

Dual-Site Enterprise Compute, Storage, and Virtualization Platform

1. Executive Summary & Architectural Scope

This Request for Proposal (RFP) defines the technical requirements for procuring two (2) completely independent, standalone virtualized infrastructure environments deployed across Two independent sites.

Each site operates as an isolated 3-node hypervisor cluster connected to its own local NVMe SAN array over 25GbE iSCSI.

The bidding supplier is strictly required to supply all network cables, optics, and switch-side 25GbE SFP28 transceivers (Cisco compatible).

2. Compute Host Specifications (6 Servers Total — 3 per Site)

Each compute host must be an enterprise-class rack server meeting or exceeding the following technical requirements:

Parameter	Technical Requirement
Processors	Dual-Socket (2x CPUs) x86 Enterprise Architecture. • 2x 32-Core Processors (32 Cores /128 Threads per server total). • Base Frequency: Minimum 2.4 GHz.
System Memory	Minimum 1.5 TB DDR5 RAM per server
Local Boot Drives	Dual 2x 480 GB Enterprise SSDs configured in hardware RAID 1 via internal controller.
Network Interfaces	Minimum 4 x 25GbE SFP28 ports per server.
Switch-Side SFPs	Supplier must provide Cisco-compatible 25GbE SFP28 optical transceivers for all server connections into Cisco network switches.

Parameter	Technical Requirement
Out-of-Band Mgmt.	Dedicated 1GbE RJ-45 OOB Management Port (iLO / iDRAC / IPMI 2.0) with HTML5 remote KVM console.
Power Modules	Dual (2x) Hot-Swap 1+1 Redundant Power Supply Units.

3. Storage System Specifications (2x NVMe SAN Arrays Total — 1 per Site)

The storage layer consists of two identical, dual-controller All-Flash NVMe SAN arrays running 25GbE iSCSI protocol.

Parameter	Technical Requirement
Architecture	Dual-Controller SAN Array with non-disruptive hardware failover.
Storage Media	All-Flash NVMe Tier.
Capacity	10 TB RAW NVMe Capacity per array (10 TB RAW at Site A, 10 TB RAW at Site B). Storage Should have 1:3 compression.
Storage Interfaces	4 x 25GbE SFP28 iSCSI Ports per controller (8 x 25GbE SFP28 iSCSI ports per array total).
Switch-Side SFPs	Supplier must provide Cisco-compatible 25GbE SFP28 optical transceivers for all storage connections into Cisco network switches.
Storage Protocol	iSCSI over 25GbE TCP/IP. Jumbo frames (MTU 9000).
Cache & Power	Flash-backed write cache vaulting with dual redundant power modules.

4. Required Cable, Optics & SFP Transceiver Supply List

The supplier is strictly required to supply and deliver all required cables, Fiber Optic (FC/LC-LC) patch cables, and 25GbE SFP28 transceivers for both host/storage ports and Cisco switch ports.

Cable / Module	Quantity	Technical Specification
Compute 25GbE Optics / SFPs	24 Units (per site)	25GbE SFP28 Transceivers. Supplier must include 25GbE SFP28 modules for the Cisco switch ports.
Storage 25GbE Optics / SFPs	16 Units (per site)	25GbE SFP28 iSCSI Transceivers. Supplier must include 25GbE SFP28 modules for the Cisco switch ports.
Fiber Optic (FC) Cables 3m	20 Units (per site)	High-Speed LC-LC Multimode OM4 Fiber Patch Cables for SAN & network interconnectivity.

5. Hypervisor Restriction: The provider must submit a proposal using one of the following hypervisors: HPE VM Essentials (VME), VMware ESXi, Microsoft Hyper-V, or Nutanix AHV. The Provider must include 100% of the software licenses, management control plane software, and prerequisite modules required for the selected platform.

6. Approved Server Vendors: The proposed server hardware must be exclusively sourced from one of the following approved vendors: **HPE, Dell EMC, Lenovo.**

7. Approved Storage Vendors: The proposed Storage hardware must be exclusively sourced from one of the following approved vendors: **HPE, Everpure, NetApp.**

8. Warranty

Hardware Support: All delivered hardware—including compute servers, NVMe SAN arrays, SFP28 transceivers, cabling, and power supplies—must include 36 months (3 years) of 24/7 OEM on-site support and warranty coverage.

Software Support: All hypervisor software licenses, management control plane tools, feature

subscriptions, security updates, and OEM support modules must be fully covered for the same 36-month term.