

REQUEST FOR QUOTATION (RFQ)

Enterprise Storage Area Network (SAN)

RFQ Number: FPDO-26-001

Issue Date: 8/15/2026

Due Date: 9/28/2026

Issuing Organization: Federal Public Defender District of Oregon

Point of Contact: Matt Gauthier / IT Director / Matt_Gauthier@fd.org / 503-326-2123

1. PURPOSE

The Federal Public Defender District of Oregon is soliciting quotations for the purchase, installation, configuration, and support of three (3) independent enterprise Storage Area Network (SAN) systems.

The SAN systems will support critical organizational operations and therefore must provide enterprise-grade reliability, redundant architecture, high-speed storage connectivity, data protection, storage management capabilities, and robust manufacturer technical support. The requirements contained in this RFQ establish the minimum technical and operational requirements for the proposed solution.

Vendors may propose equivalent or superior products and technologies provided that the proposed solution meets or exceeds all mandatory requirements.

2. SCOPE OF PROCUREMENT

The successful vendor shall provide a complete, operational SAN solution consisting of:

- Three (3) independent SAN storage systems.
- Storage controllers and associated hardware.
- Storage drives.
- Host connectivity interfaces.
- Redundant power supplies.
- Rack rails and required mounting hardware.
- Storage management software.
- Required licenses for all quoted functionalities.
- Firmware and software required for normal operation.
- Manufacturer technical support.
- Onsite hardware support.
- Professional installation and deployment.
- Documentation and administrator orientation.

All hardware, software, licenses, cables, accessories, and services necessary to provide a fully operational solution shall be included in the base quotation unless specifically identified as an optional item.

3. QUANTITY AND SYSTEM CONFIGURATION

The anticipated requirement is for three (3) separate and independently functioning SAN systems.

Each SAN shall have its own:

- Storage chassis.
- Two (2) storage controllers.

- Storage drives.
- Host connectivity.
- Redundant power supplies.
- Management capability.
- Manufacturer support coverage.

The three SAN systems shall not depend upon a common chassis, common controller, or other shared component that would constitute a single point of failure for multiple SAN systems.

3.1 Per-System Base Configuration

Each SAN shall be configured with:

- One (1) 2U rack-mount storage chassis.
- Minimum twelve (12) 3.5-inch hot-pluggable drive bays.
- Eight (8) 4TB enterprise SAS hard disk drives.
- Two (2) redundant storage controllers.
- Minimum eight (8) native 10GbE iSCSI host ports.
- Redundant power supplies.
- All required rack-mount hardware.

Each SAN will therefore have:

- Eight (8) installed drives.
- 32TB raw installed drive capacity.
- Twelve (12) or more available drive bays.
- Two (2) storage controllers.
- Eight (8) or more 10GbE iSCSI host ports.

Across all three systems, the anticipated base configuration is:

- Three (3) independent SAN systems.
- Twenty-four (24) 4TB enterprise SAS drives.
- 96TB total raw installed drive capacity.

Vendors shall clearly identify both raw capacity and usable capacity after the proposed data-protection configuration is applied.

4. CHASSIS AND PHYSICAL REQUIREMENTS

Each SAN shall:

1. Be rack-mountable in a standard 19-inch equipment rack.
 2. Occupy no more than 2U of rack space.
 3. Provide a minimum of twelve (12) 3.5-inch drive bays.
 4. Provide hot-pluggable drive bays.
 5. Include rack rails and required mounting hardware.
 6. Support future installation of additional drives in the available drive bays.
 7. Provide appropriate status indicators for system and component health.
-

5. STORAGE DRIVE REQUIREMENTS

Each SAN shall be populated with eight (8) enterprise-class SAS hard disk drives.

Minimum drive requirements:

- Capacity: 4TB per drive.
- Quantity: 8 per SAN.
- Interface: SAS.
- Interface speed: 12Gb/s or greater.
- Form factor: 3.5-inch.
- Rotational speed: 7,200 RPM or equivalent enterprise-class performance.
- Hot-plug capable.
- Manufacturer-approved for operation in the proposed storage system.
- Suitable for continuous enterprise/SAN operation.

The vendor shall identify the manufacturer and exact model number of the proposed drives.

Consumer-grade or desktop-class hard drives shall not be proposed.

6. STORAGE CONTROLLERS

Each SAN shall provide a minimum of two (2) independent storage controllers.

The controller architecture shall:

- Provide redundant controller operation.
- Support active/active operation or an equivalent architecture in which both controllers are capable of servicing host I/O during normal operation.
- Automatically fail over host I/O following a controller failure.
- Automatically restore controller redundancy following controller replacement or recovery.
- Prevent a single controller failure from causing permanent loss of access to protected storage volumes.
- Support controller replacement or maintenance without requiring a complete system shutdown, where supported by the proposed architecture.

The vendor shall describe:

- Controller architecture.
- Controller failover behavior.
- Controller failback behavior.
- Impact of a controller failure on host I/O.
- Impact of controller maintenance on host I/O.
- Any circumstances under which host access may be interrupted.

7. HOST CONNECTIVITY

Each SAN shall provide a minimum of eight (8) native 10GbE iSCSI host ports across the redundant controller pair.

The required connectivity shall:

- Support 10Gb Ethernet.
- Support native iSCSI block-storage connectivity.
- Provide redundant connectivity across the storage controllers.
- Support industry-standard iSCSI multipathing.

Permit hosts to maintain storage connectivity following failure of a controller or host path.

7.1 Physical Interface

The preferred configuration is eight (8) native 10GbE RJ-45/Base-T iSCSI ports distributed across the redundant controllers. All ports must be able to auto negotiate down to 1GbE if plugged into a 1GbE switch port.

Vendors shall clearly identify the physical interface type of all proposed host ports.

7.2 Vendor Response

Vendors shall identify:

- Number of iSCSI ports per controller.
- Port speed.
- Physical interface type.
- Supported iSCSI standards and features.
- Supported multipathing technologies.
- Maximum supported host connections.
- Required host software or drivers.
- Any additional hardware or licensing required.

All hardware and licensing required to provide the specified host connectivity shall be included in the base quotation.

8. STORAGE ARCHITECTURE

Each SAN shall provide enterprise block-level storage suitable for presentation to physical servers and/or virtualization environments.

The storage system shall provide:

- Logical storage volumes independent of individual physical disk assignments.
- Storage pools or equivalent technology for allocating physical storage to logical volumes.
- Ability to expand storage pools without recreating existing storage volumes.
- Ability to expand logical volumes without recreating the volume.
- Online/hot-plug drive replacement.
- Automated reconstruction/rebuild following drive failure and replacement.
- Monitoring of physical and logical storage resources.

The vendor shall describe the proposed storage architecture and identify any limitations associated with storage expansion, drive replacement, or storage reconstruction.

9. RAID AND DATA PROTECTION

Each SAN shall provide enterprise RAID or equivalent storage data-protection technology.

At a minimum, the proposed configuration shall protect against two drive failures without permanent loss of protected data.

The vendor shall identify:

- Supported RAID/data-protection levels.
- Recommended configuration for the eight-drive installation.
- Usable capacity under the proposed configuration.
- Number of simultaneous drive failures that can be tolerated.
- Rebuild/reconstruction process.
- Expected performance impact during rebuild.
- Ability to replace failed drives without system shutdown.
- Ability to automatically reconstruct protected data following drive replacement.

The vendor shall clearly distinguish raw installed capacity from usable capacity.

10. REDUNDANT POWER

Each SAN shall include:

- A minimum of two (2) redundant power supplies.
- Independent power connections.
- Continued operation following failure of a single power supply.
- Hot-pluggable/replacement capability where supported by the system.

The vendor shall identify:

- Maximum power consumption.
 - Typical power consumption.
 - Input voltage requirements.
 - Recommended electrical configuration.
-

11. THIN PROVISIONING AND STORAGE POOLS

Each SAN shall support storage pools and thin-provisioned logical volumes.

The system shall:

- Permit multiple logical volumes to share available physical storage resources.
- Permit logical capacity to be presented without requiring all corresponding physical capacity to be allocated immediately.
- Monitor allocated, consumed, and available physical capacity.
- Support expansion of storage pools.
- Support expansion of logical volumes without recreating the volume.
- Provide administrator visibility into physical and logical capacity utilization.

The vendor shall identify any licensing requirements associated with thin provisioning or storage pools.

12. SNAPSHOT CAPABILITY

Each SAN shall provide native array-based point-in-time snapshots of block-level storage volumes.

Snapshot functionality shall:

- Operate at the storage-array level.
- Not require host-based snapshot software.
- Support manual snapshot creation.
- Support scheduled snapshot creation.
- Permit multiple snapshots to be retained.
- Provide administrator control over snapshot retention.
- Permit recovery or rollback of a volume to a previous point-in-time state.
- Provide monitoring of snapshot capacity and utilization.

The vendor shall identify:

- Maximum supported snapshots.
 - Snapshot performance considerations.
 - Snapshot storage requirements.
 - Any licensing requirements.
 - Available snapshot scheduling options.
-

13. CONSISTENCY GROUPS

The storage system shall support consistency groups or an equivalent technology for coordinating multiple related volumes.

The system shall permit multiple volumes to be captured in a point-in-time-consistent state.

Consistency groups shall be usable for:

- Snapshot operations.
- Replication operations.
- Application recovery involving multiple related volumes.

The vendor shall describe the consistency-group capabilities of the proposed system and identify any limitations.

14. ARRAY-BASED REPLICATION

Each SAN shall provide native array-based asynchronous replication of block-level volumes between independent storage arrays.

Replication shall:

- Operate between independent storage systems.
- Not require host-based replication software.
- Support initial synchronization.
- Support subsequent replication of changed data.
- Support administrator-configurable replication schedules.
- Provide replication status and synchronization monitoring.
- Detect and report replication failures.
- Permit replication to be suspended and resumed.
- Permit resynchronization following an interruption.
- Support failover and failback procedures.

The vendor shall describe:

- Maximum supported replication distance.
- Supported replication protocols.
- Replication bandwidth requirements.
- Minimum supported replication interval.
- Replication consistency behavior.
- Failover process.
- Failback process.
- Resynchronization process.
- Any licensing or subscription requirements.

15. REPLICATION RECOVERY

The proposed system shall provide documented procedures for recovering replicated data following loss of the primary storage system.

The vendor shall describe the process for:

- Declaring a replication target available for production use.
- Presenting replicated volumes to hosts.
- Resuming production operations from the replicated system.
- Reversing replication direction.
- Resynchronizing the original primary system.
- Returning operations to the original primary system.

The vendor shall identify any limitations or additional licensing associated with these capabilities.

16. MANAGEMENT AND ADMINISTRATION

Each SAN shall provide enterprise management capabilities including:

- Web-based graphical management
- Command-line management
- Remote monitoring
- Hardware health monitoring
- Storage capacity monitoring
- Drive and controller status monitoring
- Event and fault notification
- SNMP or equivalent standards-based monitoring
- Documented API for management and/or monitoring

The management system shall permit administrators to monitor and manage:

- Controllers
- Physical drives
- Storage pools
- Logical volumes
- Host connectivity
- Storage performance
- Hardware health
- System events
- Faults
- Snapshots
- Replication
- Capacity utilization

The vendor shall identify all management software included with the proposed solution.

Any management feature required to meet this RFQ that requires an additional license shall be included in the base quotation.

17. RELIABILITY AND AVAILABILITY

Each SAN shall be designed for continuous enterprise operation.

The proposed solution shall incorporate redundancy for:

- Storage controllers
- Host connectivity
- Power supplies
- Storage data protection

The vendor shall identify all single points of failure within the proposed configuration.

The three SAN systems shall operate independently such that failure of one SAN does not cause loss of operation of the other two SAN systems.

18. MANUFACTURER TECHNICAL SUPPORT

Because these SAN systems will support critical organizational operations, robust manufacturer technical support is a mandatory requirement.

Each SAN shall include manufacturer technical support for a minimum of five (5) years.

Support shall provide **24x7x365 telephone access** to qualified technical support personnel.

Support shall include:

- 24x7x365 telephone technical support.

- Qualified personnel capable of troubleshooting the proposed storage system.
- Hardware support.
- Firmware support.
- Manufacturer-supplied storage software support.
- Remote troubleshooting and diagnostic assistance.
- Escalation to higher-level technical or engineering personnel when required.
- Case tracking.
- Escalation procedures.
- Access to applicable firmware and software updates.
- Access to manufacturer documentation and knowledge resources.
- Coordination of replacement hardware and onsite service when required.

Support shall not be limited to:

- Email support.
- Web-based ticket submission.
- Online knowledge-base access.
- Reseller/dealer support without manufacturer technical support access.

The customer shall not be required to independently determine whether a problem is caused by hardware, firmware, software, or storage configuration before contacting the manufacturer's technical support organization.

19. CRITICAL INCIDENT SUPPORT

For a complete loss of storage availability, loss of controller redundancy, or another condition materially affecting production operations, the vendor shall provide 24x7x365 technical support and escalation.

The vendor shall identify:

- Guaranteed initial response time for critical incidents.
- Telephone number or support mechanism available outside normal business hours.
- Escalation process.
- Availability of senior technical personnel.
- Procedure for escalating unresolved critical incidents.
- Procedure for obtaining emergency replacement hardware.

The vendor shall clearly distinguish between the ability to submit a support request and the availability of a qualified technical support representative to actively assist with the incident.

20. ONSITE HARDWARE SUPPORT

Following remote diagnosis and determination that onsite service is required, the manufacturer or authorized service provider shall provide onsite hardware service no later than the next business day.

The vendor shall identify:

- Onsite response SLA.
- Hours during which the SLA applies.
- Geographic limitations.
- Conditions that could delay onsite response.
- Hardware replacement procedures.

- Escalation procedures.
- Availability of replacement parts.
- Whether onsite technicians are manufacturer employees or authorized third-party service personnel.

21. WARRANTY AND SUPPORT TERM

The quotation shall include a minimum five (5) year support period for each SAN.

The vendor shall separately identify:

- Standard hardware warranty.
- Manufacturer technical support.
- 24x7x365 telephone support.
- Onsite hardware support.
- Firmware support.
- Storage software support.
- Extended warranty coverage.
- Cost of support renewal following the initial five-year term.

21.1 FAILED STORAGE MEDIA RETENTION

- Any hard disk drive, solid-state drive, or other component containing customer data that is replaced under warranty or support services shall remain the property of The Federal Public Defender of Oregon. The vendor, manufacturer, or service provider shall not remove, retain, reclaim, or require return of such component. The customer shall retain physical possession of the failed storage media. No additional charge shall be assessed for this requirement.

All support necessary to meet the requirements of this RFQ shall be included in the base quotation.

Vendors shall clearly identify any functionality that will cease to be available if a support contract expires.

22. INSTALLATION AND DEPLOYMENT

The quotation shall include professional installation and deployment services for all three SAN systems.

Deployment services shall include, at a minimum:

- Rack installation.
- Hardware installation.
- Controller configuration.
- Storage configuration.
- Network/iSCSI configuration.
- Firmware verification.
- Firmware updates where appropriate.
- Initial system health check.
- Validation of redundant controller operation.
- Validation of redundant power.
- Validation of host connectivity.
- Validation of storage data protection.
- Validation of snapshot functionality.
- Validation of replication functionality.

- Basic administrator orientation.

The vendor shall identify all activities included in the proposed deployment service and identify any activities specifically excluded.

23. DOCUMENTATION AND TRAINING

The vendor shall provide:

- Installation documentation.
- Administrator documentation.
- Configuration documentation.
- Hardware documentation.
- Troubleshooting documentation.
- Manufacturer support contact information.
- Warranty documentation.
- Replication documentation.
- Snapshot documentation.
- Storage management documentation.

The vendor shall provide basic operational training or administrator orientation as part of deployment.

24. TAA / SUPPLY-CHAIN REQUIREMENTS

The proposed equipment shall comply with applicable Trade Agreements Act (TAA) requirements and all applicable federal acquisition requirements.

The vendor shall provide documentation identifying the country of origin and applicable country-of-origin compliance for the proposed equipment.

Any component or service that does not meet the stated requirement shall be clearly identified in the quotation.

25. VENDOR RESPONSE REQUIREMENTS

Vendors shall respond to every requirement contained in this RFQ.

For each requirement, vendors shall indicate:

- Compliant
- Partially Compliant
- Non-Compliant

For any requirement marked "Partially Compliant" or "Non-Compliant," the vendor shall provide a detailed explanation.

Vendors shall identify the exact:

- Manufacturer.
- Product family.
- Model number.
- Part number.
- Controller configuration.
- Drive manufacturer and model.
- Drive quantity.
- Host-interface configuration.
- Management software.
- Storage software/features.

- Support service level.
- Warranty term.

Vendors shall provide sufficient technical information for the customer to independently verify compliance with the requirements of this RFQ.

26. PRICING REQUIREMENTS

Pricing shall be provided separately for each SAN system.

The quotation shall include all hardware, software, licenses, support, installation, and services required to meet the mandatory requirements.

The vendor shall provide pricing for:

SAN System #1

- SAN chassis.
- Storage controllers.
- Eight (8) 4TB SAS drives.
- 10GbE iSCSI connectivity.
- Redundant power supplies.
- Rack rails.
- Required cables and accessories.
- Management software.
- Snapshot functionality.
- Replication functionality.
- Thin provisioning.
- Required licenses.
- Installation and deployment.
- Five-year manufacturer support.
- Onsite hardware support.

SAN System #2

Same requirements as SAN System #1.

SAN System #3

Same requirements as SAN System #1.

The vendor shall separately identify:

- Initial purchase price.
- Installation/deployment cost.
- Year 1 support cost.
- Years 2–5 support cost.
- Any required software licenses.
- Any required replication licenses.
- Any required snapshot licenses.
- Any required management licenses.
- Optional upgrades.
- Optional additional storage.
- Optional support upgrades.
- Cost of support renewal following the initial five-year term.

No mandatory functionality may be excluded from the base quotation and presented solely as an optional upgrade.

27. OPTIONAL ITEMS

Vendors may provide pricing for optional items that could provide additional value.

Optional items shall be clearly separated from the mandatory solution and shall not be required for the proposed system to meet this RFQ.

Examples may include:

- Additional storage drives.
- Additional storage expansion enclosures.
- Higher-speed host connectivity.
- Additional support services.
- Enhanced onsite response.
- Additional training.
- Extended warranty.
- Additional replication capabilities.
- Additional management capabilities.

28. CAPACITY AND BASE CONFIGURATION SUMMARY

The requested base configuration is:

Requirement	SAN #1	SAN #2	SAN #3
Independent SAN system	1	1	1
Chassis	2U	2U	2U
Minimum drive bays	12	12	12
Installed drives	8	8	8
Drive capacity	4TB	4TB	4TB
Raw installed capacity	32TB	32TB	32TB
Storage controllers	2	2	2
10GbE iSCSI host ports	≥8	≥8	≥8
Redundant power supplies	Required	Required	Required
RAID/data protection	Required	Required	Required
Thin provisioning	Required	Required	Required
Native snapshots	Required	Required	Required
Array-based replication	Required	Required	Required
Consistency groups	Required	Required	Required
24x7x365 telephone support	Required	Required	Required
Next-business-day onsite support	Required	Required	Required
Minimum support term	5 years	5 years	5 years

TOTAL PROCUREMENT

- Three (3) independent SAN systems

- Twenty-four (24) 4TB enterprise SAS drives
- 96TB total raw installed storage capacity
- Six (6) total storage controllers
- Minimum twenty-four (24) 10GbE iSCSI host ports across all systems
- Five-year manufacturer support

29. MANDATORY TECHNICAL REQUIREMENTS SUMMARY

Each proposed SAN must meet the following minimum requirements:

1. Three independent SAN systems shall be provided.
2. Maximum 2U rack-mount form factor.
3. Minimum twelve (12) 3.5-inch hot-plug drive bays per SAN.
4. Eight (8) 4TB enterprise SAS HDDs per SAN.
5. 32TB raw installed capacity per SAN.
6. Two independent storage controllers per SAN.
7. Active/active or equivalent redundant controller architecture.
8. Automatic controller failover.
9. Minimum eight (8) native 10GbE iSCSI host ports per SAN.
10. RJ-45/Base-T 10GbE connectivity if retained as a mandatory requirement by the issuing organization.
11. Enterprise RAID or equivalent data protection.
12. Redundant power supplies.
13. Hot-plug drive replacement.
14. Online storage expansion.
15. Thin provisioning.
16. Storage pools or equivalent storage abstraction.
17. Native block-level snapshots.
18. Scheduled and manual snapshots.
19. Snapshot recovery/rollback.
20. Native array-based asynchronous replication.
21. Replication scheduling.
22. Replication monitoring and failure notification.
23. Replication failover and failback capability.
24. Replication resynchronization.
25. Consistency groups or equivalent functionality.
26. Web-based management.
27. Command-line management.
28. Standards-based monitoring such as SNMP.
29. Documented management/monitoring API.
30. 24x7x365 manufacturer telephone technical support.
31. Qualified technical support personnel.
32. Critical-incident escalation.
33. Next-business-day onsite hardware support following diagnosis.
34. Minimum five-year manufacturer support availability.
35. Manufacturer-supported firmware and software.
36. Professional installation and deployment.
37. Administrator documentation and orientation.
38. TAA compliance, if applicable to the procurement.

A proposed solution that cannot meet a mandatory requirement shall clearly identify the exception in its quotation.

30. EXCEPTIONS

The vendor shall identify any exceptions to the requirements of this RFQ.

Failure to identify an exception shall be interpreted as confirmation that the proposed solution meets the applicable requirement.

The vendor shall not assume that an equivalent feature automatically satisfies a mandatory requirement without providing sufficient technical documentation to demonstrate equivalency.

31. VENDOR CERTIFICATION

The vendor certifies that the proposed solution meets or exceeds all mandatory requirements identified in this RFQ except for those specifically identified as exceptions.

Vendor Name: _____

Authorized Representative: _____

Title: _____

Telephone: _____

Email: _____

Signature: _____

Date: _____