भारतीय प्रौद्योगिकी संस्थान तिरुपति
Indian Institute of Technology Tirupati
Renigunta Road, Settipalli Post, Tirupati - 517506
Telephone: 0877-2503572, Email: purchase@iittp.ac.in

# NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF WIRED ACTIVE COMPONENTS <br> <br> (E-PROCUREMENT MODE ONLY) 

 <br> <br> (E-PROCUREMENT MODE ONLY)}

## CORRIGENDUM-V

| S.No. | TENDER CLAUSE NO. | In place of | To be read as |
| :---: | :--- | :--- | :--- |
| 1 | $\begin{array}{l}\text { Corr: I, Pg. No. 16, Item } \\ \text { No. 3) 48-port MGig } \\ \text { access switch, S.No. 2b }\end{array}$ | $\begin{array}{l}\text { Switch shall have minimum 32K } \\ \text { MAC Addresses and 4K active } \\ \text { VLANs }\end{array}$ | $\begin{array}{l}\text { Switch shall have minimum 32K MAC } \\ \text { addresses and 4K VLAN IDs }\end{array}$ |
| 2 | $\begin{array}{l}\text { Corr: I, Pg. No. 18, Item } \\ \text { No. 4) 24-port MGig } \\ \text { access switch, S.No. 2b }\end{array}$ | $\begin{array}{l}\text { Switch shall have minimum 15K } \\ \text { MAC Addresses and 4K active } \\ \text { VLANs }\end{array}$ | $\begin{array}{l}\text { Switch shall have minimum 32K MAC } \\ \text { addresses and 4K VLAN IDs }\end{array}$ |
| 3 | $\begin{array}{l}\text { Corr: I, Pg. No. 7, N/w } \\ \text { functional req. (S.No. 17) }\end{array}$ | $\begin{array}{l}\text { Separate (respective) stacking for } \\ \text { mGig switches and other } \\ \text { switches. uplink modules and } \\ \text { uplink ports to be provided } \\ \text { accordingly }\end{array}$ | $\begin{array}{l}\text { Stacking across 24-port and 48-port } \\ \text { mGig access switches to be compatible. } \\ \text { Stacking across 24-port and 48-port } \\ \text { PoE (non-mGig) and NPoE access } \\ \text { switches to be compatible. }\end{array}$ |
| 4 | $\begin{array}{l}\text { Corr: I, Pg. No. 4, N/w } \\ \text { functional requirements } \\ \text { (S.No. 19) }\end{array}$ | $\begin{array}{l}\text { Distribution racks wherever } \\ \text { connected by 1:1 inside building } \\ \text { are located by more than 50m, } \\ \text { therefore, stacking cables to be } \\ \text { provided separately }\end{array}$ | $\begin{array}{l}\text { This clause is removed. }\end{array}$ |
| 5 | $\begin{array}{l}\text { S.No.3, Pg. No. 1, i) in } \\ \text { Corr: II, N/w functional } \\ \text { req. (associated with new } \\ \text { clause addition S.No. 21 } \\ \text { in Corr. I) }\end{array}$ | $\begin{array}{l}\text { i) The proposed solution should } \\ \text { support all required features to } \\ \text { perform above mentioned } \\ \text { capabilities for up to 10,000 } \\ \text { endpoints with license for 5,000 } \\ \text { endpoints from day one. }\end{array}$ | $\begin{array}{l}\text { i) The proposed solution should support } \\ \text { all required features to perform above } \\ \text { mentioned capabilities with below } \\ \text { perpetual licenses from day one: } \\ \text { Authentication and access for 6,000 } \\ \text { concurrent users, } \\ \text { BYOD/Onboarding personal devices- }\end{array}$ |
| 1,000 (floating license type), and |  |  |  |\(\left.\left|\begin{array}{l}Posture/Health check devices-1,000 <br>

(floating license type).\end{array}\right| $$
\begin{array}{l}\text { xv) Shall support following: operating } \\
\text { systems for endpoint posture checking - } \\
\text { Microsoft Windows, Apple macOS, }\end{array}
$$\right\}\)

|  | clause addition S.No. 21 in Corr. I) | Windows 7, Apple macOS , Linux - Ubuntu , Linux - RHEL, and Linux - <br> CentOS for security posture checking . | Linux - Ubuntu, Linux -RHEL, and Linux -CentOS/SUSE for security posture checking. |
| :---: | :---: | :---: | :---: |
| 7 | S.No.3, Pg. No. 4, in Corr: <br> II, N/w functional req. (associated with new clause addition S.No. 21 in Corr. I), New subclause xvi) added. |  | xvi) The aforementioned solution to work with 3rd party (other OEM) switches and APs. Furthermore, by any chance, the OEM does not have this as an integrated solution, as a special case applicable only to the NAC clause, a third party NAC solution can be used with the mentioned licensing features and functionalities. |
| 8 | Pg. No. 11 in Corr: 1, Item 1: Core switch (S.No. 1k) | Along with Core Switch for HA connectivity, about 12 numbers of 100G DAC cable (for current use + spare) to be included along with the hardware | Two core switches within the same rack are to be configured in HA connectivity with a minimum of 400Gbps duplex backplane bandwidth by using 2 nos of 100G 5metersDACs/transceivers on day1. In addition, 2 numbers of 100G 5metersDAC/transceivers as spare, and 2 nos of 10G DAC/transceivers (or 2 nos 5 m splitter cable 40G to 4nos 10G) for connecting to WLCs to be supported and included with no additional cost, on day 1 . |
| 9 | Pg. No. 11 in Corr: I, Item <br> 1: Core switch (S.No. 3c) | Switch should support routing protocols like BGPv4, OSPF(v2, v3), ISISv4, RIP, Static, VXLAN, EVPN, PIM, SSM, BFD, VRF aware BFD, IEEE 802.1ae from day 1 on the same hardware | Switch should support routing protocols like BGPv4, OSPF(v2, v3)/ISISv4, RIP, Static, EVPN, PIM, SSM, BFD, VRF aware BFD, IEEE 802.1ae/VXLAN from day 1 on the same hardware. |
| 10 | Pg. No. 11 in Corr: I, Item 1: Core switch (S.No. 4e) | Switch should support IEEE 1588 | Switch should support IEEE 1588 or equivalent NTP/SNTP. |
| 11 | Pg. No. 12 in Corr: I, Item <br> 1: Core Switch (S.No. 5d) | Switch should support 802.1x for user authentication and authorization, Dynamic vlan assignment, Guest VLAN assignment, MAC based authentication | This clause is removed. |


| 12 | S.No. 16, Pg. No. 6 in Corr: II, Item 1- Core switch (S.No. 5e) | Switch should support real time data collection with line rate hardware based netflow/sFlow/Jflow up to 300 K authentication. However, to meet the functional requirement of up to 300 K the solution can use 1 or more box. | Switch shall support application visibility and traffic monitoring with minimum 300 K netflow/jflow entries, or with minimum sampling rate of 4096 in case of sflow. |
| :---: | :---: | :---: | :---: |
| 13 | Pg. No. 12 in Corr:I, Item <br> 1: Core switch (S.No. 5g) | Switch should support AES 256 for link encryption | Switch should support AES 256 for link encryption, or VXLAN overlay. |
| 14 | Pg. No. 13 in Corr: I, Item 2: 48-port Distribution switch (S.No. 1b) | Switch should have: 2) $4 \times 40 / 100 \mathrm{G}$ ports populated with required 40/100G transceivers/DAC cables for creating the HA using stacking/virtual stacking. | Switch should have minimum $4 \times 40 / 100 \mathrm{G}$ ports, for creating the HA (within the rack) using stacking/virtual stacking. SM Transceivers for 40G uplinks to be provided (as per the count and spec. mentioned in tender clause S.No. 9) in Day 1. In addition, i) 6 nos of 5meter-100G DAC <br> cables/transceivers for stacking for a minimum of two distribution switches within each rack for a total of 6 such racks, ii) 8 Nos of 40G MM transceiver modules ( min .500 mtrs ) for connecting two nos. distribution racks to the core switch (located within the building) to be included with no additional cost in Day1. |
| 15 | Pg. No. 13 in Corr: I, Item 2: 48-port dist. switch (S.No. 1e) | Switch shall have min. 64GB SSD for hosting container applications or internal storage | Switch shall have min. 32GB SSD/flash for hosting container applications or internal storage. |
| 16 | S.No. 23, Pg. No. 7 in Corr: II, Item 2: 48-port dist. switch (S.No. 2d, Pg. No. 14) | Switch shall support application visibility and traffic monitoring with minimum 50 K sflow/jflow/netFlow entries. However, to meet the functional requirement of upto 50 K entries, the solution can use 1 or more boxes. | Switch shall support application visibility and traffic monitoring with minimum 50 K netflow/jflow entries, or with minimum sampling rate of 4096 in case of sflow. |
| 17 | Pg. No. 14 of Corr: I, Item 2: 48-port dist. switch (S.No. 3a) | Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q, 1588v2 | Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256bit and 128 -bit AES)/VXLAN overlay, 802.3x, 802.1p, 802.1Q, 1588v2/NTP/SNTP. |
| 18 | Pg. No. 14 of Corr: I, Item 2: 48-port dist. switch (S.No. 3b) | Switch should support routing protocols like BGPv4, OSPF(v2, v3), ISISv4, RIP, Stati, VXLAN, EVPN, PIM, SSM, BFD, VRF aware BFD, IEEE 802.1ae from | Switch should support routing protocols like BGPv4, OSPF(v2, v3)/ISISv4, RIP, Static, EVPN, PIM, SSM, BFD, VRF aware BFD, IEEE 802.1ae/VXLAN overlay from day 1 on |


|  |  | day 1 on the same hardware | the same hardware. |
| :---: | :---: | :---: | :---: |
| 19 | S.No. 28, Pg. No. 7 in Corr: II: related to the following items Corr: I (S.No. 1e, Pg. No. 16), (S.No. 1e, Pg. No. 18), (S.No. 1e, Pg. No. 20), (S.No 1e, Pg. No. 22), and S.No. 9, Pg. No. 2 in Corr: I (Item No. 7, S.No. 1d of 48-port Non-PoE switch) | Should support a minimum 320 Gbps of stacking throughput per switch, with up to 4 switches in a single stack. Required modules and cables to be provided from Day 1 | Should support a minimum 200 Gbps of stacking throughput per switch, with up to 4 switches in a single stack. Required modules and cables to be provided from Day 1. |
| 20 | S.No. 29, Pg. No. 7 \& 8, in Corr: I, associated with following items In Corr: I (S.No. 2e, Pg. No. 16), (S.No. 2e, Pg. No. 18), (S. No. 2e, Pg. No. 21), (S.No. 2e, Pg. No. 22), (S.No. 2e, Pg. No. 24), (S.No. 2e, Pg. No. 26), (S.No. 2e, Pg. No. 29) | Switch should support at least 15K sflow/Jflow/Nflow entries. However, to meet the functional requirement of upto 15 K entries, the solution can use 1 or more boxes. | Switch should support at least 15 K netflow/jflow entries, or with minimum sampling rate of 4096 in case of sflow. |
| 21 | S.No 14, Pg. No. 2 in Corr: I, Item 13: 8-port PoE+ access switch (S.No. 2a) | Switch shall have minimum 56 Gbps of switching fabric and 46 Mpps of forwarding rate. | Switch shall have minimum 56 Gbps of switching fabric and 45 Mpps of forwarding rate. |

Important Note: All of the aforementioned clauses and their changes are to be applied to their respective clauses in "Technical Compliance" Sections of the applicable Corrigendum I (Corr. I), Corrigendum II (Corr. II), and the original tender document.

