

RED HAT STORAGE FOR NEARLINE ARCHIVING

THE CHALLENGE

Enterprises today face an explosion of data, driven by such varied applications as virtualization, collaboration, business intelligence, data warehousing, e-mail, ERP/CRM, and media. Data retention requirements further exacerbate the problem, requiring organizations impacted by regulations such as HIPAA (healthcare companies) and Sarbanes-Oxley (public companies) to retain multiple versions of data for a prolonged period of time. According to Gartner estimates, traditional content types, including simple unstructured user data, are seeing growth rates of up to 80% year-over-year, much of which ends up in nearline and archival storage systems. Managing this data explosion has become a top priority for the modern IT organization.

One implication of sustained growth in data storage requirements is their outsized impact on enterprise IT budgets. Analyst estimates indicate that storage spending consumes roughly 20% of IT budgets and is rising.

Yet the cost of storing and serving up enterprise data is only part of the challenge. Today's highly distributed and mobile users demand ubiquitous access to enterprise content and consistent application performance from wherever they happen to be at any given time. Expectations of "Google-like" access to data puts both users and administrators at odds with traditional storage architectures, as siloed storage pools burden users with remembering where data lives and leave administrators with the complexity of managing multiple parallel systems.

THE SOLUTION

To address the challenges associated with rapid archive growth, highly distributed users and siloed storage pools, forward-looking enterprises are selecting Red Hat Storage Server to complement or replace costly, monolithic storage arrays.

Red Hat Storage Server provides an open source, scale-out network-attached storage (NAS) and object storage software solution that is designed to work seamlessly with industry standard x86 servers. Built on the industry leading Red Hat Enterprise Linux operating system, it provides freedom of choice to customers by allowing them to deploy cost-effective and highly available storage without compromising on scale or performance. Red Hat Storage Server can easily be deployed on-premise, in private clouds, in public cloud infrastructures, or in hybrid cloud environments and is optimized for storage intensive enterprise workloads, including high-performance computing, nearline archival, and rich media content delivery.

With its unique ability to drive down costs while delivering extreme scalability, coupled with its broad compatibility with existing systems, Red Hat Storage Server has a history of successful deployment in tiered storage scenarios, including active nearline and deep archival use cases.

Key features of Red Hat Storage Server for nearline and archival scenarios include:

- **Elastic scalability.** Storage volumes are abstracted from the hardware, allowing each to be managed independently. Volumes can grow or shrink by adding or removing systems from the storage pool, or by adding or removing storage from individual machines in the pool, all while data remains available and with no application interruption.
- **Compatibility with industry standards.** Due to native POSIX compatibility and support for the CIFS, NFS, and HTTP protocols, Red Hat Storage Server is readily supported by off-the-shelf storage management and backup software.
- **High availability.** Automatic replication ensures high levels of data protection and resiliency, even in the event of hardware failure. Self-healing capabilities restore data to the correct state following recovery.
- **Unified global namespace.** A unified, global namespace aggregates disk and memory resources into a single common pool, simplifying management of the storage environment and eliminating data silos. Namespaces may be grown and shrunk dynamically, with no interruption to client access.
- **Rapid and random access.** Unlike archival solutions based on tape, Red Hat Storage Server provides fast and efficient random access, ensuring speedy data recovery when needed.

BENEFITS

By deploying Red Hat Storage Server in support of nearline and archival storage use cases, enterprises are able to achieve business goals such as:

- **Reducing costs.** Deploying nearline and archival storage on scaled-out open commodity systems rather than proprietary monolithic NAS, enterprises are able to dramatically reduce capital costs while maintaining high levels of performance and availability. Because Red Hat Storage Server unifies disparate servers into a single global namespace while automating the management of storage nodes, operational costs are significantly reduced.
- **Enhancing agility.** By forming a single, unified, highly elastic storage pool that is compatible with a wide variety of applications, businesses become positioned to innovate quickly and respond to marketplace shifts without the burden of establishing a new storage environment for each new initiative and with the ability to readily re-purpose existing hardware to rapidly increase capacity.

DATA SHEET

- **Increasing reliability.** Because software ensures the availability of the storage system and its data, the failure of any individual server does not compromise data access or the system's overall availability.

Boosting user satisfaction. By consistently delivering high levels of performance and helping to eliminate data silos, Red Hat Storage Server helps your enterprise drive higher end user satisfaction levels.

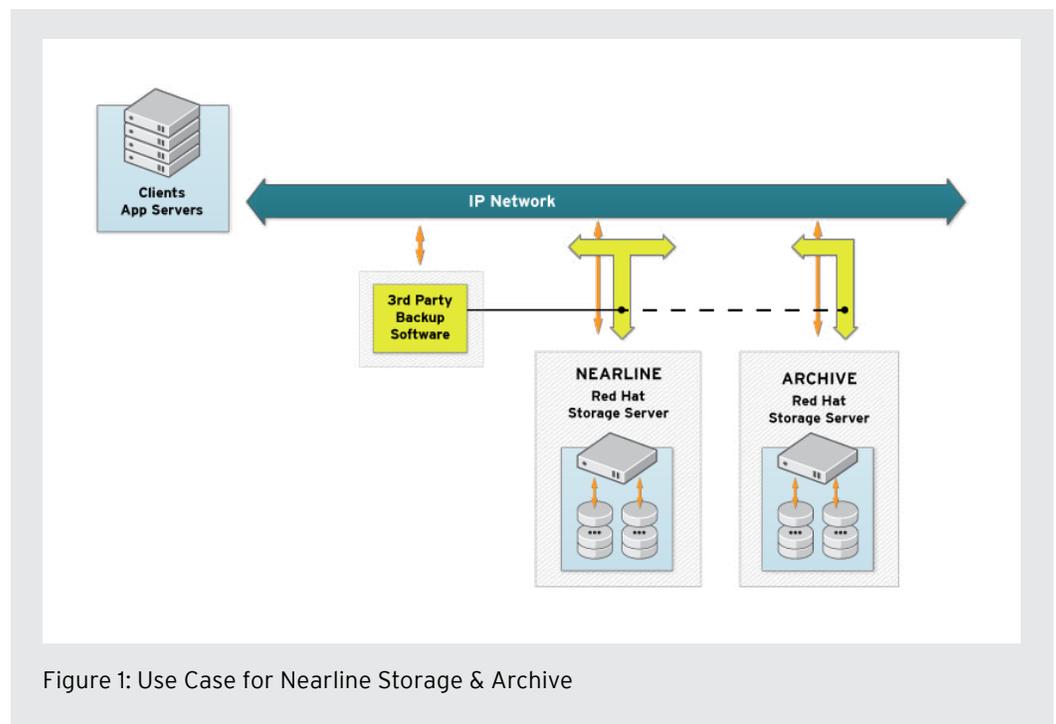


Figure 1: Use Case for Nearline Storage & Archive

ABOUT RED HAT

Red Hat was founded in 1993 and is headquartered in Raleigh, NC. Today, with more than 70 offices around the world, Red Hat is the largest publicly traded technology company fully committed to open source. That commitment has paid off over time, for us and our customers, proving the value of open source software and establishing a viable business model built around the open source way.

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