

# NETAPP AI CAPABILITIES FOR HEALTHCARE AND LIFE SCIENCES



Boost administrative efficiency, enhance the patient experience, and get new drug therapies to market faster by bringing your data to AI.

## Modernizing healthcare with AI

Healthcare organizations around the globe face staffing shortages. Physicians, nurses, and administrators are burning out at record rates. Pressure on pharmaceutical companies to get new drug treatments and therapies to market quickly has researchers scrambling. And to complicate matters even further, the demand to hit Quadruple Aim targets—enhance the patient experience, improve population health, better the work life of clinicians, and reduce costs—has never been greater.

To address these challenges, medical and pharmaceutical organizations are turning to AI to modernize healthcare and drive transformation in just about every aspect of the industry. From automating mundane administrative tasks to fast-tracking drug development and clinical trials, AI is at the heart of it all.

## Generative AI changes the game

Generative AI (GenAI) enables healthcare payers, providers, and researchers to gain significant efficiency benefits.

**29%**

A 29% increase in efficiency for claim estimation processes

**20%+**

A 20%+ time savings for provider note taking and diagnostic research

**70%**

Up to 70% reduction in drug discovery costs

**40%**

Clinical trials accelerated by 40%

## Doing AI right

The healthcare and pharmaceutical industry is no stranger to AI. But many approaches to AI involve architectures that silo analytics, training, and inference workloads. Effective AI requires secure, seamless data movement throughout the pipeline, from ingest and data preparation all the way to analysis and tiering. Silos create unnecessary complexity, increase costs, and make it difficult to scale. When a siloed infrastructure prevents data from flowing quickly and freely, AI and deep learning only scratch the surface.

Regardless of the task, doing AI right requires an IT infrastructure that provides high performance, easy scalability and data mobility, and protection from ever-growing cyberthreats.

## Unlock the value of AI with NetApp

For decades, NetApp has set the standard for hybrid cloud storage of unstructured data—the lifeblood of AI. Now, we're helping healthcare and pharmaceutical organizations to use their data to unlock value from AI, boosting administrative efficiency, enhancing the patient experience, and getting new drug therapies to market faster.

AI is only as good as its underlying data. NetApp solutions get your data AI-ready with the most secure, accessible, and high-performing storage on the planet. Get the right data and apps to the right place at the right time. NetApp leads the industry in high-performance, massively scalable, unified data storage that can power every segment of the hybrid multicloud AI data pipeline. Equally important, NetApp technology provides the simplicity, security, and governance required to mitigate risk so that you can confidently deploy safe, responsible AI—without breaking the budget.

## Seamlessly access all of your data

All data is valuable, especially in healthcare, where data translates into better patient care and targeted treatments for everything from viruses to genetic diseases. Data access is the number one reason that 85% of AI projects fail. To unlock the potential of AI in healthcare, you need to capture, identify, prepare, access, move, and protect large volumes of patient and research data from multiple locations, as well as petabytes of images from thousands of different sources. You need a way to harness and extract the most value from your data as quickly as possible. That ability requires powerful AI capabilities that reach from edge to core to cloud, without adding to the complexities that are inherent in an AI environment.

To keep your data accessible and flowing freely through the pipeline, NetApp solutions eliminate silos by consolidating AI workloads and existing enterprise apps. An intelligent data infrastructure from NetApp, with AI-optimized data management and scalable performance, enables you to seamlessly access and instantly classify, move, and serve data natively across your hybrid multicloud environment.

## KEY BENEFITS

### Seamlessly access all of your data

- Take advantage of an intelligent data infrastructure from NetApp with AI-optimized data management to provide complete visibility and instantly classify, access, move, and serve data natively across your hybrid multicloud environment.
- Streamline operations with AI/ML-driven automation and unified, multicloud control delivered by NetApp® BlueXP™.

### Get unmatched data security

- Deploy and protect AI workloads with the only hardened enterprise storage validated to store top-secret data.
- Keep AI models and data secure with real-time AI- and ML-based ransomware protection and guaranteed data recovery.
- Enable safe, responsible AI and meet data privacy and governance requirements.

### Make AI affordable

- Eliminate the need for additional headcount to manage the storage environment by using a single platform for all your storage needs.
- Save money by supporting file, block, and object storage in a single system.
- Meet sustainability initiatives by reducing power and cooling costs.

You get complete visibility of your data estate. Data moves agnostically between edge, core data center, and hyperscaler cloud environments with ease.

For example, during research, data can be generated at the edge and then moved to an on-premises data center for initial triage, to the cloud for algorithm development and testing, and back to an on-premises environment for production-level training. NetApp FlexCache® software enables on-premises data to be cached in the cloud, where that data can be consumed by a cloud-based generative AI service. If internal data can't be exposed to the cloud because of regulations or governance concerns, data can be replicated or cached to an on-premises high-performance AI compute platform instead. Simplifying data movement and eliminating data silos helps keep data locality from becoming a bottleneck.

### Get unmatched data security

Healthcare data is highly sought after by cybercriminals. The growth in data from AI can make it even more difficult to keep up with constant security threats and ever-changing compliance requirements. With NetApp, you can provide trusted data protection, compliance, and secure access for your distributed, diverse, and dynamic AI data.

NetApp enables you to integrate, protect, and secure your data pipeline from edge to core to cloud. Our unified data storage supports multiple data formats. With data encryption at rest and in flight, data is protected wherever it lives and wherever it moves to. We offer the only hardened enterprise storage that is validated to store top-secret data. In addition to being NIST FIPS 140 and CSfC certified, our solutions feature quantum-resistant encryption.

Not only are the hardware and NetApp ONTAP® data management software certified, but NetApp software also provides extended features to help secure your environment, including:

- Multi-admin verification
- Creation of write once, read many (WORM) volumes
- Data classification
- Immutable backups
- Built-in anti-ransomware protection

NetApp offers the most secure storage on the planet—no other storage solution provides equivalent security protection. We deliver unmatched data security with built-in versioning and traceability, built-in cybersecurity, and real-time, AI-powered ransomware protection with 99% detection accuracy and guaranteed recovery.

NetApp BlueXP classification automatically identifies and classifies data to help you maintain compliance. Advanced AI and dashboards provide the automation and intelligence that you need to simplify data governance.

### Make AI affordable

NetApp AI solutions enable healthcare and pharmaceutical organizations to affordably modernize patient care and research without compromising performance, accessibility, or security. Our single, unified platform means that you don't need to train or hire extra people to manage the storage component of your AI infrastructure. Integration with MLOps tools reduces data scientists' most time-consuming data management tasks without the need to open IT tickets or be storage experts.

Because file, block, and object data are supported in a single system, the cost of purchasing three individual systems to support all your data regardless of type or protocol is reduced. For additional savings, NetApp technology automatically tiers cold data to lower-cost storage. Deduplication and compression technologies let you store more data with less storage, resulting in a smaller storage footprint that delivers additional savings in power and cooling costs.

# NETAPP AI SOLUTIONS IN ACTION

## CURING CANCER

Yale New Haven Health built an AI environment on NetApp technology that enables them to securely access cutting-edge large language models (LLMs) to get data out of clinical notes and accelerate research.

By integrating our DataOps Toolkit with NVIDIA's NeMo Retriever, Yale researchers are enhancing clinical and research data management for LLM training and deployment. This advancement leads to automated data extraction that's more accurate and efficient, which is crucial in the quest to cure cancer.

[Learn more](#)

## THE POSSIBILITIES ARE ENDLESS

AI opens the door to unlimited possibilities for healthcare and pharmaceutical organizations.

Here are some of the ways in which AI can be used to streamline tasks and improve patient care:

- Reducing the prior authorization process from days or weeks to just minutes or hours
- Enabling providers to spend more time with patients and reducing time spent taking notes and entering data
- Offering risk categorization to provide more personalized health education
- Providing faster, more accurate identification of potential candidates for clinical trials
- Creating "patient twins" to determine how drugs or medical devices will affect a specific person

## NETAPP CORE AI CAPABILITIES

- **Data governance platform.** Keep your data fully under your control, including how available, accessible, usable, and secure it is by creating a set of internal data policies and standards. [BlueXP classification](#) automatically scans, analyzes, and categorizes data across your NetApp estate. Advanced AI and dashboards simplify data governance by providing actionable insights to address compliance requirements, optimize storage, and prepare your data for GenAI.
- **Data lineage and reproducibility.** Space-efficient NetApp Snapshot™ technology enables you to use NetApp FlexClone® thin cloning technology and SnapMirror® replication to deliver complete data traceability and model reproducibility to compare model outputs and preserve an audit trail for regulatory compliance.
- **Complete data protection.** Make hundreds of point-in-time backups of data volumes with NetApp Snapshot™ technology. Each Snapshot copy is an immutable set of references that can be mounted for read-only use or replicated to other systems or locations for long-term archiving or use by remote healthcare teams.
- **Simplified data management.** NetApp data management capabilities provide complete visibility of data across your entire hybrid multicloud data estate. Data moves easily from edge to core to cloud for seamless accessibility.
- **Integrated data and model management.** [NetApp ONTAP AI](#) integrates with third-party toolsets and tool management solutions, so data scientists can use the tools that make sense for each workload. This integration also makes it easier to track model drift/traceability. The [NetApp DataOps Toolkit](#) enables data scientists to perform enterprise data management tasks from their MLOps tools without being storage experts.

### Healthy AI starts with NetApp

NetApp has a proven track record of serving the healthcare and life sciences sector with powerful, reliable, and secure AI solutions that include built-in versioning and traceability to help research and development teams meet compliance regulations. Only NetApp can help you build an intelligent data infrastructure that satisfies the needs of complex, high-performance AI data pipelines across your entire hybrid multicloud environment and enables safe, responsible AI that meets data privacy and governance requirements.

Learn more about [NetApp AI solutions](#).



Contact Us

### About NetApp

NetApp is the intelligent data infrastructure company, combining unified data storage, integrated data services, and CloudOps solutions to turn a world of disruption into opportunity for every customer. NetApp creates silo-free infrastructure, harnessing observability and AI to enable the industry's best data management. As the only enterprise-grade storage service natively embedded in the world's biggest clouds, our data storage delivers seamless flexibility. In addition, our data services create a data advantage through superior cyber resilience, governance, and application agility. Our CloudOps solutions provide continuous optimization of performance and efficiency through observability and AI. No matter the data type, workload, or environment, with NetApp you can transform your data infrastructure to realize your business possibilities. [www.netapp.com](http://www.netapp.com)



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