

**Institute of Nano Science and Technology, Mohali**

**Tender for " CCTV, Data Networking, EPABX, Access Control, Boom Barrier & BMS Works at Institute of Nano Science & Technology, Mohali."**

**MINUTES OF PRE-BID MEETING - Pre bid Meeting Held at Office of INST Mohali on 05 March, 2019 at 11.00 A.M.**

File No. - 15(2)/2019-INST/3368

Date of Issue : 12-03-2019

**Pre-bid clarification for CCTV, Data Networking, EPABX, Access Control, Boom Barrier & BMS Works at Institute of Nano Science & Technology, Mohali**

S.No.	S No	Item	Volume/ Clause no.	Page no.	Tender Description	Queries	INST Clarification
1	1					It is mentioned in the tender for RAL 9017 ( Matt Black) which is inclined towards some vendors, and special for us Kindly change it into RAL 9005 ( Black) as it will be standard for everyone.	No Change , Please follow Tender Specifications.
2	2					Glass mentioned is 4mm Toughened tinted glass door whereas we can supply 4mm thick plain toughened glass door which is as equivalent good as the mentioned	No Change , Please follow Tender Specifications.
3	3					Mounting Hardware mentioned is nickel plated whereas we supply zinc blue plated which is standard for all vendors.	No Change , Please follow Tender Specifications.
4	4					Need some clarity on front metal band mentioned in the tender document	No Change , Please follow Tender Specifications.
5	5					It is mentioned in the tender to supply the material inside 28 ply EP foam whereas we supply it by covering it with the FOAM of 50 mm thick and moreover its our responsibility to supply the material to the customer site without any damage	Ok. Acceptable
6	6					12 U wallmounts mentioned with the dimensions 771.35mm*600*500 mm(H*W*D) whereas even including all the standard accessories it comes upto 600W* 631H*500D mm.	Ok. Acceptable
7	1	Clause 7	Tender Document- PART A	20 of 265	Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment.- Rs 4 Crore	We request you to kindly make it as 2 Crore for smooth cash-flow.	Rs. 4.0 Crore or Pro-Rata of balance tender period of balance tender amount.
8	2	Payments	Tender Document- PART A	24 of 265	Stage Payment for SITC items, shall be as mentioned below: a. 50 % payment within 15 days of supply of the system at site in good condition Along with test reports etc. b. 30% payment after installation (ready for testing and commissioning). c. 15% payment after testing, commissioning. d. 5% after Handing over to the department for beneficial use	This is a material intensive project with more than 85% of the cost of the project being material cost. We request you to accept payment terms as per CPWD i.e. 80% of item rate to be paid within 15 days against delivery on pro-rata basis, 10% of item rate to be paid pro-rata against installation (ready for testing and commissioning)., 5% of item rate to be paid pro-rata against testing and commissioning and 5% against handover over to the department for beneficial use.	Stage Payment for SITC items, shall be as mentioned below: a. 75 % payment within 15 days of supply of the system at site in good condition alongwith test reports etc. b. 10% payment after installation (ready for testing and commissioning). c. 10% payment after testing, commissioning d. 5% after Handing over to the department for beneficial use.
9	3	Type of tender	Tender Document- PART A	7 of 265	Percentage rate tender	Please note that there are many items in this contract. A single percentage cannot be uniformly applied to all the items. Many items may be much higher or lower than the common percentage rate and Moreover, the quantity of wrongly priced item may increase or decrease substantially during the course of execution causing loss to either the contractor or client. we therefore request you to kindly make it a unit rate tender or else atleast System Wise Percentage Rate.	No Change , Please follow Tender Specifications.
10	4	24 Port Edge Switch with SFP+ Uplink	C - High availability & Resiliency	24		Please include - The operating system of switch should be modular in nature	No Change , Please follow Tender Specifications.
11	5	24 Port Edge Switch with SFP+ Uplink	E - Network Security Features	26		Inline to the network security features that has been asked on switch and AAA solution in the RFP, we would like to further recommend advanced security feature on switch to ensure you get full integration benefits with centralized NAC/AAA solution - "The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANs, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as · AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment · Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes · Posture assesment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID"	No Change , Please follow Tender Specifications.

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12	6	24 Port Edge Switch with SFP+ Uplink	J - Gartner	27	Switch should be of an OEM who is a Gartner leader in Wired and Wireless Infrastructure	Referring to "section - Distribution switch with 10G Ports; Clause-G Gartner on page-35", we request you to please include same clause for this section as well to ensure you get full benefits of the reputed OEM vendor solution. Kindly modify as below - "OEM should be in leader quadrant of the last three year Gartner Magic Quadrant for the "Wired and Wireless LAN Access Infrastructure" report."	No Change , Please follow Tender Specifications.
13	7	24 Port PoE Edge Switch with SFP+ Uplink	C - High availability & Resiliency	28		Please include - The operating system of switch should be modular in nature	No Change , Please follow Tender Specifications.
14	8	24 Port PoE Edge Switch with SFP+ Uplink	E - Network Security Features	30		"Inline to the network security features that has been asked on switch and AAA solution in the RFP, we would like to further recommend advanced security feature on switch to ensure you get full integration benefits with centralized NAC/AAA solution - ""The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANS, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as · AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment · Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes · Posture assesment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID""	No Change , Please follow Tender Specifications.
15	9	24 Port PoE Edge Switch with SFP+ Uplink	J - Gartner	32	Switch should be of an OEM who is a Gartner leader in Wired and Wireless Infrastructure	"Referring to ""section - Distribution switch with 10G Ports; Clause-G Gartner on page-35"", we request you to please include same clause for this section as well to ensure you get full benefits of the reputed OEM vendor solution. Kindly modify as below - ""OEM should be in leader quadrant of the last three year Gartner Magic Quadrant for the ""Wired and Wireless LAN Access Infrastructure"" report.""	No Change , Please follow Tender Specifications.
16	10	Distribution switch with 10G Ports	E - Security	34		Since you have already asked for TACACS+ & RADIUS related features for access switch, we advise you to please consider same for distribution and core layer switches well as they are cater larger data traffic and hence any compromise on same would have larger impact. Kindly include below specification - "The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration."	No Change , Please follow Tender Specifications.
17	11	Distribution switch with 10G Ports	E - Security	34		Core and Distribution layer switches are critical component of the network and it must be ensured that only authorized user has access to same and is not affected by any unauthorized device on the network. Therefore, we recommed to include below specification - "The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANS, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as · AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment · Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes · Posture assesment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID"	No Change , Please follow Tender Specifications.
18	12	Distribution switch with 10G Ports	F - High Availability & Resiliency, Management and Troubleshooting, Others	34		Please include - The operating system of switch should be modular in nature	No Change , Please follow Tender Specifications.
19	13	Core switch	E- Security	37		Since you have already asked for TACACS+ & RADIUS related features for access switch, we advise you to please consider same for distribution and core layer switches well as they are cater larger data traffic and hence any compromise on same would have larger impact. Kindly include below specification - "The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration."	No Change , Please follow Tender Specifications.
20	14	Core switch	E- Security	37		"Core and Distribution layer switches are critical component of the network and it must be ensured that only authorized user has access to same and is not affected by any unauthorized device on the network. Therefore, we recommed to include below specification - ""The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANS, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as · AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment · Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes · Posture assesment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID""	No Change , Please follow Tender Specifications.

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21	15	Core switch	F - High Availability & Resiliency, Management and Troubleshooting, Others	38		Please include - The operating system of switch should be modular in nature	No Change , Please follow Tender Specifications.
22	16	Network Managemnet System	Point 4	51	The NMS solution should be dedicated hardware based appliance which should have 10 Core Physical CPUs, 25MB cache, 64 GB memory, 4 x 900GB RAID10 and 320 MBps I/O bandwidth with 1500 device Lic. from Day-1. NMS and other network active devices are from same OEM for better integration and manageability.	Request to change the original specification as below - "The proposed NMS solution can be hardware or software based appliance solution. The hardware based appliance should have 10 Core Physical CPUs, 25MB cache, 64 GB memory, 4 x 900GB RAID10 and 320 MBps I/O bandwidth. Solution must be provided with 1500 device Lic. from Day-1. NMS and other network active devices are from same OEM for better integration and manageability."	No Change , Please follow Tender Specifications.
23	17	Next Generation Firewall	5 - NGFW Firewall Features	53	Should be capable of automatically providing the appropriate inspections and protections for traffic sent over non-standard communications ports.	Generalised service/application ports are secured for all malicious communication. Please confirm if this is acceptable.	No Change , Please follow Tender Specifications.
24	18	Next Generation Firewall	5 - NGFW Firewall Features	54	The detection engine should support capability of detecting and preventing a wide variety of threats (e.g., malware, network probes/reconnaissance, VoIP attacks, buffer overflows, P2P attacks, etc.).	Security parameters for VOIP can be defined on the VOIP server to secure. Firewalls generally don't have much control in restricting any attacks specific to voip.	No Change , Please follow Tender Specifications.
25	19	Next Generation Firewall	5 - NGFW Firewall Features	54	Should support Open based Application ID for access to community resources and ability to easily customize security to address new and specific threats and applications quickly	Most OEMs have their own proprietary method of defining application signatures which help them in efficiently detecting threats. Please confirm if this method of app signatures is acceptable.	No Change , Please follow Tender Specifications.
26	1	Commercial		24	Terms of Payment: a. 50 % payment within 15 days of supply of the system at site in good condition Along with test reports etc. b. 30% payment after installation (ready for testing and commissioning). c. 15% payment after testing, commissioning. d. 5% after Handing over to the department for beneficial use	Below is the proposed payment term. 1 - 20% Advance against BG within 15 days of invoice and BG submission BG valid for 90 days 2 - 65% Prorate supply within 30 days of invoice submission 3 - 10% Prorate installation within 30 days of submission - in case of delay in execution >120 days (from date of PO) but not attributed by Honeywell this payment will be released on against Corporate guarantee 4 - 5% against final HO within 30 days, against PBG valid till DLP in case of delay in HO this payment will be released within 210 days of PO released date	Stage Payment for SITC items, shall be as mentioned below:  a. 75 % payment within 15 days of supply of the system at site in good condition alongwith test reports etc. b. 10% payment after installation (ready for testing and commissioning). c. 10% payment after testing, commissioning d. 5% after Handing over to the department for beneficial use.
27	2	Commercial	17	14	The rate quoted by contractor / bidder should include all the prevailing taxes, including GST, labour cess etc.	1. Any exemption / Concessions available to INST in GST or Customs duty.? As price needs to be quoted inclusive of GST and hence this clarity is required. 2. Is it under construction or retrofit job.? GST modality will depend on the same, please clarify.	As per GCC 2014 Clause 38
28	3	Commercial	5	7	The Tender can only be submitted after depositing of original EMD in the form of Demand Draft or Pay Order or Banker's Cheque or Fixed Deposit Receipts and Bank Guarantee of any scheduled Bank towards EMD in favour of Director, INST, Mohali, be submitted along with the tender documents	Can EMD be submitted in the form of BG for 100% EMD value? & same will be returned to us after submission of PBG if we get order.	Please refer page-11 ,Para-7 , Part A
29	4	Commercial	17	14	The rate quoted by contractor / bidder should include all the prevailing taxes, including GST, labour cess etc.	Do we need to prepare price bid showing break up of Basic Price & applicable GST.	No Change , Please follow Tender Specifications.
30	5	Commercial	Please include this Clause as part of tender T&C's.		Statuary Variation	Statutory Variation: As the unit prices quoted are inclusive of the taxes and the same will be charged extra as per actual. All taxes shall be payable extra as per actual. In case of any statutory variation whether through changes in rate or imposition of new tax the same shall be through INST and shall be payable extra by INST. We will charge GST @ applicable at the time of billing to customer.	As per GCC 2014 Clause 38
31	6	Commercial	Please include this clause point as part of tender T&C's.		Price & Quantity Variation	We are quoting as per BOQ only mentioned in tender. In case of any variation from qty. of BOQ will be charged extra as per actual at the time of billing.	As per GCC 2014 Clause 12
32	7	Commercial		24	Table of Milestone	Amount to be withheld in case of non-achievement/ project delay from milestone will be maximum upto 5% of order value.	As per Table of milestone page 24 ,Part A
33	8	Commercial			Insurance of material & workmanship	Please clarify the supplied material Insurance will be in INST scope??	No . INST will not bear any charge towards Insurance of material & workmanship .

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34	9	Service			SLA of Maintenance in Warranty	We shall be performing OEM recommended SLA for the project. We normally perform atleast 2 PM's in a year with 24 hours response time and 120 hours of resolution time for minor faults.	No Change ,As per Page 21, Part A
35	10	Service			Scope of Service	Please note that any services shall be performed on the active BOQ items in this project excluding cables, conduits, cable trays, consumables etc	Please follow Tender Specifications.
36	11	Legal - Please add this clause	page 9 - pt no.8 page no. 49 - MOU	9 & 49	1. It will be mandatory to constitute Dispute Redressal Committee (DRC) & contractor or INST can only seek arbitration if not satisfied with the decision of DRC. 2. In case of any dispute, either of us will go for mediation/arbitration by the Director INST, Mohali. Any of us may appeal against the mediation/arbitration to the Director INST, Mohali. His decision shall be final and binding on both of us.	<b>Arbitration:</b> All disputes in connection with this Contract or the execution thereof shall be settled by friendly negotiation. If no settlement can be reached after friendly negotiation the case in dispute shall then be submitted for arbitration in accordance with rules thereof under the Arbitration and Conciliation Act, 1996. The award of the arbitration shall be final and binding on both parties hereto. The fees for arbitration shall be borne by the parties equally. The venue of Arbitration will be in Pune.	No Change , Please follow the Tender provisions.
37	12	Legal - Please add this clause	Additional Clause	Please include this Clause as part of tender T&C's.	License right	Honeywell Automation India Limited ("HAIL") grants to Customer a nonexclusive license to use all Software provided hereunder solely for Customer's own internal purposes in accordance with the Licensed Use. HAIL and its third-party suppliers shall retain sole ownership of all intellectual property rights in and to the Software and Equipment. HAIL software license under this agreement does not include the right to (a) sell, lease, exchange, mortgage, pledge, license, sub-license, assign or in any other way convey, transfer or alienate HAIL Property in favor of any person (either for commercial consideration or not (including by way of transmission)) and/or (b) reverse compile or in any other way arrive at or attempt to arrive at the source code of the HAIL Property. All the software licenses and warranties pertaining to any software and/or hardware supplied under these terms shall be as per the HAIL's license terms and conditions and/or End User License Agreement. In case of any hardware supplied under these terms it shall be as per the Original Equipment Manufacturer terms and conditions. Except these terms and conditions no other terms and conditions shall be applicable to the supplied software and/or hardware even if mentioned on the Purchase Order, tender document or any agreement signed between the parties. HAIL will have no obligation or liability with respect to: (a) Equipment or Licensed Software provided pursuant to Customer's designs, drawings or manufacturing specifications; (b) Equipment or Licensed Software used other than for its ordinary purpose; (c) claims of infringement resulting from combining any Equipment or Licensed Software furnished hereunder with any article not furnished by HAIL; (d) use of other than the latest version of Equipment or Licensed Software released by HAIL; or (e) any modification of the Equipment or Licensed Software other than a modification by HAIL.  HAIL will not be liable hereunder if the Equipment or Software has been exposed or subjected to any: a) maintenance, repair, installation, handling, packaging, transportation, storage, operation or use which is improper or otherwise not in compliance with HAIL's / third party's instruction as applicable; (b) alteration, modification or repair by anyone other than HAIL or those specifically authorized by HAIL; (c) accident, contamination, foreign object damage, abuse, neglect or negligence after shipment to Customer; (d) damage caused by failure of any HAIL-supplied Equipment not under warranty or by any hardware or software not supplied by HAIL; (e) use of counterfeit or replacement parts that are neither manufactured nor approved by HAIL for use in HAIL's manufactured Equipment; or (f) Equipment which is normally consumed in operation or which has a normal life inherently shorter than the foregoing warranty period including, but not limited to, consumables (e.g. flashtubes, lamps, batteries, storage capacitors)	No Change , Please follow Tender Specifications
38	13	Legal - Please add this clause	Additional Clause	Please include this Clause as part of tender T&C's.	Indemnity	Each party will indemnify, defend, and hold the other harmless against third party claims (including, without limitation, the parties' employees) for personal injury, death or loss of or damage to property caused solely by its negligence in the performance of these terms. The indemnitor's obligations under this Clause are conditioned on receiving prompt notice of a claim from the indemnitee. The indemnitor will be entitled exclusively to control the defense. At the indemnitor's expense, the indemnitee will provide reasonable assistance in defense of the claim including, but not limited to, promptly furnishing the indemnitor with all relevant information within its possession or control. Because the indemnitor will provide the defense, the indemnitor will not be liable for any attorney fees or costs of indemnitee. The indemnitee may participate in the defense, but in no event will the indemnitor be liable for the indemnitee's attorney fees or costs. The indemnitee may not enter into any settlement, assume any obligation or make any concession without the prior written approval of indemnitor, which may not be unreasonably withheld.	Please follow the Tender and CPWD GCC 2014 provisions

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39	14	Legal - Please add this clause	Additional Clause	Please include this Clause as part of tender T&C's.	Confidentiality	All Confidential Information shall be marked as "confidential". Confidential Information will not include any information that (a) was in Recipient's possession and not subject to an obligation of confidentiality before receipt from Discloser, (b) has become legally available in the public domain through no fault of Recipient, (c) was rightfully received by Recipient from a third party who had no obligation of confidentiality to Discloser, (d) was independently developed by Recipient without use of Confidential Information. If Recipient is required to disclose Confidential Information pursuant to applicable law, statute, regulation, or court order, Recipient will to the extent practicable give Discloser prompt written notice of the request to provide a reasonable opportunity to object to the disclosure in order to secure a protective order or appropriate remedy. Recipient may disclose only the Confidential Information required and only to the extent compelled to do so by applicable law, statute, regulation, or court order	As per Tender Document .
40	15	Legal - Please add this clause	Additional Clause	Please include this Clause as part of tender T&C's.	Limitation of Liability	To the extent Permitted by law. The maximum liability of HAIL to the Customer arising out of or in connection with this Purchase Order, whether such liability arises from any claim based upon contract, warranty, tort or otherwise, shall in no case exceed the actual amount paid to seller by the Customer for contract equipment to be delivered hereunder. In no event will HAIL be liable for any incidental damages, consequential damages, special damages, indirect damages, loss of profits, loss of revenues, or loss of use, these limitations and exclusions will apply regardless of whether liability arises from breach of contract, warranty, tort (including but not limited to negligence), by operation of law, or otherwise.	As per Tender Document read with Clause No. 17 of CPWD GCC 2014
41	16	Legal - Please add this clause	Additional Clause	Please include this Clause as part of tender T&C's.	Termination by Contractor	The Contractor may at any time terminate the contract by giving written notice of 30 (Thirty) days to the Customer, if the Customer defaults on any payment terms & conditions of the Contract.	Tender condition , CPWD GCC 2014 and Provisions of Indian Contract Act.1872 shell apply.
42	17	Legal - Please add this clause	Additional Clause	Please include this Clause as part of tender T&C's.	Delay provisions	Where HAIL incurs additional cost due to a delay to the date of completion (need to be agreed) from the date of PO/Work Order caused by Customer or their suppliers or their sub-contractors then HAIL shall be entitled to claim additional delay costs for such delay.	No Change , Please follow Tender Specifications.
<b>Technical Queries</b>							
43	1	Room Temperature & RH Sensor, Duct Temperature & RH Sensor, Duct Differential Pressure Sensor (Air), Room Differential Pressure Sensor (Air), Air Differential Pressure Switch (Air), Water Pressure Sensor, Water Differential Pressure Sensor	2, 4, 6, 7, 8, 9, 10,	127-130	Approval: C-Tick	C-Tick Certification is normally needed only for Australia and New Zealand. Please confirm if we can proceed with only CE Certification.	No Change , Please follow Tender Specifications.
44	2	Section B - List of Approved Makes: Sensor & Field Devices	B-1 to 14	164-165	Omicron is not an approved make	Please approve Omicron in Approved make list.	No Change , Please follow Tender Specifications.
45	3	24 Port Edge Switch with SFP+ Uplink	C - High availability & Resiliency	24		Please include - The operating system of switch should be modular in nature	No Change , Please follow Tender Specifications.
46	4	24 Port Edge Switch with SFP+ Uplink	E - Network Security Features	26		Inline to the network security features that has been asked on switch and AAA solution in the RFP, we would like to further recommend advanced security feature on switch to ensure you get full integration benefits with centralized NAC/AAA solution - "The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANS, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as · AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment · Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes · Posture assesment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID"	No Change , Please follow Tender Specifications.

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47	5	24 Port Edge Switch with SFP+ Uplink	J - Gartner	27	Switch should be of an OEM who is a Gartner leader in Wired and Wireless Infrastructure	Referring to "section - Distribution switch with 10G Ports; Clause-G Gartner on page-35", we request you to please include same clause for this section as well to ensure you get full benefits of the reputed OEM vendor solution. Kindly modify as below - "OEM should be in leader quadrant of the last three year Gartner Magic Quadrant for the "Wired and Wireless LAN Access Infrastructure" report."	No Change , Please follow Tender Specifications.
48	6	24 Port Edge Switch with SFP+ Uplink	A - Performance Features, Point No.2	24	Switch should have 2 GB RAM and 4 GB Flash and the proposed switch should be SDN capable in all aspect.	All OEM have different SW architecture and size to support the switch requirement, generally, switches doesn't need more then 512MB flash to operate with full functionality, Hence request you to please relax on flash requirements, So that leaders OEM can participate.	No Change , Please follow Tender Specifications.
49	7	24 Port Edge Switch with SFP+ Uplink	A - Performance Features, Point No.2	24	Switch should support minimum 512 Switched Virtual Interfaces.	This is OEM specific requirement, request you to please remove this.	Switch should support minimum 512 Switched Virtual Interfaces or equivalent
50	8	24 Port Edge Switch with SFP+ Uplink	B-General Features, Point No.1	24	Proposed switch should be enterprise grade switch with x86 based CPU architecture	OEM specific HW details, Request you to please remove this.	No Change , Please follow Tender Specifications.
51	9	24 Port Edge Switch with SFP+ Uplink	B-General Features, Point No.2	24	Switch should support Layer 2, Routed Access (RIP, OSPF), PBR, PIM Stub Multicast, PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder	Request you to please remove OEM specific parameters like CDP, FHS, CoPP, SXP, IPSLA Responder or ask for equivalent standards, so that major OEM can participate.	Switch should support Layer 2, Routed Access (RIP, OSPF), PBR, PIM Stub Multicast, PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder or equivalent functionalities
52	10	24 Port Edge Switch with SFP+ Uplink	C-High availability & Resiliency, Point No.3	25	Switch should support cross-stack etherchannel.	OEM Specific, Request you to please remove the same, So that leaders can participate.	Switch should support cross-stack etherchannel or equivalent functionality.
53	11	24 Port Edge Switch with SFP+ Uplink	C-High availability & Resiliency, Point No.6	25	Switch should support embedded event manager scripts	OEM specific Solution requirements, Request you to please remove this.	Switch should support embedded event manager scripts or equivalent
54	12	24 Port Edge Switch with SFP+ Uplink	D-L2 Features, Point No.3	25	The switch should support Spanning-tree PortFast and PortFast guard for fast convergence	OEM specific Solution requirements, Request you to please remove this.	The switch should support Spanning-tree PortFast and PortFast guard or equivalent functionality for fast convergence
55	13	24 Port Edge Switch with SFP+ Uplink	F-Quality of Service, Point No.1	26	Switch should support 802.1p Class of Service (CoS) and Differentiated Services Code Point (DSCP) field classification, Shaped Round Robin (SRR) scheduling, Committed Information Rate (CIR), and eight egress queues per port.	CIR is OEM Specific, Request you to please remove the same.	Switch should support 802.1p Class of Service (CoS) and Differentiated Services Code Point (DSCP) field classification, Shaped Round Robin (SRR) scheduling, Committed Information Rate (CIR) or equivalent, and eight egress queues per port.
56	14	24 Port Edge Switch with SFP+ Uplink	G-Layer-3 Features should be supported with license upgrade for L2 to L3, Point No. 1	26	The Switch should support routing protocols such OSPF, BSR, IS- ISv4, LISP,VXLAN, VRF.	LISP and VxLAN is not required at edge level switch, Hence request you to please remove this.	No Change , Please follow Tender Specifications.
57	15	24 Port Edge Switch with SFP+ Uplink	H-Certifications, Point No.2	26	Electromagnetic emissions certifications - 47 CFR Part 15,CISPR 22 Class A,CISPR 32 Class A,CNS 13438,EN 300 386*,EN 55022 Class A,EN 55032 Class A,EN61000-3-2,EN61000-3-3,ICES-003 Class A,KN 32,TCVN 7189 Class A,V-3 Class A,CISPR 24,EN 300 386*,EN 55024,KN 35,TCVN 7317	The Marked standards are generally not required by Indian Govt.	No Change , Please follow Tender Specifications.
58	16	24 Port Edge Switch with SFP+ Uplink	I-Operating Temperature Range, Normal operating temperature and altitudes	27	• -5°C to +45°C, up to 5000 feet (1500m)	OEM Specific temperature range, It is generally not possible to have -5 degree in indoor environment where switches will be installed, Request you to please change this to " 0°C to +45°C. So that leaders can participate.	No Change , Please follow Tender Specifications.
59	17	24 Port Edge Switch with SFP+ Uplink	K-Smart Monitoring	27	The switch should support from Day - 1 the following basis SDN principles	OEM Solution specific demands	No Change , Please follow Tender Specifications.
60	18	24 Port Edge Switch with SFP+ Uplink	K-Smart Monitoring	27	◦ Full network visibility and monitoring	OEM Solution specific demands	No Change , Please follow Tender Specifications.
61	19	24 Port Edge Switch with SFP+ Uplink	K-Smart Monitoring	27	◦ End-to-end Quality of Experience (QoE)	OEM Solution specific demands	No Change , Please follow Tender Specifications.
62	20	24 Port Edge Switch with SFP+ Uplink	K-Smart Monitoring	27	◦ Fast issue resolution and network remediation	OEM Solution specific demands	No Change , Please follow Tender Specifications.
63	21	24 Port Edge Switch with SFP+ Uplink	M-Switch's Software Features	27	1.Automated device provisioning	OEM Solution specific demands	No Change , Please follow Tender Specifications.

S.No.	S No	Item	Volume/ Clause no.	Page no.	Tender Description	Queries	INST Clarification
64	22	24 Port Edge Switch with SFP+ Uplink	M-Switch's Software Features	27	2.API-driven configuration	OEM Solution specific demands	No Change , Please follow Tender Specifications.
65	23	24 Port Edge Switch with SFP+ Uplink	M-Switch's Software Features	27	3.Seamless software upgrades and patching	OEM Solution specific demands	No Change , Please follow Tender Specifications.
66	24	24 Port PoE Edge Switch with SFP+ Uplink	C - High availability & Resiliency	28		Please include - The operating system of switch should be modular in nature	No Change , Please follow Tender Specifications.
67	25	24 Port PoE Edge Switch with SFP+ Uplink	E - Network Security Features	30		"Inline to the network security features that has been asked on switch and AAA solution in the RFP, we would like to further recommend advanced security feature on switch to ensure you get full integration benefits with centralized NAC/AAA solution - ""The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANs, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as . AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment . Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes . Posture assesment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID""	No Change , Please follow Tender Specifications.
68	26	24 Port PoE Edge Switch with SFP+ Uplink	J - Gartner	32	Switch should be of an OEM who is a Gartner leader in Wired and Wireless Infrastructure	"Referring to ""section - Distribution switch with 10G Ports; Clause-G Gartner on page-35"", we request you to please include same clause for this section as well to ensure you get full benefits of the reputed OEM vendor solution. Kindly modify as below - ""OEM should be in leader quadrant of the last three year Gartner Magic Quadrant for the ""Wired and Wireless LAN Access Infrastructure"" report.""	No Change , Please follow Tender Specifications.
69	27	24 Port PoE Edge Switch with SFP+ Uplink	A - Performance Features, Point No.2	27	Switch should have 2 GB RAM and 4 GB Flash and the proposed switch should be SDN capable in all aspect.	All OEM have different SW architecture and size to support the switch requirement, generally, switches doesn't need more than 512MB flash to operate with full functionality, Hence request you to please relax on flash requirements, So that leaders OEM can participate.	No Change , Please follow Tender Specifications.
70	28	24 Port PoE Edge Switch with SFP+ Uplink	A - Performance Features, Point No.6	28	Switch should support minimum 512 Switched Virtual Interfaces.	OEM specific Solution requirements, Request you to please remove this.	Switch should support minimum 512 Switched Virtual Interfaces or equivalent
71	29	24 Port PoE Edge Switch with SFP+ Uplink	B-General Features, Point No.8	28	Proposed switch should be enterprise grade switch with x86 based CPU architecture	OEM specific HW details, Request you to please remove this.	No Change , Please follow Tender Specifications.
72	30	24 Port PoE Edge Switch with SFP+ Uplink	B-General Features, Point No.10	28	Switch should support Layer 2, Routed Access (RIP, OSPF), PBR, PIM Stub Multicast, PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder	Request you to please remove OEM specific parameters like CDP, FHS, CoPP, SXP, IPSLA Responder or ask for equivalent standards, SO that major OEM can participate.	No Change , Please follow Tender Specifications.
73	31	24 Port PoE Edge Switch with SFP+ Uplink	C-High availability & Resiliency, Point No.18	29	Switch should support cross-stack etherchannel.	OEM Specific, Request you to please remove the same, So that leaders can participate.	Switch should support cross-stack etherchannel or equivalent functionality.
74	32	24 Port PoE Edge Switch with SFP+ Uplink	C-High availability & Resiliency, Point No.21	29	Switch should support embedded event manager scripts	OEM specific Solution requirements, Request you to please remove this.	Switch should support embedded event manager scripts or equivalent
75	33	24 Port PoE Edge Switch with SFP+ Uplink	D-L2 Features, Point No.25	29	The switch should support Spanning-tree PortFast and PortFast guard for fast convergence	OEM specific Solution requirements, Request you to please remove this.	The switch should support Spanning-tree PortFast and PortFast guard or equivalent functionality for fast convergence
76	34	24 Port PoE Edge Switch with SFP+ Uplink	F-Quality of Service, Point No.39	30	Switch should support 802.1p Class of Service (CoS) and Differentiated Services Code Point (DSCP) field classification, Shaped Round Robin (SRR) scheduling, Committed Information Rate (CIR), and eight egress queues per port.	CIR is OEM Specific, Request you to please remove the same.	Switch should support 802.1p Class of Service (CoS) and Differentiated Services Code Point (DSCP) field classification, Shaped Round Robin (SRR) scheduling, Committed Information Rate (CIR) or equivalent, and eight egress queues per port.
77	35	24 Port PoE Edge Switch with SFP+ Uplink	G-Layer-3 Features should be supported with license upgrade for L2 to L3. Point No. 40	31	The Switch should support routing protocols such OSPF, BSR, IS- ISv4, LISP,VXLAN, VRF.	LISP and VxLAN is not required at edge level switch, Hence request you to please remove this.	No Change , Please follow Tender Specifications.
78	36	24 Port PoE Edge Switch with SFP+ Uplink	H-Certifications, Point No.50	31	Electromagnetic emissions certifications - 47 CFR Part 15,CISPR 22 Class A,CISPR 32 Class A,CNS 13438,EN 300 386*,EN 55022 Class A,EN 55032 Class A,EN61000-3-2,EN61000-3-3,ICES-003 Class A,KN 32,TCVN 7189 Class A,V-3 Class A,CISPR 24,EN 300 386*,EN 55024,KN 35,TCVN 7317	The Marked standards are generally not required by Indian Govt.	No Change , Please follow Tender Specifications.

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79	37	24 Port PoE Edge Switch with SFP+ Uplink	I-Operating Temperature Range, Normal operating temperature and altitudes	31	• -5°C to +45°C, up to 5000 feet (1500m)	OEM Specific temperature range, It is generally not possible to have -5 degree in indoor environment where switches will be installed, Request you to please change this to " 0°C to +45°C. So that leaders can participate.	No Change , Please follow Tender Specifications.
80	38	24 Port PoE Edge Switch with SFP+ Uplink	K-Smart Monitoring	32	The switch should support from Day - 1 the following basis SDN principles	OEM Solution specific demands	No Change , Please follow Tender Specifications.
81	39	24 Port PoE Edge Switch with SFP+ Uplink	K-Smart Monitoring	32	° Full network visibility and monitoring	OEM Solution specific demands	No Change , Please follow Tender Specifications.
82	40	24 Port PoE Edge Switch with SFP+ Uplink	K-Smart Monitoring	32	° End-to-end Quality of Experience (QoE)	OEM Solution specific demands	No Change , Please follow Tender Specifications.
83	41	24 Port PoE Edge Switch with SFP+ Uplink	K-Smart Monitoring	32	° Fast issue resolution and network remediation	OEM Solution specific demands	No Change , Please follow Tender Specifications.
84	42	24 Port PoE Edge Switch with SFP+ Uplink	M-Switch's Software Features	32	1.Automated device provisioning	OEM Solution specific demands	No Change , Please follow Tender Specifications.
85	43	24 Port PoE Edge Switch with SFP+ Uplink	M-Switch's Software Features	32	2.API-driven configuration	OEM Solution specific demands	No Change , Please follow Tender Specifications.
86	44	24 Port PoE Edge Switch with SFP+ Uplink	M-Switch's Software Features	32	3.Seamless software upgrades and patching	OEM Solution specific demands	No Change , Please follow Tender Specifications.
87	45	Distribution switch with 10G Ports	A-Hardware &Performance Features, Point No. 5	33	Should have 16 GB RAM and 16 GB Flash and the proposed switch should be SDN capable in all aspect.	All OEM have different SW architecture and size to support the switch requirement, HPE switches doesn't need more than 512MB flash and 2GB RAM to operate with full functionality, Hence request you to please relax on flash requirements, So that leaders OEM can participate.	No Change , Please follow Tender Specifications.
88	46	Distribution switch with 10G Ports	A-Hardware &Performance Features, Point No. 6	33	Two core switches will be connected in virtual stack to increase performance and active-active performance with support of NSF/SSO when connected		
89	47	Distribution switch with 10G Ports	B2-L2 Features, Point No. 9	33	Switch should support 4000 VLANs and 4000 SVI	OEM Specific Language, Request you to please change this to "Switch should support 4000 VLANs and 4000 Virtual LAN" so that leaders can participate.	Switch should support 4000 VLANs and 4000 SVI or equivalent
90	48	Distribution switch with 10G Ports	C-L3 Features, Point No. 13	33	Switch should support up to 32K multicast routes	OEM specific Figures, 32K multicast demand is very high for any enterprise network, Request you to please reduce this to 4K so that leaders can participate.	No Change , Please follow Tender Specifications.
91	49	Distribution switch with 10G Ports	C-L3 Features, Point No. 14	33	Switch should support routing protocols like BGPv4, OSPF(v2, v3), ISISv4, RIP, Static, ECMP, LISP, VXLAN, PIM, SSM, DVMRP, BFD, VRF aware BFD	Some Protocols are OEM specific like LISP, Hence request you to please relax on these protocols, So that leaders can also participate.	No Change , Please follow Tender Specifications.
92	50	Distribution switch with 10G Ports	E-Security, Point No. 22	34	Switch should support at least 15K hardware based ACL	OEM specific Figures, 15K HW based ACL demand is too high for any enterprise NW, Request you to please reduce this to 10K so that leaders can participate.	No Change , Please follow Tender Specifications.
93	51	Distribution switch with 10G Ports	E-Security, Point No. 26	34	Should support IEEE 1588v2. Support both static and dynamic NAT and Port Address Translation (PAT)	OEM specific language, Please remove the same. So that leaders can participate.	Should support IEEE 1588v2. Support static or dynamic NAT and Port Address Translation (PAT)
94	52	Distribution switch with 10G Ports	E-Security, Point No. 27	34	Switch should support real time data collection with line rate hardware based netflow/sflow up to 500 K	Net Flow require entries, However Sflow doesn't have any relation to entries. Request you to please remove entries for Sflow.	No Change , Please follow Tender Specifications.
95	53	Distribution switch with 10G Ports	F-High Availability & Resiliency, Management and Troubleshooting, Others, Point No. 30	35	Switch should have atleast 500GB SSD storage & scalable upto 960GB to store logs and container based application hosting	OEM Specific, Request you to please remove.	Switch should have atleast 64GB SSD storage & scalable upto 960GB to store logs and container based application hosting
96	54	Distribution switch with 10G Ports	F-High Availability & Resiliency, Management and Troubleshooting, Others, Point No. 32	35	Switch should support telnet, SSH, https, SNMPv3, IPFIX, configuration rollback feature for ease of management	IPFIX is a old standard, HPE switch supports Sflow to exchange the information , Hence request you to please relax on this so that leaders OEM can participate.	Switch should support telnet, SSH, https, SNMPv3, IPFIX or latest standard, configuration rollback feature for ease of management
97	55	Distribution switch with 10G Ports	F-High Availability & Resiliency, Management and Troubleshooting, Others, Point No. 38	35	Switch should support blue beacon technology to identify hardware during trouble shooting	OEM specific, Hence request you to please remove the same.	Switch should support blue beacon or equivalent technology to identify hardware during trouble shooting
98	56	Distribution switch with 10G Ports	E - Security	34		Since you have already asked for TACACS+ & RADIUS related features for access switch, we advise you to please consider same for distribution and core layer switches well as they are cater larger data taffic and hence any compromise on same would have larger impact. Kindly include below specification - "The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration."	No Change , Please follow Tender Specifications.



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99	57	Distribution switch with 10G Ports	E - Security	34		Core and Distribution layer switches are critical component of the network and it must be ensured that only authorized user has access to same and is not affected by any unauthorized device on the network. Therefore, we recommended to include below specification - "The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANs, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as · AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment · Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes · Posture assesment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID"	No Change , Please follow Tender Specifications.
100	58	Distribution switch with 10G Ports	F - High Availability & Resiliency, Management and Troubleshooting, Others	34		Please include - The operating system of switch should be modular in nature	No Change , Please follow Tender Specifications.
101	59	Core switch	E- Security	37		Since you have already asked for TACACS+ & RADIUS related features for access switch, we advise you to please consider same for distribution and core layer switches well as they are cater larger data traffic and hence any compromise on same would have larger impact. Kindly include below specification - "The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration."	No Change , Please follow Tender Specifications.
102	60	Core switch	E- Security	37		"Core and Distribution layer switches are critical component of the network and it must be ensured that only authorized user has access to same and is not affected by any unauthorized device on the network. Therefore, we recommended to include below specification - ""The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANs, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as · AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment · Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes · Posture assesment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID""	No Change , Please follow Tender Specifications.
103	61	Core switch	F - High Availability & Resiliency, Management and Troubleshooting, Others	38		Please include - The operating system of switch should be modular in nature	No Change , Please follow Tender Specifications.
104	62	Core switch		36	Should have 16 GB RAM and 16 GB Flash and the proposed switch should be SDN capable in all aspect.		No Comments
	63	Core switch		36	Two core switches will be connected in virtual stack to increase performance and active-active performance with support of NSF/SSO when connected		
	64	Core switch		36	Switch should support 4000 VLANs and 4000 SVI		
	65	Core switch		37	Switch should support 212K IPv4 and 212K IPv6 entries		
	66	Core switch		37	Switch should support up to 32K multicast routes		
	67	Core switch			Switch should support at least 15K hardware based ACL		
	68	Core switch			Should support IEEE 1588v2. Support both static and dynamic NAT and Port Address Translation (PAT)		
	69	Core switch			Switch should support real time data collection with line rate hardware based netflow/sflow up to 500 K		
	70	Core switch			Switch should have atleast 500GB SSD storage & scalable upto 960GB to store logs and container based application hosting		
71	Core switch			Switch should support telnet, SSH, https, SNMPv3, IPFIX, configuration rollback feature for ease of management			

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105	72	Network Managemnet System	Point 4	51	The NMS solution should be dedicated hardware based appliance which should have 10 Core Physical CPUs, 25MB cache, 64 GB memory, 4 x 900GB RAID10 and 320 MBps I/O bandwidth with 1500 device Lic. from Day-1. NMS and other network active devices are from same OEM for better integration and manageability.	Request to change the original specification as below - "The proposed NMS solution can be hardware or software based appliance solution. The hardware based appliance should have 10 Core Physical CPUs, 25MB cache, 64 GB memory, 4 x 900GB RAID10 and 320 MBps I/O bandwidth. Solution must be provided with 1500 device Lic. from Day-1. NMS and other network active devices are from same OEM for better integration and manageability."	The proposed management solution should be a dedicated hardware from same OEM, capable to manage minimum 1000 wired and wireless network devices without any performance impact
106	73	Next Generation Firewall	5 - NGFW Firewall Features	53	Should be capable of automatically providing the appropriate inspections and protections for traffic sent over non-standard communications ports.	Generalised service/application ports are secured for all malicious communication. Please confirm if this is acceptable.	No Change , Please follow Tender Specifications.
107	74	Next Generation Firewall	5 - NGFW Firewall Features	54	The detection engine should support capability of detecting and preventing a wide variety of threats (e.g., malware, network probes/reconnaissance, VoIP attacks, buffer overflows, P2P attacks, etc.).	Security parameters for VOIP can be defined on the VOIP server to secure. Firewalls generally don't have much control in restricting any attacks specific to voip.	No Change , Please follow Tender Specifications.
108	75	Next Generation Firewall	5 - NGFW Firewall Features	54	Should support Open based Application ID for access to community resources and ability to easily customize security to address new and specific threats and applications quickly	Most OEMs have their own proprietary method of defining application signatures which help them in efficiently detecting threats. Please confirm if this method of app signatures is acceptable.	No Change , Please follow Tender Specifications.
109	76	IP PBX Server	TECHNICAL SPECIFICATIONS FOR IP PBX SERVER	69	The communication server should offer BHCC (Busy Hour Call Completion) of at least 20000 per server to ensure superior traffic handling capacities.	For the quantity of phones requested in the RFP the BHCC value of 20k is on a very higher end, also, this will require more CPU & resources. In view of current requirement and future scalability we suggest BHCC of maximum 15000 should suffice. Hence, request you to please modify the specification as below -  "The communication server should offer BHCC (Busy Hour Call Completion) of at least 15000 per server to ensure superior traffic handling capacities."	No Change , Please follow Tender Specifications.
110	77	IP Phone Type-1	Point 4	75	The phone should have 8 line/feature button with Dual LED and 3 softkeys	Generally contact center agents require more than 1 line for taking multiple calls at same time. For education vertical, our recommendation is to have single or dual lines phone at maximum as not all users would need to take more than 2 lines.	No Change , Please follow Tender Specifications.
111	78	IP Phone Type-1	Point 12	75	The phone should have a PoE (IEEE 802.3af) class 2.	There is hardly any difference in power consumption with class 1 endpoints. For just 224 extensions the power load will not even touch 1KW of load. Hence, we request you to please modify the specification as below - "The phone should have a PoE (IEEE 802.3af) Class 1" or "The phone should have a PoE (IEEE 802.3af) Class 1 or class 2"	No Change , Please follow Tender Specifications.
112	79	IP Phone Type-1	Point 13	75	The phone must support H.323 protocol.	There are so many different proprietary flavours of H.323 for all OEM models. Hence, SIP support should be asked for so that in future you do not get locked with single OEM phones. Kindly modify the specification as below -  "The phone must support H.323 or SIP protocol."	The phone must support H.323 or SIP protocol
113	80	IP Phone Type-1	Point 18	75	The phone should have support up to 3 expansion modules of at least 32 functionalities each.	Generally contact centre agents/Receptionists require 20+ line for taking multiple calls at same time and would require expansion modules on the phone. We should recommend single line or dual lines phones at maximum. Kindly remove the specification	No Change , Please follow Tender Specifications.
114	81	IP Phone Type – 2	Point 3	76	Monochrome 128x40 pixel and 2.3" monochrome display	Typically for a single or dual line phone a display of 2.3" is generally not required. Kindly remove this specification or please modify as below - "Monochrome with minimum 128x32 pixels"	No Change , Please follow Tender Specifications.
115	82	IP Phone Type – 2	Point 5	76	Fixed hard buttons for mute, hold, transfer, conference, forward, call park	Not all OEMs support these features on hard keys, we request you to please modify the specification to below- "Fixed hard or soft buttons for mute, hold, transfer, conference, forward, call park"	No Change , Please follow Tender Specifications.
116	83	IP Phone Type – 2	Point 16	76	Should support optional Wireless Module for Wi-Fi connectivity	As per industry best practice, ethernet is terminated on all work stations to provide better voice quality on phones due to known limitations with WiFi as it cannot guarantee better quality of service for voice. Hence, request you to please remove this specification.	No Change , Please follow Tender Specifications.
117	84	SDN Controller			Switching & Wireless components must be centrally managed via single dashboard. Configuration policies must be automatically pushed across all components centrally.	Request you Please remove the whole section of SDN controller, As we don't have portfolio to support this.	No Change. Bidders can propose solution using integration with other components which can meet the following functional requirements for SDN controller. Solution must be from same OEM as of wired and wireless devices
	85				Quickly isolate issues within network LAN, WAN or Wireless LAN		
	86				Health Score – quick indication of an issue with network, client, application and compliance		
	87				Automated workflows to design and provision the network infrastructure		
	88				Ability to define user and device profiles and policies		

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118	89				Ability to define highly secure user and device access and network segmentation		No Change , Please follow Tender Specifications
	90				Software image management, including patch management		
	91				Device discovery, inventory and configuration		
	92				Third-party integration with open REST APIs		
	93				Configuration Archive		
	94				Software Image and Patch Management		
	95				Role-Based Access Control		
	96				Programmability – REST API Support		
	97				Backup and Restore		
	98				IP Address Management with IPAM		
119	99	Wireless Controller			WLC should support PMIPv6 and EoGRE tunnels on northbound interface	OEM Specific, Please remove this. So that Leaders can participate.	WLC should support PMIPv6 and EoGRE tunnels or equivalent on northbound interface
120	100	Indoor Access Point			Access Point shall support Console port that uses Standard Port (RJ-45) type connection	Request you to please remove the limitation of type of Console, So that leaders can participate.	No Change , Please follow Tender Specifications.
121	101	AAA Solution			The Solution should have capability to collect endpoint attribute data via passive network telemetry, querying the actual endpoints, or alternatively from the infrastructure via device sensors on switches.	OEM specific NAC functionality request you to please remove the same.	The Solution should have equivalent capability to collect endpoint attribute data via passive network telemetry, querying the actual endpoints, or alternatively from the infrastructure via device sensors on switches.
122	102	AAA Solution			Should support importing endpoints from a comma-separated values (CSV) file in which the list of endpoints appears with the MAC address and the endpoint profiling policy details separated by a comma.	OEM specific language, Request you to please remove the same.	Should support importing endpoints from a comma-separated values (CSV) file in which the list of endpoints appears with the MAC address and the endpoint profiling policy details separated by a comma or equivalent method
123	103	AAA Solution			Minimum HW requirement for appliance are : 1 – Intel Xenon 2.60 GHz E5-2640 processor, minimum 64GB RAM and 4*600GB 10K RPM SAS HDD and 6 x 1G NIC	OEM specific HW requirements, Request you to make as per OEM offering.	No Change , Please follow Tender Specifications.
124	104	Network Management System			The NMS solution should be dedicated hardware based appliance which should have 10 Core Physical CPUs, 25MB cache, 64 GB memory, 4 x 900GB RAID10 and 320 MBps I/O bandwidth with 1500 device Lic. from Day-1. NMS and other network active devices are from same OEM for better integration and manageability.	OEM specific HW requirements, Request you to make as per OEM offering.	The proposed management solution should be a dedicated hardware from same OEM, capable to manage minimum 1000 wired and wireless network devices without any performance impact
125	105	PART-C	E. 1	5	15U Rack Frame, 600 mm(W) X 500 mm (D) X 498 mm (H)	15U Rack will be 749 mm (H)	Ok. Acceptable
126	106	PART-C	E. 2	5	9U Rack Frame, 600 mm(W) X 500 mm (D) X 498 mm (H).	9U Rack will be 481 mm (H)	Ok. Acceptable
127	107	PART-C	E. 3	5	Outdoor 9U Rack Frame, 600 mm(W) X 500 mm (D) X 498 mm (H),	9U Rack will be 481 mm (H) ; IP Rating - IP56 ; Door must be Metal door.	Ok. Acceptable
128	108	PART-C	E. 4	6	24U Rack Frame, 600 mm(W) X 500 mm (D) X 498 mm (H), Pre-configured 19" Wall-Mount Enclosure	Wall mount can be offered upto 15U only. 24U can be offered in Floor Mount, with dimensions - 600 mm(W) X 600 mm(D)	Ok. Acceptable
129	109	Architecture		99	Ssystem topology for IBMS	This architecture is specific to an OEM however we support the three layers. Management level Automation level (automation stations/individual room control) Field level (field devices) as mentioned in the tender.	No Change , Please follow Tender Specifications.
130	110	Openness		121	Extendibility: - Integrating existing technical equipment without additional conversion hardware (existing, open system, or other standardized bus systems such as BACnet or third-party) in the new environment is a vital task. The same applies to LonTalk, DALI, or KNX integration	Kindly do not make this mandatory for all protocols. Honeywell offered BMS controller supports, Modbus/BACnet protocol.	No Change , Please follow Tender Specifications.
131	111	Field device connection		122	Third-party system connection: - A interface is required to connect various devices that supports communication protocols such as Modbus, M-Bus, Genibus and USS.	Kindly do not make this mandatory for all protocols. Honeywell offered BMS controller supports, Modbus/BACnet protocol.	No Change , Please follow Tender Specifications.

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132	112	Communication		120	Communication via LonTalk BACnet over LonTalk: - The automation stations must allow for communication via LonTalk and work on simple two-wire cabling in a freely selectable bus topology with a total possible length of 900 m. Ethernet/IP must serve as the backbone.	Offered controller shall provide data over BACNet/Modbus protocol. Kindly accept.	Ok. Acceptable
133	113	BOQ	5	10	The DDC shall be with Minimum of 18 IO Points in it & with a polling speed of 100 ms.	Request you to please accept 1 sec as per building automation practice.	Ok. Acceptable
134	114	Approved Make	1	164	Building Management Programmable & Application Specifier Controller (DDC) : Honeywell EBI	Honeywell EBI is only a software platform , whereas it is understood that Honeywell - comfort point will be used with EBI as specifier controller, network controller & system integration unit for 3rd party component, so the combination of controller plus software will be: (Honeywell EBI software + Honeywell Comfort point controller).	Ok. Acceptable
135	115	Approved Make	1	162	L2 /L3/PoE Switch - HP / Cisco/ Juniper	If there is deviation in technical specifications so can we go ahead with deviation as one of the approved make is not participating because of technical specifications	No Change , Please follow Tender Specifications.
		<b>Technical</b>					
136	1	24 Port Edge Switch with SFP+ Uplink	Technical Specification/C - High availability & Resiliency	92 of 265		We understand the operating system of switch should be modular in nature. Kindly confirm.	No Change , Please follow Tender Specifications.
137	2	24 Port Edge Switch with SFP+ Uplink	Technical Specification/E - Network Security Features	95 of 265		Inline to the network security features that has been asked on switch and AAA solution in the RFP, we would like to further recommend advanced security feature on switch to ensure you get full integration benefits with centralized NAC/AAA solution - "The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANs, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as . AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment . Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes . Posture assessment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID"	No Change , Please follow Tender Specifications.
138	3	24 Port PoE Edge Switch with SFP+ Uplink	Technical Specification/C - High availability & Resiliency	96 of 265		We understand the operating system of switch should be modular in nature. Kindly confirm.	No Change , Please follow Tender Specifications.
139	4	24 Port PoE Edge Switch with SFP+ Uplink	Technical Specification/E - Network Security Features	98 of 265		"Inline to the network security features that has been asked on switch and AAA solution in the RFP, we would like to further recommend advanced security feature on switch to ensure you get full integration benefits with centralized NAC/AAA solution - ""The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANs, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as . AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment . Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes . Posture assessment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID""	No Change , Please follow Tender Specifications.
140	5	24 Port PoE Edge Switch with SFP+ Uplink	Technical Specifications /J - Gartner	100 of 265	Switch should be of an OEM who is a Gartner leader in Wired and Wireless Infrastructure	"Referring to ""section - Distribution switch with 10G Ports; Clause-G Gartner on page-35"" , we request you to please include same clause for this section as well to ensure you get full benefits of the reputed OEM vendor solution. Kindly modify as below - ""OEM should be in leader quadrant of the last three year Gartner Magic Quadrant for the ""Wired and Wireless LAN Access Infrastructure"" report.""	No Change , Please follow Tender Specifications.
141	6	Distribution switch with 10G Ports	Technical Specification/E - Security	102 of 265		Since you have already asked for TACACS+ & RADIUS related features for access switch, we advise you to please consider same for distribution and core layer switches well as they cater larger data traffic and hence any compromise on same would have larger impact. Kindly include below specification - "The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration."	No Change , Please follow Tender Specifications.

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142	7	Distribution switch with 10G Ports	Technical Specification/E - Security	102 of 265		Core and Distribution layer switches are critical component of the network and it must be ensured that only authorized user has access to same and is not affected by any unauthorized device on the network. Therefore, we recommend to include below specification - "The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANs, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as · AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment · Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes · Posture assessment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID"	No Change , Please follow Tender Specifications.
143	8	Distribution switch with 10G Ports	Technical Specifications/ F - High Availability & Resiliency, Management and Troubleshooting, Others	102 of 265		We understand the operating system of switch should be modular in nature. Kindly confirm.	No Change , Please follow Tender Specifications.
144	9	Core switch	Technical Specification/E - Security	105 of 265		Since you have already asked for TACACS+ & RADIUS related features for access switch, we advise you to please consider same for distribution and core layer switches well as they are cater larger data traffic and hence any compromise on same would have larger impact. Kindly include below specification - "The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration."	No Change , Please follow Tender Specifications.
145	10	Core switch	Technical Specification/E - Security	105 of 265		"Core and Distribution layer switches are critical component of the network and it must be ensured that only authorized user has access to same and is not affected by any unauthorized device on the network. Therefore, we recommend to include below specification - ""The proposed switch should support centralized NAC solution giving access on a user based level. Features like port-based ACLs, port security, private VLANs, for Layer 2 interfaces to allow application of security policies on individual switch ports. The proposed switches must integrate with Security Solutions centrally deployed at institute to offer feature & functionalities such as · AAA- for secured LAN Access using 802.1X, MAB, VLAN Assignment · Profiling - For device identification using RADIUS CoA (Change of Authorization) and Profiling Probes · Posture assessment:- To quarantine and block the non-compliant devices from entering the network, using RADIUS CoA, URL Redirection + SessionID""	No Change , Please follow Tender Specifications.
146	11	Network Management System	Technical Specifications/ Point 4	119 of 265	The NMS solution should be dedicated hardware based appliance which should have 10 Core Physical CPUs, 25MB cache, 64 GB memory, 4 x 900GB RAID10 and 320 MBps I/O bandwidth with 1500 device Lic. from Day-1. NMS and other network active devices are from same OEM for better integration and manageability.	Request to change the original specification as below - "The proposed NMS solution can be hardware or software based appliance solution. The hardware based appliance should have 10 Core Physical CPUs, 25MB cache, 64 GB memory, 4 x 900GB RAID10 and 320 MBps I/O bandwidth. Solution must be provided with 1500 device Lic. from Day-1. NMS and other network active devices are from same OEM for better integration and manageability."	No Change , Please follow Tender Specifications.
147	12	Next Generation Firewall	Technical Specifications/5 - NGFW Firewall Features	121 of 265	Should be capable of automatically providing the appropriate inspections and protections for traffic sent over non-standard communications ports.	Generalised service/application ports are secured for all malicious communication. Please confirm if this is acceptable.	No Change , Please follow Tender Specifications.
148	13	Next Generation Firewall	Technical Specifications/5 - NGFW Firewall Features	122 of 265	Should support Open based Application ID for access to community resources and ability to easily customize security to address new and specific threats and applications quickly	Most OEMs have their own proprietary method of defining application signatures which help them in efficiently detecting threats. Please confirm if this method of app signatures is acceptable.	No Change , Please follow Tender Specifications.
<b>Commercial</b>							
149	1	Clause 7	Tender Document- PART A	20 of 265	Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment- Rs 4. Crore	We request you to kindly make it as 1 Crore for smooth cash-flow.	Rs. 4 .0 Crore or Pro-Rata of balance tender period of balance tender amount.

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150	2	Payments	Tender Document- PART A	24 of 265	Stage Payment for SITC items, shall be as mentioned below: a. 50 % payment within 15 days of supply of the system at site in good condition Along with test reports etc. b. 30% payment after installation (ready for testing and commissioning). c. 15% payment after testing, commissioning. d. 5% after Handing over to the department for beneficial use	This is a material intensive project with more than 85% of the cost of the project being material cost. We request you to accept payment terms as per CPWD i.e. 80% of item rate to be paid within 15 days against delivery on pro-rata basis, 10% of item rate to be paid pro-rata against installation (ready for testing and commissioning), 5% of item rate to be paid pro-rata against testing and commissioning and 5% against handover over to the department for beneficial use.	Stage Payment for SITC items, shall be as mentioned below: a. 75 % payment within 15 days of supply of the system at site in good condition alongwith test reports etc. b. 10% payment after installation (ready for testing and commissioning). c. 10% payment after testing, commissioning d. 5% after Handing over to the department for beneficial use.
151	3	Type of tender	Tender Document- PART A	7 of 265	Percentage rate tender	Please note that there are many items in this contract. A single percentage cannot be uniformly applied to all the items. Many items may be much higher or lower than the common percentage rate and Moreover, the quantity of wrongly priced item may increase or decrease substantially during the course of execution causing loss to either the contractor or client. We therefore request you to kindly make it a unit rate tender or else at least System Wise Percentage Rate.	No Change , Please follow Tender Specifications.
152	2				Switch should have 2 GB RAM and 4 GB Flash and the proposed switch should be SDN capable in all aspect.	All OEM have different SW architecture and size to support the switch requirement, HPE switches doesn't need more than 512MB flash to operate with full functionality, Hence request you to please relax on flash requirements, So that leaders OEM can participate.	No Change , Please follow Tender Specifications.
153	6				Switch should support minimum 512 Switched Virtual Interfaces.	OEM specific Solution requirements, Request you to please remove this.	Switch should support minimum 512 Switched Virtual Interfaces or equivalent
		<b>B</b>			<b>General Features</b>		
154	1				Proposed switch should be enterprise grade switch with x86 based CPU architecture	OEM specific HW details, Request you to please remove this.	No Change , Please follow Tender Specifications.
155	2				Switch should support Layer 2, Routed Access (RIP, OSPF), PBR, PIM Stub Multicast, PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder	Request you to please remove OEM specific parameters like CDP, FHS, CoPP, SXP, IPSLA Responder or ask for equivalent standards, SO that major OEM can participate.	Switch should support Layer 2, Routed Access (RIP, OSPF), PBR, PIM Stub Multicast, PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder or equivalent functionalities
		<b>C</b>			<b>High availability &amp; Resiliency</b>		
156	3				Switch should support cross-stack etherchannel.	OEM Specific, Request you to please remove the same, So that leaders can participate.	Switch should support cross-stack etherchannel or equivalent functionality.
157	6				Switch should support embedded event manager scripts	OEM specific Solution requirements, Request you to please remove this.	Switch should support embedded event manager scripts or equivalent
158	3				The switch should support Spanning-tree PortFast and PortFast guard for fast convergence	OEM specific Solution requirements, Request you to please remove this.	The switch should support Spanning-tree PortFast and PortFast guard or equivalent functionality for fast convergence
		<b>F</b>			<b>Quality of Service</b>		
159	1				Switch should support 802.1p Class of Service (CoS) and Differentiated Services Code Point (DSCP) field classification, Shaped Round Robin (SRR) scheduling, Committed Information Rate (CIR), and eight egress queues per port.	CIR is OEM Specific, Request you to please remove the same.	Switch should support 802.1p Class of Service (CoS) and Differentiated Services Code Point (DSCP) field classification, Shaped Round Robin (SRR) scheduling, Committed Information Rate (CIR) or equivalent, and eight egress queues per port.
		<b>G</b>			<b>Layer-3 Features should be supported with license upgrade for L2 to L3</b>		
160	1				The Switch should support routing protocols such OSPF, BSR, IS- ISv4, LISP,VXLAN, VRF.	LISP and VxLAN is not required at edge level switch, Hence request you to please remove this.	No Change , Please follow Tender Specifications.
		<b>H</b>			<b>Certifications</b>		
161	2				Electromagnetic emissions certifications - 47 CFR Part 15,CISPR 22 Class A,CISPR 32 Class A,CNS 13438,EN 300 386*,EN 55022 Class A,EN 55032 Class A,EN61000-3-2,EN61000-3-3,ICES-003 Class A,KN 32,TCVN 7189 Class A,V-3 Class A,CISPR 24,EN 300 386*,EN 55024,KN 35,TCVN 7317	The Marked standards are generally not required by Indian Govt.	No Change , Please follow Tender Specifications.
		<b>I</b>			<b>Operating Temperature Range</b>		
	1				Normal operating temperature and altitudes:		

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162	2				<ul style="list-style-type: none"> <li>-5°C to +45°C, up to 5000 feet (1500m)</li> </ul>	OEM Specific temperature range, It is generally not possible to have -5 degree in indoor environment where switches will be installed, Request you to please change this to " 0°C to +45°C. So that leaders can participate.	No Change , Please follow Tender Specifications.
	K				Smart Monitoring		
163	1				The switch should support from Day - 1 the following basis SDN principles	OEM Solution specific demands	No Change , Please follow Tender Specifications.
164	2				° Full network visibility and monitoring	OEM Solution specific demands	No Change , Please follow Tender Specifications.
165	3				° End-to-end Quality of Experience (QoE)	OEM Solution specific demands	No Change , Please follow Tender Specifications.
166	4				° Fast issue resolution and network remediation	OEM Solution specific demands	No Change , Please follow Tender Specifications.
	M				Switch's Software Features	OEM Solution specific demands	
167	1				1.Automated device provisioning	OEM Solution specific demands	No Change , Please follow Tender Specifications.
168	2				2.API-driven configuration	OEM Solution specific demands	No Change , Please follow Tender Specifications.
169	3				3.Seamless software upgrades and patching	OEM Solution specific demands	No Change , Please follow Tender Specifications.
					<b>24 Port PoE Edge Switch with SFP+ Uplink</b>		
170	2				Switch should have 2 GB RAM and 4 GB Flash and the proposed switch should be SDN capable in all aspect.	All OEM have different SW architecture and size to support the switch requirement, HPE switches doesn't need more than 512MB flash to operate with full functionality, Hence request you to please relax on flash requirements. So that leaders OEM can participate.	No Change , Please follow Tender Specifications.
171	6				Switch should support minimum 512 Switched Virtual Interfaces.	OEM specific Solution requirements, Request you to please remove this.	Switch should support minimum 512 Switched Virtual Interfaces or equivalent
	B				General Features		
172	8				Proposed switch should be enterprise grade switch with x86 based CPU architecture	OEM specific HW details, Request you to please remove this.	No Change , Please follow Tender Specifications.
173	10				Switch should support Layer 2, Routed Access (RIP, OSPF), PBR, PIM Stub Multicast, PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder	Request you to please remove OEM specific parameters like CDP, FHS, CoPP, SXP, IPSLA Responder or ask for equivalent standards, SO that major OEM can participate.	Switch should support Layer 2, Routed Access (RIP, OSPF), PBR, PIM Stub Multicast, PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder or equivalent functionalities
	C				High availability & Resiliency		
174	18				Switch should support cross-stack etherchannel.	OEM Specific, Request you to please remove the same, So that leaders can participate.	Switch should support cross-stack etherchannel or equivalent functionality.
175	21				Switch should support embedded event manager scripts	OEM specific Solution requirements, Request you to please remove this.	Switch should support embedded event manager scripts or equivalent
	F				Quality of Service		
176	39				Switch should support 802.1p Class of Service (CoS) and Differentiated Services Code Point (DSCP) field classification, Shaped Round Robin (SRR) scheduling, Committed Information Rate (CIR), and eight egress queues per port.	CIR is OEM Specific, Request you to please remove the same.	Switch should support 802.1p Class of Service (CoS) and Differentiated Services Code Point (DSCP) field classification, Shaped Round Robin (SRR) scheduling, Committed Information Rate (CIR) or equivalent, and eight egress queues per port.
	G				Layer-3 Features should be supported with license upgrade for L2 to L3		
177	40				The Switch should support routing protocols such OSPF, BSR, IS- ISv4, LISP, VXLAN, VRF.	LISP and VxLAN is not required at edge level switch, Hence request you to please remove this.	No Change , Please follow Tender Specifications.
	H				Certifications		
178	2				Electromagnetic emissions certifications - 47 CFR Part 15, CISPR 22 Class A, CISPR 32 Class A, CNS 13438, EN 300 386*, EN 55022 Class A, EN 55032 Class A, EN61000-3-2, EN61000-3-3, ICES-003 Class A, KN 32, TCVN 7189 Class A, V-3 Class A, CISPR 24, EN 300 386*, EN 55024, KN 35, TCVN 7317	The Marked standards are generally not required by Indian Govt.	No Change , Please follow Tender Specifications.
	I				Operating Temperature Range		
	1				Normal operating temperature and altitudes:		
179	2				<ul style="list-style-type: none"> <li>-5°C to +45°C, up to 5000 feet (1500m)</li> </ul>	OEM Specific temperature range, It is generally not possible to have -5 degree in indoor environment where switches will be installed, Request you to please change this to " 0°C to +45°C. So that leaders can participate.	No Change , Please follow Tender Specifications.
	K				Smart Monitoring		

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180	1				The switch should support from Day - 1 the following basis SDN principles	OEM Solution specific demands	No Change , Please follow Tender Specifications.
181	2				° Full network visibility and monitoring	OEM Solution specific demands	No Change , Please follow Tender Specifications.
182	3				° End-to-end Quality of Experience (QoE)	OEM Solution specific demands	No Change , Please follow Tender Specifications.
183	4				° Fast issue resolution and network remediation	OEM Solution specific demands	No Change , Please follow Tender Specifications.
	<b>M</b>				<b>Switch's Software Features</b>		
184	1				1.Automated device provisioning	OEM Solution specific demands	No Change , Please follow Tender Specifications.
185	2				2.API-driven configuration	OEM Solution specific demands	No Change , Please follow Tender Specifications.
186	3				3.Seamless software upgrades and patching	OEM Solution specific demands	No Change , Please follow Tender Specifications.
<b>Distribution switch with 10G Ports</b>							
187	5				Should have 16 GB RAM and 16 GB Flash and the proposed switch should be SDN capable in all aspect.	All OEM have different SW architecture and size to support the switch requirement, HPE switches doesn't need more than 512MB flash and 2GB RAM to operate with full functionality, Hence request you to please relax on flash requirements, So that leaders OEM can participate.	No Change , Please follow Tender Specifications.
188	6				Two core switches will be connected in virtual stack to increase performance and active-active performance with support of NSF/SSO when connected		
189	9				Switch should support 4000 VLANs and 4000 SVI	OEM Specific Language, Request you to please change this to "Switch should support 4000 VLANs and 4000 Virtual LAN" so that leaders can participate.	Switch should support 4000 VLANs and 4000 SVI or equivalent
190	13				Switch should support up to 32K multicast routes	OEM specific Figures, 32K multicast demand is very high for any enterprise network, Request you to please reduce this to 4K so that leaders can participate.	No Change , Please follow Tender Specifications.
191	14				Switch should support routing protocols like BGPv4, OSPF(v2, v3), ISISv4, RIP, Static, ECMP, LISP, VXLAN, PIM, SSM, DVMRP, BFD, VRF aware BFD	Some Protocols are OEM specific like LISP, Hence request you to please relax on these protocols, So that leaders can also participate.	No Change , Please follow Tender Specifications.
192	22				Switch should support at least 15K hardware based ACL	OEM specific Figures, 15K HW based ACL demand is too high for any enterprise NW, Request you to please reduce this to 10K so that leaders can participate.	No Change , Please follow Tender Specifications.
193	26				Should support IEEE 1588v2. Support both static and dynamic NAT and Port Address Translation (PAT)	OEM specific language, Please remove the same. So that leaders can participate.	Should support IEEE 1588v2. Support static or dynamic NAT and Port Address Translation (PAT)
194	27				Switch should support real time data collection with line rate hardware based netflow/sflow up to 500 K	Net Flow require entries, However Sflow doesn't have any relation to entries. Request you to please remove entries for Sflow.	No Change
195	30				Switch should have atleast 500GB SSD storage & scalable upto 960GB to store logs and container based application hosting	OEM Specific, Request you to please remove.	Switch should have atleast 64GB SSD storage & scalable upto 960GB to store logs and container based application hosting
196	32				Switch should support telnet, SSH, https, SNMPv3, IPFIX, configuration rollback feature for ease of management	IPFIX is a old standard, HPE switch supports Sflow to exchange the information , Hence request you to please relax on this so that leaders OEM can participate.	Switch should support telnet, SSH, https, SNMPv3, IPFIX or latest standard, configuration rollback feature for ease of management
197	38				Switch should support blue beacon technology to identify hardware during trouble shooting	OEM specific, Hence request you to please remove the same.	Switch should support blue beacon or equivalent technology to identify hardware during trouble shooting
<b>Core switch</b>							
198	5				Should have 16 GB RAM and 16 GB Flash and the proposed switch should be SDN capable in all aspect.	All OEM have different SW architecture and size to support the switch requirement, HPE switches doesn't need more than 512MB flash and 2GB RAM to operate with full functionality, Hence request you to please relax on flash requirements, So that leaders OEM can participate.	No Change , Please follow Tender Specifications.
199	6				Two core switches will be connected in virtual stack to increase performance and active-active performance with support of NSF/SSO when connected		
200	9				Switch should support 4000 VLANs and 4000 SVI		
201	12				Switch should support 212K IPv4 and 212K IPv6 entries	OEM specific Figures, Also very oversized for enterprise network, Hence request you to please change this to 128K IPv4 and 64K IPv6 entries. So that leaders can participate.	No Change , Please follow Tender Specifications.
202	13				Switch should support up to 32K multicast routes	OEM specific Figures, 32K multicast demand is very high for any enterprise network, Request you to please reduce this to 4K so that leaders can participate.	No Change , Please follow Tender Specifications.
203	22				Switch should support at least 15K hardware based ACL	OEM specific Figures, 15K HW based ACL demand is too high for any enterprise NW, Request you to please reduce this to 3K so that leaders can participate.	No Change , Please follow Tender Specifications.
204	26				Should support IEEE 1588v2. Support both static and dynamic NAT and Port Address Translation (PAT)	OEM specific Language, Request you to please remove.	Should support IEEE 1588v2. Support static or dynamic NAT and Port Address Translation (PAT)



S.No.	S No	Item	Volume/ Clause no.	Page no.	Tender Description	Queries	INST Clarification
205	27				Switch should support real time data collection with line rate hardware based netflow/sflow up to 500 K	Net Flow require entries, However Sflow doesn't have any relation to entries. Request you to please remove entries for Sflow.	No Change
206	30				Switch should have atleast 500GB SSD storage & scalable upto 960GB to store logs and container based application hosting	OEM Specific, Request you to please remove.	Switch should have atleast 64GB SSD storage & scalable upto 960GB to store logs and container based application hosting
207	32				Switch should support telnet, SSH, https, SNMPv3, IPFIX, configuration rollback feature for ease of management	IPFIX is a old standard, HPE switch supports Sflow to exchange the information , Hence request you to please relax on this so that leaders OEM can participate.	Switch should support telnet, SSH, https, SNMPv3, IPFIX or latest standard, configuration rollback feature for ease of management
208		Functional Requirement for SDN Controller				Request you Please remove the whole section of SDN controller, As we don't have portfolio to support this.	No Change. Bidders can propose solution using integration with other components which can meet the following functional requirements for SDN controller. Solution must be from same OEM as of wired and wireless devices
209	1				Switching & Wireless components must be centrally managed via single dashboard. Configuration policies must be automatically pushed across all components centrally.		No Change , Please follow Tender Specifications
	2				Quickly isolate issues within network LAN, WAN or Wireless LAN		
	3				Health Score – quick indication of an issue with network, client, application and compliance		
	4				Automated workflows to design and provision the network infrastructure		
	5				Ability to define user and device profiles and policies		
	6				Ability to define highly secure user and device access and network segmentation		
	7				Software image management, including patch management		
	8				Device discovery, inventory and configuration		
	9				Third-party integration with open REST APIs		
	10				Configuration Archive		
	11				Software Image and Patch Management		
	12				Role-Based Access Control		
	13				Programmability – REST API Support		
	14				Backup and Restore		
	15				IP Address Management with IPAM		
210	21				WLC should support PMIPv6 and EoGRE tunnels on northbound interface	OEM Specific, Please remove this. So that Leaders can participate.	WLC should support PMIPv6 and EoGRE tunnels or equivalent on northbound interface
<b>Indoor Access Point: -</b>							
211	3				Access Point shall support Console port that uses Standard Port (RJ-45) type connection	Request you to please remove the limitation of type of Console, So that leaders can participate.	No Change , Please follow Tender Specifications.
<b>AAA Solution: -</b>							
212	19				The Solution should have capability to collect endpoint attribute data via passive network telemetry, querying the actual endpoints, or alternatively from the infrastructure via device sensors on switches.	OEM specific NAC functionality request you to please remove the same.	The Solution should have equivalent capability to collect endpoint attribute data via passive network telemetry, querying the actual endpoints, or alternatively from the infrastructure via device sensors on switches.
213	40				Should support importing endpoints from a comma-separated values (CSV) file in which the list of endpoints appears with the MAC address and the endpoint profiling policy details separated by a comma.	OEM specific language, Request you to please remove the same.	Should support importing endpoints from a comma-separated values (CSV) file in which the list of endpoints appears with the MAC address and the endpoint profiling policy details separated by a comma or equivalent method
214	63				Minimum HW requirement for appliance are : 1 – Intel Xenon 2.60 GHz E5-2640 processor, minimum 64GB RAM and 4*600GB 10K RPM SAS HDD and 6 x 1G NIC	OEM specific HW requirements, Request you to make as per OEM offering.	No Change
<b>Network Management System: -</b>							

S.No.	S No	Item	Volume/ Clause no.	Page no.	Tender Description	Queries	INST Clarification
215	4				The NMS solution should be dedicated hardware based appliance which should have 10 Core Physical CPUs, 25MB cache, 64 GB memory, 4 x 900GB RAID10 and 320 MBps I/O bandwidth with 1500 device Lic. from Day-1. NMS and other network active devices are from same OEM for better integration and manageability.	OEM specific HW requirements, Request you to make as per OEM offering.	The proposed management solution should be a dedicated hardware from same OEM, capable to manage minimum 1000 wired and wireless network devices without any performance impact

**Note:-The last date of submission of tender is extended from 18-03-2019 to 22-03-2019 upto 3:00P.M to be opened at 3:30 P.M**