Response of Queries submitted against RFP for Supply, Installation and Maintenance of SSL Offloader & Server Load Balancer for RSDC (NIB no. F3.3(425)/RISL/Pur/ 2022/6010 Dated: 01.12.2022)

S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
1	Page 46 of 71	A. SSL Offloader S.N. 2	Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1 Device L4 Throughput: Minimum 125 Gbps and scalable upto 200 Gbps Layer 4 connections per second: 2.5 Milllion Layer 7 requests per second: 4 Million Concurrent Connections: minimum 150 Million RSA CPS(2K Key): Minimum 50,000 from Day-1 ECC CPS (EC-P256): Minimum 30,000 with TLS1.3 Support from Day-1 SSL Throughput: 45 Gbps RAM: 96GB from day-1 and scalable upto 192GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port.	There should be dedicated Console Port of RJ45 should be considered like dedicated management port which has been asked in the RFP. Console Port is used for troubleshooting. Sufficient capacity along with Scalability should be also be considerd. **Suggested Clause:** **Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1** **Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps** **Layer 4 connections per second: 2.5 Milllion** **Layer 7 requests per second: 4 Million** **Concurrent Connections: 180 Million** **RSA CPS(2K Key): 50,000 from day-1 and scalable upto 100,000** **ECC CPS (EC-P256): 30,000 from day-1 and scalable upto 45,000 with TLS1.3 Support** **SSL Throughput: 45 Gbps** **RAM: 96GB from day-1 and scalable upto 192GB** **The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port along with dedicated RJ45 Console Port.**	As per Revised RFP.
2	Page 48 of 71	A. SSL Offloader	New Clause Request	Health checking metrices should be included to check avaialbility of the server before forwarding the required request. It will ensure sucessfull transaction. **Suggested Clause:** **Following health checking metrics should be available:** **• TCP Health Checks,** **• UDP Health Checks,** **• ICMP Health Checks,** **• HTTP/S Health Checks,** **• SNMP Health Check,** **• FTP Server Health Checks,** **• POP3 Server Health Checks,** **• SMTP Server Health Checks,** **• IMAP Server Health Checks,** **• RADIUS Server Health Checks,** **• ARP Health Checks,** **• DHCP Health Checks,** **• Script-Based Health Checks,**	As per RFP.
3	Page 48 of 71	A. SSL Offloader	New Clause Request	There should be centralized manager to mange both the solution. It will help in easy configuration and management from operational perspective. **Suggested Clause:** **Centralized manager should be provided to manage SSL and SLB from single management..**	As per RFP.

Response of Queries submitted against RFP for Supply, Installation and Maintenance of SSL Offloader & Server Load Balancer for RSDC (NIB no. F3.3(425)/RISL/Pur/ 2022/6010 Dated: 01.12.2022)

S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
4	Page 49 of 71	B. Server Load Balancer S.N. 2	Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1 Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps Layer 4 connections per second: 2.5 Milllion Layer 7 requests per second: 4 Million Concurrent Connections: 180 Million RSA CPS(2K Key): 100,000 ECC CPS (EC-P256): 45,000 with TLS1.3 Support SSL Throughput: 45 Gbps RAM: 96GB from day-1 and scalable upto 192GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of band Management Port. **Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1** **Device L4 Throughput: Minimum 125 Gbps and scalable upto 200 Gbps** **Layer 4 connections per second: 2.5 Milllion** **Layer 7 requests per second: 4 Million** **Concurrent Connections: minimum 150 Million** **RSA CPS(2K Key): Minimum 50,000 from Day-1** **ECC CPS (EC-P256): Minimum 30,000 with TLS1.3 Support from Day-1** **SSL Throughput: 45 Gbps** **RAM: 96GB from day-1 and scalable upto 192GB** **The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port.**	There should be dedicated Console Port of RJ45 should be considered like dedicated management port which has been asked in the RFP. Console Port is used for troubleshooting. Appliance should not be oversized, scalability should be consider. **Suggested Clause:** **Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1** **Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps** **Layer 4 connections per second: 2.5 Milllion** **Layer 7 requests per second: 4 Million** **Concurrent Connections: 180 Million** **RSA CPS(2K Key): 50,000 from day-1 and scalable upto 100,000** **ECC CPS (EC-P256): 30,000 from day-1 and scalable upto 45,000 with TLS1.3 Support** **SSL Throughput: 45 Gbps** **RAM: 96GB from day-1 and scalable upto 192GB** **The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of band Management Port along with dedicated RJ45 Console Port.**	As per Revised RFP.
5	Page 50 of 71	B. Server Load Balancer	New Clause Request	Health checking metrices should be included to check avaialbility of the server before forwarding the required request. It will ensure sucessfull transaction. **Suggested Clause:** **Following health checking metrics should be available:** **• TCP Health Checks,** **• UDP Health Checks,** **• ICMP Health Checks,** **• HTTP/S Health Checks,** **• SNMP Health Check,** **• FTP Server Health Checks,** **• POP3 Server Health Checks,** **• SMTP Server Health Checks,** **• IMAP Server Health Checks,** **• RADIUS Server Health Checks,** **• ARP Health Checks,** **• DHCP Health Checks,** **• Script-Based Health Checks,**	As per RFP.
6	Page 50 of 71	B. Server Load Balancer	New Clause Request	There should be centralized manager to mange both the solution. It will help in easy configuration and management from operational perspective. **Suggested Clause:** **Centralized manager should be provided to manage SSL and SLB from single management..**	As per RFP.
7	Page 43 of 71	Payment Terms	85% value of Order Value on Delivery Installation Remaining 15% of Order Value, in equated instalments payable at end of each year.	90% value of order value on Delivery & Installation Remaining 10% of order value, in equated installments payable at end of each year or against additional 10% Bank gurantee	As per RFP.

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S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
8	Page 46 of 71	A. SSL Offloader S.N. 2	Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1 Device L4 Throughput: 125 Gbps and scalable upto 200 Gbps Layer 4 connections per second: 2.5 Milllion Layer 7 requests per second: 4 Million Concurrent Connections: 150 Million RSA CPS(2K Key): 50,000 ECC CPS (EC-P256): 30,000 with TLS1.3 Support SSL Throughput: 45 Gbps RAM: 96GB from day-1 and scalable upto 192GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port.	The 2 out of band management ports will help the departmentto remotely manage and configure the device. In case the primary network goes down troubleshooting will be a challenge. Hence, we recommend that the department also asks for a dedicated RJ-45 console port. **Suggested Clause:** **Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1** **Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps** **Layer 4 connections per second: 2.5 Milllion** **Layer 7 requests per second: 4 Million** **Concurrent Connections: 180 Million** **RSA CPS(2K Key): 50,000 from day-1 and scalable upto 100,000** **ECC CPS (EC-P256): 30,000 from day-1 and scalable upto 45,000 with TLS1.3 Support** **SSL Throughput: 45 Gbps** **RAM: 96GB from day-1 and scalable upto 192GB** **The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port along with dedicated RJ45 Console Port.**	As per Revised RFP.
9	Page 48 of 71	A. SSL Offloader	New Clause Request	Health checking metrices should be included to check avaialbility of the server before forwarding the required request. It will ensure sucessfull transaction. **Suggested Clause:** **Following health checking metrics should be available:** **• TCP Health Checks,** **• UDP Health Checks,** **• ICMP Health Checks,** **• HTTP/S Health Checks,** **• SNMP Health Check,** **• FTP Server Health Checks,** **• POP3 Server Health Checks,** **• SMTP Server Health Checks,** **• IMAP Server Health Checks,** **• RADIUS Server Health Checks,** **• ARP Health Checks,** **• DHCP Health Checks,** **• Script-Based Health Checks,**	As per RFP.
10	Page 48 of 71	A. SSL Offloader	New Clause Request	There should be centralized manager to mange both the solution. It will help in easy configuration and management from operational perspective. **Suggested Clause:** **Centralized manager should be provided to manage SSL and SLB from single management..**	As per RFP.

Response of Queries submitted against RFP for Supply, Installation and Maintenance of SSL Offloader & Server Load Balancer for RSDC (NIB no. F3.3(425)/RISL/Pur/ 2022/6010 Dated: 01.12.2022)

S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
11	Page 49 of 71	B. Server Load Balancer S.N. 2	Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1 Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps Layer 4 connections per second: 2.5 Milllion Layer 7 requests per second: 4 Million Concurrent Connections: 180 Million RSA CPS(2K Key): 100,000 ECC CPS (EC-P256): 45,000 with TLS1.3 Support SSL Throughput: 45 Gbps RAM: 96GB from day-1 and scalable upto 192GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of band Management Port.	The 2 out of band management ports will help the departmentto remotely manage and configure the device. In case the primary network goes down troubleshooting will be a challenge. Hence, we recommend that the department also asks for a dedicated RJ-45 console port. Appliance should not be oversized, scalability should be consider. **Suggested Clause:** **Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1** **Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps** **Layer 4 connections per second: 2.5 Milllion** **Layer 7 requests per second: 4 Million** **Concurrent Connections: 180 Million** **RSA CPS(2K Key): 50,000 from day-1 and scalable upto 100,000** **ECC CPS (EC-P256): 30,000 from day-1 and scalable upto 45,000 with TLS1.3 Support** **SSL Throughput: 45 Gbps** **RAM: 96GB from day-1 and scalable upto 192GB** **The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of band Management Port along with dedicated RJ45 Console Port.**	As per Revised RFP.
12	Page 50 of 71	B. Server Load Balancer	New Clause Request	Health checking metrices should be included to check avaialbility of the server before forwarding the required request. It will ensure sucessfull transaction. **Suggested Clause:** **Following health checking metrics should be available:** **• TCP Health Checks,** **• UDP Health Checks,** **• ICMP Health Checks,** **• HTTP/S Health Checks,** **• SNMP Health Check,** **• FTP Server Health Checks,** **• POP3 Server Health Checks,** **• SMTP Server Health Checks,** **• IMAP Server Health Checks,** **• RADIUS Server Health Checks,** **• ARP Health Checks,** **• DHCP Health Checks,** **• Script-Based Health Checks,**	As per RFP.
13	Page 50 of 71	B. Server Load Balancer	New Clause Request	There should be centralized manager to mange both the solution. It will help in easy configuration and management from operational perspective. **Suggested Clause:** **Centralized manager should be provided to manage SSL and SLB from single management..**	As per RFP.
14	Page 43 of 71	Clause 7. SPECIAL TERMS AND CONDITIONS OF TENDER & CONTRACT	1. Supply & Installation- 85% value of Order Value 2. Maintenance & Support Services*- Remaining 15% of Order Value, in equated instalments payable at end of each year.	As the Department has asked for Performance Security Deposit from the bidders and considering that this deposit will be retained by the department for the service period. The current payment terms will substantially increase the cost of investment of the partners as OEMs and distributor do not give credit of more than 30 days. As a result of this bidders will be forced to quote higher prices to cover their costs. Hence we request the department to amend the payment term to 100% after supply, installation and UAT etc.	As per RFP.
15	Page 43 of 71	Clause 7. SPECIAL TERMS AND CONDITIONS OF TENDER & CONTRACT	Timelines (T = Date of Work Order)= **T+90**	T+90. There is a global shortage of semiconductors and siliconchips, which are essential in manufacture of these appliances. As a result manufacture and supply from the OEM is taking longer than it usually does. Therfore, kindly extend the delibery time	As per RFP.

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S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
16	46	Annexure 2 Technical Specification SSL offloader	Traffic Ports support: Minimum 4 x 40G QSFP+, Minimum 8 x 10G SFP+ from day-1 Device L4 Throughput: Minimum 125 Gbps to Maximum 200 Gbps Layer 4 connections per second: Minimum 1.5 Milllion and scalable upto 2.5 Million Layer 7 requests per second: Minimum 3.8 Million Concurrent Connections: Minimum 125 Million RSA CPS(2K Key): Minimum 50,000 ECC CPS (EC-P256): Minimum 30,000 with TLS1.3 Support SSL Throughput: Minimum 45 Gbps RAM: Minimum 96GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port. The appliance should have 1x Rj45 for console port.	Please make highlighted changes for F5 Participation. 40G ports should be scalable to 100Gig ports with change of transcievers only. This will eliminate change of hardware while upgrading the network to 100Gig in next 5-7 Years. SSL offloader with 50Gbps SSL throughput will not required more then 80Gbps L4/L7 throughput. We recomend RSA CPS(2K Key) and ECC CPS (EC-P256) should be higher as this is one of the key feature in SSL Offloader to perfom as current asked RSA CPS(2K Key) and ECC CPS (EC-P256) numbers in RFP are at lower side in RSDC Environment. All SSL traffic from across data center will be off loading through this device Please modify the no. of L4 connections and concurrent contections as per new throughput. **Traffic Ports support: 2 x 40G/100G QSFP+, 8 x 10G SFP+ from day-1** **Device L4 Throughput: 80 Gbps from day 1** **Minimum Layer 4 connections per second: 1.5 Milllion** **Minimum Layer 7 requests per second: 4 Million** **Minimum Concurrent Connections: 80 Million** **RSA CPS(2K Key): 100,000** **ECC CPS (EC-P256): 65,000 with TLS1.3 Support** **SSL Throughput: 50 Gbps and compression throughput of 40 Gbps** **RAM: 128GB from day-1** **The appliance should have dedicated 1 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port.The appliance should have 1x Rj45 for console port.**	As per Revised RFP.
17	SSL Offloader	Annexure 2 Technical Specification SSL offloader	The proposed appliance should support the below metrics: — Hash, — Weighted Hash, — Least Connections, — Least Connections Per Service, — Round-Robin, — Response Time, — Bandwidth, et	Please allow Similar or equivalent feature metrics for broader participation The proposed appliance should support the below or similar metrics: — Hash, — Weighted Hash, — Least Connections, — Least Connections Per Service, — Round-Robin, — Response Time, — Bandwidth, et	As per Revised RFP.
18	SSL Offloader	Annexure 2 Technical Specification SSL offloader	Following Topologies should be supported: • Virtual Matrix Architecture • Client Network Address Translation (Proxy IP) • Mapping Ports • Direct Server Return • One Arm Topology Application • Direct Access Mode • Assigning Multiple IP Addresses • Immediate and Delayed Binding	Virtual Matrix Architecture feature is specific to one OEM. Kindly remove this clause. Following Topologies should be supported: • Client Network Address Translation (Proxy IP) • Mapping Ports • Direct Server Return • One Arm Topology Application • Direct Access Mode • Assigning Multiple IP Addresses • Immediate and Delayed Binding	As per Revised RFP.

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S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
19	SSL Offloader	Annexure 2 Technical Specification SSL offloader	The proposed device should have Hypervisor (should not use Open Source) Based Virtualization feature that virtualizes the Device resources—including CPU, memory, network, and acceleration resources. The Hypervisor used to virtualize the hardware should be a specialized purpose build hypervisor and NOT a commercially available hypervisor (like XEN, VMware,KVM etc.). Each Virtual Instance contains a complete and separated environment of the Following: a) Resources, b) Configurations, c) Management, d) Operating System The proposed device should support 5 Virtual Instance from Day 1 and scalable upto 50 Virtual Instances. It should NOT use Open Source/3rd party Network Functions.	Please modify the required Virtual instance in Appliance.if we provision virtual instance with minimum 4-8GB RAM. We can only create 8 to 16 virtual instances with availble appliance resources. Kindly modify the clause for F5 participation. The proposed device should have Hypervisor (should not use Open Source) Based Virtualization feature that virtualizes the Device resources—including CPU, memory, network, and acceleration resources. The Hypervisor used to virtualize the hardware should be a specialized purpose build hypervisor and NOT a commercially available hypervisor (like XEN, VMware,KVM etc.). Each Virtual Instance contains a complete and separated environment of the Following: a) Resources, b) Configurations, c) Management, d) Operating System **The proposed device should support 8 Virtual Instance from Day 1 and scalable upto 16 Virtual Instances. It should NOT use Open Source/3rd party Network Functions.**	As per Revised RFP.
20	SSL Offloader	Annexure 2 Technical Specification SSL offloader	The Proposed Appliance should support Standalone as well as Virtualized Mode (Bidder may ask to demonstrate the feature). The proposed Hardware must have Bandwidth Mangement feature from Day 1	Kindly modify this clause and Bandwidth Mangement is a feature come in SDWAN or Wan optimisation solution. Kindly remove this clause its specific to one OEM. The Proposed Appliance should support all CPU/vCPU allocated to one virtual instance as well as Virtualized multiple instance(Bidder may ask to demonstrate the feature).	As per Revised RFP.
21	SSL Offloader	Annexure 2 Technical Specification SSL offloader	The proposed device should support standard VRRP (RFC - 2338) or equivalent for High Availability purpose (no proprietary protocol).	Every OEM uses its own technology and terminology to achieve high availability. Security solution need sync for HA with same OEM Solution. So that session, connections, configurations can be sync in HA devices. Kindly modify clause for better clarity and right solution. The proposed device should support standard VRRP (RFC - 2338) or equivalent for High Availability purpose	As per Revised RFP.
22	SSL Offloader	additional points for better robust solution	The Proposed SSL Visibility Solution should support the ability to decrypt once and feed many active inline and passive security solutions and re-encrypt the traffic before transimitting it on the network.	SSL offloader will offload SSL encrptions and decryption from other security solution and feed clear traffic to security solution for checking security parameters.	As per RFP.
23	SSL Offloader	additional points for better robust solution	Offered solution should be EAL or NDPP (Network Device Protection Profile) certified under Common Criteria Program for security related functions	Security compliance for security solution is required. Kindly add EAL/NDcPP certification on hardware or software for purposed solutions.	As per RFP.

Response of Queries submitted against RFP for Supply, Installation and Maintenance of SSL Offloader & Server Load Balancer for RSDC (NIB no. F3.3(425)/RISL/Pur/ 2022/6010 Dated: 01.12.2022)

S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
24	Load Balancer	Annexure 2 Technical Specification Load Balancer	Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1 Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps Layer 4 connections per second: 2.5 Milllion Layer 7 requests per second: 4 Million Concurrent Connections: 180 Million RSA CPS(2K Key): 100,000 ECC CPS (EC-P256): 45,000 with TLS1.3 Support SSL Throughput: 45 Gbps RAM: 96GB from day-1 and scalable upto 192GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-ofband Management Port.	Please make highlighted changes for F5 Participation. 40G ports should be scalable to 100Gig ports with change of transcievers only. This will eliminate change of hardware while upgrading the network to 100Gig in next 5-7 Years. SLB with 50Gbps SSL throughput will not required more then 80Gbps L4/L7 throughput. Please modify the no. of L4 and L7 connections and concurrent contections as per new throughput. **Traffic Ports support: 2 x 40G/100G QSFP+, 8 x 10G SFP+ from day-1** **Device L4 Throughput: 80 Gbps from day 1** **Minimum Layer 4 connections per second: 1.5 Milllion** **Minimum Layer 7 requests per second: 4 Million** **Minimum Concurrent Connections: 80 Million** **RSA CPS(2K Key): 100,000** **ECC CPS (EC-P256): 65,000 with TLS1.3 Support** **SSL Throughput: 50 Gbps and compression throughput of 40 Gbps** **RAM: 128GB from day-1** **The appliance should have dedicated 1 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port.The appliance should have 1x Rj45 for console port.**	As per Revised RFP.
25	Load Balancer	Annexure 2 Technical Specification Load Balancer	The proposed appliance should support the below metrics: — Hash, — Weighted Hash, — Least Connections, — Least Connections Per Service, — Round-Robin, — Response Time, — Bandwidth, et	Please allow Similar or equivalent feature metrics for broader participation The proposed appliance should support the below or similar metrics: — Hash, — Weighted Hash, — Least Connections, — Least Connections Per Service, — Round-Robin, — Response Time, — Bandwidth, et	As per Revised RFP.
26	Load Balancer	Annexure 2 Technical Specification Load Balancer	Following Topologies should be supported: • Virtual Matrix Architecture • Client Network Address Translation (Proxy IP) • Mapping Ports • Direct Server Return • One Arm Topology Application • Direct Access Mode • Assigning Multiple IP Addresses • Immediate and Delayed Binding	Virtual Matrix Architecture feature is specific to one OEM. Kindly remove this clause. Following Topologies should be supported: • Client Network Address Translation (Proxy IP) • Mapping Ports • Direct Server Return • One Arm Topology Application • Direct Access Mode • Assigning Multiple IP Addresses • Immediate and Delayed Binding	As per Revised RFP.

Response of Queries submitted against RFP for Supply, Installation and Maintenance of SSL Offloader & Server Load Balancer for RSDC (NIB no. F3.3(425)/RISL/Pur/ 2022/6010 Dated: 01.12.2022)

S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
27	Load Balancer	Annexure 2 Technical Specification Load Balancer	The proposed device should have Hypervisor (should not use Open Source) Based Virtualization feature that virtualizes the Device resources—including CPU, memory, network, and acceleration resources. The Hypervisor used to virtualize the hardware should be a specialized purpose build hypervisor and NOT a commercially available hypervisor (like XEN, VMware,KVM etc.). Each Virtual Instance contains a complete and separated environment of the Following: a) Resources, b) Configurations, c) Management, d) Operating System The proposed device should support 5 Virtual Instance from Day 1 and scalable upto 50 Virtual Instances. It should NOT use Open Source/3rd party Network Functions.	Please modify the required Virtual instance in Appliance.if we provision virtual instance with minimum 4-8GB RAM. We can only create 8 to 16 virtual instances with availble appliance resources. Kindly modify the clause for F5 participation.\n\nThe proposed device should have Hypervisor (should not use Open Source) Based Virtualization feature that virtualizes the Device resources—including CPU, memory, network, and acceleration resources. The Hypervisor used to virtualize the hardware should be a specialized purpose build hypervisor and NOT a commercially available hypervisor (like XEN, VMware,KVM etc.). Each Virtual Instance contains a complete and separated environment of the Following: a) Resources, b) Configurations, c) Management, d) Operating System The proposed device should support 8 Virtual Instance from Day 1 and scalable upto 16 Virtual Instances. It should NOT use Open Source/3rd party Network Functions.	As per Revised RFP.
28	Load Balancer	Annexure 2 Technical Specification Load Balancer	The Proposed Solution must have Global Server Load Balancing supported on the same appliance	In order to swtich over the applications traffic like web app, email app etc. the GSLB solution must understand all types of DNS records and not just A or AAAA.Kindly add following functionality for complete Solution.\n\nThe Proposed Solution must have Global Server Load Balancing and should be able to host SRV Records, AAAA Records, A , PTR , MX ,TXT ,SOA,NS,Dname,Dmarc Records and should also support DNSSEC	As per RFP.
29	Load Balancer	Annexure 2 Technical Specification Load Balancer	The Proposed Appliance should support Standalone as well as Virtualized Mode (Bidder may ask to demonstrate the feature). The proposed Hardware must have Bandwidth Mangement feature from Day 1	Kindly modify this clause and Bandwidth Mangement is a feature come in SDWAN or Wan optimisation solution. Kindly remove this clause its specific to one OEM.\n\nThe Proposed Appliance should support all CPU/vCPU alocated to one virtual instance as well as Virtualized multiple instance(Bidder may ask to demonstrate the feature).	As per Revised RFP.
30	Load Balancer	Annexure 2 Technical Specification Load Balancer	The proposed device should support standard VRRP (RFC - 2338) or equivalent for High Availability purpose (no proprietary protocol).	Every OEM uses its own technology and terminology to achieve high availability. Security solution need sync for HA with same OEM Solution. So that session, connections, configurations can be sync in HA devices. Kindly modify clause for better clarity and right solution.\n\nThe proposed device should support standard VRRP (RFC - 2338) or equivalent for High Availability purpose	As per Revised RFP.
31	Load Balancer	additional points for better robust solution	Offered solution should be EAL or NDPP (Network Device Protection Profile) certified under Common Criteria Program for security related functions	Security compliance for security solution is required. Kindly add EAL/NDcPP certification on hardware or software for purposed solutions.	As per RFP.

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S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
32	46	ANNEXURE-2: TECHNICAL SPECIFICATIONS - SSL Off Loader- Sr. No. 2	**Traffic Ports support:** 6 x 40G QSFP+, 12 x 10G SFP+ from day-1 **Device L4 Throughput**: 125 Gbps and scalable upto 200 Gbps **Layer 4 connections per second:** 2.5 Milllion **Layer 7 requests per second:** 4 Million **Concurrent Connections:** 150 Million RSA CPS(2K Key): 50,000 **ECC CPS (EC-P256): 30,000 with TLS1.3 Support** **SSL Throughput: 45 Gbps** **RAM: 96GB from day-1 and scalable upto 192GB** The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port.	1. In this specification all the mentioned parameters like Traffic ports support, L4 throughput, Layer4 CPS, etc. favoring to the single OEM. Refer to the below link: **https://www.radware.com/getattachment/20afc5d0-64de-422f-b51e-dd7f64cce619/Alteon_Master_TechSpec_Oct2022.pdf.aspx** (page no 3 and model (Alteon D-7220S) It suggested to amend the clause as "**Traffic Ports support: 4 x 40G QSFP+, 8 x 10G SFP+ from day 1** **Device L4 Throughput: 125 Gbps and scalable upto 200 Gbps** **Layer 4 connections per second: 5 Million** **Layer 7 requests per second: 10 Million** **Concurrent Connections: 150 Million** **RSA CPS(2K Key): 100,000** **ECC CPS (EC-P256): 60,000 with TLS1.3 Support** **SSL Throughput: 45 Gbps** **RAM: 96GB from day-1 and scalable upto 192GB** **The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port"**	As per Revised RFP.
33	47	ANNEXURE-2: TECHNICAL SPECIFICATIONS - SSL Off Loader- Sr. No. 8	**Following Topologies should be supported:** • Virtual Matrix Architecture • Client Network Address Translation (Proxy IP) • Mapping Ports • Direct Server Return • One Arm Topology Application • Direct Access Mode • Assigning Multiple IP Addresses • Immediate and Delayed Binding	Some of the mentioned terms are vendor-specific and not industry-standard terms i.e. direct access mode, Mapping ports, so it suggested to amend the clause " **Following Topologies should be supported:** • **Virtual Matrix Architecture** • **Client Network Address Translation (Proxy IP)** • **Mapping Ports/equivalent** • **Direct Server Return** • **One Arm Topology Application** • **Direct Access Mode/equivalent** • **Assigning Multiple IP Addresses** • **Immediate and Delayed Binding"**	As per Revised RFP.
34	48	ANNEXURE-2: TECHNICAL SPECIFICATIONS - SSL Off Loader- Sr. No. 21	**OEM should be present in Leader Quadrant in latest published report for Gartner MQ for ADC. {please attach Gartner report}**	As per the guidelines from MoUD and MEITY, third party reports should not be used to restrict participation of vendors. We request you to refer DIPP and moD guide lines too for Make In India products.It is suggested to amend the clause "**OEM should be present in Leader Quadrant in latest published report for Gartner MQ/Make in India for ADC."**	As per RFP.
35	48	ANNEXURE-2: TECHNICAL SPECIFICATIONS - SSL Off Loader- Sr. No. 9	The proposed device should have Hypervisor (should not use Open Source) Based Virtualization feature that virtualizes the Device resources—including CPU, memory, network, and acceleration resources. The Hypervisor used to virtualize the hardware should be a specialized purpose build hypervisor and NOT a commercially available hypervisor (like XEN, VMware,KVM etc.). Each Virtual Instance contains a complete and separated environment of the Following: a) Resources, b) Configurations, c) Management, d) Operating System **The proposed device should support 5 Virtual Instance from Day 1 and scalable upto 50 Virtual Instances.** It should NOT use Open Source/3rd party Network Functions.	Generally asked scalability upto two times or three times to meet the future requirement but in the specification, you have asked the scalability of virtual instance upto 10 times. It suggested to amend the clause " The proposed device should have Hypervisor (should not use Open Source) Based Virtualization feature that virtualizes the Device resources—including CPU, memory, network, and acceleration resources. The Hypervisor used to virtualize the hardware should be a specialized purpose build hypervisor and NOT a commercially available hypervisor (like XEN, VMware,KVM etc.). Each Virtual Instance contains a complete and separated environment of the Following: a) Resources, b) Configurations, c) Management, d) Operating System **The proposed device should support 5 Virtual Instance from Day 1 and scalable upto 24 Virtual Instances.** It should NOT use Open Source/3rd party Network Functions. "	As per Revised RFP.

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S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
36	49	ANNEXURE-2: TECHNICAL SPECIFICATIONS -Server Load Balancer- Sr. No. 2	**Traffic Ports support:** 6 x 40G QSFP+, 12 x 10G SFP+ from day-1 **Device L4 Throughput**: 150 Gbps and scalable upto 200 Gbps **Layer 4 connections per second:** 2.5 Milllion **Layer 7 requests per second:** 4 Million Concurrent **Connections:** 180 Million **RSA CPS(2K Key):** 100,000 **ECC CPS (EC-P256):** 45,000 with TLS1.3 Support **SSL Throughput:** 45 Gbps **RAM:** 96GB from day-1 and scalable upto 192GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of- band Management Port.	1. In this specification all the mentioned parameters like Traffic ports support, L4 throughput, Layer4 CPS, etc. favoring to the single OEM. Refer to the below link: **https://www.radware.com/getattachment/20afc5d0-64de-422f-b51e-dd7f64cce619/Alteon_Master_TechSpec_Oct2022.pdf.aspx** (page no 3 and model (Alteon D-7220S) It suggested to amend the clause as "**Traffic Ports support: 4 x 40G QSFP+, 8 x 10G SFP+ from day 1 Device L4 Throughput: 125 Gbps and scalable upto 200 Gbps Layer 4 connections per second: 5 Million Layer 7 requests per second: 10 Million Concurrent Connections: 150 Million RSA CPS(2K Key): 100,000 ECC CPS (EC-P256): 60,000 with TLS1.3 Support SSL Throughput: 45 Gbps RAM: 96GB from day-1 and scalable upto 192GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port**"	As per Revised RFP.
37	49	ANNEXURE-2: TECHNICAL SPECIFICATIONS -Server Load Balancer- Sr. No. 7	**Following Server Load Balancing Topologies should be supported:** • Virtual Matrix Architecture • Client Network Address Translation (Proxy IP) • Mapping Ports • Direct Server Return • One Arm Topology Application • Direct Access Mode • Assigning Multiple IP Addresses • Immediate and Delayed Binding	Some of the mentioned terms are vendor-specific and not industry-standard terms i.e. direct access mode, Mapping ports, so it suggested to amend the clause " **Following Server Load Balancing Topologies should be supported:** • Virtual Matrix Architecture • Client Network Address Translation (Proxy IP) • **Mapping Ports/equivalent** • Direct Server Return • One Arm Topology Application • **Direct Access Mode/equivalent** • Assigning Multiple IP Addresses • Immediate and Delayed Binding"	As per Revised RFP.
38	50	ANNEXURE-2: TECHNICAL SPECIFICATIONS -Server Load Balancer- Sr. No. 9	The proposed device should have Hypervisor (should not use Open Source) Based Virtualization feature that virtualizes the Device resources—including CPU, memory, network, and acceleration resources. The Hypervisor used to virtualize the hardware should be a specialized purpose build hypervisor and NOT a commercially available hypervisor (like XEN, VMware,KVM etc.). Each Virtual Instance contains a complete and separated environment of the Following: a) Resources, b) Configurations, c) Management, d) Operating System **The proposed device should support 5 Virtual Instance from Day 1 and scalable upto 50 Virtual Instances.** It should NOT use Open Source/3rd party Network Functions.	Generally asked scalability upto two times or three times to meet the future requirement but in the specification, you have asked the scalability of virtual instance upto 10 times. It suggested to amend the clause " The proposed device should have Hypervisor (should not use Open Source) Based Virtualization feature that virtualizes the Device resources—including CPU, memory, network, and acceleration resources. The Hypervisor used to virtualize the hardware should be a specialized purpose build hypervisor and NOT a commercially available hypervisor (like XEN, VMware,KVM etc.). Each Virtual Instance contains a complete and separated environment of the Following: a) Resources, b) Configurations, c) Management, d) Operating System **The proposed device should support 5 Virtual Instance from Day 1 and scalable upto 24 Virtual Instances.** It should NOT use Open Source/3rd party Network Functions. "	As per Revised RFP.

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S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
39	11	3 of Clause No. 4	**Technical Capability** **(1)** The bidder must have successfully completed or partial completed with requisite amount, one project of supply and installation of IT Hardware infra and Maintenance of value not less than the amount of Rs. 3 Crore in India during the period from 01/04/2018 onwards. **OR** **(2)** The bidder must have successfully completed or partial completed with requisite amount, maximum of two project of supply and installation of IT Hardware infra and Maintenance of value or combined value not less than the amount of Rs. 4 Crores in India during the period from 01/04/2018 onwards.	**Technical Capability** **(1)** The bidder must have successfully completed or partial completed with requisite amount, one project of supply and installation of IT Hardware infra and Maintenance of value not less than the amount of **Rs. 2 Crore** in India during the period from 01/04/2018 onwards.	As per RFP.
40	43	7 of Clause No. 1	**Payment Terms and Schedule** **1.** Supply & Installation : 85% value of Order Value **2.** Maintenance & Support Services* : Remaining 15% of Order Value, in equated instalments payable at end of each year.	**Payment Terms and Schedule** **1.** Supply & Installation : **90% value** of Order Value **2.** Maintenance & Support Services* : **Remaining 10%** of Order Value, in equated instalments payable at end of each year.	As per RFP.
41	43	Payment Terms and Schedule	85% value of Order Value Remaining 15% of Order Value, in equated instalments payable at end of each year.	Request to release 90% against delivery & Installtion. Remaining 10% against submission of Bank Guarntee of equivalent amount. Pls. remove yearly equated payable since SI has to pay OEM upfront for 5 Year. This will increase overall estimated cost of the project.	As per RFP.
42	Page 46 of 71	A. SSL Offloader S.N. 2	Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1 Device L4 Throughput: 125 Gbps and scalable upto 200 Gbps Layer 4 connections per second: 2.5 Milllion Layer 7 requests per second: 4 Million Concurrent Connections: 150 Million RSA CPS(2K Key): 50,000 ECC CPS (EC-P256): 30,000 with TLS1.3 Support SSL Throughput: 45 Gbps RAM: 96GB from day-1 and scalable upto 192GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port.	There should be dedicated Console Port of RJ45 should be considered like dedicated management port which has been asked in the RFP. Console Port is used for troubleshooting. Sufficient capacity along with Scalability should be also be considerd. **Suggested Clause:** **Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1** **Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps** **Layer 4 connections per second: 2.5 Milllion** **Layer 7 requests per second: 4 Million** **Concurrent Connections: 180 Million** **RSA CPS(2K Key): 50,000 from day-1 and scalable upto 100,000** **ECC CPS (EC-P256): 30,000 from day-1 and scalable upto 45,000 with TLS1.3 Support** **SSL Throughput: 45 Gbps** **RAM: 96GB from day-1 and scalable upto 192GB** **The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of-band Management Port along with dedicated RJ45 Console Port.**	As per Revised RFP.

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S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
43	Page 48 of 71	A. SSL Offloader	New Clause Request	Health checking metrices should be included to check avaialbility of the server before forwarding the required request. It will ensure sucessfull transaction. **Suggested Clause:** **Following health checking metrics should be available:** **• TCP Health Checks,** **• UDP Health Checks,** **• ICMP Health Checks,** **• HTTP/S Health Checks,** **• SNMP Health Check,** **• FTP Server Health Checks,** **• POP3 Server Health Checks,** **• SMTP Server Health Checks,** **• IMAP Server Health Checks,** **• RADIUS Server Health Checks,** **• ARP Health Checks,** **• DHCP Health Checks,** **• Script-Based Health Checks,**	As per RFP.
44	Page 48 of 71	A. SSL Offloader	New Clause Request	There should be centralized manager to mange both the solution. It will help in easy configuration and management from operational perspective. **Suggested Clause:** **Centralized manager should be provided to manage SSL and SLB from single management..**	As per RFP.
45	Page 49 of 71	B. Server Load Balancer S.N. 2	Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1 Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps Layer 4 connections per second: 2.5 Milllion Layer 7 requests per second: 4 Million Concurrent Connections: 180 Million RSA CPS(2K Key): 100,000 ECC CPS (EC-P256): 45,000 with TLS1.3 Support SSL Throughput: 45 Gbps RAM: 96GB from day-1 and scalable upto 192GB The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of band Management Port.	There should be dedicated Console Port of RJ45 should be considered like dedicated management port which has been asked in the RFP. Console Port is used for troubleshooting. Appliance should not be oversized, scalability should be consider. **Suggested Clause:** **Traffic Ports support: 6 x 40G QSFP+, 12 x 10G SFP+ from day-1** **Device L4 Throughput: 150 Gbps and scalable upto 200 Gbps** **Layer 4 connections per second: 2.5 Milllion** **Layer 7 requests per second: 4 Million** **Concurrent Connections: 180 Million** **RSA CPS(2K Key): 50,000 from day-1 and scalable upto 100,000** **ECC CPS (EC-P256): 30,000 from day-1 and scalable upto 45,000 with TLS1.3 Support** **SSL Throughput: 45 Gbps** **RAM: 96GB from day-1 and scalable upto 192GB** **The appliance should have dedicated 2 x 10/100/1000 Copper Ethernet (RJ45) Out-of band Management Port along with dedicated RJ45 Console Port.**	As per Revised RFP.

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S.No.	RFP Page No.	RFP Rule No.	Rule Details	Query/ Suggestion/ Clarification	Remark
46	Page 50 of 71	B. Server Load Balancer	New Clause Request	Health checking metrices should be included to check avaialbility of the server before forwarding the required request. It will ensure sucessfull transaction. **Suggested Clause:** **Following health checking metrics should be available:** **• TCP Health Checks,** **• UDP Health Checks,** **• ICMP Health Checks,** **• HTTP/S Health Checks,** **• SNMP Health Check,** **• FTP Server Health Checks,** **• POP3 Server Health Checks,** **• SMTP Server Health Checks,** **• IMAP Server Health Checks,** **• RADIUS Server Health Checks,** **• ARP Health Checks,** **• DHCP Health Checks,** **• Script-Based Health Checks,**	As per RFP.
47	Page 50 of 71	B. Server Load Balancer	New Clause Request	There should be centralized manager to mange both the solution. It will help in easy configuration and management from operational perspective. **Suggested Clause:** **Centralized manager should be provided to manage SSL and SLB from single management..**	As per RFP.
48	33	23) Samples	Samples a) When notified by the Purchaser to the supplier/ bidder/ selected bidder, Bids for articles/ goods marked in the BoM1 shall be accompanied by four sets of samples of the articles quoted properly packed. Such samples if submitted personally will be received in the office. A receipt will be given for each sample by the officer receiving the samples. Samples if sent by train, etc., should be despatched freight paid and the R/R or G.R. should be sent under a separate registered cover. Samples for catering/ food items should be given in a plastic box or in polythene bags at the cost of the bidder. b) Each sample shall be marked suitably either by written on the sample or on a slip of durable paper securely fastened to the sample, the name of the bidder and serial number of the item, of which it is a sample in the schedule.	Request to remove this clause.	As per RFP.
49	43	7. SPECIAL TERMS AND CONDITIONS OF TENDER & CONTRACT	1. Supply & Installation Delivery Challan for ordered items Installation Report OEM Warranty Certificates Support Escalation matrix document Request for UAT T+ 60 85% value of Order Value	Request for corrigendum as 1. @90% on Supply of material Delivery Challan for ordered items T+ 90 90% value of Order Value Its resulting in competitive participation thus reducing overall project cost	As per RFP.
50	43	7. SPECIAL TERMS AND CONDITIONS OF TENDER & CONTRACT	85% value of Order Value Remaining 15% of Order Value, in equated instalments payable at end of each year.	Request for corrigendum as 2. @10% after installation and UAT Sir, Bidder is submitting PBG as per security amount. Its resulting in competitive participation thus reducing overall project cost	As per RFP.