



STR-D2/EQPT/281/NETWORKING2.0/IT/2020-21 E Procurement Tender No. NIMHANS/2020-21/IND749

13.01.2021

Clarification for the Pre-Bid Query

Reference:

- a. E- Procurement Tender No. NIMHANS/2020-21/IND749 Dated: 09/12/2020.
- b. Addendum/Corrigendum Notification No. STR-D2/EQPT/281/NTWORKING2.0/IT/2020-21 Dt 06/01/2021

In reference to the Tender Notification No. **NIMHANS/2020-21/IND749** towards Networking 2.0 Clarification for the Pre-Bid Query has been issued through e-procurement portal and NIMHANS website.

SI. No.	Page No	Point Details	RFP Description	NIMHANS Clarification
1	1	Tender Notification	Provide Managed Services (O&M) for three years, with a provision to extend for another five years based on mutually agreed terms & conditions.	Only initial three years of O & M will be considered for financial calculation along with the other items mentioned in BOQ.
			22. Managed Services (O&M) Contract term shall be initially for three years' subject to extension on a year-to-year basis for the next five years, based on a satisfactory performance review of the Successful Bidder.	
2	1	Tender Notification	Provide passive works agreement to carryout additional cabling works and extension of LAN	Will be decided with the successful bidder
3	1	Tender Notification The Director, NIMHANS reserves the right to select the item (in single or multiple units) or to reject any quotation wholly or partly without assigning any reason.		Please Quote according to Commercial Bid document attached with the RFP.
4	2 & 23	EMD	5.1 EMD amount for the bid is INR: 50,00,000/- (Rupees Fifty Lakh only).5.2 The (EMD) shall be denominated in Indian Rupees and should be paid in the e-procurement portal as per the facility provided.	Bidders can participate in the tender as per the latest Govt. of India Guidelines in addition to GOI, GFR 2017 Guidelines.
5	13	Passive Network Survey	Wired and Wireless Network is considered in the scope of the survey. Only Indoor Wi-Fi within the buildings is considered. There may be a need for outdoor Wi-Fi in future meeting IP65 requirements in certain areas of the campus.	Quote as per the tender

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6	26	Price Bid	Price should be quoted in Indian Rupees (INR) only. The Rates should be quoted item wise per unit price and quantity only	Please Quote according to Commercial Bid document attached with the RFP. Lump sum price is clearly specified in the RFP commercial bid document.
7	26	The technical bid should comprise of the following documents	Warranty certificate (Certificate of Guarantee/Warranty)	Vendor should provide a declared document complying to the warranty Terms
8	30	Pre-Qualification Criteria for Bidder	The Successful Bidder shall submit copies of all CV and OEM certifications of all the Technical staff that were listed as part of this bid, along with the prequalification bid document.	Certifications should be submitted along with the bid document since this is a criterion for QCBS Evaluation. The Prospective Bidder shall submit copies of all CV and OEM certifications of all the Technical staff that were listed as part of this bid, along with the prequalification bid document.
9	30	Pre-Qualification Criteria for Bidder	11. Manpower Capability Criteria: The bidder should at least have 50 Technical staff on its payroll, as on date, out of which 15 should be graduate engineers in the discipline of electronics and communications and or Telecommunications and or IT and or Computer Science. Further, out of 50 technical staff, 15 should have professional network certification from any of the leading network equipment OEMs.	It is clearly mentioned that out of 50 technical staff, 15 should have professional Network certification from any of the leading Network Equipment OEMs.
10	32	Turnover of the OEM	OEM should have a turnover of at least 100 Cr in the last two financial years 2018-19 & 2019-20 for the N/W hardware and software business carried out of India	OEM Audit certification on the turnover for the two financial years of India/Global operations needs to be enclosed.
11	37	Payment	All payments are made subject to the deductions at source for the relevant taxes as per GOI guidelines.	TDS/TCS are not cost factors and credit of TDS/TCS passed on to the respective parties by issue of TDS/TCS certificates.
12	38	Payment	3. Supply, Installation and Commissioning Cost: SI no. 1 60% of Supply Cost (Part-A): Documents Required: OEM warranty certificate for 5 years of all the components + 3 years AMC support in the name of NIMHANS	AIMC support price is excluded from the payment at the time of installation. It is clearly specified in the tender document.
13	38	Supply, Installation and Commissioning Cost.	SI No 1- Asks for : Insurance certificate & OEM warranty certificate for 5 years of all the components + 3 years AMC support in the name of NIMHANS	Documentary Proof from the OEM to support warranty and AMC as listed shall be provided.
14	38	Payment	3. Supply, Installation and Commissioning Cost:20% of Supply Cost (Part-A) and 50% of Installation and Commissioning (Part-B)	Please see the Corrigendum

15	38	Payment	3. Supply, Installation and Commissioning Cost:	Please see the Corrigendum
			20% of Supply Cost (Part A) and 50% of the Installation of Commissioning Cost (Part B)	>
16	49	Passive works maintenance:	37. Passive works maintenance: The agency shall also be responsible for the maintenance of the passive works for an initial 3 Years period which may be extended on mutual agreement for the next five years based on the satisfactory role of the agency.	Quote as per the tender commercial bid document.
			42. If at any time, during the said period, the supplier reduces the said prices of such Materials/Equipment or sales such Materials/Equipment to any other person/organization/ Institution at a price lower than the chargeable, the company shall forthwith notify such reduction or sale to the Director, NIMHANS and the price payable for the Materials supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.	
17	82	Hardware Requirement for Servers	Syslog Server shall also have extended SAN storage of suitable capacity to store the logs of all the systems and Network equipment, Firewall etc. for some time as stipulated in the IT policy.	Syslog server is to be integrated with existing SAN storage.
18	99	(NAC)	Rich policies using identity, device, health, or conditional elements f. Deployment and implementation tools.	'End User Health'

Sd/-

I/c Administrative Officer (S)

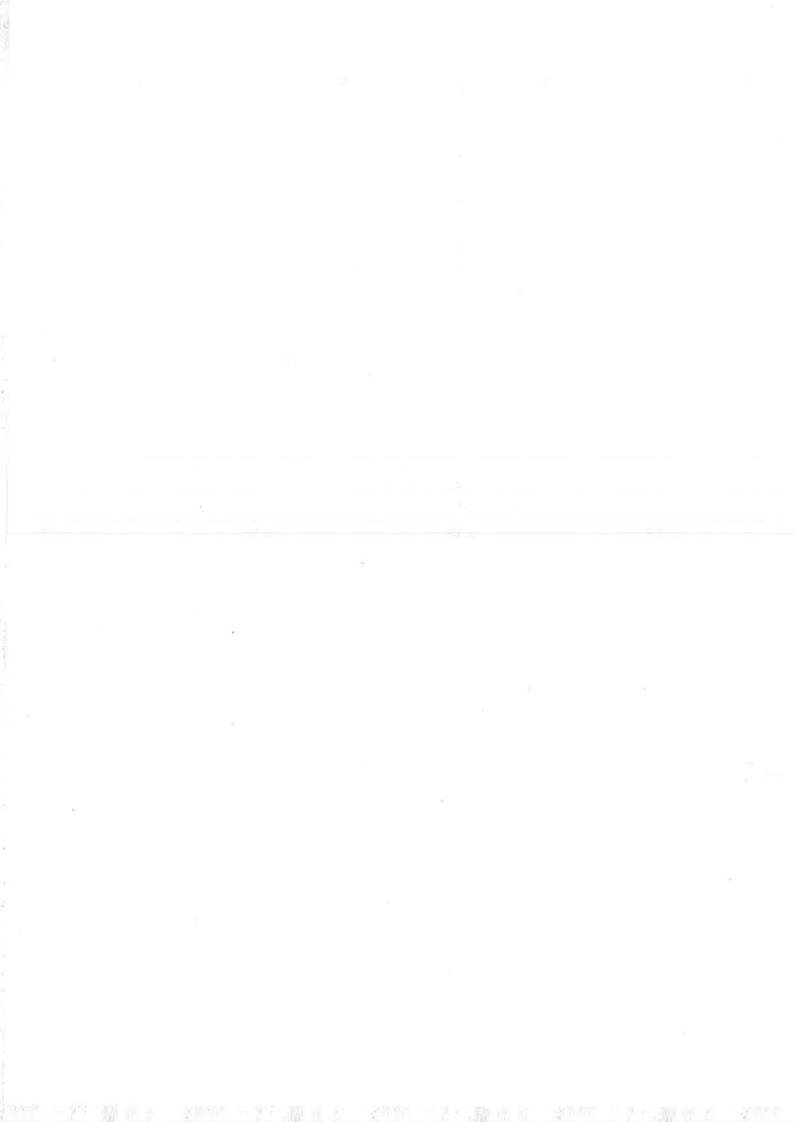
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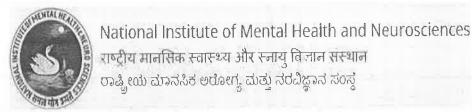
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STR-D2/EQPT/281/NETWORKING2.0/IT/2020-21 E-Procurement Tender No. NIMHANS/2020-21/IND749 13.01.2021

ADDENDUM/CORRIGENDUM (Through e-procurement portal only)

Subject: Corrigendum for the E Procurement Tender No. NIMHANS/2020-21/IND754

Reference:

- a. E- Procurement Tender No. NIMHANS/2020-21/IND749 Dated: 09/12/2020.
- b. Addendum/Corrigendum Notification No. STR-D2/EQPT/281/NTWORKING2.0/IT/2020-21 Dt 06/01/2021

In reference to the Tender Notification No. **NIMHANS/2020-21/IND749** towards Networking 2.0, **Addendum/corrigendum and clarification** has been issued for the <u>Pre-Bid query</u> with change in schedule of date and time through e-procurement portal and NIMHANS website.

SI No	Schedule	As per Tender Documnet	To be read as	
1	Last Date & Time for receipt of tenders	20/01/2021 upto 11.00 AM	27/01/2021 upto 11.00 AM	
2	Last Date & Time for Tender Queries/Clarifications	07/01/2021 upto 16.00 PM	13/01/2021 upto 16.00 PM	
3	Date & Time for Opening of Technical Bid	21/01/2021 at 11.00 AM	28/01/2021 at 11.00 AM	

Addendum/corrigendum for Pre-Bid Query

SI. No.	Page No	Point Details	RFP Description	NIMHANS Clarification to be Read as
1	21		All Products supplied under the new Network should have been introduced in the market not later than 2 years back as on the date of supply and shall have a minimum of EoS for the next 8 years. End of Life should be for a minimum of 5 years from the date of supply.	All Products supplied under the new Network should be latest and stable as on the date of supply and shall have a minimum of EoS for the next 8 years. End of Life should be for a minimum of 5 years from the date of supply.
2	23	Earnest Money Deposit (EMD):	EMD submitted in DD form only	EMD should be submitted through Online RTGS only in e –procurement portal.
3	23	EMD	EMD amount is exempted, if they enclose valid NSIC /MSME Certificate under the under NIC code No 61. Failing, EMD exemption will not be considered.	EMD amount is exempted, if they enclose valid NSIC /MSME Certificate under the under NIC code No 61. Failing, EMD exemption will not be considered. Additionally, NIMHANS shall follow the latest Govt. of India Guidelines with the EMD amount.
4	24	Bid Information	The bidder shall make a technical presentation of his understanding on the NIMHANS Network requirement, proposed technology, reliable topology, security aspects, management and at least two of	The bidder shall make a technical presentation of his understanding on the NIMHANS Network requirement, proposed technology, reliable topology, security aspects, management and at least two of the successfully executed medium

			the successfully executed medium and big projects in the last 3 years.	and big projects in the last 5 years.
5	29	Pre- Qualification Criteria for Bidder	4. Annual Turnover Criteria: The average annual turnover of the Bidder(s) shall not be less than INR 50 Crores each during the last 4 financial years 2016-17, 2017-18, 2018-19 and 2019-20) from provisioning of IT infrastructure services including network.	The Average annual turnover of the bidder shall not be less than 30 crores during the last 4 financial years (2016-17, 2017-18, 2018-19 and 2019-20) from provisioning of IT infrastructure services including network.
6	29		Bidder should have a positive net worth during the last 4 financial years 2016-17, 2017-18, 2018-19 and 2019-20)	Bidder should have a positive net worth during the last 3 financial years 2017-18, 2018-19 and 2019-20)
7	29	N 114	Bidder should have executed at least three projects of network installation and O&M including wireless in last five years of the value of at least INR 15 crore out of which INR 10 Crore should be from network supply (Cost of hardware, software, active components, passive components, UPS) cost and 90% of the work should have been completed. The project should be predominantly a networking project. In case client certificate for project completion is not available a CA certificate confirming that more than 90% of the contract value is billed and payment is received shall be accepted.	Bidder should have executed at least one project of network installation and O&M including wireless in last five years of the cumulative value (multiple PO's) of at least INR 10 crore out of which INR 7.5 Crore should be from network supply (Cost of hardware, software, active components, passive components, UPS) cost and 90% of the work should have been completed OR Bidder should have executed at least three projects (cumulative) of network installation and O&M including wireless in last five years of the cumulative value (multiple PO's) of at least INR 15 crore out of which INR 12 Crore should be from network supply (Cost of hardware, software, active components, passive components, UPS) cost and 90% of the work should have been completed.
				The project should be predominantly a networking project. In case client certificate for project completion is not available a CA certificate confirming that more than 90% of the contract value is billed and payment is received shall be accepted.
8	29	Origin / Sourcing of N/W passive components	Declaration in this regard by the authorized signatory of the OEM	Bidder should mention the source of Origin of Network Active and Passive Components.
9	30	Quality Certification	The bidder should have been Accredited ISO 20000 Certified organization in which Data network or IT Solutions or FMS should be in the scope of certification. The certificate should be valid as on the date of submission of the bid and should be in the name of the bidder	The bidder should have been Accredited ISO 20000 and / or ISO 27001 Certified organization in which Data network or IT Solutions or FMS should be in the scope of certification. The certificate should be valid as on the date of submission of the bid and should be in the name of the bidder
10	31	Pre- Qualification Criteria – OEM (For Active Components & Other Items)	The OEM shall be listed as Technology leader in the Network H/W and S/W supply in the latest Gartner Report of the year 2020	The OEM shall be listed as Technology leader in the wired and wireless network supply in the latest Gartner Report of the year 2020
11	31	Presence In India	The proposed solution OEM should be incorporated in India under the Companies Act 1956/Limited Liability Partnership Act	The proposed solution OEM should be incorporated in India under the Companies Act 1956 or later / Limited Liability Partnership Act

			2008 for at least 10 years.	2008 for at least 10 years. Certificate of OEM incorporation from ROC / STPI shall be accepted.
12	31	Single OEM		All the active network components including network-related equipment and software proposed under this RFP should be from the single OEM. However, NAC and NMS solutions need not be from the same OEM, however they should be of from a good and reputed company that are leaders worldwide. It is the responsibility of the SI to integrate both NAC and NMS with other network components seamlessly ensuring smooth inter-operability.
13	31	Proposed Solution Requirements	OEM should have completed two wireless LAN deployment projects with more than 500 indoor Access Points in each in India during the last five years	OEM through SI / Directly should have completed two wireless LAN deployment projects with more than 250 indoor Access Points each in India during the last five years. Purchase order copy and completion certificate from the concern authorities to be provided.
14	32	OEM Experience	OEM should have completed deployment of more than 20000 indoor Access Points and 25000 Access Points (indoor and outdoor put together) In India.	OEM through SI (multiple SI Cumulative) or directly, should have completed deployment of more than 15000 indoor Access Points and 20000 Access Points (indoor and outdoor put together) In India. Declaration from OEM with supporting Purchase Order Copies should be submitted.
15	32	Turnover of the OEM	OEM should have a turnover of at least 100 Cr in the last two financial years 2018-19 & 2019-20 for the N/W hardware and software business carried out of India	OEM should have a turnover of at least 100 Cr in the last two financial years 2018-19 & 2019-20 for the N/W hardware and software business carried out of India/Globally
16	32	Pre- Qualification Criteria – OEM (For Active Components & Other Items)	11. Completion of the Projects in Govt. Sector: OEM should have executed at least 5 major projects of 20 Cr each and above for the N/W hardware and software in State / Central Government / Public Sector	OEM should have executed through SI / Directly, at least 5 major projects of 20 Cr each and above (either single order or multiple POs with the same project) for the N/W hardware and software in State / Central Government / Public Sector / Major Private / Major Corporate Sectors.
17	34	CV Evaluation Table	1. Project Manager Position: BE/B-Tech in Computer Science/Electronics and Communication Engineering/IT with a minimum of 10 years of relevant experience in networking projects area with the following professional certification. • CCNP/CCIE or Equivalent and • PMP/PRINCE2 • CISA/CISSP	Project Manager Position: BE/B-Tech in Computer Science/Electronics and Communication Engineering/IT with a minimum of 10 years of relevant experience in networking projects area with the following professional certification. • CCNP/CCIE or Equivalent and • PMP/PRINCE2
18	34	CV Evaluation Table	BE/B-Tech in Computer Science/Electronics and Communication Engineering/IT with a minimum of 10 years of relevant experience in networking projects area with the following professional certification. • CCNP/CCIE or Equivalent and • PMP/PRINCE2 • CISA/CISSP	BE/B-Tech in Computer Science/Electronics and Communication Engineering/IT with a minimum of 10 years of relevant experience in networking projects area with the following professional certification. • CCNP/CCIE or Equivalent and • PMP/PRINCE2
19	36	Performance BG	25. The successful tenderer should also furnish a Bank guarantee only from a nationalized bank to the extent of 10% of the total purchase order value, valid for 180 days beyond the completion of the warranty period of the equipment; no split period bank guarantee will be entertained	The successful tenderer should also furnish a Bank guarantee only from a nationalized bank / Scheduled Commercial Banks to the extent of 3% of the total purchase order value, valid for 180 days beyond the completion of the warranty period of the equipment.

20	38	Payment:	 60% of Supply Cost -(Part-A) 20% of Supply Cost (Part-A) and 50% of Installation and Commissioning (Part-B) 20% of Supply Cost (Part A) and 50% of the Installation of Commissioning Cost (Part B) 	1) 60% of Supply Cost -(Part-A) 2) 30% of Supply Cost (Part-A) and 50% of Installation and Commissioning (Part-B) 3) 10% of Supply Cost (Part A) and 50% of the Installation of Commissioning Cost (Part B)
21	48	Reference of supply:	Name and contact details of the premier educational Institutes (IITs/IISER/CSIR/IISc/IIITs/Government HealthCare Sector etc.) where the quoted equipment has been installed in India should be enclosed. Copies of at least two purchase orders may be attached.	Name and contact details of the premier educational Institutes (IITs/IISER/CSIR/IISc/IIITs/Government HealthCare Sector etc., Private / Corporate Enterprise organisations, where the quoted equipment has been installed in India should be enclosed. Copies of at least two purchase orders may be attached.
22	55		Wi-Fi Access Points with cloud-based Controller with lifetime Subscription	Lifetime Subscription should be read as 5 years.
23	62	Provision of New LAN/WLAN Connections	Provision of New LAN/WLAN Connections: SI no's 1 to 7 services	Installation and configuration new network racks (9U Wall Mount Racks; 12U/15U Floor Mount Racks): 0-7 Working Days
24	63	NMS Monitoring	In the event of failure/fault in priority one devices, NMS shall automatically detect the same and send high alert emails and SMS to the configured contacts, along with raising a ticket	In the event of failure/fault in priority one devices, NMS shall automatically detect the same and send high alert SMS and / or emails to the configured contacts, along with raising a ticket
25	63	NMS Monitoring	In the event of any devise/link failure/fault, the Service Provider NMS shall automatically detect the same and raise a ticket with a copy of same through an email to the designated officer(s) of respective department office and make his best efforts to perform timely fault management of respective link(s). After the resolution of the problem, the ticket shall be closed with the written intimation (email) of same to all the designated officer(s).	In the event of any devise/link failure/fault, the Service Provider NMS shall automatically detect the same and raise a ticket with a copy of same through an email to the designated officer(s) of respective department office and make his best efforts to perform timely fault management of respective link(s). After the resolution of the problem, the ticket shall be closed with the written intimation SMS and / or email of same to all the designated officer(s).
26	71	Core Switches HA Mode	The switch should support RIPv2, VRRP/HSRP, OSPF v2/v3, BGP, DCBx, ETS	The switch should support VRRP/HSRP, OSPF v2/v3, BGP, DCBx, ETS. It can optionally support RIPv1/v2.
27	72	Distribution Switches HA Mode	The switch should support RIPv2, VRRP/HSRP, OSPF v2/v3, BGP, DCBx, ETS	The switch should support VRRP/HSRP, OSPF v2/v3, BGP, DCBx, ETS. It can optionally support RIPv1/v2.
28	72	Server Farm Switch	The redundant power supply should support RIPv2, PBR, OSPF v2/v3, BGP, DCBx, ETS and PFC protocols for both IPv4 and IPv6 suites with dual-stack support, DHCP Snooping, ARP Inspection	The redundant power supply should support PBR, OSPF v2/v3, BGP, DCBx, ETS and PFC protocols for both IPv4 and IPv6 suites with dual-stack support, DHCP Snooping, ARP Inspection. It can optionally support RIPv1/v2.
29	79	Wireless intrusion Protection	impersonation detection, protects windows bridge etc.	impersonation detection, protects windows bridge etc./ equivalent
30	81	NMS	NMS solution must be from the same OEM	NMS solution need not be from the same OEM. But it should from a reputed organization who are leaders worldwide and the SI should ensure seamless integration with the other network components and allow inter-operability at no extra cost to the institute.

31	82	Hardware	The deployment of the above applications	The deployment of the above applications shall
-		Requirement for Servers	shall be on High Availability mode.	be on High Availability mode with 2 servers installed for this purpose. One server in active mode and the other as stand by for running these applications.
32	84	Server Farm Switch	Must support 100K or more MAC Address, 10K IPV4 or more, 2k or more IPV6.	Must support 82K or more MAC Address, 10K IPV4 or more, 2k or more IPV6.
33	84	Server Farm Switch	Data Center Bridging eXchange (DCBX)/FCoE	Data Center Bridging eXchange (DCBX)/FCoE capability may be quoted as optional.
34	84	Server Farm Switch	The switch should support Non-Stop- Routing, Non-Stop Bridging, Graceful restarts for Layer-3 protocols.	The switch should support Non-Stop-Routing / Non-Stop Bridging, Graceful restarts for Layer-3 protocols when deployed in HA / Cluster Mode.
35	84	Server Farm Switch	The switch should support BGP, OSPF, EVPN, VXLAN from day 1	The switch should support BGP, OSPF, VXLAN and EVPN or equivalent from day 1
36	84	Server Farm Switch	Should support Port Security and RADIUS / TACACS+ integration. The switch should support SNMP v1,2 &3 and with DHCP server and relay capabilities	Should support Port Security and RADIUS / TACACS+ integration. The switch should support SNMP v1,2 &3 and with DHCP server and / or relay capabilities
37	85	Server Farm Switch	Must support ISSU for L2 and L3	Must support ISSU or equivalent for L2 and L3 when deployed in HA / cluster mode.
38	85	Core Switch	Switching Solution Must support 36 nos. 40G (QSFP+) ports, 12 nos. 1G/10G (SFP/SFP+) ports on day1 with N:1 power supply and in HA mode. In case of Chassis solution, All the line cards on the chassis should have distributed forwarding /local processing as well as redundant CPU and Supervisors. Chassis/1U/2U should support 100% interface scalability for the existing mentioned interface.	Switching Solution must be a Modular Chassis based solution and support 36 nos. 40G (QSFP+) ports, 12 nos. 1G/10G (SFP/SFP+) ports on day1 with N:1 power supply and in HA mode. All the line cards on the chassis should have distributed forwarding /local processing as well as redundant CPU and Supervisors. Chassis/1U/2U should support 100% interface scalability for the existing mentioned interface.
39	85	Core Switch	The switch should support BGP, OSPF, EVPN, VXLAN from day 1	The switch should support BGP, OSPF, EVPN or equivalent, VXLAN from day 1
40	85	Core Switch	Must support a minimum of two fabrics cards working in Active/Active & Load sharing (in case of chassis solution)	Must support a minimum of two CPU/Switch fabrics working in Active/Active or Active/Passive & Load sharing within the modular chassis
41	86	Core Switch	Data Center Bridging eXchange (DCBX)/FCoE	Data Center Bridging eXchange (DCBX)/FCoE capability may be quoted as optional.
42	86	Core Switch	Must support Migration of Port Profiles with VM-aware Network Automation	Must support Migration of Port Profiles with VM-aware Network Automation or equivalent
43	86	Distribution Switch	The switch should support Virtualization of the Switch to segment one single switch into isolated Virtual Routers/ device context. Each Virtual Router/ Device Context should be isolated from each other and there should not be any traffic leakage between them. Each Virtual Router/ Device Context should run independent instances of routing and switching protocols. Protocol Crash on one Virtual Router/ Device context should not affect the performance/ traffic of the other Virtual Router/ device Context. This feature should be available from day 1 via any of the technologies like MDC / VDC /LSYS / VR	The switch should support Virtualization of the Switch to segment one single switch into isolated Virtual Routers/ device context. Each Virtual Router/ Device Context should be isolated from each other and there should not be any traffic leakage between them. Each Virtual Router/ Device Context should run independent instances of routing and switching protocols. Protocol Crash on one Virtual Router/ Device context should not affect the performance/ traffic of the other Virtual Router/ device Context. This feature should be available from day 1 via any of the technologies like MDC / VDC /LSYS / VR / VRF or equivalent.

44	86	Distribution Switch	Must support Root guard and Storm Control	Must support Root guard/BPDU filter and Storm Control
45	86	Distribution Switch	Should support Port Security and RADIUS / TACACS+ integration The switch should support SNMP v1,2 &3 and with DHCP server and relay capabilities	Should support Port Security and RADIUS / TACACS+ integration The switch should support SNMP v1,2 &3 and with DHCP server and /or relay capabilities
46	87	Distribution Switch	Must Support threshold-based mechanism for detection of Malicious Threats. Must support Protocol based anomaly detection.	Solution Must Support threshold-based mechanism for detection of Malicious Threats. Must support Protocol based anomaly detection.
47	87	Access Switch Gigabit 24 /48 Port POE+	Must support for 24/48 gigabit POE+ with 4 * 10 GIG SFP+ ports	Must support for 24/48 gigabit /mgigabit POE+ with 4 * 10 GIG SFP+ ports
48	87	Access Switch Gigabit 24 / 48 Port POE+	Must support network segmentation and group-based policy via NMS or equivalent from day 1	Must support network segmentation using VRF protocol and group-based policy and group-based policy via NMS or equivalent from day 1
49	87	Access Switch Gigabit 24 / 48 Port POE+	Additional Recommendation	The proposed Switch supporting OSPF protocol may be quoted as optional.
50	88	Access Switch Gigabit 24 / 48 Port POE+	The switch should be SDN ready, Python, Ansible or standard-based equivalent	The switch should be SDN ready/ Python/ Ansible or standard-based equivalent
51	88	Access Switch Gigabit 24 / 48 Port POE+	Must Support threshold-based mechanism for detection of Malicious Threats. Must support Protocol based anomaly detection	Solution Must Support threshold-based mechanism for detection of Malicious Threats. Must support Protocol based anomaly detection.
52	89	Access Point	Access Point radio should be minimum 4 x 4:4 MU-MIMO with a dedicated sensor. Access Point should have dual Wi-Fi radio.	Access Point radio should be minimum 4 x 4:4 MU-MIMO with a dedicated / shared sensor. Access Point should have dual Wi-Fi radio.
53	89	Access Point	The access point should have a capability to enable both the radios on 5Ghz for serving the client thereby increasing the bandwidth capacity to 4.8 Gbps per access point.	The access point should have a capability to enable both the radios on 5 GHz and /or 2.4 GHz for serving the client thereby increasing the bandwidth capacity to 4.8 Gbps per access point.
54	89	Access Point	The access point should have dual Gigabit Ethernet to take the full advantage of Wave two throughput from day 1.	The access point should have a single dual functionality port (1G/Mgig) Ethernet.
55	89	Access Point	Must support the latest wireless standard i.e. Wi-Fi 5 / Wi-Fi 6/ 802.11ax latest Wi-Fi Alliance WPA3 security certifications. Additionally, supporting a stateful L2-L7 DPI firewall for context-based access security	Must support the latest wireless standard i.e. Wi-Fi 5 / Wi-Fi 6/ 802.11ax latest Wi-Fi Alliance WPA3 security certifications.
56	90	Access point	The access point should have a dedicated sensor option for WIPS functionality	The access point should have a dedicated / shared sensor option for WIPS functionality
57	90	Access point	16. Should have detecting and classifying non-Wi-Fi wireless transmissions while simultaneously serving network traffic	Should have detecting and classifying non-Wi-Fi wireless transmissions in the Wi-Fi Channel spectrum while simultaneously serving network traffic
58	90	Access point	Must support telnet and/or SSH login to APs directly for troubleshooting flexibility.	Must support telnet and / or SSH login to APs directly for troubleshooting flexibility or APs should be accessed by the GUI for the ease of troubleshooting

59	91	On-Premise Wireless Controller	The system should support real-time blue tooth Wayfinding (kind of indoor google maps) within controller or external application or integration to AI/ML cloud application.	The system should support real-time blue tooth Wayfinding (kind of indoor google maps) within controller or external application Integration to AI/ML cloud application may be quoted as optional.
60	91	On-Premise Wireless Controller	The system should be able to detect any Anomaly in the network for faster isolation of the issue and a more proactive approach to the problems on the controller or with integration with other solution components.	Stands deleted.
61	91	On-Premise Wireless Controller	The system should support Dynamic Packet Capture for analysis and troubleshooting	The system should support Dynamic Packet Capture or equivalent for analysis and troubleshooting
62	91	On-Premise Wireless Controller	Should support dynamic bandwidth selection among 20Mhz, 40 MHz and 80Mhz channels, ensuring one access point on 20Mhz and another on 80 MHz channel connected on the same controller at same WLAN group.	Should support dynamic bandwidth selection among 20Mhz, 40 MHz and 80Mhz channels.
63	91	On-Premise Wireless Controller	Should provide visibility to Network airtime for setting up the airtime policy enforcement	Should provide visibility to Network airtime or equivalent for setting up the airtime policy enforcement
64	91	On-Premise Wireless Controller	Must support dynamic Airtime allocation on per WLAN, per AP, Per AP group basis	Must support dynamic Airtime allocation on per WLAN, per AP, Per AP group, per User Group or Device category basis
65	94	Cloud Based Wireless Controller	The APs should support extensive BLE (Bluetooth Low Energy) antenna array for location services	The APs should support extensive BLE (Bluetooth Low Energy) antenna array or equivalent for location services
66	94	Cloud-Based Wireless Controller	The proposed architecture should be Subscription / Perpetual based solution with interaction for the management plane only. Data plane shall not go through the cloud-based controller from the Wi-Fi access points	The proposed architecture should be 5 year Subscription based solution with interaction for the management plane only. Data plane shall not go through the cloud-based controller from the Wi-Fi access points
67	94	Cloud-Based Wireless Controller	The system should be self-healing with reinforcement learning	The system should be self-healing with reinforcement learning or equivalent.
68	97	(NAC)	The solution should support a highly powerful and flexible attribute-based access control solution that combines authentication, authorization and accounting (AAA), NAC, BYOD, posture, profiling, guest management services and conditional elements on a single dedicated platform. This feature should be part of any Firewall/UTM functionality.	'The solution should support a highly powerful and flexible attribute-based access control solution that combines authentication, authorization and accounting (AAA), NAC, BYOD, posture, profiling, guest management services and conditional elements on a single dedicated platform.'
69	99	(NAC)	The proposed NAC solution should be able to analyze user or device behaviors.	The proposed NAC solution may able to analyze user or device behaviors. This feature may be quoted as optional.
70	100	(NAC)	The solution should classify a client machine and should support client provisioning resource policies to ensure that the client machine is set up with an appropriate agent version, up-to-date compliance modules for antivirus, and correct agent customization packages and profiles, if necessary. This feature will be	,"The solution should classify a client machine and should support client provisioning resource policies to ensure that the client machine is set up with an appropriate agent version, up-to-date compliance modules for antivirus. This feature will be required in future upgrades without adding additional Hardware.

			required in future upgrades without adding additional Hardware.	
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71	100	(NAC)	Should have predefined device templates /profiles for a wide range of endpoints, such as IP phones, printers, IP cameras, smart phones, and tablets.	'Should have manual / predefined device templates /profiles for a wide range of endpoints, such as IP phones, printers, IP cameras, smart phones, and tablets.'
72	114	CAT-06A U/UTP 650 MHz or better	Outer diameter -Nominal 6.6 ± 0.3 mm	Minimum 6.6 \pm 0.3 mm to Maximum 8.5 \pm 0.3 mm
73	117	CAT-06A UTP RJ45 Field term Plug, Direct Attach	IDC Contact material- Contacts: gold plated, the thickness of gold > 50 μ inches minimum	'gold/nickel'
74	118	CAT-06A UTP RJ45 Field term Plug, Direct Attach	Contact surface- > 50 μ inches gold over	'> 0.8 μm '
75	118	CAT-06A UTP RJ 45 socket, Patch Panel Side	IDC Contact material- Contacts: gold plated, the thickness of gold > 50 μ inches minimum	'gold/nickel'
76	118	CAT-06A UTP RJ 45 socket, Patch Panel Side	Contact surface- > 50 μ inches gold over	'> 0.8 μm '
77	123	Patch Cord LC- Duplex PC - LC- Duplex PC, SM	Attenuation grade IL - connector	'Value`- 0,15 dB IL MAX/Master (Acceptance)'
78	126	12U Wall Mount Rack	Load Bearing Capacity- Maximum 160 KG	'Minimum 60 KG'
79	127	15U Rack	Load Bearing Capacity- Maximum 260 KG	'Minimum 60 KG'

Note: Other terms and conditions remains same as per the Notification

- a. NIMHANS/2020-21/IND 749 Dated: 09/12/2020.
- b. Addendum/Corrigendum Notification No. STR-D2/EQPT/281/NTWORKING2.0/IT/2020-21 Dt 06/01/2021

Sd/-I/c Administrative Officer (S) **Purchase section NIMHANS** Bangalore-560029

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