Qumulo and HPE – High performance, cost-effective Vendor-Neutral Archive storage solution

Data challenges of healthcare organizations

Many healthcare organizations, through growth and acquisition, end up with multiple PACS (Picture Archiving and Communication System) imaging systems along with their associated storage solutions, which can become disparate, both on-prem and geographically. The DICOM data being stored is proprietary to each system, with many fields, especially annotations, each being treated differently.

The management, maintenance, and scalability of these siloed systems can become increasingly complex and costly over time. Limited clinician access to data slows processes, and affects both patient care and organizational profitability. In many cases, proprietary storage systems can result in vendor lock-in, as well as migration costs and challenges, preventing organizations from harnessing more cost-effective, modern solutions.

In order to continuously improve patient services and commercial efficiency, today's healthcare organizations require the flexibility of modern file storage to support and manage the data generated by newer, higher resolution diagnostic and interventional imaging, along with AI and ML technologies to grow research initiatives and innovation.

## Consolidate and unify access with a single vendor neutral archive for all medical images

Qumulo's innovative hybrid cloud file storage running on HPE Apollo 4200 Gen10 servers provides a unified, cost-effective, and scalable storage architecture that eliminates silos of expensive, proprietary storage, and moves them to a modern, software-defined, subscription-based model.

Leading VNA solutions, including Hyland's Acuo VNA, can consolidate multiple PACS systems, allowing all modalities (X-rays, CAT scans, MRIs, etc.) to store data to Qumulo's file software using SMB or NFS protocols, while data is served to viewing workstations and other hospital-related systems via secure DICOM protocols.

SOLUTION BENEFITS

- Secure, cost-effective vendor neutral archive storage
- Reduce CAPEX and OPEX
  - Consolidate multiple PACS
  - Streamline workflows
  - Software-defined architecture
  - Simple to manage, scale and support
  - Eliminate costly migrations
- Fast, unified data accessibility to all clinicians and devices
- Add new PACS systems with ease
- Real-time analytics to manage entire file system
- Continuous replication on-prem or to the cloud
- Improve overall patient experience

QUMULO WITH HPE SINGLE-TIER VENDOR NEUTRAL ARCHIVE
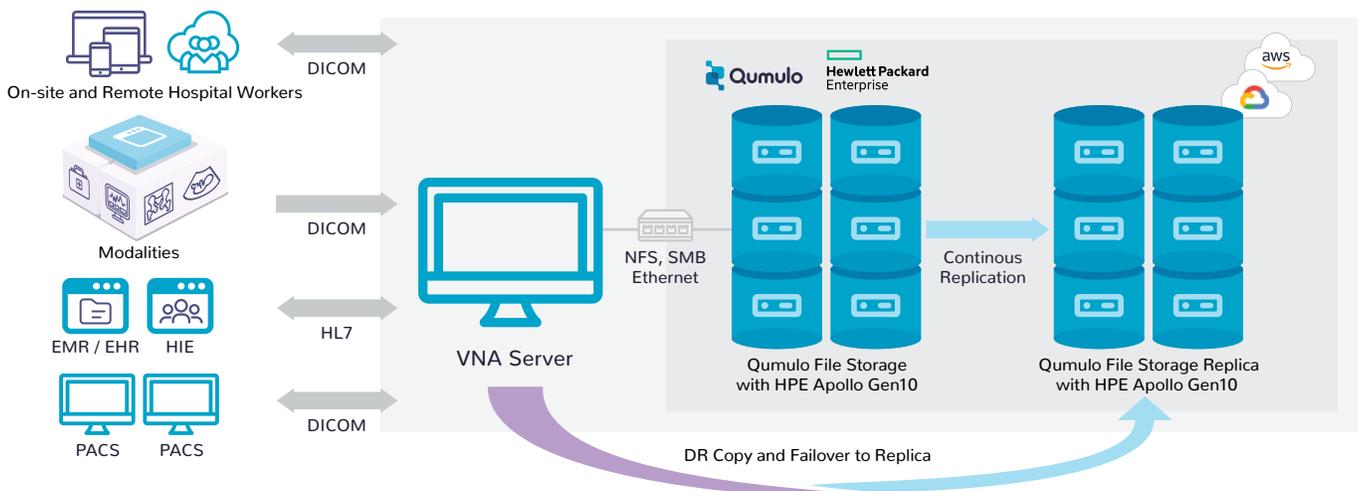
Simple, modern scalability and fast access to all files

By using Qumulo's software and HPE Apollo 4200 Gen10 servers to securely store medical images and files, healthcare organizations gain flexibility and scalability for their infrastructure, with a low cost of ownership.

HPE Apollo 4200 Gen10 servers offer advanced storage density in a 2U form factor, and support Qumulo's modular architecture. Adding capacity is as simple as adding a single node or multiple nodes to the cluster, with no disruption or downtime.

A flash-first hybrid software and hardware technology creates a single-tier solution that optimizes performance and cost, along with Qumulo's intelligent predictive caching. Viewing stations can count on extremely fast access to all imaging data with the speed solid state drives (SSD), and organizations can benefit from the economic advantages of hard disk drives (HDD). In addition, healthcare studies can occupy 100 percent of provisioned capacity, unlike only 70 percent or 80 percent, which is common with many other file storage systems. Qumulo with HPE Apollo 4200 Gen10 servers is more economical than legacy storage appliances on a capacity basis.

Data reliability through continuous replication on-prem or in the cloud

Qumulo's provides continuous replication across storage clusters, whether on-prem or in the public cloud. This feature leverages snapshot capabilities to ensure consistent data replicas. Qumulo's file system then takes it a step further, applying smart algorithms to make sure data replicates as often as practical without negatively impacting overall cluster performance. In the event the primary data center is unavailable, data can be retrieved from the replica cluster.

Data protection and security for all medical imaging and clinical data

This solution provides built-in data protection through local and remote snapshots and continuous replication, to ensure data is preserved and always available. Together, Qumulo and HPE provide over-the-wire and at-rest encryption to ensure confidential records are secure. Working closely with key healthcare industry partners and PACS providers, Qumulo and HPE deliver solutions that assure compliance with government and institutional data privacy and security regulations, meeting HIPAA regulations for compliance, including encryption and off-site copies.

Real-time analytics for data visibility and growth predictability

Qumulo provides built-in real-time analytics to provide insight across the entire file system regarding storage usage and performance trends. With this superior visibility, organizations can proactively manage current and future capacity requirements.

ABOUT QUMULO

Qumulo's enterprise-proven hybrid cloud file storage delivers real-time visibility, scale and control of data across on-prem and cloud. Qumulo customers understand storage at a granular level; programmatically configure and manage usage, capacity and performance; and are continuously delighted with new capabilities, 100 percent-usable capacity and direct access to experts.

More: www.qumulo.com