Scope of Work & other terms & conditions

Eligibility Criteria for the bidder:

- 1. The bidder must be a registered company/firm in India under the Companies Act or equivalent. Document required Certificate of Incorporation or Registered Partnership Deed or Copy of PAN card or Copies of relevant GST registration certificates.
- 2. The bidder should have an average turnover of Rs. 38 Lakhs (Minimum) of last three financial years i.e., 2021-22, 2022-23, 2023-24 with positive net worth. as on Last date of bid submission. The copies of Audited Annual Accounts/Balance Sheet along with Profit & Loss Account and CA Certified Statement for last three financial years shall be attached along with the bid.
- **3.** The bidder must have one office in Gujarat. Please upload the copies of any two of the following: Property Tax Bill of last year / Electricity Bills of last one year / Telephone Bills of last one year / VAT Registration / CST Registration / Valid Lease Agreement. In case, bidder does not have office in Gujarat, bidder should give undertaking to open office in Gujarat within 45 days from the date of work order.
- 4. Bidder must ensure that the Non-Back to Back CAMC support & service should be available up to delivery locations to provide repairing cum replacement services of faulty equipment's as per the service levels defined in bid.
- 5. The bidder must have at least 3 customer reference for providing AMC/support services of IT equipment's at Data Center/Server farm in India
- **6.** The bidder must have experience of CAMC/support services of IT equipment's at Data Center/Server farm in India to meet the following criteria within the last three years in India, as of the bid submission deadline.

One similar project having value of not less than Rs 60 Lakhs. or Two similar project having value of not less than Rs 38 Lakhs. or Three similar project having value of not less than Rs 30 Lakhs.

Similar project: CAMC/support services of IT equipment's at Data Center/Server farm in India.

Customer references & Work orders must be attached along with the bid.

- 7. The bidder must have valid ISO 9001:2015 for quality management system.
- **8.** Bidder should not be blacklisted by any Ministry of Government of India or by any State Government of India or any of the Government PSUs at the time of bidding. Self-Declaration / Certificate / affidavit mentioning that the Bidder is not blacklisted as per the clause should be submitted.

<u>Scope of Work for CAMC of Servers, Storage and other peripherals for Cyber Treasury</u> Portal:

The bidder will have to provide onsite support under Non Comprehensive Annual Maintenance Contract enabling smooth and uninterrupted operations of Director of Accounts & Treasuries at Gandhinagar situated at following locations:

- 1) Primary Site (Gujarat State Data Centre (GSDC)), Ground Floor, Statistical Bureau, Near police Bhavan, Sector 18, Gandhinagar-382021.
- 2) DR Site (Mini Data Center, Baroda), Kuber Bhavan, M. S. Building, Vadodara-390001.

Bidder should be capable to provide Non Back to Back Comprehensive Annual Maintenance Contract with required spares for the equipment's mentioned in the RFP

The bidder is required to provide the Non Back-to-Back comprehensive onsite warranty for 1 years of Servers, Storage and other peripherals of Cyber Treasury Portal from the date of GeM contract. If required, DAT will extend the CAMC contract with same terms & condition from further period of one year.

Following Components of Servers, Storage and other peripherals for Cyber Treasury Portal of Director of Accounts & Treasuries will be covered under CAMC installed at Primary Site (Gujarat State Data Centre (GSDC)), Ground Floor, Statistical Bureau, Near police Bhavan, Sector 18, Gandhinagar-382021.

Cyb	er Treasury Portal of Director of	Accounts & Treasuries P	R Site	(SDC, Gandhinagar):
Sr. No	Item	Make & Model	Qty.	Serial Numbers
1	Blade Server Chassis/Enclosure	HP Blade System C7000 Enclosure	1	SGH411D7NS
2	Database Servers	HP Proliant BL460c Gen8 Server Blade	2	SGH411DLMT SGH411DLMR
3	Application Servers	HP Proliant BL460c Gen8 Server Blade	2	SGH411DLPM SGH411DLPE
4	Web Servers	HP Proliant BL460c Gen8 Server Blade	2	SGH411DLPK SGH411DLPH
5	Database Maintenance Server	HP Proliant BL460c Gen8 Server Blade	1	SGH411DLP8
6	Application Maintenance Server	HP Proliant BL460c Gen8 Server Blade	1	SGH411DLPA
7	Backup Server	HP Proliant BL460c Gen8 Server Blade	1	SGH411DLP6
8	SAN Storage	HP 3PAR StoreServ 7400 Storage	1	4C14117078
9	Backup Device –Tape Library	HP StoreEver MSL 6480 Tap Library	1	DEC406016N
10	24 port Gigabit L2 Switch	HP 5120 SI Switch Series	2	CN30BZ012G CN30BZ0130
	Application (Server) Load			31304352
11	Balancer Cum SSL – Accelerator	Radware Alteon 4408	2	31304365

IFM	S Load Balancer of Director of	Accounts & Treasuries	(SDC, G	andhinagar):
Sr. No	ltem	Make & Model	Qty.	Serial Number
	Application (Server) Load	Radware Alteon		31302687
1	Accelerator	4408	2	31306759

Following Components of Servers, Storage and other peripherals for Cyber Treasury Portal of Director of Accounts & Treasuries will be covered under CAMC installed at DR Site (Mini Data Center, Baroda), Kuber Bhavan, M. S. Building, Vadodara-390001.

Cybe	r Treasury Portal of Directo	r of Accounts & Treasuries Baroda):	DR Site	(Mini Data Center,
Sr. No	Item	Make & Model	Qty.	Serial Number
1	Blade Server Chassis/Enclosure	HP Blade System C7000 Enclosure	1	SGH411D7NT
2	Database Server	HP Proliant BL460c Gen8 Server Blade	1	SGH411DLMW
3	Application Server	HP Proliant BL460c Gen8 Server Blade	1	SGH411DLPP
4	Backup Server	HP Proliant BL460c Gen8 Server Blade	1	SGH411DLPC
5	SAN Storage	HP 3PAR StoreServ 7400 Storage	1	4C14366365
6	Backup Device –Tape Library	HP StoreEver MSL 6480 Tap Library	1	DEC4070179
7	24 port Gigabit L2 Switch	HP 5120 SI Switch Series	1	CN30BZ016W
8	Application (Server) Load Balancer Cum SSL – Accelerator	Radware Alteon 4408	1	31304369

Detailed Technical Specifications of equipment's to be covered under CAMC is as below:

ltem	No. 1: Blade Server Chassis/Encl	osure	
Sr. No.	Item Minimum Specifications		Make & Model
1	Blade Server Chassis/Enclosur architecture at Primary & DR S	e must be quoted as required by OEM solution ite.	HP Blade System C7000
2	Up to 10U chassis		Enclosure
3	Must be configured for redund provided. Power supplies, fans intervention	dant power supplies, fans. Necessary PDUs to be should be capable of reconfigure without manual	
4	Redundant L2/L3 Ethernet sw blades to the LAN and should external switch as also to redu offered chassis should be fur chassis.	itching module to be provided to connect all the be configured to minimize the no. of ports in the ce the no. of cables coming out of the chassis. The ture 10Gbps ready without replacing the blade	
5	Should be configured with re manage the blades using GUI	dundant hot pluggable management module to	
6	Should support simultaneous r	emote access of different servers in the chassis	
7	Chassis should be configured v SAN Switches with 12 port act failure. FC switch should have Ports per SAN switch. SAN swit	vith dual Redundant Hot-Swap 8 GB Fibre Channel ive licenses and should provide no single point of minimum of 6 x 8 Gbps or more External uplink ches should be scalable up to 20 ports or more.	
8	Each blade enclosure should redundant hot pluggable far fans/blower should ensure the servers populated till the fan is	d have cooling sub-system consisting of fully is or blowers. In case of failure the balance e smooth functioning of the blade system with all replaced	
9	Must have at least one DVD(cable)	R/W) drive per chassis (External through USB	
Item	No. 2: Database Server		
Sr. No.	Item Minimum Specifications		Make & Model
1	СРИ	64 bit, Intel [®] Xeon [®] Processor E5-2650 (20M Cache, 2.00 GHz, 8.00 GT/s Intel [®] QPI)	HP Proliant BL460c Gen8
	Form Factor	Blade Format	Server Blade
	Architecture	Intel	
2	Processor Bus architecture		
	No. of CPUs required currently	16 cores using minimum 2 processor sockets	
3	System Memory		
	The Memory in the proposed server should be DDR3;	Minimum 8 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 128 GB memory)	
	Memory should be protected through Advanced ECC / Chip kill,		
	Each server node should have at-least 25% DIMM Slot un-populated for Memory upgrade in future		

4	Hard Disk Internal		
	Controller for this devices	SAS	
	Total internal hard disk bays	2 or more	1
	Total disk capacity	2 x 900 GB SAS with 10K rpm	-
5	Networking		-
	Ethernet	4 *1000 Base T ports	-
	Management console Port	100 Base T Management LAN with web console	
		access (additional licenses need to be supplied)	
6	Input / Output		
	PCI Slots	Each Server proposed should have minimum 2	1
		PCI-E Slots	-
7	Fiber HBA	1 x 8 Gbps FC HBA (dual port) PCI-E based.	-
/		Latest version of 64 bit - Rednat Linux Server OS	-
8	hardware or software RAID 0 & 1)	Mandatory	
9	Server Management	Support remote connection to LAN console port via SSH and web browser with SSL encryption LAN console port supports remote power up and power down control Support Event notification to system console	
10	Miscellaneous	Server should have LCD/LED indicators to identify System Health & failed components.	
		System management should be through dedicated ports and should not use the adapters provided for the application	
		All servers shall be booted through the SAN or Internal SAS drives with HW RAID.	
ltem	No. 3: Application Server		
Sr. No.	Item Minimum Specifications		Make & Model
1	СРИ	64 bit, Intel [®] Xeon [®] Processor E5-2620 (15M Cache, 2.00 GHz, 7.20 GT/s Intel [®] QPI)	HP Proliant BL460c Gen8
	Form Factor	Blade Format	Server Blade
	Architecture	Intel	
2	Processor Bus architecture		
	No. of CPUs required currently	12 cores using minimum 2 processor sockets	
3	System Memory		
	The Memory in the proposed server should be DDR3;	Minimum 4 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 48 GB memory)	
	Memory should be protected through Advanced ECC/Chip kill		
	Each server node should have at-least 25% DIMM Slot un-populated for Memory upgrade in future		

		I	
4	Hard disk internal		
	Controller for this devices	SAS	
	Total internal hard disk bays	2 or more	
	Total disk capacity	2 x 900 GB SAS with 10K rpm	
5	Networking		
	Ethernet	4 *1000 Base T ports	
6	Management console Port Input / Output	100 Base T Management LAN with web console access (additional licenses need to be supplied)	
	PCI Slots	Each Server proposed should have minimum 2 PCI-E Slots	
7	Operating System	Latest version of 64 bit - Redhat Linux Server OS	
8	RAID features (support hardware or software RAID 0 & 1)	Mandatory	
9	Server Management	Support remote connection to LAN console port via SSH and web browser with SSL encryption LAN console port supports remote power up and power down control Support Event notification to system console, Server should have LCD/LED indicators to	
10	Wiscenarieous	identify System Health & failed components.	
		System management should be through dedicated ports and should not use the adapters provided for the application	
		All servers shall be booted through the SAN or Internal SAS drives with HW RAID.	-
Item	No. 4: Web Server		·
Sr. No.	Item Minimum Specifications		Make & Model
1	СРИ	64 bit, Intel [®] Xeon [®] Processor E5-2620 (15M Cache, 2.00 GHz, 7.20 GT/s Intel [®] QPI)	HP Proliant BL460c Gen8
	Form Factor	Blade Format	Server Blade
	Architecture	Intel	
2	Processor Bus architecture		1
	No. of CPUs required currently	12 cores using minimum 2 processor sockets	
3	System Memory		
	The Memory in the proposed server should be DDR3;	Minimum 4 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 48 GB memory)	
	Memory should be protected through Advanced ECC/Chip kill		
	Each server node should have at-least 25% DIMM Slot un-populated for Memory upgrade in future		

4	Hard dick internal		
4	Controller for this devices	242	
	Total internal bard disk bays	2 or moro	-
	Total disk capacity	2 x 900 GB SAS with 10K rpm	
F	Notworking		
5	Tthorpot	4 *1000 Passa T parts	
	Ethernet	4 1000 Base 1 ports	-
	Management console Port	access (additional licenses need to be supplied)	
6	Input / Output		
	PCI Slots	Each Server proposed should have minimum 2 PCI-E Slots	
7	Operating System	Latest version of 64 bit - Redhat Linux Server OS	
8	RAID features (support hardware or software RAID 0 & 1)	Mandatory	
9 10	Server Management Miscellaneous	Support remote connection to LAN console port via SSH and web browser with SSL encryption LAN console port supports remote power up and power down control Support Event notification to system console, Server should have LCD/LED indicators to identify System Health & failed components.	
		System management should be through dedicated ports and should not use the adapters provided for the application All servers shall be booted through the SAN or	
		Internal SAS drives with HW RAID.	
Item I	No. 5: Database Maintenance Se	erver	
Sr. No.	Item Minimum Specifications		Make & Model
1	СРО	64bit, Intel [®] Xeon [®] Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s)	HP Proliant BL460c Gen8
	Form Factor	Blade Format	Server Blade
	Architecture	Intel	
2	Processor Bus architecture		
	No. of CPUs required currently	8 cores using minimum 2 processor sockets	
3	System Memory		
	The Memory in the proposed server should be DDR3;	Minimum 4 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 32 GB memory)	
	Memory should be protected through Advanced ECC/Chip kill		
	Each server node should have at-least 25% DIMM Slot un-populated for Memory upgrade in future		

	1	1	-
	Controller for this devices	SAS	
	Total internal hard disk bays	2 or more	
	Total disk capacity	2 x 900 GB SAS with 10K rpm	
5	Networking		
	Ethernet	4 *1000 Base T ports	
	Management console Port	100 Base T Management LAN with web console	
		access (additional licenses need to be supplied)	
6	Input / Output		
	PCI Slots	Each Server proposed should have minimum 2 PCI-E Slots	
	Fiber HBA	1 x 8 Gbps FC HBA (dual port) PCI-E based	
7	Operating System	Latest version of 64 bit - Red hat Linux Server OS	
8	RAID features (support hardware or software RAID 0 & 1)	Mandatory	
9	Server Management	Support remote connection to LAN console port via SSH and web browser with SSL encryption LAN console port supports remote power up and power down control Support Event notification to system console,	
10	Miscellaneous	Server should have LCD/LED indicators to identify System Health & failed components	
		System management should be through dedicated ports and should not use the adapters provided for the application	
		All servers shall be booted through the SAN or	
		Internal SAS drives with HW RAID.	
Item	No. 6: Application Maintenance	Server	
Sr. No.	Item Minimum Specifications		Make & Model
1	СРИ	64bit, Intel [®] Xeon [®] Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s)	HP ProLiant BL460c Gen8
	Form Factor	Blade Format	Server Blade
	Architecture	Intel	
2	Processor Bus architecture		
	No. of CPUs required currently	8 cores using minimum 2 processor sockets	
3	System Memory		
	The Memory in the proposed server should be DDR3;	Minimum 4 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 32 GB memory)	
	Memory should be protected through Advanced ECC/Chip kill		
	Each server node should		
	have at-least 25% DIMM Slot un-populated for Memory upgrade in future		
4	have at-least 25% DIMM Slot un-populated for Memory upgrade in future		

	Controller for this devices	SAS	
	Total internal hard disk bays	2 or more	
	Total disk capacity	2 x 900 GB SAS with 10K rpm	
5	Networking		
	Ethernet	4 *1000 Base T ports	
	Management console Port	100 Base T Management LAN with web console	
		access (additional licenses need to be supplied)	
6	Input / Output		
	PCI Slots	Each Server proposed should have minimum 2 PCI-E Slots	
7	Operating System	Latest version of 64 bit - Red hat Linux Server OS	
8	RAID features (support hardware or software RAID 0 & 1)	Mandatory	
9	Server Management	Support remote connection to LAN console port via SSH and web browser with SSL encryption LAN console port supports remote power up and power down control Support Event notification to system console,	
10	Miscellaneous	Server should have LCD/LED indicators to identify System Health & failed components	
		System management should be through	
		provided for the application	
		All servers shall be booted through the SAN or Internal SAS drives with HW RAID.	
Item	No. 7: Backup Server	All servers shall be booted through the SAN or Internal SAS drives with HW RAID.	
ltem Sr. No.	No. 7: Backup Server Item Minimum Specifications	All servers shall be booted through the SAN or Internal SAS drives with HW RAID.	Make & Model
Item Sr. No. 1	No. 7: Backup Server Item Minimum Specifications CPU	dedicated poils and should not use the adapters provided for the application All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s)	Make & Model HP ProLiant BL460c Gen8
Item Sr. No. 1	No. 7: Backup Server Item Minimum Specifications CPU Form Factor	Generation All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format	Make & Model HP ProLiant BL460c Gen8 Server Blade
ltem Sr. No. 1	No. 7: Backup Server Item Minimum Specifications CPU Form Factor Architecture	dedicated poils and should not use the adapters provided for the application All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format Intel	Make & Model HP ProLiant BL460c Gen8 Server Blade
ltem Sr. No. 1	No. 7: Backup Server Item Minimum Specifications CPU Form Factor Architecture Processor Bus architecture	64bit, Intel [®] Xeon [®] Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format	Make & Model HP ProLiant BL460c Gen8 Server Blade
Item Sr. 1	No. 7: Backup Server Item Minimum Specifications CPU Form Factor Architecture Processor Bus architecture No. of CPUs required currently (latest generation processors)	dedicated ports and should not use the adapters provided for the application All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format Intel 8 cores using minimum 2 processor sockets	Make & Model HP ProLiant BL460c Gen8 Server Blade
Item Sr. No. 1 2 3	No. 7: Backup Server Item Minimum Specifications CPU Form Factor Architecture Processor Bus architecture No. of CPUs required currently (latest generation processors) System Memory	dedicated ports and should not use the adapters provided for the application All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format Intel 8 cores using minimum 2 processor sockets	Make & Model HP ProLiant BL460c Gen8 Server Blade
Item Sr. No. 1 2 3	No. 7: Backup Server Item Minimum Specifications CPU Form Factor Architecture Processor Bus architecture No. of CPUs required currently (latest generation processors) System Memory The Memory in the proposed server should be DDR3;	dedicated ports and should not use the adapters provided for the application All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format Intel 8 cores using minimum 2 processor sockets Minimum 4 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 32 GB memory)	Make & Model HP ProLiant BL460c Gen8 Server Blade
Item Sr. No. 1 2 3	No. 7: Backup Server Item Minimum Specifications CPU Form Factor Architecture Processor Bus architecture No. of CPUs required currently (latest generation processors) System Memory The Memory in the proposed server should be DDR3; Memory should be protected through Advanced ECC/Chip kill	dedicated ports and should not use the adapters provided for the application All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format Intel 8 cores using minimum 2 processor sockets Minimum 4 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 32 GB memory)	Make & Model HP ProLiant BL460c Gen8 Server Blade
Item Sr. No. 1 2 3	No. 7: Backup Server Item Minimum Specifications CPU Form Factor Architecture Processor Bus architecture No. of CPUs required currently (latest generation processors) System Memory The Memory in the proposed server should be DDR3; Memory should be protected through Advanced ECC/Chip kill Each server node should have at-least 25% DIMM Slot un-populated for Memory upgrade in future	dedicated ports and should not use the adapters provided for the application All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format Intel 8 cores using minimum 2 processor sockets Minimum 4 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 32 GB memory)	Make & Model HP ProLiant BL460c Gen8 Server Blade
Item Sr. No. 1 2 3	No. 7: Backup Server Item Minimum Specifications CPU Form Factor Architecture Processor Bus architecture No. of CPUs required currently (latest generation processors) System Memory The Memory in the proposed server should be DDR3; Memory should be protected through Advanced ECC/Chip kill Each server node should have at-least 25% DIMM Slot un-populated for Memory upgrade in future Hard disk internal	dedicated ports and should not use the adapters provided for the application All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format Intel 8 cores using minimum 2 processor sockets Minimum 4 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 32 GB memory)	Make & Model HP ProLiant BL460c Gen8 Server Blade
Item Sr. No. 1 2 3	No. 7: Backup Server Item Minimum Specifications CPU Form Factor Architecture Processor Bus architecture No. of CPUs required currently (latest generation processors) System Memory The Memory in the proposed server should be DDR3; Memory should be protected through Advanced ECC/Chip kill Each server node should have at-least 25% DIMM Slot un-populated for Memory upgrade in future Hard disk internal Controller for this devices	dedicated ports and should not use the adapters provided for the application All servers shall be booted through the SAN or Internal SAS drives with HW RAID. 64bit, Intel® Xeon® Processor E5-2609 (4 core, 10M Cache, 2.40 GHz, 6.40 GT/s) Blade Format Intel 8 cores using minimum 2 processor sockets Minimum 4 GB Per CPU Core DDR3 Memory should be configured. (Supplied Blade Server is configured with total 32 GB memory) SAS	Make & Model HP ProLiant BL460c Gen8 Server Blade

	T		
	l otal disk capacity	2 X 300 GB SAS with 10K rpm	
5	Networking		
	Ethernet	2 *1000 Base T ports	
	Management console Port	100 Base T Management LAN with web console	
6	Input / Output	access (additional licenses need to be supplied)	
	PCI Slots	Fach Server proposed should have minimum 2	
		PCI-E Slots	
	Fiber HBA	1 x 8 Gbps FC HBA (dual port) PCI-E based	
7	Operating System	Latest version of 64 bit - Red hat Linux Server OS	-
8	RAID features (support hardware or software RAID 0 & 1)	Mandatory	
9	Server Management	Support remote connection to LAN console port via SSH and web browser with SSL encryption LAN console port supports remote power up and power down control Support Event notification to system console,	
10	Miscellaneous	Server should have LCD/LED indicators to identify System Health & failed components	
		System management should be through dedicated ports and should not use the adapters provided for the application	
		All servers shall be booted through the SAN or Internal SAS drives with HW RAID.	
Item	No. 8: SAN Storage		
Sr. No.	Item Minimum Specifications		Make & Model
1	Storage Architecture	Unified Storage System with no single point of failure architecture. Proposed system must support 6 Gbps SAS architecture. The system must support dual- ported SAS drives. The architecture should allow modular upgrades of hardware and software for	HP 3PAR StoreServ 7400 Storage
		investment protection.	
2	Array Architecture Front-end & Backend connectivity.	investment protection. Array should be equipped with minimum dual Active-active controllers for better performance and redundancy. Proposed must have minimum 8 FC Host ports at 8 Gbps & 4 iSCSI ports across controllers. Proposed system should have minimum 8 or more backend lanes each at 6 Gbps for backend device connectivity.	

			1
4	Drive Support & Capacity required	The solution must support 2nd generation SAS 6Gb/s drives, proposed system must be able to support all on-line data storage tiers in order to maximize both system performance and capacity scalability. Proposed system should support 10K RPM SAS, 15K RPM SAS as well as 7.2K RPM higher density NL-SAS drives. Currently the system should be configured with 25 TB usable space using 900GB 10K/15K RPM on RAID 5 (6D+1P or better) and required hot spare disks. This should be the net usable space available after considering all the system overheads and RAID penalties.	
5	Flash Drive / SSD Support	Proposed system should support Flash Drives / SSD to maximize performance with minimum foot print and power consumption.	
6	Cache	The storage array must be supplied with minimum 16 GB cache memory across dual controllers. It can be scalable up to 32 GB cache in future.	
7	Storage Based Tiering	Proposed system should deliver optimal performance at a lower cost by dynamically moving "hot" data to higher performing drives and "cold" data to more cost-effective higher density drives. Tiering should happen between all 3 tiers i.e. Flash / SSD, SAS and NL-SAS drives.	
8	Cache Protection	Cache should be mirrored between the Active- Active controllers on separate Inter controller paths. The inter controller paths should be redundant (at least 2 paths) to prevent disruption if one path fails. Must support either Cache battery backup for a minimum of 72 hours or fully automatic de-stage of cache to disks to prevent possible data loss during extended power outage.	
9	RAID Level Support	Must support hardware RAID levels 1, 1+0, 5 and 6. Must support inter-mixing different RAID groups within one storage system	
10	On-line RAID Group \ Volume \ Storage Pool Expansion	Must support online expansion of RAID Group \ Volume \ Storage Pool. Must be able to add additional disks on the fly to expand the RAID Group \ Volume \ Storage Pool capacity.	
11	In-Array data mobility for flexibility of redeployment.	Must be able to migrate data from one RAID type or set of drives to another without impacting applications within the same system enabling users to seamless relocate active data from one RAID group to another and or across storage tiers, resulting in the highest cost efficiency and application performance.	
12	Array-based LUN Masking	Must support array-based hardware LUN masking for highest security. It should not be host-based or switch-based. Storage must support LUN masking or Selective storage visibility for different hosts or clusters. Array vendor should provide for licenses to support	

15	Thin provisioning Disaster recovery	and /or testing. License for the same must be provided. Must support thin provisioning to allow physical allocation of just the storage that is needed within a defined virtual file system or LUN. Storage array should support hardware based long distance data replication at the array controller level in both synchronous and asynchronous mode.	
15 16	Thin provisioning Disaster recovery	and /or testing. License for the same must be provided. Must support thin provisioning to allow physical allocation of just the storage that is needed within a defined virtual file system or LUN. Storage array should support hardware based long distance data replication at the array	
15	Thin provisioning	and /or testing. License for the same must be provided. Must support thin provisioning to allow physical allocation of just the storage that is needed within a defined virtual file system or LUN.	
		and for testing. License for the same must be provided.	
		full physical copies. Point in time copies as well as full physical copies. Point in time copy should require minimal space for creation of snapshot. The snapshot must be a readable/writable that can be mounted by a separate host for back up	
14	Array based copies	The array should support controller based	
13	Array Management	Easy to use GUI based and web enabled administration interface for configuration, storage management. Storage Management software must include both GUI and CLI tools. It must be able to centrally manage the vendor's complete range of arrays over the network. It must support web-based management. It must support event auditing for security. The date, time, and nature of the action must also be logged. Provide management control of SNMP, email and phone home notification. Must be able to discover and monitor virtual machines so that entire environment can be mapped from virtual machines to physical to	

	(compressed).	MSL 6480	Тар	
2	Shall be offered with Minimum of four LTO5 or higher FC tape drive. Drive shal			
	support encryption			
3	Shall be offered with minimum of 96 Cartridge slots.			
4	4 LTO5 or higher drive in the Library shall conform to the Continuous and Data r			
	matching technique for higher reliability.			
5	LTO5 or higher drive shall support 140MB/sec in Native mode and 280MB/sec in			
	2:1 compressed mode.			
6	Tape Library shall provide 8 Gbps native FC connectivity to SAN switches.			
7	7 Library shall be provided with a hardware device like USB key, separa			
	appliance or should be managed through software etc. to keep all the encrypted			
	keys in a redundant fashion.			
8	Tape Library shall provide web based remote management.			
9	The library should have cartridge import & export ports for secure & easy off-sit			
	backup storage			

10	Tape library shall support Barcode reader and mail slot		
	ii. Shall be rack mountable.		
	iii. Shall have option for redundant power supply.		
11	20 LTO5 or higher barcode labeled cartridges & 2 cleaning cartridges from the		
	tape library		
Item N	Io. 10: Application (Server) Load Balancer Cum SSL – Accelerator		
Sr.	Item Minimum Specifications	Make & Model	
1	Architecture		
1.1	Should have 6 x 10/100/1000 Mbps copper ports	Radware	
1.2	Should have minimum 2GB memory	Alteon 4408	
1.3	Support for 1 Million simultaneous sessions		
14	Should provide minimum 2 Gbps 17 throughput from day one and should have a		
1.4	provision to be upgraded to 4 Gbps L7 throughput without changing the hardware & software.		
1.5	Should support Dynamic routing protocols like OSPF, RIP1, RIP2		
1.6	Should have embedded OS		
1.7	Should support 120000 Concurrent L4 connections		
2	Load Balancing Features		
2.1	Minimum support for 100 Servers & Maximum for 4000 real servers and 1000		
	virtual servers		
2.2	Should support load balancing algorithms		
2.2.1	Least number of users/session.		
2.2.2	Cyclic.		
2.2.3	weighted Cyclic		
2.2.4	SNMP Parameters, like Server CPU utilization etc.		
2.3	Should support Client NAT & Server NAT		
2.4	In case of Server / Application failure device should detect it in not more than 30 seconds		
2.5	In case of Server failure traffic should be diverted to another Server automatically		
3	Server & Client Feature		
3.1	Should support Graceful shutdown of Servers		
3.2	Should support Graceful Activation of Servers		
3.3	Should able to redirect traffic based on Source IP, Destination IP & TCP PORT		
3.4	Should provide Real Time information of the live session and Allow administrator		
	to extract information for a specific concurrent session		
3.5	Should support selective subnet for hiding source IP address for load balancing applications within the same subnet.		
4	Health Monitoring		
4.1	Should provide individual health check for each Server & Application		
4.2	Should be able to do health check on protocols like HTTP, SMTP, POP etc.		
4.3	Should able to check the health of Server OS, Application & contents as well		
4.4	Should provide AND , OR mechanism between health check		
4.5	Should provide GUI interface to configure any health check		

5.1	Should Support VRRP		
5.2	Should support transparent failover between 2 devices		
6	Application Acceleration		
6.1	Should support Caching		
6.2	Should support HTTP Multiplexing		
7	Load Balancing Applications		
7.1	Application/ Web Server, MMS, RTSP, Streaming Media		
7.2	DNS, FTP- ACTIVE & PASSIVE, REXEC, RSH,		
7.3	LDAP, RADIUS		
8	Device Management, Auditing & Reporting		
8.1	.1 Should provide GUI interface for configuration & reporting		
8.2	Should provide HTTP / HTTPS interface management		
8.3	Should provide SSH / Telnet / CLI interface		
8.4	Should support SNMP V1, V2c, V3		
8.5	Should provide Detailed LIVE reporting for traffic on each server / Farm		
8.6	Should provide detailed historic reporting for each server / farm traffic		
8.7	All configuration activity is logged and reported via SNMP traps and/or emails for		
	auditing and regulation compliance purposes.		
9	L7 Support & Persistency		
9.1	Should support URL based farms		
9.2	Should support Content based farms		
9.3	Should support Backend encryption: Ability to secure end-to-end path while		
9.4	Should be able to hold Session Persistency based on cookie information. SSLID		
9.5	Should support Pattern based Persistency BADILIS Persistency		
10	Segmentation		
10.1	Should have ability to load balance multiple DMZ servers with in single unit		
10.1	without compromising security.		
10.2	Should support virtualization capabilities with complete separation of		
10.2	configuration files and management interfaces		
10.3	should provide customized and guaranteed resources per application on throughput and connections per second		
11	SSL acceleration and compression		
11.1	Should support SSL offloading, caching and compression		
11.2	Should provide upto 15,000 SSL TPS and scalable up to 20,000 SSL TPS at 2048		
	bit Key and upto 1 Gbps hardware/software accelerated compression		
11.3	Should support re-encryption capabilities to support end to end encryption of		
11.4	Should support SSL v2 and v3. TIS. AFS. RSA 512 768 1024 and 2048 hit		
±±.7	certificates, RC4, DES, 3DES, SHA and MD5 ciphers		
12	Security		
12.1	Should have security capabilities to protect critical application from malicious		
	sequence number randomization. TCP header validation. Unicast reverse path		
	forwarding checks, TCP syn cookies for DDos protection and rate limiting		
	capabilities which can be applied to a set of real servers or virtual servers		
13	Device should support IPv6 from day one.		

Sr.	Item Minimum Specifications	Make & Model
No.		
1	Specification: -	HP 5120 SI
	 Ports: 24 x 10/100/1000 Mbps RJ-45 ports. 	Switch Series
	• Uplink Ports: At least 4 SFP ports for fiber connectivity.	
	Switching Capacity: Minimum 56 Gbps,	
	• Forwarding Rate: At least 41.6 Mpps,	
	 VLAN Support: IEEE 802.1Q VLAN tagging, 	
	• Spanning Tree Protocol (STP): IEEE 802.1D, 802.1w, 802.1s	
	Link Aggregation: IEEE 802.3ad (LACP).	
	QoS: 802.1p priority queuing.	
	 Management: Web-based GUI, CLI, SNMP v1/v2/v3. 	
	 Power Supply: Internal redundant power supply. Mounting: Rack- mountable. 	

However, interesting agency may visit site (Primary Site & DR Site) for more clarity regarding the equipment's to be covered under CAMC as per the scope defined in this bid before submitting their proposal under this bid.

Responsibilities of Successful bidder

The successful bidder will have to provide following services to Director of Accounts & Treasuries for the maintenance of the equipment's under this Non Back to Back CAMC contract: These are critical equipment's and are installed (Primary Site & DR Site).

Successful bidder will be responsible for the following activities enabling smooth and uninterrupted operations:

- Responsible for providing Non Back to Back Comprehensive AMC at site for the equipment's mentioned in the RFP.
- Vendor Co-ordination for various Infrastructure components.
- Proactive and reactive maintenance, repair and replacement of defective components related to the equipment's to be covered in this RFP. The cost of repair and replacement shall be borne by the selected bidder.
- Periodicity of Preventive Maintenance Services of server and other components should be on a monthly basis.
- The bidder should ensure for the necessary spare component will be available for the duration of contract period.
- Technical support for all hardware items.
- In case of failure of any component bidder has to repair or replace faulty component free of cost.
- In case if repair is not possible and product End of Life then replace it with latest product with similar or higher configuration with prior approval of department.
- Contract includes onsite technical support for all hardware and software.
- During the term of the agreement, the bidder agrees to maintain the equipment's in good working order.
- The bidder shall provide repair and maintenance service, in response to oral including telephonic notice by the office and such services should be available for all working days. However, due to any reason if the office will remain open on any public holiday then the bidder has to provide service on the request of the office.

- The bidder shall deploy One Dedicated Qualified maintenance engineer within 7 days from the contract start date who must be totally familiar with the equipment and shall perform all repair and maintenance service as described herein.
- Contract duration will be counted from the date of issue of the order under this RFP.
- Contract includes quarterly preventive maintenance services.

Manpower for Hand Holding Support

- Successful bidder will have to depute minimum **1(One)** technical manpower to provide hand holding support for the contract period.
- The deputed manpower will have to remain present during normal office hours (9 AM to 7 PM) during working days and co-ordinate with department authority for their daily IT related activities.
- If require, the manpower will have to remain present on holyday(s) or after office hours based on the requirements at no extra cost to department.
- The bidder shall have to provide backup resources in case of the deputed manpower is absent or on leave.
- If require, the bidder shall deploy additional resources or SME to carry the extensive preventive maintenance activities of components under CAMC at no additional cost to department.
- The bidder shall submit proof of attendance along with the quarterly Invoice for payment.
- The deputed support manpower shall be equipped with laptop and necessary tool (software/hardware) for carrying out day to day task. Department will not provide any kind of instruments / equipment's for service.

Skills required: -

- Technical Expertise: Should have Hands-on experience in Network Load Balancer, Application & Web Server Clustering, database clustering, virtualization (VMware, Hyper-V), and Windows/Linux administration. Ability to configure, implement, and maintain server infrastructure, storage hardware, and enterprise applications.
- Problem-Solving & Coordination: Should have Strong troubleshooting, analytical, and communication skills to resolve system issues efficiently. Capable of working in a team-oriented environment while ensuring smooth IT operations and high availability of data center services.

SLA & Penalty:

1. Operational Related Penalty:

1.1 For Software Uptime: - Application (CTP) Availability.

Downtime required for maintenance, new initiatives undertaken by SP, or for Performance enhancement measures shall not be considered while calculating uptime. All major maintenance shall be carried out in a planned manner after announcing it across the platform.

Uptime Target >= 99.7%

Penalty: - INR 1,000 for every hour of downtime at a stretch or in parts on a quarterly basis. And INR 1,500 for every subsequent hour of downtime at a stretch or in parts for a total downtime of more than 10 hours on a quarterly basis.

Note: - The system administration activities such as patch up-gradation; technical update/upgrades may not be included in downtime. Bidder has to take prior approval from the department for planned downtime.

1.2 Operational Related Penalty for Handholding Support:

	SLA Measure	Target	Flat Penalty Rs.
	Absence of Manpower and not made alternate arrangement	> 1 Day	1000 per day
Not recruited/deployed		> 7 days to < 15 days	1000 per day
	manpower	> 15 days	2000 per day

Availability of the minimum required manpower should be 100%. The agency has to implement the attendance system and share the attendance report of person(s) deployed as part of team on monthly basis with the user department.

Penalty Calculations:

- Penalty calculations shall be calculated on accumulated non-compliance for all of the above SLAs.
- Total Time shall be measured on a 24*7 basis.
- Any planned downtime for maintenance shall be with prior written permission from FD and must be intimated to all users.

The Overall penalty cap during the contract period shall be capped at 10% of the quarterly invoice value. However, if such a value of 10% is reached for any three consecutive months during the contract period, then the Finance Department will have the right to terminate the contract.

1.3 Other:

The AMC Contract period, DAT/Finance Dept. may terminate the contract by giving 1-month advance notice, if need arises