Government of Jammu and Kashmir
J&K e-Governance Agency, IT Department
Civil Secretariat, Srinagar
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Subject: Response to Pre-bid queries w.r.t. tender published vide Notification No.14-JaKeGA of 2021 dated 12-04-2021 regarding **"Supply, Installation and Commissioning of LAN Network Setup at Civil Secretariat, Jammu"**

This is in reference to the tender published Vide Notification No: 14-JaKeGA of 2021 dated 12-04-2021 regarding **"Supply, Installation and Commissioning of LAN Network Setup at Civil Secretariat, Jammu"**. In this connection, the response to the Pre-bid queries is annexed herewith as Annexure 'A'. The bidders are requested to take into account the responses before submitting bids online.The response to the Pre-bid queries shall become part of the RFP.

Sd/-
(Amit Sharma) JKAS
Chief Executive Officer
J&K e-Governance Agency

No. JaKeGA-Gen/22/2021

Dated: 24-06-2021

Copy to:
1. Chief Executive Officer, JaKeGA for information.
2. Director Information, J&K with the request to get the same published in Local Dailies and Nationals.
3. FA/CAO, IT Department (Treasurer-JaKeGA) for information.
4. Pvt. Secretary to Secretary-ITD for information
5. Analyst-IT (Sh. Ishfaq and Sh. Adil) with the direction to upload the same on jktenders and JaKeGA website.
6. Office file

Manager-IT
J&K e-Governance Agency
(IT Department)

				Annesure A: Pre-Bid Queries of LAN Networking for Civil Secretariat, Jammu			

Bidder Name	S.No.	RFP Component	PageNo.	RFP Document Reference(s) (Section & Page Number(s))	Content of RFP requiring Clarification (s)	Points of Clarification	Final Response from JaKeGA
Aman Technologies	1		Page 18	Annexure-III, Point IX	One Onsite Support Engineer to be provided as per BOM of this tender.	Kindly confirm if one onsite support engineer is to be provoied or 3 as in the BOQ 3 is mentioned.	Three
	2					Concessions given to MSME are not incorporated. Kindly incorporate the same.	Exemption for experience, turnover and tender fee shall be applicable for organizations having relevant MSME registration in the relevant domain.
	3	Core Switch/Aggregation Switch/ Access Switch Lan Type 1 & 2	21/23/25/26	Request to clarify	As per RFP Voice & Video is also part of RFP. And this being as a core/Aggregtaion switch IEEE 802.1ba (AVB) protocol is missing which ensure better Audio & video experience with time proper Time synchronization and QoS. SO requets you to add" **Switch shall have IEEE 802.1ba Av bridging inbuilt into switch"**	This is critical feature for LAN environement.	As per RFP
	4	Core Switch/Aggregation Switch/ Access Switch Lan Type 1 & 2	21/23/25/26	Request to clarify	Clock synchronization feature is missing which is needed for Logs timing stamp otherwise logs will not be useful without time sync. So requets you to kindly add " **Precision Time Protocol or IEEE 1588v2 to provide clock synchronization with sub-microsecond accuracy"**	This is critical feature for LAN environement.	As per RFP
	5	Core Switch/Aggregation Switch/ Access Switch Lan Type 1 & 2	21/23/25/26	Request to clarify	As per RFP SDN based network is asked which is very much needed for today environment for LAN automation, quick provisining and single policy & management of network. But Network programmbility features are missing so requets you to kindly confirm whether programmability features are needed as per below" **Switch shall have Enterprise grade OS with model-driven programmability with support of Netconf, Restconf, YANG, on-box Python scripting, switch telemetry streaming, Application hosting on switch based on Kubernets/Container based and hot patching and bug fixing."**	Programmibility of switch is critical for advance SDN	As per RFP
	6	Core Switch/Aggregation Switch/ Access Switch Lan Type 1 & 2	21/23/25/26	Request to clarify	Zero-touch provisioning and LAN automation is critical feature of SDN . But security should be there while plug & play deployment or zero - touch provisioning of switch which is missing here. So request you to kindly clarify whether " **Switch shall have unique identification ID for plug n play deployment, tamper proff identity, secure zero touch provisioning by allowing switch to show certificate to server to get on-boarded ithe network"** is needed.		As per RFP
	7	Core Switch/Aggregation Switch/ Access Switch Lan Type 1 & 2	21/23/25/26	Request to Add NDPP or EAL Certification	Kindly Add "Switch Operating System should be tested and certified for EAL/NDPP or above under Common Criteria Certification"	EAL/NDPP certification ensure OS, Kernal or hardware is not vulnerable. This is critical in Switches as this device connect all the users over LAN any vulnerability will lead to compromise of whole network.	As per RFP. However Bidder to ensure provided OS, Kernal and hardware is secure and not vulnerable.

CISCO	8	Video IP Phone	41	General Features: Should support following audio codec - G.711a, G.711u, G.729a, G.729b, G.729ab, iSAC, Internet Low Bitrate Codec (iLBC), OPUS	We request you to kindly make iSAC optional		As per RFP
	9	Access Switch LAN Type 2	25	Switch shall have minimum 570 Gbps of switching fabric and 430 Mpps of forwarding rate without considering stack throughput or higher	Requets to change it as " Switch shall have minimum 640 Gbps of switching fabric and 450 Mpps of forwarding rate without considering stack throughput and shall support deep buffer to address the requirements of rich multi-media content delivery and large routing tables"	As per calculation for 24 Multigig Port & 2*40G uplink port switch throughput should be = 2*{ (24*10)+(2*40)}	As per RFP.Bidder is open to quote product with higher specification.
	10	NGFW Hardware Architecture	35	The appliance should have atleast 4 X 10G SFP+ ports and should be scalable to additional 6 X 1/10G SFP+ port in future	Suggested Specificaiton:- The appliance should have atleast 4 X 10G SFP+ ports and should be scalable to additional 4 x 40G ports and 8 X 10G SFP+ port in future	Considering Core switch and other solution component specifications, request you to add 40 G Ports along with few additional 10G ports for future scalability	As per RFP. Bidder is open to quote product with higher specification.
	11	NGFW Hardware Architecture	35	The appliance hardware should be a multicore CPU architecture with a hardened 64-bit operating system to support higher memory and should support minimum of 64 GB of RAM or more	Suggested Specificaiton:- The appliance hardware should be a multicore CPU architecture with a hardened 64-bit operating system to support higher memory and should support minimum of 96 GB of RAM or more	The overhead of memory thrashing leads to high latency, low performance, and file size limitations. Outdated DPI methods gather and store traffic in memory to scan it. When using this proxy or assembly approach, memory is consumed until it runs out, resulting in a firewall either passing traffic through un-scanned (unacceptable) or blocking all traffic until memory is freed up. So request to increase the minimum RAM	As per RFP. Bidder is open to quote product with higher specification.
	12	NGFW Performance & Scalability	35/59	**Point no.-2 :** Performance & Scalability: Should have 8 Gbps of NGFW (FW, AVC, IPS and Zero-Day protection) real-world / production performance from day one **BOM: S.N :6** Next Generation Firewall (NGFW) with IPS& AMP and 5Gbps throughput in HA	As per RFP Specs under NGFW section throughput is asked with 8Gbps.Whereas as per BOQ section 5Gbps is asked. So requets you to Kindly clarify whether we need to quote with 5 Gbps or 8Gbps throughout.	Router is asked with 5Gbps throughput so firewall throughout also should be 5Gbps.	Accepted. May be rread as "Should have 5 Gbps of NGFW (FW, AVC, IPS and Zero-Day protection) real-world / production performance or higher from day one".
	13	NGFW Performance & Scalability	35	Firewall should have at least 3 Gbps VPN Throughout and 7.5K VPN users	Suggested Specificaiton:- Firewall should have at least 6 Gbps VPN Throughout and 7.5K VPN users	Current pandemic situation, higher VPN throughput is recommended so request to increase the VPN throughput to allow more secure remote connectivity	As per RFP. Bidder is open to quote product with higher specification.
	14	NGFW Performance & Scalability	35	Firewall should have at least 30,000,00 concurrent sessions with application visibility turned on	Suggested Specificaiton:- Firewall should have at least 10,000,000 concurrent sessions with application visibility turned on	Considering NGFW throughput and ports specifications request to increase the minimum concurrent session requirement.	As per RFP. Bidder is open to quote product with higher specification.
	15	NGFW Performance & Scalability	35	Firewall should have at least 50,000 connections per second with application visibility turned on	Suggested Specificaiton:- Firewall should have at least 85,000 connections per second with application visibility turned on	Considering NGFW throughput and ports specifications request to also increase the minimum new connections per second requirement.	As per RFP. Bidder is open to quote product with higher specification.
	16	NGFW NG Firewall Features	35	Requets to add critical features support	Suggested Specificaiton:- Should support integrated DDoS flood attack prevention with automatic Real Time Signature generation based on Rate Variant, Rate Invariant algorithms & Challenge Response Mechnanisms; within few seconds, without human intervention	Appliance must have behaviroal analysis using behavioral algorithms and automation to defend against threats, including Mirai DNS Water Torture, Burst and Randomized attack. To detect and mitigate the most sophisticated attacks, including previously unknown, "zero-day" attack-vectors, and utilizes challenge-response mechanisms to determine good users from bad.	As per RFP. Bidder is open to quote product with higher specification.

17	NMS, AAA and SDN (Separate Systems/Solutions)	45	Solution should include all required licenses to perform authentication, authorization, and accounting (AAA) and guest management services for at least 2500 users or endpoint from day one and Device posturing, Profiling and provisioning for 2500 users.	Clarification: As Jammu Sectt is already runing with AAA solution for wireless users so please clarify whether we need to quote Solution only for wired user now with 2500 licenes supporting with Device posturing, Profiling and provisioning		Unified Licensing of 2500. The license has to be user specific and might be for hardware device specific. It has to be ensured that a user can use any no of devces hence the policy should flow seamlessly across any devices it logs/enters/uses in from. Incase Vendor uses existing licences then not need to provide additional licenses. However incase vendor proposes come other solution then ncecessary licenses may be provided to meet the specifications defined in tender. Vendor to provide a mechanism to achieve the mentioned requirement of RFP. The solution and tender specifications should not be compromised unde any circumstances.
18	NMS, AAA and SDN (Separate Systems/Solutions)	45	Requets to add	NAC should have an integrated single appliance capable of performing Guest Access Complete Guest Life Cycle, Closed loop BYOD, Device Admin (TACACS+,), Certificate Authority, Group based access control & Segmentation	For enhanced visibility and granular control for guest and BYOD device request to consider these services along with profiling, posturing guest management	As per RFP. Bidder is open and encourged to quote product with higher specification.
19	NMS, AAA and SDN (Separate Systems/Solutions)	45	Requets to add	Solution must have single unified agent for VPN, Posture assessment & 802.1x authentication	Users especifally non IT users finds it difficult to have multiple agent installed on systems and also central management of different agents is also difficult. Hence request to consider this clause.	As per RFP.
20	NMS, AAA and SDN (Separate Systems/Solutions)	47	Requets to add	Solution must allow supplicant provisioning without MDM	Request to consider additional specification to have granular control while device provisioning for device connecting via wireless/wired/VPN	As per RFP.
21	DNS Security	47	Clarification	Please confirm if DNS security required for all 2500 users from day one or 1000 users from day one.		Clarified at Sr. no 17.
22	Servers	32	The solution should support technology that continuously analyzes workload consumption, costs and compliance constraints and automatically allocates resources in real-time	Requets to amend it as" The solution should support technology that analyzes workload consumption in real time and automatically allocates resources accordingly"	Request to kindly generalize the requirement.	As per RFP.
23	Servers	32	Point no.-13: Solution nodes should provide Boot & OS drive and Boot disk should be in addition to capacity and cache disks	Request to change it as" Solution nodes should provide Boot/ OS drive and Boot/OS disk should be in addition to capacity and cache disks"	For few vendors Boot and OS are the same things. Request to generalize this point for wider participation.	As per RFP or vendor's convenience.
24	Servers	33	Poin tno.-24: The management tool should be able to provide global resource pooling, inventory and policy management to enable policy based automation. Shall monitor server alerts & health status across three datacentres from a central customizable dashboard.	Request to change it as "The management tool should be able to provide global resource pooling, inventory and policy management to enable policy based automation. Shall monitor server alerts & health status from a central customizable dashboard."	We understand it's a single site requirement. Request to kindly confirm and update this point for better clarity.	As per RFP.

25	Servers	34	Point No.-43: The solution should provide cloud usage optimization and cost reduction across multiple clouds It should use automated recommendations to optimize consumption, simplify inventory and total spend reporting across clouds, accounts and users& Implement right sizing aligned with policy	Request to amend it as " The solution should provide cloud usage optimization and cost reduction across multiple clouds. It should use automated recommendations to optimize consumption, simplify inventory and reporting across clouds" for wider Participation	Requets to change for wider participation	As per RFP.
26	Servers	34	Point No.-46: The solution should have pre-built task libraries for Day 0 automation of infrastructure (Network, Storage, Server, Load balancer, firewall etc.)	Request to remove this point	This is OEM specific point so requets to remove this point.	It is not OEM Spefic. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
27	Servers	32	Requets to Add	Hardware vendor and SDS layer should be from single OEM.	Request to include this additional point to ensure better integration and support w.r.t entire solution.	As per RFP.
28	Router	44	The following interface required from Day-1: 3 x 10G SFP+ based ports loaded with SR transceiver and 2*1GE Copper & 4*1G MM SFP-based transceiver.	Requets to amend it as" The solution should support technology that analyzes workload consumption in real time and automatically allocates resources accordingly" The following interface required from Day-1: 2 x 10G SFP+ based ports loaded with SR transceiver and 2*1GE Copper & 4*1G MM SFP-based transceiver." to meet the sizing requirement	For 5Gbps Throughput 2 x10G ports are sufficient to connect internal & External connectivity.	As per RFP.
29	Annexure IV: Technical Specifications	20		Existing Controller is providing the central management from single dashboard, device lifecycle management like device discovery, topology, inventory, image upgrade for both for wired and wireless networks. Proposed solution should be integrated with this controller by adding the additional licenses.	The existing controller should support REST Full APIs. If the existing controller supports the same and is capable enough to support other OEM Wired and wireless solution, hence existing OEM has to provide confirmation. The OEM of existing controller has to ensure and take care of it else if not, this should be OEM specific and this clause should be removed.	As per RFP
30	Annexure IV: Technical Specifications	20		After Integration with Controller solution should support multiple application to solve business problem like end to end path trace, automated end to end QoS deployment in the network, automation to create SD-LAN fabric etc.	Since wireless controller is for managing the APs and the mentioned clause would be of existing controller, the ask functionality is of existing controller. No dependency on the proposed once in terms of automation and SDLAN fabric. Referring the serial no 1, either it is being ensured by the existing controller OEM and it shall be removed from the RFP.	As per RFP
31	Annexure IV: Technical Specifications	20-21		Existing controller shall provide the ability to create SD-LAN fabric with following capabilities: covers all the points till 47	Since wireless controller is for managing the APs and the mentioned clause would be of existing controller, the ask functionality is of existing controller. No dependency on the proposed once in terms of automation and SDLAN fabric. Referring the serial no 1, either it is being ensured by the existing controller OEM and all clauses till 47 shall be removed from the RFP.	As per RFP

32	Core Switch	22		Switch should support SSD to host 3rd party container-based application.	Proposed platform support SSD but for internal purpose only. Hosting of applications would not be supported by major the leading OEMs. This feature is OEM specific. Kindly remove the same.	As per RFP. We might require to host some programmability application/docker or forensic tools like wireshark/packet capture on switch itself. Hence Bidder can propose same either on switch or separate device such as the servers supplied under this project to host such applications with highavailability .
33	Core Switch	22		Switching system shall have minimum 6.4 Tbps of switching fabric and minimum 2 Bpps of forwarding rate. 8	As per the industry standard calculations, since 32 x 40G ports being asked :- (32x40)X2=2560 Gbps (2.5Tb). Similarly basis standard calculation for pps it comes to 1900 MPPS. Kindly change the clause as :- Switching system shall have minimum 2.5 Tbps of switching fabric and minimum 1.9 BPPS of forwarding rate.	As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
34	Core Switch	22		Switch should support minimum 4K ACLs, 24K Multicast and 64K IPv4 & 64K IPv6 Routes or higher.	For multicast routes, there are very limited multicast applications in the network and no that much of multicast routes would be required. As per the standard practice, IPv6 routes would always be half of IPv4 routes. Hence to participates the leading OEMS in RFP kindly change the clause as :-**"Switch should support minimum 4K ACL a 8K Multicast and 64K IPv4 & 32K IPv6 Routes..**	As per RFP.
35	Core Switch	22		Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries.	Different OEMs uses different flow for monitoring purpose. Proposed platform uses sflow which works on sampling of traffic hence no entries are required. Kindly change the clause as :- Switch shall support application visibility and traffic monitoring with minimum 60 K jflow/netFlow entries or support sflow	As Per RFP
36	Core Switch	23		The device should be IPv6 certified from day one	Kindly change the clause as :- The device should be IPB6 ready/IPV6 certified from day one.	As per RFP.
37	Core Switch	23		Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q, 1588v2	802.1ae is MACSec which is used for LAN traffic encryption. Different OEMs uses different technology to secure the LAN traffic. Proposed platform form a GRE tunnel and the critical data or all data as per the requirement can be encapsulated in the tunnel. Hence request you to kindly change the clause as:- Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES)/GRE Tunnel, 802.3x, 802.1p, 802.1Q, 1588v2	As per RFP.
38	Core Switch	23		Communication between switch to switch should be encrypted at Layer 2 and should encapsulates and protects the metadata fields. It should use industry standard MKA. Communication should have AES-GCM (Galois/Counter Mode) symmetric encryption, to provide line-rate encryption and decryption and provides replay attack protection of every frame. Switches should support MACSec encryption (MACSec -256) for switch-to-switch (inter-network device) security using OEM proprietary & MKS-based key exchange protocol.	This is OEM specific. Kindly remove the same.	As per RFP MACSec is open standard as per IEEE 802.1AE standard. Existing controller and switches support this feature and this need to be integrate with existing set-up. However bidder can propose equivalent or better soluton with proof for same functionality.

39	Core Switch	23		Must support BGP, MPLS, IS-IS, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	ISP links like MPLS or Internet as per the industry standards terminates on router. Ion case we terminate such links on core switch it may utilize additional resources including CPU utilization which may impact on the switch performance. If we configure QOS on WAN links, it will utilize additional resources as well. Multiple other factors link IP SLA for link monitoring may not be available on switch. Since hitless failover is asked in core switch, at that time per switch CPU utilization becomes high and that time it may either impact the WAN link performance or switch functionality itself.

Further ISIS would not be used in LAN environment in any scenario. Request you to kindly change the clause as:- Must support BGP, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1 | May be read as "Must support BGP, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1". |
40	Core Switch	23		Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.	NetConf/YANG model is used for programming and different OEMs uses technology for programming per say. Request you to kindly change the clause as:_ Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG/REST APIs	May be read as, "Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG/REST APIs".
41	Core Switch	23		Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security. 19	DHCP snooping although would not be required at core layer since no DHCP server would be directly connected on the core layer. Even if it is required, different OEMs uses different ways to achieve the same. Kindly change the clause as:- Switch should support port security, DHCP snooping or equivalent, Spanning tree root guard, First Hop Security. 19	Accepted. Equivalent or better feature is accepted. Bidder has to provide relevant industry standard document for same.
42	Core Switch	23		Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.	Different OEMs uses different ways to authenticate the devices hence kindly change it to 802.1x/RADIUS/TACACS+ and IPv6 ACLs and Dynamic VLAN assignment.	As per RFP.
43	Core Switch	23		During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove the same.	As per RFP . However, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
44	Access Switch Lan Type 1:	24		Switch should have dedicated slot for modular stacking, in addition to asked uplink ports. Should support for minimum 460 Gbps of stacking throughput with 8 switch in single stack support.	Different OEMs uses different ways to get the stacking done. Few OEMs uses dedicated stacking ports or few uses additional uplink ports for stacking. Also the asked stacking throughput is very high. And no of stack switches may not be supported at this size of switch. Kindly change the clause to let other leading OEMs to participate:- Switch should have dedicated slot/ports for modular stacking/Virtual switching extension, in addition to asked uplink ports. Should support for minimum 160 Gbps of stacking throughput with 2 switch in single stack support.	Bidder can provide stacking or equivalent technology with asked stacking throughput without consuming the downlink/uplink port of the switch.

45	Access Switch Lan Type 1:	24		Switch should have power redundancy feature in stack which shall aggregates all the available power of switches in a stack and present it as one common power pool for the entire stack	This is OEM specific. Kindly remove the same.	Bidder can quote equivalent or any other solution to create the pool of power as a common resource in a stack.
46	Access Switch Lan Type 1:	24		Switch should support at least 64K flow entries	flow entries are required for netflow and proposed platform supports sflow which works on packet streaming. Request you to kindly change the clause as:_ Switch should support at least 64K flow entries or support sflow	As per RFP.
47	Access Switch Lan Type 1:	24		Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z & 1588v2	802.3u, 802.3ab, 802.3z are IEEE standard for 10Base T, 100Base T. Now a days such standards are not required since industry has moved to min 1G copper and the asked ports are of 10G copper. Also 1588v2 is PTP standard, and different OEMs support different protocol for time sync. Request you to kindly amend the clause:- Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3 & 1588v2/NTP	As per RFP
48	Access Switch Lan Type 1:	24		Should have advance Layer 3 protocol like BGPv4, BGPv6 , VRF, VXLAN, IS-ISv4, OSPFv3, MP-BGP	ISIS is ISP level protocol which would never be used in LAN environment in any scenario. ISIS is used only by specific OEM for LAN automation and our solution don't need such protocols for LAN automation. Request you to kindly change the clause as:- Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP	May be read as, " Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP".
49	Access Switch Lan Type 1:	24		Switch should support IPv6 Binding Integrity Guard, IPv6 Snooping, IPv6 RA Guard, IPv6 DHCP Guard, IPv6 Neighbour Discovery Inspection and IPv6 Source Guard.	Kindly remove this clause so that leading OEMs can participate	As per RFP.These are IPv6 security features as per industry standard to ensure maximum security in IPv6 network .
50	Access Switch Lan Type 1:	24		Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256 on hardware	Different OEMs uses different ways to authenticate the devices hence kindly change it to 802.1x/RADIUS/TACACS+. MACSec referring comments in point no 23, kindly change the clause as:- Switch should support 802.1x authentication and accounting/RADIUS/TACACS+, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256/ GRE Tunnel on hardware	Bidder can proposed equivalent or better soluton with proof for same functionality.
51	Access Switch Lan Type 1:	24		During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove the same.	As per RFP . however, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
52	Access Switch Lan Type 1:	24		Switch shall have modular OS to support application 3rd party application hosting	3rd part application hosting is OEM specific feature. Kindly remove this clause	As per RFP.
53	Access Switch LAN Type 2	25		Switch should have minimum 8 GB RAM and 16 GB Flash.	Memory requirement are designed based on the requirement of the operating system of the respective OEM to meet the desired performance, and every OEM OS has different Memory requirement so, kindly amend the clause as for the leading OEM to participate:- "Switch should have minimum 1 GB RAM and 4 GB Flash"	May be read as, "Switch should have minimum 8 GB RAM and 8 GB Flash."

HPE Aruba	54	Access Switch LAN Type 2	25		Switch should have dedicated slot for modular stacking, in addition to asked uplink ports. Should support for minimum 460 Gbps of stacking throughput with 8 switch in single stack support. These switches should be stacked with other PoE switches and then uplink to Aggregation switches over multiple of 25G Interfaces.	As per the sizing of the switch the asked stacking bandwidth is very high, Kindly change it to 100 Gbps. Further the switch can be stacked within the same model hence with different model would not be possible. Further the uplink asked in this switch is of 40G and 40G is not backward compatible with 25G due to technology limitation. Kindly change the clause as:- Switch should have dedicated slot for modular stacking, in addition to asked uplink ports. Should support for minimum 100 Gbps of stacking throughput with 8 switch in single stack support. Uplink to Aggregation switches over multiple of 2 x 40G Interfaces.	Bidder can provide stacking or equivalent technology with asked stacking throughput without consuming the downlink/uplink port of the switch.
	55	Access Switch LAN Type 2	25		Switch should have power redundancy feature in stack which shall aggregates all the available power of switches in a stack and present it as one common power pool for the entire stack	This is OEM specific. Kindly remove the same.	Bidder can quote equivalent or any other solution to create the pool of power as a common resource in a stack.
	56	Access Switch LAN Type 2	25		Switch shall have minimum 570 Gbps of switching fabric and 430 Mpps of forwarding rate without considering stack throughput	As per the industry standard calculation, the asked switching capacity and throughput is very high. Kindly change it the clause as :- Switch shall have minimum 320 Gbps of switching fabric and 112 Mpps of forwarding rate without considering stack throughput	As per RFP.
	57	Access Switch LAN Type 2	25		Switch shall have 8K or more multicast routes.	There are very limited multicast applications in the network hence the asked multicast routes are very high. Also to have multicast grps are better to have then multicast routes. Request you to kindly change the clause as:- switch should have 2K multicast groups	As per RFP.
	58	Access Switch LAN Type 2	25		Switch should support at least 64K flow entries	"Different OEMs uses different flow for monitoring purpose. Proposed platform uses sflow which works on sampling of traffic hence no entries are required. Kindly change the clause as :- Switch shall support application visibility and traffic monitoring with minimum 60 K Flow entries or support sflow"	As per RFP.
	59	Access Switch LAN Type 2	25		Switch should support 128 or more STP Instances.	In any of the case 128 instances will never be used for STP, request you to kindly change it to 16 instances	As per RFP.
	60	Access Switch LAN Type 2	25		Switch should have 32MB or more packet buffer	The packet buffer memory is used during network conjection, and higher memory may lead to delay in the network as well, Request you to change the buffer memory to 12 MB	As per RFP.
	61	Access Switch LAN Type 2	25		Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z & 1588v2.	"802.3u, 802.3ab, 802.3z are IEEE standard for 10Base T, 100Base T. Now a days such standards are not required since industry has moved to min 1G copper and the asked ports are of 10G copper. Also 1588v2 is PTP standard, and different OEMs support different protocol for time sync. Request you to kindly amend the clause:- Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3 & 1588v2/NTP"	May be read as, "Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3 & 1588v2/NTP".

62	Access Switch LAN Type 2	25		Should have advance Layer 3 protocol like BGPv4, BGPv6 , MPLS, VRF, VXLAN, IS-ISv4, OSPFv3, MP-BGP	"ISP links like MPLS or Internet as per the industry standards terminates on router. Ion case we terminate such links on core switch it may utilize additional resources including CPU utilization which may impact on the switch performance. If we configure QOS on WAN links, it will utilize additional resources as well. Multiple other factors link IP SLA for link monitoring may not be available on switch. Since hitless failover is asked in core switch, at that time per switch CPU utilization becomes high and that time it may either impact the WAN link performance or switch functionality itself. Further ISIS would not be used in LAN environment in any scenario. Request you to kindly change the clause as:- Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP"	May be read as,"Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP".
63	Access Switch LAN Type 2	26		Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256 on hardware	MACSec referring comments in point no 23, kindly change the clause as:- Switch should support 802.1x authentication and accounting/RADIUS/TACACS+, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256/ GRE Tunnel on hardware	As per RFP.
64	Access Switch LAN Type 2	26		During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove the same.	As per RFP .However, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity
65	Access Switch LAN Type 2	26		Switch shall have modular OS to support application 3rd Party Application hosting	3rd part application hosting is OEM specific feature. Kindly remove this clause	As per RFP. Vendor to provide a mechanism to achieve the mentioned requirement of RFP.
66	Aggregation Switch	26		Switch should support SSD to host 3rd party container based application.	Proposed platform support SSD but for internal purpose only. Hosting of applications would not be supported by major the leading OEMs. This feature is OEM specific. Kindly remove the same.	As per RFP. We might require to host some programmability application/docker or forensic tools like wireshark/packet capture on switch itself. Hence Bidder can propose same either on switch or separate device such as the servers supplied under this project to host such applications with highavailability .
67	Aggregation Switch	26		Switch should have 24*1/10/25G Downlink Ports& 4*40/100G uplink Interfaces	Considering the access ports uplink, where in all are 40G uplink are required, and access switches will connect back to aggregation switch which has asked on 25G. Due to technology limitation, 40G is not backward compatible with 25G. Kindly look into the designing part and change the agg switch downlink ports accordingly. Please suggest if our understanding is wrong	As per RFP. Vendor open to provide port density as asked in RFP or higher.

68	Aggregation Switch	26		Switch should support minimum 16K ACLs, 24K Multicast and 32K IPv4 & 32K IPv6 Routes..	In the deployment scenario, 16K ACLs may never get in used but the no of ACL entries may matters a lot. Request you to change it to ACL 4K and ACL entries 32K. Further for multicast routes, there are very limited multicast applications in the network and no that much of multicast routes would be required. As per the standard practice, IPv6 routes would always be half of IPv4 routes. Hence to participates the leading OEMS in RFP kindly change the clause as :-"**Switch should support minimum 4K ACL and 32K ACL entries, 8K Multicast and 64K IPv4 & 32K IPv6 Routes..**	As per RFP
69	Aggregation Switch	26		Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries	Different OEMs uses different flow for monitoring purpose. Proposed platform uses sflow which works on sampling of traffic hence no entries are required. Kindly change the clause as :- Switch shall support application visibility and traffic monitoring with minimum 60 K jflow/netFlow entries or support sflow	As per RFP.
70	Aggregation Switch	26		Packet buffer : 36 MB	Ask buffer size is very high and favouring specific OEM. Kindly change it to 32 MB	May be read as, "Packet buffer : 32 MB or higher."
71	Aggregation Switch	27		The device should be IPv6 certified from day one	Kindly change the clause as :- The device should be IPB6 ready/IPV6 certified from day one.	As per RFP
72	Aggregation Switch	27		Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q, 1588v2	802.1ae is MACSec which is used for LAN traffic encryption. Different OEMs uses different technology to secure the LAN traffic. Proposed platform form a GRE tunnel and the critical data or all data as per the requirement can be encapsulated in the tunnel. Hence request you to kindly change the clause as:- Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES)/GRE Tunnel, 802.3x, 802.1p, 802.1Q, 1588v2	As per RFP.
73	Aggregation Switch	27		Communication between switch to switch should be encrypted at Layer 2 and should encapsulates and protects the metadata fields. It should use industry standard MKA. Communication should have AES-GCM (Galois/Counter Mode) symmetric encryption, to provide line-rate encryption and decryption and provides replay attack protection of every frame. Switches should support MACSec encryption (MACSec -256) for switch-to-switch (inter-network device) security using OEM proprietary & MKS-based key exchange protocol.	This is OEM specific. Kindly remove the same.	As per RFP MACSec is open standard as per IEEE 802.1AE standard. Existing controller and switches support this feature and this need to be integrate with existing set-up. However bidder can proposed equivalent or better soluton with proof for same functionality.

74	Aggregation Switch	27		Must support BGP, MPLS, IS-IS, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	ISP links like MPLS or Internet as per the industry standards terminates on router. Ion case we terminate such links on core switch it may utilize additional resources including CPU utilization which may impact on the switch performance. If we configure QOS on WAN links, it will utilize additional resources as well. Multiple other factors link IP SLA for link monitoring may not be available on switch. Since hitless failover is asked in core switch, at that time per switch CPU utilization becomes high and that time it may either impact the WAN link performance or switch functionality itself. Further ISIS would not be used in LAN environment in any scenario. Request you to kindly change the clause as:- Must support BGP, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	As per RFP
75	Aggregation Switch	27		Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.	NetConf/YANG model is used for programming and different OEMs uses technology for programming per say. Request you to kindly change the clause as:_ Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG/REST APIs	As per RFP.
76	Aggregation Switch	27		Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security.	DHCP snooping although would not be required at core layer since no DHCP server would be directly connected on the core layer. Even if it is required, different OEMs uses different ways to achieve the same. Kindly change the clause as:- Switch should support port security, DHCP snooping or equivalent, Spanning tree root guard, First Hop Security.	Accepted. Equivalent or better feature is accepted. Bidder has to provide relevant industry standard document for same.
77	Aggregation Switch	27		Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.	"Different OEMs uses different ways to authenticate the devices hence kindly change it to 802.1x/RADIUS/TACACS+ and IPv6 ACLs and Dynamic VLAN assignment. "	Bidder can proposed equivalent or better soluton with proof for same functionality.
78	Aggregation Switch	27		During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove this clause so that leading OEMs can participate	As per RFP . however, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
79	Access Point	28		Should have 1x 100, 1000, 2500 Multigigabit Ethernet (RJ-45) – IEEE 802.3bz	As per the AP throughput asked, the mentioned upto 2.5 G port will not suffice the requirement. Due to limitation of port, access point will not be used with 5G of throughput. Kindly change the clause as : Should have 1x 100, 1000, 2500, 5000 Multigigabit Ethernet (RJ-45) – IEEE 802.3bz	Bidder can propose equivalent or better soluton with proof for same functionality.

80	Router	43		Router should be modular / chassis-based device with minimum 5 Gbps of throughput scalable up to 20 Gbps. It should have minimum 4 GB of RAM/ DRAM and 4 GB of Flash, scalable up to 8 GBPS.	As per the port requirement, and considering the future scalability from min 2 Gbps x as per industry standard 3 time or 5 time for next 5 years. Still the router scalability would be 10 Gbps. In no scenario, the scalability would be required at 20Gbps. Also routers capacity generally calculate in Mpps hence Request you to change the clause as :- Router should be modular / chassis-based device with minimum 2 Gbps of throughput scalable up to 10 Gbps/8 Mpps.	As per RFP.
81	Router	43		Router should support state full firewall, zone based firewall and deep inspection mechanism capability to provide the access controller strategy-based on source and destination IP protocol, port and time parameters and control over a wide variety of applications using deep inspection.	Since ask if for the router which in general support state full firewall, zone based firewall but full-fledged firewall functionally should not be expected from router. Rather separate firewall should be deployed which is already asked in the RFP. Hence kindly change the clause as:_ Router should support state full firewall, zone based firewall	As per RFP
82	Router	44		Router should have software/hardware based control plane/processor redundancy for seamless working of routing functionality and should have separate data & management plane. In case of control plane failure the Routing & Multicast routing should work seamlessly without any disruption	Every OEM have different way to control the chassis. Few OEMs uses control plane module and other may use management module to control and manage the chassis. Both works in same manner to achieve the seamless routing functionality. Request you to kindly amend the clause as :- Router should have software/hardware based control plane/management plane/processor redundancy for seamless working of routing functionality and should have separate data & management plane. In case of control/management plane failure the Routing & Multicast routing should work seamlessly without any disruption	Accepted
83	Router	44		Router should be modular/chassis with multi-core processor architecture based device and should accommodate a combination of high density, 10G, Gigabit Ethernet, 40G, Serial Port, Channelized T1/E1, STM-1/4/16 and must have capabilities to seamless upgrade/replacement (without interrupting running processes and services) all modular interfaces supported and Gigabit Ethernet modules to accommodate field upgrades.	40G port in general asked in ISP environment which is not the case here. Also T1/E1 and STM 1/4/16 are older technology and ISPs provides ethernet handoff for WAN connectivity. T1/E1 is limited to 2 Mbps and the kind of through put asked such interface would not be in used. Request you to kindly change the clause as:- Router should be modular/chassis with multi-core processor architecture based device and should accommodate a combination of high density, 10G, Gigabit Ethernet and must have capabilities to seamless upgrade/replacement (without interrupting running processes and services) all modular interfaces supported and Gigabit Ethernet modules to accommodate field upgrades.	It is a should accommodate combination.
84	Router	44		System shall support to provide the ability to filter and gather application information in a flexible manner from day one netflow/xflow/jflow and should support at least 128K flow entries	Netflow is for Cisco, Jflow for juniper but Sflow is open standard which is widely accepted and we support sflow and as mentioned earlier for sflow no flow entries are required. Kindly change the clause as:_ System shall support to provide the ability to filter and gather application information in a flexible manner from day one netflow/xflow/jflow and should support at least 128K flow entries or support sflow	May be read as,"System shall support to provide the ability to filter and gather application information in a flexible manner from day one netflow/xflow/jflow/sflow and should support at least 128K flow entries".

85	AAA	47		Centralized NMS or SDN Controller is already running and Bidder has to Integrate these network devices with Controller. Existing SDN shall be upgraded which is already in place in order to save further cost. However, Vendor is open quote an SDN single Solution having a single policy and single management for both Wired and Wireless Solution. The Networking solution to be integrated with the existing SDN solution. The API shall be provided for the existing solution by exiting solution if required It is intended is that vendor to provide a mechanism to achieve the above- mentioned requirement.	Referring clause no 1, The existing controller should support REST Full APIs. If the existing controller supports the same and is capable enough to support other OEM Wired and wireless solution, hence existing OEM has to provide confirmation. The OEM of existing controller has to ensure and take care of it else if not, this should be OEM specific and this clause should be removed.	As per RFP.
86		47		Centralized SDN Controller and Firewall should be Integrated tightly to 24 provide segmentation through Virtual Routing and Forwarding between VN's	Referring clause no 1, The existing controller should support REST Full APIs. If the existing controller supports the same and is capable enough to support other OEM Wired and wireless solution, hence existing OEM has to provide confirmation. The OEM of existing controller has to ensure and take care of it else if not, this should be OEM specific and this clause should be removed.	As per RFP.
87	Annexure IV: Technical Specifications	20		Existing Controller is providing the central management from single dashboard, device lifecycle management like device discovery, topology, inventory, image upgrade for both for wired and wireless networks. Proposed solution should be integrated with this controller by adding the additional licenses.	The existing controller should support REST Full APIs. If the existing controller supports the same and is capable enough to support other OEM Wired and wireless solution, hence existing OEM has to provide confirmation. The OEM of existing controller has to ensure and take care of it else if not, this should be OEM specific and this clause should be removed.	As per RFP.
88	Annexure IV: Technical Specifications	20		After Integration with Controller solution should support multiple application to solve business problem like end to end path trace, automated end to end QoS deployment in the network, automation to create SD-LAN fabric etc.	Since wireless controller is for managing the APs and the mentioned clause would be of existing controller, the ask functionality is of existing controller. No dependency on the proposed once in terms of automation and SDLAN fabric. Referring the serial no 1, either it is being ensured by the existing controller OEM and it shall be removed from the RFP.	As per RFP.
89	Annexure IV: Technical Specifications	20-21		Existing controller shall provide the ability to create SD-LAN fabric with following capabilities: covers all the points till 47	Since wireless controller is for managing the APs and the mentioned clause would be of existing controller, the ask functionality is of existing controller. No dependency on the proposed once in terms of automation and SDLAN fabric. Referring the serial no 1, either it is being ensured by the existing controller OEM and all clauses till 47 shall be removed from the RFP.	As per RFP.
90	Core Switch	22		Switch should support SSD to host 3rd party container-based application.	Proposed platform support SSD but for internal purpose only. Hosting of applications would not be supported by major the leading OEMs. This feature is OEM specific. Kindly remove the same.	As per RFP . We might require to host some programmability application/docker or forensic tools like wireshark/packet capture on switch itself. Hence Bidder can propose same either on switch or separate device such as the servers supplied under this project to host such applications with highavailability .

91	Core Switch	22		Switching system shall have minimum 6.4 Tbps of switching fabric and minimum 2 Bpps of forwarding rate. 8	As per the industry standard calculations, since 32 x 40G ports being asked :- (32x40)X2=2560 Gbps (2.5Tb). Similarly basis standard calculation for pps it comes to 1900 MPPS. Kindly change the clause as :- Switching system shall have minimum 2.5 Tbps of switching fabric and minimum 1.9 BPPS of forwarding rate.	As per RFP.
92	Core Switch	22		Switch should support minimum 4K ACLs, 24K Multicast and 64K IPv4 & 64K IPv6 Routes or higher.	For multicast routes, there are very limited multicast applications in the network and no that much of multicast routes would be required. As per the standard practice, IPv6 routes would always be half of IPv4 routes. Hence to participates the leading OEMS in RFP kindly change the clause as :-"Switch should support minimum 4K ACL a 8K Multicast and 64K IPv4 & 32K IPv6 Routes..	As per RFP.
93	Core Switch	22		Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries.	Different OEMs uses different flow for monitoring purpose. Proposed platform uses sflow which works on sampling of traffic hence no entries are required. Kindly change the clause as :- Switch shall support application visibility and traffic monitoring with minimum 60 K jflow/netFlow entries or support sflow	As per RFP . Sflow is already coverd in entries.
94	Core Switch	23		The device should be IPv6 certified from day one	Kindly change the clause as :- The device should be IPB6 ready/IPV6 certified from day one.	As per RFP.
95	Core Switch	23		Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q, 1588v2	802.1ae is MACSec which is used for LAN traffic encryption. Different OEMs uses different technology to secure the LAN traffic. Proposed platform form a GRE tunnel and the critical data or all data as per the requirement can be encapsulated in the tunnel. Hence request you to kindly change the clause as:- Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES)/GRE Tunnel, 802.3x, 802.1p, 802.1Q, 1588v2	As per RFP.
96	Core Switch	23		Communication between switch to switch should be encrypted at Layer 2 and should encapsulates and protects the metadata fields. It should use industry standard MKA. Communication should have AES-GCM (Galois/Counter Mode) symmetric encryption, to provide line-rate encryption and decryption and provides replay attack protection of every frame. Switches should support MACSec encryption (MACSec -256) for switch-to-switch (inter-network device) security using OEM proprietary & MKS-based key exchange protocol.	This is OEM specific. Kindly remove the same.	As per RFP MACSec is open standard as per IEEE 802.1AE standard. Existing controller and switches support this feature and this need to be integrate with existing set-up. However bidder can propose equivalent or better soluton with proof for same functionality.

97	Core Switch	23		Must support BGP, MPLS, IS-IS, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	ISP links like MPLS or Internet as per the industry standards terminates on router. Ion case we terminate such links on core switch it may utilize additional resources including CPU utilization which may impact on the switch performance. If we configure QOS on WAN links, it will utilize additional resources as well. Multiple other factors link IP SLA for link monitoring may not be available on switch. Since hitless failover is asked in core switch, at that time per switch CPU utilization becomes high and that time it may either impact the WAN link performance or switch functionality itself. Further ISIS would not be used in LAN environment in any scenario. Request you to kindly change the clause as:- Must support BGP, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	As per RFP.
98	Core Switch	23		Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.	NetConf/YANG model is used for programming and different OEMs uses technology for programming per say. Request you to kindly change the clause as:_ Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG/REST APIs	As per RFP.
99	Core Switch	23		Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security. 19	DHCP snooping although would not be required at core layer since no DHCP server would be directly connected on the core layer. Even if it is required, different OEMs uses different ways to achieve the same. Kindly change the clause as:- Switch should support port security, DHCP snooping or equivalent, Spanning tree root guard, First Hop Security. 19	Equivalent or better feature is accepted.
100	Core Switch	23		Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.	Different OEMs uses different ways to authenticate the devices hence kindly change it to 802.1x/RADIUS/TACACS+ and IPv6 ACLs and Dynamic VLAN assignment.	Bidder can proposed equivalent or better soluton with proof for same functionality.
101	Core Switch	23		During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove the same.	As per RFP . however, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
102	Access Switch Lan Type 1:	24		Switch should have dedicated slot for modular stacking, in addition to asked uplink ports. Should support for minimum 460 Gbps of stacking throughput with 8 switch in single stack support.	Different OEMs uses different ways to get the stacking done. Few OEMs uses dedicated stacking ports or few uses additional uplink ports for stacking. Also the asked stacking throughput is very high. And no of stack switches may not be supported at this size of switch. Kindly change the clause to let other leading OEMs to participate:- Switch should have dedicated slot/ports for modular stacking/Virtual switching extension, in addition to asked uplink ports. Should support for minimum 160 Gbps of stacking throughput with 2 switch in single stack support.	Bidder can provide stacking or equivalent technology with asked stacking throughput without consuming the downlink/uplink port of the switch.

103	Access Switch Lan Type 1:	24		Switch should have power redundancy feature in stack which shall aggregates all the available power of switches in a stack and present it as one common power pool for the entire stack	This is OEM specific. Kindly remove the same.	Bidder can quote equivalent or any other solution to create the pool of power as a common resource in a stack.
104	Access Switch Lan Type 1:	24		Switch should support at least 64K flow entries	flow entries are required for netflow and proposed platform supports sflow which works on packet streaming. Request you to kindly change the clause as:_ Switch should support at least 64K flow entries or support sflow	May be read as, "Switch should support at least 64K flow entries or support sflow".
105	Access Switch Lan Type 1:	24		Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z & 1588v2	802.3u, 802.3ab, 802.3z are IEEE standard for 10Base T, 100Base T. Now a days such standards are not required since industry has moved to min 1G copper and the asked ports are of 10G copper. Also 1588v2 is PTP standard, and different OEMs support different protocol for time sync. Request you to kindly amend the clause:- Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3 & 1588v2/NTP	As per RFP.
106	Access Switch Lan Type 1:	24		Should have advance Layer 3 protocol like BGPv4, BGPv6 , VRF, VXLAN, IS-ISv4, OSPFv3, MP-BGP	ISIS is ISP level protocol which would never be used in LAN environment in any scenario. ISIS is used only by specific OEM for LAN automation and our solution don't need such protocols for LAN automation. Request you to kindly change the clause as:- Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP	May be read as, " Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP".
107	Access Switch Lan Type 1:	24		Switch should support IPv6 Binding Integrity Guard, IPv6 Snooping, IPv6 RA Guard, IPv6 DHCP Guard, IPv6 Neighbour Discovery Inspection and IPv6 Source Guard.	Kindly remove this clause so that leading OEMs can participate	These are IPv6 security features as per industry standard to ensure maximum security in IPv6 network .
108	Access Switch Lan Type 1:	24		Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256 on hardware	Different OEMs uses different ways to authenticate the devices hence kindly change it to 802.1x/RADIUS/TACACS+. MACSec referring comments in point no 23, kindly change the clause as:- Switch should support 802.1x authentication and accounting/RADIUS/TACACS+, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256/ GRE Tunnel on hardware	Bidder can proposed equivalent or better soluton with proof for same functionality.
109	Access Switch Lan Type 1:	24		During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove the same.	As per RFP . however, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
110	Access Switch Lan Type 1:	24		Switch shall have modular OS to support application 3rd party application hosting	3rd part application hosting is OEM specific feature. Kindly remove this clause	As per RFP.
111	Access Switch LAN Type 2	25		Switch should have minimum 8 GB RAM and 16 GB Flash.	Memory requirement are designed based on the requirement of the operating system of the respective OEM to meet the desired performance, and every OEM OS has different Memory requirement so, kindly amend the clause as for the leading OEM to participate:- "Switch should have minimum 1 GB RAM and 4 GB Flash"	May be read as, "Switch should have minimum 8 GB RAM and 8 GB Flash."

112	Access Switch LAN Type 2	25		Switch should have dedicated slot for modular stacking, in addition to asked uplink ports. Should support for minimum 460 Gbps of stacking throughput with 8 switch in single stack support. These switches should be stacked with other PoE switches and then uplink to Aggregation switches over multiple of 25G Interfaces.	As per the sizing of the switch the asked stacking bandwidth is very high, Kindly change it to 100 Gbps. Further the switch can be stacked within the same model hence with different model would not be possible. Further the uplink asked in this switch is of 40G and 40G is not backward compatible with 25G due to technology limitation. Kindly change the clause as:- Switch should have dedicated slot for modular stacking, in addition to asked uplink ports. Should support for minimum 100 Gbps of stacking throughput with 8 switch in single stack support. Uplink to Aggregation switches over multiple of 2 x 40G Interfaces.	Bidder can provide stacking or equivalent technology with asked stacking throughput without consuming the downlink/uplink port of the switch.
113	Access Switch LAN Type 2	25		Switch should have power redundancy feature in stack which shall aggregates all the available power of switches in a stack and present it as one common power pool for the entire stack	This is OEM specific. Kindly remove the same.	Bidder can quote equivalent or any other solution to create the pool of power as a common resource in a stack.
114	Access Switch LAN Type 2	25		Switch shall have minimum 570 Gbps of switching fabric and 430 Mpps of forwarding rate without considering stack throughput	As per the industry standard calculation, the asked switching capacity and throughput is very high. Kindly change it the clause as :- Switch shall have minimum 320 Gbps of switching fabric and 112 Mpps of forwarding rate without considering stack throughput	As per RFP. Bidder is open to quote product with higher specification.
115	Access Switch LAN Type 2	25		Switch shall have 8K or more multicast routes.	There are very limited multicast applications in the network hence the asked multicast routes are very high. Also to have multicast grps are better to have then multicast routes. Request you to kindly change the clause as:- switch should have 2K multicast groups	As per RFP.
116	Access Switch LAN Type 2	25		Switch should support at least 64K flow entries	"Different OEMs uses different flow for monitoring purpose. Proposed platform uses sflow which works on sampling of traffic hence no entries are required. Kindly change the clause as :- Switch shall support application visibility and traffic monitoring with minimum 60 K Flow entries or support sflow"	As per RFP
117	Access Switch LAN Type 2	25		Switch should support 128 or more STP Instances.	In any of the case 128 instances will never be used for STP, request you to kindly change it to 16 instances	As per RFP
118	Access Switch LAN Type 2	25		Switch should have 32MB or more packet buffer	The packet buffer memory is used during network conjection, and higher memory may lead to delay in the network as well, Request you to change the buffer memory to 12 MB	As per RFP.
119	Access Switch LAN Type 2	25		Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z & 1588v2.	"802.3u, 802.3ab, 802.3z are IEEE standard for 10Base T, 100Base T. Now a days such standards are not required since industry has moved to min 1G copper and the asked ports are of 10G copper. Also 1588v2 is PTP standard, and different OEMs support different protocol for time sync. Request you to kindly amend the clause:- Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3 & 1588v2/NTP"	As per RFP.

	120	Access Switch LAN Type 2	25		Should have advance Layer 3 protocol like BGPv4, BGPv6 , MPLS, VRF, VXLAN, IS-ISv4, OSPFv3, MP-BGP	"ISP links like MPLS or Internet as per the industry standards terminates on router. Ion case we terminate such links on core switch it may utilize additional resources including CPU utilization which may impact on the switch performance. If we configure QOS on WAN links, it will utilize additional resources as well. Multiple other factors link IP SLA for link monitoring may not be available on switch. Since hitless failover is asked in core switch, at that time per switch CPU utilization becomes high and that time it may either impact the WAN link performance or switch functionality itself. Further ISIS would not be used in LAN environment in any scenario. Request you to kindly change the clause as:- Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP"	As per RFP.
	121	Access Switch LAN Type 2	26		Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256 on hardware	MACSec referring comments in point no 23, kindly change the clause as:- Switch should support 802.1x authentication and accounting/RADIUS/TACACS+, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256/ GRE Tunnel on hardware	Bidder can proposed equivalent or better soluton with proof for same functionality.
	122	Access Switch LAN Type 2	26		During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove the same.	As per RFP . however, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
	123	Access Switch LAN Type 2	26		Switch shall have modular OS to support application 3rd Party Application hosting	3rd part application hosting is OEM specific feature. Kindly remove this clause	As per RFP.
	124	Aggregation Switch	26		Switch should support SSD to host 3rd party container based application.	Proposed platform support SSD but for internal purpose only. Hosting of applications would not be supported by major the leading OEMs. This feature is OEM specific. Kindly remove the same.	As per RFP.We might require to host some programmability application/docker or forensic tools like wireshark/packet capture on switch itself. Hence Bidder can propose same either on switch or separate device such as the servers supplied under this project to host such applications with highavailability
HPE	125	Aggregation Switch	26		Switch should have 24*1/10/25G Downlink Ports& 4*40/100G uplink Interfaces	Considering the access ports uplink, where in all are 40G uplink are required, and access switches will connect back to aggregation switch which has asked on 25G. Due to technology limitation, 40G is not backward compatible with 25G. Kindly look into the designing part and change the agg switch downlink ports accordingly. Please suggest if our understanding is wrong	As per RFP.

126	Aggregation Switch	26		Switch should support minimum 16K ACLs, 24K Multicast and 32K IPv4 & 32K IPv6 Routes..	In the deployment scenario, 16K ACLs may never get in used but the no of ACL entries may matters a lot. Request you to change it to ACL 4K and ACL entries 32K. Further for multicast routes, there are very limited multicast applications in the network and no that much of multicast routes would be required. As per the standard practice, IPv6 routes would always be half of IPv4 routes. Hence to participates the leading OEMS in RFP kindly change the clause as :-**"Switch should support minimum 4K ACL and 32K ACL entries, 8K Multicast and 64K IPv4 & 32K IPv6 Routes..**	As per RFP.
127	Aggregation Switch	26		Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries	Different OEMs uses different flow for monitoring purpose. Proposed platform uses sflow which works on sampling of traffic hence no entries are required. Kindly change the clause as :- Switch shall support application visibility and traffic monitoring with minimum 60 K jflow/netFlow entries or support sflow	May be read as,"Switch shall support application visibility and traffic monitoring with minimum 60 K jflow/netFlow entries or support sflow".
128	Aggregation Switch	26		Packet buffer : 36 MB	Ask buffer size is very high and favouring specific OEM. Kindly change it to 32 MB	May be read as, "Packet buffer : 32 MB or higher."
129	Aggregation Switch	27		The device should be IPv6 certified from day one	Kindly change the clause as :- The device should be IPB6 ready/IPV6 certified from day one.	As per RFP.
130	Aggregation Switch	27		Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q, 1588v2	802.1ae is MACSec which is used for LAN traffic encryption. Different OEMs uses different technology to secure the LAN traffic. Proposed platform form a GRE tunnel and the critical data or all data as per the requirement can be encapsulated in the tunnel. Hence request you to kindly change the clause as:- Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES)/GRE Tunnel, 802.3x, 802.1p, 802.1Q, 1588v2	As per RFP.
131	Aggregation Switch	27		Communication between switch to switch should be encrypted at Layer 2 and should encapsulates and protects the metadata fields. It should use industry standard MKA. Communication should have AES-GCM (Galois/Counter Mode) symmetric encryption, to provide line-rate encryption and decryption and provides replay attack protection of every frame. Switches should support MACSec encryption (MACSec -256) for switch-to-switch (inter-network device) security using OEM proprietary & MKS-based key exchange protocol.	This is OEM specific. Kindly remove the same.	As per RFP MACSec is open standard as per IEEE 802.1AE standard. Existing controller and switches support this feature and this need to be integrate with existing set-up. However bidder can propose equivalent or better soluton with proof for same functionality.

132	Aggregation Switch	27		Must support BGP, MPLS, IS-IS, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	ISP links like MPLS or Internet as per the industry standards terminates on router. Ion case we terminate such links on core switch it may utilize additional resources including CPU utilization which may impact on the switch performance. If we configure QOS on WAN links, it will utilize additional resources as well. Multiple other factors link IP SLA for link monitoring may not be available on switch. Since hitless failover is asked in core switch, at that time per switch CPU utilization becomes high and that time it may either impact the WAN link performance or switch functionality itself. Further ISIS would not be used in LAN environment in any scenario. Request you to kindly change the clause as:- Must support BGP, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	As per RFP.
133	Aggregation Switch	27		Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.	NetConf/YANG model is used for programming and different OEMs uses technology for programming per say. Request you to kindly change the clause as:_ Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG/REST APIs	May be read as,"Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG/REST APIs".
134	Aggregation Switch	27		Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security.	DHCP snooping although would not be required at core layer since no DHCP server would be directly connected on the core layer. Even if it is required, different OEMs uses different ways to achieve the same. Kindly change the clause as:- Switch should support port security, DHCP snooping or equivalent, Spanning tree root guard, First Hop Security.	Equivalent or better feature is accepted.
135	Aggregation Switch	27		Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.	"Different OEMs uses different ways to authenticate the devices hence kindly change it to 802.1x/RADIUS/TACACS+ and IPv6 ACLs and Dynamic VLAN assignment. "	Bidder can proposed equivalent or better soluton with proof for same functionality.
136	Aggregation Switch	27		During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove this clause so that leading OEMs can participate	As per RFP . however, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
137	Access Point	28		Should have 1x 100, 1000, 2500 Multigigabit Ethernet (RJ-45) – IEEE 802.3bz	As per the AP throughput asked, the mentioned upto 2.5 G port will not suffice the requirement. Due to limitation of port, access point will not be used with 5G of throughput. Kindly change the clause as : Should have 1x 100, 1000, 2500, 5000 Multigigabit Ethernet (RJ-45) – IEEE 802.3bz	Bidder can propose equivalent or better soluton with proof for same functionality.
138	HCI	Server, 31		The proposed HCI appliance nodes should provide 40G connectivity. Each node should be offered minimum 4 x 10GbE SFP+ Ports or better. Dedicated out of band management port must be provided in each node. Only OEM certified interconnects should be provided.	Request to delete "Dedicated out of band management port must be provided in each node" This is specific to an OEM	As per RFP.

139	HCI	Server, 31		The proposed HCI appliance solution should be Software defined with required Software or Hardware engine to enable Software Defined Storage. The HCI solution will have distributed caching and should have no dependence on data locality. The HCI solution will provide Inline Deduplication across all storage tiers	Data Locality is important part of HCI architecture, it increase performance and reduces Latency. Hence request to modify the clause as "The proposed HCI appliance solution should be Software defined with required Software or Hardware engine to enable Software Defined Storage. The HCI solution will have distributed caching. The HCI solution will provide Inline Deduplication across all storage tiers"	As per RFP.
140	HCI	Server, 31		The solution should provide automated workload placement to ensure highly available resources to workloads by auto balancing workloads for optimal performance	Request to Delete the clause as it can be addressed with Data Locality	As per RFP.
141	HCI	Server, 31		The solution should support technology that continuously analyzes workload consumption, costs and compliance constraints and automatically allocates resources in real-time	Request to Delete the clause. This feature is not required	As per RFP.
142	HCI	Server, 31		The solution should support minimum 32 nodes in a same cluster/ deployment and each node shall be able to access the storage of all nodes in the cluster.	We understand scalability is important in the solution, 2-3 times scalability can be asked hence the clause be modified to "The solution should support minimum 12 nodes in a same cluster/ deployment and each node shall be able to access the storage of all nodes in the cluster."	As per RFP.
143	HCI	Server, 32		Each HCI Appliance node must have Redundant Hot Plug High Efficiency Power Supply with N+N configuration.	Reques to change the clause as "Each HCI Appliance node must have Redundant dual Hot Plug High Efficiency Power Supply with ability to sustain single power supply failure."	As per RFP.
144	HCI	Server, 32		Each converged node should provide min. 1.6TB SSD cache capacity. This capacity would be addition to mentioned usable capacity.	Request to modify the clause as "Each converged node should provide min. 1.6TB SSD cache capacity or its equivalent capacity across proposed nodes. This capacity would be addition to mentioned usable capacity."	Accepted.
145	HCI	Server, 32		HCI Solution should include Redundant Interconnect switch to support low latency East-West traffic between HCI Nodes. Each switch should provide minimum 40 optical ports with redundant power supplies and cooling fans. Each Switch should be provided 8*10/25 Gps SFP+ ports or Bandwidth for uplink connectivity to external LAN Management switch and 8*16G FC port for external Storage connectivity through SAN Switch.	8x16G FC port is OEM Specific and is not required in the solution. Request to modify the clause as "HCI Solution should include Redundant Interconnect switch to support low latency East-West traffic between HCI Nodes. Each switch should provide minimum 16 optical ports with redundant power supplies and cooling fans. Each Switch should be provided 8*10/25 Gps SFP+ ports or Bandwidth for uplink connectivity to external LAN Management switch."	As per RFP.
146	HCI	Server, 32		The network switches included with the HCI solution shall be able to connect to storage fabric over FC, FCoE, NFS, ISCSI & SMB protocols. The network switch will support QoS to streamline HCI network traffic to improve traffic filtering, segmentation and performance	Request to Delete the clause. This feature is not required	As per RFP.
147	HCI	Server, 32		Real-time out-of-band hardware performance monitoring & alerting. Solution should be able to provide anti-counterfield and provide an alert in case the system is not part of OEM Hardware Compatibility list.	Request to Delete the clause. This is OEM Specific clause	As per RFP.

148	HCI	Server, 33		Cluster to provide 50 TB usable storage capacity post RAID1 or equivalent without considering any data saving technique like (erasure coding, de-duplication, compression etc) using Enterprise SSD Drives of 3.8 TB capacity or higher. Solution shall be able to withstand one Node failure.	Request to modify the clause as "Cluster to provide 50 TB usable storage capacity post RAID1 or equivalent without considering any data saving technique like (erasure coding, de-duplication, compression etc) using Enterprise SSD Drives of 1.92 TB capacity or higher. Solution shall be able to withstand both single drive failure per node and one Node entire node failure."	May be read as,"Cluster to provide 50 TB usable storage capacity post RAID1 or equivalent without considering any data saving technique like (erasure coding, de-duplication, compression etc) using Enterprise SSD Drives of 1.92 TB capacity or higher. Solution shall be able to withstand one Node failure."
149	HCI	Server, 34		The solution should be quoted with software that provides preemptive actions to provision additional resources in case of any performance degradation.	Request to Delete the clause. This feature is not required	As per RFP.
150	HCI	Server, 34		The solution should support strong multi DC management strategy, managing all site resources from single console. The tool should support for a range of public cloud platforms for future	Request to modify the clause as "The solution should support strong multi DC management strategy, managing all site resources from single console."	As per RFP.
151	HCI	Server, 34		The solution should provide application centric network, security configurations	Request to modify the clause as "The solution should provide security at network level, Host level, User level and VM level"	As per RFP.
152	HCI	Server, 34		Life Cycle Management workflows: Provisioning, Decommissioning, Extensible Capabilities to allow "Self-Management" (Day 2) workflows resize, snapshot, reboot, power on/off etc.	Request to Delete the clause. This feature is not required	As per RFP.
153	HCI	Server, 34		The solution should provide cloud usage optimization and cost reduction across multiple clouds It should use automated recommendations to optimize consumption, simplify inventory and total spend reporting across clouds, accounts and users& Implement right sizing aligned with policy	Request to Delete the clause. This feature is not required	As per RFP.
154	HCI	Server, 34		The Solution should be multi-tenant and be able to manage roles in a multi-DC, multi-user environment and Admin can restrict which cloud/cloud accounts users/groups/tenants can access. Vendor to provide a mechanism to achieve the above mentioned requirement.	Request to Delete the clause. This feature is not required	As per RFP.
155	HCI	Server, 34		The solution shall support provisioning across multi-vendor, multi-hypervisor (eg: VMware ESX, ESXi 6.5 or higher, Microsoft Hyper-V 2016, System Center 2016 or higher and Red Hat hypervisors) physical x86, virtual environments. Currently supported target environments with version details should be submitted as part of compliance	Request to modify the clause as "The solution shall support minimum 2 hypervisor (eg: VMware ESX, ESXi 6.5 or higher, Microsoft Hyper-V 2016, System Center 2016 or higher and Red Hat hypervisors) physical x86, virtual environments. Currently supported target environments with version details should be submitted as part of compliance"	As per RFP.
156	HCI	Server, 34		The solution should have pre-built task libraries for Day 0 automation of infrastructure (Network, Storage, Server, Load balancer, firewall etc.) Bidder to provide a mechanism to achieve the above mentioned requirement.	Request to delete the clause. This is specific to an OEM	It is not OEM Spefic. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
157	HCI	Server, 34		Bidder must quote appropriate license to enable and meet mentioned features in the Cloud solution Architecture	Request to Delete the clause. This feature is not required	As per RFP.

158	Router	43		Router should be modular / chassis-based device with minimum 5 Gbps of throughput scalable up to 20 Gbps. It should have minimum 4 GB of RAM/ DRAM and 4 GB of Flash, scalable up to 8 GBPS.	As per the port requirement, and considering the future scalability from min 2 Gbps x as per industry standard 3 time or 5 time for next 5 years. Still the router scalability would be 10 Gbps. In no scenario, the scalability would be required at 20Gbps. Also routers capacity generally calculate in Mpps hence Request you to change the clause as :- Router should be modular / chassis-based device with minimum 2 Gbps of throughput scalable up to 10 Gbps/8 Mpps.	May be read as,"Router should be modular / chassis-based device with minimum 5 Gbps of throughput scalable up to 10 Gbps. It should have minimum 4 GB of RAM/ DRAM and 4 GB of Flash, scalable up to 8 GB."
159	Router	43		Router should support state full firewall, zone based firewall and deep inspection mechanism capability to provide the access controller strategy-based on source and destination IP protocol, port and time parameters and control over a wide variety of applications using deep inspection.	Since ask if for the router which in general support state full firewall, zone based firewall but full-fledged firewall functionally should not be expected from router. Rather separate firewall should be deployed which is already asked in the RFP. Hence kindly change the clause as:_ Router should support state full firewall, zone based firewall	As per RFP. Vendor to provide a mechanism to achieve the mentioned requirement of RFP.
160	Router	44		Router should have software/hardware based control plane/processor redundancy for seamless working of routing functionality and should have separate data & management plane. In case of control plane failure the Routing & Multicast routing should work seamlessly without any disruption	Every OEM have different way to control the chassis. Few OEMs uses control plane module and other may use management module to control and manage the chassis. Both works in same manner to achieve the seamless routing functionality. Request you to kindly amend the clause as :- Router should have software/hardware based control plane/management plane/processor redundancy for seamless working of routing functionality and should have separate data & management plane. In case of control/management plane failure the Routing & Multicast routing should work seamlessly without any disruption	"As per RFP. Vendor to provide a mechanism to achieve the mentioned requirement of RFP."
161	Router	44		Router should be modular/chassis with multi-core processor architecture based device and should accommodate a combination of high density, 10G, Gigabit Ethernet, 40G, Serial Port, Channelized T1/E1, STM-1/4/16 and must have capabilities to seamless upgrade/replacement (without interrupting running processes and services) all modular interfaces supported and Gigabit Ethernet modules to accommodate field upgrades.	40G port in general asked in ISP environment which is not the case here. Also T1/E1 and STM 1/4/16 are older technology and ISPs provides ethernet handoff for WAN connectivity. T1/E1 is limited to 2 Mbps and the kind of through put asked such interface would not be in used. Request you to kindly change the clause as:- Router should be modular/chassis with multi-core processor architecture based device and should accommodate a combination of high density, 10G, Gigabit Ethernet and must have capabilities to seamless upgrade/replacement (without interrupting running processes and services) all modular interfaces supported and Gigabit Ethernet modules to accommodate field upgrades.	It is a should accommodate combination.
162	Router	44		System shall support to provide the ability to filter and gather application information in a flexible manner from day one netflow/xflow/jflow and should support at least 128K flow entries	Netflow is for Cisco, Jflow for juniper but Sflow is open standard which is widely accepted and we support sflow and as mentioned earlier for sflow no flow entries are required. Kindly change the clause as:_ System shall support to provide the ability to filter and gather application information in a flexible manner from day one netflow/xflow/jflow and should support at least 128K flow entries or support sflow	May be read as,"System shall support to provide the ability to filter and gather application information in a flexible manner from day one netflow/xflow/jflow/sflow and should support at least 128K flow entries"

Bidder	No.			Reference	RFP Clause	Query / Remarks	Response
	163	AAA	47		Centralized NMS or SDN Controller is already running and Bidder has to Integrate these network devices with Controller. Existing SDN shall be upgraded which is already in place in order to save further cost. However, Vendor is open quote an SDN single Solution having a single policy and single management for both Wired and Wireless Solution. The Networking solution to be integrated with the existing SDN solution. The API shall be provided for the existing solution by exiting solution if required It is intended is that vendor to provide a mechanism to achieve the above- mentioned requirement.	Referring clause no 1, The existing controller should support REST Full APIs. If the existing controller supports the same and is capable enough to support other OEM Wired and wireless solution, hence existing OEM has to provide confirmation. The OEM of existing controller has to ensure and take care of it else if not, this should be OEM specific and this clause should be removed.	"As per RFP. Vendor to provide a mechanism to achieve the mentioned requirement of RFP."
	164		47		Centralized SDN Controller and Firewall should be Integrated tightly to 24 provide segmentation through Virtual Routing and Forwarding between VN's	Referring clause no 1, The existing controller should support REST Full APIs. If the existing controller supports the same and is capable enough to support other OEM Wired and wireless solution, hence existing OEM has to provide confirmation. The OEM of existing controller has to ensure and take care of it else if not, this should be OEM specific and this clause should be removed.	"As per RFP. Vendor to provide a mechanism to achieve the mentioned requirement of RFP."
Niveshan Technologies India Pvt. Ltd	165			Annexure II, Point VIII, Page No-17	Bidder must have executed the following work in any State/Central Government Department/Government Agencies/PSU in last three financial years: Bidder must have executed the following work in any State/Central Government Department/Government Agencies/PSU in last three financial years: or Two Projects of Local Area Networking (LAN) with work order of the value of 05 Crore or more in any State/Central Government/Government Agencies/PSU	PSU (Container Corporation of India (CONCOR) Awarded the Project to NEC Corporation India Pvt. Ltd Project was related to Implementation of MPLS connectivity containing many items mentioned in current RFP (14 - JaKeGA of 2021) BOQ of sufficient value to qualify. NEC Corporation India Pvt. Ltd outsourced the Works to Niveshan Technologies India Pvt. Ltd. Niveshan Technologies India Pvt. Ltd. would like to sort the clarification that they can use this experience to qualify for the tender as we have delivered the services to PSU.	May be read as, "Bidder must have executed the following work in any State/Central Government Department/Government Agencies/PSU in last three financial years: One Project of Networking with work order of the value `of 6 Crore or more in any State/Central Government/Government Agencies/PSU; or Two Projects of Networking with work order of the value of 3 crore or more in any State/Central Government/Government Agencies/PSU".
R&M	166				In RFP many parameters ,standards ,labs and certification are of lower standard than Cat 7 please amend same	All passive copper cabling solution should be Cat 7 or higher and products to be quoted for latest TR11801-9905 standard with minimum 25G bandwidth	Accepted.
	167			Annexure-IV Technical Specifications Page No. 53 of 68 Point No. 2	Rack Containment Frame is 42 U, 19" mounting type with 2200 (Height) x 600 (Width) x 1800 (Depth, including Rack + Cold & Hot Aisle Containment).	1800 depth, It should be 1000 or 1200mm	Bidder to ensure proper depth of Rack as per their active and passive equipments to be hosted in them.
SISL Infotech Pvt Ltd	168			Notice Inviting Bid Page No. 5 of 68 Point No. 13 Bid Security/EMD	As per the circular issued by the Finance Department issued vide no. A/Misc(2018)-III-895/J dated 22-12-2020. Bidder shall submit "Bid security Declaration" for an amount of Rs. 25,00,000/-(Rupees Twenty Five Lakhs). However, successful bidder has to submit original Bid Security declaration of EMD in the office of CEO, JaKeGA Civil Secretariat Jammu/Jammu J&K before the issue of work Order, failing which the bidder shall be liable to disqualification including blacklisting.	We request you to kindly provide format for "Bid Security Declaration"	As per RFP.

169		20	Annexure IV: Technical Specifications	Existing Controller is providing the central management from single dashboard, device lifecycle management like device discovery, topology, inventory, image upgrade for both for wired and wireless networks. Proposed solution should be integrated with this controller by adding the additional licenses.	The existing controller should support REST Full APIs. If the existing controller supports the same and is capable enough to support other OEM Wired and wireless solution, there should be a confirmation on this from existing OEM. Request you to please include that the OEM of existing controller will ensure & shall be responsible for providing APIs. Else if not, this shall only be applicable to existing OEM. Hence, we request this clause should be removed to encourage other competent OEMs & a healthy competition.	"As per RFP. Vendor to provide a mechanism to achieve the mentioned requirement of RFP."
170		20	Annexure IV: Technical Specifications	After Integration with Controller solution should support multiple application to solve business problem like end to end path trace, automated end to end QoS deployment in the network, automation to create SD-LAN fabric etc.	Since wireless controller is for managing the APs and the mentioned clause would be only applicable for existing controller, the ask functionality is limited to be fulfilled only by existing controller. There should be no dependency on the proposed once in terms of automation and SDLAN fabric. Referring the serial no 1, either this should be stated to be ensured by the existing controller OEM or it should be removed from the RFP.	As per RFP.
171		20-21	Annexure IV: Technical Specifications	Existing controller shall provide the ability to create SD-LAN fabric with following capabilities: covers all the points till 47	Since wireless controller is for managing the APs and the mentioned clause would be of existing controller, the ask functionality is of existing controller. No dependency on the proposed once in terms of automation and SDLAN fabric. Referring the serial no 1, either it should be stated to be ensured by the existing controller OEM or else all clauses till 47 should be removed from the RFP.	As Per RFP.
172		22	Core Switch	Switch should support SSD to host 3rd party container-based application.	Proposed platform support SSD but for internal purpose only. Hosting of applications would not be supported by major the leading OEMs. This feature is OEM specific. Request you to kindly remove the same.	As per RFP.We might require to host some programmability application/docker or forensic tools like wireshark/packet capture on switch itself. Hence Bidder can propose same either on switch or separate device such as the servers supplied under this project to host such applications with highavailability
173		22	Core Switch	Switching system shall have minimum 6.4 Tbps of switching fabric and minimum 2 Bpps of forwarding rate. 8	As per the industry standard calculations, since 32 x 40G ports being asked :- (32x40)X2=2560 Gbps (2.5Tb). Similarly basis standard calculation for pps it comes to 1900 MPPS. request you to kindly change the clause as :- Switching system shall have minimum 2.5 Tbps of switching fabric and minimum 1.9 BPPS of forwarding rate.	As per RFP.
174		22	Core Switch	Switch should support minimum 4K ACLs, 24K Multicast and 64K IPv4 & 64K IPv6 Routes or higher.	For multicast routes, there are very limited multicast applications in the network and no that much of multicast routes would be required. As per the standard practice, IPv6 routes would always be half of IPv4 routes. Hence to participates the leading OEMS in RFP kindly change the clause as :-**"Switch should support minimum 4K ACL a 8K Multicast and 64K IPv4 & 32K IPv6 Routes..**	As per RFP.

175		22	Core Switch	Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries.	Different OEMs uses different flow for monitoring purpose. Proposed platform uses sflow which works on sampling of traffic hence no entries are required. Kindly change the clause as :-Switch shall support application visibility and traffic monitoring with minimum 60 K jflow/netFlow entries or support sflow	As per RFP . Sflow is already coverd in entries
176		23	Core Switch	The device should be IPv6 certified from day one	Kindly change the clause as :- The device should be IPB6 ready/IPV6 certified from day one.	As per RFP.
177		23	Core Switch	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q, 1588v2	802.1ae is MACSec which is used for LAN traffic encryption. Different OEMs uses different technology to secure the LAN traffic. Proposed platform form a GRE tunnel and the critical data or all data as per the requirement can be encapsulated in the tunnel. Hence request you to kindly change the clause as:-Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES)/GRE Tunnel, 802.3x, 802.1p, 802.1Q, 1588v2	As per RFP.
178		23	Core Switch	Communication between switch to switch should be encrypted at Layer 2 and should encapsulates and protects the metadata fields. It should use industry standard MKA. Communication should have AES-GCM (Galois/Counter Mode) symmetric encryption, to provide line-rate encryption and decryption and provides replay attack protection of every frame. Switches should support MACSec encryption (MACSec -256) for switch-to-switch (inter-network device) security using OEM proprietary & MKS-based key exchange protocol.	This is OEM specific. Kindly remove the same.	As per RFP MACSec is open standard as per IEEE 802.1AE standard. Existing controller and switches support this feature and this need to be integrate with existing set-up. However bidder can propose equivalent or better soluton with proof for same functionality.
179		23	Core Switch	Must support BGP, MPLS, IS-IS, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	ISP links like MPLS or Internet as per the industry standards terminates on router. Ion case we terminate such links on core switch it may utilize additional resources including CPU utilization which may impact on the switch performance. If we configure QOS on WAN links, it will utilize additional resources as well. Multiple other factors link IP SLA for link monitoring may not be available on switch. Since hitless failover is asked in core switch, at that time per switch CPU utilization becomes high and that time it may either impact the WAN link performance or switch functionality itself. Further ISIS would not be used in LAN environment in any scenario. Request you to kindly change the clause as:- Must support BGP, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	As per RFP.
180		23	Core Switch	Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.	NetConf/YANG model is used for programming and different OEMs uses technology for programming per say. Request you to kindly change the clause as:_ Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG/REST APIs	As per RFP.

181		23	Core Switch	Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security. 19	DHCP snooping although would not be required at core layer since no DHCP server would be directly connected on the core layer. Even if it is required, different OEMs uses different ways to achieve the same. Kindly change the clause as:- Switch should support port security, DHCP snooping or equivalent, Spanning tree root guard, First Hop Security. 19	Equivalent or better feature is accepted.
182		23	Core Switch	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.	Different OEMs uses different ways to authenticate the devices hence kindly change it to 802.1x/RADIUS/TACACS+ and IPv6 ACLs and Dynamic VLAN assignment.	Bidder can proposed equivalent or better soluton with proof for same functionality.
183		23	Core Switch	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove the same.	As per RFP . however, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
184		24	Access Switch Lan Type 1:	Switch should have dedicated slot for modular stacking, in addition to asked uplink ports. Should support for minimum 460 Gbps of stacking throughput with 8 switch in single stack support.	Different OEMs uses different ways to get the stacking done. Few OEMs uses dedicated stacking ports or few uses additional uplink ports for stacking. Also the asked stacking throughput is very high. And no of stack switches may not be supported at this size of switch. Kindly change the clause to let other leading OEMs to participate:- Switch should have dedicated slot/ports for modular stacking/Virtual switching extension, in addition to asked uplink ports. Should support for minimum 160 Gbps of stacking throughput with 2 switch in single stack support.	Bidder can provide stacking or equivalent technology with asked stacking throughput without consuming the downlink/uplink port of the switch.
185		24	Access Switch Lan Type 1:	Switch should have power redundancy feature in stack which shall aggregates all the available power of switches in a stack and present it as one common power pool for the entire stack	This is OEM specific. Kindly remove the same.	Bidder can quote equivalent or any other solution to create the pool of power as a common resource in a stack.
186		24	Access Switch Lan Type 1:	Switch should support at least 64K flow entries	flow entries are required for netflow and proposed platform supports sflow which works on packet streaming. Request you to kindly change the clause as:_ Switch should support at least 64K flow entries or support sflow	As per RFP.
187		24	Access Switch Lan Type 1:	Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z & 1588v2	802.3u, 802.3ab, 802.3z are IEEE standard for 10Base T, 100Base T. Now a days such standards are not required since industry has moved to min 1G copper and the asked ports are of 10G copper. Also 1588v2 is PTP standard, and different OEMs support different protocol for time sync. Request you to kindly amend the clause:- Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3 & 1588v2/NTP	As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.

188		24	Access Switch Lan Type 1:	Should have advance Layer 3 protocol like BGPv4, BGPv6 , VRF, VXLAN, IS-ISv4, OSPFv3, MP-BGP	ISIS is ISP level protocol which would never be used in LAN environment in any scenario. ISIS is used only by specific OEM for LAN automation and our solution don't need such protocols for LAN automation. Request you to kindly change the clause as:- Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP	May be read as, " Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP".
189		24	Access Switch Lan Type 1:	Switch should support IPv6 Binding Integrity Guard, IPv6 Snooping, IPv6 RA Guard, IPv6 DHCP Guard, IPv6 Neighbour Discovery Inspection and IPv6 Source Guard.	Kindly remove this clause so that the other leading & competent OEMs can participate.	These are IPv6 security features as per industry standard to ensure maximum security in IPv6 network .
190		24	Access Switch Lan Type 1:	Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256 on hardware	Different OEMs uses different ways to authenticate the devices hence kindly change it to 802.1x/RADIUS/TACACS+. MACSec referring comments in point no 23, kindly change the clause as:- Switch should support 802.1x authentication and accounting/RADIUS/TACACS+, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256/ GRE Tunnel on hardware	Bidder can propose equivalent or better soluton with proof for same functionality.
191		24	Access Switch Lan Type 1:	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove the same.	As per RFP. However, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
192		24	Access Switch Lan Type 1:	Switch shall have modular OS to support application 3rd party application hosting	3rd part application hosting is OEM specific feature. Kindly remove this clause	As per RFP.
193		25	Access Switch LAN Type 2	Switch should have minimum 8 GB RAM and 16 GB Flash.	Memory requirement are designed based on the requirement of the operating system of the respective OEM to meet the desired performance, and every OEM OS has different Memory requirement so, kindly amend the clause as for the leading OEM to participate:- "Switch should have minimum 1 GB RAM and 4 GB Flash"	May be read as, "Switch should have minimum 8 GB RAM and 8 GB Flash."
194		25	Access Switch LAN Type 2	Switch should have dedicated slot for modular stacking, in addition to asked uplink ports. Should support for minimum 460 Gbps of stacking throughput with 8 switch in single stack support. These switches should be stacked with other PoE switches and then uplink to Aggregation switches over multiple of 25G Interfaces.	As per the sizing of the switch the asked stacking bandwidth is very high, Kindly change it to 100 Gbps. Further the switch can be stacked within the same model hence with different model would not be possible. Further the uplink asked in this switch is of 40G and 40G is not backward compatible with 25G due to technology limitation. Kindly change the clause as:- Switch should have dedicated slot for modular stacking, in addition to asked uplink ports. Should support for minimum 100 Gbps of stacking throughput with 8 switch in single stack support. Uplink to Aggregation switches over multiple of 2 x 40G Interfaces.	Bidder can provide stacking or equivalent technology with asked stacking throughput without consuming the downlink/uplink port of the switch.
195		25	Access Switch LAN Type 2	Switch should have power redundancy feature in stack which shall aggregates all the available power of switches in a stack and present it as one common power pool for the entire stack	This is OEM specific. Kindly remove the same.	Bidder can quote equivalent or any other solution to create the pool of power as a common resource in a stack.

TECHSERV IT C/O SSR Group, Jammu	196		25	Access Switch LAN Type 2	Switch shall have minimum 570 Gbps of switching fabric and 430 Mpps of forwarding rate without considering stack throughput	As per the industry standard calculation, the asked switching capacity and throughput is very high. Kindly change it the clause as :- Switch shall have minimum 320 Gbps of switching fabric and 112 Mpps of forwarding rate without considering stack throughput	As per RFP. Bidder is open to quote product with higher specification.
	197		25	Access Switch LAN Type 2	Switch shall have 8K or more multicast routes.	There are very limited multicast applications in the network hence the asked multicast routes are very high. Also to have multicast grps are better to have then multicast routes. Request you to kindly change the clause as:- switch should have 2K multicast groups	As per RFP.
	198		25	Access Switch LAN Type 2	Switch should support at least 64K flow entries	"Different OEMs uses different flow for monitoring purpose. Proposed platform uses sflow which works on sampling of traffic hence no entries are required. Kindly change the clause as :- Switch shall support application visibility and traffic monitoring with minimum 60 K Flow entries or support sflow"	As per RFP.
	199		25	Access Switch LAN Type 2	Switch should support 128 or more STP Instances.	In any of the case 128 instances will never be used for STP, request you to kindly change it to 16 instances	As per RFP.
	200		25	Access Switch LAN Type 2	Switch should have 32MB or more packet buffer	The packet buffer memory is used during network conjection, and higher memory may lead to delay in the network as well, Request you to change the buffer memory to 12 MB	As per RFP.
	201		25	Access Switch LAN Type 2	Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z & 1588v2.	"802.3u, 802.3ab, 802.3z are IEEE standard for 10Base T, 100Base T. Now a days such standards are not required since industry has moved to min 1G copper and the asked ports are of 10G copper. Also 1588v2 is PTP standard, and different OEMs support different protocol for time sync. Request you to kindly amend the clause:- Switch should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3 & 1588v2/NTP"	As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
	202		25	Access Switch LAN Type 2	Should have advance Layer 3 protocol like BGPv4, BGPv6 , MPLS, VRF, VXLAN, IS-ISv4, OSPFv3, MP-BGP	"ISP links like MPLS or Internet as per the industry standards terminates on router. Ion case we terminate such links on core switch it may utilize additional resources including CPU utilization which may impact on the switch performance. If we configure QOS on WAN links, it will utilize additional resources as well. Multiple other factors link IP SLA for link monitoring may not be available on switch. Since hitless failover is asked in core switch, at that time per switch CPU utilization becomes high and that time it may either impact the WAN link performance or switch functionality itself. Further ISIS would not be used in LAN environment in any scenario. Request you to kindly change the clause as:- Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP"	May be read as, "Should have advance Layer 3 protocol like BGPv4, BGPv6, VRF, VXLAN, IS-ISv4/OSPFv3, MP-BGP".

203		26	Access Switch LAN Type 2	Switch should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256 on hardware	MACSec referring comments in point no 23, kindly change the clause as:- Switch should support 802.1x authentication and accounting/RADIUS/TACACS+, IPv4 and IPv6 ACLs and Dynamic VLAN assignment and MACSec-256/ GRE Tunnel on hardware	Bidder can proposed equivalent or better soluton with proof for same functionality.
204		26	Access Switch LAN Type 2	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove the same.	As per RFP . however, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
205		26	Access Switch LAN Type 2	Switch shall have modular OS to support application 3rd Party Application hosting	3rd part application hosting is OEM specific. Kindly remove this clause	As per RFP.
206		26	Aggregation Switch	Switch should support SSD to host 3rd party container based application.	Proposed platform support SSD but for internal purpose only. Hosting of applications would not be supported by major the leading OEMs. This feature is OEM specific. Kindly remove the same.	As per RFP.We might require to host some programmability application/docker or forensic tools like wireshark/packet capture on switch itself. Hence Bidder can propose same either on switch or separate device such as the servers supplied under this project to host such applications with highavailability
207		26	Aggregation Switch	Switch should have 24*1/10/25G Downlink Ports& 4*40/100G uplink Interfaces	Considering the access ports uplink, where in all are 40G uplink are required, and access switches will connect back to aggregation switch which has asked on 25G. Due to technology limitation, 40G is not backward compatible with 25G. Kindly look into the designing part and change the agg switch downlink ports accordingly. Please suggest if our understanding is wrong	As per RFP. Vendor open to provide port density as asked in RFP or higher.
208		26	Aggregation Switch	Switch should support minimum 16K ACLs, 24K Multicast and 32K IPv4 & 32K IPv6 Routes..	In the deployment scenario, 16K ACLs may never get in used but the no of ACL entries may matters a lot. Request you to change it to ACL 4K and ACL entries 32K. Further for multicast routes, there are very limited multicast applications in the network and no that much of multicast routes would be required. As per the standard practice, IPv6 routes would always be half of IPv4 routes. Hence to participates the leading OEMS in RFP kindly change the clause as :-**"Switch should support minimum 4K ACL and 32K ACL entries, 8K Multicast and 64K IPv4 & 32K IPv6 Routes..**	As per RFP.
209		26	Aggregation Switch	Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries	Different OEMs uses different flow for monitoring purpose. Proposed platform uses sflow which works on sampling of traffic hence no entries are required. Kindly change the clause as :- Switch shall support application visibility and traffic monitoring with minimum 60 K jflow/netFlow entries or support sflow	As per RFP.
210		26	Aggregation Switch	Packet buffer : 36 MB	Ask buffer size is very high and favouring specific OEM. Kindly change it to 32 MB	May be read as, "Packet buffer : 32 MB or higher."
211		27	Aggregation Switch	The device should be IPv6 certified from day one	Kindly change the clause as :- The device should be IPB6 ready/IPV6 certified from day one.	As per RFP

212		27		Aggregation Switch	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q, 1588v2	802.1ae is MACSec which is used for LAN traffic encryption. Different OEMs uses different technology to secure the LAN traffic. Proposed platform form a GRE tunnel and the critical data or all data as per the requirement can be encapsulated in the tunnel. Hence request you to kindly change the clause as:- Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES)/GRE Tunnel, 802.3x, 802.1p, 802.1Q, 1588v2	As per RFP
213		27		Aggregation Switch	Communication between switch to switch should be encrypted at Layer 2 and should encapsulates and protects the metadata fields. It should use industry standard MKA. Communication should have AES-GCM (Galois/Counter Mode) symmetric encryption, to provide line-rate encryption and decryption and provides replay attack protection of every frame. Switches should support MACSec encryption (MACSec -256) for switch-to-switch (inter-network device) security using OEM proprietary & MKS-based key exchange protocol.	This is OEM specific. Kindly remove the same.	As per RFP MACSec is open standard as per IEEE 802.1AE standard. Existing controller and switches support this feature and this need to be integrate with existing set-up. However bidder can propose equivalent or better soluton with proof for same functionality.
214		27		Aggregation Switch	Must support BGP, MPLS, IS-IS, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1	ISP links like MPLS or Internet as per the industry standards terminates on router. Ion case we terminate such links on core switch it may utilize additional resources including CPU utilization which may impact on the switch performance. If we configure QOS on WAN links, it will utilize additional resources as well. Multiple other factors link IP SLA for link monitoring may not be available on switch. Since hitless failover is asked in core switch, at that time per switch CPU utilization becomes high and that time it may either impact the WAN link performance or switch functionality itself.

Further ISIS would not be used in LAN environment in any scenario. Request you to kindly change the clause as:- Must support BGP, VRF, VXLAN, NAT, OSPF Routed Access, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1 | As per RFP. |
| 215 | | 27 | | Aggregation Switch | Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG. | NetConf/YANG model is used for programming and different OEMs uses technology for programming per say. Request you to kindly change the clause as:_ Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG/REST APIs | As per RFP. |
| 216 | | 27 | | Aggregation Switch | Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security. | DHCP snooping although would not be required at core layer since no DHCP server would be directly connected on the core layer. Even if it is required, different OEMs uses different ways to achieve the same. Kindly change the clause as:- Switch should support port security, DHCP snooping or equivalent, Spanning tree root guard, First Hop Security. | Equivalent or better feature is accepted. |

217		27	Aggregation Switch	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.	"Different OEMs uses different ways to authenticate the devices hence kindly change it to 802.1x/RADIUS/TACACS+ and IPv6 ACLs and Dynamic VLAN assignment. "	Bidder can proposed equivalent or better soluton with proof for same functionality.
218		27	Aggregation Switch	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.	This is OEM specific. Kindly remove this clause so that leading OEMs can participate	As per RFP . however, Bidder can quote same or equivalent technology to ensure secure boot of the system when conected in network. Secure boot is not OEM specific. It is standard developed by PC industry to ensure security while checking the integrity & authenticity of software/OS running in device.
219		28	Access Point	Should have 1x 100, 1000, 2500 Multigigabit Ethernet (RJ-45) – IEEE 802.3bz	As per the AP throughput asked, the mentioned upto 2.5 G port will not suffice the requirement. Due to limitation of port, access point will not be used with 5G of throughput. Kindly change the clause as : Should have 1x 100, 1000, 2500, 5000 Multigigabit Ethernet (RJ-45) – IEEE 802.3bz	Bidder can propose equivalent or better soluton with proof for same functionality.
220		43	Router	Router should be modular / chassis-based device with minimum 5 Gbps of throughput scalable up to 20 Gbps. It should have minimum 4 GB of RAM/ DRAM and 4 GB of Flash, scalable up to 8 GBPS.	As per the port requirement, and considering the future scalability from min 2 Gbps x as per industry standard 3 time or 5 time for next 5 years. Still the router scalability would be 10 Gbps. In no scenario, the scalability would be required at 20Gbps. Also routers capacity generally calculate in Mpps hence Request you to change the clause as :- Router should be modular / chassis-based device with minimum 2 Gbps of throughput scalable up to 10 Gbps/8 Mpps.	May be read as,"Router should be modular / chassis-based device with minimum 5 Gbps of throughput scalable up to 20 Gbps. It should have minimum 4 GB of RAM/ DRAM and 4 GB of Flash, scalable up to 8 GB".
221		43	Router	Router should support state full firewall, zone based firewall and deep inspection mechanism capability to provide the access controller strategy-based on source and destination IP protocol, port and time parameters and control over a wide variety of applications using deep inspection.	Since ask if for the router which in general support state full firewall, zone based firewall but full-fledged firewall functionally should not be expected from router. Rather separate firewall should be deployed which is already asked in the RFP. Hence kindly change the clause as:_ Router should support state full firewall, zone based firewall	As per RFP . however, Bidder can quote same or equivalent technology tmeet the RFP requirement.
222		44	Router	Router should have software/hardware based control plane/processor redundancy for seamless working of routing functionality and should have separate data & management plane. In case of control plane failure the Routing & Multicast routing should work seamlessly without any disruption	Every OEM have different way to control the chassis. Few OEMs uses control plane module and other may use management module to control and manage the chassis. Both works in same manner to achieve the seamless routing functionality. Request you to kindly amend the clause as :- Router should have software/hardware based control plane/management plane/processor redundancy for seamless working of routing functionality and should have separate data & management plane. In case of control/management plane failure the Routing & Multicast routing should work seamlessly without any disruption	As per RFP . however, Bidder can quote same or equivalent technology tmeet the RFP requirement.

223	44	Router	Router should be modular/chassis with multi-core processor architecture based device and should accommodate a combination of high density, 10G, Gigabit Ethernet, 40G, Serial Port, Channelized T1/E1, STM-1/4/16 and must have capabilities to seamless upgrade/replacement (without interrupting running processes and services) all modular interfaces supported and Gigabit Ethernet modules to accommodate field upgrades.	40G port in general asked in ISP environment which is not the case here. Also T1/E1 and STM 1/4/16 are older technology and ISPs provides ethernet handoff for WAN connectivity. T1/E1 is limited to 2 Mbps and the kind of through put asked such interface would not be in used. Request you to kindly change the clause as:- Router should be modular/chassis with multi-core processor architecture based device and should accommodate a combination of high density, 10G, Gigabit Ethernet and must have capabilities to seamless upgrade/replacement (without interrupting running processes and services) all modular interfaces supported and Gigabit Ethernet modules to accommodate field upgrades.	It is a should accommodate combination.
224	44	Router	System shall support to provide the ability to filter and gather application information in a flexible manner from day one netflow/xflow/jflow and should support at least 128K flow entries	Netflow is for Cisco, Jflow for juniper but Sflow is open standard which is widely accepted and we support sflow and as mentioned earlier for sflow no flow entries are required. Kindly change the clause as:_ System shall support to provide the ability to filter and gather application information in a flexible manner from day one netflow/xflow/jflow and should support at least 128K flow entries or support sflow	May be read as ,"System shall support to provide the ability to filter and gather application information in a flexible manner from day one netflow/xflow/jflow/sflow and should support at least 128K flow entries".
225	47	AAA	Centralized NMS or SDN Controller is already running and Bidder has to Integrate these network devices with Controller. Existing SDN shall be upgraded which is already in place in order to save further cost. However, Vendor is open quote an SDN single Solution having a single policy and single management for both Wired and Wireless Solution. The Networking solution to be integrated with the existing SDN solution. The API shall be provided for the existing solution by exiting solution if required It is intended is that vendor to provide a mechanism to achieve the above- mentioned requirement.	Referring clause no 1, The existing controller should support REST Full APIs. If the existing controller supports the same and is capable enough to support other OEM Wired and wireless solution, hence existing OEM has to provide confirmation. The OEM of existing controller has to ensure and take care of it else if not, this should be OEM specific and this clause should be removed.	"As per RFP. Vendor to provide a mechanism to achieve the mentioned requirement of RFP."
226	47		Centralized SDN Controller and Firewall should be Integrated tightly to 24 provide segmentation through Virtual Routing and Forwarding between VN's	Referring clause no 1, The existing controller should support REST Full APIs. If the existing controller supports the same and is capable enough to support other OEM Wired and wireless solution, hence existing OEM has to provide confirmation. The OEM of existing controller has to ensure and take care of it else if not, this should be OEM specific and this clause should be removed.	"As per RFP. Vendor to provide a mechanism to achieve the mentioned requirement of RFP."

		227		17	ANNEXURE – II: Bidder and OEM Compliance	Bidder must have executed the following work in any State/Central Government Department/Government Agencies/PSU in last three financial years:	Request you to please specify the definition of the bidder in this clause. Is this applicable for only lead bidder or any one of the consortium partners? Our submission is that this criteria for experience should be allowed to be substantiated by any of the consortium partners. Anyways the consortium is submitting the EMD / Bank guarantee for ensuring smooth execution of the project & is also governed by SLAs. Also, we request if the experience credential from " Private" sector is also allowed besides Government/ PSUs.	Prime bidder has to fulfill the eligibility i.e only Prime Bidders document will be taken for scrutiny.Rest as per RFP.
		228		9	Clause 4.10	Bidders are requested do a survey and understand the existing Network of Civil Secretariat Srinagar for Smooth Integration with existing network. Survey can be done during the tending process up to last day of bid submission with prior requisition sent to email: ceojakega@nic.in supported by contact person email and phone number of intending person. Incase no requisition is received or survey is not carried out and in future it is noticed that there is any integration challenges, then bidder will be responsible for the same. Hence if any extra material will be needed because of this laxity then it its expenses will be borne by the bidder.	Due to Covid-19 restriction it may not be possible for existing infrastructure survey & provide appropriate solution We request you to provide existing setup details including make, model, device type, device count for each type, over all architecture and data flow and any other relevant information Also provide us Access Switch installation locations details along with distance from Server-Room for Electrical connectivity We are requesting to include Videocall or other online meeting medium to understand existing infrastructure better.	Bidder open to carry our survey. The BOQ details our the compelte requirement. The RFP defines any change in BOQ requirement.
		229		10	Clause 5.4	Payment Terms will be as follows subject to the successful audit report as decided by JaKeGA: a. 70% of payment shall be made at the time of delivery and Bill of Material (BOM) Verification by JaKEGA, IT Department. b. 20% of Payment shall be made on Successful Installation and commissioning and completion of the project. c. 10 % of payment shall be made upon successful working of the setup for a period of 06 months from the date of Go Live. However, the bidder shall submit the 03% PBG from the date of installation and commissioning for a period of O&M of 5 years from the date of Go Live.	Please confirm the following:- 1. Audit Report preparation - Will be it done by JaKeGA personnel or any third party? 2. What will be the time line for such Audit Report preparation? 3. If Audit Report is not submitted within 30 days of invoice submission will JaKeGA release 1st Milestone payment? Kindly clarify	Will be decided by JaKeGA & conveyed accordingly.
		230		10	Clause 5.4	Payment Terms will be as follows subject to the successful audit report as decided by JaKeGA: a. 70% of payment shall be made at the time of delivery and Bill of Material (BOM) Verification by JaKeGA, IT Department. b. 20% of Payment shall be made on Successful Installation and commissioning and completion of the project. c. 10 % of payment shall be made upon successful working of the setup for a period of 06 months from the date of Go Live. However, the bidder shall submit the 03% PBG from the date of installation and commissioning for a period of O&M of 5 years from the date of Go Live.	With reference to Payment terms we request for kind amendment as under:- Payment Terms will be as follows : a. **80%** of payment shall be made at the time of delivery and Bill of Material (BOM) Verification by JaKeGA, IT Department. b. **15**% of Payment shall be made on Successful Installation and commissioning and completion of the project. c. **5** % of payment shall be made upon successful working of the setup for a period of 06 months from the date of Go Live. However, the bidder shall submit the 03% PBG from the date of installation and commissioning for a period of O&M of 5 years from the date of Go Live.	As per RFP.

	231	19	Annexure-III SLA I	Bidder to install and commission 1000 LAN nodes in all respects in working condition within 20 days from the date of release of Purchase/Work Order. Any deviation shall lead to penalty of 5% to the bidder on the overall bid value	We understand that there is a typo mistake in the clause as on page No. 11 clause 5.7 **Delivery Schedule:** The Material delivery has to be done in Four weeks from the release of work Order and complete installation has to be done within Six weeks from the date of release of work Order. You are requested to change the clause in line with the delivery schedule.	The Material delivery has to be done in Four weeks from the release of work Order and complete installation has to be done within Six weeks from the date of release of work Order.
	232	19	Annexure-III SLA I	Bidder to install and commission all Wi-Fi access points in all respects in working condition within 20 days from the date of release of Purchase/Work Order. Any deviation shall lead to penalty of 5% to the bidder on the overall bid value.	We understand that there is a typo mistake in the clause as on page No. 11 clause 5.7 **Delivery Schedule:** The Material delivery has to be done in Four weeks from the release of work Order and complete installation has to be done within Six weeks from the date of release of work Order. You are requested to change the clause in line with the delivery schedule.	The Material delivery has to be done in Four weeks from the release of work Order and complete installation has to be done within Six weeks from the date of release of work Order.
PolyCAB	233	53	Passive Item Specifications	CAT 7 , Fibre Cabling and Passive items for LAN CAT 7 or higher Cabling to be used, Jacks as per CAT 7, 24port, 1U, Unloaded Modular, PCB based, Unshielded Twisted Pair, Category 7, TIA / EIA 568-C.2 and ISO/IEC 11801 CAT 7 Patch Cords	We feel there is an type error. There is no ratified standard ANSI/TIA and ISO/IEC for Cat 7 Cable and Components. In the BoQ, the requirement mentioned is of Cat 6A cable and Components. So we request for clarifying if we may consider Cat 6A solution for the passive requirement. Kindly clarify.	The passive items may be read out items as under from 234 to 259.
	234		passive Item Specifications	CAT 7, Fibre Cabling and Passive items for LAN CAT 7 or higher Cabling to be used, Jacks as per CAT 7, 24port, 1U, Unloaded Modular, PCB based, Unshielded Twisted Pair, Category 7, TIA / EIA 568-C.2 and ISO/IEC 11801, CAT 7 Patch Cords, Single or double Gang, 2.5 x 4 inches as per requirement, LC to LC, SC to SC, LC to SC patch cords as per requirement, ferules, route markers as per requirement		May be read as, " CAT 7, Fibre Cabling, Patch Cords, Jacks, Racks etc."
	235		Fiber	Cable Construction: Loose-tube, Gel-filled with LSZH Jacket cable		May be read as, "Cable Construction: Loose-tube, Gel-filled with LSZH Jacket"
	236		Cat 7 Cable and Jacks	Technical Specifications of Cat 7 or higher UTP/STP, UTP JACKS		May be read as, "Technical Specifications of Cat 7 UTP/STP, UTP JACKS as per ISO/IEC TR11801-9905 which support 25GBASE-T application or higher ".
	237			**Should have Spring-Loaded Shutter:**		May be read as, "Should have dust cap".
	238			Can be terminated using industry standard punch-down tools		May be read as,"Can be terminated using punch-down tools".
	239			Molded category identification on jack as well as optional port identification icons		May be read as, "Molded category identification on jack as well as optional port identification icons".
	240			20 milliohms		May be read as, "60mΩ".
	241			>100 Megaohms		May be read as, "5GΩ (100V DC)".
	242			Plus Jack with Stuffer Cap		Deleted
	243			USOC Wiring Sequences Available		Deleted
	244			UL Listed and ETL Verified		May be read as, "UL Listed and ETL/GHMT/3P Verified".
	245		Wall plates	The stylish unloaded wallplates were to accept the UTP Connector. The unloaded wallplates available in 1, 2 and4 port variants, in different colours, to co-ordinate with any decor and any installation size		May be read as, "The stylish unloaded wallplates were to accept the **STP** Connector. The unloaded wallplates available in 1, 2 and4 port variants, in different colours, to co-ordinate with any decor and any installation size".
	246			Removable/**Fixed** cable management shelf(s) ensure bend radius compliance		May be read as, "Removable/Fixed cable management shelf(s) ensure bend radius compliance".
	247			Can be terminated using industry standard punch-down tools		May be read as, "Can be terminated using punch-down tools".

248			24 Port loaded Patch Panel 1U Height	CRS (cold rolled steel)/**galvanised Steel**		May be read as,"CRS (cold rolled steel)/galvanised Steel".
249				Interface Resistance: 20 milliohms		May be read as,"60mΩ".
250				Insulation: >100 Megaohms		May be read as," 5GΩ (100V DC)".
251				ETL Verified to ANSI/TIA-568-C.2, ISO/IEC 11801 Category 6/7 or higher and UL Listed or higher		Only Cat 7 is required.
252				End-to-End Solution and are designed to support data networks for 1 G/10G /25G applications		May be read as, "End-to-End Solution and are designed to support data networks for 1 G/10G /25G applications".
253				Conductor size: 24 AWG stranded copper wire or higher		May be reas as, "26 AWG stranded copper wire or higher".
254				RJ45 Plug Standard: ISO/IEC 60606-7-4 and FCC 47 Part 68		May be read as ," ISO/IEC 60606-7-4".
255			Cat 7 Patch Cord	Sheath Standards: Fire Propagation compliant with CSA FTI, IEC 60332-3C, IEC 61034		May be read as ,"Fire Propagation compliant with CSA FTI, IEC 60332-3C, IEC 61034".
256				RJ45 plug and boot material:: Clear polycarbonate		Deleted as it is repeated.
257				ISO/IEC 60603-7-4 and FCC 47 Part 68		Deleted as it is repeated.
258				ISO/IEC 11801:2002/Amd 2:2010 Cat 6-, TIA-568-C.2 Cat 6		Deleted as it is cat 6 standard
259				Approvals: UL Listed plug and ETL/3P/GHMT Verified		May be read as ,"UL Listed plug and ETL/3P/GHMT Verified".
260				LS0H Sheath: CSA FT1, IEC 60332-1, IEC 61034		Deleted repeated specs.
261		60	Annexure V TECHNICAL BID COMPLIANCE INFORMATION – Bill of Quantity Line item 9	NMS System	Quantity is not mentioned Kindly clarify.	One central NMS in HA needed for complete solution.
262		60	Annexure V TECHNICAL BID COMPLIANCE INFORMATION – Bill of Quantity Line item 10	AAA System	Quantity is not mentioned Kindly clarify.	One central AAA needed for complete solution.
263		60	Annexure V TECHNICAL BID COMPLIANCE INFORMATION – Bill of Quantity Line item 5,6, 10, 11, 12	Unit of Masurement (UoM)	Unit of Measurement (UoM) Given line items should be in Meter (UoM) instead of Nos. Kindly clarify	Line items 5, 6,10, 11 and 12 may be read in meters.
264		60	Annexure V TECHNICAL BID COMPLIANCE INFORMATION – Bill of Quantity Line item 16	RJ-45 Boxes	We understand that the Tender requirement is asking for Structured cabling and in BoQ required patch cords are also asked to BID. We request you to kindly clarify the quantity of Patch Cords in your BOM.	As per the requirement for the fulfillment and completion of project.
Graphic Trades Pvt. Ltd	265					

Gujarat Infotech Limited	266			ANNEXURE – II: Bidder and OEM Compliance, Page no: 16 VIII. Bidder must have executed the following work in any State/Central Government Department/Government Agencies/PSU in last three financial years: One Project of Local Area Networking (LAN) with work order of the value of 08 Crore or more in any State/Central Government/Government Agencies/PSU; or Two Projects of Local Area Networking (LAN) with work order of the value of 05 Crore or more in any State/Central Government/Government Agencies/PSU	VII. The Bidder- System Integrator should have average turnover of Rs 12.00 Cr Twelve Crores in last three Financial years i.e (2017-18, 2018-19, 2019-20) duly certified by registered CA	We have vast experience of executing the networking project, we have also running complete rate contract with Government of Gujarat across the state. The said criteria restricting the participation of the bidder like us. Apart from the same, Authority has asked the average turnover of 12 Crore whereas the Project value ask is 8 Crore in single project and 5 Cr in two project which is also not logical. So, we request to give relaxation in the experience eligibility criteria as follow: "VIII. Bidder must have executed the following work in any State/Central Government Department/ Government Agencies/ PSU in last Seven financial years: One Project of Local Area Networking (LAN) with work order of the value of 06 Crore or more in any State/Central Government/ Government Agencies/ PSU; or Two Projects of Local Area Networking (LAN) with work order of the value of 03 Crore or more in any State/Central Government/ Government Agencies/ PSU"	"May be read as, "Bidder must have executed the following work in any State/Central Government Department/Government Agencies/PSU in last three financial years: One Project of Networking with work order of the value `of 6 Crore or more in any State/Central Government/Government Agencies/PSU; or Two Projects of Networking with work order of the value of 3 crore or more in any State/Central Government/Government Agencies/PSU".
	267			ANNEXURE – II: Bidder and OEM Compliance, Page no: 17	IX. Bidder or one of the Consortium or single bidders should be ISO 20000:2011, ISO 27001:2013 certified.	As per scope of work, Local Area Network at Civil Secretariat Jammu was implemented in 2012 on 10/100 Mbps connectivity technology and hence the complete setup in Jammu is planned on latest and best available technology and is on higher configurations than any earlier network and hence shall realize better deployment output and user experience. Whereas the ask ISO 20000:2011 which is related to IT Service Management, so we request to remove and or ask as option as ISO 27001:2013 Certificate is already asked. So suggested amendment is as follow: "Bidder or one of the Consortium or single bidders should be ISO 20000:2011 or ISO 27001:2013 certified."	Accepted.
	268			Online UPS System , page no.52 : sr.No.2	Modular type UPS equipped with microprocessor/Digital signal processor and power modules, Power expansion facility, LCD/Digital display upto maximum expandable capacity, Cable entry, **RS 232 port and SNMP port with each power module** and with suitable rack (compatible maximum expandable) with complete lockable door having visibility for maximum expandable capacity	SNMP & RS 232 port/ card are available for each UPS cabinet , as we can monitor all power modules from one SNMP card of UPS Cabinet , so please consider one SNMP & RS 232 port each UPS cabinet which is also the UPS industry standard	As per RFP. Bidder open to quote product witih higher specification.
	269			Online UPS System , page no.52 : sr.No.9	Input: AC Three Phase: **340 V to AC to 470 V AC** 3 Phase, Input frequency range: 50 +/-10% Hz	As per UPS industry standard input range (400 V AC +/-15%) which is 340 V to 460 V AC, kindly consider the same.	Accepted

Novateur Electrical & digital Systems P Ltd	270			Warranty on Batteries	Warranty is **5 years** on this whole project	as SMF batteries used with UPS are having maximum 2.5/3 years life as per battery OEM and batteries being a consumable part comes with standard 2 years standard warranty from battery OEM & are having 30-35% cost of the total UPS system. If the warranty on the UPS & batteries is required 5 years then batteries need mandatory replacement after maximum 3 years for the better backup purpose , **so 5 years warranty on batteries with one time mandatory replacement of batteries against the old one** should be mentioned there in the warranty period of 5 years in case of UPS clause.	Warranty is mentioned for whole project and all item mentioned therein. Vendor to ensure every mechanism to achieve it.
	271			No. of UPS	UPS quantity is 2 units	2 no. of 20KVA Modular UPS are required; please confirm both will operate on Standalone mode on different loads or in parallel mode on load sharing basis for common load.	One active and one standalone in Hot Standby.
	272			Servo Stabilizer , page no.51 : sr.No.2	Input Voltage: 100-280, Output Voltage: 415 Volt	Input Voltage: 100-280, is what voltage ?? phase to neutral voltage ??? and what will be minimum input 3 phase voltage range (Phase to phase) eg. Generally it is in the range of 290-480V	Input 3 phase voltage range 290-480V (Phase to phase) and 167-277 V (Phase to neutral) voltage range
IDDS	273		19	Annexure IV Point 1	Existing Controller is providing the central management from single dashboard, device lifecycle management like device discovery, topology, inventory, image upgrade for both for wired and wireless networks. Proposed solution should be integrated with this controller by adding the additional licenses.	Kindly share details of existing Controller	SDN Controller.
	274		47	NMS, AAA and SDN (Separate Systems/Solutions) Point 22	Existing SDN shall be upgraded which is already in place in order to save further cost. However, Vendor is open quote an SDN single Solution having a single policy and single management for both Wired and Wireless Solution. The Networking solution to be integrated with the existing SDN solution. The API shall be provided for the existing solution by exiting solution if required	Kindly share existing SDN details	Currently SDN is for Core Switches, Access Switches, Access points, wireless controller.
	275			4. General Terms and Conditions Point No. 4.9 Page No. 9	No part shipment /transshipment/third party shipment shall be acceptable.	With current situation of Pandamic, Request you to kindly allow for Part deliveries as it is difficult for various products to get syncronize together and also material can be plan as per the plan of execution approved with your respected officials	Allowed for exception circumstances which are beyond the control of bidder however SLA and timelines are to be adhered as given in RFP.
	276			4. General Terms and Conditions Point No. 4.10 Page No. 9	Bidders are requested do a survey and understand the existing Network of Civil Secretariat Jammu for Smooth Integration with existing network. Survey can be done during the tending process upto last day of bid submission with prior requisition sent to email: ceojakega@nic.in supported by contact person email and phone number of intending person. Incase no requisition is received or survey is not carried out and in future it is noticed that there is any integration challenges, then bidder will be responsible for the same. Hence if any extra material will be needed because of this laxity then it its expenses will be borne by the bidder.	We assume that requirement are placed with all such consideration of integrations, however by various bidders survey and different input would lead for confusion & much of possible restructing to solution.	Bidder open to carry our survey. It is for bidder to decide.

	277	5. Special Terms and Conditions Point No. 5.2 Page No. 10	All prices quoted shall be inclusive of all taxes, freight and octroi etc. and shall be FOR JAKEGA, Civil Secretariat, Jammu.	Request you to consider for any taxes variation at the time billing as per government prevailling rates for respective line item at actuals. Basic rates would remains same once quoted	As per RFP.
	278	Checklist Point No. 2 (EMD) Page No. 11	As per the circular issued by the Finance Department issued vide no. A/Misc(2018)-III-895/J dated 22-122020. Bidder shall submit "Bid security Declaration" for an amount of Rs. 25,00,000/- (Rupees Twenty Five Lakhs).	In current situation asked EMD is very high, request you to allow the bid with reduced allowed minimum of EMD or allow bid with EMD waiver	As per RFP.
	279	5. Special Terms and Conditions 5.7 Delivery Schedule: Page No. 11	The Material delivery has to be done in Four weeks from the release of work Order and complete installation has to be done within Six weeks from the date of release of work Order. SLA for interim installation as needed to be complied.	Request you to kindly club the entire project completion as SITC (Supply, Installation, Testing, Commissioning) inclusive for delivery & completion by 10 to 12 weeks time as requirement is large size and deliveries are real concern in current sitaution of pandemic.	Accepted.
Microlink Solution Pvt. Ltd. Ahmedabad	280	ANNEXURE – II: Bidder and OEM Compliance Point No. VIII Page No. 17	One Project of Local Area Networking (LAN) with work order of the value of 08 Crore or more in any State/Central Government/Government Agencies/PSU; Document Requirement - **Purchase Orders and completion Certificate fromGovernment Department/Government Agencies/PSU.**	Pls allow the self declaration certificate for GSWAN (Gujarat Sate Wide Area Network) LAN Rate Contract (RC) from DST (Department of Science & Technology, Government of Gujarat) for the total work done under RC. Also, we can submit the sizable payment GR by DST as proof for work done above 08 Crores to meet the tender requirement	May be read as, ""Bidder must have executed the following work in any State/Central Government Department/Government Agencies/PSU in last three financial years: One Project of Networking with work order of the value of `of 6 Crore or more in any State/Central Government/Government Agencies/PSU; or Two Projects of Networking with work order of the value of 3 crore or more in any State/Central Government/Government Agencies/PSU ".
	281	ANNEXURE – II: Bidder and OEM Compliance Point No. IX Page No. 17	Bidder or one of the Consortium or single bidder should be ISO20000:2011, ISO 27001:2013 certified.	Request you to kindly allow ISO 9001:2015 also	As per RFP
	282	Annexure IV: Technical Specifications Page No. 43	Technical Specifications of Network Racks Specifications	Request you to kindly specify the minimum deepth of 600mm for 12 U Rack. Then only products shall placed properly and all bidder would be on same consideration.	Bidder to ensure proper depth of Rack as per their active and passive equipments to be hosted in them.
	283	Annexure IV: Technical Specifications Page No. 53 Passive Item Specifications	**CAT 7, Fibre Cabling and Passive items for LAN** CAT 7 or higher Cabling to be used, Jacks as per CAT 7, 24port, 1U, Unloaded Modular, PCB based, Unshielded Twisted Pair, Category 7, TIA / EIA 568-C.2 and ISO/IEC 11801, CAT 7 Patch Cords,	As per BoQ, Cat6A Cable has been asked, Where as here in the technical documents, Cat 7 Cable has been asked. Also Category 7 Cable does not comply with TIA Standards. Request you to modify Cat7 to Cat6A with product specifications.	Cat 7 or better or higher is needed.
	284	Annexure IV: Technical Specifications Page No. 53 Point No. 17	42 U Rack 17. Rack must be supplied with one IP based KVM Switch	As IP Based KVM Switch is not a part of Rack, The OEM of Rack & KVM Switch will not be same. Request you to allow for bidder to quote separate make OEM for this line item.	Accepted.
	285	Annexure IV: Technical Specifications Page No. 53	Technical Specifications of Multi-Mode OM4 Jelly Filled Armoured Optical Fiber	As per tender, There is technical specification for OM4 Cable, Where as there is no technical specification for Single mode fiber cable.Kindly Specify technical specification of Single mode cable, If any.	Single Mode: 12 core single mode fiber cable G.652D armoured with steel tape jelly filled unitube construction.

286		Annexure IV: Technical Specifications Page No. 57	Technical Specifications of LC to LC Patch Cord Single Mode	As per tender, There is technical specification for Single mode Patch cord, Where as there is no technical specification for Multimode fiber patch cord. Kindly Specify technical specification of Multimode fiber patch cord, If any.	To be provided from same OEM of which Fiber cable is being provided with end to end comapibility of throughput, bandwidth, etc
287		Annexure IV: Technical Specifications Servo Stabilizer (page NO 51)		Please specify length, size of cable and installation location of cable like (Cable laying in cable tray or Underground) Earthing and Input and out put panel is in client scope or bidder.In case, IF input and output panel is in bidder scope , then share panel design in autocad.	As per RFP. If case any further input required, bidder is open to carry out survey.
288		Annexure IV: Technical Specifications UPS (page NO 52)	UPS shall be supplied with required rated power cable (Copper)	Please spacify length and size of cable and installation location of cable like (Cable laying in cable tray or Underground). Earthing and Input and out put panel is in client scope or bidder scope. In case, IF input and output panel is in bidder scope , then share panel design in autocad.	As per RFP. If case any further input required, bidder is open to carry out survey.
289		(ANNEXURE V) - TECHNICAL BID COMPLIANCE INFORMATION – Bill of Quantity Page No. 59	SFP Module	As per tender, There is SFP Module requirment is shown in Lot. Kindly Give exact number of quantity required with type of module like : SR & LR :- 1G, 10G, 40G & 100G SFP Module.	As per the requirement for the fulfillment and completion of project.
290		ANNEXURE – II: Bidder and OEM Compliance Point No. IV Page No. 16	5 Switches and Access Points should be from the same OEM to have single TAC for Active components. Passive components should be from same OEM.	Switch & A.P are asked for same make, but there is no specifications for A.P and neither asked into BoQ. Kindly clarify.	May be read as,"All Switches should be from same OEM".
291		Annexure IV: Technical Specifications Page No. 19	Functional Requirement for LAN for SD-LAN/SDN	Kindly provide existing Controller And HCI server details. Accordingly suitable licenses can be consider. Kindly Clarify.	SDN Controller.
292		Annexure IV: Technical Specifications Page No. 58	Technical Specifications of Large Display Technical, S.No.10.	Request you to change input ports from VGA , Component ,TV-In Ports ,DVI-D being all these are very old concepts whereas latest new are available thru 4x HDMI , 3x USB.	Accepted.
293		Annexure IV: Technical Specifications Page No. 58	Technical Specifications of Large Display Technical, S.No.11.	Request you to change output ports from DVI-D being old type, to new concept of 1x HDMI(4k@60Hz)	Accepted.
294		Annexure IV: Technical Specifications Page No. 58	Technical Specifications of Large Display Technical, S.No.13.	Request you to remove this point as long as you can control TV with Remote which has IR sensor	As per RFP.
295		Annexure IV: Technical Specifications Page No. 58	Technical Specifications of Large Display Technical, S.No.15.	Request you to remove built in tuner if it is not required in your application.	As per RFP.
296			Vulnerability Assessment and Penetration Testing (VAPT) should be consist of both hardware & software activities during testing.	Need more clarity on this Point, What kind of hardware/ Software activities needs to be tested during Vulnerability assessment and Penetration testing.	The items include and not limited to Networking items, Server items, End points etc, Sofware will include COTS products, customized software, IOS etc in general.
297			Should provide both Assessment & Penetration testing for application security		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
298			Identify potential vulnerabilities and threats to the application		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
299			Gather data about the attack target	Please provide more details that what kind of data needs to be collected from target machine.	IP, Location, Domain name, location details, user details, other information etc.

300			Determines how long they can remain unnoticed and how much damage they can inflict.	Please provide more details to the point that Are you refering to vulnerabilities in a target system.	General. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
301			VAPT testing tool should identifies whether application is compliant with certain industry standards and regulations	Please provide more details regarding this point that what all industry standard and regulation you want to comply.	General. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
302			Automatically examine the source code, byte code, and application binaries for potential vulnerabilities		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
303		General Features	Simulate a real attacker, approaching the application from the outside to determine which threats are exploitable in cloud environment	Please provide more details regarding cloud enviorment you are using.	Simulation mode. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
304			Should detect SQL Injections, Cross-Site Scripting, and other vulnerabilities		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
305			automatically identifies all unlinked or hidden endpoints, their parameters, and data types		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
306			Should be a discrete event simulator for networking research	Please provide more clarity regarding this point, what you want to perform during event simulation and what you want to achieve from networking research	Simulator feature or a mechanism to provide such a requirement.
307			Should provide substantial support to simulate bunch of protocols like TCP, FTP, UDP, https and DSR.	Please provide more clarity to the word simulator, are you refering to Vulnerability assessment and penetration testing as simulation of TCP, FTP etc.	Yes. Simulator feature or a mechanism to provide such a requirement.
308			simulates both wired and wireless network		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
309			Should be primarily Unix or Linux or secure OS based	Please provide more clarity to the point, Are you refering to the installation of the tool on Unix & Linux operating system	Yes.
310			Should Uses TCL as its scripting language		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
311			Support Discrete event scheduler		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
312		Scanner Deployment modes	Active-Active, Active-Passive, Standalone, Manual, Multi tenancy, Zero Touch Deployment, Scanner proxy for VPC (Virtual Private Container) environment, Support Integration with SIEM and Open Stack, End to End Vulnerability Management Work Flow Creation, User Acceptance Testing of Offered Modules, On Premise Solution, On Cloud Solution, Load balancing, Task peering, Automatic failover, Scanning for OS, Firmware, Application, Database		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
313		ASSET INVENTORY FEATURES	Allow user to drag and drop of widgets to reposition it on dashboard. Widgets to be color coded so that user can measure risk appetite. Highlight and risk rank criticality of assets., Drilldown capability from the UI (User Interface). Capable to identify and Tag every software for commercial or Open source software. Capable to allow daily trending within a widget. Flexible widgets like Pie chart, Bar chart, Value		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.

		314				bases and list based.		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
VAPT SOFTWARE		315		Asset visibility Features		Provision for User to create assets inventory hierarchically like Site:- Data Centre Name ,Project name, Assets Groups(IPs). Continuous discovery of assets. Inventory visibility with elastic search like querying. Real-time continuous inventory. Elastic query base assets and vulnerability search. Capable to generate graphical discovery map for discovered devices and provide reports of added and removed devices on daily basis. Capable to convert a query into a widget. Capable to show DNS information for every asset. Capable to allow saving a query so that it can be reused. NA	Please remove the point "Capable to generate graphical dicovery map for dicovered devices".	As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
		316		GENRIC FEATURES of ASSET INVENTORY		Single Management Console with RBAC (Role Based Access Control). User site / project/ asset group to be able handle scanning reporting quering, asset group creation and deletion independently. Easy deployment. Scalable and extendable.. Minimal impact on systems and networks. Ability to handle virtualized environments and Complete coverage for Container host, image and registry. Configurable color coded widgets for visual analytics. Provision to engine pooling with multiple engines grouped together to run any single scan to reduce and improve scanning time by load sharing. Ability of Database queries to run against reporting data model, without using third-party tools, within the solution. Scanning engine to be able to scan IPs simultaneously and the rest of the IP's /asset scheduled for scanning (in any site) to be able to put in the scanning queue and run automatically. While scanning is running in one or more than one sites the user to be able to add new assets in the Group and to be able to put the same into scanning queue. Scanner to be able to scan duplicate or overlapping IP ranges.	Please remove the point "While scanning is running in one or more than one sites the user to be able to add new assets in the Group and to be able to put the same into scanning queue."	Accepted.
		317		Support for Container technology		All OIS and VMs. Discover , track and continuously secure containers from build to run time. Container ready security and compliance platform.,6. Complete visibility of container host on premises environment. Gathers comprehensive topographic information about container projects including images, registries and containers spun from the images etc. Identify images that have specific vulnerabilities, or that have vulnerabilities above a certain severity threshold. Integration with various container registry like Docker registry, Quay, Harbor for scheduled or on-demand scan.		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.

318		Correlated list of features in Vulnerability Management	Exploit modules available for each vulnerability. Malware kits available for each vulnerability. Automatic workflow to validate vulnerability in Metasploit.		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
319		Capability of the software to calculate risk for each detected vulnerability including Risk scoring	1. CVSS scoring,,2. Asset exploitability,,3.Susceptibility to malware kits		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
320		Monitoring FEATURES	1. Provision to detect and alert new assets in the network.,2.Provision to Targeted alerts based on a security policy.,3.Certificate data insight and certificate based vulnerabilities.,4.Provide alerts based on threat intelligence,5.Provision to monitor SSL certificates and alert on expiring SSL certificate,7.Whenever a asset/IP is scanned multiple time, user to be able to fetch/download each and every report of that asset/IP.,8.Each scan corresponding to that IP/asset to have unique scan ID.	Please provide more details regarding what kind of security policy finding needs to be generated as an alert.	As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
321		CONTEXTUAL THREAT DASHBOARD FEATURES	1. Live Threat Intelligence Feed and threat categorization.,2. Displays entire threat posture at a glance.,3. Group vulnerabilities that have public exploit available, can result in DoS and can propagate via lateral movement.,4. Provision for search results to be further sorted, filtered and refined.,5.Shareable Dashboards allow import / Export to JSON(Java Script Object Notation) format for reuse and sharing in open standard.,7. Threat identification, impact assessment and remediation prioritization.		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
322		Technology coverage	1.Host,2. OS, 3. Network Device,4. Storage Device,5. Database,6. Application,7. Security Device,9. Mobile OS		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
323		Database scanning Coverage	1. MS-SQL (All versions),2. MySQL (All versions),3. Oracle (All versions),4. PostgreSQL (All versions),5. DB2,8. Mongo DB (All version) etc.	Please provide more details that why all the versions of the respective databases needs to be supported by VA tool and what all database versions you are currently using.	As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
324		Support	5 years warranty and support from OEM		As per RFP. What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
325				We can suffice the overall compliance requirement using multiple tools from different vendors	What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
326				Can we offer Cloud based or hybrid solutions to comlete the compliance requirement	What is intended is that vendor to provide a mechanism to achieve the mentioned requirement of RFP.
327		Additional pre-bid queries,		How many Ips in total are under consideration for vulnerability Assessment	All in the Network upon deployement.
328				How many web application in total are under consideration for DAST Assessment	As per requirement from time to time.
329				How many applications in total are under consideration for SAST Assessment	As per requirement from time to time.

| | 330 | | | what all application platform are currently under use. | Keeps on changing. As per requirement from time to time. |