



## SOLUTION BRIEF

# Accelerate Healthcare Operations with AI and Vultr High-Performance Cloud Compute

Enhance healthcare operations, patient outcomes, compliance, research, and personalized treatments with Vultr's high-performance computing powered by AMD and NVIDIA GPU accelerators, delivering a full-stack infrastructure tailored for healthcare organizations to securely scale AI and data initiatives while optimizing costs and performance.

[VULTR.COM](https://vultr.com)

# Vultr Cloud GPU for AI in Healthcare and Life Sciences

Vultr delivers high-performance cloud infrastructure with AMD and NVIDIA GPUs optimized for AI and machine learning in healthcare and life sciences, supporting advanced workloads with scalable, cost-efficient solutions across 32 global cloud data center locations without vendor lock-in.

The healthcare and life sciences (H&LS) industry is at the forefront of AI adoption, with organizations increasingly leveraging AI to improve diagnostics, personalize treatment, and streamline operations. With over 170 AI models already in production and projected growth in the coming year, the demand for cloud infrastructure that supports advanced AI workloads is rising.<sup>1</sup> Vultr delivers high-performance cloud infrastructure optimized for AI and machine learning workloads, enabling rapid data processing, real-time insights, and seamless integration with existing healthcare systems, all while ensuring compliance with industry regulations like HIPAA.

## Simplified cloud for healthcare's growth and AI needs

H&LS organizations looking to modernize with AI will find that AI infrastructure differs from traditional cloud by offering specialized hardware like GPUs optimized for large datasets, machine learning models, and real-time analytics. Vultr's secure, scalable cloud integrates these AI capabilities with top-of-the-line AMD and NVIDIA GPU accelerators, enabling faster model training in medical imaging, genomics, and diagnostics – driving innovation without disrupting operations.

As a modern hyperscaler, Vultr enables healthcare organizations to integrate AI-driven applications without unnecessary complexity and with faster deployment times. By offering a flexible and agile platform, Vultr adapts to evolving healthcare needs, supporting long-term business growth with an underlying infrastructure that drives AI advancements in healthcare operations while ensuring scalability, performance, and cost-efficiency.

## Challenges in healthcare and life sciences

### Composability and multicloud flexibility

With hyperscalers, healthcare organizations often face lock-in within one vendor ecosystem, limiting flexibility. Vultr's multicloud compatibility and composable infrastructure provide the freedom to choose and integrate the stack components needed for customized solutions, ensuring seamless integration with existing systems and better resource management.

### Integration, edge computing, and scalability for AI solutions

Integrating AI into healthcare systems is complex due to legacy infrastructure. Vultr Cloud GPU simplifies this with scalable computing and seamless API integration. Console Connect bridges IoT and Vultr, enabling edge GPU-powered AI deployments to process data closer to devices, reducing latency and delivering real-time insights for healthcare.

### Data privacy and HIPAA compliance

Compliance is critical in healthcare. Vultr supports a range of compliance standards, including HIPAA, GDPR, and SOC 2, ensuring the secure storage, processing, and access of patient data. With on-demand sovereign data centers and localized data residency options, Vultr helps organizations meet stringent regulatory requirements while minimizing the risk of data breaches.

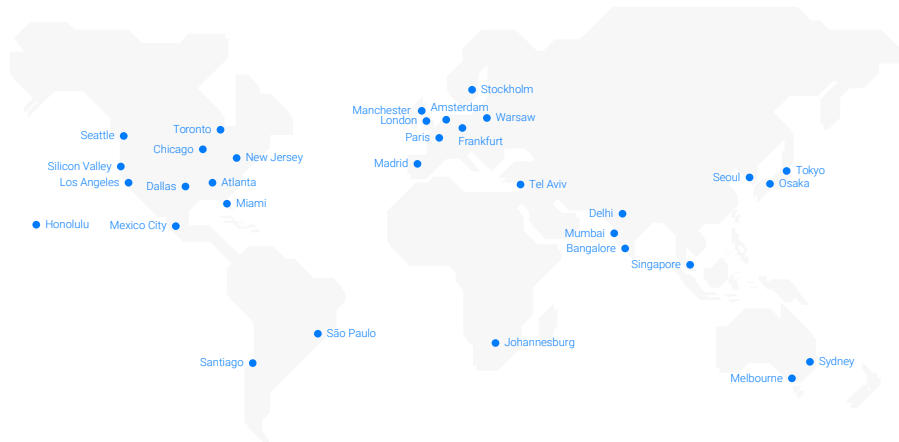
### Maximizing ROI with AI in healthcare operations

H&LS organizations lead in financial performance, with 80% reporting improvements from AI initiatives, compared to 43% in other industries.<sup>1</sup> Vultr Cloud GPU and Vultr Serverless Inference enable healthcare organizations to scale AI from development to production environment efficiently, optimizing workflows in medical imaging, genomics, and predictive analytics, ultimately improving patient care outcomes.

## Develop locally, deploy globally®



Supporting healthcare services across six continents, reaching 90% of the world's population with 2-40ms



## GPU democratization

Vultr democratizes GPU access by making advanced AMD and NVIDIA capabilities easily accessible, removing technical barriers, and providing scalable, cost-effective solutions for businesses of all sizes.

### Vultr Cloud GPU powered by AMD and NVIDIA

Vultr Cloud GPU provides high-performance, scalable infrastructure for AI, ML, and inference workloads in healthcare, simplifying deployment, cutting costs, and accelerating insights across 32 global cloud data center locations.

### Vultr Serverless Inference

Enables AI model deployment without infrastructure management, integrates models from any source (bring your own compatible model), ensures secure data handling, and supports turnkey retrieval-augmented generation for GenAI applications, reducing operational complexity.

### The importance of AI in healthcare and life sciences

Healthcare organizations are adopting AI to improve efficiency, reduce costs, and enhance patient care. AI-driven tools streamline diagnostics, accelerate drug discovery, and support personalized treatments. By automating repetitive tasks and optimizing resources, AI allows staff to focus on higher-priority care. Scalable AI solutions help organizations manage large data sets while maintaining compliance, contributing to better outcomes and a stronger competitive position by leveraging Vultr's infrastructure.

### AMD Instinct™ MI300X GPU

Accelerates drug discovery, personalized medicine, and genomic analysis

### NVIDIA GH200 Grace Hopper™ Superchip

Real-time analytics for predictive healthcare diagnostics and risk management

### NVIDIA H100 Tensor Core GPU

Large AI model training for medical imaging and drug discovery

### NVIDIA A100 Tensor Core GPU

Advanced data processing and genomics research

### NVIDIA L40S

High-performance computer vision for medical imaging, diagnostics, and telemedicine

### NVIDIA A40

Enhanced visualization for patient data and clinical research

### NVIDIA A16

Secure, high-performance VDI for telemedicine and remote healthcare management

## Healthcare and life sciences use cases

### Genomics and precision medicine

The demand for genomics research is growing, with H&LS organizations outpacing other sectors in AI model deployment. Vultr Cloud GPU infrastructure supports large-scale genomic sequencing and variant discovery, enabling personalized treatments and driving research breakthroughs in fields like cancer genomics.

- AI-powered genomic sequencing
- Real-time data processing for genomic research

### Healthcare providers

Healthcare providers are deploying AI models in diagnostics, predictive analytics, and operational efficiency, with Vultr providing the infrastructure to power these applications. Vultr's cloud infrastructure supports real-time AI inference for diagnostics and integrates seamlessly with Electronic Health Record (EHR) systems.

- AI-driven diagnostics and imaging
- EHR integration and data access

### Medical devices and AI-enhanced equipment

Medical devices are increasingly equipped with AI capabilities to enhance diagnostics and enable real-time monitoring. With Vultr's low-latency AI inference, edge computing solutions ensure critical applications like robotic surgery and remote monitoring systems operate in real time.

- Real-time AI inference for medical devices
- AI-enhanced diagnostic equipment

### Medical research and life sciences

Medical researchers are allocating more of their IT budgets to AI, with 17% of H&LS companies expecting a significant increase in AI spending by 2025<sup>1</sup>. Vultr's HPC solutions accelerate molecular simulations, structural biology research, and predictive modeling, enabling faster insights in critical areas such as drug development and disease research.

- Molecular simulations and protein modeling
- AI-powered predictive modeling in life sciences

### Pharmaceuticals and drug discovery

AI-driven drug discovery is becoming a competitive differentiator, with 80% of H&LS organizations reporting revenue and customer satisfaction improvements thanks to AI investments<sup>1</sup>. Vultr's cloud infrastructure enables pharmaceutical companies to run molecular simulations, predictive analytics, and large-scale data processing for faster, more accurate drug discovery.

- Accelerating drug discovery with AI
- Cloud-based collaboration for clinical trials

### Telemedicine and digital health

Telemedicine is accelerating across healthcare, providing real-time consultations, remote monitoring, and mobile health. Vultr's cloud infrastructure ensures secure, scalable data transmission and storage while integrating AI algorithms to enable personalized care, improving virtual healthcare access in underserved regions.

- Telemedicine and remote patient monitoring
- Real-time consultations and remote patient monitoring
- Mobile health applications for scalable healthcare delivery

Learn more about Vultr's approach to healthcare and life sciences solutions

Contact us at [vultr.com](https://vultr.com) to get started. →

<sup>1</sup>451 Research, S&P Global Market Intelligence, commissioned by Vultr: [Unlocking the Power of AI in Healthcare & Life Sciences](#).