

# **ENCLOSURE D**

**RM428338**

## **Statement of Work Sciserver Compute Nodes Technical Requirements March 13, 2022**

### **Compute Nodes**

- RAM configuration on motherboard must allow memory modules to run at full advertised speed.
- The system must be compatible with the RHEL8/9 operating systems.
- Systems must support PXE on all NIC's and should be configured to boot via PXE before booting off the primary drive.
- Linux-compatible video adapter required.
- Each node must have one dual-port HDR-200 Infiniband QSFP56 VPI card, and be capable of driving the full 200 Gbps.
- Hot-plug drives are required. Internal cabled disk configurations are not acceptable.
- All NVMEs must be enterprise grade.
- Nodes must contain one Nvidia HGX H100 80GB 8-GPU SXM5 Multi-GPU Board with NVswitch
- Power supply units on the nodes must be redundant, hot-swappable, and able to support the maximum memory, disk and gpu load, as listed in the server model specification sheet.

### **Node Remote Out-of-Band Management**

- Nodes must support out-of-band management, such as IPMI, via a dedicated management network interface.
- All servers must be hardware-enabled for remote keyboard and VGA video support over the private network management interface. IPMI SOL and other serial-based solutions are NOT acceptable.

Statement of Work  
Sciserver Compute Nodes  
March 13, 2022  
Page Two

## Options & Other Technical Requirements

- Vendor must include technical specifications of the proposed configurations. Technical specifications must include a detailed description of major hardware components (manufacturer, model number, type, etc) such as motherboard, NIC, disk, RAM, storage controller, etc.
- Support and warranty requirements for all equipment: **3-year**, next business-day, diagnostic and replacement of any hardware component (including NVMe disks). Warranty must cover shipping cost of replacement parts to/from supplier.
- All electrical cord and plug assemblies must be UL-listed or NRTL-listed and be approved for use at the rated capacity of the server. Supplier must certify that all electrical cord and plug assemblies meet these requirements.
- Systems must support EFI booting off of the VPI NICs and NVMe devices.
- Rack integration of the nodes is not required: this is an order for nodes only.
- **The systems must be guaranteed to arrive before September 29, 2023 at 1:00PM. This requirement will be included in the final PO contract.** If delivery is not made before September 29 2023, the funding for this equipment will be lost. Do not bid on this equipment if you cannot guarantee delivery before this date.

## **Technical Guidelines**

### **March 13, 2022**

Quotes must be provided for **four (4)** nodes with the following configuration:

#### **GPU Compute Node Configuration**

- 8U or 4U chassis
- 2 x AMD Genoa 9354 CPUs
- 24 x 64 GB 4800 MHz ECC DDR5 DIMMs
- 2 x 4 TB Enterprise NVMe drives
- 1 x Dual-port HDR-200/ConnectX-6 VPI QSFP56 PCIev4 x16 adapter
- 1 x Nvidia H100-80 HGX GPU SXM5 package (with 8xH100-80 SXM/NVswitch GPUs)
- C13/C14 power cable