REQUEST FOR BID
On-Site Network Storage
South Dakota Science and Technology Authority
SDSTA Purchase Order #*29729*
March 9, 2026

The South Dakota Science and Technology Authority (SDSTA) is seeking bids for **On-Site Network Storage** at the Sanford Underground Research Facility (SURF). Documents included in this Request for Bid include:

A. This Request for Bid
B. Draft Purchase Order Agreement

Please review all documents carefully to ensure your submission meets the required qualifications and includes all necessary information.

1.0 Background

SDSTA is a quasi-governmental agency established by the State of South Dakota to operate and manage SURF at the former Homestake Gold mine in Lead, SD. This facility has been rehabilitated and developed to support a variety of scientific experiments, including physics, biology, geology, and others.

2.0 Scope

SDSTA is requesting a bid for the cost of an on-site network storage to include professional services setup, configuration of storage and data migration of roughly 60 TB. Requirements are as follows:

1. Must support SMB, NFS, iSCSI, FC, NVMe/TCP and NVMe/FC protocols
2. In-place, hot swappable component replacements
3. Non-disruptive hardware and software upgrades
4. Compatibility with VMware vCenter and Veeam
5. Data at rest encryption
6. Storage performance monitoring
7. Predictive failure alerting
8. Ransomware protection
9. Data Protection methods such as RAID
10. Multi-cloud support such as AWS and Azure
11. Customizable reports for usage and performance
12. Deduplication/Compression capabilities
13. Two (2) storage appliances with usable capacities of 100 TB and 50 TB with the ability to expand capacity as needed
14. One (1) and three (3) year purchase costs

3.0 SDSTA Additional Requirements – Please Address & Include Response for Each of the Following:

3.1 Non-Disruptive Upgrades & Lifecycle Simplicity:

A. Describe your methodology. Are hardware upgrades non-disruptive and data-in-place? Are forklift upgrades or data migration ever required?

B. What is your policy for controller refreshes over 5-year, 10-year or 15-year periods? Are there additional licensing or professional service fees?

C. Can you guarantee non-disruptive operations during hardware refreshes, expansions or software updates?

3.2 Unified Architecture & Operational Simplicity:

A. Do you support unified block, file and object workloads natively within the same platform and management interface?

B. How do you consolidate and manage multiple storage arrays across locations or tenants under a single management plane?

C. Can your solution support automated storage provisioning and workload mobility across sites or systems?

3.3 Predictable Costs & Subscription-Based Value:

A. What is your pricing and licensing model over a 10-year period, including software, capacity expansion and support renewals?

B. Can you provide a flat and predictable pricing structure that includes future software upgrades and hardware refreshes?

C. Are there any hidden costs associated with controller upgrades, capacity expansions or professional services?

D. How does your solution improve total return on investment (ROI) over a 5-10 year lifecycle, and what mechanisms are in place to preserve long-term value (e.g., non-disruptive upgrades, controller trade-ins, software entitlements)?

E. Please provide examples of how your model helps avoid re-buying infrastructure, reduces operational overhead and preserves investment across technology generations.

3.4 Availability, Downtime and Resilience:

A. What is your platform's guaranteed uptime SLA?

B. Are planned upgrades or maintenance windows considered downtime?

C. How do you handle failover and site-level HA? What tools or configurations are required to achieve business continuity?

3.5 Data Reduction, Efficiency and Guarantees:

A. Does your platform use any mechanical hard drives (HDDs), and if so, in what part of the architecture? What are the implications for performance, reliability and power consumption?

B. Please describe your flash media implementation (e.g., SSD vs. custom flash modules) and how it enables differentiated performance, density or data services. Do you use NVMe natively end-to-end?

C. What level of performance consistency (latency and throughput) can be expected under mixed workloads and full system utilization? How does your media architecture contribute to this?

D. Can your platform help reduce our current data storage footprint, and if so, what guarantees or benchmarks can you provide to support this claim?

E. What is your guaranteed data reduction ratio for mixed workloads, and how is it calculated (pre/post snapshots, metadata, etc.)?

F. How do you handle inline deduplication and compression, and is it consistent across all workloads?

G. What are your guarantees for power, rack and space efficiency?

3 Schedule

The activities noted in the Scope section above should commence following the award of the contract. The schedule for completion of this project is negotiable and flexible to accommodate the contractor's availability. The proposed schedule for the project is:

RFB Posted..... 03/09/2026
RFB Responses Due..... 03/31/2026
Purchase Order Issued By (Target) 04/16/2026

4 Bid Elements

The bid in response to this RFB must contain the following:

4.2 Written exception(s) to this RFB\
4.3 Shipping costs
4.4 Total bid cost
4.5 Estimated delivery/implementation schedule
4.6 Warranty/support information
4.7 Detailed response to questions in Section 3.0

5 Bid Requirements

5.2 Proposers should submit an electronic copy (.pdf format) of the bid to Shelly Nisly at mnisly@sanfordlab.org.

5.3 Questions must be sent in writing by email to Shelly Nisly at mnisly@sanfordlab.org. Answers will be emailed to all prospective proposers and posted to the sanfordlab.org website

5.4 The bid period may be extended at the discretion of the SDSTA based on the quantity and/or complexity of questions. Any notices of extension of time to respond will be distributed to all prospective proposers.

5.5 All communications regarding this procurement between RFB release and Purchase Order being issued shall be directed to Shelly Nisly at mnisly@sanfordlab.org . Communications with other SDSTA staff regarding this procurement in advance of the contract award are not allowed.

6 Selection Process

The SDSTA will review all submitted bids for adherence to this request's requirements and capabilities and select the firm providing the Lowest Cost – Technically Acceptable bid.

Revision History

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
02	12/1/2022	NA	NA	Change document number from OC to COM	CCR 655
03	11/5/2025	NA	NA	Updated document due to change to the document numbering of controlled documents due to the change from DocuShare system to SharePoint system	CCR 1182