



## Solution Brief

# NetApp Medical Imaging

Simple, scalable, and reliable image storage and archiving

### Key Benefits

#### Maximize IT Investment

NetApp offers simple, scalable, and proven solutions for medical imaging. NetApp® solutions are validated by leading Picture Archiving and Communication System (PACS) and vendor-neutral archive (VNA) providers, and they meet the growing storage demands for medical imaging while optimizing IT investment.

#### Enhance Patient Care

What is the cost of downtime to your organization? Clinical application downtime poses risks for patient care and has a direct impact on revenue. NetApp ONTAP® nondisruptive operations enable you to scale, upgrade, and maintain your storage—and end users never lose access to medical images.

#### Optimize Performance

NetApp solutions leverage the latest technologies to deliver easily scaled bandwidth and performance to support data-intensive imaging applications, no matter the size of the imaging study.

#### Platform Flexibility with Data Fabric

A data fabric powered by NetApp gives your organization the flexibility to allow data management, movement, and protection across private and public cloud service providers.

#### The Enterprise Imaging Foundation

Grow beyond your PACS solutions with a fully integrated enterprise imaging strategy that enables clinical efficiencies and eliminates the need for multiple storage silos, backup solutions, and electronic medical records (EMR) integrations.

### The Challenge

Medical imaging providers are challenged with advances in technology and changes in healthcare reimbursement models. New digital modalities are producing massive amounts of data, creating larger and higher-resolution imaging studies. These studies improve patient care by giving providers the information they need to make more accurate clinical decisions, but this benefit does come at a cost. Existing storage infrastructures are challenged by the growing number of clinical areas that create imaging objects, like tomosynthesis mammography and digital pathology. The introduction of nontraditional imaging and the requirements of managing larger imaging studies affect the ability to share data between remote facilities, meet retention guidelines, and recover from outages without sacrificing accessibility or availability, both of which are crucial for efficient operation and effective patient care.

Healthcare providers are also challenged as insurance reimbursement models transition from a volume-based fee-for-service model to a value-based patient-care model. This change is putting pressure on IT organizations to look for ways to reduce costs and operating expenses.

### The NetApp Solutions

NetApp offers simple, scalable, and proven solutions for medical imaging. These solutions store medical images efficiently without sacrificing accessibility, while meeting compliance requirements for data retention.

NetApp solutions are validated by leading PACS and VNA providers, and they meet the growing demands for medical image storage while optimizing IT investment. Together with leading medical imaging providers who are our partners, we offer complete enterprise imaging solutions that maximize IT investment, enhance patient care, optimize performance, and provide the flexibility to leverage the latest technologies like cloud, flash storage, and artificial intelligence (AI). From imaging centers to the largest hospital systems, NetApp offers the most complete solutions for your organization.

### Maximize IT Investment

IT organizations look for ways to reduce costs and operating expenses. As insurance reimbursement models change, budgets are shrinking. NetApp's inherent storage efficiency and data protection tools can help your organization save money without incurring additional costs. The days of storage silos for your imaging database, cache, and archive are long gone. With NetApp, you can run any storage protocol and different drive types on the same array, driving IT efficiency before the first image is stored.

Tools that allow nondisruptive operations are built into NetApp ONTAP data management software, which means that data is always available to the application, even during planned or unplanned outages. This availability is crucial to healthcare providers, because medical imaging systems are vital to their ability to care for patients. ONTAP makes it possible to move data, enabling nondisruptive tech refreshes and avoiding future data migrations. Also included are a robust set of software tools like NetApp Snapshot™ technology, volume-level data encryption, and replication software that provide inherent data protection.

## Make Better Decisions for Your Organization and Your Patients

What is the cost of downtime to your organization? Clinical application downtime poses risks to patient care and has a direct impact on revenue. NetApp ONTAP nondisruptive operations enable you to scale, upgrade, and maintain your storage—and end users never lose access to medical images. We take the worry and complexity out of managing and maintaining control of your clinical data.

NetApp's inherent data protection capabilities enable healthcare organizations to adhere to internal data security policies, maintain compliance with HIPAA, and promote greater innovation and IT responsiveness against data breaches and ransomware threats. Always-on data access is mandatory for delivering excellent patient care. Access to medical images is another crucial aspect of providing timely patient care.

To support these needs, healthcare organizations must capture and protect medical data with integrated backup and archiving of medical imaging applications. Combining reliable, high-performance hardware with industry-leading NetApp ONTAP data management software helps IT seamlessly scale the storage infrastructure to keep pace with increasing patient data requirements.

## Optimize Performance

NetApp solutions leverage the latest technologies to deliver easily scaled bandwidth and performance to support data-intensive imaging applications, no matter the size of the imaging study. With NetApp, you can use the latest flash technologies with any level of your imaging environment to accelerate access to images. NetApp is on the front line of innovation to deliver performance and scalability without compromise. NetApp can natively provide NAS (SMB and NFS) protocols over SSD, making it the perfect fit for the medical imaging environment, which consists of fast databases and large image repositories.

We deliver the flexibility to accelerate your entire imaging environment or to accelerate only certain aspects of it by enabling the use of flash technology anywhere in the stack. All NetApp controllers include NVME flash out of the box to accelerate the entire array, so that you can take advantage of an entire aggregate of SSD drives for performance volumes like an image database or image cache.

If your organization is not interested in using flash for image archiving, you can create a virtual storage tier by leveraging NetApp Flash Pool™ intelligent caching for instant response to workload spikes in access queries for patient images. The key is the flexibility to take advantage of newer technologies throughout the NetApp solution.

## Platform Flexibility with Data Fabric

To bring data together for medical imaging, NetApp helps organizations to build a data fabric that seamlessly connects resources on the premises, in the cloud, or with a hybrid cloud infrastructure. A data fabric powered by NetApp gives your organization the flexibility to allow data management and protection across private and public cloud service providers.

With a data fabric delivered by NetApp, you can:

- Choose the best mix of private and public cloud services to enable IT flexibility for your healthcare providers with highly secure and cost-effective services.
- Have the data mobility you need for your data to flow seamlessly to wherever your healthcare providers need it most—the premises, multicloud, or a hybrid cloud infrastructure.
- Achieve the speed to innovate faster using fewer resources to improve patient outcomes.

NetApp helps healthcare organizations embrace the cloud on their own terms by integrating on-premises enterprise-class data management and control with the flexibility, speed, and economics of the cloud. The data fabric provides the tools to transform patient care by enabling you to securely share, store, and retain critical patient care data.

## Enterprise Imaging Strategy

Grow beyond your PACS solutions with a fully integrated enterprise imaging strategy that eliminates the need for multiple storage silos, backup solutions, and EMR integrations. NetApp partners with the major vendor-neutral archive companies, enabling you to create a central EMR integrated repository for medical images from any care area, not just traditional radiology and cardiology.

With NetApp, you can create an enterprise imaging strategy that enables data management solutions and infrastructure efficiencies to improve data access, increase workflow efficiency, and drive cost savings throughout your organization. Maximize the usefulness of your data by creating a platform that enables your organization to extract actionable insights to drive clinical efficiencies through the latest artificial intelligence algorithms and deep learning models. NetApp's solutions for medical imaging are the foundation of your enterprise imaging strategy.

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## About NetApp

NetApp is the leader in cloud data services, empowering global organizations to change their world with data. Together with our partners, we are the only ones who can help you build your unique data fabric. Simplify hybrid multicloud and securely deliver the right data, services and applications to the right people at the right time. Learn more at [www.netapp.com](http://www.netapp.com).