StoneFly SSO vs Dell vs HPE

Comparing File Storage, Sharing, Security, Scalability, and Storage Optimization Capabilities of Enterprise Network Attached Storage (NAS) Appliances

Scope of the Document

The data storage industry is flooded with a wide range of NAS appliances, which can make it difficult for decision makers to choose the right one for their enterprise. This document aims to compare the StoneFly Super Scale Out (SSO) NAS appliances with Dell and HPE NAS appliances, focusing on their file storage, security, scalability, and optimization features.

By providing a clear comparison, this document will help decision makers make an informed decision on the right NAS appliance for their organization's critical workloads.

Data Security Features

One of the most critical aspects of any storage solution is data security, and NAS appliances are no exception. Ensuring that your data is protected from threats such as ransomware, human error, and software/hardware vulnerabilities is essential. StoneFly, Dell, and HPE offer a range of security features to safeguard your data, including encryption, access controls, and intrusion detection/prevention.

Here's a list of data protection features every NAS appliance need, and the solutions that offer them:

	StoneFly SSO NAS	Dell PowerScale	HPE StoreEasy
Software-Defined Network Isolation Zone	✔	✖	✖
Immutable File Storage (File Lockdown)	✔	✔	✔
Immutable Delta-Based Snapshots	✔	✖	✔
Air-Gapped & Immutable File Lock	✔	✖	✖
Air-Gapped & Immutable User-Defined WORM	✔	✖	✖
Air-Gapped Controller with Air-Gapped & Immutable Repositories	✔	✖	✖

	StoneFly SSO NAS	Dell PowerScale	HPE StoreEasy
Air-Gapped and Immutable Physical Nodes	✓	✗	✗
Self-Healing from Data Corruption	✓	✗	✗
End-to-End Encryption for Data in Transit/Rest	✓	✓	✓
Chain of Command Security in Multi-Controller(s)	✓	✗	✗
Hardware-Based Encryption Engine	✓	✗	✗
Recycle Bin Programmable	✓	✗	✗
Chain of Command Security in Multi-Controller	✓	✗	✗
Anti-Ransomware/Malware/ Virus Scanner	✓	✗	✗
Automated Failover/Failback	✓	✓	✓
Cloud Connect Public/ Private(for 3-2-1-1 strategy)	✓	✓	✓
Multi-Factor Authentication (MFA)	✓	✗	✗

Storage Optimization Features

Storage and optimization features can greatly enhance the performance and reliability of the NAS appliance, as well as ensure the security and accessibility of stored data. For businesses, this translates to increased productivity and efficiency, reduced downtime, and better protection against data loss or corruption.

By investing in a NAS appliance with robust storage and optimization features, businesses can optimize their storage infrastructure to better suit their needs and improve overall business operations.

Here are the must-have storage and optimization features, and which vendors offer them:

	StoneFly SSO NAS	Dell PowerScale	HPE StoreEasy
Deduplication	✓	✓	✓
Frontend SSD Caching	✓	✓	✓
Automated Hot & Cold Storage Tiering (NVMe/SSD/Cold)	✓	✓	✗
Scale Up to 128 Nodes	✓	✗	✗
Scale Out to Unlimited Nodes	✓	✓ (Limited)	✗
Expansion – Scale Up Support	✓	✓	✓
Expansion – Scale Out Support	✓	✓ (Limited)	✓ (Limited)
Single Namespace Scale Out Support	✓	✓	✗
Load Balancing	✓	✓	✓

Management Features

Effective management features are essential for any business seeking to optimize their storage environment. A good management system can help businesses streamline their NAS deployment and simplify maintenance, saving time and resources in the long run. Some key management features that businesses should look for when purchasing a NAS appliance include remote management capabilities, real-time monitoring, automated alerts and notifications, and easy-to-use management interfaces.

With these features, businesses can proactively identify and address issues before they escalate, ensure that data is properly backed up and protected, and easily manage storage resources as their needs evolve. A well-designed management system can help businesses increase operational efficiency, improve data security, and reduce total cost of ownership.

Here are the must-have management features, and which vendors offer them:

	StoneFly SSO NAS	Dell PowerScale	HPE StoreEasy
Single Pane of Management	✓	✓	✓
Ease-of-Deployment	✓	✓	✗
Real-Time Monitoring and Reporting	✓	✗	✓

Pricing Comparison: StoneFly SSO NAS vs Dell PowerScale vs HPE StoreEasy

The cost of a NAS solution depends on the hardware specifications, software features, and licenses – which makes it challenging to plot actual numbers.

Here's a graph to illustrate the price difference between different solutions:
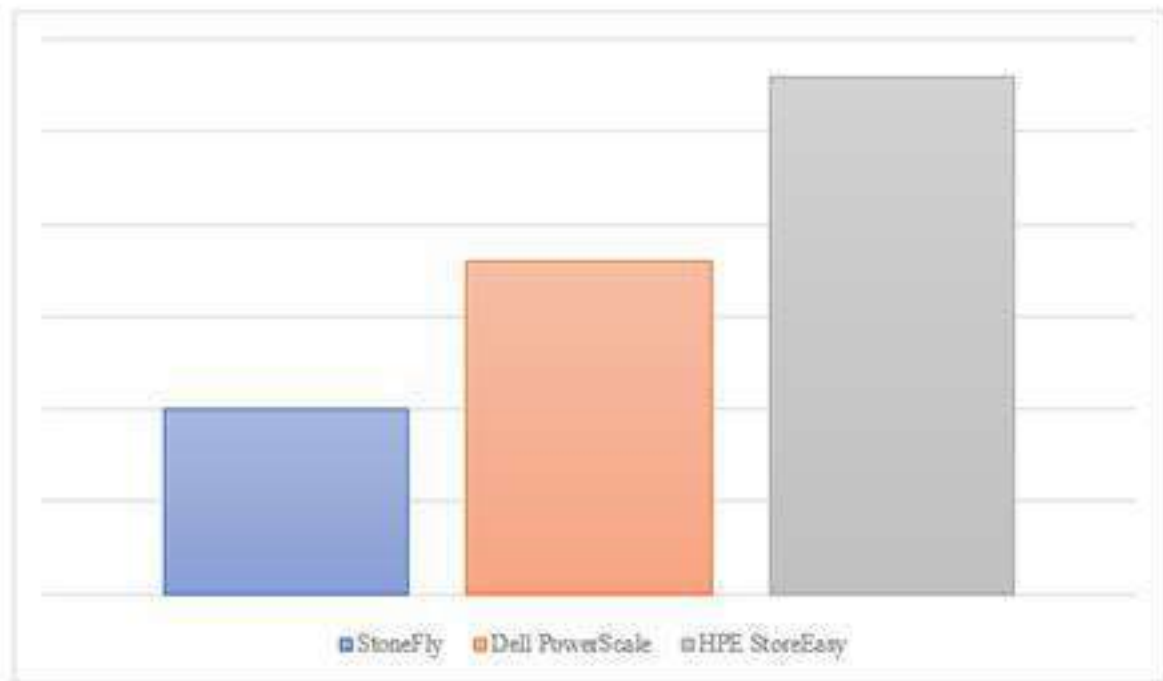
Note: The graph is for illustrative purposes only.

Pros and Cons of Dell PowerScale vs HPE StoreEasy

The following information is a summary of authenticated user reviews from various tech forums and websites.

Pros and Cons of Dell PowerScale

Pros	Cons
Supports multi-protocol file access, including NFS, SMB, and HDFS.	Higher upfront and operational costs - more than other solutions in the market.
Scalable and flexible architecture, allowing for easy expansion as storage needs grow.	No air-gapped and immutable storage repositories, controller, or node.
Data management and protection capabilities, including snapshots, replication, and encryption.	Nodes have to be rebooted for every update.
Flexible deployment options, including on-premises, hybrid, and cloud storage support,	Needs third party tools to catalog and search meta data.
	The larger the cluster the longer it takes to run dedup and autobalance jobs.
	Deduplication is less efficient compared to other NAS solutions.
	Capacity management with multiple storage pools can be challenging, as filling up one pool may overflow data to a less performance-driven pool, impacting overall system performance.
	Not be the best option for PACS and VNA data due to potential limitations in handling certain data types and block sizes, which could result in less efficient capacity utilization compared to other storage platforms.

Pros and Cons of HPE StoreEasy

Pros	Cons
Supports a variety of file protocols, including NFS, SMB, FTP, and iSCSI.	Higher upfront and operational costs - more than other solutions in the market.
Provides features such as snapshots, replication, and encryption to ensure data security.	No air-gapped and immutable storage repositories, controller, or node.
Scalable and can be easily expanded to meet growing storage needs.	Users have reported slow performance when accessing files over a network.
Offers flexible deployment options with choice of hardware, software, or virtual appliances.	Limited integration with third-party applications and services. (vendor lock-in)
	Technical support can be unreliable, slow to respond, and may not always provide satisfactory solutions.
	Users have reported issues with the user inter-face, finding it difficult to use and navigate.

Set up a Secure, Scalable, and Affordable File Sharing Environment with StoneFly Super Scale Out (SSO) NAS Appliances

Available in 8, 12, 16, 24, 36-bay rackmounts, the StoneFly SSO appliances deliver highly scalable file storage with NFS and CIFS/SMB, optional integrated cloud storage in Azure/AWS, or StoneFly private cloud.

The SSO provides high speed file access while secure critical data using automated air-gapped and immutable file lockdown repositories, controllers, and optional physical nodes.

The SSO comes preconfigured with StoneFly's award-winning software defined storage solution StoneFusion™.

Data Protection Features in StoneFly SSO NAS Appliance

- Automated air-gapped & immutable repositories, controllers, & optional physical node(s).
- Direct/Indirect policy-based immutable file lockdown.
- Optional integrated Veeam backups – schedule hourly, daily, weekly, monthly.
- Immutable delta-based SnapLock (Snapshots).
- Built-in lightweight anti-ransomware/virus/malware scanner for dormant or sleeper ransomware – schedule hourly, daily, weekly, monthly.
- Advanced encryption at rest/transit.

Storage Optimization Features in StoneFly SSO NAS Appliance

- Deduplication capable of effectively reducing storage footprint while staying light on CPU and system resources.
- Automated tiering for hot and cold tier data across performance-driven and capacity-driven storage media including cloud.
- FlashCache™ frontend caching for frequently accessed data using NVMe SSDs.

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