

KUMULUS NAS Appliance - *The next generation, hybrid-cloud ready file storage platform*

KUMULUS NAS Appliance delivers secure, scalable, and easy-to-manage file storage for enterprises, service providers, and hybrid clouds. With unified support for NFS/SMB, advanced data services, and cloud tiering, it streamlines management and reduces costs.



KEY NAS FEATURES



PERFORMANCE & EFFICIENCY

- Write Log (SSD Acceleration) – boosts synchronous write performance
- Read Caching (SSD Acceleration) – accelerates frequently accessed data
- Meta-data Offload (SSD Acceleration) – optimizes metadata and small file workloads
- Thin Provisioning / Over Provisioning – maximizes storage efficiency
- Data Compression – reduces data footprint for improved efficiency
- Hybrid Cloud Integration - NAS-to-Cloud tiering for seamless data movement to object/cloud storage



DATA PROTECTION & AVAILABILITY

- Snapshots & Instant Rollback – point-in-time recovery and rapid restoration
- Snapshots of Snapshots – nested snapshot creation
- Clone Shares / Volumes – quick provisioning for test/dev
- Async Replication (Block-level Incremental) – efficient disaster recovery
- N-way & Cascading Replication – advanced replication topologies
- Clustered High Availability – redundant failover for continuous service
- Zero-touch Maintenance System – automatic repair/healing on drive replacement
- Data Scrubbing / Bit-rot Correction – ensures long-term data integrity
- Anomaly Detection - raises alerts when possible ransomware activity has been detected



SCALABILITY & MANAGEMENT

- Multi-Cluster / Multi-Zone Management – unified management of multiple clusters
- QoS Controls (Throughput & Host-level) – granular performance tuning
- Hierarchical Fault Tolerance – rack, site, and building level resiliency
- Hybrid Storage Pools (HDD + SSD) – balance of performance and cost
- Composable Infrastructure – NVMeoF JBOF integration with enclosure mapping
- Intelligent Pool Provisioning – automatic redundancy and placement policies

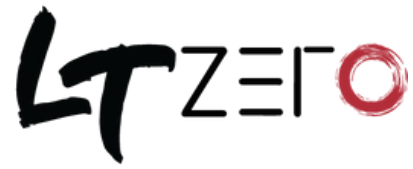


SECURITY & COMPLIANCE

- AES-256 Encryption at Rest – enterprise-grade data security
- Role-Based Access Control (RBAC) + Multi-tenancy – secure isolation of tenants

USE CASES

- **Enterprise File Services** – Unified storage for home directories, departmental shares, and enterprise apps.
- **Backup & Disaster Recovery** – Secure file repository with snapshot/replication for data protection.
- **Media & Entertainment** – High-throughput NAS storage for video editing, rendering, and digital content workflows.
- **CCTV & Surveillance** – Scalable and reliable file storage for continuous video recording and retention, ensuring security and compliance.
- **Hybrid Cloud Archival** – Automated tiering of inactive NAS data to object/cloud storage.
- **Service Providers** – Multi-tenant support with charge-back accounting and resource isolation.



TECHNICAL SPECIFICATIONS

Protocols	NFS v3/v4, SMB v2/v3
Supported OS Clients	Linux, Windows, MacOS, Solaris, AIX, HPUX, VMware, XenServer
Data Protection	Snapshots of snapshots, instant rollback, async & sync replication, erasure coding, quotas per share/user/group
Scalability	Multi-cluster management, scale-out NFS, grid network namespaces (SMB DFS, NFS referrals)
Performance Acceleration	SSD caching (write/read), metadata offload, hybrid storage (HDD + SSD)
Cloud Integration	NAS to Cloud Storage Gateway, NAS to Cloud Storage Tiering
Security Compliance	AES-256, KMIP integration, MFA, RBAC, GDPR/HIPAA/CJIS compliance

WHY KUMULUS NAS Appliance ?

KUMULUS NAS Appliance provides a next-generation file storage platform that balances performance, efficiency, and compliance with the flexibility of hybrid-cloud integration. It empowers organizations to simplify data management, maintain high availability, and reduce storage costs while supporting future scalability.