installation } \\ \text { Schedule, } \\ \text { and } \\ \text { Penalties- } \\ \text { Phase 1 } \\ \text { Installation of } \\ \text { wireless and } \\ \text { LAN in } \\ \text { Hostel-3: The } \\ \text { wireless has } \\ \text { to be } \\ \text { implemented } \\ \text { first before } \\ \text { LAN, the }\end{array} \\ \text { equipment } \\ \text { and all } \\ \text { accessories } \\ \text { required for } \\ \text { installation }\end{array}\right\}$

|  |  |  | functioning of <br> the LAN and <br> it should not <br> be more than <br> 60 days from <br> the date of <br> issue of <br> Order. |  |
| :--- | :--- | :--- | :--- | :--- |
| 43 | Page 32 <br> b | Phase 2 <br> The installation of wireless and LAN in <br> hostel 4. The implementation of the Phase-2 <br> will commence after February 01, 2024. The <br> installation of wireless and LAN should to be <br> completed within 30 days from <br> commencement of the Phase 2. | Please delete <br> this clause <br> and give <br> cumulative <br> timelines of <br> 120 days for <br> both the <br> hostels. | Please <br> comply. |
| 44 | 33 f | Warranty Terms:The complaints under <br> warranty should be <br> resolved within 48 hours(including public <br> holidays) of notification. A penalty of Rs. <br> 1000 per day will be charged. | Please delete <br> this clause. <br> This is <br> duplicate <br> clause. | Please <br> comply |
| 45 | 33 g | Penalty: A penalty of 0.5\% per week subject <br> to maximum of 10\% of the value of the <br> order will be charged for late delivery and <br> site handing over. IISER Mohali has the <br> right to cancel the purchase order in case <br> the material is not delivered within 120 days <br> of the <br> purchase order date. | Please amend <br> this clause to <br> Penalty: A <br> penalty of <br> 0.5\% per <br> week subject <br> to maximum <br> of 10\% of the <br> value of the <br> order will be <br> charged for <br> late delivery <br> and site <br> handing over. <br> IISER Mohali <br> has the right <br> to cancel the <br> purchase <br> order in case <br> the material is <br> not delivered <br> within 120 <br> days of the <br> purchase <br> order date. | Please <br> comply. |
| a | Payment Terms: 50\% of the material value <br> will be paid upon receipt and verification <br> each of the materials. | Please amend <br> this clause to <br> $80 \%$ of the <br> material value | Please <br> comply. |  |


|  |  |  | will be paid upon receipt and verification each of the materials. <br> Justification Approx 80\% cost is of hardware components which bidder pays to the OEM within 30 days.Any payment terms less than $80 \%$ only add on to bid cost only. |  |
| :---: | :---: | :---: | :---: | :---: |
| 47 | $33 \mathrm{~b})$ | Milestone Payment: Upon successful installation and verification of both materials and services, $70 \%$ of the services payment will be released based on the installed materials and services at stage wise | Please amend this clause to Upon successful installation and verification of both materials and services and submission of the PBG. Remaining $20 \%$ of the payment will be released. | Please comply. |
| 48 | 33 c ) | Final Payment: Balance payment for the materials and services, as per actual, will be made upon the completion of the project on the basis of completion certificate provided by the contractor and Verification by the Committee of the Institute and | Please delete this clause.100\% payment details already covered under point a and b . | Please comply |


| 3. Shreenath Enterprises |
| :--- | :--- |


| S.No | Page No/ Clause No. Sub-clause No. | Clause Particulars | Clarification sought / Revised suggested | Response |
| :---: | :---: | :---: | :---: | :---: |
| 01 | 1.2.1.a <br> Core Switch | The Switch will be populated with: 24 x 10G or more connectivity for uplink to DS in hostels (the vendor must check the distance of fibre for this connectivity) 2 x 40G or more connectivity to Main Core Switch Should support virtual chassis functionality for integration with multiple switches | Please clarify the quantity \& type of 10G transceivers that are required to be populated in the core switch. Also please clarify the quantity \& type of uplink transceivers required to connect to the main core switch | Please comply and should be read as: $24 \times 10 G$ (Core-to-DS over fibre connection). <br> $2 \times 40 \mathrm{G}$ uplink. (At least 2 ports of at 40G or more bandwidth connectivity ) <br> The uplink connectivity will be done through 10G connectivity (fibre connection) Vendor must provide cable including transceiver for uplinking. <br> Should support virtual chassis functionality for integration with multiple switches <br> or <br> The switch should at least support stackable features, thus the vendor must provide appropriate ports and required hardwares/items to support these features and it will be in the scope of the vendor to stack the switches. |
| 02 | 1.2.1.f Core switch | Should have a minimum of 16 GB Flash or more with optional SSD to host 3rd party containerbased application. | Should have min of 512MB Flash Justification Flash is used to store the OS image. Since our OS is optimized, we do not need 16GB of flash storage. We can support dual images on 512MB | Should be read as: <br> The Switch should have at least 4 GB flash. |


|  |  |  | of flash. In addition, syslog is typically sent to an external syslog server |  |
| :---: | :---: | :---: | :---: | :---: |
| 03 | 2.2.1.a <br> Distribution Switch | Switch should have at least $24 \times 10 \mathrm{G}$ or more Copper connectivity Must have appropriate uplinks ports to connect CS for 10G Connectivity (HA mode) | Please clarify the quantity \& type of 10G transceivers that are required to be populated in the distribution switch | Please comply <br> Should be read as: Switch should have at least $24 \times 10 G B a s e-T$ Ethernet connectivity (Cat6a). This is for the connectivity from DS-toAS <br> Each DS must have appropriate uplinks ports to connect CS over 10G fibre connectivity from DS-toCS. <br> DS in each hostel should be configured in HA mode, thus the vendor must ensure all required items/software for the same. |
| 04 | 2.2.1.c <br> Distribution Switch | Switch shall have minimum of 16 GB flash memory. | Should have min of 512MB Flash Justification Flash is used to store the OS image. Since our OS is optimized, we do not need 16GB of flash storage. We can support dual images on 512MB of flash. In addition, syslog is typically sent to an external syslog server | Should be read as: The Switch should have at least 4 GB flash. |
| 05 | 2.2.2 <br> Access Switch | The Switch will be populated with: 24 x 10G or more connectivity for uplink to DS in hostels (the vendor must check the distance of fibre for this connectivity) 2 x | Please clarify the quantity \& type of 10G transceivers that are required to be populated in each access switch | Please comply <br> Should be read as: Switch should have at least 10/100/1000 BASE-T Ethernet connectivity. This is for the connectivity from AS-to-outlets |


|  |  | 40G or more connectivity to Main Core Switch Should support virtual chassis functionality for integration with multiple switches |  | Each DS must have appropriate uplinks ports to connect DS over 10GBase-T ethernet connectivity over Cat6a from DS-toAS |
| :---: | :---: | :---: | :---: | :---: |
| 06 | 3.2.1 <br> WLC pt 7 | Should support coverage hole detection and correction that can be adjusted on a per WLAN basis | Radio resource management should be supported in both automatic as well as manually configurable, APwise/ AP group wise. <br> Justification <br> "Coverage hole detection" term is specifically OEMspecific. | This should be treated as optional feature. |
| 07 | $\begin{aligned} & \text { 3.2.1 } \\ & \text { WIc pt } 14 \end{aligned}$ | The solution to support automatic packet capture in the event of a client failure or anomalous events. | The solution should support diagnotics tools like Ping, traceroute, Nslookup etc. | This should be treated as optional feature. |
| 08 | 3.2.1 <br> WLC pt 17 | The Solution shall support Hitless/rolling, AP upgrade feature | The solution should manage AP firmware upgradation centrally. Justification "Hitless/Rolling" terms are vendor specific | Should be read as: <br> The solution shall support auto/manual AP upgradation features. |
| 09 | 3.2.2 <br> Distribution <br> Switch | The switch should have minimum of 12 x 10 G or more Copper Must have appropriate uplink ports to connect CS for 10G Connectivity | Please clarify the quantity \& type of 10G transceivers that are required to be populated in the distribution switch | Please comply <br> Should be read as: Switch should have at least $12 \times 10$ GBase-T Ethernet connectivity ports. This is for the connectivity from DS-toAS over Cat6a. <br> Each DS must have appropriate uplinks ports to connect CS |


|  |  |  |  | over 10G fibre connectivity (from DS-to-CS uplink). |
| :---: | :---: | :---: | :---: | :---: |
| 10 | 3.2.2. <br> Distribution Switch | Switch shall have minimum of 16 GB flash memory. | Should have min of 512MB Flash Justification Flash is used to store the OS image. Since our OS is optimized, we do not need 16GB of flash storage. We can support dual images on 512MB of flash. In addition, syslog is typically sent to an external syslog server | Should be read as: <br> The Switch should have at least 4 GB flash. |
| 11 | 3.2.3 <br> Access switch | The switch should have minimum of 12 x 1G or more to provide connectivity to wireless APs through proper cat cables as per requirements. Each port should provide an appropriate power budget to support the wireless APs. The number of APs per AS must be appropriately calculated as per our requirement mentioned in the Annexure - I and must provide a detailed power budget in the tender. Must have appropriate uplink ports to connect DS for 10G Connectivity | Please clarify the quantity \& type of 10G transceivers that are required to be populated in each access switch | Please comply <br> Should be read as: <br> Switch should have at least $24 \times 1$ GBase-T Ethernet connectivity ports (PoE). This is for the connectivity from AS-to-AP. Each port should provide an appropriate power budget to support the required number of wireless APs (as per annexure-IV). <br> Each AS must have appropriate uplinks ports to connect DS over 10G Base-T Ethernet connectivity (from DS-to-AS over Cat6a). |
| 12 | 3.2.3 <br> Access Switch | The switch should have minimum of 12 $\times 1 \mathrm{G}$ or more to provide connectivity to wireless APs through proper cat | Please confirm that PoE+ of 30W per port is required on all provided ports | Please comply and should be read as: <br> Switch should have at least $24 \times 1$ GBase-T Ethernet connectivity |


|  |  | cables as per requirements. Each port should provide an appropriate power budget to support the wireless APs. The number of APs per AS must be appropriately calculated as per our requirement mentioned in the Annexure - I and must provide a detail power budget in the tender. Must have appropriate uplink ports to connect DS for 10G Connectivity |  | ports (PoE). This is for the connectivity from AS-to-AP. Each port should provide an appropriate power budget to support the required number of wireless APs (as per annexure-IV). <br> Each AS must have appropriate uplinks ports to connect DS over 10G Base-T Ethernet connectivity (from DS-to-AS over Cat6a). |
| :---: | :---: | :---: | :---: | :---: |
| 13 | 3.2.4 <br> Wireless Access Point (pt. 6) | Access Point should have BLE radio/Zigbee to support use cases of location, asset tracking and analytics, from Day1. | We shall further details, solution for asset tracking requires compatible tags and details for analytics also need to be clarified | It should be treated as optional feature |
| 14 | 3.2.4 <br> Wireless <br> Access Point (pt. 8) | Access Point shall have dedicated radio/chipset for spectrum monitoring capabilities, WIPS and off channel RRM without compromising and using the client serving radios. | Application for dedicated radio needs to be clariified, as this points mentions Spectrum analysis/WIPS and point 9 is mentions use of the same radio as dual 5Ghz. | It should be treated as optional feature |
| 15 | 3.2.4 <br> Wireless <br> Access Point (pt. 9) | If required, Access Point should support dual 5Ghz mode for high density scenarios. | Please clarify the use of third radio. | Please comply |
| 16 | 3.2.4 <br> Wireless <br> Access Point (pt. 11) | Access Point should have 1Gbps | The accesspoint should have atleast 1X 2.5Gbps port or higher. Justification | It should be read as: <br> Access Point should deliver at least 1Gbps. |


|  |  |  | with 4 X 4 <br> APs capable of going beyond 5Gbps of data rate, the AP with 1 Gbps will be a bottleneck. |  |
| :---: | :---: | :---: | :---: | :---: |
| 17 | 3.2.4 <br> Wireless <br> Access Point (pt. 12) | Should support locally significant certificates on the APs using a Public Key Infrastructure (PKI). | Please clarify the use case. | Please comply |
| 18 | 3.2.4 <br> Wireless <br> Access Point (pt. 17) | Must support QoS and Video Call Admission Control capabilities. | Support for detailed QoS with DSCP marking <br> Justification <br> Today's applications have different DSCP marking and these details are published to improve the application performance including video/web calls on different platform. | Should be treated as optional feature. |
| 19 | Network Management System |  | Please add: The vendor should provide a network management system for integrated management of the wireless system and wired switches for easy configuration \& troubleshooting. | Please comply with our requirements. |
| 20 | Page 30 Clause 3 | The OEM of Active components quoted by the bidder should have presence in India from the last seven years ending on the previous day of the last day of | The OEM of Active components quoted by the bidder should have presence in India from the last four years ending on the previous day of the | Please comply. |


|  |  | submission of <br> tender. OEM <br> incorporation <br> certificate to be <br> submitted | last day of <br> submission of <br> tender. OEM <br> incorporation <br> certificate to be <br> submitted <br> Justification <br> 7 years is restrictive <br> and would reduce <br> competitiveness |
| :--- | :--- | :--- | :--- |


|  |  |  | to presence in india <br> for at least 3 Years <br> as per Govt norms |  |
| :--- | :--- | :--- | :--- | :--- |
| 24 | Page 30 <br> Clause 3 of <br> Passive <br> component | The OEM of Passive <br> components must <br> have at least one <br> RCDD (Registered <br> Communications <br> Distribution <br> Designer) certified <br> engineer on their <br> own <br> payroll sitting in <br> India, whose <br> services can be <br> utilized in the project <br> as and when <br> required. Supporting <br> documents are <br> required with the <br> bid. | To be deleted <br> Justification <br> we are having <br> Team of Cabling <br> certified experts <br> who can guide <br> further, and <br> services can be <br> utilized in India for <br> this project <br> implementation. So <br> request to delete <br> the clause of <br> RCDD. | Please comply. |


|  | 4. Molex |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| S.No | Page <br> No/ <br> Clause <br> No./ <br> Sub- <br> clause <br> No. | Clause Particulars | Clarification <br> sought/ <br> Revised <br> suggested | Response |


| 01 | $\begin{aligned} & 30 \\ & \text { Clause } \end{aligned}$ $3$ | Eligibility Criteria for Passive <br> Component: <br> The <br> OEM of Passsive components must have at least one RCDD (Registered Communications Distribution Designer) certified engineer on their own payroll sitting in India, whose services can be utilized in the project as and when required. Supporting documents are required with the Bid. | To make it more generic OEM of passive component must have RCDD person. It should not impact If the rcdd person is globally present. <br> Justification OEM will ensure the RCDD services if and when required. | Please comply. |
| :---: | :---: | :---: | :---: | :---: |
| 02 | $\begin{aligned} & 30 \\ & \text { Clause } \end{aligned}$ $9$ | The Cat 6 U/UTP and Cat 6A U/UTP cable should comply with IEC60332-3-22, IEC 61034-1 and -2, IEC 60754-1 and -2, UL 94, EN 50575 features for environment safety. | We requested to read as The Cat 6 U/UTP and Cat 6A U/UTP cable should comply with <br> IEC60332-3- <br> 22/IEC60332- <br> 1, IEC 61034- <br> 1 and -2, IEC <br> 60754-1 and - <br> 2, UL 94, EN <br> 50575 features for <br> environment safety. <br> Justification <br> This point restrict us. As we have IEC60332-1 in this each wire is tested and we know that number of wires make bunch. <br> Therefore we requset you to add <br> IEC60332-3-22/IEC60332- | Please comply |


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|  | 5.Velocis |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { S.N } \\ & 0 \end{aligned}$ | Page No/ Clause No. / Sub-clause No. | Clause Particulars | Clarification sought / Revised suggested | Response |
| 01 | 16 1.2.1 Core Switch specification s | The Switch will be populated with: $24 \times 10 \mathrm{G}$ or more connectivity for uplink to DS in hostels (the vendor must check the distance of fibre for this connectivity) $2 \times 40 \mathrm{G}$ or more connectivity to Main Core Switch Should support virtual chassis functionality for integration with multiple switches | Request you to please change this to The Switch will be populated with: $24 \times 10 \mathrm{G}$ or more connectivity for uplink to DS in hostels (the vendor must check the distance of fibre for this connectivity) $4 \times 40 \mathrm{G}$ or more connectivity to Main Core Switch <br> Should support virtual chassis functionality for integration with multiple switches Justification 2X40G for HA and 2X40G for existing Core. | Please comply and should be read as: <br> $24 \times 10 G$ (Core-toDS over fibre connection). <br> $2 \times 40$ G uplink. <br> (At least 2 ports of at 40 G or more bandwidth connectivity ) <br> The uplink connectivity will be done through 10G connectivity (fibre connection) <br> Vendor must <br> provide cable <br> including <br> transceiver for uplinking. <br> Should support virtual chassis functionality for integration with multiple switches <br> or <br> The switch should at least support stackable features, thus the vendor must provide appropriate ports and required hardwares/items to |


|  |  |  |  | support these features and it will be in the scope of the vendor to stack the switches. |
| :---: | :---: | :---: | :---: | :---: |
| 02 | $17$ <br> 2.2.1 <br> Distribution Switch: | a. Switch should have at least $24 \times 10 \mathrm{G}$ or more Copper connectivity Must have appropriate uplinks ports to connect CS for 10G Connectivity (HA mode) | Request you to please change this to switch should have at least $24 \times 10 \mathrm{G}$ or more Copper connectivity <br> Atleast $2 \times 25 / 10 \mathrm{G}$ ports populated with required 10G transceivers to connect CS for 10G Connectivity (HA mode) <br> Justification <br> Minimum 2X10G SFP required to connect with CS. | Please comply <br> Should be read as: <br> Switch should have <br> at least 24 x <br> 10GBase-T <br> Ethernet <br> connectivity <br> (Cat6a). This is for <br> the connectivity <br> from DS-to-AS <br> Each DS must have appropriate uplinks ports to connect CS over 10G fibre connectivity from DS-to-CS. <br> DS in each hostel should be configured in HA mode, thus the vendor must ensure all required items/software for the same. |
| 03 | 18 <br> 2.2.2. <br> Access <br> Switch <br> Wired <br> Network | a. Switch should have the minimum of $24 \times 1000$ BaseT ports or better compatible. Must have appropriate uplink ports to connect DS for 10G Connectivity | Request you to please change this to Switch should have the minimum of $24 \times 1000$ Base-T ports or better compatible. <br> Atleast $2 \times 10 \mathrm{G}$ ports populated with required 10G transceivers to connect DS for 10G Connectivity. | Please comply <br> Should be read as: Switch should have at least 10/100/1000 BASET Ethernet connectivity. This is for the connectivity from AS-to-outlets <br> Each DS must have appropriate uplinks ports to connect DS over 10GBase-T ethernet connectivity over |


|  |  |  |  | Cat6a from DS-toAS |
| :---: | :---: | :---: | :---: | :---: |
| 04 | 19 <br> 3.2.1. <br> Wireless <br> Controller | WLC should <br> support 5000 or more clients. The access should be provided over email-based/keybased <br> authentication to access the internet. If the solution is based on Keybased authentication technology, then it must adapt to our existing system without any change in the existing system. | Any additional authentication tools, if required, bidder should include the same in scope. | Please comply |
| 05 | 20 <br> 3.2.2. <br> Distribution Switch for wireless network | a. The switch should have minimum of 12 x 10 G or more Copper Must have appropriate uplink ports to connect CS for 10G Connectivity | Request you to please change this to <br> The switch should have minimum of $12 \times 10 \mathrm{G}$ or more Copper port. <br> Atleast $2 \times 25 / 10 \mathrm{G}$ ports populated with required 10G transceivers to connect CS for 10G Connectivity | Please comply <br> Should be read as: Switch should have at least 12 x 10GBase-T Ethernet connectivity ports. This is for the connectivity from DS-to-AS over Cat6a. <br> Each DS must have appropriate uplinks ports to connect to CS over 10G fibre connectivity (from DS-to-CS uplink). |
| 06 | 21 <br> Access Switch for Wireless Networking | a. The switch <br> should have minimum of $12 x$ 1G or more to provide connectivity to wireless APs through proper cat cables as per requirements. Each port should provide | Request you to please change this to <br> The switch should have minimum of 24 ports full PoE+ or more to provide connectivity to wireless APs through proper cat6A cables as per requirements. <br> Atleast $2 \times 10 \mathrm{G}$ ports populated with required | Please comply <br> Should be read as: Switch should have at least 24 x 1GBase-T Ethernet connectivity ports (PoE/PoE+). This is for the connectivity from AS-toAP. Each port |


|  |  | an appropriate power budget to support the wireless APs. <br> The number of APs per AS must be appropriately calculated as per our requirement mentioned in the Annexure - I and must provide a detail power budget in the tender. <br> Must have appropriate uplink ports to connect DS for 10G Connectivity | 10G transceivers to connect DS on 10G Connectivity. Each port should provide an appropriate power budget to support the wireless APs. <br> The number of APs per AS must be appropriately calculated as per our requirement mentioned in the Annexure - I and must provide a detail power budget in the tender. Justification As per RFP. Asked 6 Nos of 12 port switches for each Hostel for 80 AP which will not fulfill the required port. | should provide an appropriate power budget to support the required number of wireless APs (as per annexure-4). <br> Each AS must have appropriate uplinks ports to connect DS over 10G Base-T Ethernet connectivi ty (from DS-to-AS over Cat6a). |
| :---: | :---: | :---: | :---: | :---: |
| 07 | 22 <br> 3.2.4 <br> Wireless <br> Access <br> Point | Access Point should have 1Gbps | Request you to please change this to Access Point should have Multigigabit Ethernet port | Should be read as: Access Point should deliver at least 1Gbps. |
| 08 | WIRED \& WIRELESS NETWORK |  | We suggest consolidation (stacking) of wired and wireless access switches within the rack. This will help in reduction of quantity of Access switches as well as optimisation of Distribution switches. This will help to reduce the budget without compromising the throughput. | We need to keep wired and wifi networks in separate segments. |
| 09 | Page 16 | 6. 24 U Rack with Accessories <br> 7. 12 U Rack with Accessories | Need to include 24 port LIU, Fiber Patch Cord, Pigtails, Gl pipe, Chamber \& OFC Route Marker to complete end-to-end connectivity. <br> Please confirm HDPE pipe sizeof 32/40/50 MM OD | Please comply |
| 10 | Page 17 | Appropriate | Please confirm the sizes | Refer BoQ. |


|  | Passive <br> components <br> for wired <br> network (x 2 <br> means for <br> two hostels) | dimension of PVC <br> Conduit for cabling | (25/32/40mm) of PVC <br> conduit. Apart from this <br> IISER Mohali can also go <br> with PVC duct (25X25, <br> 45X45 and 100X50MM) <br> for UTP cable laying. |  |
| :--- | :--- | :--- | :--- | :--- |
| 11 | Page 23 <br> ANNEXURE <br> $-I$ | Ground Floor, <br> number of LAN <br> Ports 52 | Need 3 no. of Jack panel <br> for 52 LAN ports | Refer BoQ |
| 12 | 23 <br> ANNEXURE <br> $-I$ | 3rd Floor, number <br> of LAN Ports 78 | Need 4 no. of Jack panel <br> for 78 LAN ports | Refer BoQ |
| 13 | 23 <br> Annexure -I | 4th Floor, number <br> of LAN Ports 78 | Need 4 no. of Jack panel <br> for 78 LAN ports | Refer BoQ |
| 14 | 25 | ANNEXURE - IIII | As per ANNEXURE - III 16 <br> no. of 12U Rack required <br> per Hostel | Refer BoQ |
| 15 | Passive Items <br> Specifications <br> (UTP \& OFC <br> Components | Kindly consider adding <br> detailed specifications as <br> per enclosed specification <br> sheet (separate sheet) | Refer BoQ. |  |
| 16 | Page 2 <br> EMD <br> (Earnest <br> Money <br> Deposit) | EMD of <br> Rs.3,40,000/- <br> through Online <br> mode in Institute <br> Account. | Kindly clarify if bidders can <br> opt for Bid Security <br> Declaration Form attached <br> as Appendix-I in lieu of <br> EMD. | Appendix-I is only <br> for bidders <br> exempted/provided <br> relaxation from <br> submission of EMD |


|  |  | Bidders will also be required to execute bond/undertaking Bid Security Declaration Form attached as Appendix-I, in lieu of EMD, as may be applicable. |  | as per Gol notifications. |
| :---: | :---: | :---: | :---: | :---: |
| 18 | $\begin{aligned} & 5 \\ & \mathrm{PBG} \end{aligned}$ | Security deposit/Performanc e Bank Guarantee @ $5 \%$ to $10 \%$ of the value of purchase order. | Kindly amend PBG @3\% of PO value valid for warranty period. | PBG to be $05 \%$ of order value. |
| 19 | 32 <br> Delivery \& Installation Schedule | a) Phase 1 (to be implemented immediately upon issuing the Order) i) Laying of fibre cable : it should not be more than 21 days from the date of issue of Order. <br> ii) Installation of wireless and LAN in Hostel-3: The wireless has to be implemented first before LAN, the equipment and all accessories required for installation and functioning of the wireless and it should not be more than 21 days from the date of issue of Order. The equipment and all accessories required for installation and functioning of the LAN and it should not be more than 42 days from the date of issue of Order. | Kindly ammend as below - <br> 1. Delivery of passive components in 6-8 weeks <br> 2. Delivery of active components in 8-12 weeks <br> 3. Post delivery installation time lines of 6-8 weeks <br> 4. Phasewise PBG <br> submission and payment clearance. <br> 5. Phasewise delivery and warranty | This should be read as: <br> Delivery, Installation Schedule, and Penalties- Phase 1 Installation of wireless and LAN in Hostel-3: The wireless has to be implemented first before LAN, the equipment and all accessories required for installation and functioning of the wireless and it should not be more than 30 days from the date of issue of Order. The equipment and all accessories required for installation and functioning of the LAN and it should not be more than 60 days from the date of issue of Order. |


|  |  | b) Phase 2 <br> The installation of wireless and LAN in hostel 4. The implementation of the Phase-2 will commence after February 01, 2024. The installation of wireless and LAN should to be completed within 30 days from commencement of the Phase 2. |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 20 | 32 <br> Balance Material: | The given BoQ is a preliminary estimate; therefore, a site visit is mandatory for bidders. Balance/Remaining material should be taken by the bidder at their own cost. The Institute will not bear any transportation charges, toll charges, taxes, or storage charges. The materials should be removed within ten days from the date of the completion certificate. The Institute will not be liable for the safety of the materials. | This clause can be accepted above $10 \%$ of delivered quantity in fully packed condition, any items with open packaging will not be considered for sales return. <br> We suggest finalisation of phase wise BoQ including buffer/spare (if any) along with selected SI Bidder. SI will deliver goods accordingly and there will be no balance inventory. | Please comply. |
| 21 | 33 Penality | A penalty of $0.5 \%$ per week subject to maximum of $10 \%$ of the value of the order will be charged for late delivery and site handing over. | Kindly cap maximum penalty upto $5 \%$ of PO value for making bidding viable and competive. | Cannot be relaxed further, $10 \%$ is as per Gol rules. |
| 22 | $33$ <br> Component | All Active and Passive | Kindly ammend as below - <br> 1. All Active components | Please comply |


|  | Warranty | components supplied by the bidder should carry a comprehensive warranty for a period of 5 years except fibre optics which should have a warranty of at least 20 years. | will have warranty of 5 years. <br> 2. All UTP, OFC Passive componets (excluding PVC, HDPE items and racks) will also have performance warranty of 20 years |  |
| :---: | :---: | :---: | :---: | :---: |
| 23 | Page 33 <br> Payment Terms | a) $50 \%$ of the material value will be paid upon receipt and verification each of the materials. <br> b) Milestone <br> Payment: Upon successful installation and verification of both materials and services, $70 \%$ of the services payment will be released based on the installed materials and services at stage wise. <br> c) Final Payment: Balance payment for the materials and services, as per actual, will be made upon the completion of the project on the basis of completion certificate provided by the contractor and Verification by the Committee of the Institute and submission of the PBG. | Kindly ammend as below - <br> 1. Material-80\% against delivery and balance 20 \% against completion of installation. <br> 2. Installation- $80 \%$ on completion and balance $20 \%$ on document submission. <br> 3. Phasewise PBG submission and payment clearance. <br> 4. Phasewise delivery and warranty | Please comply. |
| 24 | Page 29 <br> Eligibility Criteria for bidder | The Bidder should have an average annual turnover of $50 \%$ of estimated bid value in the last 3 years. | Kindly ammend as below 1. Bidder should be a company registered under Indian Companies Act, 1956, should be an established IT/Telecom | Please comply. |


|  |  |  | System Integrator operating for more than 10 years as on bid submission date. <br> 2. Bidder must have average annual turnover of at least Rs. 150 crores for each of the last three financial Years as on 31st March 2023. <br> AND <br> Average Annual Sales Turnover of the bidder solely generated on account of IT/Telecom/VoIP/Unified Communication during the last three years should be at least Rs. 25 crores as on 31st March 2023. |  |
| :---: | :---: | :---: | :---: | :---: |
| 25 | Page 29 Eligibility Criteria for bidder | Vendor / bidder must provide a CMMI level 3 certificates for their organization. | Vendor / bidder must provide a CMMI level 3 or above certificate for their organization. | Should be read as <br> Vendor / bidder must provide a CMMI level 3 or above certificate for their organization. |
| 26 | Page 29 Eligibility Criteria for bidder | The bidder must have completed similar <br> campus/building networking works in IISERs,IITs,NITs and any other Institute of National Importance during last seven (07) years. | The bidder must have completed similar campus/building networking works in IISERs,IITs,NITs, Central Universities and any other Institute of National Importance during last seven (07) years. | This should be read as: <br> Works Experience: The bidder must have completed similar campus/building networking works in IISERs,IITs,NITs, any other INIs or NAAC A++ Government academic Institutes during last seven (07) years. The bidder must have successfully completed similar work during last seven years ending last day of month to |


|  |  |  |  | the one in which tender is floated. |
| :---: | :---: | :---: | :---: | :---: |
| 27 | Page 29 Eligibility Criteria for bidder | The bidder must have successfully completed similar work during last seven years ending last day of month to the one in which tender is floated:- <br> a) Three similar completed works each consisting of not less than 40\% of switches(in nos.), $40 \%$ of APs (in nos.), and $40 \%$ of ports (in nos.)proposed in the tender; or b) Two similar completed works each consisting of not less than 50\% of switches(in nos.), $50 \%$ of APs(in nos.), and $50 \%$ of ports (in nos.) proposed in the tender; or <br> c) One similar completed works each consisting of not less than $80 \%$ of switches(in nos.), $80 \%$ of APs (in nos.), and $80 \%$ of ports(in nos.) proposed in the tender. | The bidder must have successfully completed similar work during last seven years ending last day of month to the one in which tender is floated:- <br> a) Three similar completed works each consisting of not less than $40 \%$ of switches, $40 \%$ of APs and $40 \%$ of passive ports (Any 2 of 3) (in nos.)proposed in the tender; or <br> b) Two similar completed works each consisting of not less than $50 \%$ of switches, $50 \%$ of APs, and $50 \%$ of passive ports (Any 2 of 3) (in nos.) proposed in the tender; or <br> c) One similar completed works each consisting of not less than $80 \%$ of switches, $80 \%$ of APs, and $80 \%$ of passive ports (Any 2 of 3) (in nos.) proposed in the tender. | Please comply. |
| 28 | Page 30 Eligibility Criteria for OEM (Active component): | The OEM must have local Technical Assistance Centre (TAC) support within Tricity and in India through a tollfree number and Returned Materials Authorization (RMA) depot in India. Where | The OEM must have Technical Assistance Centre (TAC) support in India through a toll-free number where customers can directly log a complaint against any failure. OEM to submit confirmation on letterhead alongwith list of Returned Materials Authorization (RMA) depots in India. | Please comply |


|  |  | customers can directly log a complaint against any failure. OEM to submit confirmation on letterhead. | Kindly add below additional point - <br> 1. The producis must be from Enterprise series and not from home or SMB segment (Self declaration by OEM to be provided). |  |
| :---: | :---: | :---: | :---: | :---: |
| 30 | 30 Eligibility Criteria for Passive Component | All passive networking materials (excluding Racks and PVC items) quoted by the bidder should only be from a single OEM make. | Kindly ammend as blow - <br> 1. All passive networking materials (excluding generic items like Racks, PVC, HDPE etc.) quoted by the bidder should only be from a single OEM make. <br> 2. OEM qualification criteria is not required for Racks but bidder has to ensure that the OEM should be ISO certified (latest) and should provide make / model no. along with supporting documentation. <br> 3. All generic PVC, HDPE items should be ISI marked. | Refer General comments at SI . no. 1 |
| 31 | $\begin{aligned} & \text { Page } 18 \\ & \text { 2.2.3. UPS } \end{aligned}$ | 2.2.3. UPS | Kindly add below additional points - <br> 1. UPS OEM Crietria UPS OEM should have experience in design and manufacturing of UPS for the last 10 years in India.5.OEM to have manufacturing capability of standalone UPS of 1.2 megawatt. All Offered UPS for the specified project should be from same OEM. UPS OEM to have certification of Cybersecurity Mandatory Certificate to be shared (No undertaking shall be accepted). UPS OEM to have annual turnover of minimum 800CR INR during FY-21-22 <br> 2. UPS OEM Certifications - ISO 9001:2015, 1SO | Please comply. |


|  |  |  <br> BIS |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Additionally bidder <br> have suggested <br> Passive Specs in <br> the sheet |  |  |


| 6. Fore Solution |  |  |  |  |  |  | Response |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| S. <br> No | Page <br> No/ <br> Clause <br> No./ <br> Sub- <br> clause <br> No. | Clause Particulars | Clarification sought / <br> Revised suggested | R |  |  |  |


|  |  |  | along with chassis based solution, as virtual chassis solution is already desired in clause "a" of the RFP. Revised suggested Switch should support field replaceable components such as Supervisor, Line cards, power-supply and Fan trays or virtual chassis should be in a dual switch configuration with redundant power supply \& fan trays. | be provided |
| :---: | :---: | :---: | :---: | :---: |
| 03 | Page 17 | f. Should have minimum of 16 GB Flash or more with optional SSD to host 3rd party container-based application. | Every OEM have their own Hardware Architecture to run the required network operations. RAM \& Flash size asked in the RFP, is too high, it seems favoring to a specific OEM and restricting us to bid. Kindly modify the clause as requested to make the bid generic so that multiple OEMs/bidders can participate in the bid. Revised suggested f. Should have minimum of 4G GB Flash or more with optional SSD to host 3rd party container-based applications. | Should be read as: The Switch should have at least 4 GB flash. |
| 04 | Page 17 | g. The switch should support minimum of 1.2 Tbps switching capacity. | $24 \times 10 \mathrm{G}, 2 \times 40 \mathrm{G}$ ports require 640Gbps Switching Capacity for non blocking, wire speed performance. For MultiOEM participation, kindly modify this clause to 1Tbps or more <br> Switching Capacity Calculation for Ports required as per RFP: <br> A. 24 (Ports) x 10 (Speed in Gbps) x 2 (Full Duplex) | Please comply as per our requirement |


|  |  |  | $=480 \mathrm{Gbps}$ <br> B. 2 (Ports) $\times 40$ (Speed in Gbps) x 2 (Full Duplex) $=160$ Gbps <br> Total Switching Capacity $=\mathrm{A}+\mathrm{B}=640 \mathrm{Gbps}$ <br> Revised suggested <br> g. The switch should support minimum of 1Tbps or more switching capacity. |  |
| :---: | :---: | :---: | :---: | :---: |
| 05 |  |  | There are no network security \& network automation features defined for Core Switch, please add these standard features which are supported by all the leading OEMs. <br> Suggested <br> The Switch should support Dynamic ARP Inspection, IP Source Guard, DHCP Snooping, 802.1x authentication, DoS attack prevention, IP MAC Port Binding, Secure Copy, SSHv2, Encrypted Syslog, Openflow 1.3 \& Restful API | Please comply as per our requirement |
| 06 |  |  | Please add this clause to ensure that all the network switches are tested \& certified by an International lab against any security vunerability in software code. <br> The Security Requirements for Network Devices Protection Profile (NDPP) defines the baseline Security Functional Requirements (SFRs) and Security Assurance Requirements (SARs) for network infrastructure | Please comply as per our requirement |


|  |  |  | devices in general. For <br> more information please <br> visit the URL: <br> hntps://www.niap- |
| :--- | :--- | :--- | :--- |
| cems.org/Product/index.C |  |  |  |,


|  |  |  |  | e for the <br> same. |
| :--- | :--- | :--- | :--- | :--- |
| 08 | Page 17 | c. Switch shall have minimum <br> of 16 GB flash memory. | Every OEM have their <br> own Hardware <br> Architecture to run the <br> required network <br> operations. RAM \& Flash <br> size asked in the RFP, is <br> too high, it seems <br> favoring to a specific <br> OEM and restricting us to <br> bid. Kindly modify the <br> clause as requested to <br> make the bid generic so <br> that multiple <br> OEMs/bidders can <br> participate in the bid. | Should be <br> read as: <br> The Switch <br> should have <br> at lash. 4 GB <br> fevised suggested <br> c. Switch shall have <br> minimum of 4GB or more <br> flash memory. |
| 09 |  | There are no network <br> security \& network |  |  |
| 10 |  | automation features <br> defined for Core Switch, <br> please add these <br> standard features which <br> are supported by all the <br> leading OEMs. <br> Suggested <br> The Switch should <br> support Dynamic ARP <br> Inspection, IP Source <br> Guard, DHCP Snoping, <br> 802.1x authentication, <br> DoS attack prevention, IP <br> MAC Port Binding, <br> Secure Copy, SSHv2, <br> Encrypted Syslog, <br> Openflow 1.3 \& Restful <br> API | Please <br> comply as per <br> our <br> requirement |  |


|  |  |  | Requirements for <br> Network Devices <br> Protection Profile (NDPP) <br> defines the baseline <br> Security Functional <br> Requirements (SFRs) <br> and Security Assurance <br> Requirements (SARs) for <br> network infrastructure <br> devices in general. For <br> more information please <br> visit the URL: <br> https://www.niap- |
| :--- | :--- | :--- | :--- |
| ccevs.org/Product/index.c |  |  |  |,


|  |  |  | Revised suggested c. Switch should have minimum of 1GB RAM and 2 GB Flash. |  |
| :---: | :---: | :---: | :---: | :---: |
| 13 |  |  | Please add this clause to ensure that all the network switches are tested \& certified by an International lab against any security vunerability in software code. <br> The Security Requirements for Network Devices Protection Profile (NDPP) defines the baseline Security Functional Requirements (SFRs) and Security Assurance Requirements (SARs) for network infrastructure devices in general. For more information please visit the URL: <br> https://www.niapccevs.org/Product/index.c fm <br> Suggestion <br> The Switch OS should be EAL/NDPP Certified. The Latest Updated <br> Maintenance Common Criteria Report (Evaluation and Validation) should be submitted. | Please comply as per our requirement |
| 14 | Page 20 <br> Wireless <br> Network <br> Wireless <br> Controlle <br> r | 14. <br> The solution to support au tomatic packet capture in the event of a client failure or anomalous events. | This clause seems favoring to a specific OEM therefore kindly modify the clause to make the bid generic and shall allow other OEM/bidders to participate. <br> Revised suggested 14. <br> The solution to suppo rt automatic packet capture in the event of a | This should be treated as optional feature. |


|  |  |  | client failure or <br> anomalous events or <br> equivalent method. |  |
| :--- | :--- | :--- | :--- | :--- |
| 15 | Page 20 <br> Wireless <br> Network <br> - <br> Distributi <br> on <br> Switch | d. Switch shall have minimum <br> of 16 GB flash. | Every OEM have their <br> own Hardware <br> Architecture to run the <br> required network <br> operations. RAM \& Flash <br> size asked in the RFP, is <br> too high, it seems <br> favoring to a specific <br> OEM and restricting us to <br> bid. Kindly modify the <br> clause as requested to <br> make the bid generic so <br> that multiple <br> OEMs/bidders can <br> participate in the bid. | Should be <br> read as: <br> The Swould have <br> at least 4 GB <br> flash. |
| 16 |  |  | Revised suggested <br> d. Switch shall have <br> minimum of 4 GB flash. |  |
| 17 |  | There are no network <br> security \& network <br> automation features <br> defined for Core Switch, <br> please add these <br> standard features which <br> are supported by all the <br> leading OEMs. <br> Suggested <br> The Switch should <br> support Dynamic ARP <br> Inspection, IP Source <br> Guard, DHCP Snooping, <br> 802.1x authentication, <br> DoS attack prevention, IP <br> MAC Port Binding, | Please, <br> Secure Copy, SSHv2, <br> Encrypted Syslog, <br> comply as per <br> our <br> requirement |  |
| Openflow 1.3 \& Restful |  |  |  |  |
| API |  |  |  |  |


|  |  | The Security <br> Requirements for <br> Network Devices <br> Protection Profile (NDPP) |
| :--- | :--- | :--- | :--- |
| defines the baseline |  |  |
| Security Functional |  |  |
| Requirements (SFRs) |  |  |
| and Security Assurance |  |  |
| Requirements (SARs) for |  |  |
| network infrastructure |  |  |
| devices in general. For |  |  |
| more information please |  |  |
| visit the URL: |  |  |,


|  |  |  | requirements. Switch should support min. 370W PoE power budget or more. | Each AS must have appropriate uplinks ports to connect DS over 10G Base-T Ethernet con nectivity (from DS-to-AS over Cat6a). |
| :---: | :---: | :---: | :---: | :---: |
| 19 | Page 21 | b. Switch should support internal field replaceable unit redundant power supply from day 1. | This is a restrictive clause, Intenal Field replaceable power supply is available in high end switches. This is not available in Access Switches. Therefore request you to please delete this clause. Revised suggested This Clause is deleted | This should be treated as optional feature. |
| 20 | Page 21 | c. Switch should have minimum of 2 GB RAM and 2 GB Flash. | Every OEM have their own Hardware Architecture to run the required network operations. Asked RAM \& Flash size is too high and restricting us to bid. Kindly modify the clause as requested to make the bid generic. Revised suggested c. Switch should have minimum of 1 GB RAM and 2 GB Flash. | Should be read as: The Switch should have at least 4 GB flash. |
| 21 |  |  | There are no network security \& network automation features defined for Core Switch, please add these standard features which are supported by all the leading OEMs. <br> Suggested <br> The Switch should support Dynamic ARP Inspection, IP Source Guard, DHCP Snooping, 802.1x authentication, | Please comply as per our requirement |


|  |  |  | DoS attack prevention, IP MAC Port Binding, Secure Copy, SSHv2, Encrypted Syslog, Openflow 1.3 \& Restful API |  |
| :---: | :---: | :---: | :---: | :---: |
| 22 |  |  | Please add this clause to ensure that all the network switches are tested \& certified by an International lab against any security vunerability in software code. <br> The Security Requirements for Network Devices Protection Profile (NDPP) defines the baseline Security Functional Requirements (SFRs) and Security Assurance Requirements (SARs) for network infrastructure devices in general. For more information please visit the URL: <br> https://www.niap- <br> ccevs.org/Product/index.c <br> fm <br> Suggestion <br> The Switch OS should be EAL/NDPP Certified. The Latest Updated Maintenance Common Criteria Report (Evaluation and Validation) should be submitted. | Please comply as per our requirement |
| 23 | Page 22 <br> Wireless <br> Network <br> Wireless <br> Access <br> Point | 9. If required, Access Point should support dual 5Ghz mode for high density scenarios. | to $1 \times 2.4 \mathrm{Ghz} \& 1 \times 5 \mathrm{Ghz}$ frequency band. This will give option to you to have double bandwidth in 6 Ghz (4.8Gbps) as compare to 5 Ghz (2.4Ghz) frequency band. Therefore request you to please modify the specs as requested. | Please comply |

$\left.\begin{array}{|l|l|l|l|}\hline & & & \begin{array}{l}\text { Revised suggested } \\ \text { 9. If required, Access } \\ \text { Point should support 1 x } \\ \text { 6Ghz frequency band } \\ \text { convertible to 5Ghz and 1 } \\ \text { x 5Ghz mode for high } \\ \text { density scenarios. }\end{array} \\ \hline 24 & \text { Page 22 } & \begin{array}{l}\text { 10. Access Point shall provide } \\ \text { console-based connectivity } \\ \text { that uses standard interfaces } \\ \text { such as RJ45 }\end{array} & \begin{array}{l}\text { Physical access to the } \\ \text { console port is difficult } \\ \text { once the AP is deployed } \\ \text { on the ceiling or wall etc. } \\ \text { and generally Web GUI } \\ \text { management is used for } \\ \text { first time configuration of }\end{array} \\ \text { the access point. }\end{array} \quad \begin{array}{l}\text { Please } \\ \text { comply }\end{array}\right\}$


|  |  |  | (No of switches over 50 and AP's over 4000). Our customer since 2010. Business done over 10 crores. <br> 6) Amity University across all campuses in India. (No of switches over 100 and no of AP's over 1500). Our customer since 2020. Business doe over 15 crores. <br> Sir, recently we have picked-up the order of Homi Bhabha Cancer Hospital (A unit of Tata Memorial Centre) Mullanpur, New Chandigarh worth 2 Crores (26 switches and 155 AP's <br> We have more than 17 years of experience in supply, installation, integration, commissioning, and management of networking projects. IISER is not only a reputed institution but also a reputed research institute and we have done similar networks in IMTCH and CSIO, Chandigarh. <br> We work in the northern domain of India and have a majority of National Institutes of Eminence as our customers. |  |
| :---: | :---: | :---: | :---: | :---: |
| 26 | Clause 3 | Vendor/Bidder must provide a CMMI level 3 certificate for their organization. | Sir, we are an ISO/IEC 27001:2022 and ISO/IEC 9001:2015 certified company. <br> A CMMI level 3 documentation is not | Should be read as : Vendor / bidder must provide a CMMI level 3 or above |

$\left.\begin{array}{|l|l|l|l|}\hline & & & \begin{array}{l}\text { required by a system } \\ \text { integrator company. } \\ \text { Request you to kindly } \\ \text { amend this clause. }\end{array} \\ \hline 27 & \begin{array}{l}\text { Clause } \\ 5\end{array} & \begin{array}{l}\text { SERVICE LEVEL } \\ \text { AGREEMENT AND } \\ \text { WARRANTY: } \\ \text { All the following conditions } \\ \text { must be agreed upon. } \\ \text { theif } \\ \text { organization. }\end{array} \\ & \begin{array}{l}\text { 1. All the components should } \\ \text { have at least 7 years of End- } \\ \text { of-life. } \\ \text { 2. The bidder/ vendor must } \\ \text { provide 24 x } 7 \times 365 \text { days } \\ \text { online support as and when } \\ \text { required. In the event that an } \\ \text { issue is not resolved within 2 } \\ \text { hours (including public } \\ \text { holidays), the bidder must } \\ \text { send their engineer to the site } \\ \text { within 24 hours of the issue } \\ \text { being raised (including public } \\ \text { holidays). If the vendor fails to } \\ \text { provide support within the } \\ \text { specified duration, a penalty of } \\ \text { Rs. 1000 per hour of delay will } \\ \text { be charged, and the penalty } \\ \text { amount will be deducted from } \\ \text { the Bank guarantee. }\end{array} & \begin{array}{l}\text { Request you to kindly } \\ \text { amend response time to } \\ \text { 6 hours and resolution } \\ \text { time 48 to hours. Sir, the } \\ \text { penalty of Rs. 1000/- per } \\ \text { hour is very high and } \\ \text { would request you to } \\ \text { kindly reconsider and } \\ \text { make it minimal per day. }\end{array} & \begin{array}{l}\text { Please } \\ \text { comply and } \\ \text { should be } \\ \text { read as: }\end{array} \\ \begin{array}{ll}\text { The bidder/ } \\ \text { vendor must } \\ \text { provide 24 x } 7 \\ \text { x 365 days } \\ \text { online support } \\ \text { as and when } \\ \text { required. In } \\ \text { the event that } \\ \text { an issue is not }\end{array} \\ \text { resolved } \\ \text { within 2 hours } \\ \text { (including }\end{array}\right\}$

| 28 | Clause 6 | 6) Performance Bank <br> Guarantee: (Page No. 5 Pt. <br> 12) The warranty (if applicable) period after satisfactory installation should be mentioned and firm should replace all manufacturing defect parts/ whole item under warranty without any extra cost including clearance, freight, taxes. Security deposit/Performance Bank Guarantee @ $5 \%$ to $10 \%$ of the value of purchase order as per norms may be sought from the firms, in terms of Ministry of Education, GOI, OM No. F. No. 29-1/2019-IFD dated 06th April, 2023 for compliance of Ministry of Finance, DoE, GOI, OM No.F.1/2/2023-PPD dated 03.04.2023. | Sir, the tender which has the tender value more than 1 cr , the BG is not more than $3 \%$. We therefore request you pls. consider the same. | The security deposit for this tender i.e. PBG is $5 \%$ in terms of Ministry of Education, GOI, OM No. F. No. 29-1/2019-IFD dated 06th April, 2023 for compliance of Ministry of Finance, DoE, GOI, OM No.F.1/2/2023 -PPD dated 03.04.2023. |
| :---: | :---: | :---: | :---: | :---: |
| 29 | per page <br> No. 32 | 7) Payment Terms (As per page No. 32) Payment Terms <br>  <br> Installation: The installation will be in two phases:- <br> a) Phase 1 (to be implemented immediately upon issuing the Order) <br> i) Laying of fibre cable: it should not be more than 21 days from the date of issue of Order. <br> ii) Installation of wireless and LAN in Hostel-3: The wireless has to be implemented first before LAN, the equipment and all accessories required for installation and functioning of the wireless and it should not be more than 21 days from the date of issue of Order. The equipment and all accessories required for installation and functioning of the LAN and it should not be more than 42 days from the date of issue of | Sir, would request you to kindly amend the payment terms as $90 \%$ against delivery and submission of BG and $10 \%$ after successful implementation. Secondly the delivery and installation period should be 6-10weeks for wired networking and for Wi-Fi it should be 10-15weeks, provided there is no site dependency. We would request you to consider the same as all good OEMs have deliveries issues. | This should be read as: <br> Delivery, Installation Schedule, and PenaltiesPhase 1 Installation of wireless and LAN in <br> Hostel-3: The wireless has to be implemented first before LAN, the equipment and all accessories required for installation and functioning of the wireless and it should not be more than 30 days from the date of issue of Order. The |



|  | Verification by the Committee <br> of the Institute and submission <br> of the PBG. |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 30 | Site Personnel: The bidder <br> shall depute one Site Engineer <br> and Site Supervisor on their <br> payroll. The Site Engineer <br> should be OEM certified and <br> have a minimum of 4 years of <br> experience in passive <br> networking. They shall remain <br> present at the site from the <br> start of the project until the <br> completion certificate is <br> issued. If the Site Engineer or <br> Supervisor is absent, recovery <br> shall be made from the bidder <br> at the rate of Rs. 2000/- per <br> day/per person. The bidder <br> shall provide the details of the <br> Site Engineer and Supervisor, <br> including their names, <br> qualifications, and experience, <br> along with the bid. The <br> attendance of these personnel <br> shall be recorded at IISER <br> Mohali. | Site Supervisor has so <br> many sites and can come <br> once a day to take <br> update and progress of <br> work but site engineer <br> would be their working <br> with the team. Would also <br> request you to kindly <br> wave off penalty clause <br> as it's too high. | Please <br> comply. |
| Responsibility: The bidder is <br> responsible for resolving any <br> damage to the passive <br> components caused by other <br> agencies or external parties. <br> IISER Mohali shall not be held <br> accountable for addressing <br> such issues. |  |  |  |


|  | 7. Juniper |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| S. <br> No | Page <br> No/ <br> Clause <br> No./ <br> Sub- <br> clause <br> No. | Clause Particulars | Clarification <br> sought / <br> Revised <br> suggested | Response |


| 01 | Page 14 Clause iii(a) | Wireless controller (WLC): This is to provide all the wireless connectivity to each hostel, and it must be placed at the network rack in CC. Uplink must be connected to the CS. | Please allow cloud based controller as well for larger participation. | Please Comply |
| :---: | :---: | :---: | :---: | :---: |
| 02 | Page 16 <br> 1.2.1 <br> Core <br> Switch <br> specific <br> ations, <br> S No 1 <br> a | The Switch will be populated with $24 \times 10 \mathrm{G}$ or more connectivity for uplink to DS in hostels (the vendor must check the distance of fibre for this connectivity) $2 \times 40 \mathrm{G}$ or more connectivity to Main Core Switch Should support virtual chassis functionality for integration with multiple switches | Please amend this clause to The switch should have a 24 SFP+ (10G) native fiber ports from day one. In addition to this, there should be a provision for 2 x 40/100G ports.Should support virtual chassis functionality with two dedicated 100GbE ports to support virtual chassis connections. | Please comply and should be read as: $24 \times 10 \mathrm{G}$ (Core-to-DS over fibre connection). <br> $2 \times 40 \mathrm{G}$ uplink. <br> (At least 2 ports of at 40G or more bandwidth connectivity ) <br> The uplink connectivity will be done through 10G connectivity (fibre connection) Vendor must provide cable including transceiver for uplinking. <br> Should <br> support <br> virtual <br> chassis <br> functionality for integration with multiple switches <br> or <br> The switch |


|  |  |  |  | should at least support stackable features, thus the vendor must provide appropriate ports and required hardwares/it ems to support these features and it will be in the scope of the vendor to stack the switches. |
| :---: | :---: | :---: | :---: | :---: |
| 03 | Page 16 1.2.1 <br> Core <br> Switch <br> specific <br> ations, <br> S No 1 <br> C | Switch should have non-blocking per-slot throughput from day 1. | Please delete this clause. <br> Justification Fixed switches don't have per slot kind of feature. Chassis based switches have per slot configuration | Please comply |
| 04 | Page 16 1.2.1 <br> Core <br> Switch specific ations, S No 1 E | Switch should support field replaceable components such as Supervisor, Line cards, powersupply and Fan trays. | Please delete this clause. <br> Justification <br> This is not a Chassis based switch but if, two core switches will be used each switch in VC will be backup for another in terms of supervisor | Please comply and should be read as: Power Supply and fan: $\mathrm{N}+1$ redundant power supply fans should be provided. |
| 05 | $\text { Page } 17$ $1.2 .1$ | Should have minimum of 16 GB Flash or more with optional SSD to host 3rd party | Please amend this clause to | Should be |


|  | Core Switch specific ations, S No 1 F | container-based application. | Should have minimum of 16 GB Flash or more Justification 16GB Flash is there but optional SSD to host 3rd party containerbased application is not there. This is specific to a particular OEM and hence should be removed. | read as : <br> Switch should have at least 4GB flash memory. |
| :---: | :---: | :---: | :---: | :---: |
| 06 | $\begin{aligned} & \text { Page } 17 \\ & 1.2 .1, \mathrm{~S} \\ & \text { No } 1 \mathrm{~J} \end{aligned}$ | During system boots, the systems software signatures should be checked for integrity. System should be capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware \& BIOS are authentic. | Specific to a particular OEM only, Kindly remove this clause. | This may be treated as optional. <br> Should be read as: Vendors must ensure the integrity of data, licenses, software, firmware. In case of failure of any such components (data, licenses, software, firmware) resulting in non functioning of switch(s), the vendor must solve the problem within time mentioned in the T\&C. |


| 07 | Page 17 <br> Distribut ion <br> Switch - <br> Wired <br> Network <br> , S No 1 <br> a | Switch should have at least $24 \times 10 \mathrm{G}$ or more Copper connectivity Must have appropriate uplinks ports to connect CS for 10G Connectivity (HA mode) | Please amend this clause to The Switch should have a 24x-port 10GbE Copper and 2 x 10 G SFP+ ports from day-1. | Please comply <br> Should be read as: Switch should have at least 24 x 10GBase-T Ethernet connectivity (Cat6a). This is for the connectivity from DS-toAS <br> Each DS must have appropriate uplinks ports to connect CS over 10G fibre connectivity from DS-toCS. <br> DS in each hostel should be configured in HA mode, thus the vendor must ensure all required items/softwar e for the same. |
| :---: | :---: | :---: | :---: | :---: |
| 08 | Page 18 Distribut ion Switch Wired Network , S No 2 E | During system boots or OS upgrades, the system's software should be checked for integrity | Specific to a particular OEM only, Kindly remove this clause. | This may be treated as optional. Should be read as : Vendors must ensure the integrity of data, licenses, software, firmware. In case of |

$\left.\begin{array}{|l|l|l|l|l|}\hline & & & & \begin{array}{l}\text { failure of any } \\ \text { such } \\ \text { components } \\ \text { (data, } \\ \text { licenses, } \\ \text { software, }\end{array} \\ \text { firmware) } \\ \text { resulting in } \\ \text { non } \\ \text { functioning } \\ \text { of switch(s), } \\ \text { the vendor } \\ \text { must solve } \\ \text { the problem } \\ \text { within time } \\ \text { mentioned in } \\ \text { the T\&C. }\end{array}\right\}$

| 8 |  | The Access <br> List is for <br> Routers, <br> Switches or <br> Firewall, APs <br> support <br> WxLAN policy <br> creation so |  |
| :--- | :--- | :--- | :--- | :--- |
| that even |  |  |  |
| Layer-7 |  |  |  |
| policies can |  |  |  |
| be created. |  |  |  |$\quad$.


|  |  |  | day-1. The switch should have a PoE budget of 740 Watts from day-1 \& Should also support PoE Standards IEEE 802.3af, and 802.3at Justification Total number of switches for wireless networks are 6 , therefore 8 10GBE <br> copper ports are sufficient considering 2 for future expansion.Als o 6 number of POE switches can provide power to 72 number of access points only. <br> Therefore asking for POE distribution switch with 16GBE ad on will make sense and it will add another 16 POE ++ ports that will give power to 16 access points.Therefo re for one hostel one can provide power to 88 access points. | Ethernet connectivity ports. This is for the connectivity from DS-toAS over Cat6a. <br> Each DS must have appropriate uplinks ports to connect to CS over 10G fibre connectivity (from DS-toCS uplink). |
| :---: | :---: | :---: | :---: | :---: |
| 13 | Page 20 Distribut ion | Switch shall have minimum of 16 GB flash | Please amend the clause to Switch shall | Should be read as: Switch |


|  | Switch - <br> Wireless Network , S No 1 d |  | have minimum of 8 GB flash. Justification Since only 6 access swicthes are going to connect to distribution switches, therefore 8 GB flash is enough. 16 GB flash will add to unnecessary cost. | should have at least 4GB flash memory. |
| :---: | :---: | :---: | :---: | :---: |
| 14 | Page 21 Distribut ion Switch Wireless Network , S No 2 E | During system boots or OS upgrades, the system's software should be checked for integrity | Specific to a particular OEM only, Kindly remove this clause. | This may be treated as optional. <br> Should be read as: Vendors must ensure the integrity of data, licenses, software, firmware. In case of failure of any such components (data, licenses, software, firmware) resulting in non functioning of switch(s), the vendor must solve the problem within time mentioned in the T\&C. |
| 15 | Page 21 <br> Access <br> Switch - | The switch should have minimum of 12 x 1G or more to provide <br> connectivity to wireless APs through p | Please amend this clause to The Switch | Please comply |


|  | Wireless Network , 1 A | roper cat cables as per requirements. Each port should provide an appropriate power budget to support the wireless APs. The number of APs per AS must be appropriately calculated as per our requirement mentioned in the Annexu re - I and must provide a detail power budget in the tender. <br> Must have appropriate uplink ports to connect DS for 10G Connectivity | should have a $24 x$ ports of 10/100/1000 BASE-T and 2 x 1G/10G SFP+ ports from day1,The switch should have a minimum PoE budget of 370 Watts from day-1 \& Should also support PoE Standards IEEE 802.3af, and 802.3at | Should be read as: <br> Switch should have at least 24 x 1GBase-T Ethernet connectivity ports (PoE/PoE+). This is for the connectivity from AS-toAP. Each port should provide an appropriate power budget to support the required number of wireless APs (as per annexure- <br> 4). <br> Each AS must have appropriate uplinks ports to connect DS over 10G Base-T Ethernet co nnectivity (from DS-toAS over Cat6a). |
| :---: | :---: | :---: | :---: | :---: |
| 16 | Page 22 <br> Wireless <br> Access <br> Point, S <br> No 5 | Access Point shall support encrypted traffic visibility | Please delete this clause. This is firewall functionality. | This may be treated as an optional feature. <br> Should read as: <br> Vendors must ensure the encrypted traffic flow. |


| 17 | Page 22 <br> Wireless <br> Access <br> Point, S <br> No 10 | Access Point shall provide consolebased connectivity that uses standard interfaces such as RJ45 | Please delete this clause for wider participation Justification After deployment the console port becomes useless as someone has to either bring down the AP to connect to console or stand on a ladder. Also, as APs are out in open it becomes a security issue as well if some unauthorized person connects to AP via Console. | Please comply |
| :---: | :---: | :---: | :---: | :---: |
| 18 | Page 22 <br> Wireless <br> Access <br> Point, S <br> No 16 | Must support telnet and/or SSH login to APs directly for troubleshooting flexibility. | Please delete this clause for wider participation Justification After deployment the console port becomes useless as someone has to either bring down the AP to connect to console or stand on a ladder. Also, as APs are out in open it becomes a security issue as well if some unauthorized | Please comply |


|  |  |  | person <br> connects to <br> AP via <br> Console. |  |
| :--- | :--- | :--- | :--- | :--- |

