Page no.	RFP Clause No. / Section/ Category	Item	RFP Ask	AIPL	ARISTA	INSPIRA	PRESTO	Clarification
93	Category-II , Annexure-II , 1-2		Management and monitoring of all the proposed hardware switches deployed across sites (DC, BCP and DR) (except POE Switches) must be provided through single pane of glass.	the "e. SWITCH Type-01 (Management TOR)" also needs	Please clarify if the "e. SWITCH Type-01 (Management TOR)" also needs to be managed through this fabric manager?	the "e. SWITCH Type-01 (Management TOR)" also needs to be managed	Management and monitoring of all the proposed hardware switches deployed across sites (DC, BCP and DR) (except Management layer Switches - both PoE and Non-PoE) must be provided through single pane of glass. OR Management and monitoring of all the proposed hardware switches deployed across sites (DC, BCP and DR) must be provided through single pane of glass for each fabric (management and Core seperately) Justification: Requesting to modify the clause to allow maximum participation.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	l Item	RFP Ask	ESIL	cisco	IVALUE	НРЕ	Clarification
93	Category-II , Annexure-II , 1-2	Fabric Mgmt. features	of all the proposed hardware switches deployed across sites (DC, BCP and DR) (except POE Switches) must	sites (DC, BCP and DR) (except Management layer Switches - both PoE and Non-PoE) must be provided through single pane of glass. OR Management and monitoring of all the proposed hardware switches deployed across sites (DC, BCP and DR) must be provided through single pane of glass for each fabric (management and Core seperately)	OR .	SWITCH Type-01 (Management TOR)" also needs to be managed through this	"e. SWITCH Type-01 (Management TOR)" also needs to be	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO	ESIL	cisco	Clarification
93	Category-II , Annexure-II , 1-2	Fabric Mgmt. features	8. The Overlay network is to be designed for a multi-tenancy Applications suite running with a set of Common Platform Services and deployed over a unified virtualised compute and storage platform. The Fabric Manager, with its API integrations with third parties should be capable to integrate with private cloud enterprise solutions.	designed for a multi-tenancy Applications suite running with a set of Common Platform Services and deployed over a unified virtualised compute and storage platform. Justification: For Management layer such functionality not require, hence requesting to reduce to modify the clause to allow	be designed for a multi-tenancy Applications suite running with a set of Common Platform Services and deployed over a unified virtualised compute and storage platform. For Management layer such functionality not require, hence requesting to reduce	The Core Network Overlay network is to be designed for a multi-tenancy Applications suite running with a set of Common Platform Services and deployed over a unified virtualised compute and storage platform. For Management layer such functionality not require, hence requesting to reduce to modify the clause to allow maximum participation.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/ Category	Item	RFP Ask	AIPL	ARISTA	INSPIRA	Clarification
93	Category-II , Annexure-II , 1-12.a Fabric Mgmt. features Fabric Mg		appliance based.Fabric management infrastructure should be provisioned in HA mode at each of the sites and should cover all fabrics; the necessary software licenses should be bundled with	some OEMs support managing the complete infra. centrally from a single location with provision for site-level redundancy, thus not requiring the deployment of fabric managers at all the sites which provide cost saving. Also please mention the maximum expected latency between the 2 location (Delhi and Bangalore) for proper designing of the management solution. In worst cases, depending on the service provider, the RTT between two locations may reach ~100 milliseconds. Please modify the clause as suggested below: "12 a. The Fabric Manager must be physical appliance based. Fabric management infrastructure should be provisioned in HA mode at each location (DC/BCP and DR at minimum) and should cover all fabrics; the necessary software licenses should be bundled with the appliances. Maximum of 100 millisecond of RTT Latency between the 2 locations (Delhi & Bangalore) should be considered for solution design and provisioning"	infra. centrally from a single location with provision for site-level redundancy, thus not requiring the deployment of fabric managers at all the sites which provide cost saving. Also please mention the maximum expected latency between the 2 location (Delhi and Bangalore) for proper designing of the management solution. In worst cases, depending on the service provider, the RTT between two locations may reach ~100 milliseconds. Please modify the clause as suggested below: "12 a. The Fabric Manager must be physical appliance based. Fabric management infrastructure should be provisioned in HA mode at each location (DC/BCP and DR at minimum) and should cover all fabrics; the necessary software licenses should be bundled with the appliances. Maximum of 100 millisecond of RTT Latency between the 2 locations (Delhi &	all the sites which provide cost saving. Also please mention the maximum expected latency between the 2 location (Delhi and Bangalore) for proper designing of the management solution. In worst cases, depending on the service provider, the RTT between two locations may reach ~100 milliseconds. Please modify the clause as suggested below: "12 a. The Fabric Manager must be physical appliance based. Fabric management infrastructure should be provisioned in HA mode at each location (DC/BCP and DR at minimum) and should cover all fabrics; the necessary software licenses should be bundled with the	
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Cache Technologies	IVALUE	НРЕ	Ref. Corrigendum
93	Category-II , Annexure-II , 1- 12.a	Fabric Mgmt. features	12 a. The Fabric Manager must be physical appliance based.Fabric management infrastructure should be provisioned in HA mode at each of the sites and should cover all fabrics; the necessary software licenses should be bundled with the appliances	some OEMs support managing the complete infra. centrally from a single location with provision for site-level redundancy, thus not requiring the deployment of fabric managers at all the sites which provide cost saving. Also please mention the maximum expected latency between the 2 location (Delhi and Bangalore) for proper designing of the management solution. In worst cases, depending on the service provider, the RTT between two locations may reach ~100 milliseconds. Please modify the clause as suggested below: "12 a. The Fabric Manager must be physical appliance based. Fabric management infrastructure should be provisioned in HA mode at each location (DC/BCP and DR at minimum) and should cover all fabrics; the necessary software licenses should be bundled with the appliances. Maximum of 100 millisecond of RTT Latency between the 2 locations (Delhi & Bangalore) should be considered for solution design and provisioning"	infra. centrally from a single location with provision for site-level redundancy, thus not requiring the deployment of fabric managers at all the sites which provide cost saving. Also please mention the maximum expected latency between the 2 location (Delhi and Bangalore) for proper designing of the management solution. In worst cases, depending on the service provider, the RTT between two locations may reach ~100 milliseconds. Please modify the clause as suggested below: "12 a. The Fabric Manager must be physical appliance based. Fabric management infrastructure should be provisioned in HA mode at each location (DC/BCP and DR at minimum) and should cover all fabrics; the necessary software licenses should be bundled with the appliances. Maximum of 100 millisecond of RTT Latency between the 2 locations (Delhi &	requiring the deployment of fabric managers at all the sites which provide cost saving. Also please mention the maximum expected latency between the 2 location (Delhi and Bangalore) for proper designing of the management solution. In worst cases, depending on the service provider, the RTT between two locations may reach ~100 milliseconds. Please modify the clause as suggested below: "12 a. The Fabric Manager must be physical appliance based. Fabric management infrastructure should be provisioned in HA mode at each location (DC/BCP and DR at minimum) and should cover all fabrics; the necessary software licenses should be bundled with the	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO	ESIL	CISCO	Clarification
93	Category-II , Annexure-II , 1- 12.a	Fabric Mgmt. features	switches should be able to run on OEM standard OS and it	All the proposed hardware switches should be able to run on OEM standard OS and it should be possible to centrally apply upgrades and patches while the fabric remain in service, minimising down time of the respective fabric solution. Justification: We understand Bidder need to build separate fabric for management and Core layer. If this is true then Kindly change the clause to allow maximum participation.	able to run on OEM standard OS and it should be possible to centrally apply upgrades and patches while the fabric remain in service, minimising down time of the respective fabric solution. We understand Bidder need to build separate	while the fabric remain in service, minimising down time of the respective fabric solution. We understand Bidder need to build separate fabric for management and Core layer. If this is	As stipulated in the RFP
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO	ESIL	CISCO	Clarification
93	Category-II , Annexure-II , 1- 12.a	Fabric Mgmt. features	Should have capability to provide instant visibility into any applicable bugs and PSIRTs that can impact the proposed devices helping in regular network audits and compliances.	Solution Should have capability to provide instant visibility into any applicable bugs and PSIRTs that can impact the proposed devices helping in regular network audits and compliances. Justification: Different vendor use different offering for same applications. Thus requesting change for wider participation	visibility into any applicable bugs and PSIRTs that can impact the proposed devices helping in regular network audits and compliances. Different vendor use different offering for same	, , , , , , , , , , , , , , , , , , , ,	As stipulated in the RFP
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO	ESIL	cisco	Clarification
93	Category-II , Annexure-II , 1- 12.a	Fabric Mgmt. features	Should be able to support a minimum of 350 Switches from day-1.	Clarification: Each of fabric to be design with same scalability namely management and Core layer?		_	As stipulated in the RFP

FIREWALL TYPE-FW01 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	Clarification
	Clause 2, subclause A,	Certified FIPS 140-	As per PPP orders from Govt. of India, Ministry of Commerce and Industry order dated 06th Sept 2020 asking	The product shall have Indian Standard, IC3S/Common	As stipulated in
	Features-1	2, EAL 4+ /	for foreign certification is discriminatory/restrictive as per clause 10(e) hence we request to remove or amend	Criteria (provided by STQC in India common-criteria-	the RFP
94		Common Criteria.	this certification requirement and subsequent order from MeiTy, and other ministry of Govt. of India.	certification-0) or Alternatively from International	
			Requesting for removing said point OR add/ Allow Gartner Asia/Pacific Context: Magic Quadrant For	equivalents, NDPP or NSS or ICSALabs, at least one of them	
			Network Firewalls of 2018 & 2019 and ICSA Labs Certifications. Kindly revise this point.	should be provided while bidding.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Palo Alto	INSPIRA	ECIL	CISCO	ALETHE	Clarification
	Clause 2, subclause	Must have 6x	Please modify the clause as "Must	We	Must have 8x 100GE/40GE QSFP28	Must have 8x 100GE/40GE QSFP28	Request for Amendment:	Ref. Corrigendum
	A, Features-3	100GE/40GE	have 4x 100GE/40GE QSFP28 single		· ·	(single mode LC), 8x 10 GE SFP+	l -	o o
	,	QSFP28			1	multimode LC, 1x RJ45 Management	1 -	
		(single mode			_	ports from Day1. All required		
		LC), 16x 10	transceivers should be populated from	ports asked	transceivers should be populated from	transceivers should be populated from	number of ports asked are	
		GE SFP+	day one and compatible with the	are required	day one and compatible with the	day one and compatible with the	required on each Firewall	
		multimode	quoted switches" because minimum	on each	quoted switches . Justification : As	quoted switches . Justification : As	unit, kindly clarify?	
		LC, 2x RJ45	2*40G/100G ports are required for	Firewall unit,	per the clause in the RFP wherein	per the clause in the RFP wherein		
		Management	any HA connectivity to the uplink	kindly	high redundancy and fault resiliency	high redundancy and fault resiliency		
		ports from	devices assuming there are 40G/100G	clarify?	is needed 6 100/40G interfaces do	is needed 6 100/40G interfaces do not		
94		Day1. All	ports available on the uplink		not offer scalability as at a minimum	offer scalability as at a minimum if		
		required	device/line card module. Even if we		if just 2 zones trust and untrust are	just 2 zones trust and untrust are		
		transceivers	consider the LAG/VPC configuration,		created apart from failover link then	created apart from failover link then		
		should be	4*40G/100G ports will be enough to		all 6 interfaces would get consumed	all 6 interfaces would get consumed		
		populated	bundle the same in a link aggregation		offering no headroom for scalability	offering no headroom for scalability		
		from day one	group defining 200G as the above link		and adding additional segments. Thus	and adding additional segments. Thus		
		and	pipe. Every I/O architecture is specific		requesting change to ensure there is	requesting change to ensure there is		
		compatible	to an OEM platform and we would		enough headroom to scale the	enough headroom to scale the		
		with the	request the ports to be max		solution in future and allow vendor	solution in future and allow vendor		
		quoted	4*40G/100G as this is not available in		participation as in current form it is	participation as in current form it is		
		switches.	any of our NGFW platforms		restricting the participation	restricting the participation		

Page	RFP Clause No. /	RFP Ask	Cache	Dreste	CICI	Fortinet	HPE	Clarification
no.	Section/Category	KFP ASK	Technologies	Presto	SISL	Fortinet	HPE	Clarification
	Clause 2, subclause	Must have 6x	We understand	Must have 8x 100GE/40GE QSFP28 (single mode LC), 8x	Must have 8x 100GE/40GE QSFP28 (single mode LC), 8x 10	We	We	Ref. Corrigendum
	A, Features-3	100GE/40GE	that the number	10 GE SFP+ multimode LC, 1x RJ45 Management ports	GE SFP+ multimode LC, 1x RJ45 Management ports from	understand	understan	
		QSFP28 (single	of ports asked	from Day1. All required transceivers should be populated	Day1. All required transceivers should be populated from	that the	d that the	
		mode LC), 16x 10	are required on	from day one and compatible with the quoted switches.	day one and compatible with the quoted switches.	number of	number of	
		GE SFP+ multimode				ports asked	ports	
		LC, 2x RJ45	unit, kindly	As per the clause in the RFP wherein high redundancy	As per the clause in the RFP wherein high redundancy and	are	asked are	
		Management ports	clarify?	and fault resiliency is needed 6 100/40G interfaces do not	fault resiliency is needed 6 100/40G interfaces do not offer	required on	required	
94		from Day1. All		· · · · · · · · · · · · · · · · · · ·	scalability as at a minimum if just 2 zones trust and untrust		on each	
		required		untrust are created apart from failover link then all 6	are created apart from failover link then all 6 interfaces	Firewall	Firewall	
		transceivers should		interfaces would get consumed offering no headroom for	would get consumed offering no headroom for scalability	unit, kindly	unit,	
		be populated from		scalability and adding additional segments. Thus	and adding additional segments. Thus requesting change	clarify?	kindly	
		day one and		requesting change to ensure there is enough headroom	to ensure there is enough headroom to scale the solution		clarify?	
		compatible with			in future and allow vendor participation as in current form			
		the quoted		participation as in current form it is restricting the	it is restricting the participation			
		switches.		participation				

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	AIPL	VDA	Checkpoint	Clarification
	Clause 2, subclause	Threat prevention	Specific OEM Feature/Clauses. The asked	NGFW	Solution platform	Request for amendment: Threat	Request for amendment: Threat	As stipulated
	A, Features-5	throughput of 50	value Threat prevention throughput i.e., 50	throughput of 70	required with the	prevention throughput of 50 Gbps (per	prevention throughput of 50 Gbps (per	in the RFP
		Gbps(per unit of HA)	Gbps is not offered by all OEM's. We	Gbps or higher	threat prevention	unit of HA) in real	unit of HA) in real	
		in real	recommend that NGFW throughput of 70	(per unit of HA) in	throughput of	world/production/enterprise mix	world/production/enterprise mix	
			Gbps or higher advanced security technology		50Gbps should not	environment with all the security engines	environment with all the security	
		nterprise mix	that these solutions bring to the table. NGFW	all features	be limited to "per	like IPS, Application control, web filtering,	engines like IPS, Application control, web	
			can leverage threat intelligence information to		unit of HA" and	anti-malware etc, enabled.	filtering, anti-malware etc, enabled.	
94		the security engines	identify and prevent unknown malicious	Test Condition)				
		like IPS, Application	malware from getting into a network since the	(Gbps)	forward for	Justification: Solution platform required	Justification: Solution platform required	
		control, web	traffic hitting the State Data Centre can be			with the threat prevention throughput of		
		filtering, anti-	vulnerable. For processing such traffic by			50Gbps should not be limited to "per unit	1	
			checking all security parameters and another		·	of HA" and should be look forward for		
		enabled.	security check a higher NGFW throughput is		remove the same	expansion instead of limiting with per		
			always recommended. Kindly revise this point.		for participation	unit of HA. Kindly remove the same for	unit of HA. Kindly remove the same for	
						participation	participation	

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	VDA	Checkpoint	Clarification
110.	Clause 2, subclause A,	SSL VPN throughput of at	Request for amendment: Adequate SSL VPN	Request for amendment: SSL VPN throughput of at	Request for amendment: SSL VPN throughput of at	As stipulated
	Features-1-6	least 10 Gbps. Should	throughput to support 3000 concurrent SSL VPN users	least 10 Gbps. Adequate SSL VPN throughput to	least 10 Gbps. Adequate SSL VPN throughput to	in the RFP
		support client based VPN	without affecting the performance of critical	support 3000 concurrent SSL VPN users without	support 3000 concurrent SSL VPN users without	
		and at least 3000	application or SSL VPN capability to offload to	affecting the performance of critical application or SSL	affecting the performance of critical application or SSL	
		concurrent SSL VPN users.	different hardware.	VPN capability to offload to different hardware.	VPN capability to offload to different hardware.	
94			Justification: SSL VPN throughput isn't the standard benchmarking parameter available in product datasheet. Moreover, the performance is dependent on multiple SSL parameters such as type of certificate, key size etc It is suggested to change the clause to allow the wider participation.	Justification: SSL VPN throughput isn't the standard benchmarking parameter available in product datasheet. Moreover, the performance is dependent on multiple SSL parameters such as type of certificate, key size etc It is suggested to change the clause to allow the wider participation.	Justification: SSL VPN throughput isn't the standard benchmarking parameter available in product datasheet. Moreover, the performance is dependent on multiple SSL parameters such as type of certificate, key size etc It is suggested to change the clause to allow the wider participation.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	INSPIRA	HPE	Clarification
	Clause 2, subclause A,	The proposed solution should support HA in Active/Active and	We understand that HA support asked on IPv4 & IPv6 should	We understand that HA support asked on IPv4 & IPv6 should	As stipulated
	Features-1-8	Active/Passive mode. The Firewall in HA should support	support Feature like IPS, Anti malware, Web filtering, DDOS	support Feature like IPS, Anti malware, Web filtering, DDOS	in the RFP
0.5		stateful clustering across sites. HA should be supported on both	prevention and Traffic Shaping should be available in Active-	prevention and Traffic Shaping should be available in Active-	
95		IPV4 and IPV6. Feature like IPS, Anti malware, Web filtering,	Active. But should also support features like monitor interface,	Active. But should also support features like monitor interface,	
		DDOS prevention and Traffic Shaping should be available in	sync interface. As this is essential for HA failover when link is	sync interface. As this is essential for HA failover when link is	
		Active-Active.	down on the Firewall device.	down on the Firewall device. Kindly clarify?	

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	INSPIRA	VDA	Checkpoint	Clarification
	Clause 2, subclause	Must support NAT (SNAT and	Request for amendment: Must	We understand that IPv6 functionality is	Request for amendment: Must	Request for amendment: Must	Ref.
	A, Features-1-10	DNAT) with following modes	support NAT (SNAT and DNAT) with	mandatary as per Govt of India IT policy act,	support NAT (SNAT and DNAT) with	support NAT (SNAT and DNAT) with	Corrigendum
		Static, Dynamic, PAT, Nat66	following modes Static, Dynamic,	to comply that even after enabling the virtual	following modes Static, Dynamic,	following modes Static, Dynamic,	
		(IPv6-to-IPv6), Nat 64 (IPv6-to-	PAT, Nat66 (IPv6-to-IPv6), Nat 64	firewall domains should support all asked NAT	PAT, Nat66 (IPv6-to-IPv6), Nat 64	PAT, Nat66 (IPv6-to-IPv6), Nat 64	
		IPv4), Nat46 (IPv4- to-IPv6) ,	(IPv6-to-IPv4), Nat46 (IPv4- to-IPv6).	and DNS features such as SNAT, DNAT, PAT,	(IPv6-to-IPv4), Nat46 (IPv4- to-IPv6),	(IPv6-to-IPv4), Nat46 (IPv4- to-IPv6),	
		DNS64 & DHCPv6 functionality.		NAT 66, NAT64, NAT46, DNS-64 & DHCPv6	DNS64 & DHCPv6 functionality.	DNS64 & DHCPv6 functionality.	
95			Justification: DNS64 & DHCPv6	from day 1, please confirm?			
			requirements are for large scale		Justificatio: DNS64 & DHCPv6	Justificatio: DNS64 & DHCPv6	
			provider network are met through		requirements are for large scale	requirements are for large scale	
			AD / dedicated DNS/ IPAM solution		provider network are met through	provider network are met through	
			or alternatively using load balancer /		AD / dedicated DNS/ IPAM solution	AD / dedicated DNS/ IPAM solution	
			WAF. Request to change the clause.		or alternatively using load balancer /	or alternatively using load balancer /	
					WAF. Request to change the clause.	WAF. Request to change the clause.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	AIPL	INSPIRA	ECIL	cisco	ALETHE	Clarification
95	Clause 2, subclause A, Features-7	Concurrent sessions of 2 million or above and new sessions / Sec of 1 Million or above.	Specific OEM feature/clauses. The asked value for new sessions/Sec of 1 Million or above is very high and majority of the participating OEM wont be able to provide this value. Since Concurrent session plays a major rule i.e. Maximum Concurrent Connections describe the total number of connections a firewall can handle at a given time. Protocols like HTTP take far many connections even when you are opening a single web page. With users working on multiple applications simultaneously, firewalls will need to keep track of all these connections. A lower concurrent connection count can consume the session table and prevent any connection through the firewall. Hence, we recommend having a large concurrent connections count. A traffic session hitting the is UN-predictable, it will be a better practice to have an NGFW which supports higher Concurrent sessions. Kindly revise this point.	Concurrent sessions of 80 million or above and new sessions / Sec of 600000 or above	Request for amendment: Concurrent connections / sessions of 40 million or above and new sessions / Sec of 1 Million or above. Justification: Considering the threat prevention throughput asked in RFP Concurrent sessions & the new sessions per seconds are on lower end and requires change for better alignment	We understand that the concurrent sessions and new sessions / sec asked are required on each Firewall unit, Kindly clarify?	Concurrent sessions of 2 million or above and new sessions / Sec of 400K or above with layer 7 features and App ID enabled Justification: For a firewall with 2M max concurrent session 1M new session per second is exorbitantly high considering the concurrent connections. Generally the new connection per second is in range of 10-15% of the max concurrent connection and hence requesting change	Concurrent sessions of 2 million or above and new sessions / Sec of 400K or above with layer 7 features and App ID enabled Justification: For a firewall with 2M max concurrent session 1M new session per second is exorbitantly high considering the concurrent connections. Generally the new connection per second is in range of 10-15% of the max concurrent connection and hence requesting change	Request for Amendment: Request To Clarify Observations/Justification: We understand that the concurremt sessions and new sessions / sec asked are required on each Firewall unit, Kindly clarify?	Ref. Corrigendum

Page no.	RFP Clause No. / Section/Category	RFP Ask	Cache Technologies	Presto	SISL	Fortinet	VDA	Checkpoint	НРЕ	Clarification
	Clause 2, subclause	Concurrent	We understand that	Concurrent sessions of 2	Concurrent sessions of 2 million	We	Request for amendment:	Request for	We understand	Ref.
	A, Features-7	sessions of 2	the concurremt	million or above and new	or above and new sessions /	understand	Concurrent connections /	amendment: Concurrent	that the	Corrigendum
		million or above	sessions and new	sessions / Sec of 400K or	Sec of 400K or above with	that the	sessions of 40 million or	connections / sessions of	concurremt	
		and new	sessions / sec asked	above with layer 7 features	layer 7 features and App ID	concurrent	above and new sessions /	40 million or above and	sessions and new	
		sessions / Sec of	are required on each	and App ID enabled.	enabled.	sessions and	Sec of 1 Million or above.	new sessions / Sec of 1	sessions / sec	
		1 Million or	Firewall unit, Kindly			new sessions		Million or above.	asked are required	
		above.	clarify?	For a firewall with 2M max	For a firewall with 2M max	/ sec asked	Justification: Considering		on each Firewall	
95				concurrent session 1M new	concurrent session 1M new	are required	the threat prevention	Justification: Considering	unit, Kindly clarify?	
95				session per second is	session per second is	on each	throughput asked in RFP	the threat prevention		
				exorbitantly high considering	exorbitantly high considering	Firewall unit,	Concurrent sessions &	throughput asked in RFP		
				the concurrent connections.	the concurrent connections.	Kindly clarify?	the new sessions per	Concurrent sessions &		
				Generally the new connection	Generally the new connection		seconds are on lower end	the new sessions per		
				per second is in range of 10-	per second is in range of 10-		and requires change for	seconds are on lower		
				15% of the max concurrent	15% of the max concurrent		better alignment	end and requires change		
				connection and hence	connection and hence			for better alignment		
				requesting change	requesting change					

Page no.	RFP Clause No. / Section/Category	RFP Ask	ALETHE	Cache Technologies	Fortinet	Clarification
	Clause 2, subclause	The proposed solution should support HA in	Request for Amendment: Request To Clarify	We understand that HA support asked on IPv4 & IPv6	We understand that HA	As stipulated
	B, Features-8	Active/Active and Active/Passive mode. The	Observations/Justification:	should support Feature like IPS, Anti malware, Web	support in Active/Active &	in the RFP
		Firewall in HA should support stateful	We understand that HA support asked on IPv4 & IPv6 should	filtering, DDOS prevention and Traffic Shaping should	Active/Passive on IPv4 & IPv6	
95		clustering across sites. HA should be	support Feature like IPS, Anti malware, Web filtering, DDOS	be available in Active-Active. But should also support	also includes configuration	
95		supported on both IPV4 and IPV6. Feature like	prevention and Traffic Shaping should be available in Active-	features like monitor interface, sync interface. As this	sync, session sync across each	
		IPS, Anti malware, Web filtering, DDOS	Active. But should also support features like monitor	is essential for HA failover when link is down on the	unit in HA of Firewall, kindly	
		prevention and Traffic Shaping should be	interface, sync interface. As this is essential for HA failover	Firewall device.	confirm?	
		available in Active-Active.	when link is down on the Firewall device.			

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	INSPIRA	ALETHE	Cache Technologies	Fortinet	VDA	Checkpoint	Clarification
	Clause 2, subclause	Should be a	Requst for amendment: Should	We	Request for	We understand	We	Requst for amendment: Should	Requst for amendment: Should	As stipulated in
	A, Features-9	hardware	be a hardware appliance based.	understand	Amendment:	that IPv6	understand	be a hardware appliance based.	be a hardware appliance based.	the RFP
		appliance	Firewall. IPSEC and SSL VPN, Anti-	that IPv6	Request To Clarify	functionality is	that IPv6	Firewall. IPSEC and SSL VPN, Anti-	Firewall. IPSEC and SSL VPN, Anti-	
		based.	Malware, IPS, Web and	functionality	Observations	mandatary as	functionality	Malware, IPS, Web and	Malware, IPS, Web and	
		Firewall. IPSEC	Application control, DDOS	is mandatary	/Justification:	per Govt of	is mandatary	Application control, DDOS	Application control, DDOS	
		and SSL VPN,	prevention, Traffic-	as per Govt of	We understand	India IT policy	as per Govt of	prevention, Traffic-	prevention, Traffic-	
		Anti-Malware,	Shaping/Bandwidth Management	India IT policy	that IPv6	act, to comply	India IT policy	Shaping/Bandwidth Management	Shaping/Bandwidth Management	
		IPS, Web and	and Routing functionalities must	Routing functionalities must act, to functionality is the same: Ipv6 act, to comply and Routing functionalities must and Routing functionalities		and Routing functionalities must				
		Application	be integrated in a single platform	comply the	mandatary as per	functionalities is	the same:	be integrated in a single platform	be integrated in a single platform	
		control, DDOS	& must be future scalable	same: Ipv6	Govt of India IT	must require in	lpv6	& must be future scalable	& must be future scalable	
95		prevention,		functionalities	policy act, to	VPN, Firewall,	functionalities			
		Traffic-Shaping	Justification: This clause restrict	is must	comply the same:	routing, along	is must	Justification: This clause restrict to	Justification: This clause restrict	
		/Bandwidth	to participate, so request to	required in	Ipv6 functionalities	with all	require in	participate, so request to amend	to participate, so request to	
		Management	amend positively.	VPN, Firewall,	is must required in	essential	VPN, Firewall,	positively.	amend positively.	
		and Routing	Since new age technologies are	routing, along	VPN, Firewall,	security	routing, along	Since new age technologies are	Since new age technologies are	
		functionalities	available to address the	with all	routing, along with			available to address the		
			requirement more efficiently.		all essential	day 1, please	essential	requirement more efficiently.	requirement more efficiently.	
		integrated in a	Flexibility should be given to		security features		security	Flexibility should be given to offer	Flexibility should be given to offer	
		single	offer the better solution keeping	features from	from day 1, please		features from	the better solution keeping	the better solution keeping	
		appliance.	current and future requirements	day 1, please	confirm?.		day 1, please	current and future requirements	current and future requirements	
			under consideration.	confirm?			confirm?	under consideration.	under consideration.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Palo Alto	ALETHE	Cache Technologies	Fortinet	Checkpoint	НРЕ	Clarification
	Clause 2, subclause	Must support	NAT46 is no longer	Request for Amendment:	We understand that	We understand that IPv6	Request for amendment: Must	We understand that	Ref.
	A, Features-10	NAT (SNAT and	used in today's	Request To Clarify	IPv6 functionality is	functionality is	support NAT (SNAT and DNAT) with	IPv6 functionality is	Corrigendum
		DNAT) with	deployment scenarios	Observations /Justification:	mandatary as per Govt	mandatary as per Govt of	following modes Static, Dynamic,	mandatary as per Govt	
		following modes	and is an obsolete	We understand that IPv6	of India IT policy act, to	India IT policy act, to	PAT, Nat66 (IPv6-to-IPv6), Nat 64	of India IT policy act,	
		Static, Dynamic,	measure to adopt for	functionality is mandatary as per	comply that even after	comply that even after	(IPv6-to-IPv4), Nat46 (IPv4- to-IPv6),	to comply that even	
		PAT, Nat66	NAT translations. We	Govt of India IT policy act, to	enabling the virtual	enabling the virtual	DNS64 & DHCPv6 functionality.	after enabling the	
95		(IPv6-to-IPv6),	request you to change	comply that even after enabling	firewall domains should	firewall domains should		virtual firewall	
95		Nat 64 (IPv6-to-	it to "Firewall should	the virtual firewall domains	support all asked NAT	support all asked NAT	Justificatio: DNS64 & DHCPv6	domains should	
		IPv4), Nat46	support Nat66 (IPv6-	should support all asked NAT and	and DNS features such	and DNS features such as	requirements are for large scale	support all asked NAT	
		(IPv4- to-IPv6),	to-IPv6) or NPTV6 &	DNS features such as SNAT,	as SNAT, DNAT, PAT,	SNAT, DNAT, PAT, NAT	provider network are met through	and DNS features such	
		DNS64 &	Nat 64 (IPv6-to-IPv4)	DNAT, PAT, NAT 66, NAT64,	NAT 66, NAT64, NAT46,	66, NAT64, NAT46, DNS-	AD / dedicated DNS/ IPAM solution	as SNAT, DNAT, PAT,	
		DHCPv6	functionality"	NAT46, DNS-64 & DHCPv6 from	DNS-64 & DHCPv6 from	64 & DHCPv6 from day 1,	or alternatively using load balancer /	NAT 66, NAT64, NAT46,	
		functionality.		day 1, please confirm?	day 1, please confirm?	please confirm?	WAF. Request to change the clause.	DNS-64 & DHCPv6 from	
								day 1, please confirm?	

Pag	RFP Clause No. / Section/Categor		AIPL	ECIL	CISCO	Presto	SISL	VDA	Checkpoint	Clarificatio
no.	v	NFF ASK	AIFL	ECIL	Cisco	Presto	SISE	VDA	Спескропп	n n
	Clause 2	, Firewall	Request for	Firewall appliance	Firewall appliance	Firewall appliance	Firewall appliance	Request for	Request for	We Ref.
	subclause A	, appliance	•	1 '''			must have at least 10	1 -	amendment: Firewall	understand Corrigendu
	Features-12	must have at	appliance must have	virtual firewall	virtual firewall	virtual firewall	virtual firewall	appliance must have	appliance must have	that IPv6 m
		least 20	at least 5 virtual	domains/instants/ro	domains/instants/ro	domains/instants/ro	domains/instants/rout	at least 20 5 virtual	at least 20 5 virtual	functionality
		virtual firewall	firewall domains	uter (active from	uter (active from	uter (active from	er (active from day-1)	firewall	firewall	is mandatary
		domains	/instants active from	day-1) scalable to	day-1) scalable to	day-1) scalable to	scalable to 15(without	domains /instants	domains /instants	as per Govt
		/instants	day-1 scalable to	15(without	15(without	15(without	additional license)	active from day-1	active from day-1	of India IT
		(active from	10(with additional	additional license)	additional license)	additional license)	with each firewall	scalable to 10(with	scalable to 10(with	policy act, to
		day-1)	license) with each	with each firewall	with each firewall		domains/instances/ro	additional license)	additional license)	comply the
		scalable to	firewall	domains/instances/r	domains/instances/r	domains/instances/r	uter each providing	with each firewall	with each firewall	same: Ipv6
		25(with	domains/instances	outer each providing	outer each providing		1 '	l '	domains/instances	functionalitie
		additional	having a separate	separate Security	separate Security		zones, VLAN, Routing	_	having a separate	
95		license) with		zones, VLAN, Routing			and Policies.		administrative control	
		each firewall	OR equivalent,	and Policies.	and Policies.	and Policies.		OR equivalent,	OR equivalent,	
		domains	Security zones and	Justification :	Justification :		Different vendor use	1	Security zones and	,
		/instances	VLAN.	Different vendor use	Different vendor use	Different vendor use	different	VLAN.	VLAN.	routing,
		having a		different	different	different	terminologies to			along with all
		separate	Justification:		_	1	provide the		Justification:	essential
		administrative	Considering the threat	provide the	provide the	l '		Considering the threat	Considering the threat	· · · · · · · · · · · · · · · · · · ·
		control OR	prevention	virtualisation of	virtualisation of		security controls on	1 '	prevention	features from
		equivalent,	throughput asked in	security controls on		· ·	1	• •	throughput asked in	
		Security zones	RFP Concurrent sessions & the number	firewall appliance.	firewall appliance.	1			RFP Concurrent	confirm?
		and VLAN.	of virtual instance is	Thus requesting change for wider	_	, ,	_	sessions & the number of virtual instance is	sessions & the number of virtual	
					change for wider	change for wider	participation			
			on mgner side.	participation	participation	participation		on inglier side.	_	
			on higher side.	participation	participation	participation	ps. norpation	on higher side.	instance is on higher side.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Fortinet	Clarification
	Clause 2, subclause A,	13.The following features must be available in each virtual firewall	We understand that features asked for each virtual domain/instant context like Firewall, IPSEC and SSL VPN, IPS, Web and	As stipulated in
	Features-12	domain/instant context environment:	Application Control, Anti-Malware, Traffic Shaping & policy based routing, DDOS, User and Group management, Logging	the RFP
		Firewall, IPSEC and SSL VPN, IPS, Web and Application Control, Anti-	and Reporting also need virtual routing for each virtual domain/instant context. Kindly clarify?	
		Malware, Traffic Shaping & policy based routing, DDOS, User and		

Group management	Logging and Reporting.
Oroup management,	Lugging and Nepurting.

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	AIPL	ALETHE	Cache Technologies	Fortinet	VDA	Checkpoint	НРЕ	Clarification
	Clause 2, subclause	The	Since VXLAN support is	The Firewall	Request for	Request for	We	We	Request for	Request for	We	As stipulated
	A, Features-17	Firewall	not provided by all OEM's	solution	amendment: The	Amendment:	understand	understand	amendment: The	amendment: The	understand	in the RFP
		solution	and it may be difficult to	should	Firewall solution	Request To	VXLAN is	VXLAN is	Firewall solution should	Firewall solution should	VXLAN is	
		should	scale a centralized	support	should support Statio	Clarify	required in	required in	support Static Routing,	support Static Routing,	required in	
		support	controller used for	Static	Routing, Policy based	Observations/	order to	order to	Policy based Routing,	Policy based Routing,	order to	
		Static	managing overlay	-	Routing, BGP & OSPF.	Justification :	extend the	extend the	BGP & OSPF. VXLAN	BGP & OSPF. VXLAN	extend the	
		Routing,	networks. There is an	Policy based		We understand	Layer 2	Layer 2	Inspection	Inspection	Layer 2	
		Policy	overhead for headers	Routing,	Justifiation: Hosting	VXLAN is	connectivity	connectivity			connectivity	
		based	due to encapsulation	BGP, OSPF,	provider provisioning a	required in	over Layer 3,	over Layer 3,	Justifiation: Hosting	Justifiation: Hosting	over Layer 3,	
95		Routing,	techniques. The underlay	VLAN/VXLAN	cloud for its customer	order to extend	between two	between two	provider provisioning a	provider provisioning a	between two	
75		BGP,	network must support	Inspection.	is the primary use case	the Layer 2	sites. To	sites. To	cloud for its customer is	cloud for its customer is	sites. To	
		OSPF,	multicast for broadcast,		for the VXLAN to scale	connectivity	achieve this	achieve this	the primary use case for	the primary use case for	achieve this	
		VXLAN	unknown-unicast, and		beyond 802.1Q. The	over Layer 3,	VXLAN	VXLAN	the VXLAN to scale	the VXLAN to scale	VXLAN	
		Inspection.	multicast (BUM) traffic.		current leaf and spine	between two	interface is	interface is	beyond 802.1Q. The	beyond 802.1Q. The	interface is	
			Kindly provide a option		architecture doesn't	sites. To achieve	must from day	must from day	current leaf and spine	current leaf and spine	must from	
			"VLAN/VXLAN" for		require VXLAN	this VXLAN	1, please	1, please	architecture doesn't	architecture doesn't	day 1, please	
			generic participation.		inspection & hence to	interface is	confirm?	confirm?	require VXLAN	require VXLAN	confirm?	
			Kindly revise this point.		be removed.	must from day			inspection & hence to	inspection & hence to		
						1, please			be removed.	be removed.		
						confirm?						

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	Clarification
	Clause 2, subclause A,	Should support bi-directional integration with	OEM specific feature/clauses. Bi-directional integration with AntiAPT/SANDBOX is been not	Should support bi-directional/uni-directional	As stipulated in
QE.	Features-18	AntiAPT/SANDBOX for sharing threat	offered by all OEM'S since majority of the AntiAPT/SANDBOX is on cloud basis and by having bi-	integration with Anti- APT/SANDBOX for sharing	the RFP
95		intelligence and automated mitigation of zero	directional integration the traffic flowing from the appliance is un-predictable which may effect	threat intelligence and automated mitigation of	
		day attacks.	the performance of the appliance, so for better generic competition kindly revise this point.	zero day attacks.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	ECIL	CISCO	Presto	SISL	VDA	Checkpoint	Clarification
	Clause 2, subclause	Two-factor	Request for	Solution must support two-	Solution must support two-	Solution must support two-	Solution must support two-	Request for	Request for	Two-factor
	A, Features-27	authentication	amendment:	factor authentication	factor authentication	factor authentication	factor authentication	amendment:	amendment:	authentication
		without any	Two-factor	solution either natively or by	solution either natively or by	solution either natively or	solution either natively or	Two-factor	Two-factor	without any
		external	authentication	integrating it with external	integrating it with external	by integrating it with	by integrating it with	authentication	authentication	external
		Hardware.	without any	hardware Justification :	hardware Justification :	external hardware.	external hardware.	without any	without any	Hardware or
			external	Multi Factor authentication	Multi Factor authentication		Multi Factor authentication	external	external	3rd party
			Hardware /	should be a holistic solution	should be a holistic solution	Multi Factor authentication	should be a holistic	Hardware /	Hardware /	solution with
			integration with	which should cover	which should cover	should be a holistic	solution which should	integration with	integration with	requisite
96			Active Directory.	integration with Remote	integration with Remote	solution which should	cover integration with	Active Directory.	Active Directory.	licneses. OEM
30				VPN, Application, Email,	VPN, Application, Email,	cover integration with	Remote VPN, Application,			shall ensure
			Justification:	Hosted App's etc. Firewall	Hosted App's etc. Firewall	Remote VPN, Application,	Email, Hosted App's etc.	Justification: MFA	Justification:	the
			MFA capability is	based MFA solution has	based MFA solution has	Email, Hosted App's etc.	Firewall based MFA	capability is	MFA capability is	integration of
			supported in all	challenge to scale it and	challenge to scale it and	Firewall based MFA	solution has challenge to	supported in all	supported in all	the same
			the leading	support theses wide	support theses wide	solution has challenge to	scale it and support theses	the leading	the leading	
			identity	integrations. Also as	integrations. Also as	scale it and support theses	wide integrations. Also as	identity	identity	
			management	mentioned in the next point	mentioned in the next point	wide integrations. Also as	mentioned in the next	management	management	
			solution	around RSA token support.	around RSA token support.	mentioned in the next	point around RSA token	solution including	solution including	
			including active	RSA token requires an	RSA token requires an	point around RSA token	support. RSA token	active diirectory	active diirectory	

diirectory which	external hardware to be	external hardware to be	support. RSA token	requires an external	which can be	which can be
can be	integrated. Thus in current	integrated. Thus in current	requires an external	hardware to be integrated.	integrated with	integrated with
integrated with	form this is favouring a	form this is favouring a	hardware to be integrated.	Thus in current form this is	NGFW for two-	NGFW for two-
NGFW for two-	particular vendor and hence	particular vendor and hence	Thus in current form this is	favouring a particular	factor use case.	factor use case.
factor use case.	requesting change for wider	requesting change for wider	favouring a particular	vendor and hence	Also, specific to	Also, specific to
Also, specific to	participation	participation	vendor and hence	requesting change for	one OEM.	one OEM.
one OEM.			requesting change for	wider participation		
			wider participation			

Page no.	RFP Clause No. / Section/Category	RFP Ask	ECIL	cisco	Presto	SISL	Clarification
	Clause 2, subclause	Second factor	Second factor authentication through OTP,	Second factor authentication through OTP,	Second factor authentication through	Second factor authentication through	As stipulated
	A, Features-31	authentication	Certificate, SMS, Biometric, RSA token for	Certificate, SMS, Biometric, RSA token for	OTP, Certificate, SMS, Biometric, RSA	OTP, Certificate, SMS, Biometric, RSA	in the RFP
		through email,	remote users. Justification: Email is not	remote users. Justification: Email is not	token for remote users.	token for remote users.	
		Certificate, SMS, RSA	the recommended MFA/2FA delivery	the recommended MFA/2FA delivery	Email is not the recommended MFA/2FA	Email is not the recommended MFA/2FA	
		token for remote	mechanism due to 2 primary reasons. First	mechanism due to 2 primary reasons. First	delivery mechanism due to 2 primary	delivery mechanism due to 2 primary	
97		users.	is inherent delay in email messaging as a	is inherent delay in email messaging as a	reasons. First is inherent delay in email	reasons. First is inherent delay in email	
			layer and Second is guarantee of delivery	layer and Second is guarantee of delivery	messaging as a layer and Second is	messaging as a layer and Second is	
			which ultimately results it not being a	which ultimately results it not being a	guarantee of delivery which ultimately	guarantee of delivery which ultimately	
			reliable method and hence even NIST	reliable method and hence even NIST	results it not being a reliable method	results it not being a reliable method	
			removed it as one of the methods. Thus	removed it as one of the methods. Thus	and hence even NIST removed it as one	and hence even NIST removed it as one	
			requesting change	requesting change	of the methods. Thus requesting change	of the methods. Thus requesting change	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	Clarification
	Clause 2, subclause A,	The proposed firewall shall delineate different	Since all OEM don't provide the feature of identify, decrypt and evaluate SSL	The proposed firewall shall be able to identify, decrypt and	As stipulated in
	Features-31	parts of the application such as allowing	traffic in an outbound connection and inbound connections, and if the SSL	evaluate SSL traffic in an outbound connection/inbound	the RFP
97		Facebook chat but blocking its file-transfer	evaluation are done from some external source its difficult to identify and	connection. The proposed firewall shall be able to identify, decrypt	
		capability inside the chat application based on	decrypt the traffic. For better participation kinly provide an option for the	and evaluate SSH Tunnel traffic in an inbound/outbound	
		the content.	same. Kindly revise this point.	connections.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	Clarification
97	Clause 2, subclause A, Features-32	The proposed firewall shall be able to identify, decrypt and evaluate SSL traffic in an outbound connection (forward-proxy) and inbound connection. The proposed firewall shall be able to identify, decrypt and evaluate SSH Tunnel traffic in an inbound and outbound connections.	Since all OEM don't provide the feature of identify, decrypt and evaluate SSL traffic in an outbound connection and inbound connections, and if the SSL evaluation are done from some external source its difficult to identify and decrypt the traffic. For better participation kinly provide an option for the same. Kindly revise this point.	The proposed firewall shall be able to identify, decrypt and evaluate SSL traffic in an outbound connection/inbound connection. The proposed firewall shall be able to identify, decrypt and evaluate SSH Tunnel traffic in an inbound/outbound connections.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	Clarification
	Clause 2, subclause A,	Should support TLSv1.3 decryption in all	Since all OEM don't provide the TLSv1.3 decryption for Inbound traffic, and if the TLS evaluation are	Should support TLSv1.3 decryption in all	As stipulated in
97	Features-33	modes (SSL Forward Proxy, SSL Inbound	done from some external source its difficult to decrypt the traffic. For better participation kinly	modes (SSL Inbound/Outbound Inspection	the RFP
		Inspection etc.)	provide an option for the same. Kindly revise this point.	etc.)	

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	VDA	Checkpoint	Clarification
97	Clause 2, subclause A, Features-35	The firewall must have the capability to create DOS prevention policy to prevent against DOS attacks on per zone basis (outbound to inbound, inbound to outbound) and ability to create and define DOS policy based on attacks like UDP Flood, ICMP Flood, SYN Flood, IP Address Sweeps, IP Address Spoofs, port scan, Ping of Death, Teardrop attacks, unknown protocol protection etc.	Request for amendment: The firewall must have the capability to create threat prevention / DOS prevention policy to prevent against DOS attacks on per zone basis (outbound to inbound, inbound to outbound) and ability to create and define DOS policy based on attacks like UDP Flood, ICMP Flood, SYN Flood, IP Address Sweeps, IP Address Spoofs, port scan, Ping of Death, Teardrop attacks, unknown protocol protection etc. using IPS signature of application vulnerabilities. Justification: Restrictive clause limits us to provide the required technical details. Language to be counterbalance.	Request for amendment: The firewall must have the capability to create threat prevention / DOS prevention policy to prevent against DOS attacks on per zone basis (outbound to inbound, inbound to outbound) and ability to create and define DOS policy based on attacks like UDP Flood, ICMP Flood, SYN Flood, IP Address Sweeps, IP Address Spoofs, port scan, Ping of Death, Teardrop attacks, unknown protocol protection etc. using IPS signature of application vulnerabilities. Justification: Restrictive clause limits us to provide the required technical details. Language to be counterbalance.	Request for amendment: The firewall must have the capability to create threat prevention / DOS prevention policy to prevent against DOS attacks on per zone basis (outbound to inbound, inbound to outbound) and ability to create and define DOS policy based on attacks like UDP Flood, ICMP Flood, SYN Flood, IP Address Sweeps, IP Address Spoofs, port scan, Ping of Death, Teardrop attacks, unknown protocol protection etc. using IPS signature of application vulnerabilities. Justification: Restrictive clause limits us to provide the required technical details. Language to be counterbalance.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	Clarification
	Clause 2, subclause A,	The proposed solution must support policy-based forwarding based	Request for amendment: The proposed solution must support policy-based forwarding based to meet the	As stipulated in the
97	Features-36	on zone, source or destination address and port, application,	custom routing requirements.	RFP
		AD/LDAP user or user group and services or ports	Justification: This clause is specific to one OEM.Hence language to be counterbalance.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	Clarification
	Features-41	The proposed firewall shall block and continue (i.e. allowing a user to access a web-site which potentially violates policy by presenting them a block page with a warning with a continue option allowing them to proceed for a certain time).	Allowing user to proceed for certain time can make network vulnerable leading to multiple option of attacks and virus/malicious activity to occur and lead to security violation. Since all OEM doesn't provide this feature, kindly revise the point for generic participation.	The proposed firewall shall block and presenting them a block page with a warning option and displaying basic information like the IP address, Category from which the web-site is blocked.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	Clarification
98	Clause 2, subclause A, Features-42	Dedicated on premise anti-APT/sandbox solution in HA to be provided. The SANDBOX should be able to support the following: Consider all points	Hardware based anti-APT/SANDBOX, kindly provide a option of on premise/Cloud based	Kindly remove this point. OR Dedicated on premise/ Cloud based anti- APT/sandbox solution.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	RFP Ask	Palo Alto	Clarification
	Clause 2, subclause A, Features-42.i	documents, Office Documents, Java, Android APKs/JAR, Adobe Flash applets, JPEG/GIF/BMP/WMF, on APT & SSLbased APT attacks.	The appliance executes suspicious content, with full visibility into commonly exploited file formats, including EXE, DLL, ZIP and PDF, as well as Office 365® documents, Java® files, Adobe® Flash® applets and links within email messages. kindly remove JPEG/GIF/BMP/WMF file formats as most of the OEM's don't support these file types and are scanned by the normal threat prevention (AV, IPS etc.) services.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	RFP Ask	ECIL	CISCO	Presto	SISL	Clarification
	Clause 2, subclause	Analyse advanced	42. iii) Analyse advanced malware against	42. iii) Analyse advanced malware against	42. iii) Analyse advanced malware	42. iii) Analyse advanced	As stipulated
	A, Features-42.iii	malware against a	a in secured VM's pre-loaded with operating	a in secured VM's pre-loaded with operating	against a in secured VM's pre-loaded	malware against a in secured VM's	in the RFP
		cross-matrix of different	systems, various applications, drivers,	systems, various applications, drivers,	with operating systems, various	pre-loaded with operating	
		operating systems and	user/system history etc. Justification: In	user/system history etc. Justification: In	applications, drivers, user/system	systems, various applications,	
98		various versions of pre-	current form this is favouring a particular	current form this is favouring a particular	history etc.	drivers, user/system history etc.	
		defined applications.	OEM and hence requesting change	OEM and hence requesting change	In current form this is favouring a		
					particular OEM and hence requesting	In current form this is favouring a	
					change	particular OEM and hence	
						requesting change	

Page no.	RFP Clause No. / Section/Category	RFP Ask	ECIL	CISCO	Presto	SISL	VDA	Checkpoint	Clarification
98	Clause 2, subclause A, Features-42.iv	pre-populated Licensed copies of Operating systems (like Windows 7, Windows 8.1, Windows 10, Linux and Android etc.) and applications /softwares (like Microsoft Office).	42. iv) pre- populated licensed copies of Operating systems (like Windows) and applications/ softwares. Justification : In current form this is favouring a particular OEM and hence requesting change	42. iv) pre-populated licensed copies of Operating systems (like Windows) and applications /softwares. Justification : In current form this is favouring a particular OEM and hence requesting change	42. iv) pre- populated licensed copies of Operating systems (like Windows) and applications/ softwares. In current form this is favouring a particular OEM and hence requesting change	42. iv) pre- populated licensed copies of Operating systems (like Windows) and applications/sof twares. In current form this is favouring a particular OEM and hence requesting change	Request for amendment: pre-populated Licensed copies of Operating systems (like Windows 7, Windows 8.1, Windows 10, Linux and Android etc.) and applications/software (like Microsoft Office). Justification: archive files, office files & PDF's are the top 3 file type used by ransomware actor to gain the initial foothold in the network which can be checked for malicious behavior using static AI or dynamically at run time on windows platform. Moreover ransomware actors are going cross platform techniques which can be detected by static AI	Request for amendment: pre-populated Licensed copies of Operating systems (like Windows 7, Windows 8.1, Windows 10, Linux and Android etc.) and applications/software (like Microsoft Office). Justification: archive files, office files & PDF's are the top 3 file type used by ransomware actor to gain the initial foothold in the network which can be checked for malicious behavior using static AI or dynamically at run time on windows platform. Moreover ransomware actors are going cross platform techniques which can be detected by static AI	pre-populated Licensed copies of Operating systems (like Windows 7, Windows 8.1, Windows 10 etc.) and applications/ softwares (like Microsoft Office).

Page no.	RFP Clause No. / Section/Category	RFP Ask	Presto	SISL	Clarification
	Clause 2, subclause A,	The provided log reporting and analysis	The provided log reporting and analysis appliance (Hardware / VM /	The provided log reporting and analysis appliance (Hardware / VM /	As stipulated in
	Features-42.iv	appliance (Hardware / VM / Software) must have storage capacity of at least	Software) must have storage capacity of at least 4TB.	Software) must have storage capacity of at least 4TB.	the RFP
		4TB.	For such a large and prestigious network for long term logging the recommended solution is to have SIEM which can provide centralized consolidated view of all logs and events. Thus to avoid duplicating of logs requesting the change	For such a large and prestigious network for long term logging the recommended solution is to have SIEM which can provide centralized consolidated view of all logs and events. Thus to avoid duplicating of logs requesting the change	

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	Palo Alto	VDA	Checkpoint	Clarification
	Clause 2, subclause A,	number of	Request for amendment: number of	Firewall sends files to sandbox appliance	Request for amendment: number of	Request for amendment: number of	Ref.
	Features-42.xvii	Interfaces -	Interfaces - 2x GE RJ45 ports, 2x 10 GE	for analysis and this sandbox appliance	Interfaces - 2x GE RJ45 ports, 2x 10 GE SFP+	Interfaces - 2x GE RJ45 ports, 2x 10 GE SFP+	Corrigendum
		4x GE RJ45	SFP+ slots	need to communicate with Firewall and	slots	slots	
00		ports, 2x	Justification: Restrictive clause limits the	with Central management. Two GE RJ45			
99		10 GE SFP+	participation. Out of band deployment in	ports and two 10 GE SFP+ ports would	Justification: Restrictive clause limits the	Justification: Restrictive clause limits the	
		slots	integration with NGFW firewall requires	suffice the requirment. Kindly change it to	participation. Out of band deployment in	participation. Out of band deployment in	
			only pair of interface.	2x GE RJ45 ports, 2x 10 GE SFP+ slots.	integration with NGFW firewall requires only	integration with NGFW firewall requires only	
					pair of interface.	pair of interface.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	VDA	Checkpoint	Clarification
	Clause 2, subclause A,	2 TB in RAID 1	Request for amendment : Sufficient storage host the 50	Request for amendment: Sufficient storage host the 50	Request for amendment: Sufficient storage host the 50	Ref.
	Features-42.xxi	from day one	VM's or 2 TB in Raid 1/ SSD from day one.	VM's or 2 TB in Raid 1/ SSD from day one.	VM's or 2 TB in Raid 1/ SSD from day one.	Corrigendum
99						
			Justification: Restrictive clause limits the participation.	Justification: Restrictive clause limits the participation.	Justification: Restrictive clause limits the participation.	
			Language to be counterbalance.	Language to be counterbalance.	Language to be counterbalance.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Palo Alto	Clarification
99	Clause 2, subclause A, Features-	VM's of at least	The threshold of 5000 files per day has already been defined for Sandbox. So kindly remove this or change it to 25 VM's as it will otherwise limit few OEM's from	Ref.
99	42.xviii	50	participating in the bid.	Corrigendum

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	VDA	Checkpoint	Clarification
	Clause 2, subclause A,	Firewall appliance must	Request for amendment: Firewall appliance must	Request for amendment: Firewall appliance must	Request for amendment: Firewall appliance must	Ref.
	Features-46	have at least 2TB local	have adequate hard-disk in order to keep log/statistics	have adequate hard-disk in order to keep log/statistics	have adequate hard-disk in order to keep log/statistics	Corrigendum
		hard-disk	information.	information.	information.	
100		in order to keep				
		log/statistics	Justification: Dedicated logger to store the logs is	Justification: Dedicated logger to store the logs is	Justification: Dedicated logger to store the logs is	
		information	factored in the requirements. Restrictive clause limits	factored in the requirements. Restrictive clause limits	factored in the requirements. Restrictive clause limits	
			the participation. Language to be counterbalance.	the participation. Language to be counterbalance.	the participation. Language to be counterbalance.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Palo Alto	Clarification
101	Clause 2, subclause A,	The proposed Firewall must have redundant Hotswappable Power supply from day one.	These are high end servers with multiple redundant power supplies. Kindly remove	Ref.
101	General-4	Appliances/s must be rack mountable (supply support sides rails if required).	Hot-Swappable and make it redundant Power supply only.	Corrigendum

Page no. RFP Clause No. / Section/Category	RFP Ask	Airtel	Clarification
Clause 2, subclause A, 6	6.SSL VPN throughput of at least 10 Gbps. Should support client based VPN and at least 3000 concurrent SSL VPN users.	Pls provide tenatative users count for SSL vpN	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	VDA	Checkpoint	Clarification
	Clause 2, subclause A, 2.Management-1	Hardware appliance based centralized complete management (of all proposed NGFW appliances) solution providing real-time monitoring, event logs collection, policy enforcement over a GUI interface on HTTPS or equivalent secure mechanism. Management of the appliances must also be available using SSH and direct console access.	Clarification required on requirement of dedicated hardware / virtual instance of management platform.	Clarification required on requirement of dedicated hardware / virtual instance of management platform.	Clarification required on requirement of dedicated hardware / virtual instance of management platform.	As stipulated in the RFP

Pag e no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	AIPL	VDA	Checkpoint	Clarificati on
	Clause 2, subclause	Must provide the real	OEM propritory	Must provide	Request for amendment: Must provide	Request for amendment: Must provide	Request for amendment: Must provide	Ref.
	A, 2.Management-8	time health status of	Feature/Clauses. State table,	the real time	the real time health status of NGFW on	the real time health status of NGFW on	the real time health status of NGFW on	Corrigendu
		NGFW on dashboard for	total No. of concurrent	health status	dashboard/CLI for CPU memory	dashboard/CLI for CPU memory	dashboard/CLI for CPU memory	m
		CPU memory utilization,	connections, real time data	of NGFW on	utilization, state table, total No. of	utilization, state table, total No. of	utilization, state table, total No. of	
		state table, total No. of	transfer/bandwidth	dashboard	concurrent connections and the	concurrent connections and the	concurrent connections and the	
		concurrent connections	utilization of individual	for CPU	connections/second counter, real time	connections/second counter, real time	connections/second counter, real time	
100		and the	IP/Application/protocol/port	memory	data transfer/bandwidth utilization of	data transfer/bandwidth utilization of	data transfer/bandwidth utilization of	
100		connections/second	/Interface/Zone are not	utilization,	individual	individual IP/Application/protocol/port/	individual IP/Application /protocol/port/	
		counter, real time data	displayed by all the OEM's	Licensing,	IP/Application/protocol/port/Interface/Z	Interface/Zone.	Interface/Zone.	
		transfer/bandwidth	on their dashboard. For	basic	one.			
		utilization of individual	generic competition kindly	software and		Justification: This clause is one OEM	Justification: This clause is one OEM	
		IP /Application/	revise the point with generic	hardware	Justification: This clause is one OEM	specific and restricting participation.	specific and restricting participation.	
		protocol/port/ Interface	team. Please revise the	information	specific and restricting participation.	Hence language to be counterbalance.	Hence language to be counterbalance.	
		/Zone	point.		Hence language to be counterbalance.			

Page no.	RFP Clause No. / Section/Category	RFP Ask	VDA	Checkpoint	Clarification
	Clause 2, subclause A,	The proposed solution must support policy-	Request for amendment: The proposed solution must support policy-	Request for amendment: The proposed solution must support	As stipulated in
	2.Management-8	based forwarding based on zone, source or	based	policy-based forwarding based to meet the custom routing	the RFP
		destination address and port, application,	forwarding based to meet the custom routing requirements.	requirements.	
		AD/LDAP user or user group and services or			
		ports.	Justification: This clause is specific to one OEM. Hence language to be	Justification: This clause is specific to one OEM. Hence	
			counterbalance.	language to be counterbalance.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Gajshield	Change Request	Clarification
100	Clause 2, subclause A,	Should allow the report to be exported into other	OEM specific feature/clauses. Since all OEM's don't provide to export report in	Should allow the report to be exported into	As stipulated in
100	2.Management-9	formats such as PDF, HTML, CSV/XML etc.	CSV/XML format, kindly revise this point for better competition.	other formats such as PDF, HTML,etc.	the RFP

Firewall Type-FW02 (Queries, Clarification and Corrigendum)

RFP Clause No. /	RFP Ask	AIPL	Palo Alto	INSPIRA	ECIL	CISCO	ALETHE	Cache	Clarification
Section/Category								Technologi	
								es	
Clause 2, subclause	Must have 6x	Request for	Please modify the clause as "Must	We	Must have 8x 100GE/40GE QSFP28	Must have 8x 100GE/40GE QSFP28 (single	Request for	We	Ref.
B, Features-3	100GE/40GE	amendment: Must	have 4x 100GE/40GE QSFP28 single	understan	(single mode LC), 8x 10 GE SFP+	mode LC), 8x 10 GE SFP+ multimode LC,	Amendment:	understand	Corrigendum
	QSFP28	have 2x 100GE/40GE	mode LC, 16x 10 GE SFP+ multimode	d that the	multimode LC, 1x RJ45 Management	1x RJ45 Management ports from Day1.	Request To	that the	
	single mode	QSFP28 single mode	LC, 2x ports from Day1. All required	number	ports from Day1. All required	All required transceivers should be	Clarify	number of	
	LC, 16x 10	LC, 8x 10 GE SFP+	transceivers should be populated from	of ports	transceivers should be populated from	populated from day one and compatible	Observations/	ports asked	
	GE SFP+	multimode LC, 2x	day one and compatible with the	asked are	day one and compatible with the	with the quoted switches. Justification	Justification :	are required	
	multimode	RJ45 Management	quoted switches" because minimum	required	quoted switches. Justification As per	As per the clause in the RFP wherein high	We	on each	
	LC, 2x RJ45	ports from Day1	2*40G/100G ports are required for	on each	the clause in the RFP wherein high	redundancy and fault resiliency is needed	understand	Firewall unit,	
	Management		any HA connectivity to the uplink	Firewall	redundancy and fault resiliency is	6 100/40G interfaces do not offer	that the	kindly	
	ports from	Justification:	devices assuming there are 40G/100G	unit,	needed 6 100/40G interfaces do not	scalability as at a minimum if just 2 zones	number of	clarify?	
	Day1. All	considering the	ports available on the uplink	kindly	offer scalability as at a minimum if just	trust and untrust are created apart from	ports asked		
	required	threat prevention	device/line card module. Even if we	clarify?	2 zones trust and untrust are created	failover link then all 6 interfaces would	are required		
	transceivers	throughput asked in	consider the LAG/VPC configuration,		apart from failover link then all 6	get consumed offering no headroom for	on each		
	should be	RFP port	4*40G/100G ports will be enough to		interfaces would get consumed	scalability and adding additional	Firewall unit,		
	populated	requirement is on	bundle the same in a link aggregation		offering no headroom for scalability	segments. Thus requesting change to	kindly clarify?		
	from	higher side.	group defining 200G as the above link		and adding additional segments. Thus	ensure there is enough headroom to			
	day one and	6x40G=240Gbps,	pipe. Every I/O architecture is specific		requesting change to ensure there is	scale the solution in future and allow			
	compatible	16x10G = 160Gbps	to an OEM platform and we would		enough headroom to scale the	vendor participation as in current form it			
	with the	total = 400 Gbps,	request the ports to be max		solution in future and allow vendor	is restricting the participation			
	quoted	however throughput	4*40G/100G as this is not available in		participation as in current form it is				
	switches.	requirement is	any of our NGFW platforms		restricting the participation				
		10Gbps							

RFP Clause No. /	RFP Ask	Presto	SISL	Fortinet	VDA	Checkpoint	HPE	Clarification
Section/Category						-		
Clause 2, subclause	Must have 6x	Must have 8x 100GE/40GE QSFP28 (single	Must have 8x 100GE/40GE QSFP28 (single	We understand	Request for amendment:	Request for amendment:	We	Ref.
B, Features-3	100GE/40GE	mode LC), 8x 10 GE SFP+ multimode LC, 1x	mode LC), 8x 10 GE SFP+ multimode LC, 1x	that the number of	Must have 2x 100GE/40GE	Must have 2x 100GE/40GE	understand	Corrigendum
	QSFP28 single	RJ45 Management ports from Day1. All	RJ45 Management ports from Day1. All	ports asked are	QSFP28 single mode LC, 8x	QSFP28 single mode LC, 8x 10	that the	
	mode LC, 16x 10	required transceivers should be populated	required transceivers should be populated	required on each	10	GE SFP+ multimode LC, 2x	number of	
	GE SFP+	from day one and compatible with the	from day one and compatible with the	Firewall unit,	GE SFP+ multimode LC, 2x	RJ45 Management ports from	ports	
	multimode LC, 2x	quoted switches.	quoted switches.	kindly clarify?	RJ45 Management ports	Day1	asked are	
	RJ45	Justification: As per the clause in the RFP	Justification: As per the clause in the RFP		from		required	
	Management	wherein high redundancy and fault	wherein high redundancy and fault		Day1	Justification: considering the	on each	
	ports from	resiliency is needed 6 100/40G interfaces do	resiliency is needed 6 100/40G interfaces do			threat prevention throughput	Firewall	
	Day1. All	not offer scalability as at a minimum if just 2	not offer scalability as at a minimum if just 2		Justification: considering	asked in RFP port	unit, kindly	
	required	zones trust and untrust are created apart	zones trust and untrust are created apart		the threat prevention	requirement is on higher side.	clarify?	
	transceivers	from failover link then all 6 interfaces would	from failover link then all 6 interfaces would		throughput asked in RFP	6x40G=240Gbps, 16x10G =		
	should be	get consumed offering no headroom for	get consumed offering no headroom for		port requirement is on	160Gbps		
	populated from	scalability and adding additional segments.	scalability and adding additional segments.		higher side.	total = 400 Gbps, however		
	day one and	Thus requesting change to ensure there is	Thus requesting change to ensure there is		6x40G=240Gbps, 16x10G =	throughput requirement is		
	compatible with	enough headroom to scale the solution in	enough headroom to scale the solution in		160Gbps	10Gbps		
	the quoted	future and allow vendor participation as in	future and allow vendor participation as in		total = 400 Gbps, however			
	switches.	current form it is restricting the	current form it is restricting the		throughput requirement is			
		participation	participation		10Gbps			

RFP Clause No. /	RFP Ask	Gajshield	Clarification
Section/Category			
Clause 2, subclause B,	Certified FIPS 140-2, EAL	As per PPP orders from Govt. of India, Ministry of Commerce and Industry order dated 06th Sept 2020 asking for foreign certification is discriminatory/restrictive as per	As stipulated in
Features-1	4+ / Common Criteria.	clause 10(e) hence we request to remove or amend this certification requirement and subsequent order from MeiTy, and other ministry of Govt. of India. Requesting for removing said point OR add/ Allow Gartner Asia/Pacific Context: Magic Quadrant For Network Firewalls of 2018 & 2019 and ICSA Labs Certifications. Kindly revise this point. Change Request: The product shall have Indian Standard, IC3S/Common Criteria (provided by STQC in India common-criteria- certification-0) or Alternatively from International equivalents, NDPP or NSS or ICSALabs, at least one of them should be provided while bidding.	the RFP

RFP Clause No. /	RFP Ask	AIPL	VDA	Checkpoint	Clarification
Section/Category					
Clause 2, subclause	Threat prevention throughput of 10 Gbps (Per	Request for amendment: Threat prevention	Request for amendment: Threat prevention	Request for amendment: Threat prevention	As stipulated
B, Features-5	Unit of HA) in real world/production/enterprise mix environment with all the security engines like IPS, Application control, web filtering, antimalware etc, enabled.	throughput of 10 Gbps in real world/production/enterprise mix environment with all the security engines like IPS, Application control, web filtering, anti-malware etc, enabled.	throughput of 10 Gbps (per unit of HA) in real world/production/enterprise mix environment with all the security engines like IPS, Application control, web filtering, anti-malware etc, enabled.	throughput of 10 Gbps (per unit of HA) in real world/ production/enterprise mix environment with all the security engines like IPS, Application control, web filtering, anti-malware etc, enabled.	in the RFP
		Justification: Solution platform required with the threat prevention throughput of 50Gbps should not be limited to "per unit of HA" and should be look forward for expansion instead of limiting with per unit of HA. Kindly remove the same for participation	Justification: Solution platform required with the threat prevention throughput of 50Gbps should not be limited to "per unit of HA" and should be look forward for expansion instead of limiting with per unit of HA. Kindly remove the same for participation	Justification: Solution platform required with the threat prevention throughput of 10Gbps should not be limited to "per unit of HA" and should be look forward for expansion instead of limiting with per unit of HA. Kindly remove the same for participation. Existing clause is OEM specific.	

RFP Clause No. /	RFP Ask	AIPL	VDA	Checkpoint	Clarification
Section/Category					
Clause 2, subclause B,	SSL VPN throughput of at	Request for amendment: Adequate SSL VPN throughput			As stipulated
Features-6	least 10 Gbps. Should	to support 3000 concurrent SSL VPN users without	Request for amendment: SSL VPN throughput of at least	Request for amendment: SSL VPN throughput of at least	in the RFP
	support client based VPN	affecting the performance of critical application or SSL	10 Gbps. Adequate SSL VPN throughput to support 3000	10 Gbps. Adequate SSL VPN throughput to support 3000	
	and at least 3000	VPN capability to offload to different hardware.	concurrent SSL VPN users without affecting the	concurrent SSL VPN users without affecting the	
	concurrent SSL VPN users.		performance of critical application or SSL VPN capability	performance of critical application or SSL VPN capability	
		Justification: SSL VPN throughput isn't the standard	to offload to different hardware.	to offload to different hardware.	
		benchmarking parameter available in product datasheet.			
		Moreover, the performance is dependent on multiple SSL	Justification: SSL VPN throughput isn't the standard	Justification: SSL VPN throughput isn't the standard	
		parameters such as type of certificate, key size etc It is	benchmarking parameter available in product datasheet.	benchmarking parameter available in product datasheet.	
		suggested to change the clause to allow the wider	Moreover, the performance is dependent on multiple SSL	Moreover, the performance is dependent on multiple SSL	
		participation.	parameters such as type of certificate, key size etc It is	parameters such as type of certificate, key size etc It is	
			suggested to change the clause to allow the wider	suggested to change the clause to allow the wider	
			participation.	participation.	

RFP Clause No. /	RFP Ask	Gajshield	AIPL	Palo Alto	INSPIRA	ECIL	CISCO	ALETHE	Clarification
Section/Category									
Clause 2, subclause B, Features-7	Concurrent sessions of 2 million or above and new sessions / Sec of 1 Million or above.	Specific OEM feature/clauses. The asked value for new sessions/Sec of 1 Million or above is very high and majority of the participating OEM wont be able to provide this value. Since Concurrent session plays a major rule i.e. Maximum Concurrent Connections describe the total number of connections a firewall can handle at a given time. Protocols like HTTP take far many connections even when you are opening a single web page. With users working on multiple applications simultaneously, firewalls will need to keep track of all these connections. A lower concurrent connection count can consume the session table and prevent any connection through the firewall. Hence, we recommend having a large concurrent connections count. A traffic session hitting the is UN-predictable, it will be a better practice to have an NGFW which supports higher Concurrent sessions. Kindly revise this point. Change Request:Concurrent sessions of 80	Request for amendment: Concurrent connections / sessions of 16 million or above and new sessions / Sec of 400K or above. Justification: considering the threat prevention throughput asked in RFP, Concurrent sessions & the new sessions per seconds are on lower end and requires change for better alignment of the solution.	Layer 7 sessions count defines the correct calculation considering NGFW deployment where majority of the traffic will be layer 7 based. If there is no mention about layer 7, other OEMs will quote platform with layer 4 sessions which will degrade the platform performance. We request you to chnage it to "Firewall should support at least 200,000 new Layer 7 sessions per second with application	We understand that the concurremt sessions and new sessions / sec asked are required on each Firewall unit, Kindly clarify?	Concurrent sessions of 2 million or above and new sessions / Sec of 400K or above with layer 7 features and App ID enabled Justification- For a firewall with 2M max concurrent session 1M new session per second is exorbitantly high considering the concurrent connections. Generally the new connection per second is in range of 10-15% of the max concurrent connection and hence requesting change	Concurrent sessions of 2 million or above and new sessions / Sec of 400K or above with layer 7 features and App ID enabled Justification- For a firewall with 2M max concurrent session 1M new session per second is exorbitantly high considering the concurrent connections. Generally the new connection per second is in range of 10-15% of the max concurrent connection and hence requesting change	Request for Amendment: Request To Clarify Observations/Justification: We understand that the concurremt sessions and new sessions / sec asked are required on each Firewall unit, Kindly clarify?	Ref. Corrigendum
		million or above and new sessions / Sec of		visibility turned on.					
		600000 or above							
		Cache Technologies	Presto	SISL	Fortinet	VDA	Checkpoint	HPE	1
		We understand that the concurremt	Concurrent sessions	Concurrent	We			We understand that the	1
		sessions and new sessions / sec asked are required on each Firewall unit, Kindly clarify?	of 2 million or above and new sessions / Sec of 400K or above with layer 7 features and App ID enabled Justfication: For a firewall with 2M max concurrent session 1M new session per second is exorbitantly high considering the concurrent connections. Generally the new connection per second is in range of 10-15% of the max concurrent connection and hence requesting change	sessions of 2 million or above and new sessions / Sec of 400K or above with layer 7 features and App ID enabled. Justification:For a firewall with 2M max concurrent session 1M new session per second is exorbitantly high considering the concurrent connections. Generally the new connection per second is in range of 10-15% of the max concurrent connection and hence requesting change	understand that the concurrent sessions and new sessions / sec asked are required on each Firewall unit, Kindly clarify?	Request for amendment: Concurrent connections / sessions of 16 million or above and new sessions / Sec of 400K or above. Justification: considering the threat prevention throughput asked in RFP, Concurrent sessions & the new sessions per seconds are on lower end and requires change for better alignment of the solution.	Request for amendment: Concurrent connections / sessions of 16 million or above and new sessions / Sec of 400K or above. Justification: considering the threat prevention throughput asked in RFP, Concurrent sessions & the new sessions per seconds are on lower end and requires change for better alignment of the solution.	concurremt sessions and new sessions / sec asked are required on each Firewall unit, Kindly clarify?	

RFP Clause No. /	RFP Ask	INSPIRA	ALETHE	Cache Technologies	Fortinet	HPE	Clarification
Section/Category							
Clause 2, subclause	The proposed solution should	We understand that HA	Request for Amendment:	We understand that HA support	We understand that HA	We understand that HA	As stipulated
B, Features-8	support HA in Active/Active and	support asked on IPv4 & IPv6	Request To Clarify	asked on IPv4 & IPv6 should	support in Active/Active	support asked on IPv4 & IPv6	in the RFP
	Active/Passive mode. The	should support Feature like	Observations/Justification:	support Feature like IPS, Anti	& Active/Passive on	should support Feature like	
	Firewall in HA should support	IPS, Anti malware, Web	We understand that HA support asked on	malware, Web filtering, DDOS	IPv4 & IPv6 also	IPS, Anti malware, Web	
	stateful clustering across sites.	filtering, DDOS prevention and	IPv4 & IPv6 should support Feature like IPS,	prevention and Traffic Shaping	includes configuration	filtering, DDOS prevention and	
	HA should be supported on both	Traffic Shaping should be	Anti malware, Web filtering, DDOS	should be available in Active-	sync, session sync	Traffic Shaping should be	
	IPV4 and IPV6. Feature like IPS,	available in Active-Active. But	prevention and Traffic Shaping should be	Active. But should also support	across each unit in HA	available in Active-Active. But	
	Anti malware, Web filtering,	should also support features	available in Active-Active. But should also	features like monitor interface,	of Firewall, kindly	should also support features	
	DDOS prevention and Traffic	like monitor interface, sync	support features like monitor interface, sync	sync interface. As this is essential	confirm?	like monitor interface, sync	
	Shaping should be available in	interface. As this is essential	interface. As this is essential for HA failover	for HA failover when link is down		interface. As this is essential	
	Active-Active.	for HA failover when link is	when link is down on the Firewall device.	on the Firewall device.		for HA failover when link is	
		down on the Firewall device.				down on the Firewall device.	

RFP Clause No. /	RFP Ask	AIPL	INSPIRA	ALETHE	Cache Technologies	Clarification
Section/Category						
Clause 2, subclause B, Features-9	Should be a hardware appliance based. Firewall. IPSEC and SSL VPN, Anti-Malware, IPS, Web and Application control, DDOS prevention, Traffic-Shaping/Bandwidth Management and Routing functionalities must be integrated in a single appliance	Request for amendment: Should be a hardware appliance based. Firewall. IPSEC and SSL VPN, Anti-Malware, IPS, Web and Application control, DDOS prevention, Traffic-Shaping/Bandwidth Management and Routing functionalities must be integrated in a single platform & must be future scalable Justification: Restrictive clause limits the participation. New age technologies are available to address the requirement more efficiently. Flexibility should be given to offer the better solution keeping current and future requirements under consideration	We understand that IPv6 functionality is mandatary as per Govt of India IT policy act, to comply the same: Ipv6 functionalities is must required in VPN, Firewall, routing, along with all essential security features from day 1, please confirm?	Request for Amendment: Request To Clarify Observations/Justification: We understand that IPv6 functionality is mandatary as per Govt of India IT policy act, to comply the same: Ipv6 functionalities is must required in VPN, Firewall, routing, along with all essential security features from day 1, please confirm?	We understand that IPv6 functionality is mandatary as per Govt of India IT policy act, to comply the same: Ipv6 functionalities is must required in VPN, Firewall, routing, along with all essential security features from day 1, please confirm?	As stipulated in the RFP
		Fortinet	VDA	Checkpoint	HPE	
		We understand that IPv6 functionality is mandatary as per Govt of India IT policy act, to comply the same: Ipv6 functionalities is must required in VPN, Firewall, routing, along with all essential security features from day 1, please confirm?	Request for amendment: Should be a hardware appliance based. Firewall. IPSEC and SSL VPN, Anti-Malware, IPS, Web and Application control, DDOS prevention, Traffic-Shaping/Bandwidth Management and Routing functionalities must be integrated in a single platform & must be future scalable Justification: Restrictive clause limits the participation. New age technologies are available to address the requirement more efficiently. Flexibility should be given to offer the better solution keeping current and future requirements under consideration.	Request for amendment: Should be a hardware appliance based. Firewall. IPSEC and SSL VPN, Anti-Malware, IPS, Web and Application control, DDOS prevention, Traffic-Shaping/Bandwidth Management and Routing functionalities must be integrated in a single platform & must be future scalable Justification: Restrictive clause limits the participation. New age technologies are available to address the requirement more efficiently. Flexibility should be given to offer the better solution keeping current and future requirements under consideration.	We understand that IPv6 functionality is mandatary as per Govt of India IT policy act, to comply the same: Ipv6 functionalities is must required in VPN, Firewall, routing, along with all essential security features from day 1, please confirm?	

RFP Clause No. /	RFP Ask	AIPL	Palo Alto	INSPIRA	ALETHE	Cache	Clarification
Section/Category						Technologies	
Clause 2, subclause B,	Must support	Request for amendment: Must support	NAT46 is no longer used in today's	We understand that IPv6 functionality is	Request for Amendment:	We understand	Ref.
Features-10	NAT (SNAT	NAT (SNAT and DNAT) with following	deployment scenarios and is an obsolete	mandatary as per Govt of India IT policy	Request To Clarify	that IPv6	Corrigendum
	and DNAT)	modes Static, Dynamic, PAT, Nat66 (IPv6-	measure to adopt for NAT translations.	act, to comply that even after enabling	Observations/Justification :	functionality is	
	with	to-IPv6), Nat 64 (IPv6-to-IPv4), Nat46	We request you to change it to "Firewall	the virtual firewall domains should	We understand that IPv6	mandatary as per	
	following	(IPv4- to-IPv6).	should support Nat66 (IPv6-to-IPv6) or	support all asked NAT and DNS features	functionality is mandatary as per	Govt of India IT	
	modes Static,		NPTV6 & Nat 64 (IPv6-to-IPv4)	such as SNAT, DNAT, PAT, NAT 66,	Govt of India IT policy act, to comply	policy act, to	
	Dynamic,	Justification: DNS64 & DHCPv6	functionality"	NAT64, NAT46, DNS-64 & DHCPv6 from	that even after enabling the virtual	comply that even	
		requirements are for large scale provider		day 1, please confirm?	firewall domains should support all	after enabling the	
	(IPv6-to-	network are met through AD / dedicated			asked NAT and DNS features such as	virtual firewall	
	IPv6), Nat 64	DNS/ IPAM solution or alternatively			SNAT, DNAT, PAT, NAT 66, NAT64,	domains should	
	(IPv6- to-	using load balancer / WAF. Request to			NAT46, DNS-64 & DHCPv6 from day		
	IPv4), Nat46	change the clause.			1, please confirm?	NAT and DNS	
	(IPv4- to-					features such as	
	IPv6) , DNS64	Fortinet	VDA	Checkpoint	HPE	SNAT, DNAT, PAT,	
	& DHCPv6	We understand that IPv6 functionality is	Request for amendment: Must support	Request for amendment: Must support	We understand that IPv6	NAT 66, NAT64,	
	functionality	mandatary as per Govt of India IT policy	NAT (SNAT and DNAT) with following	NAT (SNAT and DNAT) with following	functionality is mandatary as per	NAT46, DNS-64 &	
		act, to comply that even after enabling	modes Static, Dynamic, PAT, Nat66 (IPv6-	modes Static, Dynamic, PAT, Nat66 (IPv6-	Govt of India IT policy act, to comply	DHCPv6 from day	
		the virtual firewall domains should	to-IPv6), Nat 64 (IPv6-to-IPv4), Nat46	to-IPv6), Nat 64 (IPv6-to-IPv4), Nat46	that even after enabling the virtual	1, please confirm?	
		support all asked NAT and DNS features	(IPv4- to-IPv6), DNS64 & DHCPv6	(IPv4- to-IPv6), DNS64 & DHCPv6	firewall domains should support all		
		such as SNAT, DNAT, PAT, NAT 66,	functionality.	functionality.	asked NAT and DNS features such as		
		NAT64, NAT46, DNS-64 & DHCPv6 from			SNAT, DNAT, PAT, NAT 66, NAT64,		
		day 1, please confirm?	Justificatio: DNS64 & DHCPv6	Justificatio: DNS64 & DHCPv6	NAT46, DNS-64 & DHCPv6 from day		
			requirements are for large scale provider	requirements are for large scale provider	1, please confirm?		
			network are met through AD / dedicated	network are met through AD / dedicated			
			DNS/ IPAM solution or alternatively using	DNS/ IPAM solution or alternatively using			
			load balancer / WAF. Request to change	load balancer / WAF. Request to change			
			the clause.	the clause.			

RFP Clause No. /	RFP Ask	AIPL	ECIL	CISCO	Presto	SISL	VDA	Checkpoint	Clarification
Section/Category									
Clause 2, subclause	Firewall appliance	Request for	Firewall appliance must	Firewall appliance must	Firewall appliance must	Firewall appliance must	Request for	Request for	Ref.
B, Features-12	must have at least	amendment: Firewall	have at least 10 virtual	have at least 10 virtual	have at least 10 virtual	have at least 10 virtual	amendment: Firewall	amendment: Firewall	Corrigendum
	20 virtual firewall	appliance must have	firewall	firewall	firewall	firewall domains/	appliance must have at	appliance must have at	
	domains /instants	at least 5 virtual	domains/instants/router	domains/instants/router	domains/instants/router	instants/ router (active	least 20 5 virtual	least 20 5 virtual	
	active from day-1	firewall domains	(active from day-1)	(active from day-1)	(active from day-1)	from day-1) scalable to	firewall domains	firewall domains	
	scalable to	/instants active from	scalable to 15 (without	scalable to 15(without	scalable to 15(without	15(without additional	/instants active from	/instants active from	
	50(with additional	day-1 scalable to	additional license) with	additional license) with	additional license) with	license) with each	day-1 scalable to	day-1 scalable to	
	license) with each	10(with additional	each firewall	each firewall	each firewall	firewall	10(with additional	10(with additional	
	firewall	license) with each	domains/instances/router	domains/instances/router	domains/instances/router	domains/instances/rou	license) with each	license) with each	
	domains/instances	firewall	each providing separate	each providing separate	each providing separate	ter each providing	firewall domains/	firewall	
	having a separate	domains/instances	Security zones, VLAN,	Security zones, VLAN,	Security zones, VLAN,	separate Security	instances having a	domains/instances	
	administrative	having a separate	Routing and Policies.	Routing and Policies.	Routing and Policies.	zones, VLAN, Routing	separate admin-istrative	having a separate	
	control OR	administrative control	Justification - Different	Justification - Different	Justification: Different	and Policies.	control OR equivalent,	administrative control	
	equivalent,	OR equivalent,Security	vendor use different	vendor use different	vendor use different	Justification: Different	Security zones and	OR equivalent,	
	Security zones and	zones and VLAN.	terminologies to provide	terminologies to provide	terminologies to provide	vendor use different	VLAN.	Security zones and	
	VLAN.		the virtualisation of	the virtualisation of	the virtualisation of	terminologies to	Justification:	VLAN.	
		Justification:	security controls on	security controls on	security controls on	provide the	Considering the threat	Justification:	
		Considering the threat	firewall appliance. Thus	firewall appliance. Thus	firewall appliance. Thus	virtualisation of	prevention throughput	Considering the threat	
		prevention throughput	requesting change for	requesting change for	requesting change for	security controls on	asked in RFP Concurrent	prevention throughput	
		asked in RFP	wider participation	wider participation	wider participation	firewall appliance. Thus	sessions & the number	asked in RFP	
		Concurrent sessions &				requesting change for	of virtual instance is on	Concurrent sessions &	
		the number of virtual				wider participation	higher side.	the number of virtual	
		instance is on higher						instance is on higher	

	side.			side.	

RFP Clause No. /	RFP Ask	Fortinet	Clarification
Section/Category			
Clause 2, subclause B,	13. The following features must be available in each virtual firewall domain/instant context	We understand that features asked for each virtual domain/instant context like Firewall, IPSEC and SSL	As stipulated in
Features-12	environment:	VPN, IPS, Web and Application Control, Anti-Malware, Traffic Shaping & policy based routing, DDOS,	the RFP
	Firewall, IPSEC and SSL VPN, IPS, Web and Application Control, Anti-Malware, Traffic Shaping	User and Group management, Logging and Reporting also need virtual routing for each virtual	
	& policy based routing, DDOS, User and Group management, Logging and Reporting.	domain/instant context. Kindly clarify?	

RFP Clause No. /	RFP Ask	Gajshield	AIPL	INSPIRA	ALETHE	Cache Technologies	Clarification
Section/Category							
Clause 2, subclause	The Firewall	Since VXLAN support is not provided by	Request for amendment: The	We understand VXLAN is	Request for Amendment:	We understand VXLAN is	As stipulated
B, Features-17	solution should	all OEM's and it may be difficult to scale a	Firewall solution should	required in order to extend	Request To Clarify	required in order to extend	in the RFP
	support Static	centralized controller used for managing	support Static Routing, Policy	the Layer 2 connectivity over	Observations/Justification:	the Layer 2 connectivity	
	Routing, Policy	overlay networks. There is an overhead	based Routing, BGP & OSPF.	Layer 3, between two sites.	We understand VXLAN is required in order to	over Layer 3, between two	
	based Routing,	for headers due to encapsulation		To achieve this VXLAN	extend the Layer 2 connectivity over Layer 3,	sites. To achieve this	
	BGP, OSPF, VXLAN	techniques. The underlay network must	Justification: Hosting provider	interface is must from day 1,	between two sites. To achieve this VXLAN	VXLAN interface is must	
	Inspection.	support multicast for broadcast,	provisioning a cloud for its	please confirm?	interface is must from day 1, please confirm?	from day 1, please	
		unknown-unicast, and multicast (BUM)	customer is the primary use			confirm?	
		traffic. Kindly provide a option	case for the VXLAN to scale				
		"VLAN/VXLAN" for generic participation.	beyond 802.1Q. The current				
		Kindly revise this point.	leaf and spine architecture				
		Change Request:The Firewall solution	doesn't require VXLAN				
		should support Static Routing, Policy	inspection & hence to be				
		based Routing, BGP, OSPF, VLAN/VXLAN	removed.				
		Inspection.					
		Fortinet	VDA	Checkpoint	HPE		

We understand VXLAN is required in	Request for amendment: The	Request for amendment: The	We understand VXLAN is required in order to	
order to extend the Layer 2 connectivity	Firewall solution should	Firewall solution should	extend the Layer 2 connectivity over Layer 3,	
over Layer 3, between two sites. To	support Static Routing, Policy	support Static Routing, Policy	between two sites. To achieve this VXLAN	
achieve this VXLAN interface is must from	based Routing, BGP & OSPF.	based Routing, BGP & OSPF.	interface is must from day 1, please confirm?	
day 1, please confirm?	VXLAN Inspection	VXLAN Inspection	, .,	
	lookifiakiano Haakina noo idaa	li satificatione. Honding more iden		
	Justifiation: Hosting provider	Justifiation: Hosting provider		
	provisioning a cloud for its	provisioning a cloud for its		
	customer is the primary use	customer is the primary use		
	case for the VXLAN to scale	case for the VXLAN to scale		
	beyond 802.1Q. The current	beyond 802.1Q. The current		
	leaf and spine architecture	leaf and spine architecture		
	doesn't require VXLAN	doesn't require VXLAN		
	inspection & hence to be	inspection & hence to be		
	removed.	removed.		

RFP Clause No. / Section/Category	RFP Ask	Gajshield	Clarification
Clause 2, subclause B, Features-18	Should support bi-directional integration with AntiAPT/SANDBOX for sharing threat intelligence and automated mitigation of zero day attacks.	OEM specific feature/clauses. Bi-directional integration with AntiAPT/SANDBOX is been not offered by all OEM'S since majority of the AntiAPT/SANDBOX is on cloud basis and by having bi-directional integration the traffic flowing from the appliance is un-predictable which may effect the performance of the appliance, so for better generic competition kindly revise this point. Change Request: Should support bi-directional/uni-directional integration with Anti- APT/SANDBOX for sharing threat intelligence and automated mitigation of zero day attacks.	As stipulated in the RFP

RFP Clause No. /	RFP Ask	AIPL	ECIL	CISCO	Presto	SISL	VDA	Checkpoint	Clarification
Section/Category	MII ASK	All L	LCIE	Cisco	riesto	3132	VDA	Спескропіс	Clarification
Clause 2, subclause	Two-factor	Request for	Solution must support two-	Solution must support	Solution must support	Solution must support	Request for	Request for amendment:	Two-factor
B, Features-27	authentication	amendment:	factor authentication solution		1	1	l '	' -	authentication
b, realures-27									
	without any	Two-factor	either natively or by	,	1	solution either natively or		authentication without	without any
	external	authentication	integrating it with external		1	' '	l .	any external Hardware /	external
	Hardware.	without any	hardware Justification -Multi	external hardware		external hardware.	· ·	integration with Active	
		external	Factor authentication should			Justification: Multi Factor	_	Directory.	3rd party
		Hardware /	be a holistic solution which		authentication should be a		Active Directory.		solution with
		integration with	_			holistic solution which			requisite
		Active Directory.	Remote VPN, Application,	_	should cover integration	_		capability is supported in	
		_	Email, Hosted App's etc.	-	,	with Remote VPN,		all the leading identity	
		Justification: MFA			Application, Email, Hosted	''	''	•	the
		capability is	has challenge to scale it and	• •	1 ''	''	leading identity	including active diirectory	integration of
		supported in all	support these wide			MFA solution has		which can be integrated	the same
		the leading	integrations. Also as	challenge to scale it and	challenge to scale it and	challenge to scale it and	solution including	with NGFW for two-factor	
		identity	mentioned in the next point	support these wide	support these wide	support these wide	active diirectory	use case. Also, specific to	
		management	around RSA token support.	integrations. Also as	integrations. Also as	integrations. Also as	which can be	one OEM.	
		solution including	RSA token requires an external	mentioned in the next	mentioned in the next	mentioned in the next	integrated with		
		active diirectory	hardware to be integrated.	point around RSA token	point around RSA token	point around RSA token	NGFW for two-factor		
		which can be	Thus in current form this is	support. RSA token	support. RSA token	support. RSA token	use case. Also,		
		integrated with	favouring a particular vendor	requires an external	requires an external	requires an external	specific to one OEM.		
		NGFW for two-	and hence requesting change	hardware to be integrated.	hardware to be integrated.	hardware to be integrated.			
		factor use case.	for wider participation	Thus in current form this is	Thus in current form this is	Thus in current form this is			
		Also, specific to		favouring a particular	favouring a particular	favouring a particular			
		one OEM.		vendor and hence	vendor and hence	vendor and hence			
				requesting change for	requesting change for	requesting change for			
				wider participation	wider participation	wider participation			

RFP Clause No. /	RFP Ask	ECIL	CISCO	Presto	SISL	Clarification
Section/Category						
Clause 2, subclause	Second factor	Second factor authentication through OTP,	Second factor authentication through OTP,	Second factor authentication through	Second factor authentication through OTP,	As stipulated
B, Features-31	authentication	Certificate, SMS, Biometric, RSA token for	Certificate, SMS, Biometric, RSA token for	OTP, Certificate, SMS, Biometric, RSA	Certificate, SMS, Biometric, RSA token for	in the RFP
	through email,	remote users. Justification - Email is not	remote users. Justification - Email is not	token for remote users.	remote users.	
	Certificate, SMS, RSA	the recommended MFA/2FA delivery	the recommended MFA/2FA delivery	Justification: Email is not the	Justification:Email is not the recommended	
	token for remote	mechanism due to 2 primary reasons. First is	mechanism due to 2 primary reasons. First is	recommended MFA/2FA delivery	MFA/2FA delivery mechanism due to 2	
	users.	inherent delay in email messaging as a layer	inherent delay in email messaging as a layer	mechanism due to 2 primary reasons. First	primary reasons. First is inherent delay in	
		and Second is guarantee of delivery which	and Second is guarantee of delivery which	is inherent delay in email messaging as a	email messaging as a layer and Second is	
		ultimately results it not being a reliable	ultimately results it not being a reliable	layer and Second is guarantee of delivery	guarantee of delivery which ultimately	
		method and hence even NIST removed it as	method and hence even NIST removed it as	which ultimately results it not being a	results it not being a reliable method and	
		one of the methods. Thus requesting change	one of the methods. Thus requesting change	reliable method and hence even NIST	hence even NIST removed it as one of the	
				removed it as one of the methods. Thus	methods. Thus requesting change	
				requesting change		

RFP Clause No. /	RFP Ask	Gajshield	Clarification
Section/Category			
Clause 2, subclause B, Features-31	The proposed firewall shall delineate different parts of the application such as allowing Facebook chat but blocking its file-transfer capability inside the chat application based on the content.	Since all OEM don't provide the feature of identify, decrypt and evaluate SSL traffic in an outbound connection and inbound connections, and if the SSL evaluation are done from some external source its difficult to identify and decrypt the traffic. For better participation kinly provide an option for the same. Kindly revise this point. Change Request: The proposed firewall shall be able to identify, decrypt and evaluate SSL traffic in an outbound connection. The proposed firewall shall be able to identify, decrypt and evaluate SSH Tunnel traffic in an inbound/outbound connections.	As stipulated in the RFP

RFP Clause No. /	RFP Ask	Gajshield	Clarification
Section/Category			
Clause 2, subclause B,	The proposed firewall shall be able to identify, decrypt and	Since all OEM don't provide the feature of identify, decrypt and evaluate SSL traffic in an outbound connection and inbound connections,	As stipulated in
Features-32	evaluate SSL traffic in an outbound connection (forward-	and if the SSL evaluation are done from some external source its difficult to identify and decrypt the traffic. For better participation kinly	the RFP
	proxy) and inbound connection. The proposed firewall	provide an option for the same. Kindly revise this point.	
	shall be able to identify, decrypt and evaluate SSH Tunnel	Change Request: The proposed firewall shall be able to identify, decrypt and evaluate SSL traffic in an outbound connection/inbound	
	traffic in an inbound and outbound connections.	connection. The proposed firewall shall be able to identify, decrypt and evaluate SSH Tunnel traffic in an inbound/outbound connections.	

RFP Clause No. /	RFP Ask	Gajshield	Clarification
Section/Category			
Clause 2, subclause B,	Should support TLSv1.3 decryption in all modes (SSL	Since all OEM don't provide the TLSv1.3 decryption for Inbound traffic, and if the TLS evaluation are done from some external source its	As stipulated in
Features-33	Forward Proxy, SSL Inbound Inspection etc.)	difficult to decrypt the traffic. For better participation kinly provide an option for the same. Kindly revise this point.	the RFP
		Change Request: Should support TLSv1.3 decryption in all modes (SSL Inbound/Outbound Inspection etc.)	

RFP Clause No. /	RFP Ask	AIPL	VDA	Checkpoint	Clarification
Section/Category					
Clause 2, subclause	The firewall must have the capability to create	Request for amendment: The firewall must have	Request for amendment: The firewall must have	Request for amendment: The firewall must have	As stipulated
B, Features-35	DOS prevention policy to prevent against DOS	the capability to create threat prevention / DOS	the capability to create threat prevention / DOS	the capability to create threat prevention / DOS	in the RFP
	attacks on per zone basis (outbound to	prevention policy to prevent against DOS attacks	prevention policy to prevent against DOS attacks	prevention policy to prevent against DOS attacks	
	inbound, inbound to outbound) and ability to	on per zone basis (outbound to inbound, inbound	on per zone basis (outbound to inbound, inbound	on per zone basis (outbound to inbound, inbound	
	create and define DOS policy based on attacks	to outbound) and ability to create and define DOS	to outbound) and ability to create and define DOS	to outbound) and ability to create and define DOS	
	like UDP Flood, ICMP Flood, SYN Flood, IP	policy based on attacks like UDP Flood, ICMP Flood,	policy based on attacks like UDP Flood, ICMP Flood,	policy based on attacks like UDP Flood, ICMP Flood,	
	Address Sweeps, IP Address Spoofs, port scan,	SYN Flood, IP Address Sweeps, IP Address Spoofs,	SYN Flood, IP Address Sweeps, IP Address Spoofs,	SYN Flood, IP Address Sweeps, IP Address Spoofs,	
	Ping of Death, Teardrop attacks, unknown	port scan, Ping of Death, Teardrop attacks,	port scan, Ping of Death, Teardrop attacks,	port scan, Ping of Death, Teardrop attacks,	
	protocol protection etc.	unknown protocol protection etc. using IPS	unknown protocol protection etc. using IPS	unknown protocol protection etc. using IPS	
		signature of application vulnerabilities.	signature of application vulnerabilities.	signature of application vulnerabilities.	
		Justification: Restrictive clause limits us to provide	Justification: Restrictive clause limits us to provide	Justification: Restrictive clause limits us to provide	
		the required technical details. Language to be	the required technical details. Language to be	the required technical details. Language to be	
		counterbalance.	counterbalance.	counterbalance.	

RFP Clause No. /	RFP Ask	AIPL	VDA	Checkpoint	Clarification
Section/Category					
Clause 2, subclause B,	The proposed solution must	Request for amendment: The proposed	Request for amendment: The proposed solution must	Request for amendment: The proposed solution must	As stipulated in
Features-36	support policy-based	solution must support policy-based	support policy-based	support policy-based	the RFP
	forwarding based on zone,	forwarding based to meet the custom routing	forwarding based to meet the custom routing	forwarding based to meet the custom routing	
	source or destination address	requirements.	requirements.	requirements.	
	and port, application, AD/LDAP				
	user or user group and services	Justification: This clause is specific to one	Justification: This clause is specific to one OEM.Hence	Justification: This clause is specific to one OEM.Hence	
	or ports.	OEM.Hence language to be counterbalance.	language to be counterbalance.	language to be counterbalance.	

RFP Clause No. /	RFP Ask	Gajshield	Clarification
Section/Category			
Clause 2, subclause B,	, ,	Allowing user to proceed for certain time can make network vulnerable leading to multiple option of	As stipulated in
Features-41		attacks and virus/malicious activity to occur and lead to security violation. Since all OEM doesn't provide	the RFP
	, , , , , , , , , , , , , , , , , , , ,	this feature, kindly revise the point for generic participation.	
		Change Request:The proposed firewall shall block and presenting them a block page with a warning	
		option and displaying basic information like the IP address, Category from which the web-site is blocked.	

RFP Clause No. /	RFP Ask	Gajshield	AIPL	VDA	Checkpoint	Clarification
Section/Category						
Clause 2, subclause	Dedicated on premise	OEM specific feature/clauses for Hardware	Request for amendment: clarify on	Request for amendment: clarify on	Request for amendment: clarify on	As stipulated
B, Features-42	anti-APT/sandbox solution	requirement. Since all OEM's don't provide a	requirement of dedicated on premise	requirement of dedicated on premise	requirement of dedicated on premise	in the RFP
	in HA to be provided. The	Hardware based anti-APT/SANDBOX, kindly provide a	APT appliance for north-south & east-	APT appliance for north-south & east-	APT appliance for north-south & east-	
	SANDBOX should be able	option of on premise/Cloud based anti-APT/SANDBOX	west firewall pair or stacking of anti-	west firewall pair or stacking of anti-	west firewall pair or stacking of anti-	
	to support the following	solution with considering all the sub-points which will	apt appliances are allowed for	apt appliances are allowed for	apt appliances are allowed for	
		be generic for cloud based Anit-APT/SANDBOX	centralized architecture.	centralized architecture.	centralized architecture.	
		solution. Kindly revise or remove this point.				
		Change Request: Kindly remove this point.	Justification: As per design best	Justification: As per design best	Justification: As per design best	
		OR	practices recommendation is to create	practices recommendation is to create	practices recommendation is to create	
		Dedicated on premise/ Cloud based anti-APT/sandbox	the centralized stack of anti-apt	the centralized stack of anti-apt	the centralized stack of anti-apt	
		solution.	appliances .	appliances .	appliances .	

RFP Clause No. /	RFP Ask	Palo Alto	Clarification
Section/Category			
Clause 2, subclause B,	Dynamic threat analysis on such as EXEs, DLLs,ZIP /RAR/7ZIP/TNEF files, PDF	The appliance executes suspicious content, with full visibility into commonly exploited file formats, including EXE, DLL,	As stipulated in
Features-42.i	documents, Office Documents, Java, Android APKs/JAR, Adobe Flash	ZIP and PDF, as well as Office 365® documents, Java® files, Adobe® Flash® applets and links within email messages.	the RFP
	applets,JPEG/GIF/BMP/WMF, on APT & SSLbased APT attacks.	kindly remove JPEG/GIF/BMP/WMF file formats as most of the OEM's don't support these file types and are scanned	
		by the normal threat prevention (AV, IPS etc.)services.	

RFP Clause No. /	RFP Ask	ECIL	CISCO	Presto	SISL	Clarification
Section/Category						
Clause 2, subclause B,	Analyze advanced malware	42. iii) Analyze advanced malware against a	42. iii) Analyze advanced malware against a	42. iii) Analyze advanced	42. iii) Analyze advanced	As stipulated
Features-42.iii	against a cross-matrix of	in secured VM's pre-loaded with operating	in secured VM's pre-loaded with operating	malware against a in secured VM's	malware against a in secured	in the RFP
	different operating systems	systems, various applications, drivers,	systems, various applications, drivers,	pre-loaded with operating systems,	VM's pre-loaded with operating	
	and various versions of pre-	user/system history etc. Justification - In	user/system history etc. Justification - In	various applications, drivers,	systems, various applications,	
	defined applications.	current form this is favouring a particular OEM	current form this is favouring a particular OEM	user/system history etc.	drivers, user/system history etc.	
		and hence requesting change	and hence requesting change	Justification:In current form this is	Justification: In current form this	
				favouring a particular OEM and	is favouring a particular OEM and	
				hence requesting change	hence requesting change	

RFP Clause No. /	RFP Ask	AIPL	ECIL	CISCO	Presto	SISL	VDA	Checkpoint	Clarification
Section/Category									
Clause 2, subclause	pre-	Request for amendment: pre-	42. iv)	42. iv)	42. iv)	42. iv) pre-	Request for amendment: pre-populated	Request for amendment: pre-populated	Ref.
B, Features-42.iv	populated	populated Licensed copies of	pre-populated	pre-populated	pre-	populated	Licensed copies of Operating systems (like	Licensed copies of Operating systems (like	Corrigendum
	Licensed	Operating systems (like Windows	licensed	licensed	populated	licensed	Windows 7, Windows 8.1, Windows 10,	Windows 7, Windows 8.1, Windows 10,	
	copies of	7, Windows 8.1, Windows 10, and	copies of	copies of	licensed	copies of	Linux and Android etc .) and	Linux and Android etc .) and	
	Operating	applications/software (like	Operating	Operating	copies of	Operating	applications/software (like Microsoft	applications/software (like Microsoft	
	systems (like	Microsoft Office).	systems (like	systems (like	Operating	systems (like	Office).	Office).	
	Windows 7,	Justification: archive files, office	Windows) and	Windows) and	systems (like	Windows) and			
	Windows	files & PDF's are the top 3 file	applications/	applications/	Windows)	applications/	Justification: archive files, office files &	Justification: archive files, office files &	
	8.1,	type used by ransomware actor	softwares.	softwares.	and	softwares.	PDF's are the top 3 file type used by	PDF's are the top 3 file type used by	
	Windows 10,	to gain the initial foothold in the	Justification -	Justification -	applications/	Justication:In	ransomware actor to gain the initial	ransomware actor to gain the initial	
	Linux and	network which can be checked	In current	In current	softwares.	current form	foothold in the network which can be	foothold in the network which can be	
	Android etc.)	for malicious behavior using static	form this is	form this is	Justfication:	this is	checked for malicious behavior using static	checked for malicious behavior using static	
	and	Al or dynamically at run time on	favouring a	favouring a		favouring a	Al or dynamically at run time on windows	Al or dynamically at run time on windows	
	applications/	windows platform. Moreover	particular	particular		particular	platform. Moreover ransomware actors are	platform. Moreover ransomware actors	
	softwares	ransomware actors are going	OEM and	OEM and		OEM and	going cross platform techniques which can	are going cross platform techniques which	
	(like	cross platform techniques which	hence	hence		hence	be detected by static AI	can be detected by static Al	
	Microsoft	can be detected by static AI.	requesting	requesting		requesting			
	Office).		change	change		change			

RFP Clause No. /	RFP Ask	AIPL	Palo Alto	VDA	Checkpoint	Clarification
Section/Category						
Clause 2, subclause B,	number of	Request for amendment: number of	Firewall send files to sandbox appliance and this sandbox	Request for amendment: number of	Request for amendment: number of	Ref.
Features-42.xvii	Interfaces - 4x GE	Interfaces - 2x GE RJ45 ports, 2x 10 GE	appliance need to communicate with Firewall and with Central	Interfaces - 2x GE RJ45 ports, 2x 10 GE	Interfaces - 2x GE RJ45 ports, 2x 10 GE	Corrigendum
	RJ45 ports, 2x 10	SFP+ slots	management. Two GE RJ45 ports and two 10 GE SFP+ ports	SFP+ slots	SFP+ slots	
	GE SFP+ slots		would suffice the requirment. Kindly change it to 2x GE RJ45			
		Justification: Restrictive clause limits	ports, 2x 10 GE SFP+ slots.	Justification: Restrictive clause limits	Justification: Restrictive clause limits	
		the participation. Out of band		the participation. Out of band	the participation. Out of band	
		deployment in integration with NGFW		deployment in integration with NGFW	deployment in integration with NGFW	
		firewall requires only pair of interface.		firewall requires only pair of interface.	firewall requires only pair of interface.	

RFP Clause No. /	RFP Ask	AIPL	VDA	Checkpoint	Clarification
Section/Category					
Clause 2, subclause B, Features-42.xxi	2 TB in RAID 1 from day one	Request for amendment: number of Interfaces - 2x GE RJ45 ports, 2x 10 GE SFP+ slots	Request for amendment: Sufficient storage host the 50 VM's or 2 TB in Raid 1/ SSD from day one.	Request for amendment: Sufficient storage host the 50 VM's or 2 TB in Raid 1/ SSD from day one.	Ref. Corrigendum
		Justification: Restrictive clause limits the participation. Out of band deployment in integration with NGFW firewall requires only pair of interface.	Justification: Restrictive clause limits the participation. Language to be counterbalance.	Justification: Restrictive clause limits the participation. Language to be counterbalance.	

RFP Clause No. / Section/Category	RFP Ask	Palo Alto	Clarification
Clause 2, subclause A, Features-	VM's of at least	The threshold of 5000 files per day has already been defined for Sandbox. So kindly remove this or change it to 25 VM's as it will otherwise limit few OEM's from	Ref.
42.xviii	50	participating in the bid.	Corrigendum

RFP Clause No. /	RFP Ask	AIPL	Palo Alto	VDA	Checkpoint	Clarification
Section/Category						
Clause 2, subclause B,	Firewall appliance must have	Request for amendment: Firewall	All logs and statics are forwarded to	Request for amendment: Firewall	Request for amendment: Firewall	Ref.
Features-46	at least 2TB local hard-disk in	appliance must have adequate hard-disk	central management server in real time	appliance must have adequate hard-disk	appliance must have adequate hard-disk	Corrigendum
	order to keep log/statistics	in order to keep log/statistics information.	and would request you to change the	in order to keep log/statistics information.	in order to keep log/statistics information.	
	information		local disck requirment to 480 GB SSD			
		Justification: Dedicated logger to store the	pair.	Justification: Dedicated logger to store the	Justification: Dedicated logger to store the	
		logs is factored in the requirements.		logs is factored in the requirements.	logs is factored in the requirements.	
		Restrictive clause limits the participation.		Restrictive clause limits the participation.	Restrictive clause limits the participation.	
		Language to be counterbalance.		Language to be counterbalance.	Language to be counterbalance.	

RFP Clause No. /	RFP Ask	Palo Alto	Clarification
Section/Category			
Clause 2, subclause A,	The proposed Firewall must have redundant Hotswappable Power supply from day one. Appliances/s	These are high end servers with multiple redundant power supplies. Kindly remove Hot-	Ref.
General-4	must be rack mountable (supply support sides rails if required).	Swappable and make it redundant Power supply only	Corrigendum

RFP Clause No. /	RFP Ask	AIPL	VDA	Checkpoint	Clarification
Section/Category					
Clause 2, subclause B,	Hardware appliance based centralized complete management (of all	Clarification required on requirement of dedicated hardware	Clarification required on	Clarification required on	As stipulated in
2.Management-1	proposed NGFW appliances) solution providing real-time monitoring, event	/ virtual instance of management platform,	requirement of dedicated	requirement of dedicated	the RFP
	logs collection, policy enforcement over a GUI interface on HTTPS or	Clarifification required of centralized security management of	hardware / virtual instance of	hardware / virtual instance of	
	equivalent secure mechanism. Management of the appliances must also be	all the firewall appliances or different management for diff.	management platform.	management platform.	
	available using SSH and direct console access.	firewall.			

RFP Clause No. /	RFP Ask	ECIL	CISCO	Presto	SISL	Clarification
Section/Category						
Clause 2, subclause B, 2.Management-8	The provided log reporting and analysis appliance (Hardware / VM / Software) must have storage capacity of at least 32TB.	The provided log reporting and analysis appliance (Hardware / VM / Software) must have storage capacity of at least 4TB. Justification -For such a large and prestigious network for long term logging the recommended solution is to have SIEM which can provide centralized consolidated view of all logs and events. Thus to avoid duplicating of logs requesting the change	The provided log reporting and analysis appliance (Hardware / VM / Software) must have storage capacity of at least 4TB. Justification -For such a large and prestigious network for long term logging the recommended solution is to have SIEM which can provide centralized consolidated view of all logs and events. Thus to avoid duplicating of logs requesting the change	The provided log reporting and analysis appliance (Hardware / VM / Software) must have storage capacity of at least 4TB. Justification: For such a large and prestigious network for long term logging the recommended solution is to have SIEM which can provide centralized consolidated view of all logs and events. Thus to avoid duplicating of logs requesting the	The provided log reporting and analysis appliance (Hardware / VM / Software) must have storage capacity of at least 4TB. Justification: For such a large and prestigious network for long term logging the recommended solution is to have SIEM which can provide centralized consolidated view of all logs and events. Thus to avoid duplicating of logs requesting the	As stipulated in the RFP
				change	change	

RFP Clause No. /	RFP Ask	Gajshield	AIPL	VDA	Checkpoint	Clarification
Section/Category						
Clause 2, subclause	Must provide the real	OEM propritory Feature/Clauses. State	Request for amendment: Must provide the	Request for amendment: Must provide the	Request for amendment: Must provide the	Ref.
B, 2.Management-	time health status of	table, total No. of concurrent connections,	real time health status of NGFW on	real time health status of NGFW on	real time health status of NGFW on	Corrigendum
8	NGFW on dashboard	real time data transfer/bandwidth utilization	dashboard/CLI for CPU memory utilization,	dashboard/CLI for CPU memory utilization,	dashboard/CLI for CPU memory utilization,	
	for CPU memory	of individual IP/Application/protocol/port/	state table, total No. of concurrent	state table, total No. of concurrent	state table, total No. of concurrent	
	utilization, state	Interface/Zone are not displayed by all the	connections and the connections/second	connections and the connections/second	connections and the connections/second	
	table, total No. of	OEM's on their dashboard. For generic	counter, real time data transfer/bandwidth	counter, real time data transfer/bandwidth	counter, real time data transfer/bandwidth	
	concurrent	competition kindly revise the point with	utilization of individual	utilization of individual	utilization of individual	
	connections and the	generic team. Please revise the point.	IP/Application/protocol/port/Interface/Zone.	IP/Application/protocol/port/Interface/Zone.	IP/Application/protocol/port/Interface/Zone.	
	connections/second	Change Request: Must provide the real time				
	counter, real time	health status of NGFW on dashboard for	Justification: This clause is one OEM specific	Justification: This clause is one OEM specific	Justification: This clause is one OEM specific	
	data	CPU memory utilization, Licensing, basic	and restricting participation. Hence language	and restricting participation. Hence language	and restricting participation. Hence language	
	transfer/bandwidth	software and hardware information	to be counterbalance.	to be counterbalance.	to be counterbalance.	
	utilization of					
	individual IP/					
	Application					
	/protocol/port					
	/Interface/Zone					

RFP Clause No. / Section/Category	RFP Ask	Gajshield	Clarification
Clause 2, subclause B,	Should allow the report to be exported into other formats such as PDF,	OEM specific feature/clauses. Since all OEM's don't provide to export report in CSV/XML format, kindly revise this	As stipulated in the
2.Management-9	HTML, CSV/XML etc.	point for better competition.	RFP
		Change Request: Should allow the report to be exported into other formats such as PDF, HTML,etc.	

RFP Clause No. / Section/Category	RFP Ask	Fortinet	Clarification
additional clause	Additonal	Additional Point: We understand that any appliance supplied must not be end of sale at the time of bidding and appliance should support latest version of Operating	As stipulated in the
	Clause	System.	RFP

Firewall Type-FW02 (Queries, Clarification and Corrigendum)

Page	RFP Clause No. / Section/Category RFP Ask		VDA	Clarification
no.				
106	Page No 106 /Specification and	pre-populated Licensed copies of	Request for amendment: pre-populated Licensed copies of Operating systems (like Windows 7, Windows 8.1, Windows 10, Linux and	Ref.
	Compliance - Firewall Type-FW02	Operating systems (like Windows 7,	Android etc.) and applications/software (like Microsoft Office).	Corrigendum
	(North-south in HA Pair)	Windows 8.1, Windows 10, Linux and	Justification: archive files, office files & PDF's are the top 3 file type used by ransomware actor to gain the initial foothold in the network	
	Point No - 42 (iv)	Android etc.) and applications/softwares	which can be checked for malicious behavior using static AI or dynamically at run time on windows platform. Moreover ransomware	
		(like Microsoft Office).	actors are going cross platform techniques which can be detected by static AI.	

Page	RFP Clause No. /	RFP Ask	AIPL	VDA	Clarification
no.	Section/Category				
108	Page No 108	Must provide the real time health status of	Request for amendment: Must provide the real time health status of	Request for amendment: Must provide the real time health status of NGFW	Ref.
	/Specification and	NGFW on dashboard for CPU memory	NGFW on dashboard/CLI for CPU memory utilization, state table, total	on dashboard/CLI for CPU memory utilization, state table, total No. of	Corrigendum
	Compliance - Firewall	utilization, state table, total No. of	No. of concurrent connections and the connections/second counter,	concurrent connections and the connections/second counter, real time data	
	Type-FW02 (North-south	concurrent connections and the	real time data transfer/bandwidth utilization of individual	transfer/bandwidth utilization of individual IP/Application/protocol/port/	
	in HA Pair)	connections/second counter, real time data	IP/Application/protocol/port/Interface /Zone.	Interface/Zone.	
	2. Management	transfer/bandwidth utilization of individual	Justification: This clause is one OEM specific and restricting	Justification: This clause is one OEM specific and restricting participation.	
	Point No - 8	IP/Application/protocol/port/Interface/Zone.	participation. Hence language to be counterbalance.	Hence language to be counterbalance.	

Page	RFP Clause No. /	RFP Ask	Gajshield	
no.	Section/Category			
109	Clause 2, subclause C,	Certified FIPS 140-2, EAL	As per PPP orders from Govt. of India, Ministry of Commerce and Industry order dated 06th Sept 2020 asking for foreign certification is discriminatory/restrictive as	As stipulated in
	Features-1	4+ / Common Criteria.	per clause 10(e) hence we request to remove or amend this certification requirement and subsequent order from MeiTy, and other ministry of Govt. of India.	the RFP
			Requesting for removing said point OR add/ Allow Gartner Asia/Pacific Context: Magic Quadrant For Network Firewalls of 2018 & 2019 and ICSA Labs Certifications.	
			Kindly revise this point.	
			Change Request: The product shall have Indian Standard, IC3S/Common Criteria (provided by STQC in India common-criteria- certification-0) or Alternatively from	
			International equivalents, NDPP or NSS or ICSALabs, at least one of them should be provided while bidding.	

Page	RFP Clause No. /	RFP Ask	AIPL	Palo Alto	VDA	Checkpoint	Clarification
no.	Section/Category						
110	Clause 2, subclause	Must support NAT (SNAT and DNAT)	Request for amendment: Must support	NAT46 is no longer used	Request for amendment: Must support NAT	Request for amendment: Must support NAT	Ref.
	C, Features-10	with following modes Static,	NAT (SNAT and DNAT) with following	in today's deployment	(SNAT and DNAT) with following modes	(SNAT and DNAT) with following modes	Corrigendum
		Dynamic, PAT, Nat66 (IPv6-to-IPv6),	modes Static, Dynamic, PAT, Nat66 (IPv6-	scenarios and is an	Static, Dynamic, PAT, Nat66 (IPv6-to-IPv6),	Static, Dynamic, PAT, Nat66 (IPv6-to-IPv6),	
		Nat 64 (IPv6-to-IPv4), Nat46 (IPv4-	to-IPv6), Nat 64 (IPv6-to-IPv4), Nat46	obsolete measure to	Nat 64 (IPv6-to-IPv4), Nat46 (IPv4- to-IPv6),	Nat 64 (IPv6-to-IPv4), Nat46 (IPv4- to-IPv6),	
		to-IPv6) , DNS64 & DHCPv6	(IPv4- to-IPv6).	adopt for NAT	DNS64 & DHCPv6 functionality.	DNS64 & DHCPv6 functionality.	
		functionality.	Justification: DNS64 & DHCPv6	translations. We			
			requirements are for large scale provider	request you to change it	Justification: DNS64 & DHCPv6 requirements	Justificatio: DNS64 & DHCPv6 requirements	
			network are met through AD / dedicated	to "Firewall should	are for large scale provider network are met	are for large scale provider network are met	
			DNS/ IPAM solution or alternatively using	support Nat66 (IPv6-to-	through AD / dedicated DNS/ IPAM solution	through AD / dedicated DNS/ IPAM solution	
			load balancer / WAF. Request to change	IPv6) or NPTV6 & Nat 64	or alternatively using load balancer / WAF.	or alternatively using load balancer / WAF.	
			the clause.	(IPv6-to-IPv4)	Request to change the clause.	Request to change the clause.	
				functionality"			

Page	RFP Clause No. /	RFP Ask	Gajshield	Clarification
no.	Section/Category			
110		Routing, Policy based Routing, BGP, OSPF,	Since VXLAN support is not provided by all OEM's and it may be difficult to scale a centralized controller used for managing overlay networks. There is an overhead for headers due to encapsulation techniques. The underlay network must support multicast for broadcast, unknown-unicast, and multicast (BUM) traffic. Kindly provide a option "VLAN/VXLAN" for generic participation. Kindly revise this point. Change Request: The Firewall solution should support Static Routing, Policy based Routing, BGP, OSPF, VLAN/VXLAN Inspection.	the RFP

Page	RFP Clause No. /	RFP Ask	Gajshield	Clarification
no.	Section/Category			
110	Clause 2, subclause C,	Should support bi-directional integration with	OEM specific feature/clauses. Bi-directional integration with AntiAPT/SANDBOX is been not offered by all OEM'S since majority of	As stipulated in
	Features-16	AntiAPT/SANDBOX for sharing threat intelligence and	the AntiAPT/SANDBOX is on cloud basis and by having bi-directional integration the traffic flowing from the appliance is un-	the RFP
		automated mitigation of zero day attacks.	predictable which may effect the performance of the appliance, so for better generic competition kindly revise this point.	
			Change Request: Should support bi-directional/uni-directional integration with Anti- APT/SANDBOX for sharing threat intelligence	
			and automated mitigation of zero day attacks.	

Page	RFP Clause No. /	RFP Ask	AIPL	Checkpoint	Clarification
no.	Section/Category				
111	Clause 2, subclause C,	Two-factor authentication	Request for amendment: Two-factor authentication without any external	Request for amendment: Two-factor authentication without any external	Ref.
	Features-25	without any external	Hardware / integration with Active Directory.	Hardware / integration with Active Directory.	Corrigendum
		Hardware.			
			Justification: MFA capability is supported in all the leading identity management	Justification: MFA capability is supported in all the leading identity management	
			solution including active diirectory which can be integrated with NGFW for two-	solution including active diirectory which can be integrated with NGFW for two-	
			factor use case. Also, specific to one OEM.	factor use case. Also, specific to one OEM.	

Page	RFP Clause No. /	RFP Ask	Gajshield	Clarification
no.	Section/Category			
111	Clause 2, subclause C,	The proposed firewall shall delineate different	Since all OEM don't provide the feature of identify, decrypt and evaluate SSL traffic in an outbound connection and inbound connections, and	As stipulated in
	Features-29	parts of the application such as allowing	if the SSL evaluation are done from some external source its difficult to identify and decrypt the traffic. For better participation kinly provide	the RFP
		Facebook chat but blocking its file-transfer	an option for the same. Kindly revise this point.	
		capability inside the chat application based on	Change Request: The proposed firewall shall be able to identify, decrypt and evaluate SSL traffic in an outbound connection/inbound	
		the content.	connection. The proposed firewall shall be able to identify, decrypt and evaluate SSH Tunnel traffic in an inbound/outbound connections.	

Page	RFP Clause No. / Gajshield		Gajshield	Clarification
no.	Section/Category			
112	Clause 2, subclause C,	The proposed firewall shall be able to identify, decrypt and	Since all OEM don't provide the feature of identify, decrypt and evaluate SSL traffic in an outbound connection and inbound	As stipulated in
	Features-30	evaluate SSL traffic in an outbound connection (forward-	connections, and if the SSL evaluation are done from some external source its difficult to identify and decrypt the traffic. For better	the RFP
		proxy) and inbound connection. The proposed firewall	participation kinly provide an option for the same. Kindly revise this point.	
		shall be able to identify, decrypt and evaluate SSH Tunnel	Change Request: The proposed firewall shall be able to identify, decrypt and evaluate SSL traffic in an outbound connection/inbound	
		traffic in an inbound and outbound connections.	connection. The proposed firewall shall be able to identify, decrypt and evaluate SSH Tunnel traffic in an inbound/outbound	
			connections.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Checkpoint	Clarification
112	Clause 2, subclause C, Features-34	The proposed solution must support policy-based	Request for amendment: The proposed solution must support policy-based	Ref. Corrigendum
		forwarding based on zone, source or destination address	forwarding based on zone, source or destination address	
		and port, application, AD/LDAP user or user group and	and port/application/AD/LDAP user or user group and services or ports.	
		services or ports.	Justification: This clause is specific to one OEM.Hence language to be counterbalance.	

Page	RFP Clause No. /	RFP Ask	Gajshield	Clarification
no.	Section/Category			
112	Clause 2, subclause C,	Should support TLSv1.3 decryption in all modes (SSL	Since all OEM don't provide the TLSv1.3 decryption for Inbound traffic, and if the TLS evaluation are done from some external source its	As stipulated in
	Features-31	Forward Proxy, SSL Inbound Inspection etc.)	difficult to decrypt the traffic. For better participation kinly provide an option for the same. Kindly revise this point.	the RFP
			Change Request: Should support TLSv1.3 decryption in all modes (SSL Inbound/Outbound Inspection etc.)	

Page	RFP Clause No. /	RFP Ask	AIPL	VDA	Checkpoint	Clarification
no.	Section/Category					
112	Clause 2, subclause	The firewall must have the	Request for amendment: Should be a hardware	Request for amendment: Should be a hardware	Request for amendment: The firewall must have the	As stipulated
	C, Features-33	capability to create DOS prevention	appliance based. Firewall. IPSEC and SSL VPN,	appliance based. Firewall. IPSEC and SSL VPN,	capability to create threat prevention / DOS prevention	in the RFP
		policy to prevent against DOS	Anti-Malware, IPS, Web and Application control,	Anti-Malware, IPS, Web and Application control,	policy to prevent against DOS attacks on per zone basis	
		attacks on per zone basis	DDOS prevention, Traffic-Shaping/Bandwidth	DDOS prevention, Traffic-Shaping/Bandwidth	(outbound to inbound, inbound to outbound) and ability	
		(outbound to inbound, inbound to	Management and Routing functionalities must be	Management and Routing functionalities must be	to create and define DOS policy based on attacks like UDP	
		outbound) and ability to create and	integrated in a single platform	integrated in a single platform	Flood, ICMP Flood, SYN Flood, IP Address Sweeps, IP	
		define DOS policy based on attacks			Address Spoofs, port scan, Ping of Death, Teardrop	
		like UDP Flood, ICMP Flood, SYN	Justification: Restrictive clause limits the	Justification: Restrictive clause limits the	attacks, unknown protocol protection etc. using IPS	
		Flood, IP Address Sweeps, IP	participation. New age technologies are available	participation. New age technologies are available	signature of application vulnerabilities.	
		Address Spoofs, port scan, Ping of	to address the requirement more efficiently.	to address the requirement more efficiently.		
		Death, Teardrop attacks, unknown	Flexibility should be given to offer the better	Flexibility should be given to offer the better	Justification: Restrictive clause limits us to provide the	
		protocol protection etc.	solution.	solution.	required technical details. Language to be counterbalance.	

Page no.	RFP Clause No. / Section/Category	RFP Ask	AIPL	Clarification
112	Clause 2, subclause C, Features-34	The proposed solution must support policy-based Rec	equest for amendment: The proposed solution must support policy-based	As stipulated in the RFP
		forwarding based on zone, source or destination address for	orwarding based on zone, source or destination address	
		and port, application, AD/LDAP user or user group and and	nd port/application/AD/LDAP user or user group and services or ports.	
		services or ports. Just	ustification: This clause is specific to one OEM.Hence language to be counterbalance.	

Page	RFP Clause No. /	RFP Ask	Gajshield	Clarification
no.	Section/Category			
112	Clause 2, subclause C,	The proposed firewall shall block and continue (i.e.	Allowing user to proceed for certain time can make network vulnerable leading to multiple option of attacks and virus/malicious	As stipulated in
	Features-39	allowing a user to access a web-site which potentially	activity to occur and lead to security violation. Since all OEM doesn't provide this feature, kindly revise the point for generic	the RFP
		violates policy by presenting them a block page with a	participation.	
		warning with a continue option allowing them to proceed	Change Request: The proposed firewall shall block and presenting them a block page with a warning option and displaying basic	
		for a certain time).	information like the IP address, Category from which the web-site is blocked.	

Page RFP Clause No. /		RFP Clause No. /		RFP Clause No. /		RFP Ask	Gajshield	Clarification
no.	no. Section/Category							
113	Clause 2,	subclause	C,	Should allow the report to be	OEM specific feature/clauses. Since all OEM's don't provide to export report in CSV/XML format, kindly revise this point for better	As stipulated in the		
	2.Management-8 export		exported into other formats such	competition.	RFP			
				as PDF, HTML, CSV/XML etc.	Change Request: Should allow the report to be exported into other formats such as PDF, HTML,etc.			

Page no.	RFP Clause No. / Section/Category	HPE	Clarification
	BOQ -2.03	Bidder requests CDAC to confirm the usage of this firewall for better clarity of the solution	As stipulated in the RFP

HSM01: (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause	RFP Ask	Thales	Entrust	Cache	VDA	IVALUE	Clarification
No	No./Section/Category				Technology			
39	Section-V: Technical	Host Connectivity	Request to modify the clause as :-	As per the industry standard, an	Requesting to	Requesting to add the appliance	As per the industry standard, an	Ref.
	Specifications , Category-		TCP/IP Network based appliance- Dual	HSM comes with Dual Gigabit	add the	supporting 1 GB interfaces in	HSM comes with Dual Gigabit	Corrigendum
	I, HSM01 Point :-3	TCP/IP Network	1 Gigabit interfaces OR dual fiber 10	network interface with port	appliance	order to propose optimized	network interface with port	
		based appliance-	Gigabit Ethernet interfaces	bonding support. Fiber 10 Gigabit	supporting 1 GB	BOM Modification:- TCP/IP	bonding support. Fiber 10 Gigabit	
		Dual 1 Gigabit		network ports is not mandatory.	interfaces in	Network based appliance- Dual	network ports is not mandatory.	
		interfaces,	Justification	Remarks/Suggestions-Please	order to propose	1 Gigabit interfaces OR	Please revise it to Dual Gigabit or	
		dual fiber 10 Gigabit	Requesting to add the appliance	revise it to Dual Gigabit or Dual	optimized BOM	dual fiber 10 Gigabit Ethernet	Dual Fiber interfaces.	
		Ethernet interfaces	supporting 1 GB interfaces in order to	Fiber interfaces.		interfaces		
			propose optimized BOM					

Page	RFP Clause	RFP Ask	Thales	Clarification
No	No./Section/Category			
40	Section-V: Technical	Load Balancing	Request to modify the clause as :- Support clustering & load balancing without the dependency on any external load balancer	Ref.
	Specifications , Category-I ,			Corrigendum
	HSM01 Point :- 19	Clustering, Load	Justification: The deployed HSM in CDAC allows to form high availability group with new Luna HSMs for real time synchronization of keys without any	
		Balancing	dependency on an external load balancer	

Page	RFP Clause		RFP Ask	Utimaco	Clarification
No	No./Section/Category				
38	Specifications,	HSM01	rack mounting kit, Input Voltage – 230 V AC 50 Hz, Operating Temperature range must include 15 degrees	Request: 19 Inch Rack Mount with a maximum size of 2U along with rack mounting kit, Input Voltage – 230 230~240 VAC 50 Hz, Operating Temperature range must include 15 degrees Centigrade to 35 degree centigrade, Operating humidity range must be better than 30 to 70 (RH) Non condensing at 35 30~35degree centigrade, Protection against physical attacks such as use of potting of critical components, tamper evident security labels etc.	
			35 degree centigrade, Protection against physical attacks such as use of potting of critical components, tamper evident security labels etc.		

Page	RFP Clause	RFP Ask	Utimaco	Entrust	IVALUE	Clarification
No	No./Section/Category					
39	Section-V: Technical Specifications , Category-I , HSM01 Point :- 9	Cryptographic module security and certification:-Compliance to FIPS 140-2	Request: Compliance to FIPS 140-2 Level 3 , Password and Multi-Factor (PED/Smart Card) .	a single OEM. Usually Multi	Multi-factor PED is specific to a single OEM. Usually Multi factor is provided with smart cards or tokens.Please revise.	Ref. Corrigendum
	risiwo i i oine.	Level 3 , Password and Multi-Factor (PED)	Query/Suggestions: PED based Authentication is Thales specific being OEM. Every OEM has different ways to achive the Authentication in HSM, hence we request to add Smart Card along with PED	cards or tokens. Remarks and SuggestionsPlease revise	curus or tokens.i rease revise.	

Page No	RFP Clause	RFP Ask	Entrust	Clarification
	No./Section/Category			
39	Section-V: Technical	Inside the	Please note that storing keys inside the HSM "Keys in box" limits storage capacity. Also it requires manual backups and additional backup	Inside/Within the HSM's FIPS 140-2 Level3
	Specifications, Category-	HSMs FIPS	HSMs to do that which increases the total cost substantially. Moreover, in the case the HSM fails, the entire infrastructure goes for a	cryptography boundary
	I , HSM01 Point :- 13	140-2 Level3	toss.	
		cryptography	This technology is specific to a particular OEM and not generic. The FIPS 140-2 Level 3 certification evaluates on the FIPS boundary and	
		boundary	not on the key storage basis. Remarks and suggestionsThe recommendation is to store the keys as encrypted application tokens and	
			not keys which gives virtually unlimited capacity. Hence we request to kindly modify it to store within the FIPS 140-2 boundary, rather	
			than inside the HSM.	

Page	RFP Clause	RFP Ask	Utimaco	Clarification
No	No./Section/Category			
38	Section-V: Technical	Min. Memory	Request: Even 2 MB can store upto 1200 RSA 2048 keys. HSM comes with option of scalable storage to protect unlimited keys. This is Thales model specification.	As stipulated in
	Specifications,	within HSM	Request you to change it for multiple OEM participation : Min. Memory within HSM (MB) : 4 MB	the RFP
	Category-I , HSM01	(MB): 16 MB	Query/Suggestions: How many keys needs to be protected ?	
	Point :- 10		16 MB is Thales model specific, hence request you to change it for multiple OEM participation:-	

Page No	RFP Clause	RFP Ask	Utimaco	Clarification
	No./Section/Category			
38	Section-V: Technica	Number of	Request to change: Number of Partitions within HSM : 15	Ref. Corrigendum
	Specifications , Category-	Partitions within	Query/Suggestions: As per CCA IVG guidelines each partition should have unique set of userid and password to protect the	
	, HSM01 Point :- 11	HSM : 5	credentials & Key Material.	
			It is recommended to have at least 30 partitions scalable to 100 or more partitions from day one so that at least each key can be	
			protected with its unique credential to access, and all the partitions upto 100 or more should be grant at no cost basis during the	
			tenure of the project (3 years) to avoid any financial burden / cost.	

Page No	RFP Clause RFP Ask		Utimaco	Clarification
	No./Section/Category			
39	Section-V: Technical	Number of	Request to change: Number of Partitions Expandable upto within HSM: 100 and more	As stipulated in the RFP
	Specifications,	Partitions	Query/Suggestions: As per CCA IVG guidelines each partition should have unique set of userid and password to protect the credentials	
	Category-I , HSM01	Expandable	& Key Material.	
	Point :- 12	upto within	Their should not be limitation on the partition as business grows the requirement of partitions increases, keeping current as well as	
		HSM: 20	future scalability more partitions are recommended as best practice. Should there be limitations on the number of partitions, scalability	
			of the HSM gets restricted and client may have to re-invest in buying the HSM in the mid term of the contract	

Page No	RFP Clause No./Section/Category	RFP Ask	IVALUE	Clarification
39	Section-V: Technical Specifications , Category-I , HSM01 Point :- 13	13. Key Storage Area Inside the HSMs FIPS 140-2 Level3 cryptography boundary	Please note that storing keys inside the HSM "Keys in box" limits storage capacity. Also it requires manual backups and additional backup HSMs to do that which increases the total cost substantially. Moreover, in the case the HSM fails, the entire infrastructure goes for a toss.	Ref. Corrigendum
			This technology is specific to a particular OEM and not generic. The FIPS 140-2 Level 3 certification evaluates on the FIPS boundary and not on the key storage basis. The recommendation is to store the keys as encrypted application tokens and not keys which gives virtually unlimited capacity. Hence we request to kindly modify it to store within the FIPS 140-2 boundary, rather than inside the HSM.	

Page No	RFP Clause No./Section/Category	RFP Ask	Utimaco	Clarification
40	Section-V: Technical Specifications , Category-	Signing Performance : Minimum ECC-	Request to change :	As stipulated in the RFP
	I , HSM01 Point :- 16	P256 10000 and RSA-2048 5000	Request you to change it for multiple OEM participation :	
			Signing Performance: Minimum ECC-P256 1000 and RSA-2048 1000.	
			By the above proposed ECC-P256 & RSA 2048 Signing TPS, end user will get 8.64 crores	
			transactions per days Query/Suggestions:	
			This is Thales/safenet model specification . Also It is overkill of resources as this gives	
			around 43.20 crore transactions per day via RSA 2048 and 86.40 crore transactions per day	
			from ECC.	

Page	RFP Clause	RFP Ask	Utimaco	Entrust	IVALUE	Clarification
No	No./Section/Category					
40	Section-V: Technical	Speed :	Request to change :	Please clarify	Please clarify	As stipulated in
	Specifications , Category-I ,	Signing speed: RSA 2048	Request you to change it for multiple OEM participation :	the use case	the use case	the RFP
	HSM01 Point :- 17	bit – at least 5000	Speed:	for which the	for which the	
		Signatures/seconds, ECC	Signing speed: RSA 2048 bit – at least 1000 Signatures/seconds, ECC (256 Bit) 1000 Signautres/Seconds	required key	required key	
		(256 Bit) 10000		generation	generation	
		Signautres/Seconds	Key generation speed minimum RSA (2048bit) 4 keys/sec ECC (256 bit) 100 keys/sec	speed will be	speed will be	
			Query/Suggestions: This is Thales/safenet model	required.	required.	
		Key generation speed RSA	specification . Also It is overkill of resources as this gives around 43.20 crore transactions per day via RSA 2048			
		(2048bit) 14 keys/sec ECC	and 86.40 crore transactions per day from ECC.			
		(256 bit) 90 keys/sec				
			Keys can also be generated in advanced on HSM to overcome any sudden surge in request.			

Page	RFP Clause	RFP Ask	Utimaco	Entrust	IVALUE	Clarification
No	No./Section/Category					
40	Section-V: Technical	Backup device : Provide	Request to change :	Is it a mandatory	Is it a mandatory	Ref. Corrigendum
	Specifications , Category-I ,	one no. of backup device	Request you to change it for multiple OEM participation :	requirement to have	requirement to have	
	HSM01 Point :- 26	to take backup of HSM	Backup device : Provide one no. of backup device or Smart Card as per FIPS 140-2 level 3	a backup HSM. Using	a backup HSM. Using	
		stored keys.	complaint mechanisms to take backup of HSM stored keys.	backup HSM devices	backup HSM devices	
			We recommend as per best industry standards, each HSM should have its own the back-up	increases the cost.	increases the cost.	
			device or Smart Cards in accordance to the FIPS 140-2 level 3 compliance for ease of operation.	There's no mandate		
			Query/Suggestions: This is	to use a backup HSM		
			Thales/safenet model specification . Each OEM specify its own mechanism to backup and	to backup key		
			restore keys are per FIPS 140-2 level 3 complaince.	material.		

Page	RFP Clause	RFP Ask	Thales	JISA	Entrust	IVALUE	Clarification
No	No./Section/Category						
41	Section-V, Technical	The HSM should be	Request to modify the clause as :-	Safenet	Please note that mentioned requirements	Please note that mentioned	Ref. Corrigendum
	Specification, Category 1,	provided with	The HSM should be provided with	Luna is	are specific to a single OEM, such as PED,	requirements are specific to	
	HSM01,Point no.32-	1) 1 Nos. of PED device,	1) 1 Nos. of PED device,	compatible	backup device. Our design does not require	a single OEM, such as PED,	
	Additional Requirement	2) 1 Nos. of compatible	2) 1 Nos. of compatible keys/card set of 10	with only	a backup device and limits us from	backup device. Our design	
		keys/card set of	keys,	Luna	participating.	does not require a backup	
		10keys,	3) 1 Nos. of Backup HSM	device		device and limits us from	
		3) 1 Nos. of Backup	4) The quoted Backup HSM and HSM should	only, so	Please clarify the compatibility part with	participating.	
		HSM	compatible with "Safenet Luna SA 7000" HSM and it's	please	SafeNet Luna SA 7000. Does it require		
		4) The quoted Backup	backup device, and it should allow secure backup and	remove	migration of keys from Luna HSM. If yes,	Please clarify the	
			restore without taking the keys in plair	1 '	then it requires the keys to be exported	compatibility part with	
		compatible with	5) Seamless integration with existing applications		from Luna HSM, which can be requested		
		"Safenet Luna SA	without any changes in application code		from Thales. Once the keys are exported, it	it require migration of keys	
		7000" HSM			can be imported to any other HSM device.	from Luna HSM. If yes, then	
		and it's backup device	Justification			it requires the keys to be	
			The keys from the existing deployed Safenet Luna SA			exported from Luna HSM,	
			7000 should be securely backed up and restored in FIPS			which can be requested	
			140-2 compliant method, without taking them out in			from Thales. Once the keys	
			plain. Secondly, it is suggested to have the new HSM be			are exported, it can be	
			seamlessly integrated with the existing HSM, without			imported to any other HSM	
			any changes in application code.			device.	

Page	RFP Clause	RFP Ask	Thales	Utimaco	Cache Technology	VDA	Clarification
No	No./Section/Category						
	HSM01	Additional	Request to add an additional clause as :-	Additional Request :	Additional Clause :	As the current HSM holds	As stipulated in the RFP
		Clause		Each proposed HSM should	The proposed HSM box should be valid	FIPS 140-2 level 3 security	
			The proposed HSM box should be valid FIPS 140-2	be able to handle at-least	FIPS 140-2 level 3 certified . FIPS	certification, hence request	
			level 3 certified . FIPS certification should be in the	1000 and more concurrent	certification should be in the name of the	to add the clause for the	
			name of the proposed OEM.	connections from various	proposed OEM.	newly proposed HSM as	
				servers with different IP	Query/Suggestions/Clarification Sought:	well .	
			Justification	addresses without using any	As the current HSM holds FIPS 140-2 level		
				additional load balancing	3 security certification, hence request to		
			The deployed HSM in CDAC holds these	hardware to avoid the	add the clause for the newly proposed		
			certifications. Hence, request to maintain the same	latency.	HSM as well		
			level of certifications & not to downgrade.				

Page No	RFP Clause No./Section/Category	RFP Ask	Thales	Utimaco	Cache Technology	VDA	Clarification
	HSM01	Additional Clause	Request to add an additional clause as :- The proposed module should be Common Criteria EAL 4+ certified. Certification has to be in the name of proposed OEM Justification The deployed HSM in CDAC holds these certifications. Hence, request to maintain the same level of certifications & not to downgrade.	Additional Request: Should be FIPS 140-2 Level 3 certified & FIPS 140-2 Level 3 Certification should be on the name of proposed OEM only (FIPS 140-2 certification on Third party OEM will not be considered)	Additional Clause: The proposed module should be Common Criteria EAL 4+ certified. Certification has to be in the name of proposed OEM Query/Suggestions/Clarificat ion Sought: As the current HSM holds Common Criteria EAL4+ certification,hence request to add the clause for the newly proposed HSM as well	As the current HSM holds Common Criteria EAL4+ certification,hence request to add the clause for the newly proposed HSM as well	As stipulated in the RFP

Page	RFP Clause	RFP Ask	Thales	Utimaco	Cache Technology	VDA	Clarification
No	No./Section/						
	Category						
	HSM01	Additional	Request to add an additional clause as :-	Additional	Additional Clause :	NIST 800-90A is the mechanism to	As stipulated in the RFP
		Clause		Request :	Random Number Generation: should be designed	cryptographic algorithms	
			Random Number Generation: should be designed to comply	Host Interface:	to comply with AIS 20/31 to DRG.4 and also	(https://csrc.nist.gov/publications/	
			with AIS 20/31 to DRG.4 and also compliant to NIST 800-90A.	should have	compliant to NIST 800-90A. The RNG provided by	detail/sp/800-90a/rev-1/final),	
			The RNG provided by HSM should be fully compliant with the	atleast 2x10G	HSM should be fully compliant with the latest	800-90B is the guidance to select	
			latest entropy standard of SP800-90B and SP800-90C	fiber ports	entropy standard of SP800-90B and SP800-90C	entropy	
				with port	Query/Suggestions/Clarification Sought:	(https://csrc.nist.gov/publications/	
			Justification	bonding. All	NIST 800-90A is the mechanism to cryptographic	detail/sp/800-90b/final), 800-90C	
				the 2 ports	algorithms	is the implementations construct	
			NIST 800-90A is the mechanism to cryptographic algorithms	should be fully	(https://csrc.nist.gov/publications/detail/sp/800-	for the above two	
			(https://csrc.nist.gov/publications/detail/sp/800-90a/rev-	populated	90a/rev-1/final), 800-90B is the guidance to select	(https://csrc.nist.gov/publications/	
			1/final), 800-90B is the guidance to select entropy	from day one	entropy	detail/sp/800-90c/draft). All the	
			(https://csrc.nist.gov/publications/detail/sp/800-90b/final),	and for fiber	(https://csrc.nist.gov/publications/detail/sp/800-	three standards are individuals and	
			800-90C is the implementations construct for the above two	network	90b/final) , 800-90C is the implementations	does not act as the replacement for	
			(https://csrc.nist.gov/publications/detail/sp/800-90c/draft). All	connectivity	construct for the above two	each other. In order to provide true	
			the three standards are individuals and does not act as the	with port	(https://csrc.nist.gov/publications/detail/sp/800-	justification to cryptographic	
			replacement for each other. In order to provide true	bonding.	90c/draft). All the three standards are individuals	fraternity, we request UIDAI to	
			justification to cryptographic fraternity, we request UIDAI to	Should have	and does not act as the replacement for each	change the clause to "Random	
			change the clause to "Random Number Generation: should be	IPv4 & IPv6	other. In order to provide true justification to	Number Generation: should be	
			designed to comply with AIS 20/31 to DRG.4 and also compliant	support	cryptographic fraternity, we request UIDAI to	designed to comply with AIS 20/31	
			to NIST 800-90A. The RNG provided by HSM should be fully		change the clause to "Random Number	to DRG.4 and also compliant to	
			compliant with the latest entropy standard of SP800-90B and		Generation: should be designed to comply with AIS	NIST 800-90A. The RNG provided by	
			SP800-90C"		20/31 to DRG.4 and also compliant to NIST 800-	HSM should be fully compliant with	
					90A. The RNG provided by HSM should be fully	the latest entropy standard of	
					compliant with the latest entropy standard of	SP800-90B and SP800-90C"	
					SP800-90B and SP800-90C		

Page No	RFP Clause No./Section/Category	RFP Ask	Thales	Utimaco	Clarification
	HSM01	Additional Clause	Request to add an additional clause as :-	Additional Request :	As stipulated in the RFP
			The connection from the HSM client to the HSM device should be secure	Each propsoed HSM should be	
			using strong cryptographic technique and the secure channel should be	able to handle at-least 1000 and	
			terminated at the cryptographic processor and not to the HSM chassis	more concurrent connections from	
				various servers with different IP	
			Justification	addreses	
			As the current HSM provides this secure cryptographic connection, it is		
			suggested to keep the same level of security in the newer HSM		

HSM02: (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page No	RFP Clause No./Section/Category	RFP Ask	Thales	Utimaco	НРЕ	Cache Technologies	VDA	Clarification
41	Section-V: Technical Specifications , Category-I , HSM02 Point :-1	Physical Characteristics PCI-Express CEM 3.0, PCI, PCI Express Base 2.0 Low Profile PCIe card Input Voltage – 230 V AC 50 Hz, Operating Temperature range must include 15 degrees Centigrade to 35 degree centigrade, Operating humidity range must be better than 30 to 70 (RH) Non condensing at 35 degree centigrade, Protection against physical attacks such as use of potting of critical components, tamper evident security labels etc.	Request to modify the clause as :- PCI-Express CEM 3.0, PCI, PCI Express Base 2.0 Low Profile PCIe card Input Justification Since it is PCI-based slot HSM the other physical characteristics depends on the hosting OS/server	Request :Physical Characteristics:- PCI-Express CEM 3.0, PCI, PCI Express Base 2.0 Low Profile PCIe card PCIe 1.1, PCIe 2.0 and PCIe 3.0 slots Input Voltage — 230 V AC 50 Hz, Operating Temperature range must include 15 degrees Centigrade to 35 degree centigrade, Operating humidity range must be better than 30 to 70 (RH) Non condensing at 35 degree centigrade, Protection against physical attacks such as use of potting of critical components, tamper evident security labels etc.	Since it is PCI-based slot HSM that depends on the hosting OS for these physical specifications. Requesting CDAC to remove this point from the RFP		Since it is PCI-based slot HSM that depends on the hosting OS for these physical specifications. Requesting you remove this point from the RFP	Ref. Corrigendum
41	Section-V: Technical Specifications , Category-I , HSM02 Point :-3	Host connectivity TCP/IP Network based appliance- dual 1 Gigabit interfaces dual 10 Gigabit Ethernet interfaces	Request to remove the clause Justification Since it is a PCI-based HSM, TCP/IP Network connectivity does not apply to the HSM.		Since it is a PCI-based HSM, TCP/IP Network connectivity does not apply to the HSM. Requesting CDAC to remove this point from the RFP	Since it is a PCI- based HSM, TCP/IP Network connectivity does not apply to the HSM., Requesting you remove this point	Since it is a PCI-based HSM, TCP/IP Network connectivity does not apply to the HSM. Requesting you remove this point	Ref. Corrigendum
41	Section-V: Technical Specifications , Category-I , HSM02 Point :-10	10.Min. Memory within HSM (MB): 16 MB		Request: Even 2 MB can store upto 1200 RSA 2048 keys. HSM comes with option of scalable storage to protect unlimited keys. This is Thales model specification . Request you to change it for multiple OEM participation: Min. Memory within HSM (MB): 4 MBs Query/Suggestions: How many keys needs to be protected? 16 MB is Thales model specific, hence request you to change it for multiple OEM participation.				As stipulated in the RFP

	RFP Clause	RFP Ask	Thales	Utimaco	HPE	Cache Technologies	VDA	Clarification
Page No	No./Section/Category							
41	Section-V: Technical Specifications , Category-I , HSM02 Point :-11	Number of Partitions within HSM - 5	Request to remove the clause Justification Since it is a PCI-based HSM, the Number of Partitions supports is only one.	Request: Request you to change it: Number of Partitions within PCle Card based HSMare is only 1 in number. Query/Suggestions: PCle comes with single partition. please check point 1 Physical charateristics:PCI-Express CEM 3.0, PCI, PCI Express Base 2.0 Low Profile PCle card	Since it is a PCI- based HSM, the Number of Partitions supports is only one. Requesting CDAC to change this to "one"	Since it is a PCI-based HSM, the Number of Partitions supports is only one. , Requesting you change it is one	Since it is a PCI-based HSM, the Number of Partitions supports is only one. Requesting you change it is one	Ref. Corrigendum
41	Section-V: Technical Specifications , Category-I , HSM02 Point :-12	Number of Partitions Expandable upto within HSM - 20	Request to remove the clause Justification Since it is a PCI-based HSM, the Number of Partitions supports is only one.	Request: Request you to change it: Number of Partitions within PCIe Card based HSMare is only 1 in number. Query/Suggestions: PCIe comes with single partition please check point 1 Physical charateristics:PCI-Express CEM 3.0, PCI, PCI Express Base 2.0 Low Profile PCIe card	Since it is a PCI- based HSM, the Number of Partitions supports is only one. Requesting CDAC to remove this point from the RFP	Since it is a PCI-based HSM, the Number of Partitions supports is only one. ,Requesting you remove this point	Since it is a PCI-based HSM, the Number of Partitions supports is only one. Requesting you remove this point	Ref. Corrigendum
42	Section-V: Technical Specifications , Category-I , HSM02 Point :-18	Load Balancing Clustering, Load Balancing	Request to modify the clause as :- Support clustering & load balancing without the dependency on any external load balancer Justification The deployed HSM in CDAC allows to form high availability group with new Luna HSMs for real time synchronization of keys without any dependency on an external load balancer					Ref. Corrigendum
42	Section-V: Technical Specifications , Category-I , HSM02 Point :-19	Key Backup Secure key backup and recovery	Request to modify the clause as :- Secure key backup and recovery without taking out the keys in plain Justification The keys from the HSMs should be securely backed up and restored in FIPS 140-2 compliant method, without taking them out in plain for extra security.					Ref. Corrigendum

Page No	RFP Clause No./Section/Category	RFP Ask	Thales	Utimaco	НРЕ	Cache Technologies	VDA	Clarification
42	Section-V: Technical Specifications , Category-I , HSM02 Point :-24	Backup device : Provide one no. of backup device to take backup of HSM stored keys.		Request: Request you to change it for multiple OEM participation: Backup device: Provide one no. of backup device or Smart Card as per FIPS 140-2 level 3 complaint mechanisms to take backup of HSM stored keys. We recommend as per best industry standards, each HSM should have its own the back-up device or Smart Cards in accordance to the FIPS 140-2 level 3 compliance for ease of operation. Query/Suggestions: This is Thales/safenet model specification . Each OEM specify its own mechanism to backup and restore keys are per FIPS 140-2 level 3 complaince				Ref. Corrigendum
43	Section-V: Technical Specifications , Category-I , HSM02 Point :-28	Rack mounting HSM should mountable and fit in standard 42 U, 19" rack Mounting sliding rail Kit and with cable manager	Request to remove the clause Justification Since it is a PCI-based HSM. This point is not applicable	Request: Request you to remove it for multiple OEM participation Query/Suggestions: PCIe cards does not mount in Rack. please check point 1 Physical charateristics:PCI-Express CEM 3.0, PCI, PCI Express Base 2.0 Low Profile PCIe card	Since it is a PCI- based HSM. This point is not applicable Requesting CDAC to remove this point from the RFP	Since it is a PCI-based HSM. This point is not applicable, Requesting you remove this point	Since it is a PCI- based HSM. This point is not applicable Requesting you remove this point	Ref. Corrigendum
43	Section-V: Technical Specifications , Category-I , HSM02 Point :-29	Packaging contents 1. Supply with User manual or links 2. Server Rail Kit with screws 3. IEC type power cables	Request to remove the clause Justification Since it is a PCI-based HSM. Points 2 and 3 are not applicable	Request: Request you to remove it for m Packaging contents: 1. Supply with User manual or links 2. Other necessary software and intructions to install in server Query/Suggestions: PCIe cards does not mounts in Rack. please check point 1 Physical charateristics:PCI-Express CEM 3.0, PCI, PCI Express Base 2.0 Low Profile PCIe card	Since it is a PCI- based HSM. Points 2 and 3 are not applicable. Requesting CDAC remove this point	Since it is a PCI-based HSM. Points 2 and 3 are not applicable , Requesting you remove this point	Since it is a PCI- based HSM. Points 2 and 3 are not applicable Requesting you remove this point	Ref. Corrigendum
43	Section-V: Technical Specifications , Category-I , HSM02 Point :-27	Supply should include all the necessary licenses required for meeting the above specifications.						Supply should include all the necessary licenses required for meeting the above specifications for unlimited clients

KM01: (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause	RFP Ask	Thales	Utimaco	HPE	Cache Technologies	VDA	Clarification
No	No./Section/Category			Otimaco				
44	Section-V: Technical Specifications ,4-KM01	should be a appliance based solution integrated with Hardware Security Module (HSM),	appliance based solution integrated		The proposed solution should be a appliance based solution integrated with Hardware Security Module (HSM) or Software based which should be integrated with the proposed HSM, standard 19" rack mountable with sliding rails, max. 2U size. KMS & HSM solution to be from the same vendor to avoid integration challenges. Network HSM is already part of the BOQ. The proposed modification is in line to optimise the whole solution & proposing virtal KMS with ROT in Network HSM. In line to the same, KMS & HSM solution to be from the same vendor.	The proposed solution should be a appliance based solution integrated with Hardware Security Module (HSM) or Software based which should be integrated with the proposed HSM, standard 19" rack mountable with sliding rails, max. 2U size	The proposed solution should be a appliance based solution integrated with Hardware Security Module (HSM) or Software based which should be integrated with the proposed HSM, standard 19" rack mountable with sliding rails, max. 2U size	Ref. Corrigendum
L;44	Section-V: Technical Specifications ,4-KM01	internal storage, mini.	Request to modify the clause as :- Minimum 1 TB of internal storage, mini. 16GB RAM, 8 Core processor for the Hardware proposal Justification Since the offering of KMS could be physical & Virtual ,this clause is applicable for the Hardware	Query/Suggestions: Internal storage or RAM is not relevant to external users. Key managers are		KMS could be physical & Virtual	Since the offering of KMS could be physical & Virtual, this clause is applicable for the Hardware -Minimum 1 TB of internal storage, mini. 16GB RAM, 8 Core processor for the Hardware proposal	
44	Section-V: Technical Specifications ,4-KM01	3.Minimum 1x1GB 1x10Gb fibre ethernet ports with SFPs					Since the offering of KMS could be physical & Virtual ,this clause is applicable for the Hardware	

Page No	RFP Clause No./Section/Category	RFP Ask	Thales	Utimaco	НРЕ	Cache Technologies	VDA	Clarification
44		Supply should include FIPS 140-2 Level3 certified embedded or network attached HSM with multifactor authentication support					In order to optimize the BOM and produce the same level of secuirty it is ideal to utilize the integration with the proposed HSM. Supply should include FIPS 140-2 Level3 certified embedded or integrate with proposed network attached HSM with multi-factor authentication support. The HSM should have NIST certificate with OEM name in the certificate.	As stipulated in the RFP
44	Section-V: Technical Specifications ,4-KM01	5.Should support REST, NAE-XML, KMIP, PKCS#11, JCE, .NET, MCCAPI, MS CNG API for application integration		Request: Request you to keep:- Should support REST, KMIP API for application integration. Query/Suggestions: NAE-XML is Thales proprietery . Request you to remove it . Also Rest API and KMIP out of key manager for crypto operations make system vendor agnostic.				Ref. Corrigendum
44	Section-V: Technical Specifications ,4-KM01	Minimum 1x1GB 1x10Gb fibre ethernet ports with SFPs	Since the offering of KMS could be physical & Virtual ,this clause is applicable for the Hardware		Since the offering of KMS could be physical & Virtual ,this clause is applicable for the Hardware	Since the offering of KMS could be physical & Virtual ,this clause is applicable for the Hardware		As stipulated in the RFP
44	Section-V: Technical Specifications ,4-KM01	7.Integration with Local User , AD, LDAPS, certificate authentication for clients		Request: Request you to keep:- Integration with Local User, AD, LDAP Query/Suggestions: Each OEM key maanger has its own secure authentication mechanism for clients to cummunicate.				Ref. Corrigendum

Page No	RFP Clause No./Section/Category	RFP Ask	Thales	Utimaco	HPE	Cache Technologies	VDA	Clarification
44	Section-V: Technical Specifications ,4-KM01	1 Million encryption key management capability	Please share the use case of encryption keys? This will help to size the Encryption agents to be included along with KMS.	Request: Request you to change it to: More than 1 Million encryption key management capability Query/Suggestions: This is Thales Key manager specifications. Why restrict to only 1 millions keys as key manager is meant to handle maximum number of keys			Please share the use case of encryption keys ?	As stipulated in the RFP
44	Section-V: Technical Specifications ,4-KM01	Supply should include FIPS 140-2 Level3 certified embedded or network attached HSM with multi-factor authentication support	Request to modify the clause as :- Supply should include FIPS 140-2 Level3 certified embedded or integrate with proposed network attached HSM with multi-factor authentication support. The HSM should have NIST certificate with OEM name in the certificate. Justification In order to optimize the BOM and produce the same level of secuirty it is ideal to utilize the integration with the proposed HSM.		In order to optimize the BOM and produce the same level of secuirty it is ideal to utilize the integration with the proposed HSM. Supply should include FIPS 140-2 Level3 certified embedded or integrate with proposed network attached HSM with multi-factor authentication support. The HSM should have NIST certificate with OEM name in the certificate.	In order to optimize the BOM and produce the same level of secuirty it is ideal to utilize the integration with the proposed HSM.		As stipulated in the RFP
44	Section-V: Technical Specifications ,4-KM01	1 Million encryption key management capability			Please share the use case of encryption keys ?	Please share the use case of encryption keys?		As stipulated in the RFP
	Section-V: Technical Specifications ,4-KM01	Additional Clause	Request to add an additional clause as:- The HSM and KMS solution be from the same OEM in order to have better support and integration testing.		The HSM and KMS solution be from the same OEM in order to have better support and integration tested.	Additional Clause: The HSM and KMS solution be from the same OEM in order to have better support and integration tested.	The HSM and KMS solution be from the same OEM in order to have better support and integration tested.	As stipulated in the RFP

NETWORK ACCESS CONTROL-01: (QUERIES, CLARIFICATION AND CORRIGENDUM)

Sr.No	Page No	RFP Clause No./Section/Category	Item	RFP Ask	Ivalue	НРЕ	Clarification
1	Page 120	4. Network Access Control-01 , Point No. 5	Network Access control-01	Solution must be provided with perpetual Licenses, supporting minimum 500 device for TACACS+ and 1000 devices for NAC and 100 for device Profiling, Posturing and Guest Access from Day 1. License should be splitable across (DC, BCP and DR)	Profiling licenses are usually more in quantity then the NAC licenses because when we say NAC, we are talking about Posture Check functionality which is done only on the user's endpoints like Computer devices. However Profiling is the visibility feature and it tracks not just user endpoints but all other IP enabled devices as well like Printer, Camera, IoT, Switches, Firewall, etc. Hence Profiler count will always be higher then the NAC/Posturing license count. We believe the numbers are not in sync and would request you to relook at it and make appropriate changes.		Ref. Corrigendum
2	Page 120	4. Network Access Control-01 , Point No. 5	Network Access control-01	The NAC solution be able to integrate with wireless and wired network devices		Please share the list of wired and wireless devices to be managed using NAC . Also please share the details of current Wireless AP and Controller solution deployed /to be deployed	As stipulated in the RFP
3	Page 125,	4. Network Access Control-01 , Point No. 48		Proposed appliance must have minimum RAM to cater to the requested client/user capacity.	Required RAM is not mentioned. Kindly modify this clause as "Proposed appliance must have minimum 480 RAM to cater to the requested client/user capacity."		As stipulated in the RFP
4	Page 125,	4. Network Access Control-01 , Point No. 49		Proposed hardware appliance must have at least 2x 10G SFP+ SR multimode LC and 2x 1G copper ports populated from Day-1 compatible with proposed the switch.	NAC usually require only one port to implement all the required features and number of ports/interfaces may vary from vendor to vendor. Kindly modify this clause as "Proposed hardware appliance must have at least 2 x 10 Gigabit Copper Ethernet traffic ports from Day-1 compatible with the proposed switch."		Ref. Corrigendum
5	Addl. point	Suggestion to add this pint in the specs under "Network Access Control-01"		The proposed NAC solution software must be Make In India.			As stipulated in the RFP
6	BOQ-2.11	Network Access Control in HA Pair-01				Bidder requests CDAC to confirm the check if a common HA pair can be considered for DC and NDR	As stipulated in the RFP

PIM-PAM01: (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause No. /	Item	RFP Ask	Micro-Focus	Cache Technologies	Starlight	IVALUE	AIRTEL	Clarification
no.	Section/Category								
44	Section-V: Technical	PIM-	The Appliance shall	Hardware to be factored	Hardware to be factored	Hardware to be factored as	Hardware to be factored as per solution asked in the	How many	As stipulated
	Specifications, 5. PIM-	PAM01	support concurrent user	as per solution asked in	as per solution asked in	per solution asked in the RFP	RFP and need to be sized by the bidder to meet	Admin users	in the RFP
	PAM01, 5.2		sessions of 200 users. The	the RFP and need to be	the RFP and need to be	and need to be sized by the	performance and scalability.	required	
			Appliance shall have 50TB	sized by the bidder to	sized by the bidder to	bidder to meet performance		aout of 200	
			of Hard disk space after	meet performance and	meet performance and	and scalability.	Request you to please update this point to "Solution	total users	
			configuring the RAID 6 or	scalability.	scalability.		should support purpose build hardware and populated	count	
			better protection.			Request you to please	with requisite compute requirmements from day one to		
			Appliance shall have min.	Request you to please	Request you to please	update this point to	cater solution performance and scalability		
			Four ports of 10G SFP+ SR	update this point to	update this point to	"Solution should support	requirements." Hardware to be factored as per solution		
			and 4 Ports of 1G Copper	"Solution should support	"Solution should support	purpose build hardware and	asked in the RFP and need to be sized by the bidder to		
			ethernet to connect to	purpose build hardware	purpose build hardware	populated with requisite	meet performance and scalability.		
			the switches. One Mgmt.	and populated with	and populated with	compute requirmements			
			port is also required.	requisite compute	requisite compute	from day one to cater	Request you to please update this point to "Solution		
			Supply shall include both	requirmements from day	requirmements from day	solution performance and	should support purpose build hardware and populated		
			4 no. CAT 6 Ethernet	one to cater solution	one to cater solution	scalability requirements."	with requisite compute requirmements from day one to		
			patch cables of 3 mts.	performance and	performance and		cater solution performance and scalability		
			length and 4 nos. of FC LC	scalability requirements."	scalability requirements."		requirements."		
			to LC OM3 MM patch						
			cables of 3 mts. length.						

Page	RFP Clause No. /	Item	RFP Ask	Micro-Focus	Cache Technologies	Starlight	IVALUE	Clarification
no.	Section/Category							
44	Section-V: Technical	PIM-	Proposed solution	For security reasons,	For security reasons,	For security reasons, passwords	For security reasons, passwords should be retrieved from vault	As stipulated
	Specifications, 5. PIM-	PAM01	must provide break	passwords should be retrieved	passwords should be retrieved	should be retrieved from vault	under any circumstances. Can a process based break glass	in the RFP
	PAM01, 5.7		glass functionality to	from vault under any	from vault under any	under any circumstances. Can a	functionality be provided. It is suggested to have a satellite	
			retrieve password	circumstances. Can a process	circumstances. Can a process	process based break glass	vault as backup vault but password should not be retrieved	
			securely from an	based break glass functionality	based break glass functionality	functionality be provided. It is	from the vault. For security reasons, passwords should be	
			encrypted satellite	be provided. It is suggested to	be provided. It is suggested to	suggested to have a satellite	retrieved from vault under any circumstances. Can a process	
			vault. This vault	have a satellite vault as	have a satellite vault as	vault as backup vault but	based break glass functionality be provided. It is suggested to	
			must use same	backup vault but password	backup vault but password	password should not be	have a satellite vault as backup vault but password should not	
			encryption as used	should not be retrieved from	should not be retrieved from	retrieved from the vault.	be retrieved from the vault.	
			in the PAM vault.	the vault.	the vault.			

Page	RFP Clause No. / Section/Category	Item	RFP Ask	ARCON	Clarification
no.					
45	Section-V: Technical Specifications, 5.	PIM-	16. Solution should support session	We request you to eleminate dependencies on Jump server as it increase total cost of ownership which includes	As stipulated in
	PIM-PAM01, 5.16	PAM01	isolation between potential malicious	licensing cost to run the jump server.	the RFP
			desktops and target server via hardened	Modified clause: "16. Solution should support session isolation between potential malicious desktops and target server	
			jump server	via Secure Gateway/Application Gateway"	

Page			RFP Ask	ARCON	Clarification
no.	Section/Category				
45	Additional Clause: Section-V:	PIM-	The Solution should allows an end user/bot to use the command line/tools like MobaXterm,	We believe that use of automation BOTs is increasing to reduce daily	As stipulated in
	Technical Specifications	PAM01	SecureCRT to not only authenticate a user in PAM solution but also establish a connection	mundane tasks and these BOTs require privilege credentials/password to	the RFP
	Category-I , 5. PIM-PAM01		to any *nix target device.	carryout such task.	

Page	RFP Clause No. /	Item	RFP Ask	ARCON	Clarification
no.	Section/Category				
45	Additional Clause: Section-V:	PIM-	Should include an enterprise version which will be	We believe a PAM solution should ensures consistent and reliable access to services, tools and data on a	As stipulated in
	Technical Specifications	PAM01	highly scalable to support the High Availability at both	continuous basis for which solution should support high availability with auto failover technique and should	the RFP
	Category-I , 5. PIM-PAM01		DC and DR sites.	support DR spread across geographical locations	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Clarification
45	Additional Clause:- Section-V: Technical Specifications	PIM-PAM01	The solution should be scalable to be configured as Active-Passive from DC to DR using its auto failover technique.	As stipulated in the RFP
	Category-I , 5. PIM-PAM01			

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Clarification
45	Additional Clause:- Section-V: Technical Specifications	PIM-PAM01	The solution should have the ability to support DR in multiple geographical locations and networks.	As stipulated in the RFP
	Category-I , 5. PIM-PAM01			

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ARCON	Clarification
45	Additional Clause:- Section-V: Technical	PIM-PAM01	The module should enable the admin to take remote	Remote connection feature should be included in PAM solution to	As stipulated in the RFP
	Specifications		connection of user endpoint without the need to possess	overcome use of any third party tools such as teamviewer and	
	Category-I , 5. PIM-PAM01		local password or without using any third party agents.	anydesk	

Page	RFP Clause No. / Section/Category	Item	RFP Ask	ARCON Clar	rification
no.					
45	Additional Clause : Section-V:	PIM-	The solution should have End Point Privilege	With increase in Internal Threat due to extensive privileges, it is important that PAM solution should also As st	ipulated in
	Technical Specifications	PAM01	Management and Threat Analytics.	have End point Privilege Management and Threat Analytics to control end user privilege and real time the RF	P
	Category-I , 5. PIM-PAM01			threat detection.	

SIEM01: (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause No. /	RFP Ask	Binary	HPE	Clarification
no.	Section/Category				
67	Section 5 / clause	SIEM solution must be an on premise scalable dedicated	We request department to ask for both appliance based or	Request CDAC to relax this criteria to allow OEMs to participate with	Ref.
	17.1.1	appliance / purpose built OEM Solution. It should be a	sofware based solution as every OEM has it's own licensing	software based SIEM solution.	Corrigendum
		physically segregated three tier architecture and support	model and by asking for appliance based solution,	"1. SIEM solution must be an on premise scalable dedicated appliance /	
		both agent-based and agent-less for information	department will restrict the participation of most of the	purpose built OEM Solution/Softwrae with required hardware bundled by	
		collection.	OEM's	SI. It should be a physically segregated three tier architecture and support	
				both agent-based and agent-less for information collection."	

Page	RFP Clause No. /	RFP Ask	NETWitness	Binary	Clarification
no.	Section/Category				
67	Section 5 / clause 17.1.2	It should have minimum 50K sustained	1) Multiple leading SIEM OEM's are providing licenses on per day data ingestion or throughput based model.	Sustained and peak EPS	Ref.
		and peak events per second (EPS)	2) In scenario of load bursts or Event Spikes, SIEM solution should be able to handle Peak EPS which is more than sustained	count can't be same as	Corrigendum
		across all tier (Collection, Correlation	EPS. Hence, we would kindly request CDAC to modify the clause as per below:-	per industry best	
		and Management). Collectors should		practices. Hence, please	
		be able to buffer events and should be	"It should have minimum 50,000 Event Per Second (EPS) or 2 TB/day (considering average event to be of 500 bytes) sustained	amend this clause with	
		able to deploy multiple collectors for	and 75,000 EPS or 3TB/day (considering average event to be of 500 bytes) peak across all tier (Collection, Correlation and	correct sustained and	
		scalability.	Management). Collectors should be able to buffer events and should be able to deploy multiple collectors for scalability. "	peak EPS.	

Page	RFP Clause No. /	RFP Ask	NETWitness	Binary	Clarification
no.	Section/Category				
67	Section 5 / clause 17.1.4	Solution	We would like to request CDAC to please include below mentioned use cases to enhance the capability of UEBA and also get the complete visbility on user and	Since customer	As stipulated in
		should have	entity behaviours.	is looking	the RFP
		User Entity	1. The solution should be able to highlight below activities –	embedded	
		Behavior	a. Failed logins Followed By Successful Login and a Password Change	UEBA solution.	
		Analytics	b. Malicious Account Creation Followed by Failed Authorization to Neighboring Devices	We suggest it	
		(UEBA) to	c. Multiple Account Lockouts from Same or Different Users	should be sized	
		detect	d. Multiple Account Lockouts from Same or Different Users	for all users /	
		advanced	e. Multiple Failed Logins Followed by Successful Login	entities since	
		attacks,	f. Multiple Failed Logins from Multiple Diff Sources to Same Dest	this way it'll	
		support API	g. Multiple Failed Logins from Multiple Users to Same Destination	cover all the	
		like REST	h. Multiple Failed Logins from Same User Originating from Different Countries	entities and	
		and SOAP	i. Multiple Failed Privilege Escalations by the Same User	users in the	
		for	j. Multiple Login Failures by Administrators to Domain Controller	organization	
		integration.	k. Multiple Login Failures by Guest to Domain Controller	and provide a	
		Support	I. Multiple Login Failures from Same Source IP with Unique Usernames	comprehensive	
		remediation	m. Multiple Successful Logins from Multiple Diff Src to Diff Dest	solution for	
		trigger	n. Multiple Successful Logins from Multiple Diff Src to Same Dest	Insider Threat	
		when a	2. The Solution should be able to identify Privilege Escalation Detected and Privilege User Account Password Change. The Solution should be able to identify	Detection.	
		specified	Suspicious Account Removal, Suspicious Privileged User Access Activity.		
		incident	3. The Solution should be able to identify User Account Created and Deleted Within an Hour, User Added to Admin Group Same User Login OR Same User pseudo,		
		occurs.	User Added to administrative group then SIGHUP detected etc.		
			4. UEBA should be able to create User Login Baseline.		
			5. The solution should be able to highlight Failed logins outside business hour.		

Page no.	RFP Clause No. / Section/Category	RFP Ask	Binary	Clarification
67	·	Should have minimum built-in storage (with RAID 5 or better) of retaining minimum 180 days of data (Raw and Normalized Logs in regards to the asked EPS requirement).	This clause is specific to OEM. Customer should give option where logs can be retained either on built-in storage or external storage without any cost implication to customer and it should also cater to the retention period requirement required by the department without impacting the performance of the solution.	-

Page	RFP Clause No. /	RFP Ask	NETWitness	Clarification
no.	Section/Category			
67	Section 5 / clause 17.1.6	Should maintain Raw and Normalized logs for 1 year	Retention requirement are mentioned as per Point 5, 6 and 7.	As stipulated in
		through (built-in / SAN / NAS) storage. Both raw logs and		the RFP
		normalized logs should be made available. Real-time logs	Kindly confirm if below understading is correct -	
		should be available for non-repudiation and integrity	The SIEM solution should retain 180 days of online logs (both Raw and normalized) in an uncompressed format for fast searching,	
		verification and log archiving based of rules/policies.	threat hunting and investigation purposes and 1 year of Raw and Normalized logs as Offline (may be in built-in / SAN / NAS).	

Page	RFP Clause No. /	RFP Ask	NETWitness	Clarification
no.	Section/Category			
67			Kindly confirm whether SAN or NAS storage will be	As stipulated in
		should be made available. Real-time logs should be available for non-repudiation and integrity verification and log archiving based of	provided by CDAC or bidder has to factor the same.	the RFP
		rules/policies.		

Page	RFP Clause No. /	RFP Ask	Binary	Micro-Focus	Cache Technologies	Starlight	IVALUE	HPE	Clarification
no.	Section/Category								
68	Section 5 / clause	SIEM solution should	We suggest	Best practice is to store	As stipulated				
	17.1.7	maintain minimum	department to ask	compressed logs with	in the RFP				
		180 days of logs (both	for more advanced	minimum compression ratio					
		Raw and normalized)	features like Data	i.e 70% which will help CDAC					
		in an uncompressed	Lake rather than	to save huge cost on HW &					
		format to allow for fast	log storage as Data	Storage.	Storage.	Storage.	Storage.	Storage.	
		searching, threat	Lake will have						
		hunting and	feature of super	Request you to please					
		investigation.	indexing and fast	update this point to " SIEM					
			search.	solution should maintain					
				minimum 180 days of logs					
				(both Raw and normalized)					
				in an uncompressed /					
				compressed format (and					
				preferably maintain indexes					
				of the fields) to allow for fast					
				searching, threat hunting					
				and investigation."					

Page	RFP Clause No. /	RFP Ask	NETWitness	Binary	Airtel	НРЕ	Clarification
no.	. Section/Category						
68	Section 5 / clause	Option to	Kindly confirm whether the solution to be proposed will be in HA or HA	Since customer is seeking an option to	SIEM HA is	Request CDAC to clarify wheather	Ref.
	17.1.10	deploy in	supported / option to deploy in HA mode for all 3 sites (i.e. DC, BCP and DR) .	deploy solution in HA mode. We suggest	desired for The	the HA license to be provisioned	Corrigendum
		HA mode.	Since there are 3 sites, please clarify how the architecture would be look like.	department to also sought for native	same DC	on Day-1?	
			Is it only DC will be Active and other 2 sites (i.e. BCP and DR) will be Passive or	replication across DC & DR without	envionmnet or it	How the logs to be stored, will it	
			DC and BCP will be HA pair & runs Active-Active and DR will be Passive (in case	dependency on any third party software to	should be	be stored locally in each DC, DRC	
			of disaster only it will be active).	avoid any cost implication to customer in	avaivalbe across	and DR or all three sites will be	
				future	DCs	having the same logs (synced)	

Page	RFP Clause No. /	RFP Ask	Binary	Micro-Focus	Cache Technologies	Starlight	IVALUE	HPE	Clarification
no.	Section/Category								
68	Section 5 / clause	The proposed appliance /	In current form, specification are	Hardware to be	Hardware to be	Hardware to be	Hardware to be	Query 2- SIEM solutions	Ref.
	17.1.11	Hardware must have at	poised towards favouring a particular	factored as per	factored as per	factored as per	factored as per	are log collection and log	Corrigendum
		least 2x10GE (SFP+,	OEM who provide appliance based	solution asked in the	management solutions				
		10GBase-SR) / 2x25G	solution on hardware of such	RFP and need to be	which doesn't require 25G				
		(SFP28, 25GBaseSR) and	specifications. We suggest department	sized by the bidder to	interfaces. Request to				
		2x1GE (1000Base-F, 1000	to sought for either appliance based /	meet performance and	meet performance and	meet performance and	meet performance and	modify the clause as below	
		Base–SX) / Copper fully	software based solution where	scalability.	scalability.	scalability.	scalability.	-	
		populated from day one.	hardware can be provided based on					"11. The proposed	
		Supply must include	the sizing recommendation shared by	Request you to please	appliance / Software with				
		required Transceivers.	OEM. This will help cusotmer in getting	update this point to	Hardware must have at				
			competetive bids with open	"Proposed solution	"Proposed solution	"Proposed solution	"Proposed solution	least 2x10GE (SFP+,	
			competition.	must be populated	must be populated	must be populated	must be populated	10GBase-SR) and 2x1GE	
				with requisite compute	with requisite compute	with requisite compute	with requisite compute	(1000Base-F, 1000 Base-	
				requirmements from	requirmements from	requirmements from	requirmements from	SX) / Copper fully	
				day one."	day one."	day one."	day one."	populated from day one.	
								Supply must include	
								required Transceivers"	

Page no.	RFP Clause No. / Section/Category	RFP Ask	Micro-Focus	Clarification
	, ,			
68	Section 5 / clause 17.2.2	SIEM solution must support information in the context of network and security devices(like Switches, Routers,	Please suggest on How many devices to	Ref.
		Firewall, WAF, DDoS, Server and Network Load balancer, Anti-APT), SDN controllers, Virtualization and Container environments (VMWare, VMWare	be integrated with SIEM & SOAR	Corrigendum
		NSX, Hyper-V, Redhat, Docker etc.) custom applications, end point security (EDR / XDR) and their centralized controller, DLP software, Incident and	Solution?	
		ticketing Management tool, Syslog, ELK Stack, Physical security devices (biometric readers, smart card etc.), Storage (EMC, NetApp, Isilon, Nutanix etc.),		
		Databases, VOIP, AAA & NAC.		

Page	RFP Clause No. /	RFP Ask	Airtel	Clarification
no.	Section/Category		I	
68	Section 5 / clause 17.2.1	Solution should integrate with SOAR and must have flexibility to deploy / enable (SOAR) as and when desired with no additional licenses cost (for hardware, software, feature/function). SIEM alerts should be able to be ingested into SOAR and SOAR enrich intelligence from SIEM as when required to take remediation action. It should utilize an alarm received as an event to trigger IR playbooks that initiate enforcement actions on target enforcement network and security systems such as firewalls, and network fabric / SDN controllers, Workload protection, End point security etc.	Can we get some tentative device cound for each SOAR platform should be support .	As stipulated in the RFP

Page	RFP Clause No. /	RFP Ask	Binary	Clarification
no.	Section/Category			
69	Section 5 / clause 17.3.1		The current requirement specifications designed are very standard and aren't specific to the department as PCI, HIPAA aren't related to department in any way. Hence, we suggest that organization like NIA should go for Next Gen SIEM / standardized OEM tools.	•

Page	RFP Clause No. / RFP Ask		HPE	Clarification
no.	Section/Category			
69	Section 5 / clause 17.2.5	5. Threat Intelligence feeds (MISP, MITRE, SANS, Threat	Request CDAC to clarify how many OEM subscribed Threat Intel Feeds are required to be proposed? Please mention	As stipulated in the
		Connect, CyberARK, etc.) with support of STIX/TAXII/Open API.	the OEM feed names. (etc. term might lead to confusion of number of commercials feeds to be proposed by SI's)	RFP

Page	RFP Clause No. /	RFP Ask	Micro-Focus	Cache Technologies	Starlight	IVALUE	HPE	Clarification
no.	Section/Category							
70	Section 5 / clause	SIEM solution should	OpenLDAP comes with its native	As stipulated				
	17.3.6	support Local, SAML	security vulnerabilities due to	in the RFP				
		2.0, OpenLDAP, and	open source hence not					
		Microsoft Active	supported.	supported.	supported.	supported.	supported.	
		Directory for enterprise						
		authentication.	Request you to please update					
			this point to " SIEM solution					
			should support Local, SAML 2.0,					
			OpenLDAP/Microsoft Active					
			Directory for enterprise					
			authentication.	authentication.	authentication.	authentication.	authentication.	

Page	RFP Clause No. /	RFP Ask	Binary	Clarification
no.	Section/Category			
70		Pre-defined and Analyst-centric dashboards. Service portal should be intelligent, which automates ticketing management system and other process. Service desk should integrate SIEM and SOAR, where alerts from SIEM ingested into SOAR can auto trigger new service incident. And the service incident status updates from SIEM and SOAR should be in sync with service desk.	Please suggest if customer is also looking ITSM & Ticketing. If yes, then please share the detailed requirement and speicifications for the same as ITSM is altogether a different technology. Currently by putting a single line it's favouring to a particular OEM.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	RFP Ask	Binary	Clarification
70	Section 5 / clause 17.3.9	The solution provided must have access to at least 6 analyst / administrator concurrent session 24x7 with no limitation on user creation.	As industry best practice, SOAR tools are deploy to minimise the requirement of manpower / analyst. Hence, requesting 6 analyst tool doesn't goes in sync with the basic purpose of deploying SOAR. We suggest department to sought at least 2 analyst license.	As stipulated in the RFP

Page	RFP Clause No. /	RFP Ask	NE	TWitness	Binary	Clarification		
no.	Section/Category							
70	Section 5 / clause 17.4.2	The solution must provide at	As per RFP , SIEM solution should have MITRE ATT&CK	per RFP , SIEM solution should have MITRE ATT&CK mapping out of the box. Also, as per MITRE Framework there				
		least 20 out of the box	are more that 200+ threat techniques hence, we would	over a period of time and now most of	the RFP			
		playbooks & out of the box	which will provide maximum integrations, coverage a	the OEM comes with at least 100+				
		content to create playbooks	accordance to	MITRE framework.	playbooks along with integration with			
		which can be customized as			more than 300+ OEM. Hence suggest			
		well as used from day 1 to	Hence, we would like to request to	CDAC to modify the clause as below -	department to change the clause			
		reduce day to day operational	"The solution must provide at least 150+ out of the box	playbooks & out of the box content to create playbooks which	accordingly to maximise the benefit of			
		tasks.	can be customized as well as used from day 1 to reduce	day to day operational tasks"	SOAR technology.			

Page	RFP Clause No. /	RFP Ask	Binary	HPE	Clarification
no.	Section/Category				
71		· ·	This clause will limit participation to OEM having inbuilt TIP with SOAR. Also in above		
		Threat Intel platform inbuilt with OEM	specifications department has sought that tools should have functionalites to ingest threat	Since multiple Threat Intel Feeds are already asked in	the RFP
		threat Intel feeds and support for both	intelligence feeds from Open sourece / commercials tools which will server their purpose.	the Clause no 5 (Integration). Request CDAC to	
		commercial and open source threat Intel	Hence request department to remove the requirement of inbuilt Threat Intel Platform.	remove this clause.	
		feeds			

Page	RFP Clause No. /	RFP Ask	Binary	Clarification
no.	Section/Category			
72	Section 5 / clause 17.4.22	Proposed solution should support at least six	SOAR technologies evolved drastically over a period of time and now most of the OEM comes with at least 100+ playbooks along with	As stipulated in
		analysts/administrators.	integration with more than 300+ OEM. Hence suggest department to change the clause accordingly to maximise the benefit of SOAR	the RFP
			technology.	

Page	RFP Clause No. /	RFP Ask	NETWitness	Binary	Cache	Starlight	IVALUE	HPE	Clarification
no.	Section/Category				Technologies				
	Additional points	Additional	SInce all National Critical Infrastructure of the country are continuous Threat Intel Feeds	1] We suggest	Additional	Additional	Proposed	Proposed	As stipulated
	suggested	points	from multiple regulatory and law enforcement agencies like CERT-In or NCIIPC and	department to ask for	Suggested	Suggested	solution	solution	in the RFP
		suggested	remedial action to be reported back to regulators, we would kindly request CDAC augment	Next Gen SIEM with	Clause :	Clause :	should ingest	should ingest	
			SOAR capabilities which has single integrated platform for Security Orchestration and	built-in ML models	Proposed	Proposed	logs with	logs with	
			Automation (SOA) , Threat Intel Platform (TIP) and Security Incident Response Platform (and also allows	solution should	solution should	sensitive	sensitive	
			SIRP) . Hence, kindly add below mentioned clauses in SOAR functionality	customer to create	ingest logs with	ingest logs with	information/	information/	
				their own dynamic	sensitive	sensitive	Personal	Personal	
			1. Solution should have no limitations on number of device integration for automation, no	Machine Learning	information/	information/	Identification	Identification	
			limitation on number of threat feeds to collect threat intel and no limitation on	Models. Next Gen	Personal	Personal	Information	Information	
			distribution of threat intel on number of security devices.	SIEM solution must	Identification	Identification	in secure	in secure way	
			2. Solution should provide capability to process structured and unstructured threat intel	provide an interface	Information in	Information in	way and	and should	
			data, at least from TXT, PDF, DOC, DOCX, PPT, PPTX, XLS, XLSX, MSG, EML etc.	that allows the same	secure way and	secure way and	should have	have options	
			3. Solution should support continous reputation check for Indicators of compromise (IOC)	query string to be	should have	should have	options to	to selectively	
			on a numeric scale or risk priority scale to prioritize and triage decision-making for	configured as an alert,	options to	options to	selectively	secure only	
			captured threat intel. Solution should also give additional contextual intelligence on the	report or a dashboard	selectively	selectively	secure only	requisite	
			latest threat actor tactics, techniques, and procedures to help in identifying malicious	panel. Same query	secure only	secure only	requisite	fields in logs	
			activity faster.	string should be used	requisite fields	requisite fields	fields in logs	only while	
			4. Solution should provide insights on data reputation, network activity (observations),	for SBDL & SIEM.	in logs only	in logs only	only while	preserving	
			false positive counts, and status.		while preserving	while preserving	preserving	the format of	
					the format of	the format of	the format of	the data.	
					the data.	the data.	the data.		

Page no.	RFP Clause No. / Section/Category	RFP Ask	Binary	Cache Technologies	Starlight	IVALUE	HPE	Clarification
110.		A 1 1::: 1	TI N			T	7	
	Additional points		The Next Gen	Additional Suggested Clause :	Additional Suggested Clause :	, ,	The proposed SOC integrated helpdesk	
	suggested	points	SIEM solution		The proposed SOC integrated helpdesk	l -		in the RFP
		suggested	must possess	solution should be built on ITIL	solution should be built on ITIL	1	,	
			built-in function	framework and must be officially	framework and must be officially			
			for Predictive		certified on the current ITIL v4 best	1 '	·	
			Analysis:	practices on at least 10 processes by	practices on at least 10 processes by			
					Pink Elephant. The ITIL4 processes that			
			data as a		are relevant and needs to be assessed			
			baseline to	to meet the minimum functional criteria	to meet the minimum functional criteria		criteria are Incident management,	
				are Incident management, Problem	are Incident management, Problem		Problem Management, Change	
			patterns,	Management, Change Enablement,	Management, Change Enablement,	1	,	
			thresholds and	Service Configuration management,	Service Configuration management,		management, Service Catalog	
			tolerances	Service Catalog Management, Release	Service Catalog Management, Release	1	,	
				Management, Servicedesk, Knowledge	Management, Servicedesk, Knowledge	1	Servicedesk, Knowledge Management,	
			b. Ability to	Management, IT Asset Management	Management, IT Asset Management	1	<u> </u>	
			· ·	and Service Request Management. The	and Service Request Management. The	'	Request Management. The	
			future needs of	.,	certification copy to be submitted along	1		
			critical system	with the formal technical response.	with the formal technical response.	along with the formal technical	along with the formal technical	
			resources, no			response.	response.	
			prior knowledge	Multiple leading Service Management	Multiple leading Service Management			
			in predictive	•	OEMs are listed under Pink Elephant	Multiple leading Service Management		
			modelling	certifications website. It becomes	certifications website. It becomes	· ·	OEMs are listed under Pink Elephant	
			algorithms	utmost important to ask for ITILV4	utmost important to ask for ITILV4			
			required to use	based ITSM/Helpdesk solution to	based ITSM/Helpdesk solution to	utmost important to ask for ITILV4	utmost important to ask for ITILV4	
			this functionality,	ensure the customer is using the latest	ensure the customer is using the latest	· ·	based ITSM/Helpdesk solution to	
			and the ability to	technology and frameworks across IT	technology and frameworks across IT	1	_	
			easily interpret	Service Management disciplines	Service Management disciplines	technology and frameworks across IT	technology and frameworks across IT	
			and customize			Service Management disciplines.	Service Management disciplines.	
			the results					

Page	RFP Clause	No. /	RFP Ask	Binary	Cache Technologies	Starlight	IVALUE	НРЕ	Clarification
no.	Section/Ca	tegory							
	Additional points Additional Th		The Next Gen SIEM	Additional Suggested Clause :	Additional Suggested Clause :	The proposed SOC and IT Service	The proposed SOC and IT Service	As stipulated	
	suggested		points	solution must be able	The proposed SOC and IT Service	The proposed SOC and IT Service	Management solutions must be a	Management solutions must be a	in the RFP
			suggested	to build an	Management solutions must be a	Management solutions must be a	seamlessly integrated, modular and	seamlessly integrated, modular and	
	unst		unstructured index or	seamlessly integrated, modular and	seamlessly integrated, modular and	scalable solution to provide	scalable solution to provide		
			store data in its original	scalable solution to provide automatic	scalable solution to provide automatic	automatic incident logging, auto-	automatic incident logging, auto-		
			format without any	incident logging, auto-classification, and	incident logging, auto-classification, and	classification, and auto-assignment	classification, and auto-assignment		
				rigid schema.Solution	auto-assignment to the right security	auto-assignment to the right security	to the right security analyst/group	to the right security analyst/group	
				should be provide a	analyst/group based on the location,	analyst/group based on the location,	based on the location, department,	based on the location, department,	
				single console view	department, asset etc to resolve the	department, asset etc to resolve the	asset etc to resolve the issues	asset etc to resolve the issues	
				where we can see all	issues faster. This seamless integration	issues faster. This seamless integration	faster. This seamless integration	faster. This seamless integration	
				data whether metric or	ensures bi-directional information	ensures bi-directional information	ensures bi-directional information	ensures bi-directional information	
	log e		log event data and have	exchange in case of any changes in the	exchange in case of any changes in the	exchange in case of any changes in	exchange in case of any changes in		
	a capability to corre		a capability to correlate	status or priority of the tickets.	status or priority of the tickets.	the status or priority of the tickets.	the status or priority of the tickets.		
				between the data sets.					

Page	RFP Clause No. /	RFP Ask	Binary	Cache Technologies	Starlight	IVALUE	HPE	Clarification
no.	Section/Category							
	Additional points	Additional	Today security scenario is evolving very fast where	Additional Suggested Clause :	Additional Suggested Clause :	SOC and Help Desk should be	SOC and Help Desk should	As stipulated
	suggested	points	hardware vendors are upgradin the versions of their	SOC and Help Desk should be	SOC and Help Desk should be	integrated, modular and	be integrated, modular	in the RFP
		suggested	hardware more frequently. Hence customer should look	integrated, modular and	integrated, modular and	scalable solutions from a	and scalable solutions	
			for a Next Gen Solution which must provide a field	scalable solutions from a	scalable solutions from a	single OEM so that the	from a single OEM so that	
			extraction wizard that is used to create parsers and	single OEM so that the	single OEM so that the	security analyst can	the security analyst can	
			allow testing and validation with existing live or	security analyst can	security analyst can	create/update tickets in Help	create/update tickets in	
			historical data within the system from the web interface.	create/update tickets in Help	create/update tickets in Help	Desk from the SOC dashboard,	Help Desk from the SOC	
			Solution should not be dependent on parser to ingest	Desk from the SOC dashboard,	Desk from the SOC dashboard,	and IT administrators updates	dashboard, and IT	
			data. If parser for data ingestion for any new data source	and IT administrators updates	and IT administrators updates	on tickets can be	administrators updates on	
			/new version of data source is not available with OEM	on tickets can be	on tickets can be	automatically synced with the	tickets can be	
			OOTB then OEM has to build and share the parser to	automatically synced with the	automatically synced with the	SOC dashboard.	automatically synced with	
			Bidder within 15 days for duration of the contract.	SOC dashboard.	SOC dashboard.		the SOC dashboard.	

Page	RFP Clause No. /	RFP Ask	Cache Technologies	Starlight	IVALUE	Clarification
no.	Section/Category					
	Additional points	Additional	Additional Suggested Clause :	Additional Suggested Clause :	The proposed IT Service Management OEM must be	As stipulated
	suggested	points	The proposed IT Service Management OEM must be an industry	The proposed IT Service Management OEM must be an	an industry standard, enterprise grade solution and	in the RFP
		suggested	standard, enterprise grade solution and shall be present in	industry standard, enterprise grade solution and shall be	shall be present in either Leaders or Challengers	
			either Leaders or Challengers (Strong Performers / Major	present in either Leaders or Challengers (Strong Performers /	(Strong Performers / Major Players) Quadrant of	
			Players) Quadrant of Forrester / Gartner / IDC report for ITSM in	Major Players) Quadrant of Forrester / Gartner / IDC report for	Forrester / Gartner / IDC report for ITSM in the last	
			the last 3 published reports.	ITSM in the last 3 published reports.	3 published reports.	

Page	RFP Clause No. /	RFP Ask	Cache Technologies	Starlight	IVALUE	Clarification
no.	Section/Category					
	Additional points	Additional	Additional Suggested Clause :	Additional Suggested Clause :	SIEM solution should have capability to	As stipulated in
	suggested	points	SIEM solution should have capability to Identifies and reports on	SIEM solution should have capability to Identifies and reports	Identifies and reports on changes to critical	the RFP
		suggested	changes to critical files, platforms, and systems to help prevent	on changes to critical files, platforms, and systems to help	files, platforms, and systems to help prevent	
			breaches and ensure policy compliance	prevent breaches and ensure policy compliance	breaches and ensure policy compliance.	

Page	RFP Clause No. /	RFP Ask	Cache Technologies	Starlight	IVALUE	Clarification
no.	Section/Category					
	Additional points	Additional	Additional Suggested Clause :	Additional Suggested Clause :	SIEM solution should be licensed based on standard	As stipulated
	suggested	points	SIEM solution should be licensed based on standard licensing	SIEM solution should be licensed based on standard licensing	licensing parameter (i. e. sustained events per	in the RFP
		suggested	parameter (i. e. sustained events per second) and should be	parameter (i. e. sustained events per second) and should be	second) and should be perpetual. Licenses should be	
			perpetual. Licenses should be considered for non-production	perpetual. Licenses should be considered for non-production	considered for non-production sites (DR, UAT, DEV,	
			sites (DR, UAT, DEV, TESTING) to benefit customer without any	sites (DR, UAT, DEV, TESTING) to benefit customer without	TESTING) to benefit customer without any surplus	
			surplus license cost during the tenure of the project.	any surplus license cost during the tenure of the project.	license cost during the tenure of the project.	

Page	RFP Clause No. /	RFP Ask	Cache Technologies	Starlight	IVALUE	Clarification
no.	Section/Category					
	Additional points	Additional	Additional Suggested Clause :	Additional Suggested Clause :	The proposed .SIEM solution MUST have at least 5	As stipulated
	suggested	points	The proposed .SIEM solution MUST have at least 5 deployments	The proposed .SIEM solution MUST have at least 5	deployments in Indian Government/ Public Sector,	in the RFP
		suggested	in Indian Government/ Public Sector, monitoring with the	deployments in Indian Government/ Public Sector, monitoring	monitoring with the capacity 30,000 EPS+ in each of	
			capacity 30,000 EPS+ in each of such deployments. Customer	with the capacity 30,000 EPS+ in each of such deployments.	such deployments. Customer names, solution	
			names, solution details and OEM undertaking needs to be	Customer names, solution details and OEM undertaking needs	details and OEM undertaking needs to be provided	
			provided at the time of bidding.	to be provided at the time of bidding.	at the time of bidding.	

Page	RFP Clause No. /	RFP Ask	Cache Technologies	Starlight	IVALUE	Clarification
no.	Section/Category					
	Additional points	Additional	Additional Suggested Clause :	Additional Suggested Clause :	Proposed SIEM, IdAM/PIM, SOAR, EMS solution part of the	As stipulated
	suggested	points	Proposed SIEM, IdAM/PIM, SOAR, EMS solution part of the	Proposed SIEM, IdAM/PIM, SOAR, EMS solution part of the	overall RFP and should be an integrated, modular and	in the RFP
		suggested	overall RFP and should be an integrated, modular and	overall RFP and should be an integrated, modular and	scalable solution with single support function across all the	
			scalable solution with single support function across all the	scalable solution with single support function across all the	modules (i.e. all Security Monitoring, Identity & Access	
			modules (i.e. all Security Monitoring, Identity & Access	modules (i.e. all Security Monitoring, Identity & Access	Monitoring, Application Security Testing, Server	
			Monitoring, Application Security Testing, Server Monitoring,	Monitoring, Application Security Testing, Server	Monitoring, Database Monitoring and Service Management	
			Database Monitoring and Service Management tools should	Monitoring, Database Monitoring and Service Management	tools should be preferably from single OEM).	
			be preferably from single OEM)	tools should be preferably from single OEM)		

Page	RFP Clause No. /	RFP Ask	Cache Technologies	Starlight	IVALUE	Clarification
no.	Section/Category Section/Category					
	Additional points	Additional	Additional Suggested Clause :	Additional Suggested Clause :	OEM must have its presence in India	As stipulated in
	suggested	points	OEM must have its presence in India including development	OEM must have its presence in India including development	including development centre and support	the RFP
		suggested	centre and support centre (not outsourced partner) for quoted	centre and support centre (not outsourced partner) for quoted	centre (not outsourced partner) for quoted	
			product.	product.	product.	

Page	RFP Clause No. /	RFP	HPE	Clarification
no.	Section/Category	Ask		
	Section 5 / clause 17.1.10		Bidder requests CDAC to confirm the check if a common HA pair can be considered for DC and NDR. Bidder also seeks clarity on the log transport between DC, NDR and DR	Ref.
			or these will be independent SIEM's	Corrigendum

	DED OL 1		D=D 4 1		INICOLO	MDALC LU	ol :6: ·:
Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	Clarification
10. 74	Section/Category	CTCDVD04	Deal Calatin	Madification Paul of Califfronts Indiana.	Addiffication Book of Calcifornia Library	Mark Control Book of California International	A. die leterie
4	Section-V:	STGBKP01	Backup Solution	Modification: Backup Solution should support	Modification: Backup Solution should support	Modification: Backup Solution should support	As stipulated in
	Technical		should support	various level of backups including full, incremental,	various level of backups including full, incremental,	various level of backups including full,	the RFP
	Specifications,		various level of	synthetic, optimized synthetic and user driven	synthetic, optimized synthetic and user driven	incremental, synthetic, optimized synthetic and	
	Point		backups including	backup along with various retention period.	backup along with various retention period.	user driven backup along with various retention	
	19.STGBKP01		full, incremental,	As per below mentioned retention policy backup	As per below mentioned retention policy backup	period.	
			synthetic,	data to be retained in Purpose built backup	data to be retained in Purpose built backup	As per below mentioned retention policy backup	
			optimized	appliance.	appliance.	data to be retained in Purpose built backup	
			synthetic and	1. Daily incremental to be retained for 1 week.	1. Daily incremental to be retained for 1 week.	appliance.	
			user driven	2. Weekly full backup to be retained for 1 month.	2. Weekly full backup to be retained for 1 month.	1. Daily incremental to be retained for 1 week.	
			backup along with	3. Monthly full backup to be retained for a year.	3. Monthly full backup to be retained for a year.	2. Weekly full backup to be retained for 1	
			various retention	4. Yearly full backup to be retained for 5 years.	4. Yearly full backup to be retained for 5 years.	month.	
			period.	The purpose built backup appliance should be	The purpose built backup appliance should be	3. Monthly full backup to be retained for a year.	
				quoted with adequate capacity considering 300 TB	quoted with adequate capacity considering 300 TB	4. Yearly full backup to be retained for 5 years.	
				front end data (30% DB & 70% File System) 1% daily	front end data (30% DB & 70% File System) 1% daily	The purpose built backup appliance should be	
				change rate for entire duration of 3 years warranty.	change rate for entire duration of 3 years warranty.	quoted with adequate capacity considering 300	
				Any additional software, backup storage capacity	Any additional software, backup storage capacity (in	TB front end data (30% DB & 70% File System)	
				(in addition to minimum 300 TB usable capacity)	addition to minimum 300 TB usable capacity) and	1% daily change rate for entire duration of 3	
				and any other component required as per sizing	any other component required as per sizing needs	years warranty. Any additional software, backup	
				needs to be provided by the OEM & bidder at the	to be provided by the OEM & bidder at the time of	storage capacity (in addition to minimum 300 TB	
				time of bid. The bidder must also submit the	bid. The bidder must also submit the backup	usable capacity) and any other component	
				backup capacity sizing certificate/report on the	capacity sizing certificate/report on the OEM's letter	required as per sizing needs to be provided by	
				OEM's letter head with seal and sign from	head with seal and sign from authorized signatory.	the OEM & bidder at the time of bid. The bidder	
				authorized signatory.		must also submit the backup capacity sizing	
					Justification : The purpose of backup appliance to	certificate/report on the OEM's letter head with	
				Justification: The purpose of backup appliance to	retain multiple copies of backup data and make	seal and sign from authorized signatory.	
				retain multiple copies of backup data and make	data available for restore & recovery in case of		
				data available for restore & recovery in case of	operational issue. It is very important to provide the	Justification : The purpose of backup appliance	
				operational issue. It is very important to provide	inputs to size the backup appliance which can cater	to retain multiple copies of backup data and	
				the inputs to size the backup appliance which can	to hold the backup data logically for retention	make data available for restore & recovery in	
				cater to hold the backup data logically for retention	period required along with various ways to do the	case of operational issue. It is very important to	
				period required along with various ways to do the	backup regularly.	provide the inputs to size the backup appliance	
				backup regularly.		which can cater to hold the backup data logically	
				220.06 . 200.01.11.		for retention period required along with various	
						ways to do the backup regularly.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	Clarification
no.	Section/Category						
74	Section-V:	STGBKP01	Proposed solution must	Modification: "The proposed solution	Modification: "The proposed solution should	Modification: "The proposed solution should	Ref. Corrigendum
	Technical		provide Bare Metal Recovery,	should support bare metal recovery,	support bare metal recovery, deduplication,	support bare metal recovery, deduplication,	
	Specifications,		deduplication, encryption,	deduplication, encryption, database	encryption, database online backup, deduplication,	encryption, database online backup,	
	Point		database online backup,	online backup, deduplication, backup	backup data replication, etc. "	deduplication, backup data replication, etc. "	
	19.STGBKP01,		deduplication, backup data	data replication, etc. "			
	Sub-point 8		replication etc. with		Justification : All solutions have different	Justification : All solutions have different	
			installation of single agent on	Justification : All solutions have	architectures but are a standard offering with	architectures but are a standard offering with	
			clients. Multiple	different architectures but are a	industry proven track record. To make it level	industry proven track record. To make it level	
			Agents/Binaries should not be	standard offering with industry proven	playing request the clause to be changed.	playing request the clause to be changed.	
			installed on the production	track record. To make it level playing			

1		Composite a abise a all above			_
		Servers to achieve all above	request the clause to be changed.		
		features.			

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	Clarification
no.	Section/Category						
74	Section-V:	STGBKP01	Backup Solutions should have	Modification : The proposed backup	Modification: The proposed backup solution should	Modification : The proposed backup solution	Ref. Corrigendum
	Technical		capabilities to tape/disk-out	solution should have capabilities to	have capabilities to backup all catalogue	should have capabilities to backup all catalogue	
	Specifications,		backup catalogue and	backup all catalogue information to	information to disk or tape media for disaster	information to disk or tape media for disaster	
	Point		deduplication catalogue	disk or tape media for disaster recovery	recovery purposes. Also, it should be able to	recovery purposes. Also, it should be able to	
	19.STGBKP01,		separately. Also should be	purposes. Also, it should be able to	replicate the backup data as well as backup	replicate the backup data as well as backup	
	Sub-point 9		able to replicate all catalogue	replicate the backup data as well as	catalogue to DR site.	catalogue to DR site.	
			information along with	backup catalogue to DR site.			
			replication of backup images		Justification: The proposed change allows bidders	Justification: The proposed change allows	
			to DR site.	Justification : The proposed change	to meet the requirement without being constrained	bidders to meet the requirement without being	
				allows bidders to meet the	to any specific approach.	constrained to any specific approach.	
				requirement without being constrained			
				to any specific approach.			

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	L&T	VDA Infosolution	HPE	Clarification
no.	Section/Category								
74	Section-V:	STGBKP01	Backup	The proposed purpose built	The proposed purpose built disk based	Backup Solution must	The proposed purpose built disk based backup	Please	As stipulated
	Technical		Solution	disk based backup appliance	backup appliance (PBBA) must be sized	be proposed along	appliance (PBBA) must be sized to protect 300 TB of	clarify	in the RFP
	Specifications,		must be	(PBBA) must be sized to	to protect 300 TB of front end data size	with integrated Disk-	front end data size and must be scalable to protect	how much	
	Point		proposed	protect 300 TB of front end	and must be scalable to protect 1PB.	Based Purpose Build	1PB.	storage	
	19.STGBKP01,		along with	data size and must be scalable	The Purpose Built backup appliance	Backup Appliance	The Purpose Built backup appliance (PBBA) must be	capacity	
	Sub-point 10		integrated	to protect 1PB.	(PBBA) must be sized as per the below	(PBBA) each with	sized as per the below provide guideline.	to be	
			Disk-Based	The Purpose Built backup	provide guideline.	minimum 300TB	1. Daily incremental to be retained for 1 week.	configured	
			Purpose	appliance (PBBA) must be	1. Daily incremental to be retained for 1	usable capacity and	2. Weekly full backup to be retained for 1 month.	on backup	
			Build	sized as per the below provide	week.	scalable to more than	3. Monthly full backup to be retained for a year.	solution.	
			Backup	guideline.	2. Weekly full backup to be retained for	1PB usable.	4. Yearly full backup to be retained for 5 years.	(Appliance	
			Appliance	1. Daily incremental to be	1 month.		The purpose built backup appliance should be	and	
			(PBBA) each	retained for 1 week.	3. Monthly full backup to be retained for		quoted with adequate capacity considering 300 TB	Backup	
			with	2. Weekly full backup to be	a year.		front end data (30% DB & 70% File System) 1% daily	software)	
			minimum	retained for 1 month.	4. Yearly full backup to be retained for 5		change rate for entire duration of 3 years warranty.		
			300TB	3. Monthly full backup to be	years.		Any additional software, backup storage capacity		
			usable	retained for a year.	The purpose built backup appliance		(in addition to minimum 300 TB usable capacity)		
			capacity and	4. Yearly full backup to be	should be quoted with adequate		and any other component required as per sizing		
			scalable to	retained for 5 years.	capacity considering 300 TB front end		needs to be provided by the OEM & bidder at the		
			more than	The purpose built backup	data (30% DB & 70% File System) 1%		time of bid. The bidder must also submit the		
			1PB usable.	appliance should be quoted	daily change rate for entire duration of 3		backup capacity sizing certificate/report on the		
				with adequate capacity	years warranty. Any additional software,		OEM's letter head with seal and sign from		
				considering 300 TB front end	backup storage capacity (in addition to		authorized signatory.		
				data (30% DB & 70% File	minimum 300 TB usable capacity) and		Modification: Proposed Backup solution should be		
				System) 1% daily change rate	any other component required as per		integrated purpose build backup appliance (PBBA)		
				for entire duration of 3 years	sizing needs to be provided by the OEM		with dedicated hardware, network, OS, security		
				warranty. Any additional	& bidder at the time of bid. The bidder		and storage. Solution should support plug & play		
				software, backup storage	must also submit the backup capacity		components and should be capable of Scale-		
				capacity (in addition to	sizing certificate/report on the OEM's		up/scale out configurations.		
				minimum 300 TB usable	letter head with seal and sign from				
				capacity) and any other	authorized signatory.		Justification: 1. All OEM's have different		

component re	equired as per		architectures and follow different calculations	
sizing needs to	o be provided by Justification : All OEN	Λ's have different	based on their data reduction efficiency. As per this	
the OEM & bid	dder at the time architectures and fol	low different	specification, CDAC will ensure that the appliance	
of bid. The bid	dder must also calculations based or	n their data	sizing is done accurately by the OEM and inline with	
submit the ba	ckup capacity reduction efficiency.	As per this	the CDAC's retention policy and data sizes. Further	
sizing certifica	nte/report on the specification, CDAC v	will ensure that the	endorsement from the OEM will ensure that no	
OEM's letter h	nead with seal appliance sizing is do	one accurately by	bidders/OEM can make errors during sizing.	
and sign from	authorized the OEM and inline v	vith the CDAC's	2. Offering CDAC the choice to select a technology	
signatory.	retention policy and	data sizes. Further	based on their ability to deliver the scalability.	
	endorsement from t	he OEM will ensure		
Justification :	All OEM's have that no bidders/OEM	1 can make errors		
different arch	itectures and during sizing.			
follow differen	nt calculations			
based on their	r data reduction			
efficiency. As	per this			
specification,	CDAC will ensure			
that the applia	ance sizing is			
done accurate	ely by the OEM			
and inline wit	h the CDAC's			
retention poli	cy and data sizes.			
Further endor	rsement from the			
OEM will ensu				
bidders/OEM	can make errors			
during sizing.				

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	Clarification
no.	Section/Category						
74	Section-V:	STGBKP01	Proposed Backup solution	Modification : Proposed Backup	Modification: Proposed Backup solution should be	Modification: Proposed Backup solution should be	As stipulated
	Technical		should be integrated purpose	solution should be integrated purpose	integrated purpose build backup appliance (PBBA)	integrated purpose build backup appliance (PBBA)	in the RFP
	Specifications,		build backup appliance	build backup appliance (PBBA) with	with dedicated hardware, network, OS, security	with dedicated hardware, network, OS, security	
	Point		(PBBA) with dedicated	dedicated hardware, network, OS,	and storage. Solution should support plug & play	and storage. Solution should support plug & play	
	19.STGBKP01,		hardware, network, OS,	security and storage. Solution should	components and should be capable of Scale-	components and should be capable of Scale-	
	Sub-point 11		security and storage. Solution	support plug & play components and	up/scale out configurations.	up/scale out configurations.	
			should be plug & play and	should be capable of Scale-up/scale out			
			should be capable to scale	configurations.	Justification : Offering CDAC the choice to select a	Justification : Offering CDAC the choice to select a	
			out.		technology based on their ability to deliver the	technology based on their ability to deliver the	
				Justification: Offering CDAC the choice	scalability.	scalability.	
				to select a technology based on their			
				ability to deliver the scalability.			

Page	RFP Clause No. /	Item	RFP Ask	i-value	HPE	Clarification
no.	Section/Category					

74	Section-V:	STGBKP01	Proposed Backup solution must provide a "turnkey" fully	Justification : Offering CDAC the	Backup appliance comes from server/storage vendor where as Backup	Ref. Corrigendum
	Technical		integrated backup solution (Backup Appliance and Backup	choice to select a technology based	software comes for different ISV. CDAC should not be in vendor lock in	
	Specifications,		Software) from a single OEM for better supportability,	on their ability to deliver the	situation with single OEM clause in future for data recovery. For better	
	Point		performance and to avoid multi-vendor ownership which	scalability.	flexibility of usage we request to amend the clause as	
	19.STGBKP01,		results in to daily challenges in later stage		"Proposed Backup solution must provide a "turnkey" fully compatible	
	Sub-point 12				backup solution (Backup Appliance and Backup Software) for better	
					supportability, performance"	

Page	RFP Clause No. /	Item	RFP Ask	HPE	Clarification
no.	Section/Category				
74	Section-V: Technical Specifications, Point 19.STGBKP01,	STGBKP01	Proposed solution should be compatible to various OS platforms and should be capable of supporting backup/ restores from various OS platforms including Windows and Linux. Both Backup Management Server, Media Server and Client software should be capable of running on all these platforms.	Please let us know, is it mandatory that backup management software should support linux ? any specific Linux type is in consideration ?	As stipulated in the RFP
	Sub-point 1				

Page	RFP Clause No. /	Item	RFP Ask	i-value	Clarification
no.	Section/Category				
74	Section-V:	STGBKP01	The supply shall include Media Server, VTL Appliance, Backup Software and	The supply shall include Media Server, Appliance, Backup Software	As stipulated in the RFP
	Technical		associated Licenses. Media Server shall have at least 4 nos. of 10G and two nos.	and	
	Specifications,		of 100G ethernet FC (LC-LC) interfaces, 1 mgmt. interface per controller.	associated Licenses. Media Server shall have at least 4 nos. of 10G and	
	19.STGBKP01, Pt.			two nos.	
	2			of 100G ethernet FC (LC-LC) interfaces, 1 mgmt. interface per	
				controller.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	Clarification
no.	Section/Category						
75	Section-V:	STGBKP01	The proposed Backup	Modification : The proposed Backup Appliance	Modification : The proposed Backup	Modification : The proposed Backup Appliance	Ref.
	Technical		Appliance should have	should have integration with Physical Tape	Appliance should have integration with	should have integration with Physical Tape devices	Corrigendum
	Specifications,		integration with Physical Tape	devices and offer mechanism for taking the	Physical Tape devices and offer mechanism	and offer mechanism for taking the backup on a	
	Point		devices and offer mechanism	backup on a physical tape library from the	for taking the backup on a physical tape	physical tape library from the appliance seamlessly	
	19.STGBKP01,		for taking the backup on a	appliance seamlessly using SAN topology.	library from the appliance seamlessly using	using SAN topology.	
	Sub-point 15		physical tape library from the		SAN topology.		
			appliance seamlessly.	Justification: CDAC could consider removing		Justification: CDAC could consider removing this	
				this capability altogether as going tapeless is	Justification: CDAC could consider removing	capability altogether as going tapeless is the future	
				the future of Modern Data Protection	this capability altogether as going tapeless is	of Modern Data Protection architecture. However,	
				architecture. However, if CDAC still feels it is	the future of Modern Data Protection	if CDAC still feels it is required, the architecture	
				required, the architecture must not create any	architecture. However, if CDAC still feels it is	must not create any bottlenecks. Hence, the Tape	
				bottlenecks. Hence, the Tape Library in	required, the architecture must not create	Library in backup solution environment is required	
				backup solution environment is required to	any bottlenecks. Hence, the Tape Library in	to connect thru Backup server directly or SAN	
				connect thru Backup server directly or SAN	backup solution environment is required to	switches. Connecting TL to backup appliance limits	
				switches. Connecting TL to backup appliance	connect thru Backup server directly or SAN	the backup data.	
				limits the backup data.	switches. Connecting TL to backup appliance		
					limits the backup data.		

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	HPE	Clarification
no.	Section/Category							
	-	STGBKP01	The proposed device shall support rated write performance of minimum 12 TB per hour and when enabled with source level deduplication, shall have rated performance of at least 40 TB/hr.	Modification: The proposed device shall support rated write performance of minimum 25 TB per hour and when enabled with source level deduplication, shall have rated performance of at least 50 TB/hr. Justification: This would mean that the backup window for 300 TB of front end data will be not more than 6 hours. Leaving room for scalability.	Modification: The proposed device shall support rated write performance of minimum 25 TB per hour and when enabled with source level deduplication, shall have rated performance of at least 50 TB/hr. Justification: This would mean that the backup window for 300 TB of front end data will be not more than 6 hours. Leaving room for scalability.	Modification: The proposed device shall support rated write performance of minimum 25 TB per hour and when enabled with source level de-duplication, shall have rated performance of at least 50 TB/hr. Justification: This would mean that the backup	The proposed device shall support rated write performance of minimum 12 TB per hour and when enabled with source level deduplication, shall have rated performance of at	As stipulated in the RFP
						window for 300 TB of front end data will be not more than 6 hours. Leaving room for scalability.	least 40 TB/hr.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	HPE	Clarification
no.	Section/Category							
75	Section-V:	STGBKP01	The proposed	Modification : The proposed	Modification : The proposed Purpose Build	Modification : The proposed Purpose Build	We request to amend this	Ref.
	Technical		Purpose Build	Purpose Build Backup Disk	Backup Disk Appliance must be capable to	Backup Disk Appliance must be capable to	clause as	Corrigendum
	Specifications,		Backup Disk	Appliance must be capable to	act as a Backup Controller/Backup	act as a Backup Controller/Backup	"The proposed Purpose Build	
	Point		Appliance must be	act as a Backup	Server/Data Mover/Media Server	Server/Data Mover/Media Server	Backup Disk Appliance/Solution	
	19.STGBKP01,		capable to act as a	Controller/Backup Server/Data	simultaneously. The proposed purpose	simultaneously. The proposed purpose built	must be capable to act as a	
	Sub-point 19		Backup	Mover/Media Server	built backup appliance must integrate with	backup appliance must integrate with at	Backup Controller/Backup	
			Controller/Backup	simultaneously. The proposed	at least 3 backup software vendors e.g.	least 3 backup software vendors e.g.	Server and Data Mover/Media	
			Server and Data	purpose built backup appliance	Veritas, Dell and IBM SpectrumProtect.	Veritas, Dell and IBM SpectrumProtect.	Server simultaneously."	
			Mover/Media	must integrate with at least 3				
			Server	backup software vendors e.g.	Justification : Specific to OEM. Hence, we	Justification : Specific to OEM. Hence, we		
			simultaneously.	Veritas, Dell and IBM	request to you to please accept the change	request to you to please accept the change		
				SpectrumProtect.	in description. Media server architecture is	in description. Media server architecture is		
					not applicable to some of leading OEM's.	not applicable to some of leading OEM's.		
				Justification : Specific to OEM.				
				Hence, we request to you to				
				please accept the change in				
				description. Media server				
				architecture is not applicable to				
				some of leading OEM's.				

Pag	e RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	HPE	Clarification	
no.	Section/Category							1	

75	Section-V:	STGBKP01	Proposed Solution Should	Modification : For integrated backup	Modification : For integrated backup	Modification : For integrated backup	Backup appliance	Ref.
	Technical		include Single patch upgrade	appliances, the software must provide	appliances, the software must provide	appliances, the software must provide	comes from	Corrigendum
	Specifications,		for backup software, backup	single software patch to upgrade the	single software patch to upgrade the	single software patch to upgrade the	server/storage vendor	
	Point		appliance, file system and	backup software, backup appliance, file	backup software, backup appliance, file	backup software, backup appliance, file	where as Backup	
	19.STGBKP01,		security updates.	system and security updates. For	system and security updates. For	system and security updates. For	software comes from	
	Sub-Point 22			purpose built backup appliances, the	purpose built backup appliances, the	purpose built backup appliances, the	different ISV. CDAC	
				upgrades must be available as a single	upgrades must be available as a single	upgrades must be available as a single	should not create	
				bundle for the appliance.	bundle for the appliance.	bundle for the appliance.	vendor lock in	
							situation with single	
				Justification : Purpose Built backup	Justification : Purpose Built backup	Justification : Purpose Built backup	OEM clause. We	
				appliances are open to heterogeneous	appliances are open to heterogeneous	appliances are open to heterogeneous	request CDAC to	
				software integrations which will offer	software integrations which will offer	software integrations which will offer	delete this clause for	
				flexibility and choice to CDAC, along	flexibility and choice to CDAC, along	flexibility and choice to CDAC, along	wider participant.	
				with investment protection. The	with investment protection. The	with investment protection. The original		
				original specification is restricted to	original specification is restricted to	specification is restricted to Integrated		
				Integrated appliances and hence the	Integrated appliances and hence the	appliances and hence the change is		
				change is requested.	change is requested.	requested.		

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	HPE	Clarification
no.	Section/Category							
75	Section-V:	STGBKP01	Proposed appliance must	Modification : The proposed disk	Modification : The proposed disk	Modification : The proposed disk	Please clarify how	As stipulated in the RFP
	Technical		have expandable option by	appliance must be provide detailed	appliance must be provide	appliance must be provide detailed	much storage	
	Specifications,		adding head & disk unit to	information on Rack units, power,	detailed information on Rack	information on Rack units, power,	capacity to be	
	Point		500 TB usable space without	cooling, LAN ports, SAN ports and WAN	units, power, cooling, LAN ports,	cooling, LAN ports, SAN ports and	configured on	
	19.STGBKP01,		the need of any Deduplication	bandwidth for replication.	SAN ports and WAN bandwidth	WAN bandwidth for replication.	backup solution.	
	Sub-Point 29		license if front end data size is		for replication.		(Appliance and	
			not changed. Additional disk	Justification: As the sizing and		Justification : As the sizing and	Backup software)	
			space will be utilized for	scalability related clause is already	Justification: As the sizing and	scalability related clause is already		
			multiple copy with long	asked earlier, CDAC should review the	scalability related clause is already	asked earlier, CDAC should review		
			retention.	overall footprint of the solution for	asked earlier, CDAC should review	the overall footprint of the solution		
				their requirement and hence proposed	the overall footprint of the	for their requirement and hence		
				the change.	solution for their requirement and	proposed the change.		
					hence proposed the change.			

Page	RFP Clause No. /	Item	RFP Ask	HPE	Clarification
no.	Section/Category				
76	Section-V:	STGBKP01	28. Proposed solution shall have separate dedicated drives for Operating System of	Since disk are configured in RAID 6 with two parity disk and can sustain 2	As stipulated in the RFP
	Technical		Appliance and shall not participate in data backup. It should have Operating System	disk failure without any data loss. Hence we request to remove additional	
	Specifications,		disk in mirroring and data disk on Raid 6 with Hot spare.	hot spare disk.	
	Point				
	19.STGBKP01,				
	Sub-Point 28				

ı	Page	RFP Clause No. /	Item	RFP Ask	DELL	VDA Infosolution	Clarification
ı	no.	Section/Category					
7	76	Enterprise	STGBKP01	28. Proposed solution shall	Backup Software shall be compatible to	Backup Software shall be compatible to take backups on to D2D or to any supported	As stipulated in the RFP
		Backup Appliance		have separate dedicated	take backups on to D2D as VTL, backup	VTL device , backup	
		Solutio/Page no.		drives for Operating System	on to ISCSI targets (Ref. Backup	on to ISCSI targets (Ref. Backup Software and Tape Library)	
		76		of Appliance and shall not	Software and Tape Library)		

participate in data backup. It		
should have Operating		
System disk in mirroring and		
data disk on Raid 6 with Hot		
spare.		

Page	RFP Clause No. /	Item	RFP Ask	Veritas	Clarification
no.	Section/Category				
76	Section-V: Technical	STGBKP01	Backup Software shall be compatible to take backups	Backup Software shall be compatible to take backups on to D2D or to any supported VTL device, backupon to ISCSI targets (Ref. Backup Software and Tape Library) Justification: Request to make VTL as optional feature.	Ref. Corrigendum
	Specifications,		on to D2D as VTL, backup on	Justification. Request to make V12 as optional reactive.	
	19.STGBKP01, sub-point 31 &		to ISCSI targets (Ref. Backup Software and Tape Library)		
	32				

STGBKPTP01: (Queries, Clarification and Corrigendum)

S.No.	Page No	RFP Clause No./Section/Category	Item	RFP Ask	NTSIPL	Clarification
1	62	Section-V:Technical specifications, Category-I,STGBKPTP01,Parameter-Tape Library Functionality	STGBKPTP01	2. Offered drive should have native speed of minimum 400MB/sec and a compressed speed of 1000 MB/sec.	This is very OEM Specific clause and hence Binding 1-2 OEMS, hence WE REQUEST CDAC TO CHANGE: 2. Offered drive should have native speed of minimum 300 MB/sec and a compressed speed of 750 MB/sec.	As stipulated in the RFP
2	62	Section-V:Technical specifications, Category-I,STGBKPTP01,Parameter-Tape Library Functionality	STGBKPTP01	1. Supply should include fully populated LTO-9 WORM tapemedia along with Barcode labels.	CLARIFICATION REQUESTED: Pls clarify does this mean fully populated to meet 8PB Native capacity of LTO9 WORM Data cartridges has to be supplied along with the Tape library 01.	As stipulated in the RFP
3	62	Section-V:Technical specifications, Category-I,STGBKPTP01,Parameter-Tape Library Functionality	STGBKPTP01	2. Offered drive should have native speed of minimum 400MB/sec and a compressed speed of 1000 MB/sec.	Technically as per the Data transfer required, instead of 4x 400MBps LTO9 FC drives can we provide 6x 300 MBps LTO9 FC Drives to compensate the Total Data rate of 400x 4 Drives= 1600 MBps (Asked) which can be technically achieved using 300 x 6 FC Drives = 1800 MBps in the Tape Library. Hence please change, to 2. Offered drive should have native speed of minimum 300 MB/sec and a compressed speed of 750 MB/sec. Hence 6 Nos of LTO9 Drives must be provided by the OEM/BIDDER.	As stipulated in the RFP

Item: STGSANNAS01

Pag e	RFP Clause No.	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	NETAPP	PRESTO	SISL	VDA Infosolution	i-value	HPE	DDN	Clarification
no.	Section/Catego														
58	ry Section-V:	STGSANNAS0	1.	Modification	Modification	Unified	Unified	NVME	Unified	Request	Modification	Reques+D38:D4	Unified	We request	Ref.
	Technical	1	Unified	: The storage	: The storage	storage	storage	over FC	storage	you to	: The storage	2t you please	storage	C-DAC to	Corrigendum
	Specifications,		storage	solution	solution	appliance	appliance	and TCP	appliance	change:	solution	remove NFS	with inbuilt	remove pNFS	
	Category-I, 13.		applianc	should offer	should offer	must be	must be	helps in	must be	Unified	should offer	V4.1, pNFS SMB	SAN and	from this	
	STGSANNAS01,		e must	Block access	Block access	quoted	quoted	reducing	quoted	storage	Block access	3.1.1 and SFTP	NAS	specification	
	Point 1. Storage		be	for Virtual	for Virtual	with	with	latency	with	appliance	for Virtual	for the wider	protocol is	as all	
	Туре		quoted	Compute	Compute	support for	support for	and	support for	must be	Compute	participation,	not	functionality	
			with	environment	environment	SAN	SAN	recommen	SAN	quoted	environment	requirement of	advisable in	and	
			support	using HCI,	using HCI,	(FC,NVME	(FC,NVME	d for all	(FC,NVME	with	using HCI,	NFS V4.1, SMB	modern	performance	
			for SAN	while for	while for	on	on	NVME	on	support for	while for	3.1.1 and SFTP	storage	requested in	
			(FC and	user data	user data	FC,NVME	FC,NVME	storage,	FC,NVME	SAN	user data	areoptional and	architecture	this tender	
			iSCSI)	File access	File access	on TCP and	on TCP and	Suggest	on TCP and	(FC,NVME	File access	will not impact	due to	can be met	
			and NAS	supporting	supporting	iSCSI) and	iSCSI) and	addition of	iSCSI) and	on	supporting	the functional	performanc	with NFS V4	
			(NFSv3,	protocols like	protocols like	NAS	NAS	these	NAS	FC,NVME	protocols like	requirement of	e impact on	and V4	
			v4 and	(NFSv3, v4	(NFSv3, v4	(NFSv3, v4	(NFSv3, v4	protocols.	(NFSv3, v4	on TCP and	(NFSv3, v4	the CDAC.	both work	versions.	
			v4.1,	and v4.1,	and v4.1,	and v4.1,	and v4.1,	We	and v4.1,	iSCSI) and	and v4.1,		load SAN as		
			pNFS,	CIFS, SMB 2,	CIFS, SMB 2,	pNFS, CIFS,	pNFS, CIFS,	recommen	pNFS, CIFS,	NAS	CIFS, SMB 2,		well as NAS		
			CIFS,	3,3.02 and	3,3.02 and	SMB 2,	SMB 2,	d addition	SMB 2,	(NFSv3, v4	3,3.02 and		. If Work		
			SMB 2,	3.1.1; FTP	3.1.1; FTP	3,3.02 and	3,3.02 and	of object	3,3.02 and	and v4.1,	3.1.1; FTP		loads are		
			3,3.02	and SFTP).	and SFTP).	3.1.1; FTP	3.1.1; FTP	S3 APIs	3.1.1; FTP	pNFS, CIFS,	and SFTP).		for SAN &		
			and	2. The	2. The	and SFTP)	and SFTP)	which are	and SFTP)	because	2. The		NAS both		
			3.1.1;	storage	storage	and Object	and Object	useful for	and Object	SMB 2,	storage		are required		
			FTP and	capacity for	capacity for	protocol	protocol	modern	protocol	3,3.02 and	capacity for		, we		
			SFTP).	Software	Software	like S3	like S3	application	like S3.	3.1.1;) and	Software		recommend		
			2.	defined Block	defined Block	Query	Query	s and	Justificatio	Object	defined Block		to ask		
			Access	storage	storage	from	from	storing	n: NVME	protocol	storage		separate		
			with	should be	should be	Bidder:	Bidder:	kubernetes		like S3.	should be		storage		
			hybrid	based on	based on	NVME	NVME	repositorie	TCP helps in	Because	based on		with		
			capabilit		NVME drives	over FC	over FC	s and	reducing	NVME	NVME drives		capacity		
			y to	while Scale out File	while Scale out File	and TCP helps in	and TCP helps in	backups . Request	latency and recommen	over FC and TCP	while Scale out File		and performanc		
			operate with	storage	storage	reducing	reducing	deletion of	d for all	helps in	storage		e		
			NVMe	should be	should be	latency	latency	FTP and	NVME	reducing	should be		individually.		
			Solid	based on	based on	and	and	SFTP	storage,	latency	based on		Also tiering		
			State	SATA/NL-SAS		recommen	recommen	protocol as		and	SATA/NL-SAS		is not		
			Drives	drives with	drives with	d for all	d for all	these are	addition of	recommen	drives with		supported		
			(NVMe	SSD caching.	SSD caching.	NVME	NVME	not	these	d for all	SSD caching.		in modern		
			SSDs)	Justification :	Justification :	storage,	storage,	available	protocols.	NVME	Justification :		storage		
			and	Since the	Since the	Suggest	Suggest	natively in	We	storage,	Since the		technology		
			Hard	solution is	solution is	addition of	addition of	most of	recommen	Suggest	solution is		due to		
			Disks	required to	required to	these	these	the	d addition	addition of	required to		latency and		
			Drives	be certified	be certified	protocols.	protocols.	storages	of object S3	these	be certified		IOPs		
			(HDDs)	for	for	We	We		APIs which	protocols.	for		impact. Also		
			with	Virtualization	Virtualization	recommen	recommen		are useful	We	Virtualization		only NVME		
			auto-	environment,	environment,	d addition	d addition		for modern	recommen	environment,		disk		
			tiering	it is	it is	of object	of object		applications	d addition	it is		capacity has		

1	1	l	ا دع مور	ا دعیت ا	1	1	1	I	hara a sala d	I	1 1
between		recommende	S3 APIs	S3 APIs	and storing		recommende		been asked		
all of	d to deploy	d to deploy	which are	which are	kubernete		d to deploy		in tender.		
them	HCI which	HCI which	useful for	useful for	repositorie	s which are useful for	HCI which		pNFS is		
	utilized	utilized	modern	modern	and		utilized		proprietary		
	Software	Software	application	application	backups .	modern	Software		specificatio		
	Defined	Defined	s and	s and	Doguest	application	Defined		n from		
	Storage for	Storage for	storing	storing	Request	s and	Storage for		single OEM		
	Block	Block	kubernetes	kubernetes	deletion of	1	Block		which		
	workloads.	workloads.	repositorie	repositorie	FTP and	kubernetes	workloads.		restrict		
	As file	As file	s and	s and	SFTP	repositorie	As file		wider		
	workloads	workloads	backups .	backups .	protocol as		workloads		participatio		
	will continue	will continue	Danisat	Danisat	these are	backups .	will continue		n.		
	to grow in	to grow in	Request	Request	not	Request	to grow in		We request		
	the said	the said	deletion of	deletion of	available	deletion of	the said		to amend		
	environment,	environment,	FTP and	FTP and SFTP	natively in	FTP and SFTP	environment,		the clause as "		
	it needs large	it needs large	SFTP	l l	most of the		it needs large				
	expansion,	expansion,	protocol as	protocol as	storages	protocol as	expansion,		1. SAN		
	performance and scale out	performance and scale out	these are not	these are not		these are	performance and scale out		<u>storage</u> System with		
		capability.	available	available		not available	capability.				
	capability. The solution	The solution		l l			The solution		<u>all NVMe</u> <u>SSD</u>		
			natively in	natively in		natively in					
	should	should	most of	most of		most of	should		supporting FC and iSCSI		
	support	support	the	the		the	support				
	integration between	integration between	storages	storages		storages	integration		protocol "		
	Software	Software					between Software				
	Defined	Defined					Defined				
							Block Storage				
	Block Storage and Scale out	Block Storage and Scale out					and Scale out				
	File Storage both of	File Storage both of					File Storage both of				
	which can be	which can be					which can be				
		increased					increased				
	increased independent	independent					independent				
	of each	of each					of each				
	other.	other.					other.				
	Also the	Also the					Also the				
	combination	combination					combination				
	of NVMe and	of NVMe and					of NVMe and				
	NL-SAS, with	NL-SAS, with					NL-SAS, with				
	tiering in	tiering in					tiering in				
	same array is	same array is					same array is				
	not a best	not a best					not a best				
	practice as	practice as					practice as				
	the two disk	the two disk					the two disk				
	technologies	technologies					technologies				
	are different	are different					are different				
	, while NVMe	, while NVMe					, while NVMe				
	is the fastest	is the fastest					is the fastest				
	, NL-SAS	, NL-SAS					, NL-SAS				
	being the	being the					being the				
	venig tile	Schip the					vering tile				

slowest.	slowest.	slowest.	
We reque	st We request	We request	
CDAC to	CDAC to	CDAC to	
amend th	s amend this	amend this	
clause, so	clause , so	clause , so	
that leadi	ng that leading	that leading	
OEMs can	OEMs can	OEMs can	
participat	e participate	participate	
and offer	and offer	and offer	
best of the	best of the	best of the	
technolog	ies technologies	technologies	
and soluti	on and solution	and solution	
for the	for the	for the	
project.	project.	project.	

Page	RFP Clause No. /	Item	RFP Ask	ECIL	CISCO	PRESTO	SISL	Clarification
no.	Section/Category							
58	Section-V:	STGSANNAS01	1(a)	a. Total Minimum 512GB DRAM cache on	a. Total Minimum 512GB	a. Total Minimum 512GB DRAM cache on	Request you to change: a. Total	Ref.
	Technical		Minimum	proposed cluster. Query from Bidder :	DRAM cache on proposed	proposed cluster.	Minimum 1024GB DRAM cache on	Corrigendum
	Specifications,		256GB	Total Cache across multiple controllers to	cluster. Query from	Justification: Total Cache across multiple	proposed cluster. Because Total	
	Category-I, 13.		DRAM	be proposed for desired results	Bidder: Total Cache	controllers to be proposed for desired results	Cache across multiple controllers to	
	STGSANNAS01,		cache on	mentioned as per Performance clause no	across multiple	mentioned as per Performance clause no	be proposed for desired results	
	Point 2. Storage		each	13(Performance) for IOPS and	controllers to be	13(Performance) for IOPS and Throughput	mentioned as per Performance	
	Architecture		controller.	Throughput	proposed for desired		clause no 13(Performance) for IOPS	
					results mentioned as per		and Throughput	
					Performance clause no			
					13(Performance) for IOPS			
					and Throughput			

Page	RFP Clause No. /	Item	RFP Ask	ECIL	CISCO	NETAPP	L&T	PRESTO	SISL	Clarification	l
no.	Section/Category										l

0	Saction \/:	CTCCANINIACO1	1/b) The cache chard	The cache should be	The cache should be	Thoro are different	For porformance	The cache chauld be	Poguest you to shange. The	Pof
8	Section-V:	STGSANNAS01	1(b) The cache should	The cache should be		There are different	For performance	The cache should be	Request you to change: The	Ref.
	Technical		be Globally coherent.	Globally	Globally	Architectures being	perspective, it is	Globally	cache should be Globally	Corrigendum
	Specifications,		Data should be	coherent/federated. Data should be	coherent/federated.	offered by different	recommended to	coherent/federated.	coherent/federated. Data should	
	Category-I, 13.		protected against loss		Data should be	storage OEM's which	go with NVMe	Data should be		
	STGSANNASO1,		or unavailability in case	protected against	protected against	utilizes Global or	drives only.	protected against loss	be protected against loss or	
	Point 2. Storage		of failure of 1	loss or unavailability	loss or unavailability	Federated Cache to	Please remove	or unavailability in	unavailability in case of	
	Architecture		controller outage, for	in case of failure of	in case of failure of	provide highest	the NL-SAS drives	case of failure of 1	failure of 1 controller	
			NVMe	1 controller outage,	1 controller outage,	availablity and	in the storage	controller outage, for	outage, for NVMe. Because	
				for NVMe Query	for NVMe Query	performance utilizing	technical	NVMe.	There are different	
				from Bidder :	from Bidder :	the software	specifications of	Justification: There	Architectures being offered	
				There are different	There are different	capabilities of their	STGSANNAS01 -	are different	by different storage OEM's	
				Architectures being	Architectures being	propertiary storage	2. Storage	Architectures being	which utilizes Global or	
				offered by different	offered by different	operating	Architecture.	offered by different	Federated Cache to provide	
				storage OEM's	storage OEM's	environments. Both		storage OEM's which	highest availablity and	
				which utilizes Global	which utilizes Global	architectures are		utilizes Global or	performance utilizing the	
				or Federated Cache	or Federated Cache	widely adopted for		Federated Cache to	software capabilities of	
				to provide highest	to provide highest	mission critical		provide highest	their propertiary storage	
				availablity and	availablity and	workloads and		availablity and	operating environments.	
				performance	performance	applications across		performance utilizing	Both architectures are	
				utilizing the	utilizing the	globe. NetApp		the software	widely adopted for mission	
				software	software	supports federated		capabilities of their	critical workloads and	
				capabilities of their	capabilities of their	cache architecture		propertiary storage	applications across globe.	
				propertiary storage	propertiary storage	providing six nine's of		operating	NetApp supports federated	
				operating	operating	availbality and highest		environments. Both	cache architecture	
				environments. Both	environments. Both	performance platform.		architectures are	providing six nine's of	
				architectures are	architectures are	Request to kindly		widely adopted for	availbality and highest	
				widely adopted for	widely adopted for	accept modified clause		mission critical	performance platform.	
				mission critical	mission critical	for wider OEM		workloads and	Request to kindly accept	
				workloads and	workloads and	participation		applications across	modified clause for wider	
				applications across	applications across			globe. NetApp	OEM participation	
				globe. NetApp	globe. NetApp			supports federated		
				supports federated	supports federated			cache architecture		
				cache architecture	cache architecture			providing six nine's of		
				providing six nine's	providing six nine's			availbality and highest		
				of availbality and	of availbality and			performance platform.		
				highest	highest			Request to kindly		
				performance	performance			accept modified clause		
				platform. Request	platform. Request			for wider OEM		
				to kindly accept	to kindly accept			participation		
				modified clause for	modified clause for					
				wider OEM	wider OEM					
				participation	participation					

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	i-value	HPE	Clarification
no.	Section/Category								

58	Section-V:	STGSANNAS01	1. Offered storage must	Modification : Offered	Modification : Offered	Modification : Offered	Please ammend the	Industry leading	Ref. Corrigendum
	Technical		have minimum dual	storage must have more	storage must have	storage must have	clause as: NVMe and	storage technology	
	Specifications,		active-active controllers	than two active-active	more than two active-	more than two active-	NL-SAS/SATA disk	does not support	
	Category-I, 13.		for NVMe & NL-SAS tiers	controllers for all NVMe	active controllers for all	active controllers for all	pools should use	mix of NVMe and	
	STGSANNAS01,		with:	d. The Block workload	NVMe	NVMe	separate controllers	NL SAS disk due to	
	Point 2. Storage		d. NVMe and NL-	will run out of NVME in	d. The Block workload	d. The Block workload	to ensure different	different disk	
	Architecture		SAS/SATA disk pools	HCI with Software	will run out of NVME in	will run out of NVME in	failure domains for	technology and	
			should use separate	Defined Block storage,	HCI with Software	HCI with Software	File Workload. (Block	performance. It is	
			controllers to ensure	while File workload runs	Defined Block storage,	Defined Block storage,	workload/pools are	industry standard	
			different failure domains	out of SATA/NL-SAS	while File workload runs	while File workload runs	shared across the	to have different	
				drives with caching SSDs.	out of SATA/NL-SAS	out of SATA/NL-SAS	controllers)	storage Type for	
			2. Ability to support up	The failure protection on	drives with caching	drives with caching	Controllersy	NVMe and NL-SAS.	
			to 100 HDDs/SSDs in	Software Defined block	SSDs. The failure	SSDs. The failure		We request to	
			same system by adding	storage should be on	protection on Software	protection on Software		amend the clause	
			disk enclosures and	FTT=2 and on Scale out	Defined block storage	Defined block storage		for wider	
			scalability to 2PB in	File should be 1 controller	should be on FTT=2 and	should be on FTT=2 and		participation as <u>"1.</u>	
			the same solution	or 2 drive failure	on Scale out File should	on Scale out File should		Offered storage	
			the same solution		be 1 controller or 2 drive	be 1 controller or 2 drive		must have	
				2. Ability to scale up &	failure	failure		minimum dual	
				Scale-out the capacity up to 2PB in the same				l ——	
				solution	2. Ability to scale up &	2. Ability to scale up &		active-active controllers for	
					Scale-out the capacity	Scale-out the capacity up			
				Justification : We request	up to 2PB in the same	to 2PB in the same		NVMe:	
				CDAC to modify the	solution	solution		d. As only NVMe	
				clause to offer best	Justification : We	Justification : We request		capacity has asked	
				solution for the project,	request CDAC to modify	CDAC to modify the		<u>in tender, Please</u>	
				elimination performance	the clause to offer best	clause to offer best		remove NL-	
				bottleneck that may	solution for the project,	solution for the project,		SAS/SATA disk type.	
				result as keeping varied	elimination performance	elimination performance			
				workload in to single	bottleneck that may	bottleneck that may		6.in point No. 1b of	
				array and also minimizing	result as keeping varied	result as keeping varied		this clause one	
				impact of failure within	workload in to single	workload in to single		<u>controllers failure</u>	
				box.	array and also	array and also		<u>has been asked</u>	
					minimizing impact of	minimizing impact of		where as in this	
					failure within box.	failure within box.		<u>clause 2 controller</u>	
								<u>failure has been</u>	
								asked, Also only 2	
								<u>controller</u>	
								configuration has	
								<u>been asked in</u>	
								tender clause no 1	
								<u>of storage</u>	
								<u>architeture.all three</u>	
								<u>clauses are</u>	
								<u>contradictory each</u>	
								other. Please clarify	
								the controller	
								<u>failure points."</u>	
_		-							

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	PRESTO	VDA	i-value	DDN	Clarification
no.	Section/Category								Infosolution			

59	Section-V:	STGSANNAS01	6. It should	Modification : It	Modification : It	Storage system	Storage system	Storage system	Modification :	Please	This	Ref.
	Technical		support ability	should support	should support	must be offered	must be offered	must be offered in	It should	ammend the	requirement	Corrigendur
	Specifications,		to sustain	ability to sustain	ability to sustain	in a No-Single-	in a No-Single-	a No-Single-Point	support ability	clause as: It	conflicts with	
	Category-I, 13.		minimum 2	both failures	both failures	Point of Failure	Point of Failure	of Failure offering	to sustain both	should	"minimum	
	STGSANNAS01,		controller and 4	occurring one by	occurring one by	offering upto six	offering upto six	upto six 9s of	failures	support	dual active-	
	Point 2. Storage		drive failures	one (1) 1	one (1) 1	9s of availability	9s of availability	availability with	occurring one	ability to	active	
	Architecture		without loss of	simultaneous	simultaneous	with minimum 1	with minimum 1	minimum 1	by one (1) 1	sustain	controllers "	
			data and	controller/node	controller/node	Nodes/Controllers	Nodes/Controllers	Nodes/Controllers	simultaneous	minimum 2	requirement	
			impact on	failure and (2)	failure and (2)	failure and also	failure and also	failure and also	controller/node	controller	mentioned in	
			performance	2 simultaneous	2 simultaneous	capability to	capability to	capability to	failure and (2)	and 2 drive	point no 2	
				drive failures,	drive failures,	withstand 3 drives	withstand 3 drives	withstand 3 drives	2 simultaneous	failures	above.	
				without loss of	without loss of	failure	failure	failure	drive failures,	without	Can C-DAC	
				data (3) The	data (3) The	simultaneously	simultaneously	simultaneously.	without loss	loss of	please	
				failure protection	failure protection	Query from	Query from	Justification:Please	of data (3)	data and	ammend it to	
				on Software	on Software	Bidder : Please	Bidder: Please	clarify on total	The failure	impact on	"It should	
				Defined block	Defined block	clarify on total	clarify on total	number of	protection on	performance	support	
				storage should be	storage should be	number of	number of	controllers to be	Software	(As per the	ability to	
				on FTT=2	on FTT=2	controllers to be	controllers to be	proposed .Also is	Defined block	RFP	sustain	
				Justification : The	Justification : The	proposed .Also is	proposed .Also is	this failure	storage should	specification,	minimum 1	
				clause need	clause need	this failure	this failure	capability required	be on FTT=2	RAID 6 to be	controller	
				modification, as	modification, as	capability	capability	for overall storage	Justification :	configured	and 2 drive	
				simultaneous	simultaneous	required for	required for	system or the	The clause	which can	failures	
				failure of	failure of	overall storage	overall storage	proposed	need	handle	without loss	
				controllers and	controllers and	system or the	system or the	configuration?	modification, as	simaltenious	of data and	
				disks, may result in	disks, may result	proposed	proposed	Comigaration:	simultaneous	2 disk	not more	
				Data Unavailability	in Data	configuration?	configuration?	Six 9's of	failure of	failure)	than 30%	
				and Data Loss.	Unavailability and	configuration:	Comiguration:	availability ensures	controllers and	i aliule)	impact on	
				allu Data LUSS.	Data Loss.	Six 9's of	Six 9's of	that system is	disks, may		performance"	
					Data LUSS.			· ·	result in Data		periormance	
						availability	availability	designed and				
						ensures that	ensures that	deployed in way	Unavailability			
						system is	system is	that it provides	and Data Loss.			
						designed and	designed and	best enterprise				
						deployed in way	deployed in way	class resliency and				
						that it provides	that it provides	availablity for the				
						best enterprise	best enterprise	workloads/data				
						class resliency	class resliency	running on top of				
						and availablity for	and availablity for	it.				
						the	the	Resiliency &				
						workloads/data	workloads/data	availablity of				
						running on top of	running on top of	system can always				
						it.	it.	be ensured either				
						Resiliency &	Resiliency &	from drives or				
						availablity of	availablity of	complete node				
						system can	system can	failure				
						always be	always be					
						ensured either	ensured either					
						from drives or	from drives or					
						complete node	complete node					
						failure	failure				1	ĺ

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	PRESTO	VDA Infosolution	Clarification
no.	Section/Category									
59	Section-V:	STGSANNAS01	1. Storage	Modification :	Modification :	Storage solution	Storage solution	Storage solution should be offered with	Modification : Storage	Ref.
	Technical		solution should	Storage solution	Storage solution	should be offered	should be offered	total 500TB usable capacity on dual	solution should be offered	Corrigendum
	Specifications,		be offered with	should be offered	should be offered	with total 500TB	with total 500TB	port NVMe SSDs.	with total 100TB usable	
	Category-I, 13.		total 500TB	with total 100TB	with total 100TB	usable capacity	usable capacity	Justification: Since complete system	capacity with dual port	
	STGSANNAS01,		usable capacity	usable capacity	usable capacity	on dual port	on dual port	has to be provided by an Enterprise	NVMe SSDs, Software	
	Point 3. Storage		with 1DWPD	with dual port	with dual port	NVMe SSDs.	NVMe SSDs.	level Storage OEM , so high availablity	defined Block storage,	
	Capacity		on dual port	NVMe SSDs,	NVMe SSDs,	Query from	Query from	in terms of six nine's and other support	400TB usable on Scale out	
			NVMe SSDs	Software defined	Software defined	Bidder : Since	Bidder : Since	SLA's provide the desired business level	File storage should be	
				Block storage,	Block storage,	complete system	complete system	objectives . Also suggest to increase	based on SATA/NL-SAS	
				400TB usable on	400TB usable on	has to be	has to be	support level for the same business day	drives with SSD caching.	
				Scale out File	Scale out File	provided by an	provided by an	instead of Next business day as asked	Justification : As stated in	
				storage should be	storage should be	Enterprise level	Enterprise level	in support clause no 15 (Support &	earlier point, we request	
				based on	based on	Storage OEM , so	Storage OEM , so	maintainence)	CDAC to amend this clause	
				SATA/NL-SAS	SATA/NL-SAS	high availablity in	high availablity in		as well, so that optimal	
				drives with SSD	drives with SSD	terms of six	terms of six		solution can be offered for	
				caching.	caching.	nine's and other	nine's and other		the project.	
				Justification : As	Justification : As	support SLA's	support SLA's		NVMe drives are offered	
				stated in earlier	stated in earlier	provide the	provide the		with warranty by OEM as	
				point, we request	point, we request	desired business	desired business		asked in the RFP, hence	
				CDAC to amend	CDAC to amend	level objectives .	level objectives .		DWPD will not be of	
				this clause as well	this clause as well	Also suggest to	Also suggest to		relevance here.	
				, so that optimal	, so that optimal	increase support	increase support			
				solution can be	solution can be	level for the	level for the			
				offered for the	offered for the	same business	same business			
				project.	project.	day instead of	day instead of			
				NVMe drives are	NVMe drives are	Next business	Next business			
				offered with	offered with	day as asked in	day as asked in			
				warranty by OEM	warranty by OEM	support clause	support clause			
				as asked in the	as asked in the	no 15 (Support &	no 15 (Support &			
				RFP, hence DWPD	RFP, hence	maintainence)	maintainence)			
				will not be of	DWPD will not					
				relevance here.	be of relevance					
					here.					

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	i-value	Clarification
no.	Section/Category							

59	Section-V: Technical	STGSANNAS01	1. Unified storage must be	Modification : 1. The	Modification : Storage	Modification : 1. The	Please ammend the clause as:	Ref.
	Specifications, Category-I, 13.		supplied with self-	solution should be able to	solution should be	solution should be able to	Unified storage must be supplied	Corrigendum
	STGSANNAS01, Point 4. SSDs		encrypting dual- ported	support either Self	offered with total	support either Self	with self-encrypting/Controller	
	& HDDs		1DWPD NVMe SSDs	Encrypting drives or	100TB usable capacity	Encrypting drives or	based Encryption dual- ported	
				available through Software	with dual port NVMe	available through Software	1DWPD NVMe SSDs (Controller	
			2. Storage should support	2. The Storage Solution	SSDs, Software defined	2. The Storage Solution	Based encryption / Self encrypting	
			both in-line and post	should be offered with	Block storage, 400TB	should be offered with both	drive both provides data at rest	
			process data reduction via	both in-line and post	usable on Scale out File	in-line and post process data	encryption feature)	
			compression	process data reduction via	storage should be	reduction via		
			/deduplication.	compression/deduplication	based on SATA/NL-SAS	compression/deduplication		
				3. If the storage solution	drives with SSD	3. If the storage solution not		
			3. NVMe SSDs must be	not offered with both in-	caching.	offered with both in-line and		
			configured in RAID6 dual	line and post process data	Justification : As stated	post process data reduction,		
			parity protection with one	reduction, then 2x of the	in earlier point, we	then 2x of the asked suable		
			hot spare per pool.	asked suable capacity	request CDAC to	capacity should be offered.		
				should be offered.	amend this clause as	3. The software defined		
				3. The software defined	well , so that optimal	storage to be offered with		
				storage to be offered with	solution can be offered	RF=2 and scale-out storage		
				RF=2 and scale-out storage	for the project.	with 2 disk failure.		
				with 2 disk failure.	NVMe drives are	Justification: We request		
				Justification: We request	offered with warranty	CDAC to amend the clause as		
				CDAC to amend the clause	by OEM as asked in the	stated, that will provide		
				as stated, that will provide	RFP, hence DWPD will	higher level of resiliency and		
				higher level of resiliency	not be of relevance	data protection.		
				and data protection.	here.			

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	Clarification
no.	Section/Category						
59	Section-V:	STGSANNAS01	1. The Storage System should support	Modification: All data integrity	Modification: All data integrity	Modification: All data integrity capabilities should	Ref.
	Technical		detecting and correcting data integrity	capabilities should be as per OEM	1 .	be as per OEM architecture	Corrigendum
	Specifications,		issues due to any bit rot or phantom	architecture	architecture	Justification : As different OEM implement	
	Category-I, 13.		writes, misdirected reads/writes	Justification : As different OEM	Justification : As different OEM	different mechanism to ensure data integrity,	
	STGSANNAS01,		operations	implement different mechanism	implement different mechanism	hence request CDAC to amend the clause as	
	Point 5. Data			to ensure data integrity, hence	to ensure data integrity, hence	requested.	
	Integrity			request CDAC to amend the	request CDAC to amend the		
				clause as requested.	clause as requested.		

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	HPE	DDN	Clarification
no.	Section/Category								

59	Section-V:	STGSANNAS01	1. Should support iSCSI,	Modification : The	Modification : The	Modification : The	Unified storage	We request C-DAC to	Ref. Corrigendum
	Technical		SMB2 and	solution should support	solution should support	solution should support	with inbuilt SAN	clarify whether the asked	The sound of the s
	Specifications,		SMB3,NFSv2,NFSv3,NFSv4	iSCSI, SMB2 and	iSCSI, SMB2 and	iSCSI, SMB2 and	and NAS protocol is	SMT protocol is actually	
	Category-I, 13.		and NFSV4.1,SNMP,SMT.	SMB3,NFSv2,NFSv3,NFSv4	SMB3,NFSv2,NFSv3,NFSv4	SMB3,NFSv2,NFSv3,NFSv4	not advisable in	SMTP ptotocol?	
	STGSANNAS01,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	and NFSV4.1,SNMP,SMT.	and NFSV4.1,SNMP,SMT.	and NFSV4.1,SNMP,SMT.	modern storage	, , , , , , , , , , , , , , , , , , , ,	
	Point 8. Protocol			Justification : We request	Justification : We request	Justification : We request	architecture due to		
	Support			CDAC to amend the	CDAC to amend the	CDAC to amend the	performance		
				clause as requested, as	clause as requested, as	clause as requested, as	impact on both		
				requested in earlier	requested in earlier	requested in earlier	work load SAN as		
				points, a combination of	points, a combination of	points, a combination of	well as NAS . If		
				HCI and Storage solution	HCI and Storage solution	HCI and Storage solution	Work loads are for		
				to be allowed.	to be allowed.	to be allowed.	SAN & NAS both are		
							required , we		
							recommend to ask		
							separate storage		
							with capacity and		
							performance		
							individually.		
							We request to		
							amend the clause		
							as "Protocol		
							Support:-		
							1. Should support		
							FC, iSCSI. Please ask		
							sepepearte storage		
							for NAS protocol.		

Page	RFP Clause No. /	Item	RFP Ask	L&T	i-value	HPE	Clarification
no.	Section/Category						
59	Section-V:	STGSANNAS01	1. Offered storage should have minimum 4x	Please confirm if the	Please ammend the clause	Different storage has different architecture for front end	Ref.
	Technical		100Gbps QSFP28 ethernet ports with required	Storage Controller should	as:1. Offered storage should	connectivity.	Corrigendum
	Specifications,		optical modules for connectivity to client.	support for FC ports to	have minimum 4x 100Gbps	We request to amend this clause as	
	Category-I, 13.			configure FC based	QSFP28/12 x10Gbps	<u>"1. Offered storage should have minimum 4x</u>	
	STGSANNAS01,		2. Additionally, storage should have 2x 1Gbps	connectivity's to provision	ethernet ports with	100Gbps/16x25Gbps QSFP28	
	Point 7. Network		ethernet ports for management.	storage volumes to Servers.	required optical modules	ethernet ports with required optical modules for	
	Interfaces			Also, please request for	for connectivity to client.	connectivity to client.	
			3. Each storage controller should have at least	SAN Switches in case	3. Each storage controller	2. Additionally, storage should have 2x 1Gbps ethernet	
			2 x 100 GbE ports.	required.	should have at least 2 x	<u>ports</u>	
					100 GbE ports or 6 x 10GbE	<u>for management.</u>	
					ports.	3. Each storage controller should have at least 2 x 100	
						<u>GbE/8x25GbE</u>	
						ports."	

Page RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
no.				

Section-V: Technical	STGSANNAS01	GUI Based management:	As suggest above, separate storage	As stipulated
Specifications, Category-I, 13.		1. Storage must have a single web GUI based administration interface for configuration,	system should be asked for NAS and SAN	in the RFP
STGSANNAS01, Point 7. GUI Based		storage management and performance analysis.	hence management software should also	
Management		2. The proposed storage should provide proactive monitoring of the health of the system	asked separately.	
		and proactive support when any hardware failure occurs. The provision to provide	We request to amend the clause and	
		(health / stats) reports	remove NFS share from clause No. 3.	
		3. System Management software should have capability to monitor performance for		
		IOPS, throughput, latency and should be able to monitor controllers, disk pools, NFS		
		shares, drives.		
	Specifications, Category-I, 13. STGSANNAS01, Point 7. GUI Based	Specifications, Category-I, 13. STGSANNAS01, Point 7. GUI Based Management	Specifications, Category-I, 13. STGSANNAS01, Point 7. GUI Based Management Management 1. Storage must have a single web GUI based administration interface for configuration, storage management and performance analysis. 2. The proposed storage should provide proactive monitoring of the health of the system and proactive support when any hardware failure occurs. The provision to provide (health / stats) reports 3. System Management software should have capability to monitor performance for IOPS, throughput, latency and should be able to monitor controllers, disk pools, NFS	Specifications, Category-I, 13. STGSANNASO1, Point 7. GUI Based Management 1. Storage must have a single web GUI based administration interface for configuration, storage management and performance analysis. 2. The proposed storage should provide proactive monitoring of the health of the system and proactive support when any hardware failure occurs. The provision to provide (health / stats) reports 3. System Management software should have capability to monitor performance for IOPS, throughput, latency and should be able to monitor controllers, disk pools, NFS system should be asked for NAS and SAN hence management software should also asked separately. We request to amend the clause and remove NFS share from clause No. 3.

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	Clarification
no.	Section/Category						
60	Section-V:	STGSANNAS01	1. Offered solution must fit in standard	Modification : The solution should be	Modification : The solution	Modification : The solution should	Ref.
	Technical		42U 19" RACK	offered with optimal Rack space and	should be offered with	be offered with optimal Rack space	Corrigendum
	Specifications,			power consumption in line with OEM	optimal Rack space and power	and power consumption in line with	
	Category-I, 13.		2. Storage solution should fit in max 10U	architecture.	consumption in line with OEM	OEM architecture.	
	STGSANNAS01,			Justification : We request CDAC to	architecture.	Justification : We request CDAC to	
	Point 9. Rack		3. Max. rated power for the storage	amend this clause as the current	Justification : We request	amend this clause as the current	
	Space		solution should not be more than 5KW	clause is limiting OEM participation in	CDAC to amend this clause as	clause is limiting OEM participation	
				the RFP.	the current clause is limiting	in the RFP.	
					OEM participation in the RFP.		

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	Clarification
no.	Section/Category						
60		STGSANNAS01	1. Offered storage should have minimum 4x 100Gbps QSFP28 ethernet ports with required optical modules for connectivity to client.	Modification: Offered storage solution should have minimum 4x 100Gbps QSFP28 ethernet ports with required optical modules for connectivity to client. The uplink should be of 100Gbps, whereas ports interconnecting devices can be 25GbE/40GbE. Justification: We request CDAC to amend the clause, as this will enable bidder to have flexibility while designing the solution. While	Modification: Offered storage solution should have minimum 4x 100Gbps QSFP28 ethernet ports with required optical modules for connectivity to client. The uplink should be of 100Gbps, whereas ports interconnecting devices can be 25GbE/40GbE. Justification: We request CDAC to	Modification: Offered storage solution should have minimum 4x 100Gbps QSFP28 ethernet ports with required optical modules for connectivity to client. The uplink should be of 100Gbps, whereas ports interconnecting devices can be 25GbE/40GbE. Justification: We request CDAC to	Ref. Corrigendum
				ensuring the uplink to Leaf/Core switches remains 100Gbps.	amend the clause, as this will enable bidder to have flexibility while designing the solution. While ensuring the uplink to Leaf/Core switches remains 100Gbps.	amend the clause, as this will enable bidder to have flexibility while designing the solution. While ensuring the uplink to Leaf/Core switches remains 100Gbps.	

Page RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	NETAPP	PRESTO	VDA Infosolution	HPE	Clarification
no. Section/Category											

60	Section-V:	STGSANNAS01	1. The	Modification : 1.	Modification : 1. The	The storage	The storage	Since this	The storage solution	Modification : 1. The	As stated above for	Ref.
00	Technical	SIGSANNASUI	storage	The solution	solution must	solution must	solution must	project	must support	solution must	NAS requirement,	Corrigendum
	Specifications,		solution	must support	support 250,000		support 1000,000	consists of	1000,000 100%	support 250,000	CDAC should ask	Corrigendum
	Category-I, 13.		must	250,000 IOPS with	IOPS with 70:30 Read	support 1000,000 100%	100% random	very high	random read IOPS	IOPS with 70:30	separate storage	
	STGSANNAS01,		support	70:30 Read : Write	: Write ratio with	random read	read IOPS with	performance	with 8KB block size	Read : Write ratio	solution for NAS	
	Point 7.		1000,000	ratio with 8KB	8KB block and less	IOPS with 8KB	8KB block size	requirement,	and with DIRECTIO	with 8KB block and	and SAN workload	
	Performance		100%	block and less than	than 3ms latency for	block size and	and with	so data access	(to bypass client	less than 3ms	with required	
	renomiance		random	3ms latency for	Block access. Should	with DIRECTIO	DIRECTIO (to	can be done	cache) on	latency for Block	performance	
			read IOPS	Block access.	be scalable to	(to bypass client	bypass client	using multiple	iSCSI/NVMe	access. Should be	respectively. Also,	
			with 8KB	Should be scalable	500,000 with same	cache) on	cache) on	protocols	FC/NFS/NVME TCP	scalable to 500,000	Please suggest	
			block size	to 500,000 with	ratio as more	iSCSI/NVMe	iSCSI/NVMe	which are very	interface with less	with same ratio as	performance	
			and with	same ratio as more	resources are added	FC/NFS/NVME	FC/NFS/NVME	high	than 3ms latency.	more resources are	parameter from day	
			DIRECTIO	resources are	in terms of capacity	TCP interface	TCP interface	performing	Justification:Since	added in terms of	one with asked	
			(to bypass	added in terms of	and controllers in	with less than	with less than	and also	this project consists	capacity and	configuration.	
			client	capacity and	future.	3ms latency.	3ms latency.	provides very	of very high	controllers in future.	comiguration.	
			cache) on	controllers in	Justification : The	Query from	Query from	less latency .	performance	Justification : The		
			iSCSI	future.	requested	Bidder : Since	Bidder : Since	Hence request	requirement, so	requested		
			interface	Justification : The	amendment is more	this project	this project	to include	data access can be	amendment is more		
			with less	requested	applicable for	consists of very	consists of very	other	done using multiple	applicable for		
			than 3ms	amendment is	production scenarios	high	high performance	protocols for	protocols which are	production scenarios		
			latency.	more applicable	where read and	performance	requirement, so	performance	very high performing	where read and		
			laterity.	for production	writes are happening	requirement, so	data access can	IOPS required	and also provides	writes are happening		
				scenarios where	on block storage for	data access can	be done using	Tororequired	very less latency .	on block storage for		
				read and writes	VMs. with this	be done using	multiple		Hence request to	VMs. with this		
				are happening on	number 80-100 IOPS	multiple	protocols which		include other	number 80-100 IOPS		
				block storage for	per VM, it can serve	protocols which	are very high		protocols for	per VM, it can serve		
				VMs. with this	more than 2500 VM,	are very high	performing and		performance IOPS	more than 2500 VM,		
				number 80-100	which is good	performing and	also provides		required	which is good		
				IOPS per VM, it can	enough to start with	also provides	very less latency .		required	enough to start with		
				serve more than	and scalability	very less latency	Hence request to			and scalability		
				2500 VM, which is	request will address	. Hence request	include other			request will address		
				good enough to	future performance	to include other	protocols for			future performance		
				start with and	needs as well. Hence	protocols for	performance			needs as well. Hence		
				scalability request	we request CDAC to	performance	IOPS required			we request CDAC to		
				will address future	consider the	IOPS required	ioi o required			consider the		
				performance	amendment.					amendment.		
				needs as well.	ac.iaiiiciit.							
				Hence we request								
				CDAC to consider								
				the amendment.								
				the amendment.								

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	Clarification
no.	Section/Category						
60	Section-V:	STGSANNAS01	2. Additionally, storage solution must	Modification : Additionally, storage solution	Modification : Additionally,	Modification : Additionally,	As stipulated in the RFP
	Technical		support 5GB/s sequential read	must support 5GB/s sequential read	storage solution must support	storage solution must	
	Specifications,		performance from single NFS share with	performance from NFS share with 32KB or	5GB/s sequential read	support 5GB/s sequential	
	Category-I, 13.		32KB block size	higher block size	performance from NFS share	read performance from	
	STGSANNAS01,			Justification: As block size for NFS may vary,	with 32KB or higher block size	NFS share with 32KB or	
	Point 7.			we request CDAC to amend the clause to	Justification : As block size for	higher block size	
	Performance			address varied workload.	NFS may vary , we request	Justification : As block size	

varied workload.				CDAC to amend the clause to address varied workload.	for NFS may vary , we request CDAC to amend the clause to address varied workload.
------------------	--	--	--	--	--

Page	RFP Clause No. / Section/Category	Item	RFP Ask	DDN	Clarification
no.					
	Section-V: Technical Specifications, Category-I, 13. STGSANNAS01, Point 10. Virtualization Support	STGSANNAS01	10. Should support VMWare VAAI and VASA	We request C-DAC to modify these requirement to VMWare VAAI and VASA or equivalent.	Ref. Corrigendum

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	VDA Infosolution	HPE	Clarification
no.	Section/Category							
60	Section-V:	STGSANNAS01	Storage should	Modification : The proposed solution	Modification : The proposed	Modification : The proposed solution	As suggest above,	As stipulated in the
	Technical		support at least 3-way	should be offered with comprehensive	solution should be offered	should be offered with comprehensive	separate storage	RFP
	Specifications,		replication over WAN	replication solution for Virtual	with comprehensive	replication solution for Virtual	system should be	
	Category-I, 13.		across three sites with	environment hosted with software	replication solution for Virtual	environment hosted with software	asked for NAS	
	STGSANNAS01,		sync and async mode of	defined storage , with Synchronous and	environment hosted with	defined storage , with Synchronous	and SAN hence	
	Point 16. Data		operation.	Asynchronous replication. All required	software defined storage ,	and Asynchronous replication. All	management	
	Replication		2. Should support both	software licenses should be part of the	with Synchronous and	required software licenses should be	software should	
			block and file-based	solution proposed.	Asynchronous replication. All	part of the solution proposed.	also asked	
			replication	2. Asynchronous file replication over	required software licenses	2. Asynchronous file replication over	seperatly.Hence	
				WAN should be part of the solution with	should be part of the solution	WAN should be part of the solution	please remove	
				all required licenses.	proposed.	with all required licenses.	file data	
				Justification : We request CDAC to	2. Asynchronous file	Justification : We request CDAC to	replication clause	
				amend the clause, as replication for	replication over WAN should	amend the clause, as replication for	and asked with	
				virtual environment work way differently	be part of the solution with all	virtual environment work way	separate NAS	
				as compared to file replication.	required licenses.	differently as compared to file	storage system.	
				Virtualization solution comes with deeply	Justification : We request	replication. Virtualization solution		
				integrated replication solution built into	CDAC to amend the clause, as	comes with deeply integrated		
				it to deliver most efficient way of	replication for virtual	replication solution built into it to		
				replicating VM data across data centres.	environment work way	deliver most efficient way of		
					differently as compared to file	replicating VM data across data		
					replication. Virtualization	centres.		
					solution comes with deeply			
					integrated replication solution			
					built into it to deliver most			
					efficient way of replicating VM			
					data across data centres.			

Page	RFP Clause No. /	Item	RFP Ask	HPE	Clarification
no.	Section/Category				

Ì	61	Section-V:	STGSANNAS01	1. Point in time snapshot and clones	As stated above for NAS requirement, CDAC should ask	As stipulated in the	
		Technical		2. Thin Provisioning	separate NAS solution for file workload. We request to	RFP	
		Specifications,		3. Inline Deduplication, Inline Compression	amend the clause as		
		Category-I, 13.		4. Remote replication, Synchronous and Asynchronous (File and Block) for disaster recovery functions	"Mandatory Software Features (must include all licenses in		
		STGSANNAS01,		5. Web based GUI or CLI based Management	perpetual mode):-		
		Point 11.		6. Alerts (SMTP email, SNMP) and syslog for logging	4. Remote replication, Synchronous and Asynchronous		
		Mandatory		7. Quota based storage allocation for users, groups and directory/project	(Block) for disaster recovery functions		
		Software					
		Features (must			7. Please remove "Quota based storage allocation for		
		include all			users, groups and directory/project" as this is a NAS		
		licenses in			<u>feature.</u>		
		perpetual mode)					

Page	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
no.					
61	Section-V: Technical Specifications, 13. STGSANNAS01	STGSANNAS01	13. STGSANNAS01 SNO 16 / Page 61	Please confirm what type of workloads are	As stipulated in the
				expected in file-based replication?	RFP

Page	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
no.					
62	Section-V: Technical Specifications, Category-I, 13. STGSANNAS01, Point 19. Configuration Scalability/ Upgrades	STGSANNAS01	1. Storage cluster configuration should be independent of hardware configuration to support upgrade the storage cluster non-disruptively 2. Shares & exports should not be impacted when hardware is added or removed 3. It should be possible to add new generation controller/node of the quoted OEM to the existing storage cluster without an impact on allocated volumes/LUNs/file-shares parent and the clients accessing them	As suggest above, separate storage system should be asked for NAS and SAN hence management software should also asked seperatly. Hence please removeall file related features and suggest to add sepearte file storage.	As stipulated in the RFP

Page	RFP Clause No. /	Item	RFP Ask	ECIL	CISCO	NETAPP	PRESTO	Clarification
no.	Section/Category							

	Additional Point	STGSANNAS01	Additional Point	Proposed Storage system should Scale-Out to minimum 12 Nodes/Controllers including Arra Controller card, Cache memory, FAN, Power supply etc. Quer from Bidder: Since this project a data intensive project and requires massive scaling, hence scaling with different generation of controllers enables addition of latest and more powerful controllers in the same storage system - driving up performance and capacity, all through a single pane of management	should Scale-Out to minimum 12 Nodes/Controllers including Array Controller card, Cache memory, FAN, Power supply etc. Query from Bidder: Since this project is a data intensive project and requires massive scaling, hence scaling with different generations of controllers enables addition of latest	Proposed Storage system should Scale-Out to minimum 12 Nodes/Controllers including Array Controller card, Cache memory, FAN, Power supply etc. Query from Bidder: Since this project is a data intensive project and requires massive scaling, hence scaling with different generations of controllers enables addition of latest and more powerful controllers in the same storage system - driving up performance and capacity, all through a single pane of management	The proposed system should offer upto 20PBs capacity scalable within a single namespace. Justfication:Since this project has a use case of Data Analytics , so single namespace has a very much relevant . This single filesystem is distributed across multiple storage controllers while allowing the application to write/read to a single filesystem thus hiding the underneath complexity from Applications. There are various use cases for Single Filesystem requirements such as Analytics, Data Lake, AI ML etc.	As stipulated in the RFP
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL	CISCO	NETAPP	PRESTO	Clarification
		STGSANNAS01	Additional	scalable within a single namespace. Query from Bidder: Since this project has a use case of Data Analytics, so single namespace has a very much relevant. This single filesystem is distributed across multiple storage controllers while allowing the application to write/read to a single filesystem thus hiding the underneath complexity from Applications. There are various use cases for Single	The proposed system should offer upto 20PBs capacity scalable within a single namespace. Query from Bidder: Since this project has a use case of Data Analytics, so single namespace has a very much relevant. This single filesystem is distributed across multiple storage controllers while allowing the application to write/read to a single filesystem thus hiding the underneath complexity from Applications. There are various use cases for Single Filesystem requirements such as Analytics, Data Lake, Al ML etc.	The proposed system should offer upto 20PBs capacity scalable within a single namespace. Query from Bidder: Since this project has a use case of Data Analytics, so single namespace has a very much relevant. This single filesystem is distributed across multiple storage controllers while allowing the application to write/read to a single filesystem thus hiding the underneath complexity from Applications. There are various use cases for Single Filesystem requirements such as Analytics, Data Lake, AI ML etc.	Storage management software should support MFA to ensure secure access of Management Software. The Storage array should support SHA-2 level security for manging user credentials. Justifcation:In a Data Center environment and in the scenarios where multiple administartors are accessing the same storage, it is important to have Multi-Factor Authentication (MFA). MFA is widely used today to avoid unauthorized/rogue access to the system.	As stipulated in the RFP
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL	CISCO	NETAPP	PRESTO	Clarification

Additional Point	STGSANNAS01	Additional	Storage management software	Storage management software should	Storage management software	The storage should support to	As stipulated in the
		Point	should support MFA to ensure	support MFA to ensure secure access	should support MFA to ensure	comply with SEC Rule 17a-4 for	RFP
			secure access of Management	of Management Software. The Storage	secure access of Management	filesystems. Also, the offered	
			Software. The Storage array	array should support SHA-2 level	Software. The Storage array should	storage should be capable to	
			should support SHA-2 level	security for manging user credentials.	support SHA-2 level security for	ensure that no one including	
			security for manging user	Query from Bidder: In a Data Center	manging user credentials. Query	administrator should be able to	
			credentials. Query from Bidder	environment and in the scenarios	from Bidder: In a Data Center	delete the data post WORM	
			: In a Data Center environment	where multiple administartors are	environment and in the scenarios	(Write Once Read Many)enabled.	
			and in the scenarios where	accessing the same storage, it is	where multiple administartors are	Justification:WORM offers the	
			multiple administartors are	important to have Multi-Factor	accessing the same storage, it is	capability to meet various	
			accessing the same storage, it is	Authentication (MFA). MFA is widely	important to have Multi-Factor	compliances where data should	
			important to have Multi-Factor	used today to avoid	Authentication (MFA). MFA is	not be allowed to modify once it	
			Authentication (MFA). MFA is	unauthorized/rogue access to the	widely used today to avoid	is written, one such standard	
			widely used today to avoid	system.	unauthorized/rogue access to the	accepted worldwide is SEC Rule	
			unauthorized/rogue access to		system.	17a-4. Also, the WORM feature	
			the system.			should have the capability that no	
						one including a user with	
						Administrator or Privilege access	
						should not be able to	
						delete/modify the data.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO	Clarification
110.	Additional Point	STGSANNAS01	Additional Point	The storage system should support capability towards visibility, detection and remediation of ransomware attacks. The offered system should support ransomware and insider threat detection to protect data with early detection and actionable intelligence on ransomware and other malware incursions. It should detect malicious activity and protect the data automatically.	As stipulated in the RFP

Page	RFP Clause No. /	Item	RFP Ask	PRESTO	Clarification
no.	Section/Category				
	Additional Point	STGSANNAS01	Additional Point	The storage system should support File system analytics to analyze Data discovery, Capacity usage , File and directory counts, File activity trends, Active and inactive data identification and other analytics solutions which can leverage the REST API to collect the analytics information from the storage system and provide extended use cases such as capacity trending and storage reporting. Justification: File System Analytics presents detailed information at each level of the volume's file system hierarchy, allowing you to - Assess capacity usage and trends, Monitor file and directory counts, and Evaluate file activity and history. It offer a deep insight into the Filesystem and take any corrective action, this can be further programmed and used with 3rd party tools with REST API.	As stipulated in the RFP

Page	RFP Clause No. /	Item	RFP Ask	PRESTO	Clarification
no.	Section/Category				
	Additional Point	STGSANNAS01	Additional Point	The proposed storage system OS should be common criteria certified (CCRA)to ensure security & availablity of the deployed system. Justification: Since this project has a use case of Data Analytics, so single namespace has a very much relevant. This single filesystem is distributed across multiple storage controllers while allowing the application to write/read to a single filesystem thus hiding the underneath complexity from Applications. There are various use cases for Single Filesystem requirements such as Analytics, Data Lake, AI ML etc.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO		Clarification
	Additional Point		Storage management software should support MFA to ensure secure access of Management Software. The Storage array should support SHA-2 level security for manging user credentials.	The proposed system should offer upto 20PBs capacity scalable within a single Justification: Since this project has a use case of Data Analytics, so single nam very much relevant. This single filesystem is distributed across multiple storage while allowing the application to write/read to a single filesystem thus hiding to complexity from Applications. There are various use cases for Single Filesystem such as Analytics, Data Lake, AI ML etc.	espace has a ge controllers the underneath	As stipulated in the RFP
Page no.	RFP Clause No. / Section/Category	Item		RFP Ask		Clarification
	Additional Point		The storage should support to comply with SEC Rule 17a-4 administrator should be able to delete the data post WORI	For filesystems. Also, the offered storage should be capable to ensure that no one M (Write Once Read Many)enabled.	e including	As stipulated in the RFP
Page	RFP Clause No. /	Item		RFP Ask		Clarification
no.	Section/Category Additional Point			bility, detection and remediation of ransomware attacks. The offered system should with early detection and actionable intelligence on ransomware and other malware the data automatically.		stipulated in the RFP
Page no.	RFP Clause No. / Section/Category	Item		RFP Ask		Clarification
	Additional Point		The proposed storage system OS should be common criter	ria certified (CCRA)to ensure security & availablity of the deployed system	As stipulated	in the RFP
Page no.	RFP Clause No. / Section/Category	Item		RFP Ask		Clarification
	Additional Point		The proposed system should offer upto 20PBs capacity sca	alable within a single namespace.	As stipulat	ed in the RFP
Page no.	RFP Clause No. / Section/Category	Item		RFP Ask		Clarification
	Additional Point		Proposed Storage system should Scale-Out to minimum 12 supply etc.	2 Nodes/Controllers including Array Controller card, Cache memory, FAN, Power	As stipulat	ed in the RFP
Page no.	RFP Clause No. / Section/Category	Item		RFP Ask		Clarification
	Additional Point		Total number of 96 CPU cores to be provided in a Storage of	cluster with 2Ghz processor speed	As stipulat	ed in the RFP

Page	RFP Clause No. / Section/Category	Item	RFP Ask	Clarification
no.				
	Section-V: Technical Specifications, Category-I, 13. STGSANNAS01, Point 2. Storage Architecture	STGSANNAS01	3. No single point of failure	3. Entire Solution should be configured for with no Single Point of Failure (SPOF) including Storage delivery N/W, Storage controllers/IO servers (if required), HBA Cards, switches (if required) between IO servers/storage controllers. The disks should be hot pluggable. The storage controllers/IO servers should be in active active mode. Even if one controller/IO server fails, other should take over and there should not be any data loss due to failure of controller (if applicable)

Page	RFP Clause No. / Section/Category	Item	RFP Ask	Clarification
no.				
	Section-V: Technical Specifications, Category-I,	STGSANNAS01	1. 3 Years of standard NBD support.	1. 3 Years of standard NBD support.
	13. STGSANNAS01, Point 16. Support &		2. All the support details including escalation matrix, e-mail ids	
	Maintenance		and contact numbers have to be provided on OEM letterhead.	2. All the support details including escalation matrix, e-mail ids and contact numbers have to
				be provided on OEM letterhead.
				3. Perpetual licences for entire capacity, unlimited clients to be quoted for all the features
				support asked

SWITCH TYPE-01 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause No. /	Item	RFP Ask	HPE	Clarification
no.	Section/Category	iteiii	NFF ASK	nrc .	
88	Category-II , Switch	Switch	Device should have minimum 4 x 10G	Request to consider 25G Uplink speed support in Switch for higher network uplink throughput without additional cost for deployment	As stipulated
	Type-01	Type-	SFP+ ports populated with multimode		in the RFP
			transceiver LC from day-1.	Requested change: Device should have minimum 4 x 1/10/25G SFP28 ports populated with multimode transceiver LC from day-1.	

_	-	Item	RFP Ask	AIPL	Arista	INSPIRA	Cache Technologies	Clarification
no.	Section/Category							
88	Category-II , Switch	Switch	Device	air-flow orientation is not mentioned	air-flow orientation is not mentioned	air-flow orientation is not mentioned	air-flow orientation is not mentioned	As stipulated
	Type-01	Type-	should	for the mgmt. TOR Switch. Generally,	for the mgmt. TOR Switch. Generally,	for the mgmt. TOR Switch. Generally,	for the mgmt. TOR Switch. Generally,	in the RFP
		01	support	the top-of-rack are mounted with ports	the top-of-rack are mounted with ports	the top-of-rack are mounted with	the top-of-rack are mounted with	
			redundant	towards back of the rack to simplify	towards back of the rack to simplify	ports towards back of the rack to	ports towards back of the rack to	
			hot-	server to TOR switch cabling.	server to TOR switch cabling.	simplify server to TOR switch	simplify server to TOR switch cabling.	
			swappable	Therefore requesting to modify the	Therefore requesting to modify the	cabling.	Therefore requesting to modify the	
			fans and	clause as mentioned below:	clause as mentioned below:	Therefore requesting to modify the	clause as mentioned below:	
			redundant			clause as mentioned below:		
			hot-	"The device should support redundant	"The device should support redundant	"The device should support	"The device should support redundant	
			swappable	hot-swappable fans and redundant hot-	hot-swappable fans and redundant hot-	redundant hot-swappable fans and	hot-swappable fans and redundant	
			power	swappable power supplies. The device	swappable power supplies. The device	redundant hot-swappable power	hot-swappable power supplies. The	
			supplies.	should have support for both front-to-	should have support for both front-to-	supplies. The device should have	device should have support for both	
				back and back-to-front airflow, exact	back and back-to-front airflow, exact	support for both front-to-back and	front-to-back and back-to-front	
				airflow orientation for the individual	airflow orientation for the individual	back-to-front airflow, exact airflow	airflow, exact airflow orientation for	
				device to be decided as per site	device to be decided as per site	orientation for the individual device	the individual device to be decided as	
				deployment requirement"	deployment requirement"	to be decided as per site deployment	per site deployment requirement"	
						requirement"		

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	НРЕ	Presto	SISL	Clarification
88	Category-II , Switch	Switch	Device should be able to	OOB Switches . Should be	Request to consider	Device should be able to support	Device should be able to support up to	As stipulated
	Type-01	Type-	support up to 64K MAC address	downscaled to 32k MAC	minimum 32k MAC	up to 32K MAC address.	32K MAC address.	in the RFP
		01		Addresses	Address as only 48 iLO	Justification: Considering	Justification: Considering	
					or OOBM ports are	Management Switches, will	Management Switches, will request to	
					expected to connect	request to Modify the clause	Modify the clause	
					to the switch directly.			
					Requested Changes:			
					Device should be able			
					to support up to 32K			
					MAC address.			

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Clarification
88	Category-II , Switch Type-01	Switch Type- 01	Device should support 4K VLANs, 9200 bytes Jumbo frame.	Request to consider 9000 bytes Jumbo frame to support standard network application Requested changes: Device should support 4K VLANs, 9000 bytes Jumbo frame.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Nokia	Clarification
88	Category-II , Switch Type-01	Switch Type- 01	Device should support MST, per-vlan RSTP, BPDU Guard, Loop Guard	Modern DC networks are deployed using layer-3 routing based on eBGP, which provides full redundancy in the DC fabric with lesser convergence time. STP/MSTP/RSTP are legacy protocols with many limitations like sub-optimal path for east to west traffic, flow distribution is not proper, difficult to troubleshootand. Thus, STP/MSTP/RSTP are not recommended in modern datacenter networks. We request CDAC to remove this clause or make it optional	As stipulated in the RFP

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Nokia	Presto	SISL	Clarification
no.	Section/Category		III ASK	0111	2	Nonia	110300	5151	
88	Category-II , Switch	Switch	Device should be able to	OOB Switches . Should be	Request to consider minimum	Management TOR connects	Device should be able to support	Device should be	As stipulated
	Type-01	Type-	support 128K IPv4 LPM routes	downscaled to 1k IPv4	60k IPv4 and 60k IPv6 Routing	limited number of	16K IPv4/IPv6 LPM routes.	able to support 16K	in the RFP
		01		routes	table support for Management	computes/storage/network	Justification: As per understanding,	IPv4/IPv6 LPM	
					Switch as per the deployment	nodes within 1-2 racks for	these switches are going to provide	routes.	
					requirements.	OOB connectivity	OOB management. Requirement of	Justification: As per	
						requirements.	128K IPv4 Routes seems to be very	understanding, these	
					Requested changes:		high for the functionality required.	switches are going to	
					Device should be able to support	The number of routes	Requesting to modify the clause	provide OOB	
					60K IPv4 and 60K IPv6 LPM	required on management TOR		management.	
					routes.	in typical deployment scenario		Requirement of 128K	
						is less then 100. So we request		IPv4 Routes seems to	
						to modify this clause to		be very high for the	
						support 32K IPv4 LPM routes.		functionality	
								required. Requesting	
								to modify the clause	

_	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Presto	SISL	Clarificati on
88	Category-II , Switch	Switch	Device should support minimum 32-way ECMP	32 way Equal-Cost Multipath is very	Device should support	Device should support	As
	Type-01	Type-		high for 4 uplink switch port, request	minimum 4-way ECMP.	minimum 4-way ECMP.	stipulated
		01		to consider minimum 8-way ECMP as	Justification: As per	Justification: As per	in the RFP
				per the deployment requirements.	understanding, these	understanding, these switches	
					switches are going to provide	are going to provide OOB	
				Requested Changes:	OOB management.	management. Requesting to	
				Device should support minimum 8-	Requesting to modify the	modify the clause	
				way ECMP.	clause		

Page	RFP Clause No. /	Itom	RFP Ask	DELL	HPE	Clarification
no.	Section/Category	Item	RFP ASK	DELL	MPE	

88	Category-II , Switch	Switch	Device should support ISIS(IPv4 & IPv6), OSPF(IPv4 & IPv6), BGP,	Please make ISIS as optional	ISIS protocol not mandatory	Ref. Corrigendum
	Type-01	Type-	BGP monitoring Protocol.		for Data Center Leaf Spine	
		01			fabric deployment, request	
					to remove ISIS protocol	
					considering alternative iBGP,	
					MP-BGP, EVPN based	
					deployment	
					Requested changes:	
					Device should support OSPF	
					(IPv4 & IPv6), BGP, BGP	
					monitoring protocol.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Nokia	Clarification
88	Category-II , Switch	Switch	Device should support policy based routing(IPv4 & v6), VRRP	Policy based routing, VRRP is not	As stipulated in the RFP
	Type-01	Type-	(IPv4 & v6) and multi-hop BFD.	relevant for management TOR switch.	
		01		We request to remove this clause.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	НРЕ	Clarification
88	Category-II , Switch Type-01	Switch Type- 01	Device should support graceful restart for ISIS, OSPF and BGP.	Please make ISIS as optional	ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS protocol considering alternative iBGP, MP-BGP, EVPN based deployment Requested changes Device should support graceful restart for OSPF and BGP.	-

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Nokia	Clarification
88	Category-II , Switch	Switch	Device should support Multicast with PIM-SM, PIM-SSM, MSDP	Please remove MSDP . PIM-SSM can	Multicast is typically required	As stipulated in the RFP
	Type-01	Type-	and anycast-RP	be used	in TELCO's transport & data	
		01			center networks.Multicast	
					protocols are not relevant in	
					mission critical IT data center	
					networks. We would request	
					you to make this clause	
					optional.	

Page	RFP Clause No. /	om	RFP Ask	Nokia	Drocto	SISL	Clarificati
no.	Section/Category	CIII	NFF ASK	INORIA	Presto	3131	on

88	Category-II , Switch	Switch	Device should support VPC/MLAG for active-active layer-2 and	As these switches are used in	Device should support	Device should support	As
	Type-01	Type-	layer-3 forwarding while running in VXLAN+EVPN based fabric.	management network only, EVPN-	VPC/MLAG for active-active	VPC/MLAG for active-active	stipulated
		01		VxLAN protocols are not relevant for	layer-2 and layer-3	layer-2 and layer-3	in the RFP
				the management TOR switch.	forwarding while running	forwarding while running in	
					in VXLAN+EVPN or	VXLAN+EVPN or VXLAN+LIPS	
				We request to remove this clause.	VXLAN+LIPS based fabric.	based fabric.	
					Justification: Different	Justification: Different vendor	
					vendor use different	use different terminologies to	
					terminologies to provide	provide Network fabric,	
					Network fabric, Requesting	Requesting to allow	
					to allow VXLAN+LIPS to allow	VXLAN+LIPS to allow maximum	
					maximum participation.	participation.	

Page	_	Item	RFP Ask	Nokia	Presto	SISL	Clarificati
no.	Section/Category						on
88	Category-II , Switch	Switch	Device should support symmetric Integrated Routed &	As these switches are used in	Device should support	Device should support	As
	Type-01	Type-	Bridging(for both Type-2 and Type-5) and distributed anycast	management network only, EVPN-	symmetric Integrated Routed	symmetric Integrated Routed	stipulated
		01	gateway functionality in VXLAN+EVPN fabric.	VxLAN protocols are not relevant for	& Bridging (for both Type-2	& Bridging (for both Type-2	in the RFP
				the management TOR switch.	and Type-5) and distributed	and Type-5) and distributed	
					anycast gateway	anycast gateway functionality	
				We request to remove this clause.	functionality in VXLAN+EVPN	in VXLAN+EVPN or VXLAN+LIPS	
					or VXLAN+LIPS fabric.	fabric.	
					Justification: Different	Justification: Different vendor	
					vendor use different	use different terminologies to	
					terminologies to provide	provide Network fabric,	
					Network fabric, Requesting	Requesting to allow	
					' '	VXLAN+LIPS to allow maximum	
					maximum participation.	participation.	

Page	RFP Clause No. /	Item	RFP Ask	Nokia	Presto	SISL	Clarification
no.	Section/Category	item	KFP ASK	NORIA	ionia Fiesto		
88	Category-II , Switch	Switch	Device should support	Multicast is typically required in	Device should support routed-multicast/OISM with	Device should support routed-multicast/OISM	As stipulated
	Type-03	Type-	routed-	TELCO's transport & data center	EVPN for multicast support in VXLAN/VXLAN+LIPS	with EVPN for multicast support in	in the RFP
		03	multicast/OISM with	networks.Multicast protocols are not	overlay.	VXLAN/VXLAN+LIPS overlay.	
			EVPN for multicast	relevant in mission critical IT data	Justification: Different vendor use different	Justification: Different vendor use different	
			support in VXLAN	center networks. We would request	terminologies to provide Network fabric, Requesting to	terminologies to provide Network fabric, Requesting	
			overlay.	you to make this clause optional.	allow VXLAN+LIPS to allow maximum participation.	to allow VXLAN+LIPS to allow maximum	
						participation.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Nokia	Presto	SISL	Clarification
89	Category-II , Switch	Switch	Device	PFC/DCBX feature required	Data center bridging (DCB) devices use DCBX to exchange	25. Device should support	25. Device should support	As stipulated
	Type-01	Type-	should	for Leaf Switch for Server	configuration information with directly connected peers.	PFC/DCBX/IEEE802.1p/802.3x	PFC/DCBX/IEEE802.1p/802.3x	in the RFP
		01	support	and IP Storage traffic	The same functionality in modern data center switching	Flow/Link Level Flow	Flow/Link Level Flow	
			PFC/DCBX.	optimization,	platforms can also be achieved using dynamic BGP	Control/equivalent technology.	Control/equivalent technology.	
				request to remove the	peering functionality for auto configuration of underlay	Justification:PFC/DCBX are	Justification: PFC/DCBX are	
				feature from Management	network.	required in Core layer however	required in Core layer however	
				Switch	so we request to allow an alternate solution for	Switch within management don't	Switch within management don't	
					automated peer discovery and configuration of underlay	require PFC/DCBX for flow control.	require PFC/DCBX for flow control.	
					network.			

Page	RFP Clause No. / Item	RFP Ask	DELL	HPE	Nokia	Clarification
------	-----------------------	---------	------	-----	-------	---------------

no.	Section/Category					
89	Category-II , Switch	Switch	Device should support IEEE	Please	Request to consider PTP boundary clock alternative 1588 PTP is clocking protocols are typically required in transport network	As stipulated
	Type-01	Type-	1588 PTP boundary clock,	remove IEEE	Network Time Protocol (NTP) protocol to provide the frequency and time sync TDM based networks. We reques	t in the RFP
		01	SNMP v3,	1588 PTP	to remove this clause for mission critical IT data center switches.	
			IPFIX/Netflow/SFlow and	boundary	Requested Change: "Device should support IEEE SNMP is a legacy protocol and have limited capabilities. We request you to	
			logging.	clock	1588 PTP boundary clock or NTP, SNMP v3, allow next generation protocols and ammend the clause a	5
					IPFIX/Netflow/SFlow and logging." "SNMP/gRPC/gNMI must be supported."	

_	RFP Clause No. / Section/Category	Item	RFP Ask			HPE	Clarification
89	Category-II , Switch	Switch	Should sup	port custom	application	Request to allow built-in Network Analytics capability and REST API based integrated custom application support in Switch	As stipulated in
	Type-01	Type-	installation w	ith RPM install	and docker	Requested Changes: Should support built-in network analytics or custom application installation with RPM install and docker	the RFP
		01	containers.			containers or API based integration.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Clarification
89	Category-II , Switch	Switch Type-01	Device should support onboard tcpdump/wireshark for troubleshooting purpose and should support mirroring	Please change the encapsulation to	As stipulated in the RFP
	Type-01		to L3 destination using GRE encapsulation	GRE/equivalent	

Page	RFP Clause No. /	Item	RFP Ask	Presto	SISL	Clarificatio
no.	Section/Category	iteiii	NFF ASK	Presto	3131	n
89	Category-II , Switch	Switch	All proposed	All proposed Management switches in the network should be able to run on	All proposed Management switches in the network should be able to run on	Ref.
	Type-01	Type-	switches in the	same OS image and managed from single dashboard for simplified operations	same OS image and managed from single dashboard for simplified	Corrigendum
		01	network should be	with minimal security exposure.	operations with minimal security exposure.	
			able to run on	Justification: We understand that the management switches have to be	Justification: We understand that the management switches have to be	
			same OS image and	provided with dedicated management solution. Also, Spine-leaf management	provided with dedicated management solution. Also, Spine-leaf	
			managed from	solution is asking for management excluding PoE switches, and also we	management solution is asking for management excluding PoE switches, and	
			single dashboard	understand this should exclude Management switches. Accordingly, since	also we understand this should exclude Management switches. Accordingly,	
			for simplified	data and management traffic are segregated, hence requesting to please	since data and management traffic are segregated, hence requesting to	
			operations with	confirm that these management switches should be managed thru a separate	please confirm that these management switches should be managed thru a	
			minimal security	management solution and these switches should be running on the respective	separate management solution and these switches should be running on the	
			exposure.	OS image.	respective OS image.	

	-	Item	RFP Ask	DELL	Presto	SISL	Clarification
no.	Section/Category						
89	Category-II , Switch	Switch	The device should be provided with	The	Solution should be provided with unified monitoring,	Solution should be provided with unified monitoring,	As stipulated
	Type-01	Type-	unified monitoring, provisioning	Functi	provisioning and telemetry solution from the same OEM. It	provisioning and telemetry solution from the same OEM. It	in the RFP
		01	and telemetry solution from the	onality	should support telemetry with time-series database view or	should support telemetry with time-series database view or	
			same OEM. It should support	needs	required DB for solution, traffic flow analytics, PSIRT/Bug	required DB for solution, traffic flow analytics, PSIRT/Bug	
			telemetry with time-series	to be	visibility, Zero touch provisioning, resource utilization	visibility, Zero touch provisioning, resource utilization	
			database view, traffic flow	provid	monitoring, event notification, auto topology view, change	monitoring, event notification, auto topology view, change	
			analytics, PSIRT/Bug visibility, Zero	ed by	management, notification through email & msg, 3rd party	management, notification through email & msg, 3rd party	
			touch provisioning, resource	3rd	integration.	integration.	
			utilization monitoring, event	party	Justification: This clause is OEM specific. Other OEMs have	Justification: This clause is OEM specific. Other OEMs have	
			notification, auto topology view,	OEM/	different way of storing historical Data. Please allow equivalent	different way of storing historical Data. Please allow equivalent	
			Change management, notification	Open	DB in solution so that other OEMs can also participate in the	DB in solution so that other OEMs can also participate in the	
			through email & msg, 3rd party	Source	tender.	tender.	
			integration	Tool			

no.	Section/Category								
90	Category-II , Switch	Switch	TAC	please mention the no. of	As stipulated in				
	Type-01, 3-1	Type-	should be	years for NBD warranty	the RFP				
		01	directly	support. Also, it is					
			from the	recommended to ask for					
			OEM with	perpetual licenses as it will					
			24x7	help minimize the recurring					
			support.	annual cost of AMC. Please					
			Should be	modify the clause as:					
			provided						
			with NBD	"1. TAC should be directly					
			replacem	from the OEM with 24x7					
			ent.	support. Should be provided	support.	support.	support.	support.	
				with NBD replacement for 3	Should be provided with NBD				
				years. All licenses should be	replacement for 3 years. All				
				perpetual in nature or should	licenses should be perpetual				
				be provided for minimum 5	in nature or should be				
				years of subscription."	provided for minimum 5 years				
					of subscription."	of subscription."	of subscription."	of subscription."	

	RFP Clause No. / Section/Category	Item	RFP Ask	Presto	SISL	Clarification
90	Category-II , Switch	Switch	0°C to 40°C operating	0°C to 40°C operating temperature and 10% to 85% relative	0°C to 40°C operating temperature and 10% to 85% relative	Ref. Corrigendum
	Type-01 , 3-1	Type-	temperature and 10% to 90%	humidity.	humidity.	
		01	relative humidity.	Justification: Requesting to modify the clause to allow maximum	Justification: Requesting to modify the clause to allow maximum	
				participation	participation.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	I-Value	Clarification
90	e. SWITCH Type-01		5. Device should	air-flow orientation is not mentioned for the Leaf Switch. Generally, the top-of-	air-flow orientation is not mentioned for the mgmt. TOR Switch. Generally,	As stipulated
	(Management TOR)		support	rack are mounted with ports towards back of the rack to simplify server to TOR	the top-of-rack are mounted with ports towards back of the rack to	in the RFP
	/ 1. Performance		redundant hot-	switch cabling.	simplify server to TOR switch cabling.	
	and Architecture /		swappable fans	Therefore requesting to modify the clause as mentioned below:	Therefore requesting to modify the clause as mentioned below:	
	page no. 90		and redundant			
			hot-swappable	"The device should support redundant hot-swappable fans and redundant hot-	"The device should support redundant hot-swappable fans and redundant	
			power supplies.	swappable power supplies. The device should have support for both front-to-	hot-swappable power supplies. The device should have support for both	
				back and back-to-front airflow, exact airflow orientation for the individual	front-to-back and back-to-front airflow, exact airflow orientation for the	
				device to be decided as per site deployment requirement"	individual device to be decided as per site deployment requirement"	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Clarification
	BOQ-2.04	SWITCH Type-01 (Management TOR)		Bidder requests CDAC to confirm the distribution of TOR between Internet and MPLS Zone for better clarity of the solution	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarificati on
	BOQ File Cat II items / Switching	Switching BOQ		Bidder requests for the following details: a) 400G connectivity details b) Compute leaf distribution between sites and Internet/MPLS Zone c) Compute Leaf is EOR/MOR/TOR? D) Distribution of Management TOR Leaf/POE between Sites and Internet/MPLS Zone e) DCI Switches and Border/Service leaf if needed as part of the design will be separate or *part of Compute Leaf Switches	

Page	RFP Clause No. / Item	RFP Ask	HPE	Clarification
------	-----------------------	---------	-----	---------------

no	Section/Category			
	BOQ-2.04	SWITCH Type-01 (Management TOR)	Bidder requests CDAC to confirm the distribution of TOR between Internet and MPLS Zone for better	As stipulated in
			clarity of the solution	the RFP

SWITCH TYPE-06 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause No. /	Item	RFP Ask	AIPL	HPE	ARISTA	INSPIRA	Nokia	Cache Technology	Clarification
no.	Section/Category									
77		Switch	Device	To avoid 400G breakout	Considering present generation high density 48	To avoid 400G breakout	To avoid 400G breakout	1) Please	To avoid 400G breakout	As stipulated
	Type-06	Type-	should have		Port 1/1025Gbps Server Leaf and Border Leaf	1		clarify	solution for 100G	in the RFP
		06	modular		Switch, the Chassis based Spine Switch port	1		whether the	connectivity, which can	
			hardware	cause the failure of	requirement and N x 100G Leaf-Spine	cause the failure of	cause the failure of	switch-type-	cause the failure of multiple	
			architecture	multiple 100g links due	connectivity cost can be reduced for the	multiple 100g links due	multiple 100g links due to	6 is required	100g links due to fault in	
			to support	to fault in single 400G	project.Spine to Spine Switch direct 400G	to fault in single 400G	fault in single 400G cable,	for leaf or	single 400G cable, optics or a	
			100G and	cable, optics or a port,	connectivity not recommended for Industry	cable, optics or a port,	optics or a port, please	spine	port, please mention native	
			400G line	please mention native	Standard Leaf-Spine architecture and DC to	please mention native	mention native ports for	functionality	ports for 100G requirement.	
			cards.	ports for 100G	other near line DC connectivity recommended	ports for 100G	100G requirement.	in the data	Also it is recommended to	
			Should be	requirement.	with Border Leaf switch for data Center service	requirement.	Also it is recommended	center	use duplex LC connector for	
			capable to	Also it is recommended	continuity.	Also it is recommended	to use duplex LC	switching	400G to optimise the inter	
			support	to use duplex LC	as Request to consider generic below changes	to use duplex LC	connector for 400G to	fabric.	DC-BCP connectivity.	
			scale of a	connector for 400G to	to leading OEM to participate in RFP.	connector for 400G to	optimise the inter DC-BCP	2) Please	The clause is proposed to be	
			minimum of	optimise the inter DC-	1. Chassis based Spine switch with "Modular	optimise the inter DC-	connectivity.	clarify the	changed as mentioned	
			72 nos. of	BCP connectivity.	hardware architecture" change to "Wire speed	BCP connectivity.	The clause is proposed to	purpose of	below:	
			100G	The clause is proposed	hardware architecture" ensuring line rate	The clause is proposed	be changed as mentioned	QSFP-DD		
			QSFP28	_	switch fabric backplane performance .	_	below:	, , ,	"1. Device should have	
			ports and 16	mentioned below:	2. 100G and 400G "Line Card" change to switch				modular hardware	
			nos. of 400G		"Port" ensuring bidder to propose optimized		"1. Device should have		architecture to support 100G	
			OSFP/QSFP-		Data Center Fabric solution addressing the RFP	1		_	and 400G line cards. Should	
			DD ports. 48		functional requirements.				be capable to support scale	
					3. 64 nos. 100G QSFP28 and 16 nos. 400G	1			of a minimum of 72 nos. of	
			QSFP28		QSFP/QSFP-DD port support in Spine Switch. as	1	1		100G native QSFP28 ports	
			1 -		only 48 nos. 100G QSFP28 day-1 Leaf Switch	1	1		and 16 nos. of 400G	
			populated	capable to support scale	,	1	minimum of 72 nos. of	category	OSFP/QSFP-DD ports. 48 nos.	
					4. 100G Single Mode Transceiver alternative		-		of native QSFP28 ports all	
			_		Active Optical Cable (AOC) as most common				populated with 100G single	
			1 .	•	Leaf-Spine within Data Center connectivity up	1 -	1		mode Duplex fiber LC	
			LC connector	400G OSFP/QSFP-DD			nos. of native QSFP28		connector transceiver and 10	
			transceiver	ports. 48 nos. of native	,	1 *	ports all populated with		nos of 400G OSFP/QSFP-DD	
				-	Device should have Wire speed hardware	· ·			ports all populated with	
					architecture to support 100G and 400G Port or	1 -			single mode duplex fiber LC	
			OSFP/QSFP-		line cards. Should be capable to support scale of				connector transceiver from	
					a minimum of 64 nos. of 100G QSFP28 ports				day-1."	
			populated		and 16 nos. of 400G OSFP/QSFP-DD ports. 48		1			
			_		nos. of QSFP28 ports all populated with 100G	1	1			
			mode		single mode Duplex fiber LC or AOC connector	1	LC connector transceiver			
			transceiver		transceiver and 10 nos of 400G OSFP/QSFP-DD		from day-1."			
			from day1.		ports all populated with single mode transceiver	1				
				transceiver from day-1."	from day-1.	transceiver from day-1."				

Page	RFP Clause No. / Item		RFP Ask	DELL	Clarification
no.	Section/Category				
77	Category-II , Switch Type-06	Switch Type-	Device should be based on industry standard virtual output queue based architecture to avoid	Please remove as requirement can be met through specific	Ref.
		06	head-of-line blocking issues.	customized QoS policies	Corrigendum

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Presto	SISL	Clarification
no.	Section/Category							
77	Category-II , Switch	Switch	Device	Please	micro-services based wire-	8. Device should have support of DC standard protocols like	8. Device should have support of DC standard protocols like	As stipulated
	Type-06	Type-	should	remove as	speed switching architecture	DCBx, PFC, ECN, intelligent buffer management with 128MB	DCBx, PFC, ECN, intelligent buffer management with 128MB	in the RFP
		06	have deep	requirement	with ECN, DCB, Flow-Control,	buffer to handle mice & elephant flow within Datacenter and	buffer to handle mice & elephant flow within Datacenter and	
			packet	can be met	PFC priority etc feature	avoid any congestion.	avoid any congestion.	
			buffers of	through	ensures efficient congestion	Justifcation:The deep buffer solution will not solve the problem	Justification: The deep buffer solution will not solve the	
			8GB or	specific		of congestion completely as the traffic is a mix of elephant and	1.	
			more to	customized	•	mice flow which requires specific protocols and intelligent		
			handle	QoS policies		buffering technology to provide the most optimum design.		
			congestion			Within DataCenter, Switches are connected at high speed	,	
			scenarios		_	uplink and downlink to Servers with 1:1 subscription from day		
			arising out		fabric performance	1. With non-blocking DC design in terms of uplink / downlink in		
			of TCP		requirements.	addition to intelligent buffer, DCBx, ECN can avoid congestion if		
			incast and			there is any. TCP have inbuilt mechanism to handle any TX/RX	,	
			varying in-		Requested Change: Device	related transfer rate mismatch and ensures they match and	inbuilt mechanism to handle any TX/RX related transfer rate	
			out link		should have deep packet	adjust based on communication requirement. If there is any	mismatch and ensures they match and adjust based on	
			speed.		buffers of 132MB or more to	mice traffic in DC, then intelligent buffer mechanism along with	communication requirement. If there is any mice traffic in	
					handle congestion scenarios	DCBx, PFC, ECN etc can handle and prioritise critical mice	DC, then intelligent buffer mechanism along with DCBx, PFC,	
					arising out of TCP incast and	traffic. Just providing deep buffer wont help within DC if there is	ECN etc can handle and prioritise critical mice traffic. Just	
					varying in-out link speed.	no intelligent way to manage buffer.	providing deep buffer wont help within DC if there is no	
							intelligent way to manage buffer.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Presto	Clarification
no.	Section/Category						
77	Category-II , Switch	Switch	Device should be	Please	The Spine Switch need to connect directly to Leaf switch layer	13. Device should support minimum 64-way ECMP.	As stipulated in
	Type-06	Type-06	able to support up	downscale	with Layer 3 Fabric configuration hence request to consider	Justification: Within DC, link between Spine & Leaf which can go upto 6x100G, or	the RFP
			to 200K MAC	the	minimum 81,000 MAC Address Supporting Large Data Center	Spine to external router connectivity or connecting to perimeter switch to router	
			address.	requirement	PODS of scalable data Center fabric	typical do not cross more than 2 pair of devices. Even if there is multiple	
				to 120K MAC	Requested changes : Device should be able to support up to	connectivity between device over L3, 32 Way ECMP should be enough. But	
				Addresses	81K MAC address.	considering scale in future, 64-way ECMP should be enough.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
77	Category-II , Switch Type-06	Switch Type-06	Device should support minimum 128-way ECMP.	Request to consider 32 ECMP load-balanced paths as per the Data Center Fabric deployment requirements.	Ref. Corrigendum
				Requested Changes: 13. Device should support minimum 32-way ECMP	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
77	Category-II , Switch Type-06	Switch Type-06	Device should support 4K VLANs, 9200 bytes Jumbo frame.	Request to consider 9000 bytes Jumbo frame to support standard network application	As stipulated in the RFP
				Requested changes: Device should support 4K VLANs, 9000 bytes Jumbo frame.	

Page	RFP Clause No. /	Item	RFP Ask	Nokia	Clarification
no.	Section/Category				
77	Category-II , Switch Type-06	Switch Type-06	.Device should support MST, per-vlan RSTP, BPDU Guard, Loop Guard.	Modern DC networks are deployed using layer-3 routing based on eBGP, which provides full redundancy in the DC fabric with lesser convergence time. STP/MSTP/RSTP are legacy protocols with many limitations like sub-optimal path for east to west traffic, flow distribution is not proper, difficult to troubleshootand. Thus, STP/MSTP/RSTP are not recommended in modern datacenter networks. We request CDAC to remove this clause or make it optional	As stipulated in the RFP

Page	RFP Clause No. /	Item	RFP Ask	Presto	SISL	Clarification
no.	Section/Category					
78	Category-II , Switch	Switch	Device should be	14. Device should be able to support 512 IPv4 / IPv6 routes.	14. Device should be able to support 512 IPv4 / IPv6 routes.	Ref.
	Type-06	Type-06	able to support	Justification:With min 64-way ECMP, WAN, MPLS etc, connectivity, 256K routes	Justification: With min 64-way ECMP, WAN, MPLS etc, connectivity, 256K routes	Corrigendum
			256K IPv4 routes.	may not be enough with large DCs. Route increase, to available scale of device, in	may not be enough with large DCs. Route increase, to available scale of device, in	
				future should not increase any license/hardware cost. Also we must have Ipv6	future should not increase any license/hardware cost. Also we must have Ipv6	
				support and scale in switches.	support and scale in switches.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Clarification
no.	Section/Category					
78	Category-II , Switch Type-06	Switch	Device should support ISIS (IPv4 & IPv6), OSPF (IPv4 &	Please make ISIS	ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS	Ref.
		Type-06	IPv6), BGP, BGP monitoring protocol.	as optional	protocol considering alternative iBGP, MP-BGP, EVPN based deployment	Corrigendum
					Requested changes: Device should support OSPF (IPv4 & IPv6), BGP, BGP monitoring protocol.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Clarification
no.	Section/Category					
78	Category-II , Switch Type-06	Switch	Device should support graceful restart	Please make ISIS as	ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS protocol	Ref.
		Type-06	for ISIS, OSPF and BGP.	optional	considering alternative iBGP, MP-BGP, EVPN based deployment	Corrigendum
					Requested changes: Device should support graceful restart for OSPF and BGP.	

Page	RFP Clause No. /	Item	RFP Ask	Nokia	Clarification
no.	Section/Category				
78	Category-II , Switch Type-06	Switch	Device should support routed-multicast/OISM with EVPN	Multicast is typically required in TELCO's transport & data center networks. Multicast protocols are not relevant in	As stipulated in
		Type-06	for multicast support in VXLAN overlay.	mission critical IT data center networks. We would request you to make this clause optional.	the RFP

Page	RFP Clause No. /	Item	RFP Ask	Nokia	Presto	SISL	Clarification
no.	Section/Category						
78	Category-II , Switch	Switch	Device should	Data center bridging (DCB) devices use DCBX to exchange configuration information with	29. Device should support PFC,DCBX,	29. Device should support	As stipulated in
	Type-06	Type-06	support	directly connected peers. The same functionality in modern data center switching	ECN	PFC,DCBX, ECN. Justification:	the RFP
			PFC/DCBX	platforms can also be achieved using dynamic BGP peering functionality for auto	Justification: Switch within DC	Switch within DC should support	
				configuration of underlay network.	should support all relevant DCBx	all relevant DCBx protocols to	
				So we request to allow an alternate solution for automated peer discovery and	protocols to manage mice/elephant	manage mice/elephant flow and	
				configuration of underlay network.	flow and priories traffic with priority	priories traffic with priority queuin	
					queuing		

Page	RFP Clause No. /	Item	RFP Ask	DELL	Nokia	Clarification
no.	Section/Category					
78	Category-II , Switch Type-06	Switch	Device should support Multicast with	Please remove MSDP .	Multicast is typically required in TELCO's transport & data center networks. Multicast protocols are not	As stipulated in
		Type-06	PIM-SM, PIM-SSM, MSDP and anycast-	PIM-SSM can be used	relevant in mission critical IT data center networks. We would request you to make this clause optional.	the RFP
			RP.			

Page	RFP Clause No. /	Item	RFP Ask	HPE	Presto	SISL	Clarification
no.	Section/Category						
78	Category-II , Switch	Switch	Device should	Leaf Switch connected Host required	25. Device should have support min 3K ingress/egress	25. Device should have support min 3K ingress/egress hardware	As stipulated in
	Type-06	Type-06	have support	Access Control List, not many use case	hardware ACL entries.	ACL entries.	the RFP
			20K or more	where Access Control required in	Justification: Since workloads are going to connect on	Justification: Since workloads are going to connect on Compute	
			ingress/egress	Spine Switch layer, request to consider	Compute leaf, ACL would be required at Compute leaf	leaf, ACL would be required at Compute leaf switches to	
			hardware ACL	minimum 2k or more ingress/egress	switches to provide segmentation. But still if something needs	provide segmentation. But still if something needs to be	
			entries	hardware ACL entries support in	to be connected on Spine/Type-6, there should be support of	connected on Spine/Type-6, there should be support of ACL on	
				switch	ACL on Spine as well. Managing large scale ACL, which are	Spine as well. Managing large scale ACL, which are hardware	
					hardware intensive ,would be challenge. We would suggest to	intensive ,would be challenge. We would suggest to use VRF	
				Requested changes :	use VRF level segmentation on switch, and then Firewall along	level segmentation on switch, and then Firewall along with with	
				Device should have support 2K or	with with PBR on switch can be used to provide low level	PBR on switch can be used to provide low level segmentation	
				more ingress/egress hardware ACL	segmentation between workloads. Firewalls are designed to	between workloads. Firewalls are designed to provide deep	
				entries.	provide deep packet inspection, scalable, session based etc.	packet inspection, scalable, session based etc.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	Presto	SISL	Clarification
no.	Section/Category						
78	Category-II , Switch	Switch	Device should have virtual output	Please remove as	30. Device should support mechanism to identify	30. Device should support mechanism to identify	Ref.
	Type-06	Type-06	queuing based architecture, such that	requirement can be met	mice/elephant flow within DC, priotise them, assign right	mice/elephant flow within DC, priotise them, assign right	Corrigendum
			every input port will have a virtual	through specific	queue with priority.	queue with priority. Justification: There are many lossless	
			output queue for every output port	customized QoS policies	Justification: There are many lossless ethernet standards	ethernet standards like DCBx, PFC, ECN, RoCE v1/2 which	
			on the switch.		like DCBx, PFC, ECN, RoCE v1/2 which are design to run	are design to run critical traffic within DC. TCP themselves	
					critical traffic within DC. TCP themselves intelligently can	intelligently can manage elephant traffic which is BW	
					manage elephant traffic which is BW intensive.	intensive.	

Page	RFP Clause No. /	Item	Item RFP Ask		HPE	Nokia	Clarification
no.	Section/Category						
79	Category-II , Switch	Switch	Device should support IEEE 1588 PTP	Please remove	Request to consider PTP boundary clock	1588 PTP is clocking protocols are typically required in transport networks	As stipulated in
	Type-06	Type-06	boundary clock, SNMPv3,	IEEE 1588 PTP	alternative Network Time Protocol (NTP)	to provide the frequency and time sync TDM based networks. We request	the RFP
			IPFIX/Netflow/SFlow and logging.	boundary clock	protocol	to remove this clause for mission critical IT data center switches.	
					Requested Change : "Device should		
					support IEEE 1588 PTP boundary clock or	SNMP is a legacy protocol and have limited capabilities. We request you to	
					NTP, SNMP v3, IPFIX/Netflow/SFlow and	allow next generation protocols and ammend the clause as	
					logging."	"SNMP/gRPC/gNMI must be supported."	

Page	RFP Clause No. /	Item	RFP Ask	HPE	Clarification
no.	Section/Category				
79	Category-II , Switch Type-06	Switch	Should support custom application installation with RPM	Request to allow built-in Network Analytics capability and REST API based integrated custom application	As stipulated in the
		Type-06	install and docker containers.	support in Switch	RFP
				Requested Changes: Should support built-in network analytics or custom application installation with RPM	
				install and docker containers or API based integration.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	Clarification
no.	Section/Category				
79	Category-II , Switch Type-06	Switch Type-	Device should support onboard tcpdump/wireshark for troubleshooting purpose and should support mirroring to L3	Please change the encapsulation to	Ref.
		06	destination using GRE encapsulation	GRE/equivalent	Corrigendum

Page no.	RFP Clause No. / Section/Category	Section/Category		Presto	SISL	Clarification
79	Category-II , Switch Type-06	Switch Type-06	All proposed switches in the network should be able to run on same OS image and managed from single dashboard for simplified operations with minimal security exposure.	All proposed switches in the network should be from same OEM for hardware and software. Software image can be differ as per the OEM support matrix. Management of the switches should be from respective fabric for simplified operations with minimal security exposure. Justification: This clause is confusing and contraries with reference to RFP page 8, point e under 8. Scope of Work – Network Fabric where its mentioned "Proposed fabric technology should support multiple OEM switches to be part of a single leaf-spine fabric." This clause is OEM specific and would restrict participation from other OEMs Please remove the same so that other OEMs can also participate in the tender.	All proposed switches in the network should be from same OEM for hardware and software. Software image can be differ as per the OEM support matrix. Management of the switches should be from respective fabric for simplified operations with minimal security exposure. Justification: This clause is confusing and contraries with reference to RFP page 8, point e under 8. Scope of Work – Network Fabric where its mentioned "Proposed fabric technology should support multiple OEM switches to be part of a single leaf-spine fabric." This clause is OEM specific and would restrict participation from other OEMs Please remove the same so that other OEMs can also participate in the tender.	Ref. Corrigendum

Page	RFP Clause No. /	Item	RFP Ask	DELL	Presto	SISL	Clarification
no.	Section/Category						
79	Category-II , Switch	Switch	Device should be provided with unified	The	1. Solution should be provided with unified monitoring,	1. Solution should be provided with unified monitoring,	As stipulated
	Type-06	Type-06	monitoring, provisioning and telemetry	Functionality	provisioning and telemetry solution from the same OEM. It	provisioning and telemetry solution from the same OEM. It	in the RFP
			solution from the same OEM. It should	needs to be	should support telemetry with time-series database view or	should support telemetry with time-series database view or	
	support telemetry with time-series database		provided by	required DB for solution, traffic flow analytics, PSIRT/Bug	required DB for solution, traffic flow analytics, PSIRT/Bug		
	view, traffic flow analytics, PSIRT/Bug		3rd party	visibility, Zero touch provisioning, resource utilization	visibility, Zero touch provisioning, resource utilization		
			visibility, Zero touch provisioning, resource	OEM/Open	monitoring, event notification, auto topology view, change	monitoring, event notification, auto topology view, change	
			utilization monitoring, event notification,	Source Tool	management, notification through email & msg, 3rd party	management, notification through email & msg, 3rd party	
			auto topology view, change management,		integration.	integration.	
			notification through email & msg, 3rd party		Justification: This clause is OEM specific. Other OEMs have	Justfication: This clause is OEM specific. Other OEMs have	
			integration		different way of storing historical Data. Please allow	different way of storing historical Data. Please allow	
					equivalent DB in solution so that other OEMs can also	equivalent DB in solution so that other OEMs can also	
					participate in the tender.	participate in the tender.	

Page	RFP Clause No. /	Item	RFP Ask	AIPL	ARISTA	INSPIRA	Cache Technology	i-value	Clarification
no.	Section/Category								
79	Category-II , Switch	Switch	TAC should be	please mention the no. of years	As stipulated				
	Type-06	Type-	directly from the	for NBD warranty support.	in the RFP				
		06	OEM with 24x7	Also, it is recommended to ask					
			support. Should be	for perpetual licenses as it will					
			provided with NBD	help minimize the recurring					
		replacement. annual cost of AMC. Please		annual cost of AMC. Please					
				modify the clause as:					
				"1. TAC should be directly from					
				the OEM with 24x7 support.					
				Should be provided with NBD					
				replacement for 3 years. All					
				licenses should be perpetual in					
			nature or should be provided	nature or should be provided	nature or should be provided	nature or should be provided			
				for minimum 5 years of					
				subscription."	subscription."	subscription."	subscription."	subscription."	

SWITCH TYPE-04 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Sr. No.	Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Clarification
1	90		Switch Type-04	Device should have minimum	Request to consider 25G Uplink speed support in Switch for higher network uplink throughput without additional	As stipulated
		Category-II , Switch Type-		4 x 10G SFP+ ports populated	cost for deployment	in the RFP
		04		with multimode transceiver	Requested change: Device should have minimum 4 x 1/10/25G SFP28 ports populated with multimode transceiver	
				LC from day-1.	LC from day-1.	

Sr. No.	Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Clarification
2	90	Category-II , Switch Type-04	Switch Type-04	VLANS, 9000 bytes Jumbo	Request to consider 9000 bytes Jumbo frame to support standard network application Requested changes: Device should support 4K VLANs, 9000 bytes Jumbo frame.	As stipulated in the RFP

Sr. No.	Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Nokia	Clarification
3	90	Category-II , Switch Type- 01		per-vlan RSTP, BPDU Guard,	These are Management POE switches which are not terminating any access rings or campus network rings. Also, the Layer-3 protocols inherently have loop-avoidance mechanism. Hence, following features are not required, we request you to delete this clause	As stipulated in the RFP

Sr. No.	Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	НРЕ	Presto	SISL	Clarification
4	90	Category-II ,	Switch	Device should be	OOB Switches	Request to consider minimum 60k IPv4 and	Device should be able to support 6K IPv4 LPM	Device should be able to support 6K IPv4 LPM	Ref.
		Switch Type-04	Type-	able to support	. Should be	60k IPv6 Routing table support for	routes.	routes.	Corrigendum
			04	64K IPv4 LPM	downscaled to	Management Switch as per the deployment	As per understanding, these switches are going	As per understanding, these switches are going to	
				routes	1k IPv4 routes	requirements.	to provide OOB management. Requirement of	provide OOB management. Requirement of 128K	
						Requested changes: Device should be able to	128K IPv4 Routes seems to be very high for the	IPv4 Routes seems to be very high for the	
						support 60k IPv4 and 60k IPv6 LPM routes.	functionality required. Will request to modify	functionality required. Will request to modify the	
							the clause	clause	

Sr. No.	Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	НРЕ	Clarification
5	90	Category-II , Switch Type-	Switch Type-04	Device should support ISIS,	Please make	ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS	Ref.
		04		OSPF (IPv4 and v6), BGP	ISIS as	protocol considering alternative iBGP, MP-BGP, EVPN based deployment	Corrigendum
				monitoring protocol.	optional	Requested changes: Device should support OSPF (IPv4 & IPv6), BGP, BGP monitoring protocol.	

Sr. No.		RFP Clause No. / Section/Category	Item	RFP Ask	E protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS protocol considering alternative iBGP, MF			
6	90	Category-II ,	Switch	Device should support graceful	ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS protocol considering alternative iBGP, MP-	Ref.		
		Switch Type-04	Type-04	restart for ISIS, OSPF and BGP.	BGP, EVPN based deployment	Corrigendum		
					Requested changes Device should support graceful restart for OSPF and BGP.			

Sr. No.	Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Clarification
7	90	Category-II , Switch Type-04	Switch Type-04	Device should support Multicast with PIM-SM, PIMSSM, MSDP and anycast-RP	Please remove MSDP . PIM-SSM can be used	As stipulated in the RFP

Sr. No.	_	RFP Clause No. / Section/Category	Item	RFP Ask	Nokia	Presto	SISL	Clarification
8	90	Category-II ,	Switch	Device should support	These are Spine-Leaf Switch features and are not	Device should support VPC/MLAG for active-	Device should support VPC/MLAG for active-active	Ref.
		Switch Type-04	Type-	active-active layer-2	required in a Management POE switch. These are	active layer-2 and layer-3 forwarding while	layer-2 and layer-3 forwarding while running in	Corrigendum
			04	and layer3 forwarding	Management POE switches which are not	running in VXLAN+EVPN/VXLAN+LIPS based fabric.	VXLAN+EVPN /VXLAN+LIPS based fabric.	
				while running in	terminating any workloads or VxLAN traffic			
				VXLAN+EVPN based	tunnels. These switches are purely for server	Different vendor use different terminologies to	Different vendor use different terminologies to	
				fabric.	management purpose. Hence, we request you to	provide Network fabric, Requesting to allow	provide Network fabric, Requesting to allow	
					delete these clauses.	VXLAN+LIPS to allow maximum participation.	VXLAN+LIPS to allow maximum participation.	

	_	RFP Clause No. / Section/Category	Item	RFP Ask	Nokia	Presto	SISL	Clarification
9	90	Category-II ,	Switch	Device should support	These are Spine-Leaf Switch features and are	Device should support symmetric Integrated Routed	Device should support symmetric Integrated Routed &	As
		Switch Type-04	Type-	symmetric Integrated	not required in a Management POE switch.	& Bridging (for both Type-2 and Type-5) and	Bridging (for both Type-2 and Type-5) and distributed	stipulated
			04	Routed & Bridging(for	These are Management POE switches which	distributed anycast gateway functionality in	anycast gateway functionality in VXLAN+EVPN/VXLAN+LIPS	in the RFP
				both Type-2 and Type-	are not terminating any workloads or VxLAN	VXLAN+EVPN /VXLAN+LIPS fabric.	fabric.	
				5) and distributed	traffic tunnels. These switches are purely for	Different vendor use different terminologies to		
				anycast gateway	server management purpose. Hence, we	provide Network fabric, Requesting to allow	Different vendor use different terminologies to provide	
				functionality in	request you to delete these clauses.	VXLAN+LIPS to allow maximum participation.	Network fabric, Requesting to allow VXLAN+LIPS to allow	
				VXLAN+EVPN fabric.			maximum participation.	

	_	RFP Clause No. / Section/Category	Item	RFP Ask	Nokia	Presto	SISL	Clarification
10	90	Category-II ,	Switch	Device should support	These are Spine-Leaf Switch features and are	Device should support VPC/MLAG for active-	Device should support VPC/MLAG for active-active	As
		Switch Type-04	Type-	routed-multicast/OISM	not required in a Management POE switch.	active layer-2 and layer-3 forwarding while	layer-2 and layer-3 forwarding while running in	stipulated
			04	with EVPN for multicast	These are Management POE switches which are	running in VXLAN+EVPN/VXLAN+LIPS based fabric.	VXLAN+EVPN/VXLAN+LIPS based fabric.	in the RFP
				support in VXLAN	not terminating any workloads or VxLAN traffic			
				overlay.	tunnels. These switches are purely for server	Different vendor use different terminologies to	Different vendor use different terminologies to provide	
					management purpose. Hence, we request you	provide Network fabric, Requesting to allow	Network fabric, Requesting to allow VXLAN+LIPS to allow	
					to delete these clauses.	VXLAN+LIPS to allow maximum participation.	maximum participation.	

Sr. No	_	RFP Clause No. / Section/Category	Item	RFP Ask	hould support ustom application istallation docker	DELL	Nokia	Clarification
11	91	Category-II , Switch Type-04		Should custom a		Please remove as the use case for the functionality is not clear	These are Spine-Leaf Switch features and are not required in a Management POE switch. These are Management POE switches which are not terminating any workloads or VxLAN traffic tunnels. These switches are purely for server	·
			04	installation containers.			management purpose. Hence, we request you to delete these clauses.	

	_	RFP Clause No. /	Item	RFP Ask			Nokia	Clarification	
No.	no.	Section/Category							
12	91	Category-II ,	Switch	Device	Should	support	These are Spine-Leaf Switch features and are not required in a Management POE switch. These are Management POE switches which are not	As	
		Switch Type-04	Type-04	streaming/r	model-driven	telemetry	terminating any workloads or VxLAN traffic tunnels. These switches are purely for server management purpose. Hence, we request you to delete	stipulated	
							these clauses.	in the RFP	

S	_	_	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	НРЕ	Clarification
1	.3	91	Category-II ,	Switch	Device should support IEEE 1588 PTP boundary	Please remove IEEE 1588 PTP boundary	Request to consider PTP boundary clock alternative Network Time Protocol (NTP) protocol	As stipulated
			Switch Type-04	Type-04	clock,SNMP v3, IPFIX/Netflow/SFlow and	clock	Requested Change: "Device should support IEEE 1588 PTP boundary clock or NTP, SNMP	in the RFP
					logging		v3, IPFIX/Netflow/SFlow and logging."	

Sr.	Page	RFP Clause No. /	RFP Ask	DELL	Nokia	Clarification
No.	no.	Section/Category	NFF ASK	DLLL	INONIA	Ciarrication

14	91	Category-II ,	Switch	Device	should	support	onboard	Please	change	the	These are Spine-Leaf Switch features and are not required in a Management POE switch. These are	As stipulated
		Switch Type-04	Type-04	tcpdump/wireshark for troubleshooting purpose		encapsu	lation	to	Management POE switches which are not terminating any workloads or VxLAN traffic tunnels. These	in the RFP		
				and should support mirroring to L3 destination		GRE/equ	uivalent		switches are purely for server management purpose. Hence, we request you to delete these clauses.			
		using GRE encapsulation										

Sr. No.	Page no.	RFP Clause No. / Section/Category		RFP Ask	DELL	Clarification
15	91	Category-II , Switch Type- Switch Type-04		Should support measure the two-way metrics such as delay, jitter, packet loss rate between two network	Please remove as the use case for the	As stipulated
	04			elements using IP SLA or Two-Way Active Measurement Protocol (TWAMP) as per RFC 5357.	functionality is not clear	in the RFP

Sr. No		RFP Clause No. / Section/Category	Item	RFP Ask	Presto	SISL	Clarification
16	91	Category-II ,	Switch	All proposed	All proposed Management switches in the network should be able to run on same OS	All proposed Management switches in the network should be able to run on	Ref.
		Switch Type-04	Type-	switches in the	image and managed from single dashboard for simplified operations with minimal	same OS image and managed from single dashboard for simplified	Corrigendum
			04	network should be	security exposure.	operations with minimal security exposure.	
				able to run on			
				same OS image and	We understand that the management switches have to be provided with dedicated	We understand that the management switches have to be provided with	
				managed from	management solution. Also, Spine-leaf management solution is asking for	dedicated management solution. Also, Spine-leaf management solution is	
				single dashboard	management excluding PoE switches, and also we understand this should exclude	asking for management excluding PoE switches, and also we understand this	
				for simplified	Management switches. Accordingly, since data and management traffic are	should exclude Management switches. Accordingly, since data and	
				operations with	segregated, hence requesting to please confirm that these management switches	management traffic are segregated, hence requesting to please confirm that	
				minimal security	should be managed thru a separate management solution and these switches should	these management switches should be managed thru a separate management	
				exposure.	be running on the respective OS image.	solution and these switches should be running on the respective OS image.	

Sr. No.		RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Clarification
17	92	Category-II ,	Switch	The device should be provided with monitoring, provisioning and telemetry solution from the same OEM. It should support	The Functionality needs to be provided by 3rd party	As stipulated
		Switch Type-04	Type-04	telemetry with timeline view traffic flow analytics, Zero touch deployment, topology view, Workflow management, 3rd party	OEM/Open Source Tool	in the RFP
				integration. Dedicated management solution shouldbe provided with the device.		

Sr. No.			Page RFP Clause No. Section/Cate	o. / Item RFP	AIPL	ARISTA	INSPIRA	Cache Technologies	Clarification
18 91	Category-	Switch	The device should be	There are only 6	POE switches in the BOQ.	There are only 6 POE switches in the	There are only 6 POE switches in the BOQ.	There are only 6 POE switches in the	As stipulated
	II , Switch	Type-	provided with	Providing a	dedicated management	BOQ. Providing a dedicated management	Providing a dedicated management	BOQ. Providing a dedicated	in the RFP
	Type-04	04	monitoring,	solution will be	very costly. Requesting to	solution will be very costly. Requesting to	solution will be very costly. Requesting to	management solution will be very	
			provisioning and	either delete the	e clause or allow the switch	either delete the clause or allow the	either delete the clause or allow the switch	costly. Requesting to either delete the	
			telemetry solution	to be manage	ed through the 'Fabric	switch to be managed through the 'Fabric	to be managed through the 'Fabric	clause or allow the switch to be	
			from the same OEM.	Manager' as mei	ntioned in annexure-II.	Manager' as mentioned in annexure-II.	Manager' as mentioned in annexure-II.	managed through the 'Fabric Manager'	
			It should support					as mentioned in annexure-II.	
			telemetry with	The clause may	be deleted or modified as:	The clause may be deleted or modified	The clause may be deleted or modified as:		
			timeline view, traffic	"1. The device	should be provided with	as:	"1. The device should be provided with	The clause may be deleted or modified	
			flow analytics, Zero	monitoring so	lution provisioning and	"1. The device should be provided with	monitoring solution provisioning and	as:	
			touch deployment,	telemetry soluti	on from the same OEM. It	monitoring solution provisioning and	telemetry solution from the same OEM. It	"1. The device should be provided with	
			topology view,	should support	telemetry with timeline	telemetry solution from the same OEM. It	should support telemetry with timeline	monitoring solution provisioning and	
			Workflow	view, traffic flo	ow analytics, Zero touch	should support telemetry with timeline	view, traffic flow analytics, Zero touch	telemetry solution from the same OEM.	
			management, 3rd	deployment, to	opology view, Workflow	view, traffic flow analytics, Zero touch	deployment, topology view, Workflow	It should support telemetry with	
			party integration.	management,	3rd party integration.	deployment, topology view, Workflow	management, 3rd party integration.	timeline view, traffic flow analytics,	
			Dedicated	Dedicated mana	gement solution should be	management, 3rd party integration.	Dedicated management solution should be	Zero touch deployment, topology view,	
			management	provided with	the device or may be	Dedicated management solution should	provided with the device or may be	Workflow management, 3rd party	
			solution should be	managed throu	ugh 'Fabric Manager' as	be provided with the device or may be	managed through 'Fabric Manager' as	integration. Dedicated management	
			provided with the	mentioned in ar	nnexure-II."	managed through 'Fabric Manager' as	mentioned in annexure-II."	solution should be provided with the	
			device.			mentioned in annexure-II."		device or may be managed through	
								'Fabric Manager' as mentioned in	
								annexure-II."	

5	r. No.	Page no.	RFP Clause No. / Section/Category	Item	RFP Ask		Nokia	Clarification
1	9	92	Category-II , Switch Type-	Switch Type-04	0°C to 40°	C operating	As these are going to be installed in temperature controlled environment, we request you to accommodate following	Ref.
			04		temperature and 10% to 90%		change:	Corrigendum
					relative humidit	y.	5. 5°C to 40°C operating temperature and 10% to 90% relative humidity.	1

Sr. No.	_	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	ARISTA	INSPIRA	Cache Technologies	Clarification
20	92	Category-II ,	Switch	TAC should	please mention the no. of years for	please mention the no. of years for NBD	please mention the no. of years for NBD	please mention the no. of years for NBD	As stipulated
		Switch Type-04	Type-	be directly	NBD warranty support. Also, it is	warranty support. Also, it is	warranty support. Also, it is recommended	warranty support. Also, it is recommended	in the RFP
			04	from the	recommended to ask for perpetual	recommended to ask for perpetual	to ask for perpetual licenses as it will help	to ask for perpetual licenses as it will help	
				OEM with	licenses as it will help minimize the	licenses as it will help minimize the	minimize the recurring annual cost of AMC.	minimize the recurring annual cost of AMC.	
				24x7	recurring annual cost of AMC. Please	recurring annual cost of AMC. Please	Please modify the clause as:	Please modify the clause as:	
				support.	modify the clause as:	modify the clause as:			
				Should be			"1. TAC should be directly from the OEM	"1. TAC should be directly from the OEM	
				provided	"1. TAC should be directly from the	"1. TAC should be directly from the OEM	with 24x7 support.	with 24x7 support.	
				with NBD	OEM with 24x7 support. Should be	with 24x7 support.	Should be provided with NBD replacement	Should be provided with NBD replacement	
				replacement.	provided with NBD replacement for	Should be provided with NBD	for 3 years. All licenses should be perpetual	for 3 years. All licenses should be	
					3 years. All licenses should be	replacement for 3 years. All licenses	in nature or should be provided for	perpetual in nature or should be provided	
					perpetual in nature or should be	should be perpetual in nature or should	minimum 5 years of subscription."	for minimum 5 years of subscription."	
					provided for minimum 5 years of	be provided for minimum 5 years of			
					subscription."	subscription."			

Sr. No.	Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Clarification
21		BOQ-2.06	SWITCH Ty	pe-04	Bidder requests CDAC to confirm the distribution of TOR between Internet and MPLS Zone for better clarity	As stipulated in the RFP
			(Management POE)		of the solution	

SWITCH TYPE-05 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause							Clarific
	No. /Section	ltem	RFP Ask	DELL	HPE	Presto	SISL	ation
no.	/Category							
85	Category-II ,	Switch	48 nos. of 1/10G	Please	Request to consider industry standard 48 x 1/10/25G ToR	48 nos. of 1/10G/25G SFP28 ports and 6 nos. of	48 nos. of 1/10G/25G SFP28 ports and 6 nos. of	As
	Switch Type-05	Type-05	ports and 6 nos. of	remov	Switch port with 25G server or network service	40/100G QSFP28 ports, provided with 8x 1G-T, 8x	40/100G QSFP28 ports, provided with 8x 1G-T, 8x	stipulat
			40/100G QSFP28	e the	connectivity for higher throughput and lower the number	1G-SX, 16x 10G-SR, 4x 10G-LR, 2x 40G-SR4, 2x	1G-SX, 16x 10G-SR, 4x 10G-LR, 2x 40G-SR4, 2x	ed in
			ports, provided	1G	of ToR Leaf switch need to connect to Spine Switch.	40G-LR4 (all LC connector), 2x100G Single mode	40G-LR4 (all LC connector), 2x100G Single mode	the RFP
			with 8x 1G-T, 8x	Clause	Also request to consider 10/25 of 100G Single/Multi Mode	· · ·	(duplex fiber LC connector)transceiver from day-	
			1G-SX, 16x 10G-SR,		Transceiver alternative Active Optical Cable (AOC) as most	1.	1.	
			4x 10G-LR, 2x 40G-		common within Rack and Leaf-Spine within Data Center	Justification: Since this is new DC requirement,	Justification: Since this is new DC requirement,	
			SR4, 2x 40G-LR4		connectivity.	our suggestion is to consider Compute leaf which	our suggestion is to consider Compute leaf which	
			(all LC		Requested change :	supports 10 & 25G both. 25G is already part of	supports 10 & 25G both. 25G is already part of	
			connector),2x100G		1. 48 nos. of 1/10/25G SFP28 ports and 6 nos. of 40/100G	many DCs refresh or new DC and switch should	many DCs refresh or new DC and switch should	
			Single mode		QSFP28 ports, provided with 8x 1G-T, 8x 1G-SX, 16x 10G-	support from day 1. Also, for 24 port 10/25G	support from day 1. Also, for 24 port 10/25G	
			(duplex fiber LC		SR, 4x 10G-LR, 2x 40G-SR4, 2x 40G-LR4 (all LC connector),	downlink, 6x 100G would not be required.	downlink, 6x 100G would not be required.	
			connector)transcei		2x100G Single mode (duplex fiber LC connector)transceiver		4x100G is good enough to provide	
			ver from day-1.		from day-1.	uplink/downlink 1:1 subscription ratio.	uplink/downlink 1:1 subscription ratio.	

_	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Presto	SISL	i-value	Clarification
	,		Device should be	Please remove as	Device should support mechanism to identify	Device should support mechanism to identify mice/elephant	The clause is limiting	Ref
						flow within DC, priotise them, assign right queue with		
		05	standard virtual	be met through	queue with priority.	priority.	Please remove the	
			output queue based	specific	Justification: There are many lossless ethernet standards	Justification: There are many lossless ethernet standards like	clause to widen the	
			architecture to avoid	customized QoS	like DCBx, PFC, ETS, ECN, RoCE v1/2 which are design to	DCBx, PFC, ETS, ECN, RoCE v1/2 which are design to run	product portfolio	
			head-of-lineblocking	policies	run critical traffic within DC. TCP themselves intelligently	critical traffic within DC. TCP themselves intelligently can	that can be offered.	
			issues		can manage elephant traffic which is BW intensive.	manage elephant traffic which is BW intensive.		

Page no.	RFP Clause No. / Section /Category	Item	RFP Ask	DELL	НРЕ	Nokia	Presto	SISL	i-value	Clari ficat ion
85	Category-II ,	Switch	Device	Please	Micro-services based wire-	The modern	Device should have support of DC standard protocols like	Device should have support of DC standard protocols	The clause is	
03	Switch Type-	Type-	should		l .		DCBx, PFC, ECN, intelligent buffer management with			
	05	05	have deep		· ·		32MB buffer to handle mice & elephant flow within		_	lated
	03	03	packet	requir	DCB, Flow-Control, PFC			within Datacenter and avoid any congestion.	-	in
			buffers of	'		_	Justification: The deep buffer solution will not solve the	, ,	_	
				t can	efficient congestion		problem of congestion completely as the traffic is a mix	i -		
			more to		_		of elephant and mice flow which requires specific			
			handle	met			protocols and intelligent buffering technology to provide			
			congestion	throu	consider minimum 32MB	-	the most optimum design. Within DataCenter, Switches			
			scenarios	gh	l .		are connected at high speed uplink and downlink to	'		
			arising out		1		Servers with 1:1 subscription from day 1. With non-		-	
			of TCP	c	functional fabric		blocking DC design in terms of uplink / downlink in	,	-	
			incast and	custo	performance		addition to intelligent buffer,PFC, DCBx, ECN can avoid			
			varying in-	mized	requirements.	modify the	congestion if there is any. TCP have inbuilt mechanism to	ECN can avoid congestion if there is any. TCP have	MB of buffer	
			out link	QoS		deep packet	handle any TX/RX related transfer rate mismatch and	inbuilt mechanism to handle any TX/RX related transfer	is supported	
			speed.	polici	Requested Changes	buffer	ensures they match and adjust based on communication	rate mismatch and ensures they match and adjust	by multiple	
				es	Device should have deep	requirement	requirement. If there is any mice traffic in DC, then	based on communication requirement. If there is any	OEMs in	
					packet buffers of 32MB or	to support	intelligent buffer mechanism along with DCBx, PFC, ECN	mice traffic in DC, then intelligent buffer mechanism	shallow	
					more to handle congestion	atleast 32MB	etc can handle and prioritise critical mice traffic. Just	along with DCBx, PFC, ECN etc can handle and prioritise	buffer	
					scenarios arising out of TCP	buffer	providing deep buffer wont help within DC if there is no	critical mice traffic. Just providing deep buffer wont	category.	
					incast and varying in-out		intelligent way to manage buffer.	help within DC if there is no intelligent way to manage		

		link speed.		buffer.	

Page no.	RFP Clause No Section/Categ	•	Item	RFP Ask		НРЕ	Clarification		
85	Category-II , Switch T	ategory-II , Switch Type-05 Switch Type-05		Device should support 4K VLANs, 9200 bytes Jumbo		Request to consider 9000 bytes Jumbo frame to support standard network application	As stipulated in the		
				frame.		Requested changes: Device should support 4K VLANs, 9000 bytes Jumbo frame.	RFP		
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask			Nokia			
85	Category-II , Switch	Switch	Device should support MST,	per-vlan RSTP,	Modern DC networks are deployed using la	ayer-3 routing based on eBGP, which provides full redundancy in the DC fabric with lesser	As stipulated in the		
	Type-09		BPDU Guard, Loop Guard.		convergence time. STP/MSTP/RSTP are le	gacy protocols with many limitations like sub-optimal path for east to west traffic, flow	RFP		
		09			distribution is not proper, difficult to to	oubleshootand. Thus, STP/MSTP/RSTP are not recommended in modern datacenter			
					networks.				
					We request CDAC to remove this clause or	make it optional			

Page	RFP Clause							Clarification
_	No. / Section	Item	RFP Ask	DELL	HPE	Presto	SISL	
no.	/Category							
86	Category-II ,	Switch	Device	Please	128 way Equal-Cost Multipath is very high for 6	Device should support minimum 64-way ECMP.	Device should support minimum 64-way ECMP.	Ref.
	Switch Type-	Type-	should	change	uplink switch port, request to consider minimum	Justification: Within DC, link between Spine & Leaf which	Justification: Within DC, link between Spine & Leaf which	Corrigendum
	05	05	support	to 32-	8-way ECMP as per the deployment	can go upto 6x100G, or Spine to external router	can go upto 6x100G, or Spine to external router	
			minimum	way	requirements.	connectivity or connecting to perimeter switch to router	connectivity or connecting to perimeter switch to router	
			128-way	ECMP		typical do not cross more than 2 pair of devices. Even if	typical do not cross more than 2 pair of devices. Even if	
			ECMP.		Requested Changes: Device should support	there is multiple connectivity between device over L3, 32	there is multiple connectivity between device over L3, 32	
					minimum 8-way ECMP.	Way ECMP should be enough. But considering scale in	Way ECMP should be enough. But considering scale in	
						future, 64-way ECMP should be enough.	future, 64-way ECMP should be enough.	

	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Presto	SISL	Clarification
86	Category-II , Switch	Switch	Device should be able	Should be	Device should be able to support 256K IPv4/IPv6 routes.	Device should be able to support 256K IPv4/IPv6 routes.	Ref.
	Type-05	Type-	to support 256K IPv4	downscaled to	Justification: With min 64-way ECMP, WAN, MPLS etc, connectivity,	Justification: With min 64-way ECMP, WAN, MPLS etc, connectivity,	Corrigendum
		05	routes.	100K IPv4 routes	256K routes may not be enough with large DCs. Route increase, to	256K routes may not be enough with large DCs. Route increase, to	
					available scale of device, in future should not increase any	available scale of device, in future should not increase any	
					license/hardware cost.	license/hardware cost.	

_	RFP Clause No. / Section/Category	ITAM	RFP Ask	Nokia	Clarification
	Category-II , Switch		• •	Multicast is typically required in TELCO's transport & data center networks. Multicast protocols are not relevant	As stipulated in the RFP
	Type-03	Type-03	EVPN for multicast support in VXLAN overlay	in mission critical IT data center networks. We would request you to make this clause optional.	

_	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	HPE	Clarification
86	Category-II , Switch	Switch	Device should support ISIS (IPv4	Please make ISIS as optional	ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS	Ref. Corrigendum
	Type-05	Type-	& IPv6), OSPF (IPv4 & IPv6), BGP,		protocol considering alternative iBGP, MP-BGP, EVPN based deployment	
		05	BGP monitoring protocol			
					Requested changes: Device should support OSPF (IPv4 & IPv6), BGP, BGP monitoring protocol.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	НРЕ	Clarification
86		Switch Type- 05	Device should support graceful restart for ISIS, OSPF and BGP.		ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS protocol considering alternative iBGP, MP-BGP, EVPN based deployment Requested changes: Device should support graceful restart for OSPF and BGP.	·

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Nokia	Clarification
86	Category-II , Switch Type-03	Switch Type-05		Data center bridging (DCB) devices use DCBX to exchange configuration information with directly connected peers. The same functionality in modern data center switching platforms can also be achieved using dynamic BGP peering functionality for auto configuration of underlay network. so we request to allow an alternate solution for automated peer discovery and configuration of underlay network.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Nokia	Clarification
86	Category-II , Switch	Switch	Device should support Multicast with	Please remove MSDP .	Multicast is typically required in TELCO's transport & data center networks. Multicast protocols are not	As stipulated in the RFP
	Type-05	Type-05	PIM-SM, PIM-SSM, MSDP and anycast-	PIM-SSM can be used	relevant in mission critical IT data center networks. We would request you to make this clause	
			RP.		optional.	

	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Presto	SISL	i-value	Clarification
86	Category-II , Switch	Switch	Device should	Should be	Device should have support min 3K ingress/egress hardware ACL	Device should have support min 3K ingress/egress hardware	The clause is limiting	As stipulated
	Type-05	Type-	have support 20K	downcaled	entries.	ACL entries. Justification: Managing large scale ACL, which	the product offering.	in RFP
		05	or more	to 2k	Justification: Managing large scale ACL, which are hardware	are hardware intensive ,would be challenge. We would	Please relax the	
			ingress/egress	Ingress	intensive ,would be challenge. We would suggest to use VRF level	suggest to use VRF level segmentation on switch, and then	clause to 2K ACL	
			hardware ACL	/Egress	segmentation on switch, and then Firewall along with with PBR on	Firewall along with with PBR on switch can be used to	entries to widen the	
			entries.	entires	switch can be used to provide low level segmentation between	provide low level segmentation between workloads.	product portfolio	
					workloads. Firewalls are designed to provide deep packet	Firewalls are designed to provide deep packet inspection,	that can be offered.	
					inspection, scalable, session based etc.	scalable, session based etc.		

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Presto	SISL	i-value	Clarification
86	Category-II , Switch	Switch	Device should have	Please remove	Device should support mechanism to identify	Device should support mechanism to identify	The clause is	Ref.
	Type-05	Type-	virtual output queuing	as requirement	mice/elephant flow within DC, priotise them, assign right	mice/elephant flow within DC, priotise them, assign right	limiting the	Corrigendum
		05	based architecture, such	can be met	queue with priority.	queue with priority.	product offering.	
			that every input port will	through	Justification: This clause is OEM specific. There are many	Justification: This clause is OEM specific. There are many	Please remove the	
			have a virtual output	specific	lossless ethernet standards like DCBx, PFC, ETS, ECN, RoCE	lossless ethernet standards like DCBx, PFC, ETS, ECN, RoCE	clause to widen the	

Page	RFP Clause No. /	ltem	RFP Ask	DELL	HPF No	lokia	Clarification		
					is BW intensive.	i	s BW intensive.	offered.	
			port on the switch.	QoS policies	themselves intelligently can manage elephant traffic which	ch t	hemselves intelligently can manage elephant traffic which	that can	be
			queue for every output	customized	v1/2 which are design to run critical traffic within DC. TO	CP v	1/2 which are design to run critical traffic within DC. TCP	product portfo	olio

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	НРЕ	Nokia	Clarification	
87	Category-II , Switch	Switch	Device should support	Please	Request to consider PTP boundary clock alternative	1588 P	PTP is clocking protocols are typically required in transport networks to provide the As	
	Type-05	Type-	IEEE 1588 PTP boundary	remove IEEE	Network Time Protocol (NTP) protocol	frequen	ncy and time sync TDM based networks. We request to remove this clause for stipe	pulated
		05	clock, SNMP v3,	1588 PTP		mission	n critical IT data center switches. in th	the RFP
			IPFIX/Netflow/SFlow and	boundary	Requested Change: "Device should support IEEE 1588			
			logging	clock	PTP boundary clock or NTP, SNMP v3,	SNMP i	is a legacy protocol and have limited capabilities. We request you to allow next	
					IPFIX/Netflow/SFlow and logging."	generat	tion protocols and ammend the clause as "SNMP/gRPC/gNMI must be supported."	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask			НРЕ																	Clarification
87	Category-II , Switch	Switch	Should	support	custom	Request	to	allow	built-in	Network	Analytics	capability	and	REST	API	based	integrated	custom	application	support	in Sv	witch	As stipulated
	Type-05	Type-	application	n installation	with RPM	Requested	d Cha	inges: S	Should su	pport built-	in network	analytics or	custo	m appli	ication	installa	tion with RP	M install	and docker co	ontainers o	r API b	pased	in the RFP
		05	install and	docker conta	ainers.	integratio	n.																

	RFP Clause No. / Section/Category	Item	RFP Ask	Presto	SISL	Clarification
87	Category-II , Switch	Switch	All proposed switches	All proposed switches in the network should be from same OEM for	All proposed switches in the network should be from same OEM for hardware and	As stipulated
	Type-05	Type-	in the network should	hardware and software. Software image can be differ as per the OEM	software. Software image can be differ as per the OEM support matrix. Management	in the RFP
		05	be able to run on	support matrix. Management of the switches should be from respective	of the switches should be from respective fabric for simplified operations with	
			same OS image and	fabric for simplified operations with minimal security exposure.	minimal security exposure.	
			managed from single	Justification: This clause is confusing and contraries with reference to RFP	Justification: This clause is confusing and contraries with reference to RFP page 8,	
			dashboard for	page 8, point e under 8. Scope of Work - Network Fabric where its	point e under 8. Scope of Work – Network Fabric where its mentioned "Proposed	
			simplified operations	mentioned "Proposed fabric technology should support multiple OEM	fabric technology should support multiple OEM switches to be part of a single leaf-	
			with minimal security	switches to be part of a single leaf-spine fabric."	spine fabric."	
			exposure.			
				This clause is OEM specific and would restrict participation from other OEMs	This clause is OEM specific and would restrict participation from other OEMs Please	
				Please remove the same so that other OEMs can also participate in the	remove the same so that other OEMs can also participate in the tender.	
				tender.		,

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL					Clarification
87	Category-II , Switch	Switch Type-05	Device should support onboard tcpdump/wireshark for troubleshooting purpose and should support	Please	change	the	encapsulation	to	As stipulated in the RFP
	Type-05		mirroring to L3 destination using GRE encapsulation	GRE/equi	valent				

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Presto	SISL	Clarification
87	Category-II , Switch	Switch	Device should be provided with unified	The	Solution should be provided with unified monitoring,	Solution should be provided with unified monitoring,	As stipulated
	Type-05	Type-	monitoring, provisioning and telemetry	Functionality	provisioning and telemetry solution from the same OEM. It	provisioning and telemetry solution from the same OEM. It	in the RFP
		05	solution from the same OEM. It should	needs to be	should support telemetry with time-series database view or	should support telemetry with time-series database view or	
			support telemetry with time-series	provided by	required DB for solution, traffic flow analytics, PSIRT/Bug	required DB for solution, traffic flow analytics, PSIRT/Bug	
			database view, traffic flow analytics, flow	3rd party	visibility, Zero touch provisioning, resource utilization	visibility, Zero touch provisioning, resource utilization	
			path identification, PSIRT/Bug visibility,	OEM/Open	monitoring, event notification, auto topology view, change	monitoring, event notification, auto topology view, change	
			Zero touch provisioning, resource	Source Tool	management, notification through email & msg, 3rd party	management, notification through email & msg, 3rd party	
			utilization monitoring, Change		integration.	integration.	
			Management, eventnotification, auto		Justification: This clause is OEM specific. Other OEMs have	Justification: This clause is OEM specific. Other OEMs have	
			topology view, notification through email		different way of storing historical Data. Please allow equivalent	different way of storing historical Data. Please allow	

	& msg, 3rd party integration.	DB in solution so that other OEMs can also participate in the	equivalent DB in solution so that other OEMs can also	
		tender.	participate in the tender.	

Page no.	RFP Clause No. / Section /Category	Item	RFP Ask	AIPL	ARISTA	INSPIRA	Cache Technologies	i-value	Clarification
87	Category-II ,	Switch	TAC should	please mention the no. of years	As stipulated				
	Switch Type-	Type-	be directly	for NBD warranty support. Also,	for NBD warranty support. Also, it	in the RFP			
	05	05	from the	it is recommended to ask for	is recommended to ask for				
			OEM with	perpetual licenses as it will help					
			24x7	minimize the recurring annual					
			support.	cost of AMC. Please modify the					
			Should be	clause as:	clause as:	clause as: "1. TAC should be	clause as:	clause as:	
			provided			directly from the OEM with			
			with NBD	"1. TAC should be directly from	"1. TAC should be directly from	24x7 support.	"1. TAC should be directly from	"1. TAC should be directly from	
			replacement.	the OEM with 24x7 support.	the OEM with 24x7 support.	Should be provided with NBD	the OEM with 24x7 support.	the OEM with 24x7 support.	
				Should be provided with NBD	Should be provided with NBD	replacement for 3 years. All	Should be provided with NBD	Should be provided with NBD	
				replacement for 3 years. All	replacement for 3 years. All	licenses should be perpetual in	replacement for 3 years. All	replacement for 3 years. All	
				licenses should be perpetual in	licenses should be perpetual in	nature or should be provided	licenses should be perpetual in	licenses should be perpetual in	
				nature or should be provided for	nature or should be provided for	for minimum 5 years of	nature or should be provided for	nature or should be provided for	
				minimum 5 years of	minimum 5 years of	subscription."	minimum 5 years of	minimum 5 years of	
				subscription."	subscription."		subscription."	subscription."	

SWITCH TYPE-06 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause No. /	Item	RFP Ask	AIPL	HPE	ARISTA	INSPIRA	Nokia	Cache Technology	Clarification
no.	Section/Category									
77		Switch	Device	To avoid 400G breakout	Considering present generation high density 48	To avoid 400G breakout	To avoid 400G breakout	1) Please	To avoid 400G breakout	As stipulated
	Type-06	Type-	should have		Port 1/1025Gbps Server Leaf and Border Leaf	1		clarify	solution for 100G	in the RFP
		06	modular		Switch, the Chassis based Spine Switch port	1		whether the	connectivity, which can	
			hardware	cause the failure of	requirement and N x 100G Leaf-Spine	cause the failure of	cause the failure of	switch-type-	cause the failure of multiple	
			architecture	multiple 100g links due	connectivity cost can be reduced for the	multiple 100g links due	multiple 100g links due to	6 is required	100g links due to fault in	
			to support	to fault in single 400G	project.Spine to Spine Switch direct 400G	to fault in single 400G	fault in single 400G cable,	for leaf or	single 400G cable, optics or a	
			100G and	cable, optics or a port,	connectivity not recommended for Industry	cable, optics or a port,	optics or a port, please	spine	port, please mention native	
			400G line	please mention native	Standard Leaf-Spine architecture and DC to	please mention native	mention native ports for	functionality	ports for 100G requirement.	
			cards.	ports for 100G	other near line DC connectivity recommended	ports for 100G	100G requirement.	in the data	Also it is recommended to	
			Should be	requirement.	with Border Leaf switch for data Center service	requirement.	Also it is recommended	center	use duplex LC connector for	
			capable to	Also it is recommended	continuity.	Also it is recommended	to use duplex LC	switching	400G to optimise the inter	
			support	to use duplex LC	as Request to consider generic below changes	to use duplex LC	connector for 400G to	fabric.	DC-BCP connectivity.	
			scale of a	connector for 400G to	to leading OEM to participate in RFP.	connector for 400G to	optimise the inter DC-BCP	2) Please	The clause is proposed to be	
			minimum of	optimise the inter DC-	1. Chassis based Spine switch with "Modular	optimise the inter DC-	connectivity.	clarify the	changed as mentioned	
			72 nos. of	BCP connectivity.	hardware architecture" change to "Wire speed	BCP connectivity.	The clause is proposed to	purpose of	below:	
			100G	The clause is proposed	hardware architecture" ensuring line rate	The clause is proposed	be changed as mentioned	QSFP-DD		
			QSFP28	_	switch fabric backplane performance .	_	below:	, , ,	"1. Device should have	
			ports and 16	mentioned below:	2. 100G and 400G "Line Card" change to switch				modular hardware	
			nos. of 400G		"Port" ensuring bidder to propose optimized		"1. Device should have		architecture to support 100G	
			OSFP/QSFP-		Data Center Fabric solution addressing the RFP	1		_	and 400G line cards. Should	
			DD ports. 48		functional requirements.				be capable to support scale	
					3. 64 nos. 100G QSFP28 and 16 nos. 400G	1			of a minimum of 72 nos. of	
			QSFP28		QSFP/QSFP-DD port support in Spine Switch. as	1	1		100G native QSFP28 ports	
			1 -		only 48 nos. 100G QSFP28 day-1 Leaf Switch	1	1		and 16 nos. of 400G	
			populated	capable to support scale	,	1	minimum of 72 nos. of	category	OSFP/QSFP-DD ports. 48 nos.	
					4. 100G Single Mode Transceiver alternative		-		of native QSFP28 ports all	
			_		Active Optical Cable (AOC) as most common				populated with 100G single	
			1 .	•	Leaf-Spine within Data Center connectivity up	1 -	1		mode Duplex fiber LC	
			LC connector	400G OSFP/QSFP-DD			nos. of native QSFP28		connector transceiver and 10	
			transceiver	ports. 48 nos. of native	,	1 *	ports all populated with		nos of 400G OSFP/QSFP-DD	
				-	Device should have Wire speed hardware	· ·			ports all populated with	
					architecture to support 100G and 400G Port or	1 -			single mode duplex fiber LC	
			OSFP/QSFP-		line cards. Should be capable to support scale of				connector transceiver from	
					a minimum of 64 nos. of 100G QSFP28 ports				day-1."	
			populated		and 16 nos. of 400G OSFP/QSFP-DD ports. 48		1			
			_		nos. of QSFP28 ports all populated with 100G	1	1			
			mode		single mode Duplex fiber LC or AOC connector	1	LC connector transceiver			
			transceiver		transceiver and 10 nos of 400G OSFP/QSFP-DD		from day-1."			
			from day1.		ports all populated with single mode transceiver	1				
				transceiver from day-1."	from day-1.	transceiver from day-1."				

Page	RFP Clause No. /	Item	RFP Ask	DELL	Clarification
no.	Section/Category				
77	Category-II , Switch Type-06	Switch Type-	Device should be based on industry standard virtual output queue based architecture to avoid	Please remove as requirement can be met through specific	Ref.
		06	head-of-line blocking issues.	customized QoS policies	Corrigendum

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Presto	SISL	Clarification
no.	Section/Category							
77	Category-II , Switch	Switch	Device	Please	micro-services based wire-	8. Device should have support of DC standard protocols like	8. Device should have support of DC standard protocols like	As stipulated
	Type-06	Type-	should	remove as	speed switching architecture	DCBx, PFC, ECN, intelligent buffer management with 128MB	DCBx, PFC, ECN, intelligent buffer management with 128MB	in the RFP
		06	have deep	requirement	with ECN, DCB, Flow-Control,	buffer to handle mice & elephant flow within Datacenter and	buffer to handle mice & elephant flow within Datacenter and	
			packet	can be met	PFC priority etc feature	avoid any congestion.	avoid any congestion.	
			buffers of	through	ensures efficient congestion	Justifcation:The deep buffer solution will not solve the problem	Justification: The deep buffer solution will not solve the	
			8GB or	specific		of congestion completely as the traffic is a mix of elephant and	1.	
			more to	customized	•	mice flow which requires specific protocols and intelligent		
			handle	QoS policies		buffering technology to provide the most optimum design.		
			congestion			Within DataCenter, Switches are connected at high speed	,	
			scenarios		_	uplink and downlink to Servers with 1:1 subscription from day		
			arising out		fabric performance	1. With non-blocking DC design in terms of uplink / downlink in		
			of TCP		requirements.	addition to intelligent buffer, DCBx, ECN can avoid congestion if		
			incast and			there is any. TCP have inbuilt mechanism to handle any TX/RX	,	
			varying in-		Requested Change: Device	related transfer rate mismatch and ensures they match and	inbuilt mechanism to handle any TX/RX related transfer rate	
			out link		should have deep packet	adjust based on communication requirement. If there is any	mismatch and ensures they match and adjust based on	
			speed.		buffers of 132MB or more to	mice traffic in DC, then intelligent buffer mechanism along with	communication requirement. If there is any mice traffic in	
					handle congestion scenarios	DCBx, PFC, ECN etc can handle and prioritise critical mice	DC, then intelligent buffer mechanism along with DCBx, PFC,	
					arising out of TCP incast and	traffic. Just providing deep buffer wont help within DC if there is	ECN etc can handle and prioritise critical mice traffic. Just	
					varying in-out link speed.	no intelligent way to manage buffer.	providing deep buffer wont help within DC if there is no	
							intelligent way to manage buffer.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Presto	Clarification
no.	Section/Category						
77	Category-II , Switch	Switch	Device should be	Please	The Spine Switch need to connect directly to Leaf switch layer	13. Device should support minimum 64-way ECMP.	As stipulated in
	Type-06	Type-06	able to support up	downscale	with Layer 3 Fabric configuration hence request to consider	Justification: Within DC, link between Spine & Leaf which can go upto 6x100G, or	the RFP
			to 200K MAC	the	minimum 81,000 MAC Address Supporting Large Data Center	Spine to external router connectivity or connecting to perimeter switch to router	
			address.	requirement	PODS of scalable data Center fabric	typical do not cross more than 2 pair of devices. Even if there is multiple	
				to 120K MAC	Requested changes : Device should be able to support up to	connectivity between device over L3, 32 Way ECMP should be enough. But	
				Addresses	81K MAC address.	considering scale in future, 64-way ECMP should be enough.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
77	Category-II , Switch Type-06	Switch Type-06	Device should support minimum 128-way ECMP.	Request to consider 32 ECMP load-balanced paths as per the Data Center Fabric deployment requirements.	Ref. Corrigendum
				Requested Changes: 13. Device should support minimum 32-way ECMP	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
77	Category-II , Switch Type-06	Switch Type-06	Device should support 4K VLANs, 9200 bytes Jumbo frame.	Request to consider 9000 bytes Jumbo frame to support standard network application	As stipulated in the RFP
				Requested changes: Device should support 4K VLANs, 9000 bytes Jumbo frame.	

Page	RFP Clause No. /	Item	RFP Ask	Nokia	Clarification
no.	Section/Category				
77	Category-II , Switch Type-06	Switch Type-06	.Device should support MST, per-vlan RSTP, BPDU Guard, Loop Guard.	Modern DC networks are deployed using layer-3 routing based on eBGP, which provides full redundancy in the DC fabric with lesser convergence time. STP/MSTP/RSTP are legacy protocols with many limitations like sub-optimal path for east to west traffic, flow distribution is not proper, difficult to troubleshootand. Thus, STP/MSTP/RSTP are not recommended in modern datacenter networks. We request CDAC to remove this clause or make it optional	As stipulated in the RFP

Page	RFP Clause No. /	Item	RFP Ask	Presto	SISL	Clarification
no.	Section/Category					
78	Category-II , Switch	Switch	Device should be	14. Device should be able to support 512 IPv4 / IPv6 routes.	14. Device should be able to support 512 IPv4 / IPv6 routes.	Ref.
	Type-06	Type-06	able to support	Justification:With min 64-way ECMP, WAN, MPLS etc, connectivity, 256K routes	Justification: With min 64-way ECMP, WAN, MPLS etc, connectivity, 256K routes	Corrigendum
			256K IPv4 routes.	may not be enough with large DCs. Route increase, to available scale of device, in	may not be enough with large DCs. Route increase, to available scale of device, in	
				future should not increase any license/hardware cost. Also we must have Ipv6	future should not increase any license/hardware cost. Also we must have Ipv6	
				support and scale in switches.	support and scale in switches.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Clarification
no.	Section/Category					
78	Category-II , Switch Type-06	Switch	Device should support ISIS (IPv4 & IPv6), OSPF (IPv4 &	Please make ISIS	ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS	Ref.
		Type-06	IPv6), BGP, BGP monitoring protocol.	as optional	protocol considering alternative iBGP, MP-BGP, EVPN based deployment	Corrigendum
					Requested changes: Device should support OSPF (IPv4 & IPv6), BGP, BGP monitoring protocol.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Clarification
no.	Section/Category					
78	Category-II , Switch Type-06 Switch Device should support graceful restart Please make ISIS as ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS protocol		Ref.			
		Type-06	for ISIS, OSPF and BGP.	optional	considering alternative iBGP, MP-BGP, EVPN based deployment	Corrigendum
					Requested changes: Device should support graceful restart for OSPF and BGP.	

Page	RFP Clause No. /	Item	RFP Ask	Nokia	Clarification
no.	Section/Category				
78	Category-II , Switch Type-06	Switch	Device should support routed-multicast/OISM with EVPN	Multicast is typically required in TELCO's transport & data center networks. Multicast protocols are not relevant in	As stipulated in
		Type-06	for multicast support in VXLAN overlay.	mission critical IT data center networks. We would request you to make this clause optional.	the RFP

Page	RFP Clause No. /	Item	RFP Ask	Nokia	Presto	SISL	Clarification
no.	Section/Category						
78	Category-II , Switch	Switch	Device should	Data center bridging (DCB) devices use DCBX to exchange configuration information with	29. Device should support PFC,DCBX,	29. Device should support	As stipulated in
	Type-06	Type-06	support	directly connected peers. The same functionality in modern data center switching	ECN	PFC,DCBX, ECN. Justification:	the RFP
			PFC/DCBX	platforms can also be achieved using dynamic BGP peering functionality for auto	Justification: Switch within DC	Switch within DC should support	
				configuration of underlay network.	should support all relevant DCBx	all relevant DCBx protocols to	
				So we request to allow an alternate solution for automated peer discovery and	protocols to manage mice/elephant	manage mice/elephant flow and	
				configuration of underlay network.	flow and priories traffic with priority	priories traffic with priority queuin	
					queuing		

Page	RFP Clause No. /	Item	RFP Ask	DELL	Nokia	Clarification
no.	Section/Category					
78	Category-II , Switch Type-06	Switch	Device should support Multicast with	Please remove MSDP .	Multicast is typically required in TELCO's transport & data center networks. Multicast protocols are not	As stipulated in
		Type-06	PIM-SM, PIM-SSM, MSDP and anycast-	PIM-SSM can be used	relevant in mission critical IT data center networks. We would request you to make this clause optional.	the RFP
			RP.			

Page	RFP Clause No. /	Item	RFP Ask	HPE	Presto	SISL	Clarification
no.	Section/Category						
78	Category-II , Switch	Switch	Device should	Leaf Switch connected Host required	25. Device should have support min 3K ingress/egress	25. Device should have support min 3K ingress/egress hardware	As stipulated in
	Type-06	Type-06	have support	Access Control List, not many use case	hardware ACL entries.	ACL entries.	the RFP
			20K or more	where Access Control required in	Justification: Since workloads are going to connect on	Justification: Since workloads are going to connect on Compute	
			ingress/egress	Spine Switch layer, request to consider	Compute leaf, ACL would be required at Compute leaf	leaf, ACL would be required at Compute leaf switches to	
			hardware ACL	minimum 2k or more ingress/egress	switches to provide segmentation. But still if something needs	provide segmentation. But still if something needs to be	
			entries	hardware ACL entries support in	to be connected on Spine/Type-6, there should be support of	connected on Spine/Type-6, there should be support of ACL on	
				switch	ACL on Spine as well. Managing large scale ACL, which are	Spine as well. Managing large scale ACL, which are hardware	
					hardware intensive ,would be challenge. We would suggest to	intensive ,would be challenge. We would suggest to use VRF	
				Requested changes :	use VRF level segmentation on switch, and then Firewall along	level segmentation on switch, and then Firewall along with with	
				Device should have support 2K or	with with PBR on switch can be used to provide low level	PBR on switch can be used to provide low level segmentation	
				more ingress/egress hardware ACL	segmentation between workloads. Firewalls are designed to	between workloads. Firewalls are designed to provide deep	
				entries.	provide deep packet inspection, scalable, session based etc.	packet inspection, scalable, session based etc.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	Presto	SISL	Clarification
no.	Section/Category						
78	Category-II , Switch	Switch	Device should have virtual output	Please remove as	30. Device should support mechanism to identify	30. Device should support mechanism to identify	Ref.
	Type-06	Type-06	queuing based architecture, such that	requirement can be met	mice/elephant flow within DC, priotise them, assign right	mice/elephant flow within DC, priotise them, assign right	Corrigendum
			every input port will have a virtual	through specific	queue with priority.	queue with priority. Justification: There are many lossless	
			output queue for every output port	customized QoS policies	Justification: There are many lossless ethernet standards	ethernet standards like DCBx, PFC, ECN, RoCE v1/2 which	
			on the switch.		like DCBx, PFC, ECN, RoCE v1/2 which are design to run	are design to run critical traffic within DC. TCP themselves	
					critical traffic within DC. TCP themselves intelligently can	intelligently can manage elephant traffic which is BW	
					manage elephant traffic which is BW intensive.	intensive.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Nokia	Clarification
no.	Section/Category						
79	Category-II , Switch	Switch	Device should support IEEE 1588 PTP	Please remove	Request to consider PTP boundary clock	1588 PTP is clocking protocols are typically required in transport networks	As stipulated in
	Type-06	Type-06	boundary clock, SNMPv3,	IEEE 1588 PTP	alternative Network Time Protocol (NTP)	to provide the frequency and time sync TDM based networks. We request	the RFP
			IPFIX/Netflow/SFlow and logging.	boundary clock	protocol	to remove this clause for mission critical IT data center switches.	
					Requested Change : "Device should		
					support IEEE 1588 PTP boundary clock or	SNMP is a legacy protocol and have limited capabilities. We request you to	
					NTP, SNMP v3, IPFIX/Netflow/SFlow and	allow next generation protocols and ammend the clause as	
					logging."	"SNMP/gRPC/gNMI must be supported."	

Page	RFP Clause No. /	Item	RFP Ask	HPE	Clarification
no.	Section/Category				
79	Category-II , Switch Type-06	Switch	Should support custom application installation with RPM	Request to allow built-in Network Analytics capability and REST API based integrated custom application	As stipulated in the
		Type-06	install and docker containers.	support in Switch	RFP
				Requested Changes: Should support built-in network analytics or custom application installation with RPM	
				install and docker containers or API based integration.	

Page	RFP Clause No. /	Item	RFP Ask	DELL	Clarification
no.	Section/Category				
79	Category-II , Switch Type-06	Switch Type-	Device should support onboard tcpdump/wireshark for troubleshooting purpose and should support mirroring to L3	Please change the encapsulation to	Ref.
		06	destination using GRE encapsulation	GRE/equivalent	Corrigendum

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Presto	SISL	Clarification
79	Category-II , Switch Type-06	Switch Type-06	All proposed switches in the network should be able to run on same OS image and managed from single dashboard for simplified operations with minimal security exposure.	All proposed switches in the network should be from same OEM for hardware and software. Software image can be differ as per the OEM support matrix. Management of the switches should be from respective fabric for simplified operations with minimal security exposure. Justification: This clause is confusing and contraries with reference to RFP page 8, point e under 8. Scope of Work – Network Fabric where its mentioned "Proposed fabric technology should support multiple OEM switches to be part of a single leaf-spine fabric." This clause is OEM specific and would restrict participation from other OEMs Please remove the same so that other OEMs can also participate in the tender.	All proposed switches in the network should be from same OEM for hardware and software. Software image can be differ as per the OEM support matrix. Management of the switches should be from respective fabric for simplified operations with minimal security exposure. Justification: This clause is confusing and contraries with reference to RFP page 8, point e under 8. Scope of Work – Network Fabric where its mentioned "Proposed fabric technology should support multiple OEM switches to be part of a single leaf-spine fabric." This clause is OEM specific and would restrict participation from other OEMs Please remove the same so that other OEMs can also participate in the tender.	Ref. Corrigendum

Page	RFP Clause No. /	Item	RFP Ask	DELL	Presto	SISL	Clarification
no.	Section/Category						
79	Category-II , Switch	Switch	Device should be provided with unified	The	1. Solution should be provided with unified monitoring,	1. Solution should be provided with unified monitoring,	As stipulated
	Type-06	Type-06	monitoring, provisioning and telemetry	Functionality	provisioning and telemetry solution from the same OEM. It	provisioning and telemetry solution from the same OEM. It	in the RFP
			solution from the same OEM. It should	needs to be	should support telemetry with time-series database view or	should support telemetry with time-series database view or	
			support telemetry with time-series database	provided by	required DB for solution, traffic flow analytics, PSIRT/Bug	required DB for solution, traffic flow analytics, PSIRT/Bug	
			view, traffic flow analytics, PSIRT/Bug	3rd party	visibility, Zero touch provisioning, resource utilization	visibility, Zero touch provisioning, resource utilization	
			visibility, Zero touch provisioning, resource	OEM/Open	monitoring, event notification, auto topology view, change	monitoring, event notification, auto topology view, change	
			utilization monitoring, event notification,	Source Tool	management, notification through email & msg, 3rd party	management, notification through email & msg, 3rd party	
			auto topology view, change management,		integration.	integration.	
			notification through email & msg, 3rd party		Justification: This clause is OEM specific. Other OEMs have	Justfication: This clause is OEM specific. Other OEMs have	
			integration		different way of storing historical Data. Please allow	different way of storing historical Data. Please allow	
					equivalent DB in solution so that other OEMs can also	equivalent DB in solution so that other OEMs can also	
					participate in the tender.	participate in the tender.	

Page	RFP Clause No. /	Item	RFP Ask	AIPL	ARISTA	INSPIRA	Cache Technology	i-value	Clarification
no.	Section/Category								
79	Category-II , Switch	Switch	TAC should be	please mention the no. of years	As stipulated				
	Type-06	Type-	directly from the	for NBD warranty support.	in the RFP				
		06	OEM with 24x7	Also, it is recommended to ask					
			support. Should be	for perpetual licenses as it will					
			provided with NBD	help minimize the recurring					
			replacement.	annual cost of AMC. Please					
				modify the clause as:					
				"1. TAC should be directly from					
				the OEM with 24x7 support.					
				Should be provided with NBD					
				replacement for 3 years. All					
				licenses should be perpetual in					
				nature or should be provided					
				for minimum 5 years of					
				subscription."	subscription."	subscription."	subscription."	subscription."	

SWITCH TYPE-01 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause No. /	Item	RFP Ask	НРЕ	Clarification
no.	Section/Category	iteiii	MI ASK		
88	Category-II , Switch	Switch	Device should have minimum 4 x 10G	Request to consider 25G Uplink speed support in Switch for higher network uplink throughput without additional cost for deployment	As stipulated
	Type-01	Type-	SFP+ ports populated with multimode		in the RFP
		01	transceiver LC from day-1.	Requested change: Device should have minimum 4 x 1/10/25G SFP28 ports populated with multimode transceiver LC from day-1.	

	RFP Clause No. /	Item	RFP Ask	AIPL	Arista	INSPIRA	Cache Technologies	Clarification
no.	Category-II , Switch Type-01		Device should support redundant hot-swappable fans and redundant hot-swappable power supplies.	air-flow orientation is not mentioned for the mgmt. TOR Switch. Generally, the top-of-rack are mounted with ports towards back of the rack to simplify server to TOR switch cabling. Therefore requesting to modify the clause as mentioned below: "The device should support redundant hot-swappable fans and redundant hot-swappable power supplies. The device should have support for both front-to-back and back-to-front airflow, exact	air-flow orientation is not mentioned for the mgmt. TOR Switch. Generally, the top-of-rack are mounted with ports towards back of the rack to simplify server to TOR switch cabling. Therefore requesting to modify the clause as mentioned below: "The device should support redundant hot-swappable fans and redundant hot-swappable power supplies. The device should have support for both front-to-back and back-to-front airflow, exact airflow orientation for the individual	air-flow orientation is not mentioned for the mgmt. TOR Switch. Generally, the top-of-rack are mounted with ports towards back of the rack to simplify server to TOR switch cabling. Therefore requesting to modify the clause as mentioned below: "The device should support redundant hot-swappable fans and redundant hot-swappable power supplies. The device should have support for both front-to-back and back-to-front airflow, exact airflow	air-flow orientation is not mentioned for the mgmt. TOR Switch. Generally, the top-of-rack are mounted with ports towards back of the rack to simplify server to TOR switch cabling. Therefore requesting to modify the clause as mentioned below: "The device should support redundant hot-swappable fans and redundant hot-swappable power supplies. The device should have support for both front-to-back and back-to-front airflow, exact airflow orientation for the individual device to be decided as	in the RFP

 RFP Clause No. / Section/Category	ltem	RFP Ask	DELL	НРЕ	Presto	SISL	Clarification
Category-II , Switch		Device should	OOB Switches .	Request to consider minimum 32k MAC Address as only	Device should be able to support up to	Device should be able to support up	As stipulated
Type-01	Type-	be able to		48 iLO or OOBM ports are expected to connect to the	1	1	in the RFP
••	01	support up to	downscaled to 32k	switch directly.	Justification: Considering	Justification: Considering	
		64K MAC	MAC Addresses	Requested Changes:	Management Switches, will request to	Management Switches, will request	
		address		Device should be able to support up to 32K MAC	Modify the clause	to Modify the clause	
				address.			

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
88	Category-II , Switch	Switch Type-01	Device should support 4K VLANs, 9200 bytes Jumbo	Request to consider 9000 bytes Jumbo frame to support standard network application	As stipulated in the RFP
	Type-01		frame.	Requested changes: Device should support 4K VLANs, 9000 bytes Jumbo frame.	

Page	RFP Clause No. /	Itom	RFP Ask	Nokia	Clarification		
no.	Section/Category	Item	RFP ASK	VOKIA			
88	Category-II , Switch	Switch	Device should support MST,	Modern DC networks are deployed using layer-3 routing based on eBGP, which provides full redundancy in the DC fabric with lesser convergence	As stipulated		
	Type-01	Type-	per-vlan RSTP, BPDU Guard,	time.	in the RFP		
		01	Loop Guard	STP/MSTP/RSTP are legacy protocols with many limitations like sub-optimal path for east to west traffic, flow distribution is not proper, difficult to			
				troubleshoot and. Thus, STP/MSTP/RSTP are not recommended in modern datacenter networks.			
				We request CDAC to remove this clause or make it optional			

Page	RFP Clause No. /	Item	RFP Ask	DELL	HPE	Nokia	Presto	SISL	Clarification
no.	Section/Category		KII ASK	DLLL	111 2	Noria	116310	3131	
88	Category-II , Switch	Switch	Device	OOB	Request to consider minimum	Management TOR connects limited number	Device should be able to support	Device should be able to support	As stipulated
	Type-01	Type-	should be	Switches .	60k IPv4 and 60k IPv6 Routing	of computes/storage/network nodes within	16K IPv4/IPv6 LPM routes.	16K IPv4/IPv6 LPM routes.	in the RFP
		01	able to	Should be	table support for	1-2 racks for OOB connectivity requirements.	Justification: As per understanding,	Justification: As per understanding,	
			support	downscale	Management Switch as per	The number of routes required on	these switches are going to provide	these switches are going to provide	
			128K IPv4	d to 1k IPv4	the deployment requirements.	management TOR in typical deployment	OOB management. Requirement of	OOB management. Requirement of	
			LPM routes	routes	Requested changes: Device	scenario is less then 100. So we request to	128K IPv4 Routes seems to be very	128K IPv4 Routes seems to be very	
					should be able to support 60K	modify this clause to support 32K IPv4 LPM	high for the functionality required.	high for the functionality required.	
					IPv4 and 60K IPv6 LPM routes.	routes.	Requesting to modify the clause	Requesting to modify the clause	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	RFP Ask HPE Presto S		SISL	Clarification
88	Category-II , Switch	Switch	Device should	32 way Equal-Cost Multipath is very high for 4 uplink switch port,	Device should support minimum 4-way ECMP.	Device should support minimum 4-way ECMP.	As stipulated
	Type-01	Type-	support	request to consider minimum 8-way ECMP as per the deployment	Justification: As per understanding, these	Justification: As per understanding, these	in the RFP
		01	minimum 32-	requirements.	switches are going to provide OOB	switches are going to provide OOB	
			way ECMP	Requested Changes: Device should support minimum 8-way ECMP.	management. Requesting to modify the clause	management. Requesting to modify the clause	

_	RFP Clause No. / Section/Category	ltem	RFP Ask	DELL	HPE	Clarification
88	Category-II , Switch	Switch	Device should support ISIS(IPv4	Please	ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS protocol considering	Ref.
	Type-01	Type-	& IPv6), OSPF(IPv4 & IPv6), BGP,	make ISIS	alternative iBGP, MP-BGP, EVPN based deployment	Corrigendum
		01	BGP monitoring Protocol.	as optional	Requested changes: Device should support OSPF (IPv4 & IPv6), BGP, BGP monitoring protocol.	

Page no.	RFP Clause No. / Section/Category	Item	tem RFP Ask		Nokia									Clarification	
88	Category-II , Switch	Switch	Device should support policy based routing(IPv4 & v6), VRRP	Policy	based	routing,	VRRP	is	not	relevant	for	management	TOR	switch.	As stipulated
	Type-01	Type-01	(IPv4 & v6) and multi-hop BFD.	We requ	est to rem	ove this clau	ıse.								in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	НРЕ	Clarification
88	Category-II , Switch	Switch	Device should support	Please make ISIS as optional	ISIS protocol not mandatory for Data Center Leaf Spine fabric deployment, request to remove ISIS protocol considering	As stipulated
	Type-01	Type-	graceful restart for		alternative iBGP, MP-BGP, EVPN based deployment	in the RFP
		01	ISIS, OSPF and BGP.		Requested changes: Device should support graceful restart for OSPF and BGP.	

Page	RFP Clause No. /	Item	RFP Ask		DE	Nokia	Clarification
no.	Section/Category	item	RFP ASK		LL	NORIA	
88	Category-II , Switch	Switch	Device should support Multicast with	Please remove MSI	DP.	Multicast is typically required in TELCO's transport & data center networks. Multicast protocols are	As stipulated
	Type-01	Type-01	PIM-SM, PIM-SSM, MSDP and anycast-RP	PIM-SSM can be us	sed	not relevant in mission critical IT data center networks. We would request you to make this clause	in the RFP
						optional.	

Page	RFP Clause No. /	Itom	RFP Ask	Nokia	Presto	SISL	Clarification
no.	Section/Category	iteiii	NFF ASK	INORIA	riesto	SISE	
88	Category-II , Switch	Switch	Device should support	As these switches are used in	Device should support VPC/MLAG for active-	Device should support VPC/MLAG for active-active	As stipulated
	Type-01	Type-	VPC/MLAG for active-	management network only,	active layer-2 and layer-3 forwarding while	layer-2 and layer-3 forwarding while running in	in the RFP
		01	active layer-2 and layer-	EVPN-VxLAN protocols are not	running in VXLAN+EVPN or VXLAN+LIPS based	VXLAN+EVPN or VXLAN+LIPS based fabric.	
			3 forwarding while	relevant for the management	fabric.	Justification: Different vendor use different terminologies	
			running in VXLAN+EVPN	TOR switch.	Justification: Different vendor use different	to provide Network fabric, Requesting to allow	
			based fabric.		terminologies to provide Network fabric, Requesting	VXLAN+LIPS to allow maximum participation.	
				We request to remove this	to allow VXLAN+LIPS to allow maximum		
				clause.	participation.		

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask			Nokia		Presto		SISL		Clarification
88	Category-II , Switch Type-01	Switch Type- 01	Device sl symmetric li & Bridging(tand Type-5) anycast gate in VXLAN+EV	ntegrated I for both and distreway functi	Type-2 ibuted	managemer EVPN-VxLAI relevant fo TOR	witches are used int network only N protocols are no or the managemen switch st to remove thi	y, & Bridging (for both Type-2 ot distributed anycast gatewa ot VXLAN+EVPN or VXL or Justification: Different vend	2 and Type-5) and y functionality in AN+LIPS fabric. dor use different ork fabric, Requesting	& Bridging (for distributed any VXLAN+EVPN Justification: D terminologies to	pport symmetric Integrated Routed both Type-2 and Type-5) and cast gateway functionality in or VXLAN+LIPS fabric. ifferent vendor use different provide Network fabric, Requesting AN+LIPS to allow maximum	1
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask		Nokia			Presto		SISL		Clarification
88	Category-II , Switch Type-03	Switch Type- 03	Device shoul routed-multicast/OIS EVPN for support in overlay.	SM with multicast	TELCO' networ relevar center	s transport rks.Multicast nt in mission networks. W	& data center protocols are not critical IT data We would request	Device should support routed-r EVPN for multicast support in overlay. Justification: Different vendo terminologies to provide Network allow VXLAN+LIPS to allow maximu	VXLAN/VXLAN+LIPS or use different fabric, Requesting to	with EVPN VXLAN/VXLAN+LI Justification: D	for multicast support in PS overlay. ifferent vendor use different provide Network fabric, Requesting	As stipulated in the RFP
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ		ı	Nokia		Presto		SISL	Clarification
89	Category-II , Switch Type-01	Switch Type- 01	Device should support PFC/DCBX.	optimizati request	Switch f Storag on, to rem	or Server of the traffic of the traf	configuration inform The same functiona platforms can also peering functionalit network. so we request to	(DCB) devices use DCBX to exchange action with directly connected peer lity in modern data center switching be achieved using dynamic BC y for auto configuration of underly allow an alternate solution for covery and configuration of underly covery and configuration of underly and configuration of underly covery and configuration of underly and configuration of underly and configuration of underly actions.	rs. PFC/DCBX/IEEE80 ng Flow/Link GP Control/equivale ay Justification:PFC/ required in Cor or Switch within m	Level Flow nt technology. DCBX are e layer however	PFC/DCBX/IEEE802.1p/802.3x Flow/Link Level Flow Control/equivalent technology Justification: PFC/DCBX are	in the RFP in the RFP in the RFP
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask			DELL	НРЕ		Nokia			Clarification
89	Category-II , Switch Type-01	Switch Type- 01	Device shou 1588 PTP b SNMP IPFIX/Netflow logging.	boundary o	v3, and I		Network Time Requested Chan	ge : "Device should support IEEE idary clock or NTP, SNMP v3,	to provide the frequency to remove this claus SNMP is a legacy pro	ency and time synderection critical otocol and have limportation protocols	cally required in transport networks of TDM based networks. We request I IT data center switches. ited capabilities. We request you to and ammend the clause as	As stipulated in the RFP
Page no.	RFP Clause No. / Section/Category	Item	RFP Ask				НРЕ					Clarification

Page no.	RFP Clause No. / Section/Category	RFP Ask	DELL	Clarification

containers or API based integration.

application

Request to allow built-in Network Analytics capability and REST API based integrated custom application support in Switch

Requested Changes: Should support built-in network analytics or custom application installation with RPM install and docker the RFP

Category-II , Switch Switch

Type-01

Type-01

Should

containers.

support custom

installation with RPM install and docker

As stipulated in

89	Category-II , Switch	Switch Type-01	Device should support onboard tcpdump/wireshark for troubleshooting purpose and should support mirroring	Please change	the	encapsulation	to	As stipulated in the RFP
	Type-01		to L3 destination using GRE encapsulation	GRE/equivalent				

Page no.	RFP Clause No. / Section/Category	litem	RFP Ask	Presto	SISL	Clarificatio n
89	Category-II , Switch	Switch	All proposed	All proposed Management switches in the network should be able to run on	All proposed Management switches in the network should be able to run on	Ref.
	Type-01	Type-	switches in the	same OS image and managed from single dashboard for simplified operations	same OS image and managed from single dashboard for simplified	Corrigendum
		01	network should be	with minimal security exposure.	operations with minimal security exposure.	
			able to run on	Justification: We understand that the management switches have to be	Justification: We understand that the management switches have to be	
			same OS image and	provided with dedicated management solution. Also, Spine-leaf management	provided with dedicated management solution. Also, Spine-leaf	
			managed from	solution is asking for management excluding PoE switches, and also we	management solution is asking for management excluding PoE switches, and	
			single dashboard	understand this should exclude Management switches. Accordingly, since	also we understand this should exclude Management switches. Accordingly,	
			for simplified	data and management traffic are segregated, hence requesting to please	since data and management traffic are segregated, hence requesting to	
			operations with	confirm that these management switches should be managed thru a separate	please confirm that these management switches should be managed thru a	
			minimal security	management solution and these switches should be running on the respective	separate management solution and these switches should be running on the	
			exposure.	OS image.	respective OS image.	

_	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	Presto	SISL	Clarification
-	,		The device should be provided with unified monitoring, provisioning and telemetry solution from the same OEM. It should support telemetry with time-series database view, traffic flow	The Functi onality needs to be provid ed by 3rd party OEM/ Open	Solution should be provided with unified monitoring, provisioning and telemetry solution from the same OEM. It should support telemetry with time-series database view or required DB for solution, traffic flow analytics, PSIRT/Bug visibility, Zero touch provisioning, resource utilization monitoring, event notification, auto topology view, change management, notification through email & msg, 3rd party integration. Justification: This clause is OEM specific. Other OEMs have different way of storing historical Data. Please allow equivalent DB in solution so that other OEMs can also participate in the	Solution should be provided with unified monitoring, provisioning and telemetry solution from the same OEM. It should support telemetry with time-series database view or required DB for solution, traffic flow analytics, PSIRT/Bug visibility, Zero touch provisioning, resource utilization monitoring, event notification, auto topology view, change management, notification through email & msg, 3rd party integration. Justification: This clause is OEM specific. Other OEMs have different way of storing historical Data. Please allow equivalent DB in solution so that other OEMs can also participate in the tender.	in the RFP
			integration	Tool	tenuer.	tender.	

_	RFP Clause No. /	Item	RFP Ask	AIPL	Arista	INSPIRA	Cache Technologies	I-Value	Clarification
no.	Section/Category						3		
90	Category-II , Switch	Switch	TAC	please mention the no. of	As stipulated in				
	Type-01, 3-1	Type-	should be	years for NBD warranty	the RFP				
		01	directly	support. Also, it is					
			from the	recommended to ask for					
			OEM with	perpetual licenses as it will					
			24x7	help minimize the recurring					
			support.	annual cost of AMC. Please					
			Should be	modify the clause as:					
			provided						
			with NBD	"1. TAC should be directly					
			replacem	from the OEM with 24x7					
			ent.	support. Should be provided	support.	support.	support.	support.	
				with NBD replacement for 3	Should be provided with NBD				
				years. All licenses should be	replacement for 3 years. All				
				perpetual in nature or should	licenses should be perpetual				
				be provided for minimum 5	in nature or should be				
				years of subscription."	provided for minimum 5 years				
					of subscription."	of subscription."	of subscription."	of subscription."	

Page	RFP Clause No. /	Item	RFP Ask	Drocto	SISL	Clarification
no.	Section/Category	item	KFP ASK	Presto	3131	
90	Category-II , Switch	Switch	0°C to 40°C operating	0°C to 40°C operating temperature and 10% to 85% relative	0°C to 40°C operating temperature and 10% to 85% relative	Ref. Corrigendum
	Type-01 , 3-1	Type-	temperature and 10% to 90%	humidity.	humidity.	
		01	relative humidity.	Justification: Requesting to modify the clause to allow maximum	Justification: Requesting to modify the clause to allow maximum	
				participation	participation.	

Page	RFP Clause No. /	Item	RFP Ask	HPE	I-Value	Clarification
no.	Section/Category	iteiii	NFF ASK	nrt	i-value	
90	e. SWITCH Type-01		5. Device should	air-flow orientation is not mentioned for the Leaf Switch. Generally, the top-of-	air-flow orientation is not mentioned for the mgmt. TOR Switch. Generally,	As stipulated
	(Management TOR)		support	rack are mounted with ports towards back of the rack to simplify server to TOR	the top-of-rack are mounted with ports towards back of the rack to	in the RFP
	/ 1. Performance		redundant hot-	switch cabling.	simplify server to TOR switch cabling.	
	and Architecture /		swappable fans	Therefore requesting to modify the clause as mentioned below:	Therefore requesting to modify the clause as mentioned below:	
	page no. 90		and redundant			
			hot-swappable	"The device should support redundant hot-swappable fans and redundant hot-	"The device should support redundant hot-swappable fans and redundant	
			power supplies.	swappable power supplies. The device should have support for both front-to-	hot-swappable power supplies. The device should have support for both	
				back and back-to-front airflow, exact airflow orientation for the individual	front-to-back and back-to-front airflow, exact airflow orientation for the	
				device to be decided as per site deployment requirement"	individual device to be decided as per site deployment requirement"	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
	BOQ-2.04	SWITCH Type-01 (Management TOR)		Bidder requests CDAC to confirm the distribution of TOR between Internet and MPLS Zone for better clarity	As stipulated
				of the solution	in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarificati on
	BOQ File Cat II items / Switching	Switching BOQ		Bidder requests for the following details: a) 400G connectivity details b) Compute leaf distribution between sites and Internet/MPLS Zone c) Compute Leaf is EOR/MOR/TOR? D) Distribution of Management TOR Leaf/POE between Sites and Internet/MPLS Zone e) DCI Switches and Border/Service leaf if needed as part of the design will be separate or *part of Compute Leaf Switches	1

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Clarification
	BOQ-2.04	SWITCH Type-01 (Management TOR)		Bidder requests CDAC to confirm the distribution of TOR between Internet and MPLS Zone for better clarity of the solution	As stipulated in the RFP

WEB APPLICATION FIREWALL TYPE-01: (QUERIES, CLARIFICATION AND CORRIGENDUM)

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Clarification
114	Section-V: Technical Specifications Category-II d. WAF Type-01	Should support a local user database	Dynamic routing such as RIP, OSPF and BGP should be supported on proposed appliance. dynamically routed network can grow larger more quickly and is able to adapt to changes in the network topology brought about by growth or by the failure of one or more network components.	Dynamic routing such as RIP, OSPF and BGP should be supported on proposed appliance. dynamically routed network can grow larger more quickly and is able to adapt to changes in the network topology brought about by growth or by the failure of one or more network components.	Dynamic routing such as RIP, OSPF and BGP should be supported on proposed appliance. dynamically routed network can grow larger more quickly and is able to adapt to changes in the network topology brought about by growth or by the failure of one or more network components.	As stipulated in the RFP
			Sugested Clause: Should support a local user database. Should also support dynamic routing such as RIP, OSPF and BGP from day-1	Sugested Clause: Should support a local user database. Should also support dynamic routing such as RIP, OSPF and BGP from day-1	Sugested Clause: Should support a local user database. Should also support dynamic routing such as RIP, OSPF and BGP from day-1	

Pg.	RFP Clause No. /	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Ivalue	Clarification
no.	Section/Category						
114	Section-V: Technical	The server load	Layer 4 throughput will always be greater	Layer 4 throughput will always be greater	Layer 4 throughput will always be greater than	We request you to remove	As stipulated
	Specifications	balancer should	than Layer 7 throughput. Scalability should	than Layer 7 throughput. Scalability should	Layer 7 throughput. Scalability should also be	this clause since this is a	in RFP
	Category-II d. WAF	deliver 50 Gbps of	also be considered to cater future	also be considered to cater future	considered to cater future requirements.	clause for Load Balancer	
	Type-01	L4 throughput and	requirements.	requirements.	'	where as we are a purpose	
		50 Gbps of Layer 7			Suggested Clause:	built WAF and dnot have	
		throughput.	Suggested Clause:	Suggested Clause:	The server load balancer should deliver	load balancer. We are leader	
			The server load balancer should deliver	The server load balancer should deliver		in WAF segment but this	
			100Gbps of L4 throughput and 50 Gbps of	100Gbps of L4 throughput and 50 Gbps of	100Gbps of L4 throughput and 50 Gbps of	clause will profibit us from	
			Layer 7 throughput. Appliance should be	Layer 7 throughput. Appliance should be		participating.	
			scalable upto 200Gbps L4 throughput	scalable upto 200Gbps L4 throughput	scalable upto 200Gbps L4 throughput		

Pg. no.	RFP Clause No. /	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Ivalue	Clarification
	Section/Category						
114	Section-V: Technical Specifications Category-II d. WAF Type-01	load balancer should	the throughput requirement asked. Hence, request to resize. L4 and L7 CPS should also be define in the specifications. Suggested Clause: The server load balancer should	throughput requirement asked. Hence, request to resize. L4 and L7 CPS should also be define in the specifications. Suggested Clause: The server load balancer should deliver 150 Million concurrent sessions, 2.5 Million L4 CPS and 4 Million L7 RPS	L7 CPS should also be define in the specifications. Suggested Clause:	this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load balancer. We are leader in WAF segment but this	the RFP

Pg.	RFP Clause No. /	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Ivalue	Clarification
no.	Section/Category						
114	Section-V: Technical Specifications Category-II d. WAF Type-01	The sever load balancer should be proposed with 4x 40GbE QSFP single mode LC and 8x 10G SFP+ multimode LC. All the transceivers should be populated from day one and compatible with the quoted switch.	Appliance should use dedicated port for connectivity, break-out should not be used. Break-out will become bottleneck in case of port failure, all the port connected through break-out will become unavailable in case of port failure. Appliance should have sufficient port to meet all the requirement.	Appliance should use dedicated port for connectivity, break-out should not be used. Break-out will become bottleneck in case of port failure, all the port connected through break-out will become unavailable in case of port failure. Appliance should have sufficient port to meet all the requirement.	Appliance should use dedicated port for connectivity, break-out should not be used. Break-out will become bottleneck in case of port failure, all the port connected through break-out will become unavailable in case of port failure. Appliance should have sufficient port to meet all the requirement.	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load balancer. We are leader in WAF segment but this clause will prohibit us from participating.	As stipulated in the RFP
			Suggested Clause: The sever load balancer should be proposed with 6x40GbE QSFP single mode LC and 12x10G SFP+ multimode LC. Break-Out should not be used to accommodate ports. All the transceivers should be populated from day one and compatible with the quoted switch.	Suggested Clause: The sever load balancer should be proposed with 6x40GbE QSFP single mode LC and 12x10G SFP+ multimode LC. Break-Out should not be used to accommodate ports. All the transceivers should be populated from day one and compatible with the quoted switch.	Suggested Clause: The sever load balancer should be proposed with 6x40GbE QSFP single mode LC and 12x10G SFP+ multimode LC. Break-Out should not be used to accommodate ports. All the transceivers should be populated from day one and compatible with the quoted switch.		

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Clarification
115	Section-V: Technical Specifications Category-II d. WAF Type-01	The solution must maintain server persistency with - Source-IP, Source-IP Hash, Source-IP/Port Hash, Hash Header, Hash Request, Persistent Cookie, Rewrite Cookie, Insert Cookie, Hash Cookie, Embedded Cookie, RADIUS Attribute, and SSL Session ID.	Persistency which is required for application should be asked. Suggested Clause: The solution must maintain server persistency with - Minimum Misses, Source-IP, Source-IP Hash, Source-IP/Port Hash, Hash Header, Hash Request, Persistent Cookie, Rewrite Cookie, Insert Cookie, Hash Cookie and SSL Session ID.	Persistency which is required for application should be asked. Suggested Clause: The solution must maintain server persistency with - Minimum Misses, Source-IP, Source-IP Hash, Source-IP/Port Hash, Hash Header, Hash Request, Persistent Cookie, Rewrite Cookie, Insert Cookie, Hash Cookie and SSL Session ID.	Persistency which is required for application should be asked. Suggested Clause: The solution must maintain server persistency with - Minimum Misses, Source-IP, Source-IP Hash, Source-IP/Port Hash, Hash Header, Hash Request, Persistent Cookie, Rewrite Cookie, Insert Cookie, Hash Cookie and SSL Session ID.	As stipulated in the RFP

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
115	Section-V: Technical	The appliance MUST support server load balancing methods- Round-Robin, Weighted	We request you to remove this clause since this is a clause for Load Balancer where as we are a	As stipulated in
	Specifications	Round-Robin, Least Connections, Fastest Response, URI, Host, Host Domain, and	purpose built WAF and dnot have load balancer. We are leader in WAF segment but this clause will	the RFP
	Category-II d. WAF Type-01	Destination IP Hash.	prohibit us from participating.	

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
115	Section-V: Technical	The appliance MUST support layer 2 to	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load	As stipulated in the
	Specifications	layer 7 load balancing	balancer. We are leader in WAF segment but this clause will prohibit us from participating.	RFP
	Category-II d. WAF Type-01			

Pg.	RFP Clause No. /	RFP Ask	Ivalue	Clarification
no.	Section/Category			
115	Section-V: Technical	The solution must maintain server persistency with - Source-IP, Source-IP Hash, Source-IP/Port	We request you to remove this clause since this is a clause for Load Balancer where as we	As stipulated in
	Specifications	Hash, Hash Header, Hash Request, Persistent Cookie, Rewrite Cookie, Insert Cookie, Hash Cookie,	are a purpose built WAF and dnot have load balancer. We are leader in WAF segment but	the RFP
	Category-II d. WAF Type-	Embedded Cookie, RADIUS Attribute, and SSL Session ID.	this clause will prohibit us from participating.	
	01			

Pg.	RFP Clause No. /	RFP Ask	Ivalue	Clarification
no.	Section/Category			
115	Section-V: Technical Specifications Category-II d. WAF Type- 01, pt-12	The solution must provide application & server health checks for well-known protocols – ICMP,TCP, TCP Echo, HTTP, HTTPS, DNS, RADIUS RADIUS Accounting, SMTP, POP3, IMAP4, FTP, TCP Half Open, SNMP, SSH, UDP, L2 Detection	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load balancer. We are leader in WAF segment but this clause will prohibit us from participating.	•

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
115	Section-V: Technical Specifications Category-II d. WAF Type-01,	13.Support layer4 and layer 7 load balancing for well-known protocols like - HTTP, HTTPS, TCP, UDP, FTP, RADIUS	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load balancer. We are leader in WAF segment but this clause will prohibit us from participating.	As stipulated in the RFP

Pg.	RFP Clause No. /	RFP Ask	Ivalue	Clarification
no.	Section/Category			
115	Section-V: Technical	14.Support content	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load balancer. We are leader	As stipulated in the
	Specifications	routing	in WAF segment but this clause will prohibit us from participating.	RFP
	Category-II d. WAF Type-01,			

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
115	Section-V: Technical Specifications	15.Support scripting	We request you to remove this clause as this is a vendor specific clause.	As stipulated in the RFP
	Category-II d. WAF Type-01,			

Pg.	RFP Clause No. /	RFP Ask	Ivalue	Clarification
no.	Section/Category			
115	Section-V: Technical	16.Support outbound multi-homing	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load balancer.	As stipulated in the
	Specifications	Link Load Balancing	We are leader in WAF segment but this clause will prohibit us from participating.	RFP
	Category-II d. WAF Type-01,			

Pg.	RFP Clause No. /	RFP Ask	Ivalue	Clarification
no.	Section/Category			
115	Section-V: Technical Specifications	17.Support load balancing of servers between different	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF	As stipulated in the
	Category-II d. WAF Type-01,	data centres.	and dnot have load balancer. We are leader in WAF segment but this clause will prohibit us from participating.	RFP

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
115	Section-V: Technical	18. Support dynamic proximity is based on round-trip	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have	As stipulated in
	Specifications	time using ICMP or ICMP and TCP.	load balancer. We are leader in WAF segment but this clause will prohibit us from participating.	the RFP
	Category-II d. WAF Type-01,			

Pg.	RFP Clause No. /	RFP Ask	Ivalue	Clarification
no.	Section/Category			
115	Section-V: Technical	19.Support dynamic proximity based on round-	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load	As stipulated in the
	Specifications	trip time using ICMP or TCP	balancer. We are leader in WAF segment but this clause will prohibit us from participating.	RFP
	Category-II d. WAF Type-01,			

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
115	Section-V: Technical	20.Support inbound Link Load	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load balancer. We are	As stipulated in the
	Specifications	Balancing.	leader in WAF segment but this clause will prohibit us from participating.	RFP
	Category-II d. WAF Type-01,			

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
115	Section-V: Technical	24.Support HTTP to HTTPS header rewrite for enhanced application delivery support for Host Request URL Referrer Scripting	We request you to modify this clause to " Support	As stipulated in the
	Specifications	allows manipulation (insert, remove, replace) of any HTTP header.	HTTP to HTTPS header rewrite.	RFP
	Category-II d. WAF Type-01,			

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
	Section-V: Technical Specifications Category-II d. WAF Type-01		We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load balancer. We are leader in WAF segment but this clause will prohibit us from participating.	As stipulated in the RFP

Pg.	RFP Clause No. /	RFP Ask	Ivalue	Clarification
no.	Section/Category			
116	Section-V: Technical	32.Support IEEE 802.3ad link	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have load balancer. We	As stipulated in the
	Specifications	aggregation	are leader in WAF segment but this clause will prohibit us from participating.	RFP
	Category-II d. WAF Type-01			

Pg.	RFP Clause No. /	RFP Ask	Ivalue	Clarification
no.	Section/Category			
116	Section-V: Technical	33.Provide selective compression for Text, HTML, XML,	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot	As stipulated in
	Specifications	Java Scripts, CSS, Mime types and pictures	have load balancer. We are leader in WAF segment but this clause will prohibit us from participating.	the RFP
	Category-II d. WAF Type-01			

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
116	Section-V: Technical	iv) The proposed appliance should provide minimum	We request you to modify this clause as the ask seems to be for Load Balancer. We request you to modify it to ' The	As stipulated in the
	Specifications	50Gbps WAF (SSL) throughput.	proposed appliance should provide minimum 10Gbps WAF throughput. '	RFP
	Category-II d. WAF Type-01			

Pg.	RFP Clause No. /	RFP Ask	Ivalue	Clarification
no.	Section/Category			
116	Section-V: Technical	1 '	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot	As stipulated in
	Specifications	on RSA 2K key and 40,000 ECC CPS on (EC- P256).	have load balancer. We are leader in WAF segment but this clause will prohibit us from participating.	the RFP
	Category-II d. WAF Type-01			

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Ivalue	Clarification
116	Section-V: Technical	37.Support policy-based Connection limiting at L4 or L7	We request you to remove this clause since this is a clause for Load Balancer where as we are a purpose built WAF and dnot have	As stipulated in
	Specifications	at virtual server or real server level.	load balancer. We are leader in WAF segment but this clause will prohibit us from participating.	the RFP
	Category-II d. WAF Type-01			

Pg.	RFP Clause No. / Section/Category	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Clarification
116	Section-V: Technical Specifications Category-II d. WAF Type-	Support client certificate verification, CRL's (HTTP, FTP, LDAP) and OSCP protocol.	There should be separate solution for certificate verification. Hence, request to relax the clause.	There should be separate solution for certificate verification. Hence, request to relax the clause.	There should be separate solution for certificate verification. Hence, request to relax the clause.	Ref. Corrigendum
	01		Suggested Clause: Support OSCP protocol.	Suggested Clause: Support OSCP protocol.	Suggested Clause: Support OSCP protocol.	

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Clarification
116	Section-V: Technical Specifications Category-II d. WAF Type- 01	Support malware scanning from day one and integration (open API / ICAP) with the proposed Sandbox.	There should be dedicated solution for malware scanning. Hence, request to relax the clause.	There should be dedicated solution for malware scanning. Hence, request to relax the clause.	There should be dedicated solution for malware scanning. Hence, request to relax the clause.	As stipulated in the RFP
			Suggested Clause: Delete the clause	Suggested Clause: Delete the clause	Suggested Clause: Delete the clause	

Pg. no.	RFP Clause No. / Section/Category	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Clarification
116	Section-V: Technical Specifications Category-II d. WAF Type-01	Should have support of integration with Web application Vulnerability assessment tools to virtually patch web application vulnerabilities.	There are different way to fix the application vulnerability, some vendor uses external tools while other uses inbuilt vulnerability filter. Hence, request to relax the clause.	There are different way to fix the application vulnerability, some vendor uses external tools while other uses inbuilt vulnerability filter. Hence, request to relax the clause.	There are different way to fix the application vulnerability, some vendor uses external tools while other uses inbuilt vulnerability filter. Hence, request to relax the clause.	As stipulated in the RFP
			Suggested Clause: Should have support of integration with Web application Vulnerability assessment tools to virtually patch web application vulnerabilities or, should have inbuilt vulnerability detection and mitigation feature	Suggested Clause: Should have support of integration with Web application Vulnerability assessment tools to virtually patch web application vulnerabilities or, should have inbuilt vulnerability detection and mitigation feature	Suggested Clause: Should have support of integration with Web application Vulnerability assessment tools to virtually patch web application vulnerabilities or, should have inbuilt vulnerability detection and mitigation feature	

Pg.	RFP Clause No. /	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Clarification
no. 116	Section/Category Section-V: Technical Specifications Category-II d. WAF Type-01	Support WAF Features — i) Protection from the OWASP Top 10 application attacks ii) Support API Protection, API Gateway, captcha, Virtual patching, Data Leak Prevention iii) SQLi/XSS Injection Detection, Cookie Poisoning, Session Hijacking, Buffer Overflow Attacks, Brute Force Attacks, Path (directory) Traversal, Malicious file upload, XML/JSON/SOAP Validation, HTTPS Header security iv) The proposed appliance should provide minimum 50Gbps WAF (SSL) throughput. v) The server load balancer should cater up to 50,000 SSL TPS on RSA 2K key and 40,000 ECC CPS on (EC P256). vi) Zero Day Attack Blocking	There should be dedicated solution for API Gateway, Vulnerability Patching, File inspection. Appliance should have enough SSL resources to cater current and future requirement. Suggested Clause: Support WAF Features — i) Protection from the OWASP Top 10 application attacks ii) Support API Protection, Data Leak Prevention iii) SQLi/XSS Injection Detection, Cookie Poisoning, Session Hijacking, Buffer Overflow Attacks, Brute Force Attacks, Path (directory) Traversal, XML/JSON/SOAP Validation, HTTPS Header security iv) The proposed appliance should provide minimum 45Gbps SSL throughput. v) The server load balancer should cater up to 50,000 SSL TPS on RSA 2K key and 30,000 ECC CPS on (ECP256). Appliance should be scalable upto 100,000 SSL TPS on RSA 2K Key and 45,000 ECC CPS	There should be dedicated solution for API Gateway, Vulnerability Patching, File inspection. Appliance should have enough SSL resources to cater current and future requirement. Suggested Clause: Support WAF Features — i) Protection from the OWASP Top 10 application attacks ii) Support API Protection, Data Leak Prevention iii) SQLi/XSS Injection Detection, Cookie Poisoning, Session Hijacking, Buffer Overflow Attacks, Brute Force Attacks, Path (directory) Traversal, XML/JSON/SOAP Validation, HTTPS Header security iv) The proposed appliance should provide minimum 45Gbps SSL throughput. v) The server load balancer should cater up to 50,000 SSL TPS on RSA 2K key and 30,000 ECC CPS on (ECP256). Appliance should be scalable upto 100,000 SSL TPS on RSA 2K Key and 45,000 ECC CPS	There should be dedicated solution for API Gateway, Vulnerability Patching, File inspection. Appliance should have enough SSL resources to cater current and future requirement. Suggested Clause: Support WAF Features — i) Protection from the OWASP Top 10 application attacks ii) Support API Protection, Data Leak Prevention iii) SQLi/XSS Injection Detection, Cookie Poisoning, Session Hijacking, Buffer Overflow Attacks, Brute Force Attacks, Path (directory) Traversal, XML/JSON/SOAP Validation, HTTPS Header security iv) The proposed appliance should provide minimum 45Gbps SSL throughput. v) The server load balancer should cater up to 50,000 SSL TPS on RSA 2K key and 30,000 ECC CPS on (ECP256). Appliance should be scalable upto 100,000 SSL TPS on RSA 2K Key and 45,000 ECC CPS vi) Zero Day Attack Blocking	As stipulated in the RFP.

Pg.	RFP Clause No. / RFP Ask		Radware	RAHI	CACHE TECHNOLOGIES	Clarification
no.	Section/Category					
116	Section-V: Technical Specifications Category-II d. WAF Type- 01	authentication		and Reputation features available to mitigate all the	Appliance should have advanace WAF, Geo-Blocking and Reputation features available to mitigate all the web vulnerabilities efficiently.	the RFP
			Suggested Clause: Support HTTP authentication, Advance WAF, URL Filtering, Geo-Location, IP Reputation, Active Attacker Feeds should be available	Advance WAF, URL Filtering, Geo-Location, IP	Suggested Clause: Support HTTP authentication, Advance WAF, URL Filtering, Geo-Location, IP Reputation, Active Attacker Feeds should be available	

Pg.	RFP Clause No. / Section/Category	RFP Ask	Array	Radware	RAHI	CACHE TECHNOLOGIES	VDA Infosolution	Clarification
117	Section-V: Technical Specifications Category-II d. WAF Type-01	Support Virtualization. Minimum 10 Virtual ADC license should be provided from day one	Complete virtualization functionality can only be achieved by assigning dedicated HW resources to each tenenant, so that each instance will work like independent hardware without any compromise on performance, security and compliance. We hereby request you to change this point as "Should be purpose built multi-tenant hardware with multicore CPU support. Platform should support multiple network functions including WAF, application load balancing, Next Generation SSL VPN, Global server load balancing functions with dedicated hardware resources like CPU, Memory, interfaces, SSL card etc."	Appliance should have next gen features like Virtualization that can virtualizes the Device resources—including CPU, memory, network, and acceleration resources to provide complete separate environment from applications and management perspective. This will allow to use single appliance to deploy various WAF instance in the network for WAF Protection. Suggested Clause: Support Virtualization. Minimum 10 Virtual ADC license should be provided from day one and scalable upto 50 Virtual ADC. Each virtual instance should have option to define separate configuration, resource, operating system and management to create isolated environment.	Appliance should have next gen features like Virtualization that can virtualizes the Device resources—including CPU, memory, network, and acceleration resources to provide complete separate environment from applications and management perspective. This will allow to use single appliance to deploy various WAF instance in the network for WAF Protection. Suggested Clause: Support Virtualization. Minimum 10 Virtual ADC license should be provided from day one and scalable upto 50 Virtual ADC. Each virtual instance should have option to define separate configuration, resource, operating system and management to create isolated environment.	Appliance should have next gen features like Virtualization that can virtualizes the Device resources—including CPU, memory, network, and acceleration resources to provide complete separate environment from applications and management perspective. This will allow to use single appliance to deploy various WAF instance in the network for WAF Protection. Suggested Clause: Support Virtualization. Minimum 5 Virtual ADC license should be provided from day one and scalable upto 50 Virtual ADC. Each virtual instance should have option to define separate configuration, resource, operating system and management to create isolated environment.	Complete virtualization functionality can only be achieved by assigning dedicated HW resources to each tenenant, so that each instance will work like independent hardware without any compromise on performance, security and compliance. We hereby request you to change this point as "Should be purpose built multitenant hardware with multicore CPU support. Platform should support multiple network functions including WAF, application load balancing, Next Generation SSL VPN, Global server load balancing functions with dedicated hardware resources like CPU, Memory, interfaces, SSL card etc."	As stipulated in the RFP

Pg.	RFP Clause No. /	RFP Ask	Array	Radware	RAHI	CACHE TECHNOLOGIES	VDA Infosolution	Clarification
no.	Section/Category							
117	Section-V: Technical Specifications Category-II d. WAF Type-01	Certified for EAL2 / Common Criteria Program for Security related functions / Indian Common Criteria certification Scheme (IC3S) by STQC.	We hereby request you to include ICSA Lab certification along with other mentioned certifications this point. ICSA Labs Web Application Firewall testing program will evaluate and certify products that implement security policy enforcement for the protection of HTTP and HTTPS web-based applications. CDAC has also asked ICSA LAB certification in previous WAF RFP. We request you to change this point as "Certified for EAL2 / Common Criteria Program for Security related functions / Indian Common Criteria certification Scheme (IC3S) by STQC./ICSA LAB Certification"	Industry standard certification such as ICSA, NSS Lab and PCI DSS should be consider to choose right and effective WAF solution. All the leading manufacture have this functionality on their appliance. Suggested Clause: Certified for EAL2 / Common Criteria Program for Security related functions / Indian Common Criteria certification Scheme (IC3S) by STQC/ICSA Certification for WAF. WAF should be NSS Lab Recommended and PCI Compliant.	Industry standard certification such as ICSA, NSS Lab and PCI DSS should be consider to choose right and effective WAF solution. All the leading manufacture have this functionality on their appliance. Suggested Clause: Certified for EAL2 / Common Criteria Program for Security related functions / Indian Common Criteria certification Scheme (IC3S) by STQC/ICSA Certification for WAF. WAF should be NSS Lab Recommended and PCI Compliant.	Industry standard certification such as ICSA, NSS Lab and PCI DSS should be consider to choose right and effective WAF solution. All the leading manufacture have this functionality on their appliance. Suggested Clause: Certified for EAL2 / Common Criteria Program for Security related functions / Indian Common Criteria certification Scheme (IC3S) by STQC/ICSA Certification for WAF. Proposed WAF should be ICSA Certified, NSS Lab Recommended and PCI Compliant.	We hereby request you to include ICSA Lab certification along with other mentioned certifications this point. ICSA Labs Web Application Firewall testing program will evaluate and certify products that implement security policy enforcement for the protection of HTTP and HTTPS web-based applications. CDAC has also asked ICSA LAB certification in previous WAF RFP. We request you to change this point as "Certified for EAL2 / Common Criteria Program for Security related functions / Indian Common Criteria certification Scheme (IC3S) by STQC./ICSA LAB Certification"	Ref. Corrigendum

Pg.	RFP Clause No. / Section/Category	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Clarification
117	Section/Category Section-V: Technical Specifications Category-II d. WAF Type- 01	TAC should be directly from the OEM with 24x7 support. Should be provided with NBD replacement.	TAC should be in INDIA to provide support in local language, it will give additional advantange to break language barrier. Suggested Clause:	TAC should be in INDIA to provide support in local language, it will give additional advantange to break language barrier. Suggested Clause:	TAC should be in INDIA to provide support in local language, it will give additional advantange to break language barrier. Suggested Clause:	As stipulated in RFP
			TAC should be directly from the OEM with 24x7 support. Should be provided with NBD replacement. TAC should be based in India	TAC should be directly from the OEM with 24x7 support. Should be provided with NBD replacement. TAC should be based in India	TAC should be directly from the OEM with 24x7 support. Should be provided with NBD replacement. TAC should be based in India	

Pg.	RFP Clause No. / Section/Category	RFP Ask	Radware	RAHI	CACHE TECHNOLOGIES	Clarification
117	Section-V: Technical Specifications Category-II d. WAF Type-01	New Clause Request	There should be dedicated appliance for Web Application Firewall functionality, it should not be part of Firewall or UTM. Appliance should support dedicated port for management and reporting, data port should not be used. It will unneccessary create bottleneck and hamper production traffic in case of heavy load.	There should be dedicated appliance for Web Application Firewall functionality, it should not be part of Firewall or UTM. Appliance should support dedicated port for management and reporting, data port should not be used. It will unneccessary create bottleneck and hamper production traffic in case of heavy load.	There should be dedicated appliance for Web Application Firewall functionality, it should not be part of Firewall or UTM. Appliance should support dedicated port for management and reporting, data port should not be used. It will unneccessary create bottleneck and hamper production traffic in case of heavy load.	As stipulated in the RFP
			Suggested Clause: Dedicated Appliance, It should not be part of Firewall or UTM. Appliance should have dedicated 2x1G RJ45 management port and separate RJ45 console port	Suggested Clause: Dedicated Appliance, It should not be part of Firewall or UTM. Appliance should have dedicated 2x1G RJ45 management port and separate RJ45 console port.	Suggested Clause: Dedicated Appliance, It should not be part of Firewall or UTM. Appliance should have dedicated 2x1G RJ45 management port and separate RJ45 console port	

Pg.	RFP Clause No. /	RFP Ask	Radware	RAHI	Clarification
no.	Section/Category				
117	Section-V: Technical Specifications Category-II d. WAF Type-01	New Clause Request	Security appliance is a very critical component for any datacentre. Appliance should always be a dedicated purpose built hardware, it should not be part of or add on module/license on top of hardware like Firewall or UTM. In order to ensure the right security solution, appliance manufacturer like OEM for Firewall should be different than OEM for dedicated security solution WAF.	Security appliance is a very critical component for any datacentre. Appliance should always be a dedicated purpose built hardware, it should not be part of or add on module/license on top of hardware like Firewall or UTM. In order to ensure the right security solution, appliance manufacturer like OEM for Firewall should be different than OEM for dedicated security solution WAF.	As stipulated in the RFP
			Suggested Clause: OEM for Firewall and WAF should be different.	Suggested Clause: OEM for Firewall and WAF should be different.	

Pg. no.	RFP Clause No. / Section/Category	HPE	Clarification
	BOQ -2.03	Bidder requests CDAC to confirm the positioning of the WAF for better clarity of the solution	As stipulated in the RFP

SERVER-02 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	INSPIRA	ECIL	cisco	AMD	Presto	SISL	VDA Infosolution	Clarification
50	Section-V: Technical	Server02	Processor : 1.	Modification ,	Modification,	Two Intel®	Two Intel®	Request to remove	Two Intel®	Two Intel®	Modification,	Ref.
	Specifications, 9.		Two Intel®	Processor : Two	Processor : Two	Xeon®	Xeon®	"Processor launch date	Xeon® Scalable	Xeon® Scalable	Processor : Two Intel®	Corrigendum
	SERVER02		Xeon® Scalable	Intel [®] Xeon [®]	Intel® Xeon®	Scalable or	Scalable or	shold not be earlier than	or AMD Latest	or AMD Latest	Xeon® Scalable or	0
			or AMD 2nd	Scalable or AMD	Scalable or AMD	AMD Latest	AMD Latest	2021",	Gen	Gen processors,	AMD 3rd Gen	
			Gen processors,	3rd Gen processors,	3rd Gen	Gen	Gen	And suggest to incorporate	processors,	configured	processors, configured	
			configured	configured	processors,	processors,	processors,	the the processor support	configured	Request to ask	2. 24 cores/processor	
			2. 24	2. 24	configured	configured	configured	memory @ 3200 MT/s &	Request to ask	for latest	@ 2.1 GHz base freq.	
			cores/processor	cores/processor @	2. 24	Justification	Justification	PCIe Gen4.	for latest	generation	or better.	
			@ 2.1 GHz base	2.1 GHz base freq. or	cores/processor @	Request to ask	Request to ask	Reason: As AMD EPYC	generation	processor since	3. Spec Benchmark to	
			freq. or better.	better.	2.1 GHz base freq.	for latest	for latest	introduced the latest	processor	Intel latest is 3rd	be published at	
			3. Processor	3. Spec Benchmark	or better.	generation	generation	technologies in well	since Intel	Generation and	spec.org of proposed	
			launch date	to be published at	3. Spec Benchmark	processor	processor	advance (2019) than our	latest is 3rd	specification	Server model with	
			should not be	spec.org of	to be published at	since Intel	since Intel	nearest competition.	Generation	also specify to	CPU at the time of bid	
			earlier than	proposed Server	spec.org of	latest is 3rd	latest is 3rd	a) 7 nanometer	and	not propose	submission.	
			2021).	model with CPU at	proposed Server	Generation	Generation	liethography, while our	specification	processors	4. MII Compliant	
				the time of bid	model with CPU at	and	and	competition is still on 10	also specify to	launched before	server to be proposed.	
				submission.	the time of bid	specification	specification	nm with their latest series	not propose	2021 which can	Justification : We	
				4. MII Compliant	submission.	also specify to	also specify to	of processors.	processors	make current	request CDAC to ask	
				server to be	4. MII Compliant	not propose	not propose	b) Support of memory	launched	statement	for Latest generation	
				proposed.	server to be	processors	processors	speed upto 3200 MT/s sec	before 2021	confusing.	processor for best	
				Justification : We	proposed.	launched	launched	while with our competition	which can		performance and	
				request CDAC to ask	Justification : We	before 2021	before 2021	is still on 2667 & 2933	make current		lifecycle of the	
				for Latest generation	request CDAC to	which can	which can	MT/s for their some of the	statement		product to be	
				processor for best	ask for Latest	make current	make current	processors.	confusing.		proposed for this	
				performance and	generation	statement	statement	c) Support of PCIe Gen4			project.	
				lifecycle of the	processor for best	confusingl	confusingl	128 Lanes, while our				
				product to be	performance and			competition introduced				
				proposed for this	lifecycle of the			PCIe Gen4 by 2021 that too				
				project.	product to be			with 64 Lanes.				
					proposed for this			d) AMD EPYC processors				
					project.			are desinged with higher				
								no L3 Cache, as AMD EPYC				
								are have L3 Cache upto 256				
								MB, while our competion is				
								still around 38 or 48 MB L3				
								Cache.				

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	AMD	Presto	SISL	VDA Infosolution	Clarification
50	Section-V: Technical	Server02	Memory: 1. 512 GB ECC	Modification,	Modification,	512 GB ECC	512 GB ECC	Request you to change	512 GB ECC	512 GB ECC	Modification , Memory	Ref.
	Specifications, 9.		RAM expandable to 1TB, @	Memory :1. 512	Memory :1. 512	RAM	RAM	memory expandable	RAM	RAM	:1. 512 GB ECC RAM	Corrigendum
	SERVER02		2933 MT/s, should have min.	GB ECC RAM	GB ECC RAM	expandable to	expandable to	upto 4 TB @ 3200 MT/s	expandable	expandable to	expandable to 1TB	
			12 DIMM slots	expandable to	expandable to	1TB, @ 3200	1TB, @ 3200	& should have min 16	to 1TB, @	1TB, @ 3200	using same DIMM	
			2. Memory should be	1TB using same	1TB using same	MT/s, server	MT/s, server	DIMM slots for each	3200 MT/s,	MT/s, server	type, @ 3200 MT/s,	
			supplied in balanced	DIMM type, @	DIMM type, @	should support	should support	socket.	server should	should	should have min. 32	
			configuration.	3200 MT/s,	3200 MT/s,	min. 32 DIMM	min. 32 DIMM	Reason:	support min.	support min.	DIMM slots	
				should have min.	should have min.	slots	slots	In today's world all the	32 DIMM	32 DIMM	2. Memory should be	
				32 DIMM slots	32 DIMM slots	Justification 12	Justification 12	x86 processors are with	slots	slots	supplied in balanced	
				2. Memory	2. Memory	DIMM slots per	DIMM slots per	8 Memory channel and	12 DIMM	12 DIMM	configuration using	
				should be	should be	processor	processor	every channel supports	slots per	slots per	same DIMM Type.	
				supplied in	supplied in	belongs to	belongs to	two memory DIMMs.	processor	processor	Justification : We	
				balanced	balanced	older	older	Accordingly every	belongs to	belongs to	request CDAC to use	
				configuration	configuration	processor	processor	processor is capable to	older	older	same memory type	
				using same	using same	architecture	architecture	supports minimum 16	processor	processor	across DIMM in	
				DIMM Type.	DIMM Type.	while with	while with	DIMM slots.	architecture	architecture	Balanced memory	
				Justification : We	Justification : We	latest	latest	In latest technology	while with	while with	configuration to get	
				request CDAC to	request CDAC to	processor each	processor each	256MB DDR4 LRDIMM is	latest	latest	best memory	
				use same	use same	socket	socket	available with all the	processor	processor	performance. Having	
				memory type	memory type	supports upto	supports upto	OEMs and supported by	each socket	each socket	more DIMMs will	
				across DIMM in	across DIMM in	16DIMM's	16DIMM's	all the x86 processor	supports	supports upto	ensure better	
				Balanced	Balanced	making a total	making a total	manufacturere. With	upto	16DIMM's	reliability, performance	
				memory	memory	of 32DIMM's	of 32DIMM's	this support each	16DIMM's	making a total	and DIMM utilization	
				configuration to	configuration to	per Dual socket	per Dual socket	processor is capable to	making a	of 32DIMM's	using cost effective	
				get best memory	get best memory	server	server	support minimum 4TB	total of	per Dual	DIMM size.	
				performance.	performance.			memory and with two	32DIMM's	socket server.		
				Having more	Having more			processors relevan	per Dual			
				DIMMs will	DIMMs will			server is capable to	socket			
				ensure better	ensure better			support upto 8TB of	server.			
				reliability,	reliability,			memory.				
				performance and	performance and			This is the features				
				DIMM utilization	DIMM utilization			which will also enable to				
				using cost	using cost			offer the processors				
				effective DIMM	effective DIMM			which support current				
				size.	size.			technologies.				

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	L&T	HPE	Presto	SISL	VDA Infosolution	Clarification
50	Section-V: Technical	Server02	Hard Drive : 1.	Hard Drive 1. 2	Hard Drive 1.	10 x 7.6TB SSDs in	10 x 7.6TB SSDs in	Please	As the	10 x 7.6TB SSDs in	10 x 7.6TB SSDs	Hard Drive 1.	Ref.
	Specifications, 9.		2 x 900GB	x 960GB SSDs in	2 x 960GB	RAID 6	RAID 6	update	Industry	RAID 6	in RAID 6	2 x 960GB	Corrigendum
	SERVER02		SSDs in RAID1	RAID1	SSDs in RAID1	OR	OR	the Server	standard SSD	OR	OR	SSDs in	
			2. 8 x 10TB	2. 10 x 7.68 TB	2. 10 x 7.68 TB	8 x 10TB NL-SAS	8 x 10TB NL-SAS in	SSD Size	available is	8 x 10TB NL-SAS in	8 x 10TB NL-SAS	RAID1	
			SSDs in RAID 6.	SSDs in RAID 6.	SSDs in RAID 6.	in RAID 6	RAID 6	as " 15.36	the capacity	RAID 6 Option1:	in RAID 6	2. 10 x 7.68	
				Justification:	Justification:	Justification	Justification	TB" (OR)	of 7.68TB,	SSD's are either	Option1: SSD's	TB SSDs in	
				We request	We request	Option1: SSD's	Option1: SSD's are	" 7.68 TB"	15.36TB SSD	available in 7.6TB	are either	RAID 6.	
				CDAC to change	CDAC to	are either	either available in	since 10	, but the	capacity or 15.3TB	available in 7.6TB	Justification:	
				the Disk Type	change the	available in 7.6TB	7.6TB capacity or	TB SSD	asked 10TB	capacity and there	capacity or	We request	
				and most SSD	Disk Type and	capacity or	15.3TB capacity and	drive is	is not	is no 10TB SSD	15.3TB capacity	CDAC to	
				disks comes in	most SSD disks	15.3TB capacity	there is no 10TB	not	industry	form factor	and there is no	change the	
				the multiples of	comes in the	and there is no	SSD form factor	available	Standard, So	available in the	10TB SSD form	Disk Type	
				480/960GB and	multiples of	10TB SSD form	available in the	in market	requesting to	Hard Disk	factor available in	and most	
				7.68 TB is best	480/960GB	factor available in	Hard Disk Industry.	for	Change the	Industry. Request	the Hard Disk	SSD disks	
				price /	and 7.68 TB is	the Hard Disk	Request to kindly	Servers.	Capacity	to kindly update	Industry. Request	comes in the	
				performance	best price /	Industry. Request	update current		accordingly.	current point for a	to kindly update	multiples of	
				SSD Disks in	performance	to kindly update	point for a nearby			nearby Storage	current point for	480/960GB	
				server	SSD Disks in	current point for	Storage capacity.			capacity.	a nearby Storage	and 7.68 TB	
					server	a nearby Storage					capacity.	is best price /	
						capacity.	Also 2x 7.6TB offers			Also 2x 7.6TB		performance	
							better TCO than 1x			offers better TCO	Also 2x 7.6TB	SSD Disks in	
						Also 2x 7.6TB	15.3TB SSD for the			than 1x 15.3TB	offers better TCO	server	
						offers better TCO	same capacity.			SSD for the same	than 1x 15.3TB		
						than 1x 15.3TB	. ,			capacity.	SSD for the same		
						SSD for the same	Option2: It is also				capacity.		
						capacity.	very likely that its a			Option2: It is also	, ,		
						' '	Typo and drive type			very likely that its	Option2: It is also		
						Option2: It is also	required is NL-SAS			a Typo and drive	very likely that its		
						very likely that its	and Not SSD.			type required is	a Typo and drive		
						a Typo and drive	Request to kindly			NL-SAS and Not	type required is		
						type required is	confirm.			SSD. Request to	NL-SAS and Not		
						NL-SAS and Not				kindly confirm.	SSD. Request to		
						SSD. Request to				,	kindly confirm.		
						kindly confirm.					'		

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL	CISCO	Netweb	HPE	Cache Technology	Presto	SISL	Clarificati on
50	Section-V:	Server	1.Should be	1.Should be installed	1.Should be installed	Request for	The asked	5. GPUs -	Should be installed with 2	Should be installed with 2	Ref.
	Technical	02	installed with 2	with 2 nos. of NVIDIA	with 2 nos. of NVIDIA	Amendment:	NVIDIA GPU	1. Should be	nos. of NVIDIA A100 80GB	nos. of NVIDIA A100 80GB	Corrigendu
	Specifications, 9.		nos. of NVIDIA	A100 80GB GPUs or	A100 80GB GPUs or	Should be installed	H100 80GB is	installed with 2	GPUs or better GPU	GPUs or better GPU	m
	SERVER02		H100 80GB	better GPU	better GPU	with 2 nos. of NVIDIA	not yet	nos. of NVIDIA	H100 is very recently	H100 is very recently	
			GPUs	Justification H100 is	Justification H100 is	H100 80GB GPUs	Launched by	H100 80GB GPUs	released by NVIDIA and not	released by NVIDIA and not	
			2.System	very recently released	very recently released	2. System should be	all the Server	2. System should	all major Server vendors	all major Server vendors has	
			should be	by NVIDIA and not all	by NVIDIA and not all	NVIDIA compatible for	OEM's , So	be NVIDIA	has this GPU card fully	this GPU card fully tested and	
			NVIDIA	major Server vendors	major Server vendors	aforementioned GPUs.	requesting to	compatible for	tested and certified. Even	certified. Even NVIDIA	
			certified for	has this GPU card fully	has this GPU card fully	The Certificate of	Change this to	aforementioned	NVIDIA website mentions	website mentions only a	
			aforementione	tested and certified.	tested and certified.	Compatibility should be	"NVIDIA A100	GPUs. The	only a single vendor who is	single vendor who is certified	
			d GPUs	Even NVIDIA website	Even NVIDIA website	on Letter Head Server	80GB"	Certificate of	certified for this GPU card	for this GPU card which is	
				mentions only a single	mentions only a single	OEM or GPU OEM		Compatibility	which is also the ask in the	also the ask in the	
				vendor who is certified	vendor who is certified	Justification :		should be on Letter	Specification. Request to	Specification. Request to	
				for this GPU card which	for this GPU card	As NVIDIA H 100 PCIe		Head Server OEM	kindly allow bidders to	kindly allow bidders to quote	
				is also the ask in the	which is also the ask in	GPU is very newly		or GPU OEM	quote previous & tested	previous & tested GPU card	
				Specification. Request	the Specification.	launched & Currently			GPU card with all Server	with all Server OEM's for	
				to kindly allow bidders	Request to kindly	only Single OEM		Currently only	OEM's for wider	wider participation.	
				to quote previous &	allow bidders to quote	Systems are Certified		Single OEM	participation.		
				tested GPU card with all	previous & tested GPU	for H100 PCIe GPU,		Systems are		https://www.nvidia.com/en-	
				Server OEM's for wider	card with all Server	hence we here request		Certificate for H100	https://www.nvidia.com/en	in/data-center/data-center-	
				participation.	OEM's for wider	to dept kindly amend		PCIe GPU, hence	-in/data-center/data-	gpus/tesla-qualified-servers-	
					participation.	the mentioned clause		we request you to	center-gpus/tesla-qualified-	catalog/	
				https://www.nvidia.co		by "System should be		kindly allow all	servers-catalog/		
				m/en-in/data-	https://www.nvidia.co	NVIDIA compatible"		potential OEM's to			
				center/data-center-	m/en-in/data-	instead of mentioning		participate by			
				gpus/tesla-qualified-	center/data-center-	particular GPU H100 "		amending as per			
				servers-catalog/	gpus/tesla-qualified-	so that all the OEM can		suggested			
					servers-catalog/	get qualify here and		Change/Modificatio			
						participate in bid.		n			

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL	CISCO	Presto	Clarification
50	Section-V: Technical Specifications, 9.	Server02	2GB or higher	4GB or higher Cache Memory.	4GB or higher Cache Memory. Justification All	4GB or higher Cache Memory. All	As stipulated in the
	SERVER02		Cache Memory.	Justification All current generation Server	current generation Server OEM's offer 4GB	current generation Server OEM's offer	RFP
				OEM's offer 4GB cache with their RAID	cache with their RAID controller. 2GB cache	4GB cache with their RAID controller.	
				controller. 2GB cache was provided with	was provided with previous generation	2GB cache was provided with previous	
				previous generation processor. Request to	processor. Request to kindly update this point	generation processor. Request to kindly	
				kindly update this point for bidders to	for bidders to quote only latest generation	update this point for bidders to quote	
				quote only latest generation Servers.	Servers.	only latest generation Servers.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL	CISCO	Presto	SISL	Clarification
50	Section-V: Technical Specifications, 9. SERVER02	Server02	License for perpetual use for all supported features	License for perpetual / Subscription use for all supported features Justification With different server vendors there can be few management points which does not falls under perpetual License category. Request to kindly update this point for wider participation.	License for perpetual / Subscription use for all supported features Justification With different server vendors there can be few management points which does not falls under perpetual License category. Request to kindly update this point for wider participation.	License for perpetual use for all supported features With different server vendors there can be few management points which does not falls under perpetual License category. Request to kindly update this point for wider participation.	License for perpetual use for all supported features With different server vendors there can be few management points which does not falls under perpetual License category. Request to kindly update this point for wider participation.	All the Licenses quoted shall be perpetual to use without any additional cost other than the cost stated against license/subscription for 3 Years Warranty. The Warranty for License/Subscription will commence after successful deployment and demonstration of complete solution and further to it acceptance by C-DAC

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
	Section-V: Technical Specifications, 9. SERVER02	Server02	 Supply shall include latest release of RHEL Operating System with support for mentioned no. of sockets and cores. The subscription / Licenses shall be valid for 03 Years with support for Un-Limited Virtual hosts with-in the physical server. 	Please confirm if the RHEL Operating system to be supplied for all types of Servers i.e, Server 02, 03, 04 and 06 as per technical specifications. Also, please mention any other Operating system with license quantity required apart from Red Hat Operating system.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
	Section-V: Technical Specifications, 9. SERVER02	Server02	Windows Server 2016 or latest, Ubuntu, Red Hat Enterprise Linux, Red Hat	In case Windows OS to be supplied by Bidder, please mention the edition of Windows Server OS with Software Assurance (SA) license type for DC, BCP and DR replications.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	L&T	Clarification
	General	Please confirm if the Server 02, 03, 04, 06 Qty and specs covers the workload of the below listed applications. In case of any additional servers required for management stack applications, please confirm on the same. If the proposed servers will host all below applications, please share the detailed hardware specifications with % of hardware resource specifications reserved for the below application wise for Bigdata and management stack applications. 1. BigData Application Suite Management stack apps:- 2. EMS 3. Cybersecurity components 4. SDN 5. VDI 6. Cloud Management and Automation 7. Kubernetes, Docker Engines, etc.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Clarification
	Section-V: Technical Specifications Point 9, Sub-point	Server02	1. VMWare VCentre, Citrix	Server should be certified for VMware vCenter, vSphere virtualization
	15. Virtualization Support		XenServer, Hyper V	2. It should also support Industry leading hypervisors like Microsoft Hyper-V, Citrix XenServer

SERVER-03 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	AMD	Presto	SISL	VDA Infosolution	Clarification
	Section-V:	Server03	Two Intel®	Modification,	Modification,	One Intel®	One Intel®	Request to remove	One Intel®	One Intel®	Modification,	Ref. Corrigendum
	Technical		Xeon® Scalable	Processor : Two	Processor : Two	Xeon®	Xeon® Scalable	"Processor launch date	Xeon® Scalable	Xeon® Scalable	Processor : Two	
	Specifications, 10.		or AMD 2nd	Intel® Xeon®	Intel® Xeon®	Scalable or	or AMD Latest	shold not be earlier than	or AMD Latest	or AMD Latest	Intel® Xeon®	
	SERVER03		Gen processors,	Scalable or AMD	Scalable or AMD	AMD Latest	Gen	2021",	Gen	Gen processors,	Scalable or AMD	
			configured	3rd Gen processors,	3rd Gen	Gen	processors,	And suggest to	processors,	configured	3rd Gen processors,	
			2. 24	configured	processors,	processors,	configured	incorporate the the	configured	Request to ask	configured	
			cores/processor	2. 24	configured	configured	Justification	processor support	Request to ask	for latest	2. 24	
			@ 2.1 GHz base	cores/processor @	2. 24	Justification	Request to ask	memory @ 3200 MT/s &	for latest	generation	cores/processor @	
			freq. or better.	2.1 GHz base freq. or	cores/processor	Request to	for latest	PCIe Gen4.	generation	processor since	2.1 GHz base freq. or	
			3. Processor	better.	@ 2.1 GHz base	ask for latest	generation	Reason: As AMD EPYC	processor	Intel latest is 3rd	better.	
			launch date	3. Spec Benchmark	freq. or better.	generation	processor	introduced the latest	since Intel	Generation and	3. Spec Benchmark	
			should not be	to be published at	3. Spec	processor	since Intel	technologies in well	latest is 3rd	specification	to be published at	
			earlier than	spec.org of	Benchmark to be	since Intel	latest is 3rd	advance (2019) than our	Generation	also specify to	spec.org of	
			2021).	proposed Server	published at	latest is 3rd	Generation	nearest competition.	and	not propose	proposed Server	
				model with CPU at	spec.org of	Generation	and	a) 7 nanometer	specification	processors	model with CPU at	
				the time of bid	proposed Server	and	specification	liethography, while our	also specify to	launched before	the time of bid	
				submission.	model with CPU	specification	also specify to	competition is still on 10	not propose	2021 which can	submission.	
				4. MII Compliant	at the time of bid	also specify	not propose	nm with their latest series	processors	make current	4. MII Compliant	
52				server to be	submission.	to not	processors	of processors.	launched	statement	server to be	
52				proposed.	4. MII Compliant	propose	launched	b) Support of memory	before 2021	confusing.	proposed.	
				Justification : We	server to be	processors	before 2021	speed upto 3200 MT/s sec	which can		Justification : We	
				request CDAC to ask	proposed.	launched	which can	while with our	make current		request CDAC to ask	
				for Latest generation	Justification : We	before 2021	make current	competition is still on	statement		for Latest generation	
				processor for best	request CDAC to	which can	statement	2667 & 2933 MT/s for	confusing.		processor for best	
				performance and	ask for Latest	make current	confusing.	their some of the			performance and	
				lifecycle of the	generation	statement		processors.			lifecycle of the	
				product to be	processor for best	confusing.		c) Support of PCIe Gen4			product to be	
				proposed for this	performance and			128 Lanes, while our			proposed for this	
				project.	lifecycle of the			competition introduced			project.	
					product to be			PCIe Gen4 by 2021 that				
					proposed for this			too with 64 Lanes.				
					project.			d) AMD EPYC processors				
								are desinged with higher				
								no L3 Cache, as AMD				
								EPYC are have L3 Cache				,
								upto 256 MB, while our				!
								competion is still around				
								38 or 48 MB L3 Cache.				

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	VDA Infosolution	Clarification
52	Section-V: Technical Specifications, 10. SERVER03	Server03	Hard Drive: 1. 2 x 900GB SSDs in RAID1 2. 8 x 12TB NLNAS in RAID 6.	Hard Drive 1. 2 x 960GB SSDs in RAID1 2. 10 x 7.68 TB SSDs in RAID 6. Justification: We request CDAC to change the Disk Type and most SSD disks comes in the multiples of 480/960GB and 7.68 TB is best price / performance SSD Disks in server	Hard Drive 1. 2 x 960GB SSDs in RAID1 2. 10 x 7.68 TB SSDs in RAID 6. Justification: We request CDAC to change the Disk Type and most SSD disks comes in the multiples of 480/960GB and 7.68 TB is best price / performance SSD Disks in server	Ref. Corrigendum

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	AMD	Presto	SISL	VDA Infosolution	Clarification
	Section-V: Technical	Server03	Memory :1.	Modification : 1. 256	Modification : 1. 256	192 GB ECC	192 GB ECC	Request you to	192 GB ECC	192 GB ECC	Modification : 1. 256	Ref.
	Specifications, 10.		192 GB ECC	GB ECC RAM	GB ECC RAM	RAM	RAM	change memory	RAM	RAM	GB ECC RAM	Corrigendum
	SERVER03		RAM	expandable to 2TB	expandable to 2TB	expandable to	expandable to	expandable upto 4 TB	expandable to	expandable to	expandable to 2TB	
			expandable to	using same DIMM	using same DIMM	512GB, @	512GB, @	@ 3200 MT/s &	512GB, @	512GB, @	using same DIMM	
			512GB, @	type, @ 3200 MT/s,	type, @ 3200 MT/s,	3200 MT/s,	3200 MT/s,	should have min 16	3200 MT/s,	3200 MT/s,	type, @ 3200 MT/s,	
			2933 MT/s,	should have min. 32	should have min. 32	server should	server should	DIMM slots for each	server should	server should	should have min. 32	
			should have	DIMM slots	DIMM slots 2.	support min.	support min.	socket.	support min.	support min.	DIMM slots	
			min. 12 DIMM	2. Memory should	Memory should be	32 DIMM slots	32 DIMM slots	<u>Reason</u> :	32 DIMM slots	32 DIMM slots	2. Memory should be	
			slots	be supplied in	supplied in balanced	Justification	Justification	In today's world all	12 DIMM slots	12 DIMM slots	supplied in balanced	
			2. Memory	balanced	configuration using	12 DIMM slots	12 DIMM slots	the x86 processors are	per processor	per processor	configuration using	
			should be	configuration using	same DIMM Type.	per processor	per processor	with 8 Memory	belongs to	belongs to	same DIMM Type.	
			supplied in	same DIMM Type.	Justification : We	belongs to	belongs to	channel and every	older	older	Justification : We	
			balanced	Justification : We	request CDAC to use	older	older	channel supports two	processor	processor	request CDAC to use	
			configuration.	request CDAC to use	same memory type	processor	processor	memory DIMMs.	architecture	architecture	same memory type	
				same memory type	across DIMM in	architecture	architecture	Accordingly every	while with	while with	across DIMM in	
				across DIMM in	Balanced memory	while with	while with	processor is capable	latest	latest	Balanced memory	
				Balanced memory	configuration to get	latest	latest	to supports minimum	processor each	processor each	configuration to get	
				configuration to get	best memory	processor each	processor each	16 DIMM slots.	socket	socket	best memory	
				best memory	performance. Having	socket	socket	In latest technology	supports upto	supports upto	performance. Having	
52				performance. Having	more DIMMs will	supports upto	supports upto	256MB DDR4 LRDIMM	16DIMM's	16DIMM's	more DIMMs will	
				more DIMMs will	ensure better	16DIMM's	16DIMM's	is available with all	making a total	making a total	ensure better	
				ensure better	reliability,	making a total	making a total	the OEMs and	of 32DIMM's	of 32DIMM's	reliability,	
				reliability,	performance and	of 32DIMM's	of 32DIMM's	supported by all the	per Dual	per Dual	performance and	
				performance and	DIMM utilization using	per Dual	per Dual	x86 processor	socket server.	socket server.	DIMM utilization using	
				DIMM utilization	cost effective DIMM	socket server.	socket server.	manufacturere. With			cost effective DIMM	
				using cost effective	size.			this support each			size.	
				DIMM size.				processor is capable				
								to support minimum				
								4TB memory and with				
								two processors				
								relevan server is				
								capable to support				
								upto 8TB of memory.				
								This is the features				
								which will also enable				
								to offer the				
								processors which				
								support current				
								technologies.				

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL	CISCO	Presto	SISL	Clarification
	Section-V: Technical Specifications,	Server03	2GB or higher Cache	4GB or higher Cache	4GB or higher Cache	4GB or higher Cache	4GB or higher Cache	As stipulated in the RFP
	10. SERVER03		Memory.	Memory. Justification	Memory. Justification	Memory.	Memory.	
				All current generation	All current generation	All current generation	All current generation	
				Server OEM's offer 4GB				
				cache with their RAID				
				controller. 2GB cache	controller. 2GB cache	controller. 2GB cache	controller. 2GB cache	
52				was provided with	was provided with	was provided with	was provided with	
				previous generation	previous generation	previous generation	previous generation	
				processor. Request to	processor. Request to	processor. Request to	processor. Request to	
				kindly update this point				
				for bidders to quote				
				only latest generation	only latest generation	only latest generation	only latest generation	
				Servers.	Servers.	Servers.	Servers.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL	CISCO	Presto	SISL	Clarification
53	Section-V: Technical Specifications, 10. SERVER03	Server03	License for perpetual use for all supported features	License for perpetual / Subscription use for all supported features Justification With different server vendors there can be few management points which does not falls under perpetual License category. Request to kindly update this point for wider participation.	License for perpetual / Subscription use for all supported features Justification With different server vendors there can be few management points which does not falls under perpetual License category. Request to kindly update this point for wider participation.	License for perpetual / Subscription use for all supported features With different server vendors there can be few management points which does not falls under perpetual License category. Request to kindly update this point for wider participation.	License for perpetual / Subscription use for all supported features With different server vendors there can be few management points which does not falls under perpetual License category. Request to kindly update this point for wider participation.	All the Licenses quoted shall be perpetual to use without any additional cost other than the cost stated against license/subscription for 3 Years Warranty. The Warranty for License/Subscription will commence after successful deployment and demonstration of complete solution and further to it acceptance by C-DAC

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
53	Section-V: Technical Specifications, 9. SERVER03	Server03	with support for mentioned no. of sockets and cores.	Please confirm if the RHEL Operating system to be supplied for all types of Servers i.e, Server 02, 03, 04 and 06 as per technical specifications. Also, please mention any other Operating system with license quantity required apart from Red Hat Operating system.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
53	Section-V: Technical Specifications, 9. SERVER03	Server03	Windows Server 2016 or latest, Ubuntu, Red Hat Enterprise Linux, Red Hat	In case Windows OS to be supplied by Bidder, please mention the edition of Windows Server OS with Software Assurance (SA) license type for DC, BCP and DR replications.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	L&T	Clarification
	General	Please confirm if the Server 02, 03, 04, 06 Qty and specs covers the workload of the below listed applications. In case of any additional servers required for management stack applications, please confirm on the same. If the proposed servers will host all below applications, please share the detailed hardware specifications with % of hardware resource specifications reserved for the below application wise for Bigdata and management stack applications. 1. BigData Application Suite Management stack apps:- 2. EMS 3. Cybersecurity components 4. SDN 5. VDI	As stipulated in the RFP
		6. Cloud Management and Automation 7. Kubernetes, Docker Engines, etc.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Clarification
	Section-V: Technical Specifications Point 10, Sub-point 14. Virtualization Support	Server02	1. VMWare VCentre, Citrix XenServer, Hyper V	

SERVER-04 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause No. /	Item	RFP Ask	DELL	INSPIRA	ECIL Revised	CISCO	AMD	Presto	SISL	VDA Infosolution	Clarification
no.	Section/Category Section-V: Technical	Server04	Processor : 1.	Modification ,	Modification ,	Two Intel®	Two Intel®		Two Intel®	Two Intel®	Modification ,	Pof Carrigandum
54	Specifications, 11.	Server04	Two Intel®	Processor : Two	Processor : Two	Xeon® Scalable	Xeon® Scalable	Request to remove "Processor launch	Xeon® Scalable	Xeon® Scalable	Processor : Two	Ref. Corrigendum
	SERVER04		Xeon® Scalable	Intel® Xeon®	Intel® Xeon®	or AMD Latest	or AMD Latest	date shold not be	or AMD Latest	or AMD Latest	Intel® Xeon®	
	SERVERO!		or AMD 2nd	Scalable or AMD	Scalable or AMD	Gen	Gen	earlier than 2021",	Gen	Gen	Scalable or AMD	
			Gen processors,	3rd Gen	3rd Gen	processors,	processors,	And suggest to	processors,	processors,	3rd Gen	
			configured	processors,	processors,	configured	configured	incorporate the the	configured	configured	processors,	
			2. 24	configured	configured	Justification	Justification	processor support	Request to ask	Request to ask	configured	
			cores/processor	2. 24	2. 24	Request to ask	Request to ask	memory @ 3200 MT/s	for latest	for latest	2. 24	
			@ 2.1 GHz base	cores/processor @	cores/processor @	for latest	for latest	& PCle Gen4.	generation	generation	cores/processor @	
			freq. or better.	2.1 GHz base freq.	2.1 GHz base freq.	generation	generation	Reason: As AMD EPYC	processor since	processor since	2.1 GHz base freq.	
			3. Processor	or better.	or better.	processor	processor	introduced the latest	Intel latest is	Intel latest is	or better.	
			launch date	3. Spec Benchmark	3. Spec Benchmark	since Intel	since Intel	technologies in well	3rd Generation	3rd Generation	3. Spec Benchmark	
			should not be	to be published at	to be published at	latest is 3rd	latest is 3rd	advance (2019) than	and	and	to be published at	
			earlier than	spec.org of	spec.org of	Generation	Generation	our nearest	specification	specification	spec.org of	
			2021).	proposed Server	proposed Server	and	and	competition.	also specify to	also specify to	proposed Server	
				model with CPU at the time of bid	model with CPU at the time of bid	specification also specify to	specification	a) 7 nanometer liethography, while	not propose	not propose	model with CPU at the time of bid	
				submission.	submission.	not propose	also specify to not propose	our competition is still	processors launched	processors launched	submission.	
				4. MII Compliant	4. MII Compliant	processors	processors	on 10 nm with their	before 2021	before 2021	4. MII Compliant	
				server to be	server to be	launched	launched	latest series of	which can	which can	server to be	
				proposed.	proposed.	before 2021	before 2021	processors.	make current	make current	proposed.	
				Justification : We	Justification : We	which can	which can	b) Support of memory	statement	statement	Justification : We	
				request CDAC to	request CDAC to	make current	make current	speed upto 3200 MT/s	confusing.	confusing.	request CDAC to	
				ask for Latest	ask for Latest	statement	statement	sec while with our	_		ask for Latest	
				generation	generation	confusingl	confusingl	competition is still on			generation	
				processor for best	processor for best			2667 & 2933 MT/s for			processor for best	
				performance and	performance and			their some of the			performance and	
				lifecycle of the	lifecycle of the			processors.			lifecycle of the	
				product to be	product to be			c) Support of PCle			product to be	
				proposed for this	proposed for this			Gen4 128 Lanes, while			proposed for this	
				project.	project.			our competition			project.	
								introduced PCIe Gen4 by 2021 that too with				
								64 Lanes.				
								d) AMD EPYC				
								processors are				
								desinged with higher				
								no L3 Cache, as AMD				
								EPYC are have L3				
								Cache upto 256 MB,				
								while our competion				
								is still around 38 or 48				
								MB L3 Cache.				

Page	RFP Clause No. /	Item	RFP Ask	DELL	ECIL Revised	CISCO	L&T	HPE	Presto	SISL	VDA Infosolution	Clarification
no.	Section/Category											
54	Section-V: Technical	Server04	Hard Drive : 1. 2	Hard Drive 1. 2 x	10 x 7.6TB SSDs in	10 x 7.6TB SSDs in	Please	As the	10 x 7.6TB SSDs in	10 x 7.6TB SSDs in	Hard Drive 1. 2 x	Ref. Corrigendum
	Specifications, 11.		x 900GB SSDs in	960GB SSDs in	RAID 6	RAID 6	update the	Industry	RAID 6	RAID 6	960GB SSDs in RAID1	
	SERVER04		RAID1	RAID1	OR	OR	Server SSD	standard SSD	OR	OR	2. 10 x 7.68 TB SSDs	
			2. 8 x 10TB SSDs	2. 10 x 7.68 TB	8 x 10TB NL-SAS in	8 x 10TB NL-SAS	Size as "	available is	8 x 10TB NL-SAS in	8 x 10TB NL-SAS in	in RAID 6.	
			in RAID 6.	SSDs in RAID 6.	RAID 6	in RAID 6	15.36 TB" (the capacity	RAID 6	RAID 6	Justification : We	
				Justification : We	Justification	Justification	OR) " 7.68	of 7.68TB,	Option1: SSD's are	Option1: SSD's are	request CDAC to	
				request CDAC to	Option1: SSD's are	Option1: SSD's	TB" since 10	15.36TB SSD	either available in	either available in	change the Disk Type	
				change the Disk	either available in	are either	TB SSD drive	, but the	7.6TB capacity or	7.6TB capacity or	and most SSD disks	
				Type and most SSD	7.6TB capacity or	available in 7.6TB	is not		15.3TB capacity and	15.3TB capacity and	comes in the	
				disks comes in the	15.3TB capacity	capacity or	available in	not industry	there is no 10TB	there is no 10TB SSD	multiples of	
				multiples of	and there is no	15.3TB capacity	market for	Standard, So	SSD form factor	form factor available	480/960GB and 7.68	
				480/960GB and	10TB SSD form	and there is no	Servers.	requesting to	available in the	in the Hard Disk	TB is best price /	
				7.68 TB is best price		10TB SSD form		Change the	Hard Disk Industry.	Industry. Request to	performance SSD	
				/ performance SSD		factor available in		Capacity	Request to kindly	kindly update	Disks in server	
				Disks in server	Industry. Request	the Hard Disk		accordingly.	update current	current point for a		
					to kindly update	Industry. Request			point for a nearby	nearby Storage		
					current point for a	to kindly update			Storage capacity.	capacity.		
					nearby Storage	current point for						
					capacity.	a nearby Storage			Also 2x 7.6TB offers	Also 2x 7.6TB offers		
						capacity.			better TCO than 1x	better TCO than 1x		
					Also 2x 7.6TB offers				15.3TB SSD for the	15.3TB SSD for the		
					better TCO than 1x	Also 2x 7.6TB			same capacity.	same capacity.		
					15.3TB SSD for the	offers better TCO						
					same capacity.	than 1x 15.3TB			Option2: It is also	Option2: It is also		
						SSD for the same			very likely that its a	very likely that its a		
					Option2: It is also	capacity.			Typo and drive type	Typo and drive type		
					very likely that its a				required is NL-SAS	required is NL-SAS		
					Typo and drive type	Option2: It is also			and Not SSD.	and Not SSD.		
					required is NL-SAS	very likely that its			Request to kindly	Request to kindly		
					and Not SSD.	a Typo and drive			confirm.	confirm.		
					Request to kindly	type required is						
					confirm.	NL-SAS and Not						
						SSD. Request to						
						kindly confirm.						

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	INSPIRA	ECIL Revised	CISCO	AMD	Presto	SISL	VDA Infosolution	Clarification
54	Section-V: Technical	Server04	Memory 3. 576	Modification : 1.	Modification : 1.	576 GB ECC	576 GB ECC	Request you to change	576 GB ECC	576 GB ECC	Modification : 1. 512 GB	Ref.
	Specifications, 11.		GB ECC RAM	512 GB ECC RAM	512 GB ECC RAM	RAM	RAM	memory expandable upto 4	RAM	RAM	ECC RAM expandable to	Corrigendum
	SERVER04		expandable to	expandable to 2TB	expandable to 2TB	expandable to	expandable to	TB @ 3200 MT/s & should	expandable to	expandable to	2TB using same DIMM	
			1TB, @ 2933	using same DIMM	using same DIMM	1TB, @ 3200	1TB, @ 3200	have min 16 DIMM slots for	1TB, @ 3200	1TB, @ 3200	type, @ 3200 MT/s,	
			MT/s, should	type, @ 3200 MT/s,	type, @ 3200 MT/s,	MT/s, server	MT/s, server	each socket.	MT/s, server	MT/s, server	should have min. 32	
			have min. 12	should have min.	should have min.	should support	should support	Reason:	should support	should support	DIMM slots	
			DIMM slots	32 DIMM slots	32 DIMM slots	min. 32 DIMM	min. 32 DIMM	In today's world all the x86	min. 32 DIMM	min. 32 DIMM	2. Memory should be	
			4. Memory	2. Memory should	2. Memory should	slots	slots	processors are with 8	slots 12	slots 12	supplied in balanced	
			should be	be supplied in	be supplied in	Justification	Justification	Memory channel and every	DIMM slots	DIMM slots	configuration using	
			supplied in	balanced	balanced	12 DIMM slots	12 DIMM slots	channel supports two	per processor	per processor	same DIMM Type.	
			balanced	configuration using	configuration using	per processor	per processor	memory DIMMs.	belongs to	belongs to	Justification : We	
			configuration.	same DIMM Type.	same DIMM Type.	belongs to	belongs to	Accordingly every processor	older	older	request CDAC to use	
				Justification : We	Justification : We	older	older	is capable to supports	processor	processor	same memory type	
				request CDAC to	request CDAC to	processor	processor	minimum 16 DIMM slots.	architecture	architecture	across DIMM in	
				use same memory	use same memory	architecture	architecture	In latest technology 256MB	while with	while with	Balanced memory	
				type across DIMM	type across DIMM	while with	while with	DDR4 LRDIMM is available	latest	latest	configuration to get best	
				in Balanced	in Balanced	latest	latest	with all the OEMs and	processor each	processor each	memory performance.	
				memory	memory	processor each	processor each	supported by all the x86	socket	socket	Having more DIMMs will	
				configuration to get	configuration to get	socket	socket	processor manufacturere.	supports upto	supports upto	ensure better reliability,	
				best memory	best memory	supports upto	supports upto	With this support each	16DIMM's	16DIMM's	performance and DIMM	
				performance.	performance.	16DIMM's	16DIMM's	processor is capable to	making a total	making a total	utilization using cost	
				Having more	Having more	making a total	making a total	support minimum 4TB	of 32DIMM's	of 32DIMM's	effective DIMM size	
				DIMMs will ensure	DIMMs will ensure	of 32DIMM's	of 32DIMM's	memory and with two	per Dual	per Dual		
				better reliability,	better reliability,	per Dual	per Dual	processors relevan server is	socket server.	socket server.		
				performance and	performance and	socket server.	socket server.	capable to support upto				
				DIMM utilization	DIMM utilization			8TB of memory.				
				using cost effective	using cost effective			This is the features which				
				DIMM size	DIMM size			will also enable to offer the				
								processors which support				
								current technologies.				

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL Revised	CISCO	Presto	SISL	Clarification
54	Section-V: Technical	Server04	2GB or higher Cache Memory.	4GB or higher Cache	As stipulated in the RFP			
	Specifications, 11. SERVER04			Memory. Justification	Memory. Justification	Memory. All	Memory. All	•
				All current generation	All current generation	current generation	current generation	
				Server OEM's offer 4GB				
				cache with their RAID				
				controller. 2GB cache	controller. 2GB cache	controller. 2GB cache	controller. 2GB cache	
				was provided with	was provided with	was provided with	was provided with	
				previous generation	previous generation	previous generation	previous generation	
				processor. Request to	processor. Request to	processor. Request to	processor. Request to	
				kindly update this point				
				for bidders to quote only				
				latest generation	latest generation	latest generation	latest generation	
				Servers.	Servers.	Servers.	Servers.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL Revised	CISCO	Presto	SISL	Clarification
55	Section-V: Technical	Server04	License for perpetual	License for perpetual /	License for perpetual /	License for perpetual /	License for perpetual /	All the Licenses quoted shall be
	Specifications, 11.		use for all supported	Subscription use for all supported	Subscription use for all supported	Subscription use for all	Subscription use for all	perpetual to use without any
	SERVER04		features	features Justification With	features Justification With	supported features	supported features	additional cost other than the cost
				different server vendors there can	different server vendors there can	With different server vendors	With different server	stated against license/subscription for
				be few management points which	be few management points which	there can be few management	vendors there can be few	3 Years Warranty.
				does not falls under perpetual	does not falls under perpetual	points which does not falls	management points which	
				License category. Request to	License category. Request to	under perpetual License	does not falls under	The Warranty for
				kindly update this point for wider	kindly update this point for wider	category. Request to kindly	perpetual License category.	License/Subscription will commence
				participation.	participation.	update this point for wider	Request to kindly update	after successful deployment and
						participation.	this point for wider	demonstration of complete solution
							participation.	and further to it acceptance by C-DAC

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
55	Section-V: Technical Specifications, 9. SERVER04	Server04	Supply shall include latest release of RHEL Operating System with support for mentioned no. of sockets and cores.	Please confirm if the RHEL Operating system to be supplied for all types of Servers i.e, Server 02, 03, 04 and 06 as per technical specifications.	As stipulated in the RFP
			2. The subscription / Licenses shall be valid for 03 Years with support for Un-Limited Virtual hosts with-in the physical server.	Also, please mention any other Operating system with license quantity required apart from Red Hat Operating system.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
55	Section-V: Technical Specifications, 9. SERVER04	Server04	Red Hat Enterprise Linux, Red Hat	In case Windows OS to be supplied by Bidder, please mention the edition of Windows Server OS with Software Assurance (SA) license type for DC, BCP and DR replications.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	L&T	Clarification
	General	Please confirm if the Server 02, 03, 04, 06 Qty and specs covers the workload of the below listed applications. In case of any additional servers required for management stack applications, please confirm on the same. If the proposed servers will host all below applications, please share the detailed hardware specifications with % of hardware resource specifications reserved for the below application wise for Bigdata and management stack applications. 1. BigData Application Suite Management stack apps:- 2. EMS 3. Cybersecurity components 4. SDN 5. VDI 6. Cloud Management and Automation 7. Kubernetes, Docker Engines, etc.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Clarification		
	Section-V: Technical Specifications Point	Server02	1. VMWare VCentre, Citrix XenServer, Hyper V	Server should be certified for VMware vCenter, vSphere virtualization		
	11, Sub-point 14. Virtualization Support			2. It should also support Industry leading hypervisors like Microsoft Hyper-V, Citrix XenServer		

SERVER-06 (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	AMD	Presto	SISL	VDA Infosolution	Clarification
56	Section-V:	Server06	Processor : 1.	Modification ,	Modification ,	Two Intel®	Two Intel®	Request to remove	Two Intel®	Two Intel®	Modification ,	Ref. Corrigendum
	Technical		Two Intel®	Processor : Two	Processor : Two Intel®	Xeon [®] Scalable	Xeon® Scalable	"Processor launch date	Xeon® Scalable	Xeon® Scalable	Processor : Two	
	Specifications, 12.		Xeon® Scalable	Intel® Xeon®	Xeon® Scalable or	or AMD Latest	or AMD Latest	shold not be earlier	or AMD Latest	or AMD Latest	Intel® Xeon®	
	SERVER06		or AMD 2nd	Scalable or AMD	AMD 3rd Gen	Gen	Gen	than 2021",	Gen	Gen	Scalable or AMD	
			Gen	3rd Gen	processors, configured	processors,	processors,	And suggest to	processors,	processors,	3rd Gen	
			processors,	processors,	2. 24 cores/processor	configured	configured	incorporate the the	configured	configured	processors,	
			configured	configured	@ 2.1 GHz base freq.	Justification	Justification	processor support	Request to ask	Request to ask	configured	
			2. 24	2. 24	or better.	Request to ask	Request to ask	memory @ 3200 MT/s	for latest	for latest	2. 24	
			cores/processor	cores/processor @	3. Spec Benchmark to	for latest	for latest	& PCIe Gen4.	generation	generation	cores/processor @	
			@ 2.1 GHz base	2.1 GHz base freq.	be published at	generation	generation	Reason: As AMD EPYC	processor	processor	2.1 GHz base freq.	
			freq. or better.	or better.	spec.org of proposed	processor	processor	introduced the latest	since Intel	since Intel	or better.	
			3. Processor	3. Spec	Server model with CPU	since Intel	since Intel	technologies in well	latest is 3rd	latest is 3rd	3. Spec Benchmark	
			launch date	Benchmark to be	at the time of bid	latest is 3rd	latest is 3rd	advance (2019) than	Generation	Generation	to be published at	
			should not be	published at	submission.	Generation	Generation	our nearest	and	and	spec.org of	
			earlier than	spec.org of	4. MII Compliant	and	and	competition.	specification	specification	proposed Server	
			2021).	proposed Server	server to be proposed.	specification	specification	a) 7 nanometer	also specify to	also specify to	model with CPU at	
				model with CPU at	Justification : We	also specify to	also specify to	liethography, while our	not propose	not propose	the time of bid	
				the time of bid	request CDAC to ask	not propose	not propose	competition is still on	processors	processors	submission.	
				submission.	for Latest generation	processors	processors	10 nm with their latest	launched	launched	4. MII Compliant	
				4. MII Compliant	processor for best	launched	launched	series of processors.	before 2021	before 2021	server to be	
				server to be	performance and	before 2021	before 2021	b) Support of memory	which can	which can	proposed.	
				proposed.	lifecycle of the product	which can	which can	speed upto 3200 MT/s	make current	make current	Justification : We	
				Justification : We	to be proposed for this	make current	make current	sec while with our	statement	statement	request CDAC to	
				request CDAC to	project.	statement	statement	competition is still on	confusing.	confusing.	ask for Latest	
				ask for Latest		confusingl	confusingl	2667 & 2933 MT/s for			generation	
				generation				their some of the			processor for best	
				processor for best				processors.			performance and	
				performance and				c) Support of PCIe Gen4			lifecycle of the	
				lifecycle of the				128 Lanes, while our			product to be	
				product to be				competition introduced			proposed for this	
				proposed for this				PCIe Gen4 by 2021 that			project.	
				project.				too with 64 Lanes.				
								d) AMD EPYC				
								processors are				
								desinged with higher				
								no L3 Cache, as AMD				
								EPYC are have L3 Cache				
1								upto 256 MB, while our				
								competion is still				
								around 38 or 48 MB L3				
								Cache.				

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	ECIL	cisco	L&T	НРЕ	Presto	SISL	VDA Infosolution	Clarification
56	Section-V: Technical	Server06	Hard Drive : 1. 2	Hard Drive 1. 2 x	10 x 7.6TB SSDs in	10 x 7.6TB SSDs in	Please update	As the	10 x 7.6TB SSDs in	10 x 7.6TB SSDs in	Hard Drive 1. 2 x	Ref. Corrigendum
	Specifications, 12.	00.10.00	x 900GB SSDs in	960GB SSDs in	RAID 6	RAID 6	the Server SSD	Industry	RAID 6	RAID 6	960GB SSDs in	Their corrigendum
	SERVER06		RAID1	RAID1	OR	OR	Size as " 15.36	standard SSD	OR	OR	RAID1	
	32.1172.1100		2. 8 x 10TB SSDs	2. 10 x 7.68 TB	8 x 10TB NL-SAS in	8 x 10TB NL-SAS in	TB" (OR)"	available is	8 x 10TB NL-SAS in	8 x 10TB NL-SAS in	2. 10 x 7.68 TB	
			in RAID 6.	SSDs in RAID 6.	RAID 6	RAID 6	7.68 TB" since	the capacity	RAID 6 Option1:	RAID 6 Option1:	SSDs in RAID 6.	
				Justification : We	Justification	Justification	10 TB SSD	of 7.68TB,	SSD's are either	SSD's are either	Justification : We	
				request CDAC to	Option1: SSD's are	Option1: SSD's are	drive is not	15.36TB SSD	available in 7.6TB	available in 7.6TB	request CDAC to	
				change the Disk	either available in	either available in	available in	, but the	capacity or 15.3TB	capacity or 15.3TB	change the Disk	
				Type and most	7.6TB capacity or	7.6TB capacity or	market for	asked 10TB is	capacity and there is	capacity and there	Type and most SSD	
				SSD disks comes	15.3TB capacity and		Servers.	not industry	no 10TB SSD form	is no 10TB SSD	disks comes in the	
				in the multiples of	there is no 10TB	and there is no		Standard, So	factor available in	form factor	multiples of	
				480/960GB and	SSD form factor	10TB SSD form		requesting to	the Hard Disk	available in the	480/960GB and	
				7.68 TB is best	available in the	factor available in		Change the	Industry. Request to	Hard Disk Industry.	7.68 TB is best price	
				price /	Hard Disk Industry.	the Hard Disk		Capacity	kindly update current	Request to kindly	/ performance SSD	
				performance	Request to kindly	Industry. Request		accordingly.	point for a nearby	update current	Disks in server	
				SSD Disks in	update current	to kindly update			Storage capacity.	point for a nearby		
				server	point for a nearby	current point for a				Storage capacity.		
					Storage capacity.	nearby Storage			Also 2x 7.6TB offers			
						capacity.			better TCO than 1x	Also 2x 7.6TB offers		
					Also 2x 7.6TB offers	, ,			15.3TB SSD for the	better TCO than 1x		
					better TCO than 1x	Also 2x 7.6TB offers			same capacity.	15.3TB SSD for the		
					15.3TB SSD for the	better TCO than 1x				same capacity.		
					same capacity.	15.3TB SSD for the			Option2: It is also			
						same capacity.			very likely that its a	Option2: It is also		
					Option2: It is also				Typo and drive type	very likely that its a		
					very likely that its a	Option2: It is also			required is NL-SAS	Typo and drive type		
					Typo and drive type	very likely that its a			and Not SSD.	required is NL-SAS		
					required is NL-SAS	Typo and drive type			Request to kindly	and Not SSD.		
					and Not SSD.	required is NL-SAS			confirm.	Request to kindly		
					Request to kindly	and Not SSD.				confirm.		
					confirm.	Request to kindly						
						confirm.						

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	DELL	INSPIRA	ECIL	CISCO	AMD	Presto	SISL	VDA Infosolution	Clarification
56	Section-V:	Server06	Memory 1. 768	Modification: . 1 TB	Modification:. 1 TB	768 GB ECC	768 GB ECC	Request you to change	768 GB ECC	768 GB ECC	Modification:. 1 TB	Ref.
	Technical		GB ECC RAM	ECC RAM expandable	ECC RAM expandable	RAM	RAM	memory expandable	RAM	RAM	ECC RAM expandable	Corrigendum
	Specifications, Page		expandable to	to 2TB using same	to 2TB using same	expandable to	expandable to	upto 4 TB @ 3200	expandable	expandable to	to 2TB using same	
	No. 56/144, 12.		2TB, @ 2933	DIMM type, @ 3200	DIMM type, @ 3200	2TB, @ 3200	2TB, @ 3200	MT/s & should have	to 2TB, @	2TB, @ 3200	DIMM type, @ 3200	
	SERVER06		MT/s, should	MT/s, should have	MT/s, should have	MT/s, server	MT/s, server	min 16 DIMM slots for	3200 MT/s,	MT/s, server	MT/s, should have	
			have min. 12	min. 32 DIMM slots	min. 32 DIMM slots	should support	should support	each socket.	server should	should support	min. 32 DIMM slots	
			DIMM slots	2. Memory should	2. Memory should be	min. 32 DIMM	min. 32 DIMM	Reason:	support min.	min. 32 DIMM	2. Memory should be	
			2. Memory	be supplied in	supplied in balanced	slots	slots	In today's world all the	32 DIMM	slots 12	supplied in balanced	
			should be	balanced	configuration using	Justification -	Justification -	x86 processors are	slots 12	DIMM slots per	configuration using	
			supplied in	configuration using	same DIMM Type.	12 DIMM slots	12 DIMM slots	with 8 Memory	DIMM slots	processor	same DIMM Type.	
			balanced	same DIMM Type.	Justification : We	per processor	per processor	channel and every	per	belongs to older	Justification : We	
			configuration.	Justification : We	request CDAC to use	belongs to	belongs to	channel supports two	processor	processor	request CDAC to use	
				request CDAC to use	same memory type	older processor	older processor	memory DIMMs.	belongs to	architecture	same memory type	
				same memory type	across DIMM in	architecture	architecture	Accordingly every	older	while with latest	across DIMM in	
				across DIMM in	Balanced memory	while with	while with	processor is capable to	processor	processor each	Balanced memory	
				Balanced memory	configuration to get	latest	latest	supports minimum 16	architecture	socket supports	configuration to get	
				configuration to get	best memory	processor each	processor each	DIMM slots.	while with	upto 16DIMM's	best memory	
				best memory	performance. Having	socket	socket	In latest technology	latest	making a total	performance. Having	
				performance. Having	more DIMMs will	supports upto	supports upto	256MB DDR4 LRDIMM	processor	of 32DIMM's	more DIMMs will	
				more DIMMs will	ensure better	16DIMM's	16DIMM's	is available with all the	each socket	per Dual socket	ensure better	
				ensure better	reliability,	making a total	making a total	OEMs and supported	supports	server.	reliability,	
				reliability,	performance and	of 32DIMM's	of 32DIMM's	by all the x86	upto		performance and	
				performance and	DIMM utilization	per Dual socket	per Dual socket	processor	16DIMM's		DIMM utilization using	
				DIMM utilization	using cost effective	server.	server.	manufacturere. With	making a		cost effective DIMM	
				using cost effective	DIMM size			this support each	total of		size	
				DIMM size				processor is capable to	32DIMM's			
								support minimum 4TB	per Dual			
								memory and with two	socket			
								processors relevan	server.			
								server is capable to				
								support upto 8TB of				
								memory.				
								This is the features				
								which will also enable				
								to offer the processors				
								which support current				
								technologies.				

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL	cisco	Presto	SISL	Clarification
56	Section-V: Technical	Server06	2GB or higher Cache	4GB or higher Cache	4GB or higher Cache	4GB or higher Cache	4GB or higher Cache	As stipulated in the RFP
	Specifications, 11. SERVER06		Memory.	Memory. Justification	Memory. Justification	Memory. All	Memory. All	
				All current generation	All current generation	current generation	current generation	
				Server OEM's offer 4GB				
				cache with their RAID				
				controller. 2GB cache	controller. 2GB cache	controller. 2GB cache	controller. 2GB cache	
				was provided with	was provided with	was provided with	was provided with	
				previous generation	previous generation	previous generation	previous generation	
				processor. Request to	processor. Request to	processor. Request to	processor. Request to	
				kindly update this point				
				for bidders to quote				
				only latest generation	only latest generation	only latest generation	only latest generation	
1				Servers.	Servers.	Servers.	Servers.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ECIL	CISCO	Presto	SISL	Clarification
57	Section-V: Technical	Server06	License for perpetual use	License for perpetual /	All the Licenses quoted shall be			
	Specifications, 11. SERVER06		for all supported features	Subscription use for all	perpetual to use without any			
				supported features	supported features	supported features	supported features	additional cost other than the cost
				Justification With	Justification With	With different server	With different server	stated against license/subscription
				different server vendors	different server vendors	vendors there can be	vendors there can be	for 3 Years Warranty.
				there can be few	there can be few	few management points	few management points	
				management points	management points	which does not falls	which does not falls	The Warranty for
				which does not falls	which does not falls	under perpetual License	under perpetual License	License/Subscription will commence
				under perpetual License	under perpetual License	category. Request to	category. Request to	after successful deployment and
				category. Request to	category. Request to	kindly update this point	kindly update this point	demonstration of complete solution
				kindly update this point	kindly update this point	for wider participation.	for wider participation.	and further to it acceptance by C-
				for wider participation.	for wider participation.			DAC

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
57	Section-V: Technical Specifications, 9. SERVER06	Server06	Supply shall include latest release of RHEL Operating System with support for mentioned no. of sockets and cores. The subscription / Licenses shall be valid for 03 Years with support for Un-Limited Virtual hosts with-in the physical server.	Please confirm if the RHEL Operating system to be supplied for all types of Servers i.e, Server 02, 03, 04 and 06 as per technical specifications. Also, please mention any other Operating system with license quantity required apart from Red Hat Operating system.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
57	Section-V: Technical Specifications, 9. SERVER06	Server06	Windows Server 2016 or latest, Ubuntu, Red Hat Enterprise Linux, Red Hat	In case Windows OS to be supplied by Bidder, please mention the edition of Windows Server OS with Software Assurance (SA) license type for DC, BCP and DR replications.	As stipulated in the RFP

ge RFP Clause No. / Section/Category	Item	L&T	Clarification
	General	Please confirm if the Server 02, 03, 04, 06 Qty and specs covers the workload of the below listed applications. In case of any additional servers required for management stack applications, please confirm on the same. If the proposed servers will host all below applications, please share the detailed hardware specifications with % of hardware resource specifications reserved for the below application wise for Bigdata and management stack applications. 1. BigData Application Suite Management stack apps:- 2. EMS 3. Cybersecurity components 4. SDN 5. VDI 6. Cloud Management and Automation 7. Kubernetes, Docker Engines, etc.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Clarification
	Section-V: Technical Specifications Point 12, Sub-point 14. Virtualization Support	Server02	1. VMWare VCentre, Citrix XenServer, Hyper V	Server should be certified for VMware vCenter, vSphere virtualization It should also support Industry leading hypervisors like Microsoft Hyper-V, Citrix XenServer

ANNEXURE-C (QUERIES, CLARIFICATION AND CORRIGENDUM)

Pg. no.	RFP Clause	RFP Ask	Presto	Justification	ECIL	Cisco	Clarification
133	ANNEXURE C – UNDERTAKING BY PRINCIPAL MANUFACTURER(S)	We also certify that the products offered are not nearing end-of-life / end-of-support five years down the line from the date of bidding.	Clarification	This clause is confusing and contrary with reference to RFP page 11, under 5. Eligibility Criteria where its mentioned "OEM / Bidder shall declare that, the quoted products should not be under end of life and that the end of support should be available for the next 5 years from the date of supply." This clause is OEM specific and would restrict participation from other OEMs Please remove the same so that other OEMs can also participate in the tender.	Clarification This clause is confusing and contrary with reference to RFP page 11, under 5. Eligibility Criteria where its mentioned "OEM / Bidder shall declare that, the quoted products should not be under end of life and that the end of support should be available for the next 5 years from the date of supply." This clause is OEM specific and would restrict participation from other OEMs Please remove the same so that other OEMs can also participate in the tender	Clarification This clause is confusing and contrary with reference to RFP page 11, under 5. Eligibility Criteria where its mentioned "OEM / Bidder shall declare that, the quoted products should not be under end of life and that the end of support should be available for the next 5 years from the date of supply." This clause is OEM specific and would restrict participation from other OEMs Please remove the same so that other OEMs can also participate in the tender	Annexure-C shall be submitted by OEM only.
133	ANNEXURE C – UNDERTAKING BY PRINCIPAL MANUFACTURER(S)	Within the scope of requirement as per the tender mentioned above, we undertake to provide technical & other support towards fulfilling the requirements of installation, commissioning, benchmarking, acceptance criteria and product warranty services of the components to be supplied and installed at the C-DAC Customer sites by M/s. (Name of bidder) against said tender.	Within the scope of requirement as per the tender mentioned above, we undertake to provide technically fulfilling the requirements and product warranty services of the components to be supplied and installed at the C-DAC Customer sites by M/s. (Name of bidder) against said tender.	Installation, commissioning, benchmarking, acceptance criteria to be part of bidder scope	Within the scope of requirement as per the tender mentioned above, we undertake to provide technically fulfilling the requirements and product warranty services of the components to be supplied and installed at the C-DAC Customer sites by M/s. (Name of bidder) against said tender. Installation, commissioning, benchmarking, acceptance criteria to be part of bidder scope	Within the scope of requirement as per the tender mentioned above, we undertake to provide technically fulfilling the requirements and product warranty services of the components to be supplied and installed at the C-DAC Customer sites by M/s. (Name of bidder) against said tender. Installation, commissioning, benchmarking, acceptance criteria to be part of bidder scope	As stipulated in the RFP

ANNEXURE-D (QUERIES, CLARIFICATION AND CORRIGENDUM)

page no.	RFP Clause	RFP Ask	INSPIRA	Clarification
137	PBG; Page No-137	The Bank guarantee will expire on (Min 37 months from the date of successful installations of the items in the order)	There is a discrepancy in the duration of PBG asked in the RFP. On page No-19 of the RFP PBG @3% of order value has been asked for 38 months from the date of final installation, testing, commissioning, integration, training and acceptance by CDAC. However, on Page No-137 it is mentioned that the BG should be validity for 37 months from the date of successful installations of the items in the order. Kindly confirm the validity period of the PBG.	Ref. Corrigendum

CATEGORY-II (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page No	RFP Clause No./Section/Category	RFP Ask	L&T	Clarification
	Category-II	All the network switches (Types) should be	Fabric Manager with qty shall be mentioned in BoQ	Ref. Corrigendum
77	Clause no. 1. Network switch specifications	from the same OEM and compatible with	since the details like Technical Specifications and	
//		the Fabric Manager.	Qty of Fabric Manager are not available in RFP.	

SECTION-I (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page. No	RFP Clause No./Section/Category	RFP Ask	HPE	Clarification
4	Section – I - Clause 5 (I) (d) (iii)	Bank Guarantee needs to be submitted as per the format prescribed by any Commercial Bank in India valid for at least 120 days from the last date of bid submission.	We request that the validity of the EMD BG be reduced to 30 days of bid submission as 120 days is quite high.	As stipulated in the RFP

Page. No	RFP Clause No./Section/Category	RFP Ask	PRESTO	Clarification
4	Section – I - Clause 5 (I) (d) (iv)	Bidder availing EMD exemption has to mandatorily submit EMD Undertaking. Further, other bidder may also submit EMD Declaration in lieu of above-mentioned EMD amount as per ANNEXURE G of this tender document.	The EMD Exemption criteria is not mentioned in the Bid Document. Please share the same along with EMD Undertaking format.	As stipulated in the RFP

Page. No	RFP Clause No./Section/Category	RFP Ask	HPE	Clarification
5	Section – I - Clause 5 (I) (j)	Declaration / Undertaking as per Annexure E & F needs to be submitted in compliance with the OMs & Orders (Public Procurement No.1) ref. F.No.6/18/2019-PPD dated 23.07.2020, Make In India Circular No. P- 45021/2/2017-PP(BE-II) of DPIIT, Make in India contents F. No. W-43/4/2019- IPHW of MeitY along with amendments thereof.	Request to allow Self Certification at the time of bidding & other statutory documents to be provided post L1 declaration.	As stipulated in the RFP

SECTION-II (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page	RFP Clause No. /	Item	RFP Ask	TCIL	ECIL	CISCO	Clarification
no.	Section/Category	iteiii	NFF ASK	TCIE	ECIL	CISCO	Clarification
	Section II, Clause 5 subclause 4	Instrcution	Work orders confirming year and Area of activity	It is understood that successful	You may change : Work orders confirming	You may change : Work orders confirming	Ref.
		to Bidders	and Certificate from the client indicating the	implemnttaion of DC & DR will	year and Area of activity and Certificate	year and Area of activity and Certificate from	Corrigendum
9		(ITB)	Satisfactory deployment of 3way storage	suffice against the said clause.	from the client indicating the Satisfactory	the client indicating the Satisfactory	
			replication across DC, NDR and DR.		deployment of DC, DR and Backup systems.	deployment of DC, DR and Backup systems.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	TCIL	AIPL	Mahindra	ECIL	CISCO	L&T	ITIL Limited	AIPL	Clarification
10	Section II, Clause 5 subclause 8	ITB	Established (existing) Support centre with more than 30 Professionals on roll (with at least 5 nos. of CCNA certified) at both Delhi and Bangalore together at the time of Bidding.	In contrast to the clause, clause 5 (I) of eligibility says the bidder must have service support center in New Delhi / NCR Delhi & Bangalore Region in order to comply with the necessary support and warranty terms (4hrs. response and NBD resolution). Bidder need to submit the declaration letter in this regard.	Bidder should have more than 30 Professionals on roll (with at least 5 nos. of CCNA certified) at the time of Bidding.	Bidder should have more than 30 Professionals on roll (with at least 5 nos. of CCNA certified) at the time of Bidding.	You may change: Will establish Support centre with more than 30 Professionals on roll (with at least 5 nos. of CCNA certified) at both Delhi and Bangalore within 3 months of receipt of firm order.	You may change: Will establish Support centre with more than 30 Professionals on roll (with at least 5 nos. of CCNA certified) at both Delhi and Bangalore within 3 months of receipt of firm order.	Established (existing) Support centre/Offices with more than 30 Professionals on roll (with at least 5 nos. of CCNA certified) at both Delhi and Bangalore together at the time of Bidding. Need to submit the proofs (like Appointment letter, PF records etc.) with full address details with SPOC towards the same. C-DAC may crosscheck the same.	The manpower with certification can be allowed to be met as a consortium	Bidder should have more than 30 Professionals on roll (with at least 5 nos. of CCNA certified) at the time of Bidding.	Ref. Corrigendum

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Presto	Clarification
10	Section II, Clause 5 subclause e			Please make the minimum average annual sales turnover to be Rs. 200 Crores for the last three financial years in the field of Information Technology	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	Mahindra	AIPL	НРЕ	Clarification
11	Section II, Clause 5 subclause I	ITB	The bidder must have service support center in New Delhi / NCR Delhi & Bangalore Region in order to comply with the necessary support and warranty terms (4hrs. response and NBD resolution). Bidder need to submit the declaration letter in this regard.	The bidder have to deploy technical manpower in New Delhi / NCR Delhi & Bangalore Region in order to comply with the necessary support and warranty terms (4hrs. response and NBD resolution). Bidder need to submit the declaration letter in this regard.	The bidder have to deploy technical manpower in New Delhi / NCR Delhi & Bangalore Region in order to comply with the necessary support and warranty terms (4hrs. response and NBD resolution). Bidder need to submit the declaration letter in this regard.	The bidder have to deploy technical manpower in New Delhi / NCR Delhi & Bangalore Region in order to comply with the necessary support and warranty terms (4hrs. response and NBD resolution). Bidder need to submit the declaration letter in this regard.	Please confrim what is the right resolution time to be considered . Assuming it is NBD and 48 hours is a typo	Ref. Corrigendum

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	НРЕ	Clarification
	Section II, Clause	ITB	installation, Integration and hands-	Since OEM professional services are asked in the RFP, there will be delay in	Bidder requests clarity on the scope of the intergrations and	As stipulated in the RFP
	3-traning		on training shall be carried out for	completion of the acitivities specified in this clause. Hence we request to modify	scope for individual components of the BOQ .	
			all the items under the scope of	the clause as:	Scope of Work is only mentioned for Network Fabric , WIPS ,	
8			supply as stated in 'Section-IV:	Installation, Integration and hands-on training shall be carried out for all the items	Firewall and WAF , NAC .	
			Scope of Supply & Services' within	under the scope of supply as stated in 'Section-IV: Scope of Supply & Services'	Is the bidder epxected to supply Virtualization software too.	
			02 weeks from date of receipt for	within 02 weeks 02 Months from date of receipt for the components at respective	Under the Server specs support for Virtualization is mentioned;	
			the components at respective sites.	sites.	is the bidder expected to deploy the same also	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	INSPIRA	ARISTA	L&T	НРЕ	Cache Technologies	Clarification
_	Section/Category	ITB	All the items covered in the Schedule of Requirements (Section – IV) must be supplied at site as per following: a) Category-I: within 120days from the date of placement of order. b) Category-II: within 180days from the date of placement of order.	AIPL Some of the products have very long delivery periods given the chip shortage in the industry. Considering the same please increase the delivery period from 180days to 365days. Due to industry wide chipset shortage issues in the networking industry the delivery lead times are high. Hence request you to modify the clause as " b) Category-II: within 365 days from the date of placement of order "	As you are aware that due to the global shortage of semi-conductors delivery of hardware are getting delayed. Hence, we request you to kindly amend this clause as: a) Category-I: within 180days from the date of placement of order. b) Category-II: within 240days from the date of placement of order.	ARISTA Some of the products have very long delivery periods given the chip shortage in the industry. Considering the same please increase the delivery period from 180days to 365days. Due to industry wide chipset shortage issues in the networking industry the delivery lead times are high. Hence request you to modify the clause as " b) Category-II: within 365 days from the date of placement of order "	Considering the global chip, semiconductor shortage due to prevailing pandemic situation, we request to modify the clause as: All the items covered in the Schedule of Requirements (Section – IV) must be supplied at site as per following: a) Category-I: within 180 days from the date of placement of order. b) Category-II: within 240 days from the date of placement of order. (or) For both category I and II, within 240 days from the date of placement of order.	Request CDAC to clarify the Implementation timelines, it is not mentioned under Acceptance Criteria section in the RFP?		Ref. Corrigendum

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	ITIL Limited	Clarification
8	Section II, Clause 5 subclause 2	ITB	b.Should have submitted a EMD of Rs. 1 crore only	ITI being a Central PSU may be exempted from submission of EMD	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	NEC	L&T	ITIL Limited	Presto	Clarification
	Section II, Clause	ITB	The Firm / Company should be	We request to amend the clause to	The Firm / Company should be in the business as	ITI is a central PSU under	Please change it to	Ref.
	subclause b		in the business as a vendor for	The Firm / Company should be in the business as	a vendor /OEM for supply, installation,	Ministry of Communication & IT.	the previous	Corrigendum
			supply, installation, integration,	a vendor for supply, installation, integration,	integration, commissioning and testing of	ITI has set up tier 3 data center	experience in	
			commissioning and testing of	commissioning and testing of Servers, Storages,	Servers, Storages, Backup and Tape Libraries etc.	and doing commercial operation	Deployment and	
			Servers, Storages, Backup and	Backup and Tape Libraries etc. for at least	for at least 3 years as of 31st March 2022.	with Managed Services. The	Configuration of DC,	
			Tape Libraries etc. for at least	3years as of 31st March 2022. Bidder shall share	Bidder/OEM shall share the details of previous	tender experince may be	DR, Backup	
			3years as of 31st March 2022.	the details of previous experience in	experience in deployment and configuration of	allowed to be met by ITI's	replication during	
9			Bidder shall share the details of	deployment and configuration of DC, Near DR	DC, Near DR and DR Storage replication during	experince with inhouse data	the last 7 Years.	
			previous experience in	and DR Storage replication during the last three	the last three years.	center used for commercial	Also in the required	
			deployment and configuration	five years.		operations. The project under	documents to	
			of DC, Near DR and DR Storage		Work orders confirming year and Area of activity	implementation may also be	prorovided to be	
			replication during the last three	Work orders confirming year and Area of activity	and Certificate from the client indicating the	allowed to meet the required	from the last seven	
			years.	and Certificate from the client indicating the	Satisfactory deployment of 3 way storage	experince The	years for deployment	
				Satisfactory deployment of 3way storage	replication across DC, NDR and DR.	eligibility may be allowed to be	of DC, DR, and	
				replication across DC, NDR and DR.		met as a consortium	Backup.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	NEC	L&T	Presto	Clarification
10	Section II, Clause 5 subclause 4	ITB	Bidder need to submit the PO copies (during the last 5 years) as mentioned below showcasing the supply of IT Hardware and IT Software items as part of establishing of DC and DR. Bidder need to provide the successful completion certificate towards the same. i. Single Purchase order with value of 200 Crores. OR ii. Two Purchase orders with 125 Crores each OR iii. Three Purchase orders with 90 Crores each.	We request to amend the clause to Bidder need to submit the PO copies (during the last 7 -5 years) as mentioned below showcasing the supply of IT Hardware IT Software items and establishing of DC and DR Data Center. Bidder need to provide the successful completion certificate towards the same. i. Single Purchase order with value of 200 180 Crores. OR ii. Two Purchase orders with 125 110 Crores each OR iii. Three Purchase orders with 90 80 Crores each.	Bidder need to submit the PO copies (during the last 7 years 5 years) as mentioned below showcasing the supply SITC of IT Hardware and IT Software items including DC/DR, as part of establishing of DC and DR. Bidder need to provide the successful completion certificate towards the same. i. Single Purchase order with value of 200 Crores. OR ii. Two Purchase orders with 125 Crores each OR iii. Three Purchase orders with 90 Crores each. Note: Considering the pandemic situations prevailed during last 2 FY years 2020 and 2021, there was delay in getting the orders & execution of the same. Hence, we request to consider 7 years instead of 5 years implementation.	Please amend it as: Bidder need to submit the PO copies (during the last 7 years) as mentioned below showcasing the supply of IT Hardware and IT Software items as part of establishing of DC and DR. Bidder need to provide the successful completion certificate towards the same. i. Single Purchase order with value of 125 Crores. OR ii. TwoPurchaseorderswith 100 CroreseachOR iii. Three Purchase orders with 75 Crores each.	Ref. Corrigendum

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Presto	Clarification
10	Section II, Clause 4 subclause n	1	OEM / Bidder shall declare that, the quoted products should not be under end of life and that the end of support should be available for the next 5 years from the date of supply	Clarification	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
10	Section II, Clause 5 subclause b	ITB	Only the principal manufacturers or their authorised System Integrators are allowed to bid for the items as	Request deletion of this clause.	Ref. Corrigendum
10			mentioned in the tender document, both are not allowed to bid simultaneously.		

Page	RFP Clause No. /	Item	RFP Ask	HPE	Clarification
no.	Section/Category				
12	Section II, Clause 6 subclause b	ITB	Only "Class-I local supplier" having minimum 50% local content and "Class-II local supplier" having minimum 20% local content for the overall solution, shall be eligible to bid in this procurement.	We request to reduce the capping to 10% instead of current 20% for class II supplier category.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
13	Section II, Clause 12	ITB		We request that the validity of the bid be reduced to 60 days from 365 days as the bid prices are dynamic and are subject to change.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	Clarification
110.	ADD a cluase		Additional	Kindly note as per scope of work given in the RFP is quite complex in nature. We will be grateful if Consortium may kindly be allowed to participate in the above-	As stipulated in the RFP
			clause	mentioned tender. We suggest you please add the below clauses related to Consortium: "The bidder must be a registered company or private entity or government owned entity or Consortium. The Prime and Non-prime Bidder of the Consortium has to be an Indian Company. The consortium comprises Max 2 companies (1 prime Bidder and 1 non-prime member).	

SECTION-III (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page No	RFP Clause No./Section/Category	RFP Ask	L&T	Clarification
16	•	Bidder must indicate applicable GST separately. The bidder should exercise utmost care to quote the correct percentage of applicable GST on each item.	We understand during the contract period, if there is variation in current prevailing GST rate or new taxes/levies imposed, the same shall be bear by the CDAC. Please confirm.	As stipulated in the RFP

Page No	RFP Clause No./Section/Category	RFP Ask	HPE	Clarification
16	Section: Section- III: Special Conditions of Contract (SCC), Clause No-9. Payments:		We request the addition of a provision that all payments will be made within 30 days from the date of raising of the invoice by the bidder.	As stipulated in the RFP

Page No	RFP Clause No./Section/Category	RFP Ask	НРЕ	Clarification
	Section: Section- III: Clause 1	C-DAC reserves all the rights to procure full / partial list of components from the L1 bidder. In case of staggered	Bidder request to clarify that price shall be	As stipulated in the RFP
16		procurement, C-DAC may place an order for minimum 50% of the quantity of any /all items. Bidder shall supply the same equipment (Make & Model) as per the cost mentioned in the bid.	renegotiated if the variation is beyond +/- 25% of the original quantity.	

Page No	RFP Clause No./Section/Category	RFP Ask	INSPIRA	L&T	Presto	HPE	Clarification
	Section: Section- III: Special	a. No advance payment will be	Since, bidder has to make upfront	b. 50% 70% payment shall be released on	Please amend it as:	Bidder request the	Ref.
	Conditions of Contract (SCC), Clause	made.	payment to OEM and successful	pro-rata basis after supply and	a. No advance payment will be	following.	Corrigendum
	No-9. Payments:	b. 50% payment shall be released	bidder has to submit a PBG @3% of	acceptance of all the items by CDAC,	made.	1. Modify the payment	
		only after supply and acceptance	order value.	under respective category. No part	b. 70% payment shall be	milestones to - 70% on	
		of all the items by CDAC, under	Hence, we request you to kindly	payment shall be released in case of short	released only after supply and	delivery, 20 % on	
		respective category. No part	amend the payment terms as:	shipment from the respective category.	acceptance of all the items by	completion of	
		payment shall be released in case	a. 75% payment shall be released		CDAC, under respective	installation and other	
		of short shipment from the	only after supply and acceptance of	c. 40% 20% of the Payment will be	category. No part payment shall	related deliverables and	
		respective category.	all the items by CDAC, under	released on pro-rata basis upon	be released in case of short	10% on submission of	
		c. 40% of the Payment will be	respective category. No part	installation / commissioning, integration,	shipment from the respective	PBG.	
		released upon installation /	payment shall be released in case of	training, testing, demonstration of DC,	category.	2. Please clarify that the	
		commissioning, integration,	short shipment from the respective	Near DR, DR replication & failover etc. as	c. 20% of the Payment will be	payment for all the 3	
		training, testing, demonstration	category.	stipulated in Section – IV: Scope of Supply	released upon installation /	milestones (delivery,	
19		of DC, Near DR, DR replication &	b. 15% of the Payment will be	and Services	commissioning, integration,	installation and the	
19		failover etc. as stipulated in	released upon installation /		training, testing, demonstration	balance 10%) will be	
		Section – IV: Scope of Supply and	commissioning, integration, training,	d. Balance 10% payment shall be released	of DC, Near DR, DR replication &	made based on the date	
		Services	testing, demonstration of DC, Near	after submission of PBG (valuing 3% of	failover etc. as stipulated in	of completion of	
		d. Balance 10% payment shall be	DR, DR replication & failover etc. as	order value) covering the warranty period	Section – IV: Scope of Supply	respective milestones	
		released after submission of PBG	stipulated in Section – IV: Scope of	of 38 months from the date of final	and Services	separately for each	
		(valuing 3% of order value)	Supply and Services	installation, testing, commissioning,	d. Balance 100% payment shall	category (category 1 and	
		covering the warranty period of	c. Balance 10% payment shall be	integration, training and acceptance by	be released after submission of	2) and location (DC,IDC	
		38 months from the date of final	released after submission of PBG	CDAC.	PBG (valuing 3% of order value)	and DR) without any	
		installation, testing,	(valuing 3% of order value) covering		covering the warranty period of	interdependency	
		commissioning, integration,	the warranty period of 38 months	e. C-DAC reserves the rights to confiscate	38 months from the date of final	between each other.	
		training and acceptance by CDAC.	from the date of final installation,	PBG amount if the bidder is not adhering	installation, testing,		
			testing, commissioning, integration,	to the support matrix of 4 hrs. response	commissioning, integration,		
			training and acceptance by CDAC.	time and Next Business Day (NBD)	training and acceptance by		
				complaint resolution.	CDAC.		

Page No	RFP Clause No./Section/Category	RFP Ask	INSPIRA	HPE	Clarification
Page No	Section: Section-III: Special Conditions of Contract (SCC); Clause No-10	After having been notified of the defects/service requirement during the warranty period, seller has to complete the required service/rectification within the next business day (NBD). If the seller fails to complete the service/rectification within the defined time limit, a penalty of 0.5% of the unit price of the product shall be charged as penalty for each week of delay by the seller. Seller can deposit the penalty with the buyer directly else the buyer shall have the right to recover all such penalty amount from the PBG. Cumulative penalty cannot exceed more than 10% of the contract value after which the buyer shall have the right to get the service/rectification done from alternate sources at the risk and cost of the seller besides the forfeiture of the PBG. Seller shall be liable to	We request you to kindly amend this clause as: After having been notified of the defects/service requirement during the warranty period, seller has to complete the required service/rectification within the next business day (NBD). If the seller fails to complete the service/rectification within the defined time limit, a penalty of 0.5% of the unit price of the product shall be charged as penalty for each week of delay by the seller. Seller can deposit the penalty with the buyer directly else the buyer shall have the right to recover all such penalty amount from the PBG. Cumulative penalty cannot exceed more than 5% of the contract value after which the buyer shall have the right to get the service/rectification done from alternate sources at the risk and cost of the seller besides the forfeiture of the PBG. Seller shall be liable to reimburse the cost of such	Bidder request the following. 1. Modify the payment milestones to - 70% on delivery, 20 % on completion of installation and other related deliverables and 10% on submission of PBG. 2. Please clarify that the payment for all the 3 milestones (delivery, installation and the balance 10%) will be made based on the date of completion of respective milestones separately for each category (category 1 and 2) and location (DC,IDC and DR) without	Clarification As stipulated in the RFP

Page No	RFP Clause No./Section/Category	RFP Ask	ARISTA	НРЕ	Clarification
	Section- III: Special Conditions of	All the Licenses quoted shall	Multiple OEMs support subscription based licensing only. As	Bidder requests for changing this to Subscription based	All the Licenses quoted shall be
	Contract (SCC)	be perpetual.	the requirement is that the product should continue to work	with a tenure of minimum 4 years (3 years as per RFP	perpetual. However in case of
	1. Award , 3. Software Licenses		even after the expiry of the support period, as there could be	ask) and additional 1 year (to cover implementation and	subscription based Licenses, the License /
17			delays in support renewals. The clause may be changed as	stabilzation period and possibilirty of delay at renewal	subscription shall valid for 3 yrs. which is
17			mentioned below.	time)	the RFP mentioned warranty period. Ref.
					RFP document pg. no. 18, Section 7:
			"All the Licenses quoted shall be perpetual or should be loaded		Warranty, sub point v
			for 5 yrs. of subscription upfront"		

Page N	o RFP Clause No./Section/Category	RFP Ask	L&T	Clarification
18	Contract (SCC) 7. Warranty.vii	Bidder and OEM should ensure 4 hours' response time and resolution time of within 48 hrs. from the time of call logging covering all parts & labour starting from the date after the successful installation, during the warranty period covering all parts & labour.	Kindly provide a "Detailed SLA terms with applicable	Bidder and OEM should ensure 4 hours' response time and NBD resolution from the time of call logging covering all parts & labour starting from the date after the successful installation, during the warranty period covering all parts & labour.

Page No	RFP Clause No./Section/Category	Item	TCS	HPE	Clarification
	Section- III: Special Conditions of	7. Warranty: v. The warranty period shall start from	Since solution acceptance date for solution is not	Since solution acceptance date for solution is not	As stipulated in the RFP
10	Contract (SCC)-Page 18	the date of demonstration of final solution and	defined in this clause. We are requesting you to	defined in this clause. We are requesting you to	
18		acceptance by CDAC.	provision warranty start date based on supply date	provision warranty start date based on supply	
			of equipment of hardware and software.	date of equipment of hardware and software.	

Page No	RFP Clause No./Section/Category	Item	TCS	НРЕ	Clarification
18	Section- III: Special Conditions of Contract (SCC)-Page 18	7. Warranty: x. In case of fault arising in any hardware containing inbuilt memory, hard disk, or similar storage media, the said faulty hardware will not be allowed to be taken back from the C-DAC Customer premises. New hardware in place of faulty hardware will have to be provided by the supplier, without taking away the faulty hardware.	As per practice during warranty period any failed hardware device is collected by OEM after replacement. In case degaussing technic is used for destroying data on disk or magnetic tape then such device can be collectible by OEM service provider. Also degaussing of device having data should be responsibility of customer.	As per practice during warranty period any failed hardware device is collected by OEM after replacement. In case degaussing technic is used for destroying data on disk or magnetic tape then such device can be collectible by OEM service provider. Also degaussing of device having data should be responsibility of customer.	As stipulated in the RFP

Page No	RFP Clause No./Section/Category	Item	TCS	HPE	Clarification
	Section- III: Special Conditions of Contract (SCC)-Page 19	9. Payments: b. 50% payment shall be released only after supply and acceptance of all the items by CDAC, under respective category. No part payment shall be released in case of short shipment from the	supply of items. Acceptance due to any	50% Payment shall be released after supply of items. Acceptance due to any other reasons beyond control of the bidder is not	As stipulated in the RFP
19		respective category.	bidder is not the responsibilty of bidder.	the responsibilty of bidder. Request to modify payment clause.	

Page No	RFP Clause No./Section/Category	Item	TCS	HPE	Clarification
	Section- III: Special Conditions of	9. Payments: 40% of the Payment will be released upon installation /	Payment should not be held due to any	Payment should not be held due to any	Ref. Corrigendum
	Contract (SCC)-Page 19	commissioning, integration, training, testing, demonstration of DC,	other requirement, pre-requisite or	other requirement, pre-requisite or	
		Near DR, DR replication & failover etc. as stipulated in Section – IV:	dependency which is not covered in this	dependency which is not covered in this	
19		Scope of Supply and Services	contract or not in our sow which can	contract or not in our sow which can affect	
			affect the commissioning,	the commissioning, demonstration of items	
			demonstration of items to be delivered	to be delivered under supply and services	
			under supply and services		

Page No	RFP Clause No./Section/Category	RFP Ask	ARISTA	Clarification
	Section- III: Special Conditions of	C-DAC may consider relaxing the penalty and delivery requirements, as specified in	C-DAC may consider relaxing the penalty and delivery requirements, as	As stipulated in the RFP
	Contract (SCC)	this document, if and to the extent that, the delay in performance or other failure to	specified in this document, if and to the extent that, the delay in	
	14. Force Majeure	perform its obligations under the contract is the result of an Force Majeure. Force	performance or other failure to perform its obligations under the contract	
		Majeure is defined as an event of effect that cannot reasonably be anticipated such	is the result of an Force Majeure. Force Majeure is defined as an event of	
20		as acts of God (like earthquakes, floods, storms etc.), acts of states / state agencies,	effect that cannot reasonably be anticipated such as acts of God (like	
20		the direct and indirect consequences of wars (declared or SIITC of IT equipment at	earthquakes, floods, storms etc.), acts of states / state agencies, the direct	
		New Delhi and Bengaluru along with Training & Support (CDACP/AG22-IT/22-23/356)	and indirect consequences of wars (declared or undeclared), hostilities,	
		Page 21 of 144 undeclared), hostilities, national emergencies, civil commotion and	national emergencies, pandemic/epidemic, civil commotion and strikes at	
		strikes at successful Bidder's premises or any other act beyond control of the bidder.	successful Bidder's premises or any other act beyond control of the	
			bidder.	

Page No	RFP Clause No./Section/Category	RFP Ask	TCS	Clarification
	Section III/ Page No 21	17. Limitation of Liability:	Request you to modify the clasue to:	As stipulated in the RFP
		The liability of the Bidder / Contractor arising out of	Neither party shall be liable to the other for any special, indirect, incidental, consequential (including loss of	
		breach of any terms/conditions of the tender /	profit, or revenue, loss of data, loss of goodwill), exemplary or punitive damages whether in contract, tort	
		contract/work order and addendums/amendments	or other theories of law, even if such party has been advised of the possibility of such damages.	
21		thereto, misconduct, wilful default will be limited to the	The total cumulative liability of either party arising from or relating to this Agreement shall not exceed the	
		total order value. However, liability of the bidder in case	total amount paid to Bidder by the BUYER in the preceding twelve months under that applicable work that	
		of breach of any relevant Law/ Act, injury, damage	gives rise to such liability (as of the date the liability arose); provided, however, that this limitation shall not	
		caused to the personnel/property for any reasons	apply to any liability for damages arising from (a) willful misconduct or (b) indemnification against third	
		attributed to the bidder, will be at actuals.	party claims for infringement.	

Page No	RFP Clause No./Section/Category	RFP Ask	HPE	Clarification
20		C-DAC reserves the right to levy penalty @ of 0.5% of order value per week of delay beyond the scheduled deliveries / execution of the order successfully (which includes installation, configuration, DC-DR replication), subject to maximum of 5% of the order value.	We request that the maximum penalty amount under this clause be capped to 3% of the order value.	As stipulated in the RFP

Page No	RFP Clause No./Section/Categ ory	RFP Ask	НРЕ	Clarification
22	Section- III: Clause 19	costs, damages, expenses, action suits and other proceeding, resulting from/arising out of: a. infringement of any law pertaining to intellectual property, patent, trademarks, copyrights, safety and security etc. by the bidder or	We request that the bidder be required to indemnify under sub-clauses (a) and (b) only if there is a third party claims as indemnity is restricted to only third party claims. We request the deletion of sub-clause [c] as the same is not a third party claim but a claim for damages.	As stipulated in the RFP
		b. such other statutory infringements in respect of any item supplied by successful bidder, or c. any act/omission/performance/under or non or part performance/failure of the bidder.	Further, we request that the bidder be entitled to defend and settle any indemnification claim under the RFP subject to prompt notification and cooperation from C-DAC.	

SECTION-IV (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
24	Section IV, Clause 1, subclause a	services	Underlay and should provide a rich networking Overlay (both	Please clarify if the Bidder has to support for the platform services like Cloud, OS, DB deployment post award of Bid whereas the application and database installation, configuration and troubleshooting, fine tuning, etc will be under the scope of C-DAC Application Owners.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
24	Section IV, Clause 1, subclause a	Scope of supply and services	C-DAC is undertaking a greenfield and turnkey project to build a suite of Big Data enterprise Applications, each of which is to be built over a secure, flexible, configurable through network that has multiple attributes of support for the latest networking protocols, continuous visibility and monitoring, policy driven centralized orchestration and management, and the ability to fully abstract the networking capabilities from the platform services and applications overlaid on top.	Kindly confirm if the centralized orchestration and management is meant for SDN alone (OR) meant for both SDN and Private Enterprise Cloud management.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	НРЕ	Arista	INSPIRA	L&T	Cache Technologies	Clarification
	Section IV, Clause	Scope of	DC and BCP sites	400G in multi-Mode is not	400G in multi-Mode is not	400G in multi-Mode is	400G in multi-Mode is	As per our	400G in multi-Mode is	Ref. Corrigendum
	1, subclause b	supply	are approx. 100Mtr	recommended for the	recommended for the	not recommended for	not recommended for	understanding, This	not recommended for	
		and	apart and existing	requirement. Humbly	requirement as high	the requirement.	the requirement.	existing "dark fiber" will	the requirement.	
		services	Dark Fibre cable	requesting to provision	number of cores are	Humbly requesting to	Humbly requesting to	be used for	Humbly requesting to	
			(OM4) will be used	SM fiber or Please allow	required . Bidder hence	provision SM fiber or Please allow the	provision SM fiber or	synchronization	provision SM fiber or Please allow the	
			to connect the two	the bidder option to	humby requests to		Please allow the	between DC and BCP		
			sites directly with	provision 400G on SM or	provision SM fiber or	bidder option to	bidder option to	site. DR site will Sync	bidder option to	
			multiple 400G links	on MM with the required	Please allow the bidder	provision 400G on SM or on MM with the	provision 400G on SM or on MM with the	over MPLS and Internet	provision 400G on SM or on MM with the	
				laying of the cable. The clause modification is	option to provision 400G on SM or on MM with the	required laying of the		link for their respective Network fabric. Kindly		
				suggested as below:	required laying of the	cable. The clause	required laying of the cable. The clause	confirm the same.	required laying of the cable. The clause	
				suggested as below.	cable. The clause	modification is	modification is	Committe same.	modification is	
				"b. DC and BCP sites are	modification is suggested	suggested as below:	suggested as below:		suggested as below:	
				approx. 100Mtr apart and	as below:	Suggested as below.	Suggested as below.		Suggested as below.	
				existing Dark Fibre cable	as selow.	"b. DC and BCP sites	"b. DC and BCP sites		"b. DC and BCP sites	
				(OM4) may be used to	"b. DC and BCP sites are	are approx. 100Mtr	are approx. 100Mtr		are approx. 100Mtr	
24				connect the two sites	approx. 100Mtr apart and	apart and existing	apart and existing		apart and existing	
				directly with multiple	existing Dark Fibre cable	Dark Fibre cable	Dark Fibre cable		Dark Fibre cable	
				400G links. Bidder may	(OM4) may be used to	(OM4) may be used to	(OM4) may be used to		(OM4) may be used to	
				also lay new fiber	connect the two sites	connect the two sites	connect the two sites		connect the two sites	
				(SM/MM) if required for	directly with multiple 400G	directly with multiple	directly with multiple		directly with multiple	
				the solution"	links. Bidder may also lay	400G links. Bidder may	400G links. Bidder may		400G links. Bidder may	
					new fiber (SM/MM) if	also lay new fiber	also lay new fiber		also lay new fiber	
				OR	required for the solution"	(SM/MM) if required	(SM/MM) if required		(SM/MM) if required	
						for the solution"	for the solution"		for the solution"	
				"DC and BCP sites are	OR					
				approx. 100Mtr apart and		OR	OR		OR	
				New fiber will be laid by	"DC and BCP sites are					
				CDAC which will be used	approx. 100Mtr apart and	"DC and BCP sites are	"DC and BCP sites are		"DC and BCP sites are	
				to connect the two sites	New fiber will be laid by	approx. 100Mtr apart	approx. 100Mtr apart		approx. 100Mtr apart	
				directly with multiple	CDAC which will be used to	and New fiber will be	and New fiber will be		and New fiber will be	
				400G links."	connect the two sites	laid by CDAC which	laid by CDAC which		laid by CDAC which	

	40 cores will be consumed direct	will be used to connect the two sites ectly with multiple OG links." will be used to connect the two sites directly with multiple 400G links."	will be used to connect the two sites directly with multiple 400G links."
--	----------------------------------	---	---

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	PRESTO		Clarification
24	Section IV, Clause 1, subclause b	Scope of supply and services	The WAN connectivity is provided by external Communication Service Providers (CSPs) using dedicated MPLS links and SDWAN links while the LAN at all locations is to be designed, engineered, and operated by C-DAC.	As per our understanding, MPLS and SDWAN infra will be provided by CSP (Communication system provider) and will be in scope of Employer (CDAC). Please confirm the same.	Clarification	Do CDAC or NATGRID already have SD-WAN solution already in place. Kindly confirm.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	L&T	Clarification
24	Section IV, Clause 1, subclause c		Apart from the locations mentioned above, the solution will connect to a number of Data Nodes at various locations as the source of data for the big data applications.	scope of the integrations and scope for for the VDI and Branch	As per our understanding, these data nodes located at various locations will connect via public internet. For System Integrator there will be no scope of work for these remote node sites. Kindly confirm the same.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Clarification
	Section IV, Clause 1, subclause d	Scope of supply	The network should support the Applications to have full Data Isolation and a high degree of	Request to clarify VMWARE ESXI	As stipulated in the RFP
		and services	Data Autonomy. The applications will utilize a virtualized layer of compute and storage using	Virtualization support required for day-1	
			the hypervisor and container and storage virtualization architectures from all leading OEMs,	with future integration required for	
24			specifically VMWare, Microsoft, Citrix, Red Hat, and Oracle. Containerization using Docker,	Microsoft, Citrix, Red Hat, and Oracle	
24			Kubernetes, and equivalent technologies should be fully supported. The Overlay networks	platforms.	
			should provide the capabilities for segmentation required to ensure Service Isolation and		
			Service Autonomy of each of the common platform services like Authentication, Authorization,		
			Certificate Management, Secrets Management, API Management, etc.		

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
25	Section IV, Clause 1, subclause d	Scope of supply and services	and equivalent technologies should be fully	In case Bidder requires to supply the Containerization licenses, please confirm if the Bidder needs to provide container licenses on baremetal or Virtualized host along with license quantity in order to factor the environment.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	L&T	Clarification
25	Section IV, Clause 1, subclause f	Scope of supply and services	The totality of the Compute and Storage resources, except specific components deliberately operated in bare metal configurations, are to be virtualized using a variety of virtualization software from prominent OEMS like Microsoft, VMWare, Red Hat, Oracle etc. and to be managed centrally for creation of VMs, Containers and related virtualized computing objects. It should be possible to use the underlying hardware and firmware in a manner that is agnostic of the virtualization software that may be used.	Bidder requests clarity on the scope also please clarify whether Bidder has to supply and EMS software. If so kindly share the specifications for the same. If not kindly share the details of the EMS software used to check on the compatibility	Please clarify if the virtualization software to be supplied along with server hardware. In case required, please include the virtualization and containerization with license quantity to the BoQ line items.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
25	Section IV, Clause 1, subclause d	Scope of supply and services	d. The network should support the Applications to have full Data Isolation and a high degree of Data Autonomy. The applications will utilize a virtualized layer of compute and storage using the hypervisor and container and storage virtualization architectures from all leading OEMs, specifically VMWare, Microsoft, Citrix, Red Hat, and Oracle.	Request to clarify VMWARE ESXI Virtualization support required for day-1 with future integration required for Microsoft, Citrix, Red Hat, and Oracle platforms.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
27	Section IV, Clause 2, subclause c	Scope of supply and services	All networking nodes/appliances will be required to operate with Active-Active HA configurations. The design should support 100G uplinks from Compute leaf to Spine Switches with equal number of links forming full mesh from leaf to each spine. The design will support Out of Band network management across all data center sites. Seamless movement of workloads between the data SIITC of IT equipment at New Delhi and Bengaluru along with Training & Support (CDACP/AG22-IT/22-23/356) Page 27 of 144 center sites is to be ensured. 400G connectivity will be designed and engineered between Spines in the same campus.	Spine to Spine Switch direct 400G connectivity not recommended for Industry Standard Leaf-Spine architecture and DC to other near line DC connectivity recommended with N x 100G Border Leaf switch for data Center service continuity based on across DC throughput required. Requested Changes: 400G or N x 100G connectivity will be designed and engineered between Spines or fabric Border Leaf in the same campus	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
27	Section IV, Clause 3, subclause a		The solution will have two NGFW deployed in HA in DC, BCP and DR for each of the MPLS and Internet segments. These two clusters (Cluster-1 and Cluster2) of NGFW will form single cluster between DC and BCP and state will be in sync across them for load balancing, and asymmetric routing between DC and BCP.	Kindly provide the Network – Security Architecture integration across DC, BCP and DR Sites as per scope of RFP asks	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	НРЕ	Arista	INSPIRA	Cache Technologies	IValue info solution Private Limited	Clarificat ion
	Section IV, Clause 5,	Scope of	Bidder shall	Different OEMs have	Different OEMs have	Different OEMs have	Different OEMs have	Different OEMs have		
	subclause d	supply	showcase the	different ways of	different ways of	different ways of	different ways of	different ways of	Different OEMs have	
		and	appropriate	managing customer	managing customer	managing customer	managing customer	managing customer	different ways of	
		services	licenses (on the	licenses and may not	licenses and may not	licenses and may not	licenses and may not	licenses and may not	managing customer	
			respective OEM	show the licenses on their	show the licenses on their	show the licenses on	show the licenses on	show the licenses on	licenses and may not	
			site) mentioned in	website. So please modify	website. So please modify	their website. So please	their website. So please	their website. So please	show the licenses on their	
			the RFP.	the clause as mentioned	the clause as mentioned	modify the clause as	modify the clause as	modify the clause as	website. So please modify	
28				below:	below:	mentioned below:	mentioned below:	mentioned below:	the clause as mentioned	
20									below:	
				"d. Bidder shall showcase	"d. Bidder shall showcase	"d. Bidder shall	"d. Bidder shall	"d. Bidder shall		
				the appropriate licenses	the appropriate licenses	showcase the	showcase the	showcase the	"d. Bidder shall showcase	
				(on the respective OEM	(on the respective OEM	appropriate licenses (on	appropriate licenses (on	appropriate licenses (on	the appropriate licenses	
				site/OEM sales order	site/OEM sales order	the respective OEM	the respective OEM	the respective OEM	(on the respective OEM	
				copy) mentioned in the	copy) mentioned in the	site/OEM sales order	site/OEM sales order	site/OEM sales order	site/OEM sales order	
				RFP."	RFP."	copy) mentioned in the				
						RFP."	RFP."	RFP."	RFP."	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Micro-Focus	PRESTO		Clarification
28	Section IV, Clause 5, subclause g	Scope of supply and services	The Bidder, duly supported by the OEM, shall provide appropriate training on the supplied hardware and software, including the demonstrated initial configurations at the time of commissioning, to the C-DAC teams comprising the L1, L2, and L3 Operations and Maintenance (OAM) staff to be deployed at each of the sites, in the manner described in Paragraph 7 of Section IV.	Please clarify that Post implementation day to day operation and support will be carried out by L1/L2 & L3 teams of CDAC , Bidder or OEM Staff	appropriate training on the supplied hardware and software, including the demonstrated initial configurations at the time of commissioning, to	OEM don't provide training directly and are delivered by OEM Authorized Training Partners, OEM Experts to be part of training	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Micro-Focus	L&T	Clarification
28	Section IV, Clause 7, subclause b	Scope of supply and services	The Bidder has to ensure that OEM engages its Professional Services (PS) team for planning, design, implementation, integration, validation, handover, and training of the respective hardware and software components across all three sites - DC, BCP and DR. The engaged PS Team members should be OEM's employees and the OEM should not further outsource these obligations to another vendor. These commitments will be a part of the Technical Evaluation and will be tracked at all stages after the issue of the PO.	Since the DC, BCP & DR is well connected and considering the COVID Protocol or any other unforseen situation, Can we connect to other site remotely to complete the Software Installation & Implementation. This will allow us to expidiate the Implementation Process	Kindly share us the list of Datacenter components which will be under the scope of OEM PS team for planning, design, implementation, integration, validation, handover, and training of hardware and sofware components. Please provide the details of software components to be covered in the OEM PS scope across all 3 sites.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Clarification
29	Section IV, Clause 6, subclause b	Scope of supply and services	The Bidder will ensure that all stages covering installation, initial programming and configuration, and testing are fully documented and endorsed by the OEM. The Bidder will also be required to provide the Work Order placed on the OEM as documented proof of the involvement of the OEM within the scope of Paragraph 7 of Section IV. Bidders should link this with the Acceptance Criteria given at Paragraph 3e, 3f and 3g of Section IV.	We are unable to find the highlighted reference in RFP, please correct the referance.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	TCS	Clarification
29	Section IV, Clause 6, subclause h	Scope of supply and services	Bidder shall complete the entire installation, configuration and integration of all hardware and software supplied at DC, BCP, DR, and any remote sites (as applicable) within one month.	Please provide a Detailed Project Implementation Schedule with timelines and RACI matrix for Customer, Bidder and OEM's	Please confirm the Completion of Integration & installation time line This timeline is not matching with clause against our sl no 1(a) above. Also, please define "any remote sites" as this will help us to ascertain exact man months effort which is required in the technical bid document.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
	Section IV, Clause 7, subclause b	Scope of	7. OEM Scope of Work:	Please modify the clause as:	As stipulated in the RFP
		supply	b. The Bidder has to ensure that OEM engages its Professional		
		and	Services (PS) team for planning, design, implementation,	b. The Bidder has to ensure that OEM/ OEM partner engages its	
		services	integration, validation, handover, and training of the	Professional Services (PS) team for planning, design, implementation,	
20			respective hardware and software components across all three	integration, validation, handover, and training of the respective hardware	
30			sites - DC, BCP and DR. The engaged PS Team members should	and software components across all three sites - DC, BCP and DR. The	
			be OEM's employees and the OEM should not further	engaged PS Team members should be OEM's employees and the OEM	
			outsource these obligations to another vendor. These	should not further outsource these obligations to another vendor. These	
			commitments will be a part of the Technical Evaluation and	commitments will be a part of the Technical Evaluation and will be tracked	
			will be tracked at all stages after the issue of the PO.	at all stages after the issue of the PO.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
31	Section IV, Clause 8, subclause b	Scope of supply and services	The solution should be planned to keep a holistic view of the network requirement spanned across the three sites connected with MPLS cloud and the Internet segment. Dedicated leaf-spine fabric to be deployed for Internet facing setup and MPLS facing setup.	to be use for MPLS and Internet link	
				termination and traffic.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO		Clarification
30	Section IV, Clause 7, subclause c	Scope of supply and services	The OEM is required to provide an Authorization as per Appendix C to this RFP that the OEM "undertakes to provide, within the Scope of Work defined in the tender, technical and other support towards fulfilling the requirements of installation, commissioning, benchmarking, acceptance criteria and product warranty services of the components to be supplied and installed at the C-DAC Customer sites". The following paragraphs provide a brief, though not necessarily complete, interpretation of these commitments.	Clarification	Looks like there is typo error, Appendix C is not found, kindly rephase or provide details on Appendix C	The OEM is required to provide an Authorization as per Annexure C to this RFP that the OEM "undertakes to provide, within the Scope of Work defined in the tender, technical and other support towards fulfilling the requirements of installation, commissioning, benchmarking, acceptance criteria and product warranty services of the components to be supplied and installed at the C-DAC Customer sites". The following paragraphs provide a brief, though not necessarily complete, interpretation of these commitments.

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO		Clarification
	Section IV, Clause 7	Scope of supply and	The OEM assigned expert will be	Request to remove this clause and	Request to remove this clause and	As stipulated in the RFP
		services	required to guide and validate all	OEM scope be limited to HLD,LLD and	OEM scope be limited to HLD,LLD and	
30			documentation supporting the	limited implementation	limited implementation	
			installation, configuration, and			
			integration as per the defined scope.			

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO		Clarification
31	Section IV, Clause 8	services	Supply, Installation, Configuration, Commissioning, Integration, Testing and Maintenance Support of complete hardware including all necessary software licenses as per the BOM and Technical specifications mentioned in tender for DC, BCP, DR and any remote site. This will be done in consultation with the OEM as per Paragraph – of Section		Looks like there is typo error, requesting to complete the sentence with the require figure in last line "Paragraph and Section"	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO		Clarification
31	Section IV, Clause 8	Scope of supply and services	The tie up with OEM of the Hardware equipment installed in the Data centre should cover: 1) 24 x 7 x 365 Onsite Support for all supplied hardware equipment with 4 hours response and NBD resolution.	The tie up with OEM of the Hardware equipment installed in the Data centre should cover: 1) 24 x 7 x 365 online Support for all supplied hardware equipment with 4 hours response and NBD hardware RMA.	It is requested that since this is scope based project and OEM responsibility would also be scope & Technology basis, request you to modify the price asked instead of man months to Lumpsum OEM Scope Price basis. As most OEM would not be able give Man month pricing.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO		Clarification
31	Section IV, Clause 8	services	OEM participation, guidance, and validation of all activities within the scope of this paragraph will be provided on-premise at New Delhi and Bangalore.	OEM scope be limited to HLD,LLD	Request to remove this clause and OEM scope be limited to HLD,LLD and limited implementation as per OEM best practice	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO		Clarification	
----------	-----------------------------------	------	---------	--------	--	---------------	--

Section IV, Clause 8	Scope of	The OEM will support the Bidder in providing	The OEM Authorized Training Partners will support the	OEM don't provide training directly and are	As stipulated
	supply	appropriate training on the supplied hardware and	Bidder in providing appropriate training on the	delivered by OEM Authorized Training Partners,	in the RFP
	and	software, including the demonstrated initial	supplied hardware and software, including the	OEM Experts to be part of training."	
	services	configurations at the time of commissioning, to the C-	demonstrated initial configurations at the time of		
31		DAC teams comprising the L1, L2, and L3 Operations	commissioning, to the C-DAC teams comprisingthe L1,		
		and Maintenance (OAM) staff to be deployed at each	L2, and L3 Operations and Maintenance (OAM) staff to		
		of the sites. Product specific training should be	be deployed at each of the sites. Product specific		
		delivered by the OEM representatives ONLY.	training should be delivered by the OEM Authorized		
			Training Partners ONLY."		

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
	Section IV, Clause 8, subclause d	Scope of	Multiple physically separate Leaf-Spine fabrics will	Please confirm if you require separate Leaf-Spine fabric for each OOB Mgmt., user apps, internet &	As stipulated in the RFP
		supply	exist in each site catering to the requirement of OOB	MPLS.	
31		and	Management, user applications and Internet facing	As per RFP, three sites has to connect with Leaf-spine for MPLS and Internet facing. In case SDWAN	
		services	applications. All the fabrics in all 3 sites (DC, BCP and	termination and configuration is under the scope of bidder, please clarify on number of remote	
			DR) need to be provisioned.	sites to be connected and the SDWAN Components required for remote locations.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
32	Section IV, Clause 8, subclause r	supply and	transparent to MPLS/SD-WAN underlay. There should not be any	Kindly clarify the scope of MPLS and SDWAN link terminations and configurations will be owned by C-DAC Team and not by Bidder. In case of bidder scope, please provide the technical specification for SDWAN Components with tentative architecture & breakup of BoQ w.r.t each site wise.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	HPE	Arista	INSPIRA	IValue info solution Private Limited	Clarificati on
32	Section IV, Clause 8, subclause m	Scope of supply and services	Fabric must be designed to provide packet buffering for low latency(<=50ms) when receiving traffic at line rate on all uplink ports simultaneously.	50 milli-seconds is a very high latency for the data center environment. Port-to-port latency across leaf-spine fabric is usually of the order of a few micro-seconds only when there is no congestion. Please modify the clause as mentioned below to remove the ambiguity. "Fabric must be designed to provide packet buffering when receiving traffic at line rate on all uplink ports simultaneously."	50 milli-seconds is a very high latency for the data center environment. Port-to-port latency across leaf-spine fabric is usually of the order of a few micro-seconds only when there is no congestion. Please modify the clause as mentioned below to remove the ambiguity. "Fabric must be designed to provide packet buffering when receiving traffic at line rate on all uplink ports simultaneously."	50 milli-seconds is a very high latency for the data center environment. Port-to-port latency across leaf-spine fabric is usually of the order of a few micro-seconds only when there is no congestion. Please modify the clause as mentioned below to remove the ambiguity. "Fabric must be designed to provide packet buffering when receiving traffic at line rate on all uplink ports simultaneously."	50 milli-seconds is a very high latency for the data center environment. Port-to-port latency across leaf-spine fabric is usually of the order of a few micro-seconds only when there is no congestion. Please modify the clause as mentioned below to remove the ambiguity. "Fabric must be designed to provide packet buffering when receiving traffic at line rate on all uplink ports simultaneously."	50 milli-seconds is a very high latency for the data center environment. Port-to-port latency across leaf-spine fabric is usually of the order of a few micro-seconds only when there is no congestion. Please modify the clause as mentioned below to remove the ambiguity. "Fabric must be designed to provide packet buffering when receiving traffic at line rate on all uplink ports simultaneously."	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	HPE	Arista	INSPIRA	IValue info solution Private Limited	Clarific ation
	Section IV, Clause	Scope of	DC and BCP sites	400G with Multi-Mode is not	Border Leaf segment	400G with Multi-Mode is not	400G with Multi-Mode is not		
	8, subclause o	supply	are approx. 100Mtr	recommended for the	connectivity	recommended for the	recommended for the requirement.		
		and	apart and existing	requirement. Humbly	recommended between	requirement. Humbly	Humbly requesting to provision 48		
		services	Dark Fibre cable	requesting to provision 48 fibers	DC and BCP network	requesting to provision 96 fibers	fibers of single mode between DC		
			(OM4) need to be	of single mode between DC and	segment, request to	of single mode between DC and	and BCP; OR please allow the bidder	400G with Multi-Mode is not	
			lighted to connect	BCP; OR please allow the bidder	allow bidder to propose	BCP; OR please allow the bidder	an option to provision 400G on Single	recommended for the requirement.	
			the Spines at the	an option to provision 400G on	optimized solution as	an option to provision 400G on	Mode fiber with the required laying	Humbly requesting to provision 48	
			two sites directly	Single Mode fiber with the	per the deployment	Single Mode fiber with the	of the cable. Please modify the clause	fibers of single mode between DC	
			with multiple 400G	required laying of the cable.	requirements.	required laying of the cable.	as suggested below:	and BCP; OR please allow the bidder	
			links for 1:1	Please modify the clause as		Please modify the clause as		an option to provision 400G on	
			oversubscription.	suggested below:	Requested changes :	suggested below:	"o. DC and BCP sites are approx.	Single Mode fiber with the required	
					o. DC and BCP sites are		100Mtr apart and CDAC will provision	laying of the cable. Please modify	
				"o. DC and BCP sites are approx.	approx. 100Mtr apart	"o. DC and BCP sites are approx.	48 cores of single mode fibers that	the clause as suggested below:	
				100Mtr apart and CDAC will	and existing Dark Fibre	100Mtr apart and CDAC will	may be used by the bidder to connect		
				provision 48 cores of single	cable (OM4) need to be	provision 96 cores of single	the Spines at the two sites directly	"o. DC and BCP sites are approx.	
32				mode fibers that may be used	lighted to connect the	mode fibers that may be used	with multiple 400G links for 1:1	100Mtr apart and CDAC will	
32				by the bidder to connect the	Spines or Border Leaf	by the bidder to connect the	oversubscription."	provision 48 cores of single mode	
				Spines at the two sites directly	Switch at the two sites	Spines at the two sites directly		fibers that may be used by the	
				with multiple 400G links for 1:1	directly with multiple	with multiple 400G links for 1:1	OR	bidder to connect the Spines at the	
				oversubscription."	100G or 400G links for	oversubscription."		two sites directly with multiple 400G	
					1:1 oversubscription.		"o. DC and BCP sites are approx.	links for 1:1 oversubscription."	
				OR		OR	100Mtr apart and existing Dark Fibre		
							cable (OM4) need to be lighted to	OR	
				"o. DC and BCP sites are approx.		"o. DC and BCP sites are approx.	connect the Spines at the two sites		
				100Mtr apart and existing Dark		100Mtr apart and existing Dark	directly with multiple 400G links for	"o. DC and BCP sites are approx.	
				Fibre cable (OM4) need to be		Fibre cable (OM4) need to be	1:1 oversubscription. New fiber may	100Mtr apart and existing Dark Fibre	
				lighted to connect the Spines at		lighted to connect the Spines at	be laid by the bidder if required for	cable (OM4) need to be lighted to	
				the two sites directly with		the two sites directly with	the solution"	connect the Spines at the two sites	
				multiple 400G links for 1:1		multiple 400G links for 1:1		directly with multiple 400G links for	
				oversubscription. New fiber may		oversubscription. New fiber may		1:1 oversubscription. New fiber may	
				be laid by the bidder if required		be laid by the bidder if required		be laid by the bidder if required for	
				for the solution"		for the solution"		the solution"	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	HPE	Arista	INSPIRA	Cache Technologies	IValue info solution Private Limited	Clarificati on
	Section IV, Clause	Scope of	Dark Fibre lighting	Please clarify if the bidder is	Please	Please clarify if the bidder is	Please clarify if the bidder is	Please clarify if the bidder		
	8, subclause p	supply	shall include supply	required to lay a new fiber cable	specify the	required to lay a new fiber	required to lay a new fiber	is required to lay a new		
		and	of rack mounted	between DC and BCP? 40 cores	brand of	cable between DC and BCP?	cable between DC and	fiber cable between DC	Please clarify if the bidder is	
		services	LIUs and Single	will be consumed on day-1 =>>	OM4 cable	80 cores will be consumed on	BCP?	and BCP?	required to lay a new fiber	
			mode duplex Fibre	10x link per spine x 2 spines x 2	used	day-1 =>> 10x link per spine x	40 cores will be consumed	40 cores will be consumed	cable between DC and BCP?	
32			LC connectors to	cores per link. It is	between DC	4 spines x 2 cores per link. It	on day-1 =>> 10x link per	on day-1 =>> 10x link per	40 cores will be consumed	
52			light-up 32 cores on	recommended to have	and BCP	is recommended to have	spine x 2 spines x 2 cores	spine x 2 spines x 2 cores	on day-1 =>> 10x link per	
			each side.	minimum 96 cores of single-		minimum 96 cores of single-	per link. It is recommended	per link. It is	spine x 2 spines x 2 cores per	
				mode fiber between DC and		mode fiber between DC and	to have minimum 96 cores	recommended to have	link. It is recommended to	
				BCP.		BCP.	of single-mode fiber	minimum 96 cores of	have minimum 96 cores of	
							between DC and BCP.	single-mode fiber	single-mode fiber between	
								between DC and BCP.	DC and BCP.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO		Clarification
32	Section IV, Clause 8, subclause p		w. Fabric to be configured to show physical and logical fabric topology on a central dashboard with ability to show path of a flow over network topology.	fabric topology on a central dashboard with ability	Different vendor use different visualization mechanism. Thus requesting change for wider participation	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	PRESTO		Clarification
32	Section IV, Clause 8, subclause s	Scope of supply and services	Network monitoring and management system to be set up to centrally monitor and manage all the network switches across 3 sites and in remote provider location, from a central dashboard. HA/Backup of the system to be configured in another site for continued day-2 operation in case of primary system/site failure.	Kindly share the scope of materials to be supplied for hosting the NMS Systems at remote provider location and scope of work for remote provider locations (all system components, Network monitoring and management system).	Network monitoring and management system to be set up to centrally monitor and manage Core and Management fabric across 3 sites and in remote provider location, from a individual dashboard. HA/Backup of the system to be configured in another site for continued day-2 operation in case of primary system/site failure.	For Multi-site orchestration WAN latency plays a major role for any OEM, if latency increase network would start flapping	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	Netwitness	Palo Alto	НРЕ	Arista	INSPIRA	PRESTO		Cache Technologies	IValue info solution Private Limited	Clarificat ion
	Section IV, Clause	Scope of	Dedicated	Requesting to	We would like to	We would like	1. Dedicated	Requesting to	Requesting to	Dedicated	Since the RFP	Requesting to	Requesting to	As
	8, subclause y	supply	device(s)	remove the	kindly request	to kindly	device(s) with	remove the	remove the	device(s)	scope includes	remove the	remove the	stipulate
		and	with	ambiguity on 100G	CDAC team to	request CDAC	minimum 4GB	ambiguity on	ambiguity on	with packet	routers,	ambiguity on	ambiguity on	d in the
		services	minimum	connectivity for	include below	team to	of packet	100G	100G	buffer to	switches,	100G	100G connectivity	RFP
			4GB of	traffic-aggregation	mentioned points	include below	buffer is very	connectivity	connectivity	be	firewalls, waf,	connectivity for	for traffic-	
			packet buffer	requirement. It is	to enhance the	mentioned	restrictive for	for traffic-	for traffic-	configured	load balancers	traffic-	aggregation	
			to be	also recommended	functionality of	points to	Spine and	aggregation	aggregation	in each site	to achieve	aggregation	requirement. It is	
			configured in	to have an	mirrored packet	enhance the	Leaf Switch,	requirement.	requirement.	to	holistic 360	requirement. It	also	
			each site to	integrated packet	to gain complete	functionality	request to	It is also	It is also	aggregate	degree	is also	recommended to	
			aggregate	capture option for	visibility using	of mirrored	consider	recommende	recommende	mirrored	visibility	recommended	have an	
			mirrored	security forensics	Deep Packet	packet to gain	minimum	d to have an	d to have an	traffic from	requires	to have an	integrated packet	
			traffic from	purposes. The	Inspection for	complete	32MB Packet	integrated	integrated	all the leaf-	capturing of	integrated	capture option for	
			all the leaf-	clause is	analysis.	visibility using	buffer	packet	packet	spine	logs from	packet capture	security forensics	
			spine	recommended to		Deep Packet	support in	capture	capture	switches	these devices	option for	purposes. The	
			switches	be modified as	1. Solution should	Inspection for	switch.	option for	option for	over 100G	as different	security	clause is	
			over 100G	below.	have Deep Packet	analysis.	Requested	security	security	links, to	devices will	forensics	recommended to	
			links, to		Inspection (DPI) to		changes:	forensics	forensics	further use	generate	purposes. The	be modified as	
			further use	"A dedicated	provide visibility	1. Solution	y. Dedicated	purposes. The	purposes. The	the traffic	different	clause is	below.	
			the traffic for	traffic-aggregation	in all layers of the	should have	device(s) with	clause is	clause is	for security	relevant	recommended		
			security and	network fabric to	OSI stack (Layer 2-	Deep Packet	minimum	recommende	recommende	and	information	to be modified	"A dedicated	
			performance	be setup in each	7) including	Inspection	32MB of	d to be	d to be	performan	example leaf-	as below.	traffic-aggregation	
			analytics	site (DC, BCP and	application	(DPI) to	packet buffer	modified as	modified as	ce analytics	spine switches		network fabric to	
			purposes.	DR) to aggregate	payload data.	provide	to be	below.	below.	purposes.	will not	"A dedicated	be setup in each	
				mirrored traffic	2. Solution should	visibility in all	configured in		"A dedicated		generate NAT	traffic-	site (DC, BCP and	
				from each of the	store RAW packet	layers of the	each site to	"A dedicated	traffic-		information	aggregation	DR) to aggregate	
33				leaf switches, spine	DATA for 7 days	OSI stack	aggregate	traffic-	aggregation		which is	network fabric	mirrored traffic	
				switches, L3	and normalized	(Layer 2-7)	mirrored	aggregation	network		important to	to be setup in	from each of the	
				perimeter switches	packet data for 15	including	traffic from all	network	fabric to be		have end to	each site (DC,	leaf switches,	
				and Mgmt. core switches over	days for forensics. 3. The solution	application	the leaf-spine	fabric to be	setup in each		end visibility	BCP and DR) to	spine switches, L3	
				direct 100G links, to		payload data. 2. Solution	switches over 100G links, to	setup in each site (DC, BCP	site (DC, BCP		about a	aggregate	perimeter switches and	
				further use the	full session	should store	further use	and DR) to	and DR) to		communicatio n. SPAN adds	mirrored traffic from each of	Mgmt. core	
				traffic for security	reconstruction	RAW packet	the traffic for	aggregate	aggregate mirrored		lot of	the leaf	switches over	
				and performance	and object	DATA for 7	security and	mirrored	traffic from		overhead on	switches, spine	direct 100G links,	
				analytics purposes.	extractions from	days and	performance	traffic from	each of the		the devices	switches, L3	to further use the	
				Packet recording	sessions like files	normalized	analytics	each of the	leaf switches,		thus having	perimeter	traffic for security	
				and replay	and pcaps.	packet data	purposes. 2.	leaf switches,	spine		both mirror	switches and	and performance	
				capability with	4. The solution	for 15 days	Requesting to	spine	switches, L3		and flow	Mgmt. core	analytics	
				minimum 180TB of	must have the	for forensics.	remove the	switches, L3	perimeter		based	switches over	purposes. Packet	
				raw storage to be	ability to capture	3. The	ambiguity on	perimeter	switches and		capabilities	direct 100G	recording and	
				setup at each site	network traffic	solution	100G	switches and	Mgmt. core		ensure	links, to further	replay capability	
				(DC, BCP and DR).	and import PCAP	should	connectivity	Mgmt. core	switches over		longevity and	use the traffic	with minimum	
				Traffic-aggregation	files using the	support full	for traffic-	switches over	direct 100G		future	for security and	180TB of raw	
				network fabric and	same	session	aggregation	direct 100G	links, to		proofing of the	performance	storage to be	
				packet recording	infrastructure.	reconstructio	requirement.	links, to	further use		solution.	analytics	setup at each site	
				should be fully	5. Solution should	n and object	It is also	further use	the traffic for			purposes.	(DC, BCP and DR).	
				integrated and	have unified	extractions	recommende	the traffic for	security and			Packet	Traffic-	
				managed from a	console for threat	from sessions	d to have an	security and	performance			recording and	aggregation	
				single pane of	detection using	like files and	integrated	performance	analytics			replay	network fabric	
				glass"	Logs, Packet	pcaps.	packet	analytics	purposes.			capability with	and packet	
					Capture for	4. The	capture	purposes.	Packet			minimum	recording should	
					compete	solution must	option for	Packet	recording and			180TB of raw	be fully integrated	

1 1	1	I	1	l	L	l	l	1 .] 1	ı			
				correlation on all	have the	security	_	replay			storage to be	and managed	
				aspects.	ability to	forensics	replay	capability			setup at each	from a single pane	
				6. Solution should	capture	purposes. The	capability	with			site (DC, BCP	of glass"	
				create indexes for	network	clause is	with	minimum			and DR). Traffic-		
				payload objects	traffic and	recommende	minimum	180TB of raw			aggregation		
				and not just rely	import PCAP	d to be	180TB of raw	storage to be			network fabric		
				on header	files using the	modified as	storage to be	setup at each			and packet		
				information to	same	below.	setup at each	site (DC, BCP			recording		
				augument	infrastructure		site (DC, BCP	and DR).			should be fully		
				investigation		"A dedicated	and DR).	Traffic-			integrated and		
				capabilities	5. Solution	traffic-	Traffic-	aggregation			managed from		
				capabilities	should have	aggregation	aggregation	network			a single pane of		
					unified	network	network	fabric and			glass"		
					console for	fabric to be	fabric and				giass		
					1			packet					
					threat	setup in each	packet	recording					
					detection	site (DC, BCP	recording	should be					
					using Logs,	and DR) to	should be	fully					
					Packet	aggregate	fully	integrated					
					Capture for	mirrored	integrated	and managed					
					compete	traffic from	and managed	from a single					
					correlation on	each of the	from a single	pane of					
					all aspects.	leaf switches,	pane of glass"	glass". We					
					6. Solution	spine		would like to					
					should create	switches, L3		kindly request					
					indexes for	perimeter		CDAC team to					
					payload	switches and		include below					
					objects and	Mgmt. core		mentioned					
					not just rely	switches over		points to					
					on header	direct 100G		enhance the					
					information	links, to		functionality					
					to augument	further use		of mirrored					
					investigation	the traffic for		packet to gain					
					capabilities	security and		complete					
					capabilities	performance		visibility using					
						analytics		Deep Packet					
						-		Inspection for					
						purposes. Packet		analysis.					
								allalysis.					
						recording and		1 Colution					
						replay		1. Solution					
						capability		should have					
						with		Deep Packet					
						minimum		Inspection					
						180TB of raw		(DPI) to					
						storage to be		provide					
						setup at each		visibility in all					
						site (DC, BCP		layers of the					
						and DR).		OSI stack					
						Traffic-		(Layer 2-7)					
						aggregation		including					
						network		application					
						fabric and		payload data.					
						packet		2. Solution					
						recording		should store					
						should be		RAW packet					
						fully		DATA for 7					
						integrated		days and					
		1										ı	

and managed norma	nalized
from a single packe	et data
pane of glass" for 15	5 days
for fo	prensics.
3. The	
solution	
should	ld
suppo	ort full
sessio	on
	nstructio
	d object
	actions
	sessions
like fi	iles and
pcaps	S.
4. The	e l l l l
	ion must
have	
ability	
captu	ure
netwo	
traffic	ic and
impor	ort PCAP
	using the
same	
	structure
	structure
	lution
	ld have
unifie	ed
consc	ole for
threat	
detec	
	g Logs,
USING Dealer	3 LOGS,
Packe Packe	
	ure for
comp	pete
	elation on
	spects.
6.50	lution
	ld create
	xes for
paylo	
	cts and
	ust rely
	eader
	mation
	ingument
invest	stigation
	bilition
	bilities

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	AIPL	НРЕ	Arista	INSPIRA	Cache Technologies	Clarification
	Section IV, Clause	Scope	The Bidder would	As DC and BCP are at the same	As DC and BCP are at the same	As DC and BCP are at the same	As DC and BCP are at the same	As DC and BCP are at the same	The Bidder needs
	9, subclause a	of	need to perform	location the controllers can be	location the controllers can be	location the controllers can be	location the controllers can be	location the controllers can be	to perform site
		Work	site visit to	provisioned at one of the 2	provisioned at one of the 2	provisioned at one of the 2	provisioned at one of the 2	provisioned at one of the 2 sites,	visit to understand
			understand the	sites, to save cost. Please	sites, to save cost. Please	sites, to save cost. Please	sites, to save cost. Please	to save cost. Please modify the	the coverage and
			coverage and	modify the clause as below:	modify the clause as below:	modify the clause as below:	modify the clause as below:	clause as below:	placement of WIPS
			placement of				"a. The Bidder would need to		devices. The dual
			WIPS devices.	"a. The Bidder would need to	"a. The Bidder would need to	"a. The Bidder would need to	perform site visit to	"a. The Bidder would need to	controllers in HA
33			The dual	perform site visit to	perform site visit to	perform site visit to	understand the coverage and	perform site visit to understand	need to be housed
33			controllers in HA	understand the coverage and	understand the coverage and	understand the coverage and	placement of WIPS devices.	the coverage and placement of	in DC and DR to
			need to be	placement of WIPS devices.	placement of WIPS devices.	placement of WIPS devices.	The controllers in HA need to	WIPS devices. The controllers in	ensure high
			housed in DC and	The controllers in HA need to	The controllers in HA need to	The controllers in HA need to	be housed at each location	HA need to be housed at each	availability and
			BCP, DR to ensure	be housed at each location (i.e.	be housed at each location	be housed at each location	(i.e. DC/BCP and DR) to ensure	location (i.e. DC/BCP and DR) to	continuation of
			high availability	DC/BCP and DR) to ensure high	(i.e. DC/BCP and DR) to ensure	(i.e. DC/BCP and DR) to ensure	high availability and	ensure high availability and	WIPS Services.
			and continuation	availability and continuation of	high availability and	high availability and	continuation of WIPS	continuation of WIPS Services."	
			of WIPS Services.	WIPS Services."	continuation of WIPS	continuation of WIPS	Services."		
					Services."	Services."			

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	PRESTO	Clarification
	Section IV, Clause 9, subclause a	Scope of	The fabric to be designed with virtual	The fabric to be designed on the mechanism to There are many lossless ethernet standards like DCBx, PFC, ECN, RoCE	As stipulated in
33		Work	output queue based architecture to avoid	identify mice/elephant flow within DC, priotise v1/2 which are design to run critical traffic within DC. TCP themselves	the RFP
			head of line blocking issues in the fabric.	them, assign right queue with priority intelligently can manage elephant traffic which is BW intensive.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	PRESTO		Clarification
33	Section IV, Clause 9, subclause a	Scope of Work	Role based access control to be configured for network fabric with change controls for approval and execution in place.	A dedicated traffic-aggregation network fabric to be setup in each site (DC, BCP and DR) to aggregate mirrored traffic from each of the leaf switches, spine switches, L3 perimeter switches and Mgmt. core switches over direct 100G links, to further use the traffic for security and performance analytics purposes. Packet recording and replay capability with minimum 180TB of raw storage to be setup at each site (DC, BCP and DR). Traffic-aggregation network fabric and packet recording should be fully integrated and managed from a single pane of glass		Role based access control to be configured for network fabric with change controls for approval and execution in place.	As stipulated in the RFP

Page no.	Page no. RFP Clause No. / Section/Category Item		RFP Ask	L&T	Clarification
22	Section IV, Clause 10, subclause b	Scope of Work –	Integration with Network Fabric Manager, VMWARE hypervisor components,	Please share overall tentative architecture diagram	As stipulated in the RFP
33		Firewall & WAF	SANBOX, SIEM and SOAR, endpoint security as per the requirement.	along with DC, BCP, DR, and remote sites	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
	Section IV, Clause 12, subclause b	Detailed	Bidder shall demonstrate DC,	Please confirm if the scope of failover of applications and DB clusters will be under C-DAC and only data availability and backup	As stipulated
		Scope of	BCP and DR functionality with	will be under the scope of bidder.	in the RFP
2.4		Work	failover for various	In case the scope of application and Database failover is under Bidder, please provide the no. of applications and database type,	
34			components like Storage,	instances with count to be considered for fail over across the DC and DR Sites. Also, request to include DRM tool and Global	
			Database clusters, Backup	Server load balancer to the BoQ for automatic failover and bring up of databases and applications to access remotely by the	
			activities etc.	consumer nodes.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
	Section IV, Clause 12, subclause b	Scope of	Bidder shall demonstrate DC, BCP and DR functionality	Please mention the type, version, edition and license qty of each Database with cluster counts per DC, BCP	As stipulated
34		Work -	with failover for various components like Storage,	and DR Sites.	in the RFP
		WIPS	Database clusters, Backup activities etc.	Kindly confirm on the requirement of automatic failover functionality of Databases and applications if any.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
34	Section IV, Clause 12, subclause c		Replication of Cluster of VMs / Site Recovery Tools or equivalent as per the RTO and RPO.	Bidder requests clarity on the scope as there is no virtualization software asked in the RFP , If Bidder has to do the activity please share the virtualization details	As stipulated in the RFP

Page no.	Page no. RFP Clause No. / Section/Category Item		RFP Ask	HPE	Clarification
2.4	Section IV, Clause 12, subclause d	Scope of Work	Implementation of Stretch Cluster / Seamless integration of DC	Bidder requests clarity on the scope as there is no virtualization software asked in	As stipulated in the RFP
54			and BCP to form a single cluster w.r.to Compute & Storage.	the RFP , If Bidder has to do the activity please share the virtualization details	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	Clarification
3/1	Section IV, Clause 12, subclause	Scope of Work	Deployment and configuration of	Bidder requests clarity on the scope as there is no virtualization software asked	Supply of Hypervisor is not in the Scope of this Bid. However
34	e&f		VMs with the supplied Hypervisor.	in the RFP , If Bidder has to do the activity please share the virtualization details	the scope includes deployment of provided Hypervisor.

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	Clarification
34	Section IV, Clause 12, subclause o	Scope of Work	Deployment of VM level Security and integration of VM level Firewall controllers with East-West Firewall	Bidder requests clarity on the scope as there is no virtualization software asked in the RFP , If Bidder has to do the activity please share the virtualization details	Bidder is expected to integrate Hypervisor Firewall with supplied East-West Firewall

Page no. RI	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
Se	ection IV, Clause 12, subclause c	Scope of	Meeting DC, BCP and DR deployment	Meeting DC, BCP and DR deployment and functionality includes the	As stipulated in the RFP
		Work	and functionality includes the following:	following:	
			1) Shall submit the detailed plan about	1) Shall submit the detailed plan about the project execution.	
			the project execution. 2) Shall meet Zero	2) Shall meet Zero RPO Shall meet RPO=0 for DC-BCP and RPO=30min. for DC-DR replication.	
			RPO. 3) Shall meet 45 Minutes of RTO.	3) Shall meet 45 Minutes of RTO Shall meet RTO=45min. for DC-BCP and RTO=2hours for DC-	
35			4) Storage based (Block / Change Block)	DR replication.	
			& Snapshot Replication. 5) VM level	4) Storage based (Block / Change Block) & Snapshot Replication.	
			Replication. 6) Replication of Cluster of	5) VM level Replication.	
			VMs / Site Recovery Tools or equivalent	6) Replication of Cluster of VMs / Site Recovery Tools or equivalent as per the RTO and RPO.	
			as per the RTO and RPO.		
				We also recommend to add " DRM tool" to BoQ to meet out the failover functionality.	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	HPE	L&T	Clarification
35	Section IV, Clause 12, subclause k	Scope of Work	Deployment of SOC: Configuration of SIEM, SOAR and associated tools to provide the deep analysis and automation of repeated tasks. Required APIs shall be provided and bidder need to factor appropriate manpower to write the scripts towards integration of various logs, devices for analysis and mitigation.	Bidder requests clarity on the scope and Manpower details .	Please clarify if the Bidder scope includes only supply and deployment of SOC montioring tools (OR) if any SOC operation required. If SOC operations is required, please share SOC setup, manpower quantity and also please confirm if the Bidder can provide SOC service as MSSP approach model.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	Netwitness	Palo Alto	HPE	INSPIRA	L&T	PRESTO		Clarific ation
	Section IV, Clause	Scop	Deployme	As per RFP, deployement of EDR	As per RFP, deployement of EDR	IS the	As per RFP, deployement of EDR	EDR	Clarificati	We	As
	12, subclause l	e of	nt of EDR	solution across all VM's and physical	solution across all VM's and physical	bidder	solution across all VM's and physical	technical	on	understand	stipulat
		Work	across all	systems is mentioned. We recommend	systems is mentioned. We recommend	expected to	systems is mentioned. We recommend	specifications		bidder need to	ed in
			VMs and	CDAC to have an EDR solution	CDAC to have an EDR solution	supply EDR	CDAC to have an EDR solution	and BoQ for		deploy EDR on	the RFP
			physical	integrated with SIEM platform to reduce	integrated with SIEM platform to reduce	too . There	integrated with SIEM platform to reduce	DC, BCP and		all VMs and	
			systems.	operational overheads for Security	operational overheads for Security	is no	operational overheads for Security	DR Sites shall		Physical	
				Analysts using multiple dashboards.	Analysts using multiple dashboards.	mention of	Analysts using multiple dashboards.	be provided		system, hence	
				Also, we would like to kindly request to	Also, we would like to kindly request to	requiremen	Also, we would like to kindly request to	in the RFP.		requesting to	
				include below mentioned minimum	include below mentioned minimum	ts in the	include below mentioned minimum			provide count	
				functionalities to get the complete	functionalities to get the complete	RFP . In	functionalities to get the complete			of EDR agents	
				benifits of EDR.	benifits of EDR.	case the bidder is	benifits of EDR.			to be deployed as details are	
				1. EDR solution should support all	1. EDR solution should support all	expected to	1. EDR solution should support all			missing the	
				flavors of Linux, Windows, UNIX and	flavors of Linux, Windows, UNIX and	deploy yhe	flavors of Linux, Windows, UNIX and			SOR and RFP	
				Mac OS.	Mac OS.	existing	Mac OS.			BOQ,	
				2. The solution must support the means	2. The solution must support the means	EDR then	2. The solution must support the means				
				to execute and assist with forensic	to execute and assist with forensic	bidder	to execute and assist with forensic				
				investigation.	investigation.	requests	investigation.				
				3. Solution should have capability to	3. Solution should have capability to	CDAC to	3. Solution should have capability to				
				obtain memory dump.	obtain memory dump.	share the	obtain memory dump.				
				4. The solution must provide encrypted	4. The solution must provide encrypted	details of	4. The solution must provide encrypted				
				communication between the central	communication between the central	EDR so that	communication between the central				
35				EDR server and the agents on the	EDR server and the agents on the	right skills	EDR server and the agents on the				
				endpoints or servers. Solution should	endpoints or servers. Solution should	are	endpoints or servers. Solution should				
				support centralized agent upgrade,	support centralized agent upgrade,	factored for	1				
				directly from UI.	directly from UI.	the same .	directly from UI.				
				5. Solution should automatically initiate	5. Solution should automatically initiate		5. Solution should automatically initiate				
				a quick, targeted scan when unknown	a quick, targeted scan when unknown		a quick, targeted scan when unknown				
				files, processes and more load on an	files, processes and more load on an		files, processes and more load on an				
				endpoint, record data about every	endpoint, record data about every		endpoint, record data about every				
				critical action (e.g., file or registry	critical action (e.g., file or registry		critical action (e.g., file or registry				
				modifications, network connections)	modifications, network connections)		modifications, network connections)				
				surrounding the unknown item, and communicate to the management	surrounding the unknown item, and communicate to the management		surrounding the unknown item, and				
				_	1		communicate to the management				
				server Solution should support analysis of advanced attacks such as system	server Solution should support analysis of advanced attacks such as system		server Solution should support analysis of advanced attacks such as system				
				exploitation, data exfiltration, etc.	exploitation, data exfiltration, etc.		exploitation, data exfiltration, etc.				
				6. Solution should provide Anomaly	6. Solution should provide Anomaly		6. Solution should provide Anomaly				
				detection like, Image Hooks, Kernel	detection like, Image Hooks, Kernel		1				
				Hooks, Registry Discrepancies,	Hooks, Registry Discrepancies,		detection like, Image Hooks, Kernel Hooks, Registry Discrepancies,				
				Suspicious Threads, etc.	Suspicious Threads, etc.		Suspicious Threads, etc.				
				7. Solution should have capability to	7. Solution should have capability to		7. Solution should have capability to				
				block files with the following file	block files with the following file		block files with the following file				
				extensions like, but not limited to EXE,	extensions like, but not limited to EXE,		extensions like, but not limited to EXE,				
l				COM, SYS, DLL, BAT, PS1, VBS, VBE, VB,	COM, SYS, DLL, BAT, PS1, VBS, VBE, VB,		COM, SYS, DLL, BAT, PS1, VBS, VBE, VB,				
i											
				etc.	etc.		etc		j	1	

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	L&T	Clarification
35	Section IV, Clause 12, subclause s	of	Bidder need to appoint a single point of contact and provide the details for raising of tickets. Please note that support and services offered shall be confined to DC, BCP and DR and there is "NO" provision of online access to any system, device and software.	Please confirm if the Bidder requires to provide any Help Desk software and separate manpower apart from RE (Residence Engineer). In case of any help desk software to be provided by Bidder, please include in the BoQ along with user license quantity required.	As stipulated in the RFP

Page no.	RFP Clause No. / Section/Category	Item	RFP Ask	НРЕ	L&T	TCS	Clarification
	Section IV, Clause 12, subclause y	Scope of Work	Bidder shall provide an onsite dedicated RE (Residence Engineer) at DC on 9/6 basis. RE is responsible towards: 1) Proactive monitoring of supplied equipment / devices. 2) Tracking of all tickets / incidents raised and co-ordinate with the Bidder & OEM to rectify / replace the faulty component. 3) Performance finetuning. 4) Co-ordinate with the DC, BCP and DR Operations team. 5) Responsible to perform DC-DR drills as per the schedule.	Bidder requests CDAC that due to diverse solution components like Server , Storage , NetwOrk and Security , CDAC will need to factor for more RE . It will be practically impossible to factor 1 RE with such diverse skills . Bidder also requests CDAC to mention the floor price and skill sets of the RE to maintain unfirmity in pricing across all bids	Based on the RFP, we find only one Residence engineer at DC on 9/6 basis. Kindly confirm if any manpower required at BCP and DR Sites. Also, please confirm if the entire scope of maintenance of all technologies like Compute, Storage, Backup, Virtualization, Cloud, Containers, OS, DB, Network - SDN, Security components, WAN, EMS and Non-IT Scope will be handled by C-DAC Operations Team and no additional manpower to be provided by the bidder. Please elaborate on the scope of DR Drill and No. of DR Drills with frequency per year.	Kindly reconfirm the RE requirements whether this is for DC only or for DR & NDC also.	As stipulated in the RFP

Page no. RFP Clause No. / Section/Cate	ory Item	RFP Ask	PRESTO		Clarification
Additional Clause	Scope of Work	Additional Clause	DC Fabric to be tightly intregrate with Physical firewall, IPS, WAF, LLB to achive micro-segmentation across the fabric	Since the RFP scope includes routers, switches, firewalls, waf, load balancers to micro-segmentation across layer, we request to add this clause.	As stipulated in the RFP

SECTION-VI (QUERIES, CLARIFICATION AND CORRIGENDUM)

Page no.	RFP Clause No. / Section/Category	RFP Ask	Presto	Clarification
127	Section – VI: BOQ / Commercial-Bid Format Point. Validity Page no. 127	Delivery: FOB Delhi & Bangalore within 120 days for Category I and 180 days for Category II items, from the date of issuing of PO.	Due the ongoing chip shortages and the supply chain related delays. Please amend the Delivery Period as below: Delivery: FOB Delhi & Bangalore within 180 days for Category I and 240 days for Category II items, from the date of issuing of PO.	Ref. Corrigendum

Page no.	RFP Clause No. / Section/Category	RFP Ask	L&T	НРЕ	Clarification
128	Section – VI: BOQ / Commercial-Bid Format Point. Validity Page no. 128	The commercial bid shall be valid for a period of 365 days.	The commercial bid shall be valid for a period of 365 180 days. Note: Considering the Dollar variation and Deviation in Raw Material pricing, 365 days is critical for the bidder.Hence, we request you to kindly amend 356 days to 180 days.	Pricing Template: Bidder request to include specific line item in BOQ to capture cost of installation and allied activities	As stipulated in the RFP