

## CORRIGENDUM

Consequent upon the Pre-Bid meeting held on 18.01.2017 in reference to Tender IIT(BHU)/IPCell/2016-17/Networking/1202 dated 07.1.2017 for Supply, Installation, Integration, Commissioning and Managing of IIT (BHU), Varanasi Campus Wide Local Area Network (Wired and Wi-fi), the following changes are made in Tender Document. The Referred content in Col. No. 2 and 3 may be read as appended in Col. No. 4:

| Sl. No.<br>(col. 1) | Page No.<br>(col. 2) | Item No.<br>(col. 3) | Referred content should be read as (col. 4)   |
|---------------------|----------------------|----------------------|---|
| 1                   | 7                    | 1.7                  | The bidder/ OEM must have executed a single order of 5000 nodes or two orders of 4000 nodes of the quoted Active product of OEM, in last five years in one of the IITs or equivalent Educational Institution/University/Govt. Organization (Certified copies of successful work execution certificate clearly stating the no. of nodes in a single order to be submitted as proof). The bidder, however, should have partnership with the OEM for at least last 3 years.  |
| 2                   | 7                    | 1.8                  | All passive network components quoted by the bidder should be from a single OEM only. The OEM of passive components should provide UL/ETL or equivalent certification for the full channel link. The Bidder should submit all the required standard reports and certificates of the passive materials failing which the bid will be disqualified. The OEM of passive component is required to provide the performance warranty of minimum 25 years from the date of commissioning the LAN. (Proper Certificate from OEM MUST also be attached). |
| 3                   | 7                    | 1.9                  | This clause has been omitted.   |
| 4                   | 7                    | 1.12                 | All active network devices (Wired, Wireless) and Network Management System (NMS) (excluding Router, Outdoor access Point, NGFW and QoS/Bandwidth Manager) quoted by the bidder should be from a single OEM only and it should be supported suitably by Single NMS. The NMS should have the capabilities to support the existing Network, with single pane of glass. (The bidder should submit a certificate to this effect).  |
| 5                   | 8                    | 1.18                 | All materials (all active network components) to be procured by the bidder should be from an OEM which has not been acquired/ or likely to be acquired by any other business entities during the period of last 5 years till the last date of bid submission. This is to ensure dependable and continuous support for the next 7 years as per warranty requirements and lifecycle of the network.   |
| 6                   | 8                    | 1.20                 | The OEM of passive components should provide UL/ETL or equivalent certification for the full copper channel link (UL/ETL 4 connector test report) with at least 5 dB NEXT headroom also the individual copper components and fiber cable should be listed in UL/ETL or equivalent.  |
| 7                   | 8                    | 1.21                 | OEM of passive components should support copper channel for 6 connections with minimum 3dB NEXT headroom (UL/ETL or equivalent report need to be submitted).  |
| 8                   | 8                    | 1.22                 | All the fiber cable should be single mode fiber cable with zero/ low water peak construction.   |
| 9                   | 8                    | 1.23                 | The bidder /OEM should provide test reports generated from any testing software/ device for minimum 1000 nodes in support of experience to  |

|    |    |            |  |
|----|----|------------|--|
|    |    |            | executing such requirement of margin (3 dB or higher) for Cat 6A and (6 dB or higher) for CAT 6 of NEXT (worst case) for entire frequency range specified in ISO/IEC 11801 or equivalent.  |
| 10 | 8  | 1.25       | The Cat 6 Cable should be complied with IEC 60332-3-22 features for environment safety (UL/ETL/ABS or equivalent report need to be submitted).   |
| 11 | 10 | 7.3 (c)    | The price quoted by the tenderer should be exclusive of Custom/Excise Duty & Sales Tax. However, the Custom/Excise Duty & Sales Tax payable should be quoted separately in the schedule enclosed. The Institute will provide the valid exemption certificate.  |
| 12 | 11 | 9          | Prices shall be quoted both in Indian Rupees and/or in US Dollars (\$) only. In case of direct import the prices may be indicated in the US Dollars (\$).The Institute may, at its discretion, arrive at approximate Rupee equivalent on the basis of exchange rate on the date of opening of price bid. The Institute shall refer the exchange rate as available on RBI reference rate archive on the date of Financial Bid opening for conversion of foreign currency into INR for comparison purpose. Further, High Sea Sale agreement is also permissible. |
| 13 | 17 | 13.2       | This warranty shall remain valid for at least 36 months (or as specified) after the Goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, unless specified otherwise.   |
| 14 | 53 | 1          | ANSI/TIA/EIA 568-B Commercial Building Telecommunications Cabling Standard – March 2001 or as per its latest updates   |
| 15 | 53 | 2          | ANSI/EIA/TIA-569-A Commercial Building Standard for Telecommunications Pathways and Spaces - February, 1998 or as per its latest updates   |
| 16 | 53 | 3          | ANSI/EIA/TIA-606 Administration Standard for the Telecommunications Infrastructure of Commercial Buildings - February, 1993 or as per its latest updates   |
| 17 | 53 | 4          | ANSI/TIA/EIA-607 Commercial Building Grounding and Bonding Requirements for Telecommunications - August, 1994 or as per its latest updates   |
| 18 | 53 | 8          | Passive OEM should have presence in India for more than 07 Years   |
| 19 | 56 | 10         | Max. Tensile Strength – Short Term: 2300 N or more (and as applicable)   |
| 20 | 57 | 2          | Central Strength Member (for 24 Core fibre): Fibre Reinforced Plastic(FRP) / Ribbon central tube or similar.   |
| 21 | 57 | 6          | Peripheral Strength Member (for 12 Core fibre) : Two Steel wires / FRP Rods/ Steel Strength Rods   |
| 22 | 60 | 6          | Diameter (Nominal): 12 Core 6.7 mm   |
| 23 | 60 | 7          | Mass (Nominal): 12 Core 50 kg/km or more   |
| 24 | 62 | 2          | The depth of the rack should be 800D and fitted with front door. The front door should be fitted with good quality transparent glass   |
| 25 | 66 | 16, Col. 3 | UPS (For Core, Distribution, Access Switches with SNMP monitoring, SMF Batteries and with 60 min. backup at Full Load)<br>a) 02 x 10 kVA On-line UPS for Core Switch (60 mints backup at Full Load of UPS and with SNMP and SMF Batteries)<br>b) 30 x 3 kVA On-line UPS for Distribution Switch (60 mints backup at full load of switch and with SNMP  |

|   |    |                 |  |
|---|----|-----------------|--|
|   |    |                 | c) 150 x 1 kVA Off-line UPS for Access Switch (60 mints backup at Full Load of switch and with SNMP and SMF Batteries)   |
| 26  | 66 | 16, Col. 5      | Per Unit Cost against specified quantity and specifications.<br>The UPS proposed should be from well established brands such as APC/ Emersion/ Eaton or similar. |
| 27  | 67 | Below item 10   | One row # 11 has been inserted below row # 10.<br>“144 core Outdoor armored cable - SM (OS2) HDPE Sheath” with Qty. 40,000 mtrs.                                 |
| 28  | 67 | Above item # 15 | One row # 15* has been inserted above row # 15<br>“144 Port Rack Mount FMS loaded with splice Tray and cable spool” with Qty.= 30                                |
| 29  | 67 | Row 15          | At column 5, the Qty. = 30   |
| 30  | 71 | Full Page       | As below: Page – 71 of 73  |
| 31  | 72 | Full Page       | As below: Page – 72 of 73  |
| 32  | 73 | Full Page       | As below: Page – 73 of 73  |
| <b>The Annexure – F Price Bid, provided in Excel Sheet, has been revised and attached.<br/>Please use the revised Excel Sheet for Price Bid Submission.</b> |    |                 |  |

**PRICE BID**

(To be submitted in a Separate Sealed Envelope)

**(by using the Excel Sheet uploaded separately on the Institute Website in soft copy in CD and in duly signed hard copy, both)**

(Super-scribed as Price Bid on a separate envelope)

**Quote for Price Bid Evaluation:**

**(To be opened only after Essential Pre-Bid Criteria evaluation and Technical Bid Evaluation)**

| <b>S. N.</b> | <b>Item</b>  | <b>Qty</b>  | <b>Rate</b> | <b>Price</b> |
|--------------|--|---|-------------|--------------|
| 1            | Aggregation Service Switches   | 2   |             |              |
| 2            | NGFW with required optics  | 2   |             |              |
| 3            | Quality of Service (QoS) Manager with required optics  | 2   |             |              |
| 4            | Core Switch with required optics   | 2   |             |              |
| 5            | Distribution Switch with required optics   | 30  |             |              |
| 6            | 24 Ports POE+ Layer 2 Access Switch with required optics   | 86  |             |              |
| 7            | 48 Ports POE+ Layer 2 Access Switch with required optics   | 140   |             |              |
| 8            | AAA  | 2   |             |              |
| 9            | NMS  | 2   |             |              |
| 10           | WLAN Controller  | 2   |             |              |
| 11           | Indoor Access Point (With strong coverage of inside the each Hostel rooms & Departments)   | 650   |             |              |
| 12           | Outdoor Access Point (With coverage in open area in the Hostels, Grounds and Departments)  | 50  |             |              |
| 13           | OTDR   | 02  |             |              |
| 14           | Optical Fibre Fusion Splicer   | 02  |             |              |
| 15           | Passive Components including laying  | As per Annexure A & Annexure D                              |             |              |
| 16           | 2.0 T Air Conditioner (For Core Switch)  | 02  |             |              |
| 17           | UPS (For Core, Distribution and Access Switches with SNMP monitoring, SMF Batteries and with 60 min. backup at Full Load)<br>02 x 10 kVA On-line UPS for Core Switch<br>30 x 3 kVA On-line UPS for Distribution Switch<br>150 x 1 kVA Off-line UPS for Access Switch | Per Unit Cost against specified quantity and specifications |             |              |
| 18           | Supply, installation, configurations (and reconfigurations, updates and modifications), integration, commissioning and operations starting from go-live and till the end of contract period  | Complete network  |             |              |

| <b>S. N.</b> | <b>Item</b>   | <b>Qty</b>       | <b>Rate</b> | <b>Price</b> |
|--------------|---|------------------|-------------|--------------|
| 19           | Campus LAN Installation and Operations Staff & Helpline software  | As per Annex. C  |             |              |
| 20           | Complete Network Documentation and Configuration back-up (both in hard and soft copy)   | As per BoQ       |             |              |
| 21           | Complete Network Management Training for Institute Networking Staff (Three 6-day live with documented learning material with recorded videos) | As per BoQ       |             |              |
| 22           | OFC Laying, digging etc. : Outdoor, Indoor (As per Annexure A & D)  | As per BoQ       |             |              |
| 23           | AMC for 4 <sup>th</sup> year (Payable in 4thYear)   | Complete network |             |              |
| 24           | AMC for 5 <sup>th</sup> year (Payable in 5thYear)   | Complete network |             |              |
| 25           | Miscellaneous (if any) (Submit details and justifications)  |                  |             |              |
|              | <b>TOTAL PRICE (INR)</b>  |                  |             |              |

**NOTE:**

1. The bidder needs to ensure smooth integration with existing recently upgraded 9 hostels with centralized user policy enforcement and management for both wired and wireless users across the campus. The details of the active devices are:
  - (i) Make (Model) : CISCO (WS-C2960X-48LPD-L) ITEM – Access Switch Qty. 85
  - (ii) ACCESS POINTS – CISCO MAKE CISCO AIR-CAP3702I-D-K9 (802.11A/B/G/N/AC), CONTROLLER BASED WIRELESS ACCESS POINT QTY. 220
  - (iii) AP CONTROLLER LICENSE – CISCO MAKE, 50 AP ADDER LICENSE FOR THE 5508 Wireless Controller Qty.5

The Institute intends to protect the investment made recently for upgrading its 9 hostels. Thus, it is essential for the bidders to maintain the terms and conditions cited in the mandatory undertaking Annexure –E.

**Page no. of 73 73 of Tender Document may be Read as under**

2. Existing upgraded hostels (9) switches and Access Points quantity not included in the above BOQ. Aggregation Switches with optics may be purchased later by IIT BHU if required for smooth integration.
3. Bidder needs to provision necessary Spares for each category to meet the uptime SLA.
4. All Optical Fibre etc. in Outdoor and Indoor must be freshly laid, in PLB HDPE, as specified in Annexure A.
5. Bidder shall ensure the availability of Network grade electrical wiring (Earthing etc.). Further, if needed, the bidder shall implement such wiring in consultation with the Networking Committee, at a cost which may be considered by the Institute as additional to this Tender.
6. Bidder needs to provision minimum Campus LAN Installation and Operations Staff in the Campus for managing day to day call activities / troubleshooting, as per Annexure - D.
7. The complete network MUST be quoted with 3 Years comprehensive warranty and direct OEM 24x7 Technical Assistance Call (TAC) support (NBD).
8. AMC for 4<sup>th</sup> and 5<sup>th</sup> year to be quoted separately which would be paid in respective years.
9. All the building switches (Core, Distribution and Access) MUST have redundant fibre connectivity to provide high availability.
10. The UPS proposed should be from well established brands such as APC/ Emerson/ Eaton or similar.
11. The UPS should have three year's unconditional warranty with NBD replacement policy.
12. The Batteries should have three year's unconditional warranty with NBD replacement policy.
13. The Batteries proposed should be from well established brands such as Exide/ Amara Raja or similar.
14. Minimum fibre uplink back bone should be as follows:
  - Core to Core uplinks – 4 x 40G QSFP+
  - Core to Distribution uplinks – 2 x 10G QSFP+
  - Distribution to Distribution Ring – 2 x 10G QSFP+
  - Distribution to Hostel Building Access Switches Uplinks - 2 x 1G SFP
  - Distribution to Non - Hostel Building Access Switches Uplinks - 2 x 1G SFP

**IMPORTANT NOTE:** The comprehensive warranty of the complete network will be for 3 years as given in item 7 of this page. Any other warranty period mentioned in this Tender elsewhere will NOT be applicable.

**Last Date of Bid Submission is extended to 6<sup>th</sup> February, 2017 (upto 13:00 Hrs) from 31<sup>st</sup> January, 2017.**

**Bid Opening : 6<sup>th</sup> February, 2017 at 15:30 Hrs**

**Venue: Chamber of the Head, Department of Electronics Engineering, IIT(BHU), Varanasi-221005**

**The remaining content of the Tender will remain unchanged.**

**Sd/-**

**Date: 23.01.2017**

**(REGISTRAR)**







|    |   |  |  |  |  |  |  |  |  |  |       |  |  |
|----|---|--|--|--|--|--|--|--|--|--|-------|--|--|
| 34 | Pigtail LC SM (OS2) Simplex-1.5 Mtr   |  |  |  |  |  |  |  |  |  | 1500  |  |  |
| 35 | 144-288 Port Joint Enclosure Used in Aggregation Building for OFC maintenance Pit         |  |  |  |  |  |  |  |  |  | 5     |  |  |
| 36 | LC duplex Adaptors/ Couplers  |  |  |  |  |  |  |  |  |  | 300   |  |  |
| 37 | LC to LC Fiber Duplex patch cord (OS2),3 Mtrs   |  |  |  |  |  |  |  |  |  | 1500  |  |  |
| 38 | 12 Port Rack Mount LIU loaded with Splice Tray and Cable spool                            |  |  |  |  |  |  |  |  |  | 10    |  |  |
| 39 | Pigtail LC MM SM Simplex-1.5 Mtr  |  |  |  |  |  |  |  |  |  | 100   |  |  |
| 40 | LC duplex Adaptors/ Couplers  |  |  |  |  |  |  |  |  |  | 30    |  |  |
| 41 | LC to LC Fiber Duplex patch Cord (OM3), 3Mtrs   |  |  |  |  |  |  |  |  |  | 100   |  |  |
| 42 | 1" PVC Conduit Medium with necessary fixtures - in mtrs                                   |  |  |  |  |  |  |  |  |  | 40000 |  |  |
| 43 | 1.5" PVC Conduit Medium with necessary fixtures - in mtrs                                 |  |  |  |  |  |  |  |  |  | 25000 |  |  |
| 44 | 25mm Casing Capping   |  |  |  |  |  |  |  |  |  | 7500  |  |  |
| 45 | 32mm Casing Capping   |  |  |  |  |  |  |  |  |  | 6000  |  |  |
| 46 | 19" 42 U Floor Mount rack with necessary accessories                                      |  |  |  |  |  |  |  |  |  | 10    |  |  |
| 47 | 19" 12 U Wall Mount rack with necessary accessories                                       |  |  |  |  |  |  |  |  |  | 200   |  |  |
| 48 | Rack mounting hardware/kit for mounting active and passive component in rack (Pack of 10) |  |  |  |  |  |  |  |  |  | 50    |  |  |
| 49 | OFC route marker concrete   |  |  |  |  |  |  |  |  |  | 1500  |  |  |
| 50 | ISI mark Class-B 50MM GI Pipe - in mtrs   |  |  |  |  |  |  |  |  |  | 4000  |  |  |
| 51 | ISI mark HDPE pipe (1.5 inch) - in mtrs   |  |  |  |  |  |  |  |  |  | 4000  |  |  |
| 52 | ISI mark Class-B 75MM GI Pipe - in mtrs   |  |  |  |  |  |  |  |  |  | 4000  |  |  |
| 53 | Velcro Tie 15 Mtr Roll  |  |  |  |  |  |  |  |  |  | 50    |  |  |
| 54 | Cable Tie 100 mm size (Pkt of 100)  |  |  |  |  |  |  |  |  |  | 50    |  |  |
| 55 | 50mm PLB Duct for Laying OFC - in mtrs  |  |  |  |  |  |  |  |  |  | 12000 |  |  |
| 56 | 40mm PLB Duct for Laying OFC - in mtrs  |  |  |  |  |  |  |  |  |  | 10000 |  |  |
| 57 | Couplers for 50MM PLB Duct  |  |  |  |  |  |  |  |  |  | 500   |  |  |
| 58 | 50mm GI Pipe for Crossing Roads and Bridges (Lump sum) - in mtrs                          |  |  |  |  |  |  |  |  |  | 1000  |  |  |
| 59 | Coupler/Bend for 50MM GI Pipe (Lump sum)  |  |  |  |  |  |  |  |  |  | 200   |  |  |
| 60 | Casing Capping 25MM   |  |  |  |  |  |  |  |  |  | 64309 |  |  |
| 61 | 25mm PVC Conduit with Accessories - in mtrs   |  |  |  |  |  |  |  |  |  | 5000  |  |  |
| 62 | 32mm PV Conduit with Accessories - in mtrs - in mtrs                                      |  |  |  |  |  |  |  |  |  | 5000  |  |  |
| 63 | 50mm PVC Conduit with Accessories - in mtrs   |  |  |  |  |  |  |  |  |  | 2000  |  |  |
| 64 | 25mm Reinforced PVC Flexible with Accessories (Lump sum) - in mtrs                        |  |  |  |  |  |  |  |  |  | 500   |  |  |
| 65 | 25mm GI Flexible with Accessories (Lump sum) - in mtrs                                    |  |  |  |  |  |  |  |  |  | 500   |  |  |
| 66 | Soft Soil Digging, Laying of 50mm GI Pipe and Refilling (Lump sum) - in mtrs              |  |  |  |  |  |  |  |  |  | 1000  |  |  |

|    |  |  |  |  |  |  |  |  |  |  |                                |  |          |
|----|--|--|--|--|--|--|--|--|--|--|--------------------------------|--|----------|
| 67 | Hard Soil Digging, Laying of 50mm GI Pipe and Refilling (Lump sum) - in mtrs   |  |  |  |  |  |  |  |  |  | 2000                           |  |          |
| 68 | Road Cutting, Laying of GI Pipe and Repairing (Lump sum) - in mtrs   |  |  |  |  |  |  |  |  |  | 1000                           |  |          |
| 69 | Trenchless Digging and Laying 1-2 Nos. 50mm PLB Duct - in mtrs   |  |  |  |  |  |  |  |  |  | 20000                          |  |          |
| 70 | Cable Chamber  |  |  |  |  |  |  |  |  |  | 200                            |  |          |
|    | <b>FMS</b>   |  |  |  |  |  |  |  |  |  |                                |  |          |
| 71 | Project Manager  |  |  |  |  |  |  |  |  |  | 1                              |  |          |
| 72 | Project Implementation and Coordination Team   |  |  |  |  |  |  |  |  |  | 5                              |  |          |
| 73 | Network team members - HELPDESK  |  |  |  |  |  |  |  |  |  | 5                              |  |          |
| 74 | Helpdesk Coordinator   |  |  |  |  |  |  |  |  |  | 2                              |  |          |
|    | <b>OTHER COMPONENTS</b>  |  |  |  |  |  |  |  |  |  |                                |  |          |
| 75 | 2.0 T Air Conditioner (For Core Switch)  |  |  |  |  |  |  |  |  |  | 2                              |  |          |
| 76 | 10 kVA On-line UPS for Core Switch (60 mints backup at Full Load of UPS and with SNMP and SMF Batteries)   |  |  |  |  |  |  |  |  |  | 2                              |  |          |
| 76 | 3 kVA On-line UPS for Distribution Switch (60 mints backup at full load of UPS and with SNMP and SMF Batteries)  |  |  |  |  |  |  |  |  |  | 5                              |  |          |
| 77 | 1 kVA Off-line UPS for Access Switch (60 mints backup at Full Load of UPS and with SNMP and SMF Batteries)   |  |  |  |  |  |  |  |  |  | 150                            |  |          |
| 78 | Supply, installation, configurations (and reconfigurations, updates and modifications), integration, commissioning and operations starting from go-live and till the end of contract period (complete network) |  |  |  |  |  |  |  |  |  | 1                              |  |          |
| 79 | Complete Network Management Training for Institute Networking Staff (Three 6-day live with documented learning material with recorded videos)  |  |  |  |  |  |  |  |  |  | 1                              |  |          |
| 80 | Miscellaneous (if any) (Submit details and justifications)   |  |  |  |  |  |  |  |  |  | 1                              |  |          |
|    |  |  |  |  |  |  |  |  |  |  | <b>GROSS TOTAL VALUE (X) =</b> |  |          |
|    |  |  |  |  |  |  |  |  |  |  | (Sum of K Columns)             |  | <b>0</b> |

Date:

Place:

Note:-

1. The value of Gross Total Value for L1 (X) = Sum of K Columns.
2. AMC RATE SHALL NOT BE COUNTED FOR L1 PRICE BID.
3. AMC RATE WOULD BE DIVIDED BY 2 FOR 4TH & 5TH YEAR FROM TOTAL QUOTED AMC PRICE.
4. Applicable taxes will be paid as per actuals on the basis of the prevailing rates in Uttar Pradesh.
5. The UPS should have three year's unconditional warranty with NBD replacement policy.
6. The UPS proposed should be from well established brands such as APC/ Emerson/ Eaton or similar.
7. The Batteries should have three year's unconditional warranty with NBD replacement policy.
8. The Batteries proposed should be from well established brands such as Exide/ Amara Raja or similar.