GPU Server Minimum Specifications

S. No.	Items	GIL Recommended draft specs
1	**Processor**	Min Dual 192-core and 384 Threads or higher latest Gen Intel® Xeon® or AMD Epyc scalable processors with hyper threading, and with Min 1 X GPU Accelerators.
2	**RAM**	The system should be configured with Minimum 2TB DDR5 RAM with all slots populated in balanced configuration for maximum bandwidth
3	**Storage**	Minimum total of 3.84 TB NVMe Drives for OS (mirrored) and Total of min. 50 TB NVMe Drives Configured in RAID-05
4	**Network**	• 1 x Management Port • 2 x 10G Base-T RJ45 port with suitable cables and length. • 2 x 10/25GbE SFP28 Ports with cables and Transceivers
5	**Disk Array Controller**	Hardware controllers should have 12Gbps speed and support for RAID 0, 1, 5,10. With 8GB cache or higher.
6	**Expansion Slots**	8 PCIe 5.0 x16 slots or higher should be available.
7	**Remote Management**	Remote management port, IPMI 2.0 or equivalent support with KVM and Management over LAN features with additional licenses if any.
8	**Accelerator**	Single NVIDA H200 NVL GPU should be available from day 1. Systems should support a total of 8 GPU in the server.
9	**Management Features**	Dedicated IPMI Management Port with Activated License. IPMI 2.0 Support with KVM and Media over LAN features. Must include all required licenses, if required for using these features. It should be able to automate mgmt. tasks and automated firmware updates. Email Alerting Methodology, User management functionality with SSL based security, Multiuser Permission Levels, multiuser Profiles USB 2.0 or 3.0 based drive redirection with support for USB Key, VLAN functionality supports Reading Log Events. Manual / Datasheet must be submitted for the compliance.
10	**Security Features**	• UEFI Secure Boot and Secure Start support Immutable Silicon Root of Trust • TPM (Trusted Platform Module) 2.0 Server OEM • Bezel Locking & chassis Intrusion Detection Kit • **Compliance:** RoHS, CC EAL4+ certified TPM Chipset.

11	**Platform Monitoring**	LED indicators for Power status, System alert, LAN activity, Drive activity, System ID, Monitoring & Management for CPU, GPU, Memory, Storage, Network and Chassis Environment for power and cooling. Actual or Impending failure alerts for critical components, Monitoring with event logs and SMART attributes, Monitoring of CPU voltages, Chipset Voltage, PSU +5V standby, +5V, +3.3V, +12V
12	**OS Compliance and AI / ML Support**	Should support, Ubuntu Linux and certification OEM Web link should be submitted. The proposed server should support AI Inference, Machine Learning &Cloud Computing from day 1 and the necessary document should be provided with BID Ready containers for AI, Machine Learning should be available from day 1. Containers should be available in the local repository and will be deployed in one-click fashion.
13	**Remote Management Server Processor**	• Remote Management should be supported.
14	**AI / ML Features**	• Native inbuilt AI & ML containers in the image format. • The proposed server should support AI Inference, Machine Learning &Cloud Computing from day 1 and the necessary document should be provided. • Ready containers for AI, Machine Learning should be available from day 1. • OneClick Containers deployment should be available from the local.
15	**Scalability**	• Proposed systems should be scalable and HPC ready from day 1. • Systems Architecture should be scalable up to 20 Nodes with single cluster and manageability with single management console.
16	**Power Supply**	• Appropriate rated and energy efficient, redundant hot swappable power supply (Mandatory)
17	**Rail Kit**	• Server should be supplied with a compatible Railing Kit.
18	**Graphics**	• On-board graphics support (VGA)
19	**Warranty**	• 5 Years comprehensive onsite warranty

Scope of Work-2

1. The bidder shall **supply, install, configure, test, and commission** the required server infrastructure, including all necessary software, operating systems, and licenses, at the **Gujarat Biotechnology Research Centre (GBRC), Gandhinagar, Gujarat**.
2. All software, operating system, and library licenses must be issued in the name of the **Director, Gujarat Biotechnology Research Centre (GBRC), Department of Science & Technology, Government of Gujarat**.
3. The bidder shall provide **comprehensive documentation** covering system implementation, configuration, and deployment.
4. The solution must support **remote console access** for server and shall have **cluster health monitoring shall be enabled for future** over **Fast Ethernet or better connectivity speeds**.
5. The servers/chassis/enclosures must be delivered with **appropriate rated and energy efficient**. The failure of one power supply must not affect the server's performance or operation.
6. The server infrastructure shall be **clustering-ready**, allowing for future implementation of server clustering.
7. The bidder shall provide server with all necessary **cabling, SFP modules, KVM console and other active/passive components** required to host the servers at GBRC. Any additional components required for successful deployment must be included in the proposal and supplied without exception.
8. The bidder shall provide and install enough number **air conditioners** with calculating current cooling capacity and new requirements. The solution should allow air conditioners to run alternatively with timer switches(s) set in between. GBRC will provide raw power supply required for installation of air conditioners. **Bidder may visit GBRC facility to check existing server room design and cooling capacity**
9. The bidder shall provide **on-site comprehensive warranty and maintenance services for a period of five (5) years** from the date of successful User Acceptance Test (UAT). The warranty shall include but not be limited to: Firmware and software updates, Proactive bug fixes and security patches, Preventive maintenance, Replacement of defective parts and components
10. Bidder shall provide software upgrade/downgrade support throughout warranty period without any additional charges.
11. Bidder has to install bioinformatics software with latest Ubuntu operating system.
12. Bidder shall have experience of server installation for bioinformatics in National/State Research Institutes/Organizations/Universities (Document proof to be submitted)
13. The entire solution, including all hardware and software components, must be **delivered in a single consolidated lot**.
14. In the event of repeated failure—defined as **two or more failures of any system or subsystem within a 5-month period**—the bidder shall replace the affected equipment with equivalent new hardware at **no additional cost** to GBRC. All defective items must be repaired or replaced **within the defined SLA period**.

15. The bidder shall be fully responsible for ensuring and honoring the **OEM warranty coverage** for all equipment, accessories, and parts supplied under this contract, including issues arising from design, material defects, workmanship, or normal usage.
16. In case of hard disk/memory (RAM) failure, the bidder must replace the faulty disk/memory at no cost during warranty period. **The department will retain the faulty disk** and it will not be returned to the bidder during warranty period.
17. The bidder shall ensure **complete support for the proposed solution**, including **back-to-back support from the OEM**. A detailed **Support and Escalation Matrix**, along with access to a **support portal** for incident/ticket logging, must be provided. Additionally, the portal should display and manage all licenses issued under this contract.
18. The bidder has to relocate servers one time from GBRC's existing building to new location in future without any additional cost.