High-Performance NAS with Unlimited Scale, Built-in Protection and Lower Cost

The NAS Challenge: Does This Sound Familiar?

Companies are struggling to store and protect massive files—video, audio, medical images, CAD/CAM drawings, and more. The challenges are daunting. They need to scale for thousands or millions of files that are getting larger all the time. They need instant access to those huge files to meet user needs and expectations. They need to recover those files quickly and reliably if something goes wrong. And of course, they need their file storage and protection at a reasonable, predictable price. Unfortunately, many companies find they are falling further and further behind.

Existing Approaches Can't Keep up

As storage requirements soar, traditional network attached storage (NAS) solutions are overwhelmed, causing performance bottlenecks, infrastructure complexity, data center sprawl and high, unpredictable costs. While unlimited capacity is available in the cloud, latency gets in the way, leaving those vast resources out of reach for production requirements. Companies have to store files on-prem on very expensive equipment while moving separate copies offsite or to the cloud for backups and DR. This fragmented approach is notoriously inefficient, with disparate systems for primary storage, backups, and disaster recovery that all have to be provisioned, managed and paid for.

NAS at the Edge: The ClearSky Breakthrough

Now you can meet exploding demands for storage capacity easily and efficiently while minimizing data center footprints, and seamlessly extending file workloads to the cloud. Making it possible: ClearSky's unique architecture that solves the problem of cloud latency to combine the performance of local flash arrays with the unlimited scalability and accessibility only available in the cloud. Primary storage, backups and disaster recovery are all built-in, and delivered by ClearSky's NAS service at a fraction of the cost of traditional storage. Rather than wrestling with separate storage pools that need constant attention, now you can just plug into ClearSky to access all your files on demand. The service is also highly elastic—use whatever capacity you need, and pay only for what you use.

A Better Way to Store, Access and Protect Your Files:

- » High performance with minimal footprint
- » Scale up or down on demand, paying only for the capacity you use
- » Built-in offsite protection, no separate backup or DR infrastructure needed
- » Access to all your file workloads from anywhere
- » Enterprise-grade security and availability, backed by SLAs
- » Fast, easy deployment—no disruption, no impact to existing workloads
- » Dramatically lower TCO

> **As a fully managed service, ClearSky takes care of data protection, availability, patching and disaster recovery. It happens automatically, and recovery is nearly instantaneous. All data is encrypted, both in transit and at rest, so it's secure. We control the keys. Not even ClearSky has access to our data.**
>
> **Brent Richter, Director of Enterprise Research and Information Services**

The New Model for Enterprise Storage

The ClearSky architecture solves a major problem for enterprise NAS: how to cost-effectively provision storage when only a small portion of files are accessed regularly, those hot files are changing constantly and file volumes and sizes are growing relentlessly. ClearSky's patented Smart Tiered Caching™ technology meets the challenge by automatically categorizing files and caching them to best match access requirements:

» Hot files are cached next to your applications in an edge appliance managed by ClearSky. This is the only device installed onsite, which greatly simplifies provisioning.

» Warm files are cached in a metro Point of Presence (PoP) within 120 miles of your data center. The proximity of the PoP to your applications, along with private high-speed networks, ensures near local performance.

» All files, including cold and archival files, are stored in multiple locations in the Backing Cloud and are accessible on demand.

By caching hot and warm files at the network edge, ClearSky solves the latency problem that has kept the cloud off limits. Now you can leverage those vast resources for unlimited, economical primary storage while accessing your files in real time.

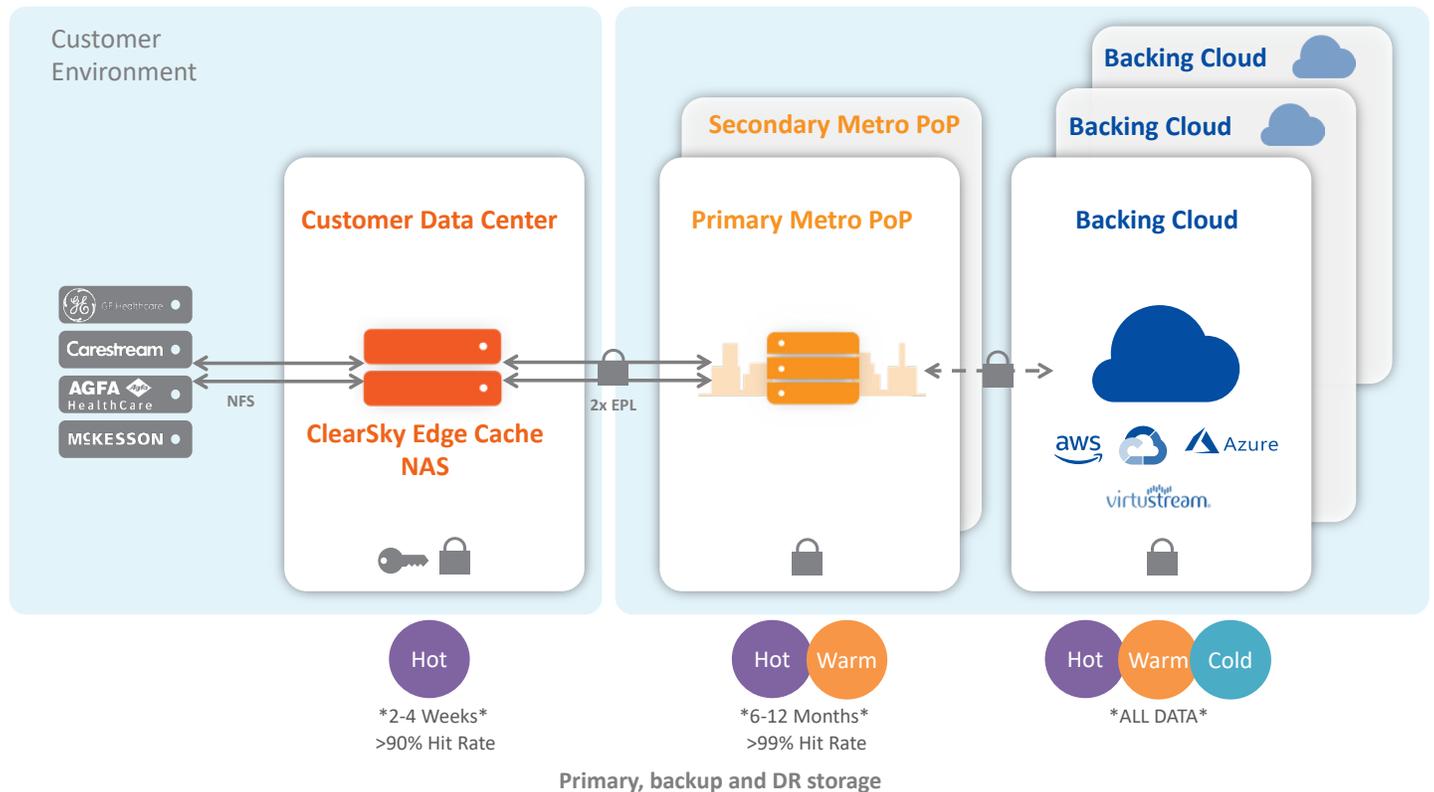## Built-in Offsite Protection, Instant Recovery

All files are written to the local PoP and the Backing Cloud on the fly, eliminating the need for separate backups and DR. Each successive cache layer is a superset of the previous layer so if a device or even an entire cache is lost, your files are always available in the next layer. The architecture not only protects files automatically, it lets you recover them anywhere by placing an edge cache in any location where you have a data center or an office.

Visibility, Control & Better Use of Your Time

ClearSky's managed NAS service eliminates the time-consuming burden of managing disparate storage systems and devices. Instead, the easy-to-use web dashboard provides centralized visibility and simplified control across the ClearSky service:

» Provision and scale your storage on demand

» Set policies for role-based access and storage allocation

» Manage snapshots, restores and disaster recovery

» View capacity utilization, performance, latency and other metrics

ClearSky Service Architecture

Customer Environment			Backing Cloud
	Secondary Metro PoP	Backing Cloud	
Customer Data Center	Primary Metro PoP	Backing Cloud	
GE Healthcare			
Carestream	ClearSky Edge Cache NAS		aws · Azure · virtustream
AGFA HealthCare	NFS	2x EPL	
McKESSON			

Hot	Hot Warm	Hot Warm Cold
2-4 Weeks >90% Hit Rate	*6-12 Months* >99% Hit Rate	*ALL DATA*

Primary, backup and DR storage

High-performance NAS with cloud-based primary storage-as-a-service with built-in offsite data protection

Architecture Drives Down TCO

The total cost of ownership (TCO) with the ClearSky service is about half the cost of traditional NAS solutions while freeing IT teams for more strategic projects. There's a single entry point into the service and a single, durable copy of your files for primary storage, offsite protection, disaster recovery and long-term archives. And with ClearSky's elastic, consumption-based model, you can scale up or down on demand, paying only for the capacity you use.

NAS Without Limits:
On-Demand Storage, Built-In Protection

Now you can meet your file storage challenges head on, providing dramatic improvements for end users and the IT departments that support them. You no longer have to buy, maintain and scale expensive equipment or make difficult decisions about where to store file workloads as volumes grow. Instead, simply plug into ClearSky to access your files when and where you need them, with the security, scalability and performance your business depends on.

NAS at Scale, Leveraging the Cloud

» Supports Windows, Mac and Linux environments using SMB/CIFS and NFS protocols

» Integrates with Microsoft Active Directory, Kerberos and other authentication services

» Supports user and group policies for storage allocation

» Unlimited scale through relationships with leading cloud providers

» Meets strict compliance requirements for:
  - Encryption
  - Audit logging
  - Anti-virus
  - Data protection
  - Ransomware protection

» Scales up or down on-demand

» Includes 24x7x365 support

Get Your Files on Demand—No Limits, No Boundaries

Find out more at www.clearskydata.com

ClearSky