Corrigendum Towards GEM Bid No. GEM/2025/B/6250173 dt. 19-05-2025 (Tender Ref. No. CDACP/MTG-IDC/25-26/Re434)

Sr. No	Bid Page	Section	Point | Paragraph No.	Sub Point No.	Existing Specifications	Modified Specifications
1	1	GeM Bid Document	Bid Details		Bid End Date/Time: 09-06-2025 19:00:00 Bid Opening Date/Time: 09-06-2025 19:30:00	Bid End Date/Time :16-06-2025 19:00:00 Bid Opening Date/Time: 16-06-2025 19:30:00
2	Page 13	SECTION III: SPECIAL CONDITIONS OF CONTRACT (SCC)	6. PART A	f	Requesting for clarification and elaboration if Sandbox, Analyzer and Centralized Management to be in HA or standalone?	Sandbox, Analyzer and Centralized Management to be in standalone whereas Firewall is HA Pair
3	Page 18	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 1 (CPU Server - Type-01) Point No. 1	**Processor:** 1. Each server shall be dual-socket (fully populated) with CPUs having a minimum of 64 cores, 5th generation or latest x86_64-bit processor, running at min. 2.0 GHz.	**Processor:** 1. Each server shall be dual-socket (fully populated) with CPUs having a minimum of 64 cores, 5th generation Intel /4th generation AMD or latest x86_64-bit processor, running at min. 2.0 GHz.
4	Page 18	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 1 (CPU Server - Type-01) Point No. 1	The server must support Secure BIOS with TPM 2.0, digitally signed firmware, BIOS lockdown/write protection, and be compatible with Ubuntu 22.04 LTS / RHEL 9.x and listed in the OEM hardware compatibility list (HCL).	The server must support Secure BIOS with TPM 2.0, digitally signed firmware and be compatible with Ubuntu 22.04 LTS / RHEL 9.x and listed in the OEM hardware compatibility list (HCL).
5	Page 18	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 1 Point No. 2 (CPU Server - Type-01)	Server must include two 960 GB Hot Swappable NVMe SSDs configured in RAID 1 for operating system installation.	Server must include two 960 GB Hot Swappable SATA / SAS / NVMe/M.2 SSDs configured in RAID 1 for operating system installation.

6	Page 19	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 2 (CPU-GPU-Server-Type-02)	**Processor:** 1. Each server shall be dual-socket (fully populated) with CPUs having a minimum of 64 cores, 5th generation or latest x86_64-bit processor, running at min. 2.0 GHz.	**Processor:** 1. Each server shall be dual-socket (fully populated) with CPUs having a minimum of 64 cores, 5th generation Intel /4th generation AMD or latest x86_64-bit processor, running at min. 2.0 GHz.
7	Page 19	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 2 (CPU-GPU-Server-Type-02)	**Certifications & Compliance:** Servers should be certified by GPU Controller / Accelerator OEM, the Certificate or listing of offered Server model in GPU Controller / Accelerator OEM website must be submitted along with bid.	Servers should be certified for GPU Controller / Accelerator compatibility. The Certificate from Server OEM / GPU OEM or listing of offered Server model in GPU Controller / Accelerator OEM website must be submitted along with bid.
8	Page 20	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 3 (CPU-GPU Server-Type-03)	**Networking:** 1. Networking interfaces include 4 x OSFP ports serving 8x single-port NVIDIA ConnectX-7 VPI adapters (up to 400 Gb/s).	**Networking:** 2. Networking interfaces include 8 x single-port NVIDIA ConnectX-7 VPI adapters (up to 400 Gb/s).
9	Page 20	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 3 (CPU-GPU Server-Type-03)	**Storage:** Operating system storage is supported by 2 x 1.92 TB NVMe M.2 drives, and internal data storage includes 8 x 3.84 TB Hot Swappable NVMe U.2 drives.	**Storage:** Operating system storage is supported by minimum 2 x 960 GB SATA/SAS/NVMe M.2 drives, and internal data storage includes 8 x 3.84 TB Hot Swappable NVMe U.2 drives.
10	Page 20	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 3 (CPU-GPU Server-Type-03)	**Software and OS:** The system must come factory preinstalled OS Ubuntu. Shall include AI Stack.	**Software and OS:** The system must be offered with OS Ubuntu. This will include latest NVIDIA AI Enterprise with subscription & support for 5 years.

11	Page 21	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 5 (EDR), Point No. 8 (Prevention & Detection)	The solution must identify and block privilege escalation attacks (process monitoring) reconnaissance attacks (network traffic monitoring). Also block usage of attack tools like Metasploit, Empire, etc. covering DDOS attack, network port scanning, and flooding etc.	The solution must identify and block process related attacks, reconnaissance attacks. Also block usage of attack tools via application whitelisting/blacklisting.
12	Page 22	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No.5 (EDR), Point No. 9 (Prevention & Detection)	The solution must identify, and block credentials attempt form either memory (credentials dump, brute force) or network traffic behavioral analysis. (e.g. ARP spoofing, DNS responder) The solution must identify, block and alert on lateral movement (SMB relay, pass the hash, port scanning etc.)	The solution must analyze network activity. The solution must identify, block and alert on lateral movement/file activities.
13	Page 22	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No 5 (EDR), Point No. 10 (Prevention & Detection)	The solution must identify user account malicious behavior, indicative of compromise. The solution must identify user account malicious interaction with data files. i.e. Decoy files.	The solution must identify malicious behavior, indicative of compromise.
14	Page 23	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No 5 (EDR), Point No. 5 (Operation & Capabilities)	The proposed solution should have full remote shell capabilities for all operating system (Windows, Linux and Mac).	The proposed solution should have full remote shell capabilities for all operating system (Windows, Linux and Mac) or shall support live query option.
15	Page 23	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 5 (EDR), Point No. 15 (Operation & Capabilities)	The solution should provide options for exclusions for HASH, path, certificate or signer ID, file types, IP address and websites.	The solution should provide options for exclusions for HASH, file types, IP address.

16	Page 23	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 5 (EDR), Point No. 16 (Operation & Capabilities)	Solution should support compliance standards such as GPDR, HIPAA, and PCI-DSS etc.	This point is dropped.
17	Page 25	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 6 Storage	**NAS Storage - 1PB** **Capacity:** The total usable capacity of the storage shall be 1PB after implementing the RAID 6 or better redundancy. The storage shall be scalable to 1.5PB without adding additional controllers and disk enclosures. **Performance:** The storage shall provide 10GB/sec write throughput and 2.5Lakhs IOPS. **Redundancy:** The proposed storage shall support RAID6 or better protection. The storage shall be configured as No Single Point of Failure w.r.to controllers, disks, Power supplies, Fans, and connectivity. The proposed controllers shall work in active – active load balancing mode with Battery Backed Write Cache (BBWC) or equivalent. **Protocols:** NFS, CIFS and ISCSI protocols. Shall support GPU	**PFS / NAS / Scale-Out NAS Storage - 1PB** **Capacity:** The total usable capacity of the storage shall be 1PB after implementing the RAID 6 or better redundancy. **Performance:** The storage shall provide 10GB/sec write throughput and 2.5Lakhs IOPS. **Redundancy:** The storage shall be configured as No Single Point of Failure w.r.to controllers, disks, Power supplies, Fans, and connectivity. The proposed controllers shall work in active – active load balancing mode with Battery Backed Write Cache (BBWC) or equivalent. **Protocols:** NFSv4 or above, CIFS/SMBv3.0 or above protocols. Shall support GPU Direct. CSI support for dynamic storage provisioning. Should support REST API. Should provision integration of Storage with cloud stack. **Features:** Storage shall support Data at rest Encryption. POSIX Compliant

					Direct. CSI support for dynamic storage provisioning. Should support REST API. Should provision integration of Storage with cloud stack. **Features:** Storage shall support SNAPSHOT, WORM functionality on identified Partition/Volumes. Storage shall support Data at rest Encryption. **Storage Delivery:** Shall have min. 2nos. of 100Gbps ports (RDMA/RoCE enabled) per controller. **License:** License shall include proposed storage capacity, SNAPSHOT, Compression and De-duplication. **Power and Rack Space:** Consumption shall not exceed 20KW and 20U rack space. Supply shall include Rack Mounting kits for the Controllers, Storage enclosures. **Miscellaneous:** Supply shall include 5mts. MM, OM3 or better 100Gbps Patch cables along with required Transceivers compatible to the quoted switch.	**Storage Delivery:** Shall have min. 2nos. of 100Gbps ports (RDMA/RoCE enabled) per controller for storage delivery. Any additional switches required for intercommunication between controller/storage nodes should be made part of the supply. **License:** License shall include proposed storage capacity & Compression with unlimited client license compatible with quoted servers Type-01 (CPU only), CPU-GPU Server Type-02 & Type-03 **Power and Rack Space:** Consumption shall not exceed 20KW and 20U rack space. Supply shall include Rack Mounting kits for the Controllers, Storage enclosures. **Miscellaneous:** Supply shall include 5mts. MM, OM3 or better 100Gbps Patch cables along with required Transceivers compatible to the quoted switch, Quoted Storage controllers.

18	Page 25	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 7 & 8 Switch Point No. 19 & 21	Should support custom application installation with RPM install and docker containers.	This point is dropped.
19	Page 25	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 7 (48-Port 100Gbps Ethernet Switch)	**48-Port 100Gbps Ethernet Switch Performance and Architecture:** 1. Device should be a high-performance capable of supporting 100Gbps ethernet (QSFP28). 2. Device should support wire rate L2 and L3 forwarding. 3. Device should be based on industry standard virtual output queue-based architecture to avoid head-of-line blocking issues. 4. Device should support redundant hot-swappable fans and redundant hot swappable power supplies. 5. Device should have deep packet buffers / System memory 8GB or more. 6. Device should be able to support up to 100K MAC address. 7. Device should support 4K VLANs, 9200 bytes Jumbo frame. 8. Device should be able to support 256K IPv4 routes. 9. Support VRF. 10. Device should support Role based access control, AAA with TACACS+ and RADIUS. 11. Device should support ACL with	**48-Port 100Gbps Ethernet Switch Performance and Architecture (Qty:01 no.):** 1. Device should be a high-performance capable of supporting 100Gbps ethernet (SFP / SFP-DD/QSFP28). 2. Device should support wire rate L2 and L3 forwarding. 3. Device should be based on industry standard virtual output queue-based Architecture or equivalent technique to avoid head-of-line blocking issue. Device shall support PFC and ECN to avoid any congestion in the network. 4. Device should support redundant hot-swappable fans and redundant hot swappable power supplies. 5. Device should have packet buffer size of min. 2GB or System Memory of min.8GB. 6. Device should be able to support up to 100K MAC address. 7. Device should support 4K VLANs, 9200 bytes Jumbo frame. 8. Device should be able to support 200K IPv4 routes. 9. Support VRF. 10. Device should support Role based access control, AAA with TACACS+ and RADIUS. 11. Device should support ACL with

					Layer-2, L3 and L4 parameters. 12. Device should have support 10K or more ingress/egress hardware ACL entries. 13. Device should support control plane policing to safeguard system from DOS attacks. 14. Device should support policing, shaping, Marking, DHCP/COS classification and ACL based classification. 15. Device should support priority queuing. 16. Device should support PFC/DCBX. 17. Device should have virtual output queuing-based architecture, such that every input port will have a virtual output queue for every output port on the switch. 18. Should advance automation with support for on-board python and bash, API. 19. Should support custom application installation with RPM install and docker containers. 20. Device should support streaming telemetry that is not dependent on SNMP, for example device should be able to stream CPU process information, LLDP information and much more. 21. Device should support SNMP v3,	Layer-2, L3 and L4 parameters. 12. Device should support minimum 3k ingress/egress hardware ACL entries. 13. Device should support control plane policing / mechanism to safeguard system from DOS attacks. 14. Device should support policing, shaping, Marking, DHCP/COS classification and ACL based classification. 15. Device should support priority queuing. 16. Device should support PFC/DCBX. 17. Should advance automation with support for on-board python and bash, API. 18. Device should support SNMP v3, IPFIX/NetFlow/SFlow and logging. 19. Device should support on-board tcpdump/Wireshark for troubleshooting purpose and should support mirroring to L3 destination using GRE encapsulation. 20. Switch should support RDMA (RoCE) enabled traffic & Overall Switch throughput should be of minimum 9.6 Tbps. 21. Switch should be IPV6 certified. **Management:** 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message. **General:** 1. Should operate at AC ~50Hz, 220-

					IPFIX/NetFlow/SFlow and logging. 22. Device should support on-board tcpdump/Wireshark for troubleshooting purpose and should support mirroring to L3 destination using GRE encapsulation. 23. Switch should support RDMA (RoCE)enabled traffic & Overall Switch throughput should be of minimum 9.6 Tbps. **Management:** 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message. 2. Minimum one Out-Of-Band Management port (1x 1G RJ45). **General:** 1. Should operate at AC ~50Hz, 220-240V. 2. Should have safety and standards certifications as below: ROHS, UL or Equivalent, IEC or equivalent. 3. Should have LED indicator for per port status. 4. Should include suitable Rack mounting kit and brackets.	240V. 2. Should have safety and standards certifications as below: ROHS, UL or Equivalent, IEC or equivalent. 3. Should have LED indicator for per port status. 4. Should include suitable Rack mounting kit and brackets. **Note:** Break-out cable to meet the 48Ports is not acceptable. All 48 ports shall be of physical ports only.
20	Page 25	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 8 (48-Port 10Gbps Ethernet	**48-Port 10Gbps Ethernet Switch Performance and Architecture:** 1. Device should be a high-performance 48-port capable	**48-Port 10Gbps Ethernet Switch Performance and Architecture (Qty:02 nos.):** 1. Device should be a high-performance

				Switch)	switch, capable of supporting 10G ports. It should support 10G SFP+ Transceivers. 2. At least 2 Ports shall be 1/10G autosensing (with adequate Transceivers) to connect to the quoted Mgmt. Switch. 3. Device should support wire rate L2 and L3 forwarding. 4. Device should be based on industry standard virtual output queue-based architecture to avoid head-of-line blocking issues. 5. Device should support redundant hot-swappable fans and redundant hot swappable power supplies. 6. The Leaf-spine fabric should support distributed gateway-based architecture with support for symmetric integrated routing and bridging. 7. Device should have deep packet buffers / System Memory of 8GB or more. 8. Device should be able to support up to 200K MAC address. 9. Device should support 4K VLANs, 9200 bytes Jumbo frame. 10. Device should support LLDP and LACP to bundle links and detect mis-cabling issues. 11. Device should be able to support 256K IPv4 routes.	capable of supporting 10Gbps ethernet (SFP/SFP+). 2. At least 2 Ports shall be 1/10G autosensing (with adequate Transceivers) to connect to the quoted Mgmt. Switch. 3. Device should support wire rate L2 and L3 forwarding. 4. Device should be based on industry standard virtual output queue-based architecture or equivalent technique to avoid head-of-line blocking issue. Device shall support PFC and ECN to avoid any congestion in the network. 5. Device should support redundant hot-swappable fans and redundant hot swappable power supplies. 6. The Leaf-spine fabric should support distributed gateway-based architecture with support for symmetric integrated routing and bridging. 7. Device should have packet buffer size of min. 2GB or System Memory of min.4 GB. 8. Device should be able to support up to 100K MAC address. 9. Device should support 4K VLANs, 9200 bytes Jumbo frame. 10. Device should support LLDP and LACP to bundle links and detect mis-cabling issues. 11. Device should be able to support 100K IPv4 routes. 12. Support VRF.

					12. Support VRF. 13. Device should support Role based access control, AAA with TACACS+ and RADIUS. 14. Device should support ACL with Layer-2, L3 and L4 parameters. 15. Device should have support 10K or more ingress/egress hardware ACL entries. 16. Device should support control plane policing to safeguard system from DOS attacks. 17. Device should support policing, shaping, Marking, DHCP/COS classification and ACL based classification. 18. Device should support priority queuing. 19. Device should support PFC/DCBX. 20. Should advance automation with support for on-board python and bash, API. 21. Should support custom application installation with RPM install and docker containers. 22. Device should support streaming telemetry that is not dependent on SNMP, for example device should be able to stream CPU process information, LLDP information and much more. 23. Device should support SNMP v3, IPFIX/NetFlow/SFlow and	13. Device should support Role based access control, AAA with TACACS+ and RADIUS. 14. Device should support ACL with Layer-2, L3 and L4 parameters. 15. Device should have support 3K or more ingress/egress hardware ACL entries. 16. Device should support control plane policing to safeguard system from DOS attacks. 17. Device should support policing, shaping, Marking, DHCP/COS classification and ACL based classification. 18. Device should support PFC/DCBX. Should advance automation with support for on-board python and bash, API. 20. Device should support on-board tcpdump/Wireshark for troubleshooting purpose and should support mirroring to L3 destination using GRE encapsulation. 21. Switch should support RDMA (RoCE)enabled traffic & Overall Switch throughput should be of minimum 1Tbps. **Management:** 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message. **General:**

					logging. 24. Device should support on-board tcpdump/Wireshark for troubleshooting purpose and should support mirroring to L3 destination using GRE encapsulation. 25. 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. 26. Switch should support RDMA (RoCE)enabled traffic & Overall Switch throughput should be of minimum 1Tbps. **Management:** 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message. 2. Minimum one Out-Of-Band Management port (1x 1G RJ45). **General:** 1. Should operate at AC ~50Hz, 220-240V. 2. Should have safety and standards certifications as below: ROHS, UL or Equivalent, IEC or equivalent. 3. Should have LED indicator for per port status.	1. Should operate at AC ~50Hz, 220-240V. 2. Should have safety and standards certifications as below: ROHS, UL or Equivalent, IEC or equivalent. 3. Should have LED indicator for per port status. 4. Should include suitable Rack mounting kit and brackets. 5. Supply shall include required cables and SPFs to connect 10Gbps switch to connect to 100Gbps switch and 1Gbps Mgmt. Switch from each 10G switch. **Note:** Break-out cable to meet the 48Ports is not acceptable. All 48 ports shall be of physical ports only.

					4. Should include suitable Rack mounting kit and brackets.	
21	Page 25	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 9 (48-Port Management Switch (1G))	**48-Port Management Switch (1G) Performance and Architecture:** 1. Device should support a minimum of 48x 1G Copper RJ45 Ports. 2. Device should have a minimum of 2 x 10G SFP+ ports populated with multimode LC transceivers from day-1. 3. Device should support wire rate L2 and L3 forwarding. 4. Device should be able to support up to 32K MAC addresses. 5. Device should support 4K VLANs, 9200 bytes Jumbo frame. 6. Device should support graceful restart. 7. Device should support policy-based routing. 8. Device should support active-active layer-2 and layer-3 forwarding. 9. Device should support Role-based access control, AAA with TACACS+ and RADIUS. 10. Device should support ACL with Layer-2, L3, and L4 parameters. 11. Device should support ACL-based classification. 12. Device should support priority queuing.	**48-Port Management Switch (1G) Performance and Architecture:** 1. Device should support a minimum of 48x 1G Copper RJ45 Ports. 2. Device should support wire rate L2 forwarding. 3. Device should be able to support up to 8K MAC addresses. 4. Device should support 250 VLANs, 9200 bytes Jumbo frame. 5. Device should support graceful restart. 6. Device should support Role-based access control, AAA with TACACS+ and RADIUS. 7. Device should support, SNMP v3, IPFIX/NetFlow/SFlow, and logging.

					13. Device should support, SNMP v3, IPFIX/NetFlow/SFlow, and logging. **Management:** Minimum one Out-Of-Band Management port (1x 1G RJ45) should be available.	
22	Page 28	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 10 (Firewall) Point No. 2	Must be a Next-Generation Firewall (NGFW) with separate data and control/management planes. Supply shall include physical appliances towards 1nos. of AI enabled SANDBOX, 1 no. of Analyzer with built in Hard disk and the manager for Mgmt.	Must be a Next-Generation Firewall (NGFW). Supply shall include physical appliances towards 1nos. of AI enabled SANDBOX, 1 no. of Analyzer with built in Hard disk and the manager for Mgmt.
23	Page 28	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 10 (Firewall) Point No. 8	Should support client-based VPN and at least 10 concurrent SSL VPN users. Licenses and Software required towards the same need to be provisioned.	Supply shall include 200 VPN Cient Licenses.
24	Page 28	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 1	Sr. No. 10 (Firewall) Point No. 13	Firewall must support at least 4 virtual firewall domains/instances.	Firewall must support at least 4 virtual firewalls/domains/instances. Supply shall include the requisite hardware, software and associated Licenses from Day1.
25	Page 28	SECTION IV – SCHEDULE OF REQUIREMENT	PART A, 2		**Performance Evaluation and Criterion** 1. Following benchmark will be used for Acceptance and Performance Test. Bidder shall demonstrate below mentioned benchmarks as part of Acceptance Test.	**Performance Evaluation and Criterion** 1. Following benchmark will be used for Acceptance and Performance Test. Bidder shall demonstrate below mentioned benchmarks as part of Acceptance Test (Refer Table-A of the corrigendum). 2. The quoted CPU-GPU-Server Type 03

					2. Bidder shall provide compliance against MLPerf Inference and Training **v4.1** or **latest available version** at time of bid submission. H200-specific submissions from NVIDIA, Q56DD, HPE, etc. shall be referenced where applicable. Older benchmarks may not be acceptable for new-generation hardware. 3. This table 1 need to be submitted along with the bid. Published benchmarks / OEM Website results need to be submitted. 4. Table 2 parameters shall be Published on MLPerf Website.	should be listed on MLCommons against published MLPerf Training for **version 4.0** or above at time of bid submission. 3. In case the Benchmarks are not published on MLCommons website for the quoted server, the bidder may submit a declaration on OEM Letter Head towards compliance to above clause. 4. Please note that Table 1 (Performance metrics for Inference (GPU)) and Table 2(Performance Metrics for training (GPU)) of the SECTION IV of PART A (2) Under Performance Evaluation and Criterion are dropped.
26	Page 43	SECTION IV – SCHEDULE OF REQUIREMENT	PART B, A	Interior/Civil Works (Warranty – 5 Years) Sr. No. 1 & 2	**Modification in section drawing:** Raised flooring (600mm x 600mm) is required in in all the area server room + ups room+ staff room.	**Due to height constraint at site, please consider:** 1. Finished Base Floor level to Raised Floor level height: -300 mm 2. Raised Floor level to False Ceiling height: -2375mm
27	Page 43	SECTION IV – SCHEDULE OF REQUIREMENT	PART B, 3A	Sr.No.2 Point No. 4	Major Component's for Smart Racks Data Centre Solution –(Five No's IT Racks, Utility Rack, IT UPS I/C DB, NON-IT UPS I/C DB , Back up RAW POWER supply for cooling units	Major Component's for Smart Racks Data Centre Solution –(Five No's IT Racks, Utility Rack, IT UPS I/C DB, NON-IT UPS I/C DB , Back up RAW POWER supply for cooling units using ATS in case of failure

					using ATS in case of failure of UPS supply, Inrow Cooling Units(Minimum 35 Kw Rated, 9500 CMH), 2 Nos. 63 A -3 PHASE Intelligent rack PDUs in each IT Rack, Water leak Detection System, NOVEC 1230 Fire Monitoring and Suppression System, Horns & Alarm Systems and Environment monitoring system along with temperature & humidity sensor, Centralized Monitoring Systems, biometric access control for each rack etc.). Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, I-PDUs & Centralized Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports.	of UPS supply, Inrow Cooling Units(Minimum 35 Kw Rated, 7500 CMH), 2 Nos. 63 A -3 PHASE Intelligent rack PDUs in each IT Rack, Water leak Detection System, NOVEC 1230 Fire Monitoring and Suppression System, Horns & Alarm Systems and Environment monitoring system along with temperature & humidity sensor, Centralized Monitoring Systems, biometric access control for each rack etc.). Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, I-PDUs & Centralized Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports. **Explanation:** For Inrow Cooling Unit, Primary Source should be from Non-IT UPS Output and Secondary source of power is raw power supply. However, in case of UPS maintenance or breakdown, the power should automatically fall back to secondary raw power supply through Automatic Changeover at Inrow Unit Level or at Utility Rack Cooling unit DB level.
28	Page 43	SECTION IV – SCHEDULE OF REQUIREMENT	PART B, 3A	Sr.No.3 Point No. 1 & Sub-Point No. 2	Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 9500 CMH @ 42°C Ambient	Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 7500 CMH @ 42°C Ambient Temperature of Pune,

					Temperature of Pune, supply air temperature @ 22±1˚C and return air temperature of 35˚C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 110 KW Heat Load.	supply air temperature @ 22±1˚C and return air temperature of 35˚C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition of Inrow Units considering 120 KW Heat IT Load & Inrow Indoor Fan power heat.
29	Page 43	SECTION IV – SCHEDULE OF REQUIREMENT	PART B, 3A	Sr. No. 2 Sub-Point No. 5	The Smart Rack solution must be CE/UL OR EQUIVALENT INDIAN STANDARDS certified.	The Smart Rack solution equipment must be CE/UL OR EQUIVALENT INDIAN STANDARDS certified.
30	Page 44	SECTION IV – SCHEDULE OF REQUIREMENT	PART B, 3A	Sr.No.3 Point No. 1 & Sub-Point No. 2. d	The unit is equipped with EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving, space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 9500 CMH.	The unit is equipped with EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving, space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 7500 CMH. It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition of Inrow Units considering 120 KW Heat IT Load & Inrow Indoor Fan power heat.
31	Page 44	SECTION IV – SCHEDULE OF REQUIREMENT	PART B, 3A	Sr.No.3 Point No. 2 & Sub-Point 1	Vertical Mounted Intelligent Rack PDU i.e. PDU level monitoring with minimum no's of 24 outlet sockets of hybrid nature which can be utilized as either C13 or C19 outlet,	Vertical Mounted Intelligent Rack PDU i.e. PDU level monitoring with minimum no's of 21 outlet sockets of hybrid nature which can be utilized as either C13 or C19 outlet, 3 phase, 63A MCB.

					3 phase, 63A MCB. (Each rack having two PDU's).	(Each rack having two PDU's).
32	Page 48	SECTION IV – SCHEDULE OF REQUIREMENT	PART B, 3A	Sr.No.3 Point No. 12	**Smart server rack IT Racks:** • Each Smart server rack load bearing 1200kgs, 42U, 800x1200, UL/CE certified • Front Door: Glass Door, Rear Door: Steel Door (Split), Basic Frame: Steel • Standard Finish: Powder Coated	**Smart server rack IT Racks:** • Each Smart server rack load bearing 1200kgs, 42U, 800x1200, CE/UL OR EQUIVALENT INDIAN STANDARDS certified. • Front Door: Glass Door, Rear Door: Steel Door (Split), Basic Frame: Steel • Standard Finish: Powder Coated

TABLE-A

Training_Benchmark					
BERT	DLRM_dcnv2	llama2_70b_lora	retinanet	RGAT	stable_diffusion
Latency (In minutes)	Latency (In minutes)	Latency (In minutes)	Latency (In minutes)	Latency (In minutes)	Latency (In minutes)
5.22	3.74	24.12	34.26	7.81	30.49
	NOTE: Tolerance up to 10 percent is acceptable.				

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Section / Page No	Clause Reference	Content in RPF	Query from Bidder	CDAC Response
1	Page 43	2.5	The Smart Rack solution must be CE /UL OR EQUIVALENT INDIAN STANDARDS certified.	The product offered will be CE/UL certified as the smart row solution is combination of different critical Data center component, so request you to change the clause as "The Smart Rack solution equipment must be CE /UL OR EQUIVALENT INDIAN STANDARDS certified." as the stated clause specific to single OEM and restrict broader participation	Refer Corrigendum
2	Page 44	3.2.1 Power Distribution	Vertical Mounted Intelligent Rack PDU i.e. PDU level monitoring with minimum no's of 24 outlet sockets of hybrid nature which can be utilized as either C13 or C19 outlet, 3 phase, 63A MCB. (Each rack having two PDU's).	Please accept to revise this clause as "Vertical Mounted Intelligent Rack PDU i.e. PDU level monitoring with minimum no's of 21 outlet sockets of hybrid nature which can be utilized as either C13 or C19 outlet and balance 21 as C13 or C15 outlets, 3 phase, 63A MCB. (Each rack having two PDU's).	Refer Corrigendum
3	Page 45	3.7.1	05 no. 42 U, 800 mm x 1200 mm with integrated hot & cold aisle containment of minimum 300-400 mm each.	Please accept to revise this clause as"05 no. 42 U, 800 mm x 1200 mm with integrated hot & cold aisle containment of minimum 200 at Front and 400 mm at rear.	OK subject to clear acceptable CFD ANALYSIS REPORT in N running condition for Inrow Cooling Units.

4	Page 46	3.9.1	The Intelligent integrated infrastructure would provide much functionality and some of the key functionalities are both cold aisle & hot aisle containment, of minimum 300-400 mm each for airflow, Airtight Thermally insulated cabinet, remote Management.	Please accept to revise this clause as "The Intelligent integrated infrastructure would provide much functionality and some of the key functionalities are both cold aisle & hot aisle containment, of minimum 200 at front and 400 mm at rear for airflow, Airtight Thermally insulated cabinet, remote Management."	Refer Corrigendum
5	Page 43	3.1.2	Rated 35KW & 9500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.	9500 CMH is quite high for such a small capacity unit. So hence it is requested to consider even 7000 CMH units which will be able to deliver asked capacity. Kindly consider and confirm	Refer Corrigendum
6	Page 46	3.8.5	Monitoring unit should support dual power input.	Can we kindly request to remove the requirement of dual power supply for monitoring unit?	As per RFP
7	Page 48	4.1a	SITC of True Online double conversion IGBT Based Modular UPS of minimum 120kVA/kW(N) Modular UPS scalable to Minimum 200kVA/kW (Frame).	Can we offer 100kVA /KW modular UPS scalable to 150kW.	As per RFP

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

8	Page 51	4. H	Minimum 15 min battery back @ 120kW IT load via Li-ion Batteries	Minimum 15 min battery back @ 120kW IT load via Li-ion Batteries (Please confirm EOL or BOL back up)	Minimum 15 min battery back up at BOL @ 120kW IT load via Li-ion Batteries
9	Page 52	5	SITC of True Online double conversion IGBT Based Double Conversion UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc.	120kVA non-IT UPS - type of UPS to be offer - Modular or Monolithic (Modular construction only) Please confirm	Refer Corrigendum
10	Page 52	5	SITC of True Online double conversion IGBT Based Double Conversion UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc.	15 Min battery bac up - Please confirm output pf consider for battery sizing and EOL or BOL back up to be consider.	Consider output power factor as 0.80 and BOL Back up for battery sizing.
11	Page 74	C	Access Control System	Kindly accept OEM approved and tested for rack access control.	OK Subject to matching technical requirements, specifications and quality.

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Section / Page No	Clause reference	Tender Specification	Query from Bidder	CDAC Response
1	42	1.2	Modular and scalable design for power and cooling: The critical components like UPS Power Distribution (N+1 Path-2 Numbers of 63 A IPDU for each IT Racks) & In row Cooling Units (N+1) used to design the system should be with inbuilt redundancy and in the Events of failure the components can be maintained easily. All the components of the infrastructure should be such that it can be easily dismantled and relocated to different location.	Please Confirm the Second Source of IT power Supply and Second source of Cooling Unit - Raw Power Supply Our understanding is to read the specification is as per below Modular and scalable design for power and cooling: The critical components like UPS, Power Distribution, (N+1 Path) , 2 Numbers of 63 A IPDU for each IT Racks) & In row Cooling Units (N+1) used to design the system should be with inbuilt redundancy and in the Events of failure the components can be maintained easily. All the components of the infrastructure should be such that it can be easily dismantled and relocated too different	Both the IT Power path upto IPDU level will be fed from same Modular IT UPS (Internal Module Redundancy N+1 is there) Output. Path Distribution up to IPDU level will be N+1. For Inrow Cooling Unit, Primary Source should be from Non-IT UPS Output and Secondary source of power is raw power supply. However, in case of UPS maintenance or breakdown, the power should automatically fall back to secondary raw power supply through Automatic Changeover at Inrow Unit Level or at Utility Rack Cooling unit DB level.

2	43	2.4	Major Component's for Smart Racks Data Centre Solution –(Five No's IT Racks, Utility Rack, IT UPS I/C DB, NON-IT UPS I/C DB , Back up RAW POWER supply for cooling units using ATS in case of failure of UPS supply, Inrow Cooling Units(Minimum 35 Kw Rated, 9500 CMH), 2 Nos. 63 A -3 PHASE Intelligent rack PDUs in each IT Rack, Water leak Detection System, NOVEC 1230 Fire Monitoring and Suppression System, Horns & Alarm Systems and Environment monitoring system along with temperature & humidity sensor, Centralized Monitoring Systems, biometric access control for each rack etc.).	Please confirm weather ATS as to be provide every Cooling unit, we would suggest to give ATS in Cooling unit DB, in any of the distribution method please indicate alternate supply from Raw power DB in SLD.	For Inrow Cooling Unit, Primary Source should be from Non-IT UPS Output and Secondary source of power is raw power supply. However, in case of UPS maintenance or breakdown, the power should automatically fall back to secondary raw power supply through Automatic Changeover at Inrow Unit Level or at Utility Rack Cooling unit DB level.
3	43	3.1.2	Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 9500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C. It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 110 KW Heat Load.	110Kw(or) 120Kw Clarification required, please add this clause in cooling unit section " The Noise level should be 68 dB at 1 mtr distance "	Refer Corrigendum

4	45	3.4.1	02 nos. DB panel shall be provided for redundancy with diversified path. First DB Panel should be mounted on to utility rack & other can be rack/wall mounted with all internal cabling integrated into the same. Essential MCB/MCCB should be provided with electrical system. DB panel mounted on Utility rack shall be covered with NOVEC 1230/FK-5-1-12 Gas based fire suppression system along with IT Racks.	Is one DB for UPS Distribution and One DB for cooling unit power distribution? Pl confirm.	Yes.
5	47	3.11	Monitoring		
			Supply and installation 1U rack mountable monitoring system with Sensors & notification system for the Smart Rack Solution. The system shall continuously collect critical information from network connected devices such as Cooling Units, temperature & humidity sensors, Door sensors, Water Leak sensor and other dry contact monitoring. The solution should have Beacon, Buzzer-Sound and Flash Led Alarm. Based on pre-set parameters, automated email alerts should be sent to the intended recipients.	Pl add Auto rear door opening provision for emergency exhaust of hot air.	As per RFP
6	48	3.12	Smart server rack IT Racks:	CE /UL OR EQUIVALENT INDIAN	Refer Corrigendum

			Each Smart server rack load bearing 1200kgs, 42U, 800x1200, UL/CE certified Front Door: Glass Door, Rear Door: Steel Door (Split), Basic Frame: Steel Standard Finish: Powder Coated	STANDARDS certified.	
7	52	H	Via Li-ion Battery (5 YEARS WARRANTY+10 YEAR LIFE)	Batteries we are covering for 5 Years warranty, 10Years Life certificate will be submitted (Life certificate will be applicable from date of purchase/installed) so total life of Li-Ion will be 10 Years	Li-ion Battery covering for 5 Years warranty, 10Years Life certificate shall be submitted. Life certificate will be applicable from date of commissioning.
8	52	5	Non-IT UPS Warranty	We are providing 5 Years warranty on UPS, VRLA SMF Batteries itself comes with maximum 2 Years OEM warranty. Please allow to consider 2 Years warranty on VRLA SMF batteries	The bidder has to consider necessary SMF battery system replacement required during 5 years project period in lieu of overall requirement for 5 years warranty.
9	75	J	UPS Make	Please add E&C make also	Bid has shared recommended make list in the overall interest of quality & criticality of project.
10	75	k	LI-ON BATTERY	Please add HBL make also for Li-Ion batteries	Bid has shared recommended make list in the overall interest of quality & criticality of project.

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Section/ Page no	Clause Reference	Query from Bidder	CDAC Response
1	SECTION IV / 24	Nas Storage	The total usable capacity of the storage shall be 1PB after implementing the RAID 6 or better redundancy. The storage shall be a Scale-out architecture with scalable to 1.5PB without adding additional controllers and disk enclosures. **Justification:** The Scale-out architectures give the linearity in capacity and performance for sustainable growth with predictable response times.	No Change
			NFS, CIFS and ISCSI, FCP & S3 protocols natively. Shall support GPU Direct. CSI support for dynamic storage provisioning. Should support REST API. Should provision integration of Storage with cloud stack. **Justification:** The Native Support for All the protocols enables the users to leverage the storage systems for all the current and new age workloads across File, Block and Object Storages managed in a single system.	Refer Corrigendum
			Storage shall support SNAPSHOT, WORM functionality on identified Partition/Volume Storage shall support Data at rest Encryption. **Justification:** Storage must be compliant with SEC-Rule17a-4 with immutable snapshots	Refer Corrigendum
2	SECTION IV / 20	CPU-GPU-Server-Type-03 Processor	**Software and OS:** Would you prefer a system with OS support or one with a preinstalled OS	Refer Corrigendum

3	SECTION IV/25, point no.5	Switches	There seems to be a change required for the 48-port x 10G, Device should have deep packet buffers / System Memory of 8GB 4GB or more. **Justification:** With the given hardware configuration of switch (48 ports of 10G) a buffer of 4GB is enough for efficient working of VOQ. Please change the clause as suggested for wider OEM participation.	Ref. Corrigendum
4	SECTION IV / page no.28, point no.2	Firewall	Every OEM has different ways of managing the Data and Control Plane on its firewall. We rely on ASIC-based processors to handle critical data traffic. Therefore, we request the following specification change. The firewall must be a Next-Generation Firewall (NGFW) with separate data and control/management planes or an ASIC-based processor. The supply shall include physical appliances for 1nos. of AI-enabled sandbox, 1 no of Analyzer with a built-in hard disk, and a manager for management.	Ref. Corrigendum
5	SECTION IV / page no.28, point no.8	Firewall	We have SSL VPN based on named user licenses. Please suggest the number of user licenses needed for SSL VPN.	Refer Corrigendum
6	SECTION IV/ page no.28, point no.2	Firewall	Not all solutions can be part of the firewall domain, such as logging and reporting. Therefore, we request to relax the specifications as follows: "14. The proposed solution must support a Virtual Domain Firewall, with each instance enabling IPSEC and SSL VPN, IPS, Web and Application Control, Anti-Malware, Traffic Shaping, Policy-Based Routing, DDoS, User and Group Management, Logging, and Reporting."	Refer Corrigendum

7	42	1.2	**Tender Specification:** Modular and scalable design for power and cooling: The critical components like UPS Power Distribution (N+1 Path- 2 Numbers of 63 A IPDU for each IT Racks) & In row Cooling Units (N+1) used to design the system should be with inbuilt redundancy and in the Events of failure the components can be maintained easily. All the components of the infrastructure should be such that it can be easily dismantled and relocated to different location. **Query:** Please Confirm the Second Source of IT power Supply and Second source of Cooling Unit - Raw Power Supply Our understanding is to read the specification is as per below Modular and scalable design for power and cooling: The critical components like UPS, Power Distribution, (N+1 Path) , 2 Numbers of 63 A IPDU for each IT Racks) & In row Cooling Units (N+1) used to design the system should be with inbuilt redundancy and in the Events of failure the components can be maintained easily. All the components of the infrastructure should be such that it can be easily dismantled and relocated too different	Both the IT Power path upto IPDU level will be fed from same Modular IT UPS (Internal Module Redundancy N+1 is there) Output. Path Distribution up to IPDU level will be N+1. For Inrow Cooling Unit, Primary Source should be from Non-IT UPS Output and Secondary source of power is raw power supply. However, in case of UPS maintenance or breakdown, the power should automatically fall back to secondary raw power supply through Automatic Changeover at Inrow Unit Level or at Utility Rack Cooling unit DB level.

8	43	2.4	**Tender Specification:** Major Component's for Smart Racks Data Centre Solution – (Five No's IT Racks, Utility Rack, IT UPS I/C DB, NON-IT UPS I/C DB , Back up RAW POWER supply for cooling units using ATS in case of failure of UPS supply, Inrow Cooling Units(Minimum 35 Kw Rated, 9500 CMH), 2 Nos. 63 A -3 PHASE Intelligent rack PDUs in each IT Rack, Water leak Detection System, NOVEC 1230 Fire Monitoring and Suppression System, Horns & Alarm Systems and Environment monitoring system along with temperature & humidity sensor, Centralized Monitoring Systems, biometric access control for each rack etc.). **Query:** Please confirm weather ATS as to be provide every Cooling unit, we would suggest to give ATS in Cooling unit DB, in any of the distribution method please indicate alternate supply from Raw power DB in SLD.	Refer Corrigendum
9	43	3.1.2	**Tender Specification:** Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 9500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C. It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 110 KW Heat Load. **Query:** 110Kw(or) 120Kw Clarification required	Refer Corrigendum

10	45	3.4.1	**Tender Specification:** 02 nos. DB panel shall be provided for redundancy with diversified path. First DB Panel should be mounted on to utility rack & other can be rack/wall mounted with all internal cabling integrated into the same. Essential MCB/MCCB should be provided with electrical system. DB panel mounted on Utility rack shall be covered with NOVEC 1230/FK-5-1-12 Gas based fire suppression system along with IT Racks. **Query:** Is one DB for UPS Distribution and One DB for cooling unit power distribution? Pl confirm.	Yes
11	47	3.11	**Monitoring**	As per RFP
			Tender Specification: Supply and installation 1U rack mountable monitoring system with Sensors & notification system for the Smart Rack Solution. The system shall continuously collect critical information from network connected devices such as Cooling Units, temperature & humidity sensors, Door sensors, Water Leak sensor and other dry contact monitoring. The solution should have Beacon, Buzzer-Sound and Flash Led Alarm. Based on pre-set parameters, automated email alerts should be sent to the intended recipients. **Query:** Pl add Auto rear door opening provision for emergency exhaust of hot air.	

12	48	3.12	Smart server rack IT Racks: Each Smart server rack load bearing 1200kgs, 42U, 800x1200, UL/CE certified Front Door: Glass Door, Rear Door: Steel Door (Split), Basic Frame: Steel Standard Finish: Powder Coated **Query:** CE /UL OR EQUIVALENT INDIAN STANDARDS certified.	Refer Corrigendum

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Section / Page No	Clause Reference	Content in RFP	Query from Bidder	CDAC Response
1	Page 43	2.5	The Smart Rack solution must be CE /UL OR EQUIVALENT INDIAN STANDARDS certified.	The product offered will be CE/UL certified as the smart row solution is combination of different critical Data center component, so request you to change the clause as "The Smart Rack solution equipment must be CE /UL OR EQUIVALENT INDIAN STANDARDS certified." as the stated clause specific to single OEM and restrict broader participation	Refer Corrigendum
2	Page 44	3.2.1 Power Distributio n	Vertical Mounted Intelligent Rack PDU i.e. PDU level monitoring with minimum no's of 24 outlet sockets of hybrid nature which can be utilized as either C13 or C19 outlet, 3 phase, 63A MCB. (Each rack having two PDU's).	Please accept to revise this clause as "Vertical Mounted Intelligent Rack PDU i.e. PDU level monitoring with minimum no's of 21 outlet sockets of hybrid nature which can be utilized as either C13 or C19 outlet and balance 21 as C13 or C15 outlets, 3 phase, 63A MCB. (Each rack having two PDU's).	Refer Corrigendum
3	Page 45	3.7.1	05 no. 42 U, 800 mm x 1200 mm with integrated hot & cold aisle containment of minimum 300-400 mm each.	Please accept to revise this clause as"05 no. 42 U, 800 mm x 1200 mm with integrated hot & cold aisle containment of minimum 200 at Front and 400 mm at rear.	OK subject to clear acceptable CFD ANALYSIS REPORT in N running condition for Inrow Cooling Units.
4	Page 46	3.9.1	The Intelligent integrated infrastructure would provide much functionality and some of the key functionalities are both cold aisle & hot aisle containment, of minimum 300-400 mm each for airflow, Airtight Thermally insulated cabinet, remote Management.	Please accept to revise this clause as "The Intelligent integrated infrastructure would provide much functionality and some of the key functionalities are both cold aisle & hot aisle containment, of minimum 200 at front and 400 mm at rear for airflow, Airtight Thermally insulated cabinet, remote Management."	Refer Corrigendum

5	Page 43	3.1.2	Rated 35KW & 9500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.	9500 CMH is quite high for such a small capacity unit. So hence it is requested to consider even 7000 CMH units which will be able to deliver asked capacity. Kindly consider and confirm	Refer Corrigendum
6	Page 46	3.8.5	Monitoring unit should support dual power input.	Can we kindly request to remove the requirement of dual power supply for monitoring unit?	As per RFP
7	Page 48	4.1a	SITC of True Online double conversion IGBT Based Modular UPS of minimum 120kVA/kW(N) Modular UPS scalable to Minimum 200kVA/kW (Frame).	Can we offer 100kVA /KW modular UPS scalable to 150kW.	As per RFP
8	Page 51	4. H	Minimum 15 min battery back @ 120kW IT load via Li-ion Batteries	Minimum 15 min battery back @ 120kW IT load via Li-ion Batteries (Please confirm EOL or BOL back up)	Minimum 15 min battery back up at BOL @ 120kW IT load via Li-ion Batteries
9	Page 52	5	SITC of True Online double conversion IGBT Based Double Conversion UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc.	120kVA non-IT UPS - type of UPS to be offer - Modular or Monolithic (Modular construction only) Please confirm	Monolithic Construction is required for NON-IT UPS. If any better product with better technical specifications is proposed, the product will be accepted
10	Page 52	5	SITC of True Online double conversion IGBT Based Double Conversion UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup,	15 Min battery bac up - Please confirm output pf consider for battery sizing and EOL or BOL back up to be consider.	Consider output power factor as 0.80 and BOL Back up for battery sizing.

			Battery DC Breakers, cabling and MS FRAME etc.		
11	Page 74	C	Access Control System	Kindly accept OEM approved and tested for rack access control.	OK Subject to matching technical requirements, specifications and quality
12	Page 48	4.1 a	SITC of True Online double conversion IGBT Based Modular UPS of minimum 120kVA/kW(N) Modular UPS scalable to Minimum 200kVA/kW (Frame).	Can we offer 100kVA /KW modular UPS scalable to 150kW.	Repetition.
13	Page 51	4. H	**Battery Backup:** Minimum 15 min battery back @ 120kW IT load via Li-ion Batteries **Battery Bank:** Via Li-ion Battery (5 YEARS WARRANTY+10 YEAR LIFE)	Minimum 15 min battery back @ 120kW IT load via Li-ion Batteries (Please confirm EOL or BOL back up)	Repetition.
14	Page 52	5	SITC of True Online double conversion IGBT Based Double Conversion UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc. Input & Output wiring: - 3 ph + neutral Efficiency in double conversion mode (full load) :94% Inverter/rectifier topology: - IGBT with PWM	120kVA Non-IT UPS - type of UPS to be offer - Modular or Monolithic (Modular construction only) Please confirm	Repetition.

			Audible Noise: - ≤65 dB at 1 m, 75% load Input Power Factor 0.99 Output Power Factor 0.9(Minimum) Input ITHD < 5% Output UTHD < 2% at 100% load		
15	Page 52	5	**Battery Backup:** Minimum 15 min battery back @ 120kW IT load via Li-ion Batteries **Battery Bank:** Via Li-ion Battery (5 YEARS WARRANTY+10 YEAR LIFE)	15 Min battery bac up - Please confirm output pf consider for battery sizing and EOL or BOL back up to be consider.	Repetition.
16	Page 46	3.8.5	Monitoring unit should support dual power input.	Can we kindly request to remove the requirement of dual power supply for monitoring unit?	Repetition.

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Section / Page No	Clause Reference	Query from Bidder	C-DAC Response
1	Page 5 of 99 /4. Eligibility Criteria:	4.Eligibility Criteria:	Request you to kindly add the following: Bidder to ensure that all the major critical components for Data Centre i.e. Rack, UPS, Cooling, rack PDU and monitoring system must be from same OEM for Seamless Integration & better Service Supports to avoid any dependency at the time of execution or operational stage.	As per RFP
2	Page 5 of 99 /4. Eligibility Criteria:	4.Eligibility Criteria:	Request you to kindly add the following: The OEM of the critical components i.e. UPS, Cooling unit should have its own manufacturing & testing facility in India for offered or similar capacity UPS & Precision air conditioning units for high availability of the critical infrastructure i.e. Data Centre solution.	As per RFP
3	Page 14 of 99 /6. Acceptance Criteria / Part B	i. The Building Management System (BMS) interface must be fully functional with an effective graphical user interface (GUI). It must provide monitoring of all field devices such as temperature and humidity sensors, UPS, PDUs, and alarms. The system should allow both automatic and manual mode control of all connected actuators. Manual mode should be accessible via both the BMS interface and dedicated hardware switches.	Request you to kindly revise as below: The smart rack should have dedicated monitoring interface which must be fully functional with an effective graphical user interface (GUI). It must provide monitoring of all field devices such as temperature and humidity sensors, IT load UPS, PDUs, and alarms.	As per RFP

4	Page 24 of 99 /6. NAS Storage - 1PB	Power and Rack Space: Consumption shall not exceed 20KW and 20U rack space.	We understand that the IT load & U space will be as per description given at page 36 of RFP (Design Inputs). Kindly confirm.	The description is related to IT Components.
5	Page 35 of 99 / 3. General Requirements	ix. The scope of installation, configuration, integration, and commissioning shall mean to install and configure all components and subsystems as well as providing all data to the existing Building Management System with the required components, integrating the entire facility and make the system operational as per scope of work.	Kindly confirm whether the existing BMS system supports SNMP. Also, confirm the Make / Model of the existing BMS system.	No Integration with existing BMS required.
6	Page 36 of 99 / 2. Design Inputs	2.Design Inputs	The IT load details of only 4 racks mentioned though the solution asked is for 5 racks. Kindly correct the no. of rack & Total IT load description.	As per RFP. 5th Rack is for future expansion.
7	Page 37 of 99 / Major Subsystems/Equipment's of DC required: -	a) Smart Rack Solution (5 no's IT racks ,10 Numbers (5+5) of 63 AMPS IPDU for IT Load Distribution, 1 No. Utility Rack, 5 no's (4+ 1 R) Inrow Inverter Scroll Cooling Units of Minimum Rated Capacity of 35 KW, NOVEC 1230 Fire Suppression System, WLD, VESDA, Smoke/Heat DETECTORS, Rodent Repellent Systems, Access Control etc.)	Request you to kindly allow Integrated Smart Rack OEM to decide on capacity & no. of cooling units required to support the given IT load. CFD Analysis of the offered solution may be asked to feasibility of the solution.	As per RFP

8	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack Solutions	2.4) Major Component's for Smart Racks Data Centre Solution – (Five No's IT Racks, Utility Rack, IT UPS I/C DB, NON-IT UPS I/C DB, back up RAW POWER supply for cooling units using ATS in case of failure of UPS supply, Inrow Cooling Units (Minimum 35 Kw Rated, 9500 CMH), 2 Nos. 63 A -3 PHASE Intelligent rack PDUs in each IT Rack,	It is request to kindly accept the Cooling unit Qty, Capacity & CMH as per OEM design standard & offering.	Refer Corrigendum
9	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack Solutions	Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, I-PDUs & Centralized Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports.	Request you to kindly amend as per the following: Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, UPS, I-PDUs & Centralized Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports to avoid any dependency at the time of execution or operational stage.	As per RFP
10	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack Solutions	2.5) The Smart Rack solution must be CE /UL OR EQUIVALENT INDIAN STANDARDS certified.	The complete Smart Rack solution must be CE or tested by third party agency following National Accreditation Board, BIS, TEC accreditation / Recognition.	As per RFP.
11	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack	2.6 The Smart Rack OEM should have its own manufacturing & testing facility in India for wide range of Rack, & Precision air conditioning units for high availability of the critical infrastructure AND better after	2.6) The Smart Rack OEM should have its own manufacturing & testing facility in India for wide range of Rack, UPS & Precision air conditioning units for high availability of the critical infrastructure AND better after sale support during the whole project duration	As per RFP

	Solutions	sale support during the whole project duration		
12	Page 43 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.1.2) Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 9500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 110 KW Heat Load.	3.1.2) Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 8500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 120 KW Heat Load.	Refer Corrigendum
13	Page 44 of 99/ The Smart Rack DC Infrastructure shall have following components:	d. The unit is equipped with EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving, space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 9500 CMH.	d. The unit is equipped with minimum 8 EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving, space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 8500 CMH.	Refer Corrigendum

14	Page 46 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.9.3 Critical Component's for Smart Racks Data Centre Solution (Rack, Cooling, intelligent rack PDU and central monitoring system) should be from same & single OEM for Seamless Integration & better Service Supports.	3.9.3 Critical Component's for Smart Racks Data Centre Solution (Rack, Cooling, UPS, intelligent rack PDU and central monitoring system) should be from same & single OEM for Seamless Integration & better Service Supports.	As per RFP
15	Page 46 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.9.6 HMI Panel – Graphical User Interface display should be mounted on the smart rack solution for local monitoring.	Kindly revise as: The monitoring unit should allow the remote monitoring of all the environmental parameters & critical components in a single dashboard.	As per RFP
16	Page 47 of 99/ The Smart Rack DC Infrastructure shall have following components:	b. Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. The front rack doors will be provided with magnetic locks and will operate on fail-safe principle through one common Biometric access control system.	b. Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. Both front & rear rack doors will be provided with magnetic locks and will operate on fail-safe principle through one common Biometric access control system.	As per RFP

17	Page 47 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.11 Monitoring: Additional Features	The monitoring unit should support basic protocols like Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS Server, smtp, TCP/IP4. It should support network interface of 10/100M self-adaptable Ethernet ports. The monitoring unit should support IPMI protocol to enable feature to access server Service Processor. The Monitoring unit should have feature to enable graceful shutdown of the IT servers supporting IPMI Protocol.	As per RFP
18	Page 48 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.16 Power Cable entry will be from Top; Bidder need to consider boxing arrangement or cable manager or cable trucking system	Kindly allow cable entry provisioning either from top or bottom considering height constraints in the space allocated for the Data Centre.	Can be accepted subject to suitable clearance from ground considering risk of water ingress during severe rain.

19	Page 52 of 99/ 5. Uninterrupted Power Supply (UPS) System: -	SITC of True Online double conversion IGBT Based Double Conversion UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc. Input & Output wiring: - 3 ph. + neutral Efficiency in double conversion mode (full load) :94% Inverter/rectifier topology: - IGBT with PWM Audible Noise: - ≤65 dB at 1 m, 75% load Input Power Factor 0.99 Output Power Factor 0.9(Minimum) Input ITHD < 5% Output UTHD < 2% at 100% load Compliance: - Safety- (CB certified) IEC 62040-1 EMC- IEC 62040-2, EMC Category C3 Performance- IEC 62040-3	SITC of True Online double conversion IGBT Based Double Conversion/SCR based UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc. Input & Output wiring: - 3 ph. + neutral Efficiency in double conversion mode (full load) :92% Inverter/rectifier topology: - IGBT with PWM / SCR Audible Noise: - ≤68 dB at 1 m, 75% load Input Power Factor 0.8 Output Power Factor 0.9 Input ITHD < 5% Output UTHD < 2% at 100% load Compliance: - Safety- (CB certified) IEC 62040-1 EMC- IEC 62040-2, EMC Category C3 Performance- IEC 62040-3	As per RFP
20	Page 24 NAS Storage 1PB	**Capacity:** The total usable capacity of the storage shall be 1PB after implementing the RAID 6 or better redundancy. The storage shall be scalable to 1.5PB without adding additional controllers and disk enclosures.	**Change Requested:** Please modify the clause as "The total usable capacity of the storage shall be 1PB after implementing dual drive failure protection. Storage should also provide same level of performance with single controller failure. The storage shall be scalable to 1.5PB with additional controllers, drive enclosures, network interfaces and memory for linear	As per RFP

			performance increase. The architecture should be based on scale out to at kleast 8 controllers with global coherent cache, single filesystems and single global namespace for demanding AI workloads\ **Reason:** Adding 50% more capacity will bring the performance down using same pair of controllers. A linear increase in performance is critical and can be met when additional controllers, memory, network interfaces are added along with drives. Having global coherent cache, single filesystem and global namespace ensure less administrative bottlenecks, ease of management and better performance.	
		Performance: The storage shall provide 10GB/sec write throughput and 2.5Lakhs IOPS.	**Change Requested:** Please modify the specs as Storage shall provide 8.5GBps read or 6.5GBps write. The storage should support scalability of 10 times in a scale out scenario as AI workload increases in future. **Reason:** Asked specs are restrictive in nature and not supported by all OEM	As per RFP
		Redundancy: The proposed storage shall support RAID6 or better protection. The storage shall be configured as No Single Point of Failure w.r.to controllers, disks.	**Change Requested:** Kindly modify it Redundancy: The proposed storage shall support RAID6 or better protection. The storage shall be configured as No Single Point of Failure w.r.to controllers, disks, Proposed storage should implement dual drive failure protection. Storage should also provide same level of performance with single controller failure. Storage should have ability to change data protection level on the	As per RFP

			fly. **Reason:** Asked specs are very low.	
		Power Supply: Power supplies, Fans, and connectivity. The proposed controllers shall work in active – active load balancing mode with Battery Backed Write Cache (BBWC) or equivalent.	Please modify as "Power supplies, Fans, and connectivity. The proposed controllers shall work in active – active load balancing mode. Power supplies, Fans, and connectivity. The proposed controllers shall have globally coherent cache, single filesystem and single global namespace.	As per RFP
		Protocols: NFS, CIFS and ISCSI protocols. Shall support GPU Direct. CSI support for dynamic storage provisioning. Should support REST API. Should provision integration of Storage with cloud stack.	Please change it to NFS, CIFS SMB, FTP, NDMP and S3 protocols. Shall support GPU Direct. CSI support for dynamic storage provisioning. Should support REST API. Should provision integration of Storage with cloud stack.	Refer Corrigendum
		Storage Delivery: Shall have min. 2nos. of 100Gbps ports (RDMA/RoCE enabled) per controller.	Please change modify as "Storage Delivery: Shall have min. 2nos. of 100Gbps ports (RDMA/RoCE enabled) per controller. There should be dedicated 100Gb switch connections for intercontroller communication "	Refer Corrigendum
		License shall include proposed storage capacity, SNAPSHOT, Compression and De-duplication	Please modify as “License shall include proposed storage capacity, SNAPSHOT, Compression and De-duplication. Should come with Intelligent load-balancing if new controller nodes are added to the cluster and support policies based on IP ports, CPU utilization, network bandwidth to optimize client access	Refer Corrigendum
		Power & Rack Space: Consumption shall not exceed 20KW and 20U rack space. Supply shall include Rack Mounting kits	**Change Requested:** Please Delete this is binding **Reason:** Every OEM has different architecture	As per RFP

		for the Controllers, Storage enclosures.		
21	Page 18	**CPU-Server-Type-01** **Processor:** 1. Each server shall be dual-socket (fully populated) with CPUs having a minimum of 64 cores, 5th generation or latest x86_64-bit processor, running at min. 2.0 GHz.	**Change Requested:** Kindly modify it's a "Processor: Processor: Each server shall be dual-socket (fully populated) with CPUs having a minimum of 64 cores, 5th generation Intel or 4th generation AMD or latest x86_64-bit processor, running at min. 2.0 GHz. **Reason:** Intel's 5th and AMD's 4th generation are equivalent from the availability aspect.	Refer Corrigendum
		Memory: 1. The server must include minimum 512 GB ECC DDR5 5600 RAM in a balanced configuration with minimum stream traid performance of 400 GB/s per server.	**Change Requested:** Kindly modify Memory: 1. The server must include minimum 512 GB ECC DDR5 5600 RAM in a balanced configuration. **Reason:** For us benchmark is available only on 4th Gen processors, However the new generation servers having better memory frequency and this clause is restricting to offer new generation servers. kindly relax the ask for wider participation.	As per RFP, Higher Configuration can be accepted.

22	Page 19	**CPU-GPU-Server-Type-02** **Processor:** 1. Each server shall be dual-socket (fully populated) with CPUs having a minimum of 64 cores, 5th generation or latest x86_64-bit processor, running at min. 2.0 GHz.	**Change Requested:** Kindly modify it's a "Processor: Processor: Each server shall be dual-socket (fully populated) with CPUs having a minimum of 64 cores, 5th generation Intel or 4th generation AMD or latest x86_64-bit processor, running at min. 2.0 GHz. **Reason:** Intel's 5th and AMD's 4th generation are equivalent from the availability aspect.	Refer Corrigendum
		Memory: The server must include minimum 1024 GB ECC DDR5 5600 RAM in a balanced configuration with minimum stream traid performance of 400 GB/s per server.	**Change Requested:** Kindly modify Memory: The server must include minimum 1024 GB ECC DDR5 5600 RAM in a balanced configuration. **Reason:** For us benchmark is available only on 4th Gen processors, However the new generation servers having better memory frequency and this clause is restricting to offer new generation servers. kindly relax the ask for wider participation.	As per RFP, Higher Configuration can be accepted.
		GPU / Accelerators: 1. The server must support and include 4 × NVIDIA H200 cards, fully compatible with NVIDIA driver stack and ML frameworks must be connected with 4-way NV Link bridge.	**Change Requested:** Kindly modify GPU / Accelerators: 1. The server must support 8 × NVIDIA H200 cards and includes 4 × NVIDIA H200 cards, fully compatible with NVIDIA driver stack and ML frameworks must be connected with 4-way NV Link bridge. **Reason:** To ensure sourcing scalable platform to protect investment and to keep all OEM	As per RFP

			product offering at competitive level kindly incorporate the change request.	
		Certifications & Compliance: 1. Servers should be certified by GPU Controller / Accelerator OEM, the Certificate or listing of offered Server model in GPU Controller / Accelerator OEM website must be submitted along with bid.	**Change Requested:** Kindly modify Certifications & Compliance: 1. Offered Servers should be listed as AI server on by GPU Controller / Server OEM, the Certificate or listing of offered Server model in GPU Controller / Server OEM website. **Reason:** H200 NVL systems are pretty recent addition to the server portfolio and hence not listed in Nvidia qualified system catalogue. Kindly relax the clause. **Refer below link:** https://marketplace.nvidia.com/en-us/enterprise/qualified-system-catalog/?gpu=H200+NVL+&page=1&limit=15	Refer Corrigendum
23	Page 20	**CPU-GPU-Server-Type-03**	**Change Requested:** Kindly modify **Storage:** Operating system storage is supported by 2 x 960 GB NVMe M.2 drives, and internal data storage includes 8 x 3.84 TB Hot Swappable NVMe U.2 drives. **Reason:** Dell doesn't offer 1.92TB M.2 NVMe drives. Kindly relax it to 960GB M.2 NVMe to allow us to participate.	Ref. Corrigendum
		Storage: Operating system storage is supported by 2 x 1.92 TB NVMe M.2 drives, and internal data storage includes 8 x 3.84 TB Hot Swappable NVMe U.2 drives.		
		Software and OS: The system must come factory preinstalled OS Ubuntu. Shall include AI Stack.	Kindly modify **Software and OS:** The system must offer with OS Ubuntu. Shall include AI Stack.	Ref. Corrigendum

		Certifications and Support: 1. Servers should be certified by GPU Controller / Accelerator OEM, the Certificate or listing of offered Server model in GPU Controller / Accelerator OEM website must be submitted along with bid.	**Certifications and Support:** 1. Servers should be qualified by GPU Controller / Accelerator OEM, the Certificate or listing of offered Server model in GPU Controller / Accelerator OEM website must be submitted along with bid.	As per RFP
24	Page 20	1. Each server shall be with Single socket populated with CPU having a minimum of 16 cores, 5th generation or latest x86_64-bit processor, running at min. 3.0 GHz.	**Change Requested:** Kindly modify it's a "Processor: Each server shall be with Single socket populated with CPU having a minimum of 16 cores, 5th generation Intel or 4th generation AMD or latest x86_64-bit processor, running at min. 3.0 GHz. **Reason:** Intel's 5th and AMD's 4th generation are equivalent from the availability aspect.	Refer Corrigendum
25	Page 25	48-Port 100Gbps Ethernet Switch, Quantity = 01	**Change Requested:** Quantity = 02 **Reason:** Single switch can become a single point of failure. Even performing any upgrade will make the network go down when the switch is rebooting.	As per RFP
26	Page 25	Device should be a high-performance capable of supporting 100Gbps ethernet (QSFP28).	**Change Requested:** Device should be a high-performance capable of supporting 100Gbps ethernet (SFP / QSFP28). **Reason:** Only stating QSFP type can become restricting to only one type of port. SFP type port, as long as it is capable of 100G throughput can also be used	Ref. Corrigendum

27	Page 25	Device should be based on industry standard virtual output queue-based architecture to avoid head-of-line blocking issues	Device should be based on industry standard PFC and ECN to avoid any congestion in the network	Ref. Corrigendum
28	Page 25	**48-Port 100Gbps Ethernet Switch** 3. Device should be based on industry standard virtual output queue-based architecture to avoid head-of-line blocking issues	**Change Requested:** Device should be based on industry standard PFC and ECN to avoid any congestion in the network. **Reason:** Each input port Virtual Output Queue maintains a separate queue for each output port. So, for a 48-port switch, the total virtual queue becomes 48 * 48, which requires a very high buffer to handle such large queue. This feature is much more useful at gateway level where sudden traffic increase can happen trying to access a few specific services. Within DC, PFC and ECN is able to handle the congestion even before it occurs by marking frames so that sender slows the packet transmission.	Refer Corrigendum
29	Page 25	**48-Port 100Gbps Ethernet Switch** 5. Device should have deep packet buffers / System memory 8GB or more	**Change Requested:** 5. Device should have deep packet buffers / System memory 80 MB or more. **Reason:** Deep buffers are useful for gateway level devices like routers / WAN switches and not for switching where low latency is required to ensure rapid transfer of packets from one host to another. On the WAN, latency is usually a few millisecond and high buffer switches have a latency of a few microseconds. However, low latency, high bandwidth and high throughput switches can have latency around 1 microsecond. For AI	Refer Corrigendum

			use-case, server to server and storage communication is the main criteria for which low latency is to be preferred as high volume of data transfer can be required.	
30	Page 25	**48-Port 100Gbps Ethernet Switch** 12. Device should have support 10K or more ingress/egress hardware ACL entries	**Change Requested:** 12. Device should have support 3K or more ingress/egress hardware ACL entries. **Reason:** Creating and maintaining high number of ACLs can become a very tedious and error prone task. Considering that firewall is also present, any traffic can always be redirected through firewall using PBR for filtering purpose.	Refer Corrigendum
31	Page 25	**48-Port 100Gbps Ethernet Switch** 17. Device should have virtual output queuing-based architecture, such that every input port will have a virtual output queue for every output port on the switch	**Change Requested:** 17. Device should be based on industry standard PFC and ECN to avoid any congestion in the network. **Reason:** Each input port Virtual Output Queue maintains a separate queue for each output port. So, for a 48-port switch, the total virtual queue becomes 48 * 48, which requires a very high buffer to handle such large queue. This feature is much more useful at gateway level where sudden traffic increase can happen trying to access a few specific services. Within DC, PFC and ECN is able to handle the congestion even before it occurs by marking frames so that sender slows the packet transmission.	Refer Corrigendum

32	Page 25	**48-Port 100Gbps Ethernet Switch** 19. Should support custom application installation with RPM install and docker containers	**Change Requested:** 19. Should support custom application installation with RPM install / docker containers. **Reason:** The specification mentioned is very restrictive. Customer application installation on switch can be done via various methods, including RPM, DEB or docker based, based on the underlying OS	Refer Corrigendum
33	Page 26	**Management:** 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message	**Change Requested:** 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email / message. **Reason:** Event notification can be forwarded multiple means and stating email as a mandatory requirement becomes restrictive.	As per RFP
34	Page 26	**48-Port 10Gbps Ethernet Switch** 4. Device should be based on industry standard virtual output queue-based architecture to avoid head-of-line blocking issues.	**Change Requested:** 3. Device should be based on industry standard PFC and ECN to avoid any congestion in the network. **Reason:** Each input port Virtual Output Queue maintains a separate queue for each output port. So, for a 48-port switch, the total virtual queue becomes 48 * 48, which requires a very high buffer to handle such large queue. This feature is much more useful at gateway level where sudden traffic increase can happen trying to access a few specific services. Within DC, PFC and ECN is able to handle the congestion even before it occurs by marking frames so that sender slows the packet transmission.	Refer Corrigendum

35	Page 26	**48-Port 10Gbps Ethernet Switch** 7. Device should have deep packet buffers / System Memory of 8GB or more	**Change Requested:** 5. Device should have deep packet buffers / System memory 32 MB or more **Reason:** Deep buffers are useful for gateway level devices like routers / WAN switches and not for switching where low latency is required to ensure rapid transfer of packets from one host to another. On the WAN, latency is usually a few millisecond and high buffer switches have a latency of a few microseconds. However, low latency, high bandwidth and high throughput switches can have latency around 1 microsecond. For AI use-case, server to server and storage communication is the main criteria for which low latency is to be preferred as high volume of data transfer can be required.	Refer Corrigendum
36	Page 26	**48-Port 10Gbps Ethernet Switch** 11. Device should be able to support 256K IPv4 routes	**Change Requested:** 11. Device should be able to support 100K IPv4 routes. **Reason:** Within LAN infrastructure the number of route requirement can be lowered, considering that gateway devices (routers or firewall) can advertise a default route or summarized route towards the switch	Refer Corrigendum
37	Page 26	**48-Port 10Gbps Ethernet Switch** 15. Device should have B21support 10K or more ingress/egress hardware ACL entries.	**Change Requested:** 15. Device should have support 3K or more ingress/egress hardware ACL entries. **Reason:** Creating and maintaining high number of ACLs can become a very tedious and error prone task. Considering that firewall is also present, any traffic can always be redirected	Refer Corrigendum

			through firewall using PBR for filtering purpose.	
38	Page 27	**Management:** 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message	**Change Requested:** 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email / message. **Reason:** Event notification can be forwarded multiple means and stating email as a mandatory requirement becomes restrictive.	Refer Corrigendum
39	Page 27	**48-Port Management Switch (1G):** 4. Device should be able to support up to 32K MAC addresses	**Change Requested:** 4. Device should be able to support up to 8K MAC addresses. **Reason:** 32K scale of MAC address means it is expected that 32000 devices will be in single network on OOB (including servers, switches, storages, firewall, routers, etc.), which is nearly impossible scale in a single localized DC network for these device maintenance	Refer Corrigendum
40	Page 31	2. Bidder shall provide compliance against MLPerf Inference and Training v4.1 or latest available version at time of bid submission. H200-specific submissions from NVIDIA, Q56DD, HPE, etc. shall be referenced where applicable. Older benchmarks may not be acceptable for new-generation hardware.	**Change Requested:** 2. Bidder shall provide compliance against MLPerf Inference and Training v4.1 or latest available version at time of bid submission. Older benchmarks may not be acceptable for new-generation hardware. **Reason:** Kindly clarify the meaning of: H200-specific submissions from NVIDIA, Q56DD, HPE, etc. shall be referenced where applicable.	Refer Corrigendum

41	Page 32	Performance metrics for Inference (GPU) to be met	**Change Requested:** Performance metrics for Inference (GPU) to be met (for atleast 2 reference model in below mentioned table) **Reason:** H200 NVL systems are pretty recent addition to the server portfolio and hence all the ask benchmarks are not listed for the system. Kindly either delete this table or allow to participate with available reference model (for bidding OEM) in benchmark. https://mlcommons.org/benchmarks/inference-datacenter/	Refer Corrigendum
42	Page 33	Performance Metrics for training (GPU)	**Change Requested:** Performance metrics for training (GPU) to be met (for atleast 4 reference model in below mentioned table) **Reason:** All mentioned reference model is not mentioned under v4.1 on ML Commons portal. Hence requesting to relax the clause. Please refer below link. https://mlcommons.org/benchmarks/training/	Refer Corrigendum

Suggestions:

1. Suggest to have through site visit for the room dimensions. The available height mentioned is 2200mm only.
2. Point 3.9.6 HMI Panel – Graphical User Interface display should be mounted on the smart rack solution for local monitoring – to be removed as we support up to 4 cooling units only also, two different types of UPS to be monitored on the RDU.
3. CMH of the cooling unit to be revised

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Page	Point No.	RFP Content	Query / Recommendation / Amendment Requested	CDAC Response
1	20	3	**CPU-GPU-Server-Type-03**	This is specific to one OEM and only Nvidia qualifies, request to change it to "8 x single port 400G connectX x 7 VPI adapters."	As per RFP
			Networking:		
			1. Networking interfaces include 4 x OSFP ports serving 8x single-port NVIDIA ConnectX-7 VPI adapters (up to 400 Gb/s).		
			Software and OS:		Ref. corrigendum.
			The system must come factory preinstalled OS Ubuntu.	Request to change it to "The system must support Ubuntu OS"	
			Shall include AI Stack.	AI Stack - Open Source or Commercial? If commercials what is the support level required 9x5 or 24 x7? Pls clarify.	
2	24	6	**NAS Storage - 1PB Capacity:**	Request to allow "liner performance & scalability to 1.5PB with or without adding enclosers and controllers"	As per RFP
			Capacity		
			The total usable capacity of the storage shall be 1PB after implementing the RAID 6 or better redundancy. The storage shall be scalable to 1.5PB without adding additional controllers and disk enclosures.		
			Redundancy:	Request to remove this OEM specific feature / clause " The proposed controllers shall work in active – active load balancing mode with Battery Backed Write Cache (BBWC)"	As per RFP
			The proposed storage shall support RAID6 or better protection. The storage shall be configured as No Single Point of Failure w.r.to controllers, disks, Power supplies, Fans, and connectivity. The proposed controllers shall work in active – active load balancing mode		

			with Battery Backed Write Cache (BBWC) or equivalent.		
			Features:	Request to remove this clause	Refer Corrigendum
			Storage shall support SNAPSHOT, WORM functionality on identified Partition/Volumes. Storage shall support Data at rest Encryption.		
			License:	Request to remove this clause	Refer Corrigendum
			License shall include proposed storage capacity, SNAPSHOT, Compression and De-duplication.		
3	5	4	**Eligibility Criteria:**	It is recommended to add more criteria as "Bidder to ensure that all the major critical components for Data Centre i.e. Rack, UPS, Cooling, rack PDU and monitoring system must be from same OEM for Seamless Integration & better Service Supports to avoid any dependency at the time of execution or operational stage." to ensure the hassle-free after sales support.	As per RFP
		4.d	Bidder need to submit the declaration from OEM that if in case if the Bidder is failed to provide the support, OEM shall provide the support for all major components (all equipment's of IT, DGSet, UPS1 & UPS2 with batteries, Smart racks with iPDU's, Fire Suppression system along with Cooling Subsystem.)		
4	14	6	**Acceptance Criteria**	Request you to kindly revise the same as below: The smart rack should have dedicated monitoring interface which must be fully functional with an effective graphical user interface (GUI). It must provide monitoring of all field devices such as temperature and humidity sensors, IT load UPS, PDUs, and alarms.	As per RFP
		6 B. i	The Building Management System (BMS) interface must be fully functional with an effective graphical user interface (GUI). It must provide monitoring of all field devices such as temperature and humidity sensors, UPS, PDUs, and alarms. The system should allow both automatic and manual mode control of all connected actuators.		

			Manual mode should be accessible via both the BMS interface and dedicated hardware switches.		
5	35	3	**General Requirements**		
		3.ix	The scope of installation, configuration, integration, and commissioning shall mean to install and configure all components and subsystems as well as providing all data to the existing Building Management System with the required components, integrating the entire facility and make the system operational as per scope of work.	Kindly confirm whether the existing BMS system supports SNMP. Also, confirm the Make / Model of the existing BMS system.	No Integration with existing BMS required.
6	37	2	Design Inputs	The IT load details of only 4 racks mentioned though the solution asked is for 5 racks. Kindly confirm the no. of rack.	As per RFP. 5th Rack is for future expansion.
7	37	2.a	Smart Rack Solution (5 no's IT racks ,10 Numbers (5+5) of 63 AMPS IPDU for IT Load Distribution, 1 No. Utility Rack, 5 no's (4+ 1 R) Inrow Inverter Scroll Cooling Units of Minimum Rated Capacity of 35 KW, NOVEC 1230 Fire Suppression System, WLD, VESDA, Smoke/Heat DETECTORS, Rodent Repellent Systems, Access Control etc.)	As mentioned in Point # 2.2 on page # 36 of RFP (i.e. The table below is for reference only. Modifications are permissible if the bidder proposes a more optimized solution, ensuring compliance with industry standards.) Request you to kindly allow Integrated Smart Rack OEM to decide on capacity & no. of cooling units required to support the given IT load. CFD Analysis of the offered solution may be asked to feasibility of the solution.	As per RFP

8	43	2.4	Major Component's for Smart Racks Data Centre Solution – (Five No's IT Racks, Utility Rack, IT UPS I/C DB, NON-IT UPS I/C DB, back up RAW POWER supply for cooling units using ATS in case of failure of UPS supply, Inrow Cooling Units (Minimum 35 Kw Rated, 9500 CMH), 2 Nos. 63 A -3 PHASE Intelligent rack PDUs in each IT Rack,	It is request to kindly accept the Cooling unit Qty, Capacity & CMH as per OEM design standard & offering.	Refer Corrigendum
9	43	2.4	Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, I-PDUs & Centralized Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports.	Request you to kindly amend as per the following: Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, UPS, I-PDUs & Centralized Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports to avoid any dependency at the time of execution or operational stage.	As per RFP
10	43	2.5	The Smart Rack solution must be CE /UL OR EQUIVALENT INDIAN STANDARDS certified.	Request you to kindly revise this clause as: The complete Smart Rack solution must be CE or tested by third party agency following National Accreditation Board, BIS, TEC accreditation / Recognition.	As per RFP
11	43	2.6	The Smart Rack OEM should have its own manufacturing & testing facility in India for wide range of Rack, & Precision air conditioning units for high availability of the critical infrastructure AND better after sale support during the whole project duration	Request you to kindly revise this clause as: The Smart Rack OEM should have its own manufacturing & testing facility in India for wide range of Rack, UPS & Precision air conditioning units for high availability of the critical infrastructure AND better after sale support during the whole project duration	As per RFP

12	43	3.1.2	Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 9500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 110 KW Heat Load.	Request you to kindly revise this clause as: Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 8500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 120 KW Heat Load.	Refer Corrigendum
13	44	3.1.2. d	The unit is equipped with EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving, space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 9500 CMH.	Request you to kindly revise this clause as: The unit is equipped with minimum 8 EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving, space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 8500 CMH.	Refer Corrigendum
14	46	3.9.3	Critical Component's for Smart Racks Data Centre Solution (Rack, Cooling, intelligent rack PDU and central monitoring system) should be from same & single OEM for Seamless Integration & better Service Supports.	Request you to kindly revise this clause as: Critical Component's for Smart Racks Data Centre Solution (Rack, Cooling, UPS, intelligent rack PDU and central monitoring system) should be from same & single OEM for Seamless Integration & better Service Supports.	As per RFP

15	46	3.9.6	HMI Panel – Graphical User Interface display should be mounted on the smart rack solution for local monitoring.	Kindly request you to amend this clause as: The monitoring unit should allow the remote monitoring of all the environmental parameters & critical components in a single dashboard.	As per RFP
16	47	3.10. b	Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. The front rack doors will be provided with magnetic locks and will operate on fail-safe principle through one common Biometric access control system.	Request you to kindly revise this clause as: Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. Both front & rear rack doors will be provided with magnetic locks and will operate on fail-safe principle through one common Biometric access control system.	As per RFP
17	47	3.11	Monitoring	Kindly Request you to incorporate additional features as - The monitoring unit should support basic protocols like Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS Server, smtp, TCP/IP4. It should support network interface of 10/100M self-adaptable Ethernet ports. The monitoring unit should support IPMI protocol to enable feature to access server Service Processor. The Monitoring unit should have feature to enable graceful shutdown of the IT servers supporting IPMI Protocol.	As per RFP

18	48	3.16	Power Cable entry will be from Top; Bidder need to consider boxing arrangement or cable manager or cable trunking system	Kindly allow cable entry provisioning either from top or bottom considering height constraints in the space allocated for the Data Centre.	Can be accepted subject to suitable clearance from ground considering risk of water ingress during severe rain
19	52	5.1. a	SITC of True Online double conversion IGBT Based Double Conversion UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc. Input & Output wiring: - 3 ph + neutral Efficiency in double conversion mode (full load) :94% Inverter/rectifier topology: - IGBT with PWM Audible Noise: - ≤65 dB at 1 m, 75% load Input Power Factor 0.99 Output Power Factor 0.9(Minimum) Input ITHD < 5% Output UTHD < 2% at 100% load Compliance: - Safety- (CB certified) IEC 62040-1 EMC- IEC 62040-2, EMC Category C3 Performance- IEC 62040-3	Request you to kindly revise this clause as: SITC of True Online double conversion IGBT Based Double Conversion/SCR based UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc. Input & Output wiring: - 3 ph + neutral Efficiency in double conversion mode (full load) :92% Inverter/rectifier topology: - IGBT with PWM / SCR Audible Noise: - ≤68 dB at 1 m, 75% load Input Power Factor 0.8 Output Power Factor 0.9 Input ITHD < 5% Output UTHD < 2% at 100% load Compliance: - Safety- (CB certified) IEC 62040-1 EMC- IEC 62040-2, EMC Category C3 Performance- IEC 62040-3	As per RFP
20	7	7.c	Earnest Money Deposit (EMD): The Bidder claiming exemption shall submit EMD / Bid Security Declaration, as given in Annexure - E, agreeing to the conditions stipulated therein.	Bidder needs to submit only this undertaking/declaration as per Annexure-E in Lieu of EMD & no other additional documents to be submitted for claiming EMD exemption? Pls confirm / clarify.	As per RFP

21	Nil	Nil	Bid Submission date: 09/06/2025	We request you to extend the bid submission date for three weeks from the date of issue of techno-commercial corrigendum.	Ref. Corrigendum
22	28	10	**Firewall** 2. Must be a Next-Generation Firewall (NGFW) with separate data and control/management planes. Supply shall include physical appliances towards 1nos. of AI enabled SANDBOX, 1 no. of Analyzer with built in Hard disk and the manager for Mgmt.	Every OEM has different ways of managing the Data and Control Plane on its firewall. We rely on ASIC-based processors to handle critical data traffic. **Therefore, we request the following specification changes:** "2. The firewall must be a Next-Generation Firewall (NGFW) with separate data and control/management planes or an ASIC-based processor. The supply shall include physical appliances for 1nos. of AI-enabled sandbox, 1 no of Analyzer with a built-in hard disk, and a manager for management."	**Firewall** 2. Must be a Next-Generation Firewall (NGFW). Supply shall include physical appliances towards 1nos. of AI enabled SANDBOX, 1 no. of Analyzer with built in Hard disk and the manager for Mgmt.
23	28	10	**Firewall** 8. Should support client-based VPN and at least 10 concurrent SSL VPN users. Licenses and Software required towards the same need to be provisioned.	We have SSL VPN based on named user licenses. Please suggest the number of user licenses needed for SSL VPN.	Supply shall include 200 VPN Cient Licenses.
24	28	10	Firewall 14.Each virtual firewall domain must support Firewall, IPSEC and SSL VPN, IPS, Web and Application Control, Anti-Malware, Traffic Shaping, Policy Based Routing, DDoS, User and Group Management, Logging, and Reporting.	Not all solutions can be part of the firewall domain, such as logging and reporting. **Therefore, we request to relax the specifications as follows:** "14. The proposed solution must support a Virtual Domain Firewall, with each instance enabling IPSEC and SSL VPN, IPS, Web and Application Control,	Each Virtual Firewall Domain or each Instance carries same meaning. Hence As per RFP is required.

				Anti-Malware, Traffic Shaping, Policy-Based Routing, DDoS, User and Group Management, Logging, and Reporting."	
25	25	7	48-Port 100Gbps Ethernet Switch 3. Device should be based on industry standard virtual output queue-based architecture to avoid head-of-line blocking issues.	This clause needs to be modified as "Device should be based on industry standard virtual output queue-based architecture using Intelligent Buffer Management or equivalent technique to avoid head-of-line blocking issues".	Refer Corrigendum
26	25	7	12. Device should have support 10K or more ingress/egress hardware ACL entries	This clause needs to be elaborated as "Device should have support 10K or more ingress/egress IPv4 + IPv6 L2-L4 ACLs entries"	Refer Corrigendum
27	25	7	17. Device should have virtual output queuing-based architecture, such that every input port will have a virtual output queue for every output port on the switch.	This Clause needs to be modified as "Device should have virtual output queuing-based architecture, such that every input port will have a virtual output queue for every output port on the switch using Intelligent Buffer Management or equivalent technique."	Refer Corrigendum
28	25	7	19. Should support custom application installation with RPM install and docker containers.	This clause shall be modified as "Should support either custom application installation with RPM install and docker containers or shall support at least Python scripting, Ansible, NETCONF, REST API, Event scripts and telemetry etc. as per industry standards"	This point is dropped.
29	26	7	Management: 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message.	This clause shall be modified as " Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message or via external system"	As per RFP

		8	**48-Port 10Gbps Ethernet Switch**		
30	26	8	4. Device should be based on industry standard virtual output queue-based architecture to avoid head-of-line blocking issues.	This clause needs to be modified as "Device should be based on industry standard virtual output queue-based architecture using Intelligent Buffer Management or equivalent technique to avoid head-of-line blocking issues".	Refer Corrigendum
31	26	8	15. Device should have support 10K or more ingress/egress hardware ACL entries.	This clause needs to be elaborated as "Device should have support 10K or more ingress/egress IPv4 + IPv6 L2-L4 ACLs entries"	Refer Corrigendum
32	27	8	21. Should support custom application installation with RPM install and docker containers.	This clause shall be modified as “Should support either custom application installation with RPM install and docker containers or shall support at least Python scripting, Ansible, NETCONF, REST API, Event scripts and telemetry etc. as per industry standards"	Refer Corrigendum
33	27	8	Management: 1. Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message.	This clause shall be modified as " Switch should support traffic flow analytics, resource utilization monitoring, event notification through email & message or via external system"	As per RFP
		5	**EDR**		
34	23	5	5. The proposed solution should have full remote shell capabilities for all operating system (Windows, Linux and Mac).	This clause shall be modified as "The proposed solution should have full remote shell capabilities for all operating system (Windows, Linux and Mac) or shall support live query option	Change accepted, Refer Corrigendum

35	24	5	14.The solution must provide report in Excel, PDF and CSV formats. And able to send scheduled reports to individual users or group of users by email.	This clause shall be modified as "The solution must provide report in Excel, PDF and CSV formats. And able to send scheduled reports to individual users or group of users by email or via external system"	As per RFP
36	24	5	16. Solution should support compliance standards such as GPDR, HIPAA, and PCI-DSS etc.	This clause shall be modified as "Solution should support compliance standards such as GPDR, HIPAA, and PCI-DSS etc. or DPDP, ISO 27001, SOC2 etc."	Change Accepted, Refer Corrigendum

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Section / Page No	Clause Reference	Query from Bidder	C-DAC Response
1	Page 5 of 99 /4. Eligibility Criteria:	4.Eligibility Criteria:	Request you to kindly add the following: Bidder to ensure that all the major critical components for Data Centre i.e. Rack, UPS, Cooling, rack PDU and monitoring system must be from same OEM for Seamless Integration & better Service Supports to avoid any dependency at the time of execution or operational stage.	As per RFP
2	Page 5 of 99 /4. Eligibility Criteria:	4.Eligibility Criteria:	Request you to kindly add the following: The OEM of the critical components i.e UPS, Cooling unit should have its own manufacturing & testing facility in India for offered or similar capacity UPS & Precision air conditioning units for high availability of the critical infrastructure i.e Data Centre solution.	As per RFP
3	Page 14 of 99 /6. Acceptance Criteria / Part B	i. The Building Management System (BMS) interface must be fully functional with an effective graphical user interface (GUI). It must provide monitoring of all field devices such as temperature and humidity sensors, UPS, PDUs, and alarms. The system should allow both automatic and manual mode control of all connected actuators. Manual mode should be accessible via both the BMS interface and dedicated hardware switches.	Request you to kindly revise as below: The smart rack should have dedicated monitoring interface which must be fully functional with an effective graphical user interface (GUI). It must provide monitoring of all field devices such as temperature and humidity sensors, IT load UPS, PDUs, and alarms.	As per RFP

4	Page 24 of 99 /6. NAS Storage - 1PB	Power and Rack Space: Consumption shall not exceed 20KW and 20U rack space.	We understand that the IT load & U space will be as per description given at page 36 of RFP (Design Inputs). Kindly confirm.	The description is related to IT Components.
5	Page 35 of 99 / 3. General Requirements	ix. The scope of installation, configuration, integration, and commissioning shall mean to install and configure all components and subsystems as well as providing all data to the existing Building Management System with the required components, integrating the entire facility and make the system operational as per scope of work.	Kindly confirm whether the existing BMS system supports SNMP. Also, confirm the Make / Model of the existing BMS system.	No Integration with existing BMS required.
6	Page 36 of 99 / 2. Design Inputs	2.Design Inputs	The IT load details of only 4 racks mentioned though the solution asked is for 5 racks. Kindly correct the no. of rack & Total IT load description.	As per RFP. 5th Rack is for future expansion.
7	Page 37 of 99 / Major Subsystems/Equipment's of DC required: -	a) Smart Rack Solution (5 no's IT racks ,10 Numbers (5+5) of 63 AMPS IPDU for IT Load Distribution, 1 No. Utility Rack, 5 no's (4+ 1 R) Inrow Inverter Scroll Cooling Units of Minimum Rated Capacity of 35 KW, NOVEC 1230 Fire Suppression System, WLD, VESDA, Smoke/Heat DETECTORS, Rodent Repellent Systems, Access Control etc.)	Request you to kindly allow Integrated Smart Rack OEM to decide on capacity & no. of cooling units required to support the given IT load. CFD Analysis of the offered solution may be asked to feasibility of the solution.	As per RFP

8	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack Solutions	2.4) Major Component's for Smart Racks Data Centre Solution – (Five No's IT Racks, Utility Rack, IT UPS I/C DB, NON-IT UPS I/C DB, back up RAW POWER supply for cooling units using ATS in case of failure of UPS supply, Inrow Cooling Units (Minimum 35 Kw Rated, 9500 CMH), 2 Nos. 63 A -3 PHASE Intelligent rack PDUs in each IT Rack,	It is request to kindly accept the Cooling unit Qty, Capacity & CMH as per OEM design standard & offering.	In row Unit should be rated minimum for 35 kw & 7500CMH
9	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack Solutions	Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, I-PDUs & Centralised Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports.	Request you to kindly amend as per the following: Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, UPS, I-PDUs & Centralised Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports to avoid any dependency at the time of execution or operational stage.	As per RFP
10	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack Solutions	2.5) The Smart Rack solution must be CE /UL OR EQUIVALENT INDIAN STANDARDS certified.	The complete Smart Rack solution must be CE or tested by third party agency following National Accreditation Board, BIS, TEC accreditation / Recognition.	As per RFP
11	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack	2.6 The Smart Rack OEM should have its own manufacturing & testing facility in India for wide range of Rack, & Precision air conditioning units for high availability of the critical	2.6) The Smart Rack OEM should have its own manufacturing & testing facility in India for wide range of Rack, UPS & Precision air conditioning units for high availability of the critical infrastructure AND better after sale support during the whole project duration	As per RFP

	Solutions	infrastructure AND better after sale support during the whole project duration		
12	Page 43 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.1.2) Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 9500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 110 KW Heat Load.	3.1.2) Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 8500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 120 KW Heat Load.	Refer Corrigendum
13	Page 44 of 99/ The Smart Rack DC Infrastructure shall have following components:	d. The unit is equipped with EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving,	d. The unit is equipped with minimum 8 EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving, space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 8500 CMH.	Refer Corrigendum

		space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 9500 CMH.		
14	Page 46 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.9.3 Critical Component's for Smart Racks Data Centre Solution (Rack, Cooling, intelligent rack PDU and central monitoring system) should be from same & single OEM for Seamless Integration & better Service Supports.	3.9.3 Critical Component's for Smart Racks Data Centre Solution (Rack, Cooling, UPS, intelligent rack PDU and central monitoring system) should be from same & single OEM for Seamless Integration & better Service Supports.	As per RFP
15	Page 46 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.9.6 HMI Panel – Graphical User Interface display should be mounted on the smart rack solution for local monitoring.	Kindly revise as: The monitoring unit should allow the remote monitoring of all the environmental parameters & critical components in a single dashboard.	As per RFP
16	Page 47 of 99/ The Smart Rack DC Infrastructure shall have following components:	b. Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. The front rack doors will be provided with magnetic locks and will operate on fail-safe principle through one common Biometric access	b. Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. Both front & rear rack doors will be provided with magnetic locks and will operate on fail-safe principle through one common Biometric access control system.	As per RFP

		control system.		
17	Page 47 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.11 Monitoring: Additional Features	The monitoring unit should support basic protocols like Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS Server, smtp, TCP/IP4. It should support network interface of 10/100M self-adaptable Ethernet ports. The monitoring unit should support IPMI protocol to enable feature to access server Service Processor. The Monitoring unit should have feature to enable graceful shutdown of the IT servers supporting IPMI Protocol.	As per RFP
18	Page 48 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.16 Power Cable entry will be from Top; Bidder need to consider boxing arrangement or cable manager or cable trucking system	Kindly allow cable entry provisioning either from top or bottom considering height constraints in the space allocated for the Data Centre.	Can be accepted subject to suitable clearance from ground considering risk of water ingress during severe rain.

19	Page 52 of 99/ 5. Uninterrupted Power Supply (UPS) System: -	SITC of True Online double conversion IGBT Based Double Conversion UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc. Input & Output wiring: - 3 ph + neutral Efficiency in double conversion mode (full load) :94% Inverter/rectifier topology: - IGBT with PWM Audible Noise: - ≤65 dB at 1 m, 75% load Input Power Factor 0.99 Output Power Factor 0.9(Minimum) Input ITHD < 5% Output UTHD < 2% at 100% load Compliance: - Safety- (CB certified) IEC 62040-1 EMC- IEC 62040-2, EMC Category C3 Performance- IEC 62040-3	SITC of True Online double conversion IGBT Based Double Conversion/SCR based UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc. Input & Output wiring: - 3 ph + neutral Efficiency in double conversion mode (full load) :92% Inverter/rectifier topology: - IGBT with PWM / SCR Audible Noise: - ≤68 dB at 1 m, 75% load Input Power Factor 0.8 Output Power Factor 0.9 Input ITHD < 5% Output UTHD < 2% at 100% load Compliance: - Safety- (CB certified) IEC 62040-1 EMC- IEC 62040-2, EMC Category C3 Performance- IEC 62040-3	As per RFP

Suggestions:

1. Suggest to have through site visit for the room dimensions. The available height mentioned is 2200mm only.
2. Point 3.9.6 HMI Panel – Graphical User Interface display should be mounted on the smart rack solution for local monitoring – to be removed as we support up to 4 cooling units only also, two different types of UPS to be monitored on the RDU.

3. CMH of the cooling unit to be revised

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Page	Point No.	RFP Content	Query / Recommendation / Amendment Requested	CDAC Response
1	Page 43	6. Acceptance Criteria	f. Deployment of Firewall solution as a High Availability (HA) pair of physical appliances with support for AI-enabled Sandbox, Analyzer, and centralized Management functionalities, along with all necessary ports, transceivers, and compatibility with quoted infrastructure from Day 1.	Requesting for clarification and elaboration if Sandbox, Analyzer and Centralized Management to be in HA or standalone?	Refer Corrigendum
2	Page 44	6. Acceptance Criteria	g. Shall demonstrate the SANDBOX functionality i.e. invoking of scanning through pre-loaded client Software.	Requesting to elaborate what is meant by pre-loaded client software and what software is being referred here	Client loaded in the desktop/server should able to scan files through sandbox
3	Page 18	CPU-GPU-Server-Type-02	The server must support Secure BIOS with TPM 2.0, digitally signed firmware, BIOS lockdown/write protection, and be compatible with Ubuntu 22.04 LTS / RHEL 9.x and listed in the OEM hardware compatibility list (HCL).	Please modify the specification for wider response: The server must support Secure BIOS with TPM 2.0, digitally signed firmware and be compatible with Ubuntu 22.04 LTS / RHEL 9.x and listed in the OEM hardware compatibility list (HCL).	Refer Corrigendum
4	Page 18	CPU-GPU-Server-Type-02	Server must include two 960 GB Hot Swappable NVMe SSDs configured in RAID 1 for operating system installation.	For OS installation M.2 SATA drives are enough. Hence please modify for wider participation: Server must include two 960 GB Hot Swappable NVMe/M.2 SATA SSDs configured in RAID 1 for operating system installation.	Refer Corrigendum
5	Page 21	EDR	8. The solution must identify and block privilege escalation	Requesting to change as " The solution must identify and block process related attacks,	Refer Corrigendum

			attacks (process monitoring) reconnaissance attacks (network traffic monitoring). Also block usage of attack tools like Metasploit, Empire, etc. covering DDOS attack, network port scanning, and flooding etc.	reconnaissance attacks. Also block usage of attack tools via application whitelisting/blacklisting" Currently this is specific to a vendor thus requesting change for wider participation	
6	Page 22	EDR	9. The solution must identify, and block credentials attempt form either memory (credentials dump, brute force) or network traffic behavioral analysis. (e.g. ARP spoofing, DNS responder) The solution must identify, block and alert on lateral movement (SMB relay, pass the hash, port scanning etc.)	Requesting to change as " The solution must analyze network activity and allow for its control. The solution must identify, block and alert on lateral movement/file activities" Currently this is specific to a vendor thus requesting change for wider participation	Refer Corrigendum
7	Page 22	EDR	10. The solution must identify user account malicious behavior, indicative of compromise. The solution must identify user account malicious interaction with data files. i.e. Decoy files.	Requesting to change as " The solution must identify malicious behavior, indicative of compromise. The solution must be able to sweep across the network to look for IOC's/IOA's." Currently this is specific to a vendor thus requesting change for wider participation	Refer Corrigendum
8	Page 23	EDR	15. The solution should provide options for exclusions for HASH, path, certificate or signer ID, file types, IP address and websites.	Requesting to change as " The solution should provide options for exclusions for HASH, file types, IP address" Currently this is specific to a vendor thus requesting change for wider participation	Refer Corrigendum
9	Page 23	EDR	16. Solution should support compliance standards such as GPDR, HIPAA, and PCI-DSS etc.	Requesting to remove as this is related to DLP or data which isn't a function of EDR.	Refer Corrigendum

10	Page 25	48-Port 100Gbps Ethernet Switch Performance and Architecture (Clause 17)	Device should have virtual output queuing-based architecture, such that every input port will have a virtual output queue for every output port on the switch.	For VOQ: VOQ based systems don't leverage intelligent buffer mechanisms hence would require higher buffer space. Cisco's intelligent buffer system implements unique queue management schemes that allows to achieve best performance for all types of applications that needs to be delivered as part of the project for current & future needs. " Cisco Nexus Data Center Switches having Cisco c-scale ASICs, offer more advance buffering mechanism know as intelligent buffering, meeting all solution requirement. They come with adequate amount of on-chip buffer space to achieve 100 percent throughput on high-speed 10/25/40/50/100-Gbps links and with intelligent buffer management functions to efficiently serve mixed mice flows and elephant flows. Serving all application needs for the proposed solution. Hence please modify the clause for wider participation: "**Device should have virtual output queuing-based architecture, such that every input port will have a virtual output queue for every output port on the switch or should support intelligent buffer.**"	Refer Corrigendum
11	Page 26	48-Port 10Gbps Ethernet Switch	Device should be based on industry standard virtual output queue-based architecture to	For VOQ: VOQ based systems don't leverage intelligent buffer mechanisms hence would require higher buffer space.	Refer Corrigendum

		Performance and Architecture (Clause 4)	avoid head-of-line blocking issues.	Cisco's intelligent buffer system implements unique queue management schemes that allows to achieve best performance for all types of applications that needs to be delivered as part of the project for current & future needs. " Cisco Nexus Data Center Switches having Cisco c-scale ASICs, offer more advance buffering mechanism know as intelligent buffering, meeting all solution requirement. They come with adequate amount of on-chip buffer space to achieve 100 percent throughput on high-speed 10/25/40/50/100-Gbps links and with intelligent buffer management functions to efficiently serve mixed mice flows and elephant flows. Serving all application needs for the proposed solution. Hence please modify the clause for wider participation: Please modify the clause for wider participation: **Device should be based on industry standard virtual output queue-based architecture to avoid head-of-line blocking issues or should support intelligent buffer architecture.**	
12	Page 26	48-Port 10Gbps Ethernet Switch Performance and	Device should have support 10K or more ingress/egress hardware ACL entries	For TOR switches for Data center we have specific IP subnet, hence we need limited ACLs for internal communication as well as for control plane policies. And for external communication there must be a perimetric firewall to inspect the IN/OUT	Refer Corrigendum

		Architecture / (Clause 15)		(north/South) traffic. Hence please modify the clause for wider participation: Device should have support 5K or more ingress/egress hardware ACL entries	
13	Page 27	48-Port Management Switch (1G) Performance and Architecture / (Clause 4)	Device should be able to support up to 32K MAC addresses.	For Management switch in DC, we have limited devices and limited management IP Subnet. Hence, we require less MAC-address requirement. Request to modify the clause for wider participation: Device should be able to support up to 15K MAC addresses.	Refer Corrigendum
14	Page 27	48-Port Management Switch (1G) Performance and Architecture / (Clause 4)	Device should support 4K VLANs, 9200 bytes Jumbo frame.	For Management switch in DC, we have limited devices and limited management IP Subnet and respective VLANs requirement. Hence, we require not more than 50 Vlans requirement. Request to modify the clause for wider participation: Device should support 250 VLANs, 9200 bytes Jumbo frame.	Refer Corrigendum
15	Page 28	10. Firewall Features	3. The supply shall include 20 clients to invoke SANDBOX scan from the client directive.	Requesting clarification" Does the statement mean 20 endpoints for sandboxing and EDR because to invoke sandboxing at a client level it requires endpoint EDR equivalent solution to be there	Requirement of 30 clients of EDR & 20 clients of SANDBOX are different.
16	Page 28	10. Firewall Features	4. Must have 8 x 10G MM Fiber Ports, 8 x 1G Fiber Ports, 8 x 1 GE RJ45, 1x RJ45 management port from Day 1	Firewall is basically to inspect majorly North south traffic of multiple interfaces/zones, and in DC we cannot afford delay to access any services, hence fiber based port/connectivity must be requesting to change as Must have 8 x 1/10G MM Fiber Ports 8 x 1 GE RJ45, 1x	As per RFP

				RJ45 management port from Day 1 with support for additional 8 x 1/10G Fiber Ports for future usage" Modern day networks are build with minimum 10G backbone.	
17	Page 28	10. Firewall Features	6. The solution must have sufficient physical RAM and CPU to deliver the requested performance throughput.	Requesting to update as " The solution should have minimum physical 64 GB RAM and multi core processor CPU to deliver the requested performance throughput" RAM and CPU directly impact the performance and having a optimum RAM/CPU is essential for proper functioning of the device	As per RFP
18	Page 28	10. Firewall Features	7. Threat prevention throughput must be 1Gbps in a real-world enterprise mix with all security engines (IPS, application control, web filtering, anti- malware) enabled.	Requesting to update as " Threat prevention throughput must be 5Gbps in a real-world enterprise mix with all security engines (IPS, application control, web filtering, anti- malware) enabled. Considering the requested 8 *10G interfaces the ask throughput of 1Gbps is too less to effectively use any of the mentioned capabilities and network backbone capacities.	As per RFP
19	Page 28	10. Firewall Features	13. Firewall must support at least 4 virtual firewall domains/instances.	Requesting to update as " Firewall must support at least 4 virtual firewall domain/instance/router" Different vendor have different terminology thus requesting change for wider participation	This is acceptable but the supply shall include the requisite hardware, software and associated Lincese.
20	Page 29	10. Firewall Features	21. Must support vulnerability and exploit signatures, protocol validation, anomaly detection, behavior-based detection, and multi-element correlation up to Layer 7 including SSL/TLS.	Requesting to update as "Must support vulnerability and exploit signatures, protocol validation, anomaly detection, behavior-based detection, and multi-element correlation up to Layer 7 including SSL/TLS with over 5000 distinct application signatures (excluding custom signatures) for application detection and over 20,000 IPS signatures. Both application	As per RFP

				identification and IPS engines must leverage AI/ML-based detection to identify evolving patterns, ensuring no data leaves the organization's boundary with complete detection, inspection, and forensic analysis occurring on the box" to ensure quality it is important to mention the number of signatures available. Thus, to ensure a quality and security efficacy of the solution it is requested.	
21	Page 29	10. Firewall Features	28. Must support simultaneous user authentication via Local Database, LDAP, RADIUS, TACACS+, and PKI (PKCS#7, PKCS#10).	Requesting to change as "Must support simultaneous user authentication via Local Database, LDAP, RADIUS/TACACS+, and PKI (PKCS#7, PKCS#10)" different vendor have different methodologies and requested changes allows for more participations thus requesting change	As per RFP
22	Page 30	10. Firewall Features	48. Firewall appliance must include at least 100 GB local hard disk storage for logs and statistics.	Requesting to change " Firewall appliance must include at least 800 GB local hard disk storage for logs and statistics" As per cert guideline on lice logs should be available for 180 months, thus requesting the change	As per RFP

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Section/ Page No	Clause Reference	Query from Bidder	C-DAC Response
1	Page 24	NAS Storage - 1PB	As this is HPC & AI requirement, GPU requires more I/O and hence required more throughput. We request to kindly allow PFS storage as well. Which scales much better on performance compare to NFS.	Ref. Corrigendum
2	Page 24	NAS Storage - 1PB	We also request to remove snapshot and De-duplication as these are enterprise storage feature and wotn require in high performance storage.	Ref. Corrigendum

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Page	Point No.	RFP Content	Query / Recommendation / Amendment Requested	CDAC Response
1	Page 19	SECTION IV – SCHEDULE OF REQUIREMENT 1. Hardware Resources with Specification 2. CPU-GPU-Server-Type-02	Certifications & Compliance: 1. Servers should be certified by GPU Controller / Accelerator OEM, the Certificate or listing of offered Server model in GPU Controller / Accelerator OEM website must be submitted along with bid.	Requested to kindly change to: 1. Servers should be certified for GPU Controller / Accelerator compatibility. The Certificate from Server OEM / GPU OEM or listing of offered Server model in GPU Controller / Accelerator OEM website must be submitted along with bid. None of the Server OEM had Server Model listed on Nvidia Qualified System Catalogue for 4 x H200 NVL GPUs. Hence to requested to change as above	Refer Corrigendum
2	Page 24	SECTION IV – SCHEDULE OF REQUIREMENT 1. Hardware Resources with Specification 6. NAS Storage - 1PB	Capacity: The total usable capacity of the storage shall be 1PB after implementing the RAID 6 or better redundancy. The storage shall be scalable to 1.5PB without adding additional controllers and disk enclosures.	Requested to kindly change to: The total usable capacity of the storage shall be 1PB after implementing the RAID6 / Dual Parity Protection or better redundancy. The storage shall be scalable to 1.5PB by adding additional controllers/nodes and disk enclosures. RAID 6 is restrictive to Hardware based controllers, while the	As per RFP

				solution can be better offered with Software Defined Storage also, hence requested to kindly allow Dual Parity Protection also which provides similar features of RAID 6	
3	Page 24	SECTION IV – SCHEDULE OF REQUIREMENT 1. Hardware Resources with Specification 6. NAS Storage - 1PB	Redundancy: The proposed storage shall support RAID6 or better protection. The storage shall be configured as No Single Point of Failure w.r.to controllers, disks, Power supplies, Fans, and connectivity. The proposed controllers shall work in active – active load balancing mode with Battery Backed Write Cache (BBWC) or equivalent.	Requested to kindly change to: The proposed storage shall support RAID6 / Dual Parity or better protection. The storage shall be configured as No Single Point of Failure w.r.to controllers/node failover, disks, Power supplies, Fans, and connectivity. The proposed controllers shall work in active – active load balancing mode with Battery Backed Write Cache (BBWC) or equivalent or in case of node based solution, the solution shall have tolerance of 1 Node failure and be able to handle unexpected power loss without any data loss, data corruption or lengthy file system checks when power is restored. The specifications needs to revise for enabling Software Defined Solution based offering to comply.	As per RFP

4	Page 24	SECTION IV – SCHEDULE OF REQUIREMENT 1. Hardware Resources with Specification 6. NAS Storage - 1PB	Protocols: NFS, CIFS and ISCSI protocols. Shall support GPU Direct. CSI support for dynamic storage provisioning. Should support REST API. Should provision	Requested to kindly change to: NFS, CIFS/SMB protocols. Shall support GPU Direct. CSI support for dynamic storage provisioning. Should support REST API. Should provision The specifications need to revise for enabling Software Defined Solution based offering to comply.	Refer Corrigendum
5	Page 31-33	SECTION IV – SCHEDULE OF REQUIREMENT 1. Hardware Resources with Specification 2. Performance Evaluation and Criterion	3. This table 1 need to be submitted along with the bid. Published benchmarks / OEM Website results need to be submitted. 4. Table 2 parameters shall be Published on MLPerf Website.	Kindly confirm whether Published scores need to submit along with Technical Bid or OEM can submit results along with report which run internally at OEM premises	Allowed for the inference nodes. (Type 2 CPU-GPU Server)

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Section / Page No	Clause Reference	Query from Bidder	C-DAC Response
1	Page 5 of 99 /4. Eligibility Criteria:	4.Eligibility Criteria:	Request you to kindly add the following: Bidder to ensure that all the major critical components for Data Centre i.e. Rack, UPS, Cooling, rack PDU and monitoring system must be from same OEM for Seamless Integration & better Service Supports to avoid any dependency at the time of execution or operational stage.	As per RFP
2	Page 5 of 99 /4. Eligibility Criteria:	4.Eligibility Criteria:	Request you to kindly add the following: The OEM of the critical components i.e UPS, Cooling unit should have its own manufacturing & testing facility in India for offered or similar capacity UPS & Precision air conditioning units for high availability of the critical infrastructure i.e Data Centre solution.	As per RFP
3	Page 14 of 99 /6. Acceptance Criteria / Part B	i. The Building Management System (BMS) interface must be fully functional with an effective graphical user interface (GUI). It must provide monitoring of all field devices such as temperature and humidity sensors, UPS, PDUs, and alarms. The system should allow both automatic and manual mode control of all connected actuators. Manual mode should be accessible via both the BMS interface and dedicated hardware switches.	Request you to kindly revise as below: The smart rack should have dedicated monitoring interface which must be fully functional with an effective graphical user interface (GUI). It must provide monitoring of all field devices such as temperature and humidity sensors, IT load UPS, PDUs, and alarms.	As per RFP

4	Page 24 of 99 /6. NAS Storage - 1PB	Power and Rack Space: Consumption shall not exceed 20KW and 20U rack space.	We understand that the IT load & U space will be as per description given at page 36 of RFP (Design Inputs). Kindly confirm.	The description is related to IT Components.
5	Page 35 of 99 / 3. General Requirements	ix. The scope of installation, configuration, integration, and commissioning shall mean to install and configure all components and subsystems as well as providing all data to the existing Building Management System with the required components, integrating the entire facility and make the system operational as per scope of work.	Kindly confirm whether the existing BMS system supports SNMP. Also, confirm the Make / Model of the existing BMS system.	No Integration with existing BMS required.
6	Page 36 of 99 / 2. Design Inputs	2.Design Inputs	The IT load details of only 4 racks mentioned though the solution asked is for 5 racks. Kindly correct the no. of rack & Total IT load description.	As per RFP. 5th Rack is for future expansion.
7	Page 37 of 99 / Major Subsystems/Equipment's of DC required: -	a) Smart Rack Solution (5 no's IT racks ,10 Numbers (5+5) of 63 AMPS IPDU for IT Load Distribution, 1 No. Utility Rack, 5 no's (4+ 1 R) Inrow Inverter Scroll Cooling Units of Minimum Rated Capacity of 35 KW, NOVEC 1230 Fire Suppression System, WLD, VESDA, Smoke/Heat DETECTORS, Rodent Repellent Systems, Access Control etc.)	Request you to kindly allow Integrated Smart Rack OEM to decide on capacity & no. of cooling units required to support the given IT load. CFD Analysis of the offered solution may be asked to feasibility of the solution.	As per RFP

8	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack Solutions	2.4) Major Component's for Smart Racks Data Centre Solution – (Five No's IT Racks, Utility Rack, IT UPS I/C DB, NON-IT UPS I/C DB, back up RAW POWER supply for cooling units using ATS in case of failure of UPS supply, Inrow Cooling Units (Minimum 35 Kw Rated, 9500 CMH), 2 Nos. 63 A -3 PHASE Intelligent rack PDUs in each IT Rack,	It is request to kindly accept the Cooling unit Qty, Capacity & CMH as per OEM design standard & offering.	Refer Corrigendum
9	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack Solutions	Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, I-PDUs & Centralized Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports.	Request you to kindly amend as per the following: Critical Component's IT Racks, Utility Rack, IN-Row Cooling Units, UPS, I-PDUs & Centralized Monitoring Systems should be from same & single OEM for Seamless Integration & better Service Supports to avoid any dependency at the time of execution or operational stage.	As per RFP
10	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack Solutions	2.5) The Smart Rack solution must be CE /UL OR EQUIVALENT INDIAN STANDARDS certified.	The complete Smart Rack solution must be CE or tested by third party agency following National Accreditation Board, BIS, TEC accreditation / Recognition.	As per RFP
11	Page 42 of 99 / 3. Technical Specification of Smart Rack Solution – 5 IT Racks /(A) Smart Rack	2.6 The Smart Rack OEM should have its own manufacturing & testing facility in India for wide range of Rack, & Precision air conditioning units for high availability of the critical	2.6) The Smart Rack OEM should have its own manufacturing & testing facility in India for wide range of Rack, UPS & Precision air conditioning units for high availability of the critical infrastructure AND better after sale support during the whole project duration	As per RFP

	Solutions	infrastructure AND better after sale support during the whole project duration		
12	Page 43 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.1.2) Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 9500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 110 KW Heat Load.	3.1.2) Each DX based Inrow Precision Air Cooling solution should deliver more than Minimum 30 kW net sensible capacity, Rated 35KW & 8500 CMH @ 42°C Ambient Temperature of Pune, supply air temperature @ 22±1°C and return air temperature of 35°C.It is mandatory to submit OEM software selection output of the proposed unit & CFD Analysis Report of the solution in both N and N+1 Running Condition considering 120 KW Heat Load.	Refer Corrigendum
13	Page 44 of 99/ The Smart Rack DC Infrastructure shall have following components:	d. The unit is equipped with EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving,	d. The unit is equipped with minimum 8 EC fans. The fan speed is variable and can be automatically regulated by the highly intelligent controller through all modes of operation. The fans pull air through the coil and is located on the front side of the unit. The EC fan has the characteristics of high efficiency, energy saving, space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 8500 CMH.	Refer Corrigendum

		space saving and hot swappable. Each Unit should be capable of horizontal airflow pattern and is rated at minimum 9500 CMH.		
14	Page 46 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.9.3 Critical Component's for Smart Racks Data Centre Solution (Rack, Cooling, intelligent rack PDU and central monitoring system) should be from same & single OEM for Seamless Integration & better Service Supports.	3.9.3 Critical Component's for Smart Racks Data Centre Solution (Rack, Cooling, UPS, intelligent rack PDU and central monitoring system) should be from same & single OEM for Seamless Integration & better Service Supports.	As per RFP
15	Page 46 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.9.6 HMI Panel – Graphical User Interface display should be mounted on the smart rack solution for local monitoring.	Kindly revise as: The monitoring unit should allow the remote monitoring of all the environmental parameters & critical components in a single dashboard.	As per RFP
16	Page 47 of 99/ The Smart Rack DC Infrastructure shall have following components:	b. Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. The front rack doors will be provided with magnetic locks and will operate on fail-safe principle through one common Biometric access	b. Biometric Based Access Control The IP based Access Control System shall be used to serve the objective of allowing access to authorized personnel only. The system deployed will be based on Biometric Technology. Both front & rear rack doors will be provided with magnetic locks and will operate on fail-safe principle through one common Biometric access control system.	As per RFP

		control system.		
17	Page 47 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.11 Monitoring: Additional Features	The monitoring unit should support basic protocols like Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS Server, smtp, TCP/IP4. It should support network interface of 10/100M self-adaptable Ethernet ports. The monitoring unit should support IPMI protocol to enable feature to access server Service Processor. The Monitoring unit should have feature to enable graceful shutdown of the IT servers supporting IPMI Protocol.	As per RFP
18	Page 48 of 99/ The Smart Rack DC Infrastructure shall have following components:	3.16 Power Cable entry will be from Top; Bidder need to consider boxing arrangement or cable manager or cable trucking system	Kindly allow cable entry provisioning either from top or bottom considering height constraints in the space allocated for the Data Centre.	Can be accepted subject to suitable clearance from ground considering risk of water ingress during severe rain.

19	Page 52 of 99/ 5. Uninterrupted Power Supply (UPS) System: -	SITC of True Online double conversion IGBT Based Double Conversion UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc. Input & Output wiring: - 3 ph + neutral Efficiency in double conversion mode (full load) :94% Inverter/rectifier topology: - IGBT with PWM Audible Noise: - ≤65 dB at 1 m, 75% load Input Power Factor 0.99 Output Power Factor 0.9(Minimum) Input ITHD < 5% Output UTHD < 2% at 100% load Compliance: - Safety- (CB certified) IEC 62040-1 EMC- IEC 62040-2, EMC Category C3 Performance- IEC 62040-3	SITC of True Online double conversion IGBT Based Double Conversion/SCR based UPS of 120 kVA Industrial Grade UPS for Cooling Equipment applications with 15-minute VRLA SMF Battery backup, Battery DC Breakers, cabling and MS FRAME etc. Input & Output wiring: - 3 ph + neutral Efficiency in double conversion mode (full load) :92% Inverter/rectifier topology: - IGBT with PWM / SCR Audible Noise: - ≤68 dB at 1 m, 75% load Input Power Factor 0.8 Output Power Factor 0.9 Input ITHD < 5% Output UTHD < 2% at 100% load Compliance: - Safety- (CB certified) IEC 62040-1 EMC- IEC 62040-2, EMC Category C3 Performance- IEC 62040-3	As per RFP

20	Page 24	NAS Storage - 1PB	As this is HPC & AI requirement, GPU requires more I/O and hence required more throughput. We request to kindly allow PFS storage as well. Which scales much better on performance compare to NFS.	Refer Corrigendum
21	Page 24	NAS Storage - 1PB	We also request to remove snapshot and De-duplication as these are enterprise storage feature and wotn require in high performance storage.	Refer Corrigendum

Suggestions:

1. Suggest to have through site visit for the room dimensions. The available height mentioned is 2200mm only.
2. Point 3.9.6 HMI Panel – Graphical User Interface display should be mounted on the smart rack solution for local monitoring – to be removed as we support up to 4 cooling units only also, two different types of UPS to be monitored on the RDU.
3. CMH of the cooling unit to be revised

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Page	Point No.	RFP Content	Query / Recommendation / Amendment Requested	CDAC Response
1	Page 5	SECTION II	4(f) The Bidder must have supplied, installed, and commissioned at least 1 no's of 100 TF HPC system or single AI facility with minimum 16 GPU cards for training/inference purpose. The order copy along with satisfactory Commissioning report needs to be submitted by the bidder which should be in the Bidder's name.	It is highlighted that the scope of work is not limited to the supply, installation, and commissioning of an HPC system, but rather includes a multi-dimensional set of responsibilities, including: Integration and commissioning of Data Center (DC) IT and non-IT infrastructure, Facility management systems (power, cooling, structured cabling, etc.), Deployment of smart racks and AI-ready infrastructure, Overall system integration across compute, storage, network, and facility equipment. As such, the eligibility criteria should not unduly restrict the bidder based solely on standalone HPC or GPU experience. In view of above, the may be modified as below: "The Bidder / OEM must have supplied, installed, and commissioned at least 1 no's of 100 TF HPC system or single AI facility with minimum 16 GPU cards for training/inference purpose. The order copy along with satisfactory Commissioning report needs to be submitted by the bidder which should be in the Bidder's name."	As per RFP

Queries and Response towards the Tender Reference No. - CDACP/MTG-IDC/25-26/Re434

Sr. No.	Page	Point No.	RFP Content	Query / Recommendation / Amendment Requested	CDAC Response
1	Page 43	6. Acceptance Criteria	f. Deployment of Firewall solution as a High Availability (HA) pair of physical appliances with support for AI-enabled Sandbox, Analyzer, and centralized Management functionalities, along with all necessary ports, transceivers, and compatibility with quoted infrastructure from Day 1.	Requesting for clarification and elaboration if Sandbox, Analyzer and Centralized Management to be in HA or standalone?	Refer Corrigendum
2	Page 44	6. Acceptance Criteria	g. Shall demonstrate the SANDBOX functionality i.e. invoking of scanning through pre-loaded client Software.	Requesting to elaborate what is meant by pre-loaded client software and what software is being referred here	Client S/W is need to invoke scanning of files through Sandbox from user terminals.
3	Page 18	CPU-GPU-Server-Type-02	The server must support Secure BIOS with TPM 2.0, digitally signed firmware, BIOS lockdown/write protection, and be compatible with Ubuntu 22.04 LTS / RHEL 9.x and listed in the OEM hardware compatibility list (HCL).	Please modify the specification for wider response: The server must support Secure BIOS with TPM 2.0, digitally signed firmware and be compatible with Ubuntu 22.04 LTS / RHEL 9.x and listed in the OEM hardware compatibility list (HCL).	Refer Corrigendum
4	Page 18	CPU-GPU-Server-Type-02	Server must include two 960 GB Hot Swappable NVMe SSDs configured in RAID 1 for operating system installation.	For OS installation M.2 SATA drives are enough. Hence please modify for wider participation: Server must include two 960 GB Hot Swappable NVMe/M.2 SATA SSDs configured in RAID 1 for operating system installation.	Ref. Corrigendum

5	Page 21	EDR	8. The solution must identify and block privilege escalation attacks (process monitoring) reconnaissance attacks (network traffic monitoring). Also block usage of attack tools like Metasploit, Empire, etc. covering DDOS attack, network port scanning, and flooding etc.	Requesting to change as " The solution must identify and block process related attacks, reconnaissance attacks. Also block usage of attack tools via application whitelisting/blacklisting" Currently this is specific to a vendor thus requesting change for wider participation	Ref. Corrigendum
6	Page 22	EDR	9. The solution must identify, and block credentials attempt form either memory (credentials dump, brute force) or network traffic behavioral analysis. (e.g. ARP spoofing, DNS responder) The solution must identify, block and alert on lateral movement (SMB relay, pass the hash, port scanning etc.)	Requesting to change as " The solution must analyze network activity and allow for its control. The solution must identify, block and alert on lateral movement/file activities" Currently this is specific to a vendor thus requesting change for wider participation	Ref. Corrigendum
7	Page 22	EDR	10. The solution must identify user account malicious behavior, indicative of compromise. The solution must identify user account malicious interaction with data files. i.e. Decoy files.	Requesting to change as " The solution must identify malicious behavior, indicative of compromise. The solution must be able to sweep across the network to look for IOC's/IOA's." Currently this is specific to a vendor thus requesting change for wider participation	Ref. Corrigendum
8	Page 23	EDR	15. The solution should provide options for exclusions for HASH, path, certificate or signer ID, file types, IP address and websites.	Requesting to change as "The solution should provide options for exclusions for HASH, file types, IP address". Currently this is specific to a vendor thus requesting change for wider participation	Ref. Corrigendum
9	Page 23	EDR	16. Solution should support compliance standards such as GPDR, HIPAA, and PCI-DSS etc.	Requesting to remove as this is related to DLP or data which isn't a function of EDR.	Ref. Corrigendum

10	Page 25	48-Port 100Gbps Ethernet Switch Performance and Architecture (Clause 17)	Device should have virtual output queuing-based architecture, such that every input port will have a virtual output queue for every output port on the switch.	For VOQ: VOQ based systems don't leverage intelligent buffer mechanisms hence would require higher buffer space. Cisco's intelligent buffer system implements unique queue management schemes that allows to achieve best performance for all types of applications that needs to be delivered as part of the project for current & future needs. " Cisco Nexus Data Center Switches having Cisco c-scale ASICs, offer more advance buffering mechanism know as intelligent buffering, meeting all solution requirement. They come with adequate amount of on-chip buffer space to achieve 100 percent throughput on high-speed 10/25/40/50/100-Gbps links and with intelligent buffer management functions to efficiently serve mixed mice flows and elephant flows. Serving all application needs for the proposed solution. Hence please modify the clause for wider participation: "**Device should have virtual output queuing-based architecture, such that every input port will have a virtual output queue for every output port on the switch or should support intelligent buffer.**"	Refer Corrigendum
11	Page 26	48-Port 10Gbps Ethernet Switch	Device should be based on industry standard virtual output queue-based architecture to	For VOQ: VOQ based systems don't leverage intelligent buffer mechanisms hence would require higher buffer space.	Refer Corrigendum

		Performance and Architecture (Clause 4)	avoid head-of-line blocking issues.	Cisco's intelligent buffer system implements unique queue management schemes that allows to achieve best performance for all types of applications that needs to be delivered as part of the project for current & future needs. " Cisco Nexus Data Center Switches having Cisco c-scale ASICs, offer more advance buffering mechanism know as intelligent buffering, meeting all solution requirement. They come with adequate amount of on-chip buffer space to achieve 100 percent throughput on high-speed 10/25/40/50/100-Gbps links and with intelligent buffer management functions to efficiently serve mixed mice flows and elephant flows. Serving all application needs for the proposed solution. Hence please modify the clause for wider participation: Please modify the clause for wider participation: **Device should be based on industry standard virtual output queue-based architecture to avoid head-of-line blocking issues or should support intelligent buffer architecture.**	
12	Page 26	48-Port 10Gbps Ethernet Switch Performance and	Device should have support 10K or more ingress/egress hardware ACL entries	For TOR switches for Data center we have specific IP subnet, hence we need limited ACLs for internal communication as well as for control plane policies. And for external communication there must be a perimetric firewall to inspect the IN/OUT	Refer Corrigendum

		Architecture / (Clause 15)		(north/South) traffic. Hence please modify the clause for wider participation: Device should have support 5K or more ingress/egress hardware ACL entries	
13	Page 27	48-Port Management Switch (1G) Performance and Architecture / (Clause 4)	Device should be able to support up to 32K MAC addresses.	For Management switch in DC, we have limited devices and limited management IP Subnet. Hence, we require less MAC-address requirement. Request to modify the clause for wider participation: Device should be able to support up to 15K MAC addresses.	Refer Corrigendum
14	Page 27	48-Port Management Switch (1G) Performance and Architecture / (Clause 4)	Device should support 4K VLANs, 9200 bytes Jumbo frame.	For Management switch in DC, we have limited devices and limited management IP Subnet and respective VLANs requirement. Hence, we require not more than 50 Vlans requirement. Request to modify the clause for wider participation: Device should support 250 VLANs, 9200 bytes Jumbo frame.	Refer Corrigendum
15	Page 28	10. Firewall Features	3. The supply shall include 20 clients to invoke SANDBOX scan from the client directive.	Requesting clarification" Does the statement mean 20 endpoints for sandboxing and EDR because to invoke sandboxing at a client level it requires endpoint EDR equivalent solution to be there	Refer Corrigendum
16	Page 28	10. Firewall Features	4. Must have 8 x 10G MM Fiber Ports, 8 x 1G Fiber Ports, 8 x 1 GE RJ45, 1x RJ45 management port from Day 1	Firewall is basically to inspect majorly North south traffic of multiple interfaces/zones, and in DC we cannot afford delay to access any services, hence fiber based port/connectivity must be requesting to change as Must have 8 x 1/10G MM Fiber Ports 8 x 1 GE RJ45, 1x RJ45	As per RFP

				management port from Day 1 with support for additional 8 x 1/10G Fiber Ports for future usage" Modern day networks are built with minimum 10G backbone.	
17	Page 28	10. Firewall Features	6. The solution must have sufficient physical RAM and CPU to deliver the requested performance throughput.	Requesting to update as " The solution should have minimum physical 64 GB RAM and multi core processor CPU to deliver the requested performance throughput" RAM and CPU directly impact the performance and having a optimum RAM/CPU is essential for proper functioning of the device	As per the quoted solution.
18	Page 28	10. Firewall Features	7. Threat prevention throughput must be 1Gbps in a real-world enterprise mix with all security engines (IPS, application control, web filtering, anti- malware) enabled.	Requesting to update as " Threat prevention throughput must be 5Gbps in a real-world enterprise mix with all security engines (IPS, application control, web filtering, anti- malware) enabled. Considering the requested 8 *10G interfaces the ask throughput of 1Gbps is too less to effectively use any of the mentioned capabilities and network backbone capacities.	As per RFP
19	Page 28	10. Firewall Features	13. Firewall must support at least 4 virtual firewall domains/instances.	Requesting to update as " Firewall must support at least 4 virtual firewall domain/instance/router" Different vendor have different terminology thus requesting change for wider participation	Ref. Corrigendum
20	Page 29	10. Firewall Features	21. Must support vulnerability and exploit signatures, protocol validation, anomaly detection, behavior-based detection, and multi-element correlation up to Layer 7 including SSL/TLS.	Requesting to update as "Must support vulnerability and exploit signatures, protocol validation, anomaly detection, behavior-based detection, and multi-element correlation up to Layer 7 including SSL/TLS with over 5000 distinct application signatures (excluding custom signatures) for application detection and over 20,000 IPS signatures. Both application	As per RFP

				identification and IPS engines must leverage AI/ML-based detection to identify evolving patterns, ensuring no data leaves the organization's boundary with complete detection, inspection, and forensic analysis occurring on the box" to ensure quality it is important to mention the number of signatures available. Thus, to ensure a quality and security efficacy of the solution it is requested.	
21	Page 29	10. Firewall Features	28. Must support simultaneous user authentication via Local Database, LDAP, RADIUS, TACACS+, and PKI (PKCS#7, PKCS#10).	Requesting to change as "Must support simultaneous user authentication via Local Database, LDAP, RADIUS/TACACS+, and PKI (PKCS#7, PKCS#10)" different vendor have different methodologies and requested changes allows for more participations thus requesting change	As per RFP
22	Page 30	10. Firewall Features	48. Firewall appliance must include at least 100 GB local hard disk storage for logs and statistics.	Requesting to change " Firewall appliance must include at least 800 GB local hard disk storage for logs and statistics" As per cert guideline on lice logs should be available for 180 months, thus requesting the change	As per RFP
23	Nil	Section II Sl.no,4. Eligibility Criteria.	f. The Bidder must have supplied, installed, and commissioned at least 1 no's of 100 TF HPC system or single AI facility with minimum 16 GPU cards for training/inference purpose. The order copy along with satisfactory Commissioning report needs to be submitted by the bidder which should be in the Bidder's name.	The **Bidder/OEM** must have supplied, installed, and commissioned at least 1 no's of 100 TF HPC system or single AI facility with minimum 16 GPU cards for training/inference purpose. The order copy along with satisfactory Commissioning report needs to be submitted by the bidder which should be in the Bidder's name.	As per RFP