Medical Imaging on AWS ›

Unlock the value of imaging data to enable effective, personalized care

As the importance of medical images continues to grow, healthcare organizations need access to dynamic, cost-effective, scalable capacity for the storage and archiving of petabytes of medical imaging data.

Amazon Web Services (AWS) empowers radiologists and health systems to increase the pace of innovation, unlock the potential of imaging data, develop more personalized approaches to care delivery, and improve cost and operational efficiency.

AWS and AWS partners offer solutions that migrate imaging to the cloud to lower costs amidst fluctuating storage needs, strengthen data accessibility, and facilitate compliance — driving faster insights and better value.

"We needed a scalable solution, and that is why we reached out to AWS. We migrated our entire system to AWS in only 2 months."

Bram van Ginneken
Professor of Medical Image Analysis
Radboud University Medical Center

Read the case study ›

AWS empowers radiology in the cloud

Access and collaborate

Drive better care coordination and treatment decisions with seamless, efficient, and secure access to medical and health information exchanges, reducing system complexities and delays.

Reduce costs

Leverage on-demand compute resources to scale up or down based on need without paying for resource-heavy, on-premises hardware and storage. Reduce downtime risk and meet regulatory requirements with the latest security best practices.

Improve and optimize with AI/ML

Employ AI/ML to support anomaly detection for triaging the most urgent cases, speeding diagnoses, and improving patient outcomes. Power the interpretation process with smart automation to support PACS integration and provide fast, efficient delivery of AI outputs to radiologists.

"By using AWS, we are able to release algorithms targeting new pathologies every three months. That speed is unheard of in our industry, and it absolutely differentiates us."

Guy Reiner
Vice President of Research and Development
Aidoc

Learn more ›

Radiology enters the new age with AWS

See how customers and partners are using AWS to improve performance for medical imaging across the healthcare continuum.

Medical imaging in the cloud

Arterys built its imaging solution on AWS to take advantage of the graphic-optimized G2 Amazon EC2 instances. By using AWS, Arterys can render MRI scans in 10 minutes or less instead of the industry standard of 90 minutes while making sure its platform meets HIPAA-compliance requirements.

Analytics and AI

Rad AI leverages Amazon Elastic Container Service (Amazon ECS) to help radiologists improve their workflows. The company relies on the fully managed container service to deploy several ML models per day to radiology groups, with the ability to make changes in real time, optimizing operational costs and reducing time to diagnosis.

Medical imaging research

Proscia uses Amazon Relational Database Service (Amazon RDS) to deliver superior information management to biomedical scientists who need a dynamic system to access, share, and analyze mission-critical, high-resolution images across disciplines.

Interoperability and accessibility

Butterfly Network leverages AWS to make their imaging products smarter so that healthcare providers around the world can easily access and analyze aggregate data in a secure environment. Butterfly taps into the Amazon Elastic File System (EFS) to improve their storage architecture and reduce latency.

AWS customer success

Better radiology practices in action

UC San Diego Health Sciences

UC San Diego Health ›

One of the top 15 research universities worldwide, UC San Diego Health modified a solution it was developing on AWS to improve COVID-19 screening. The solution uses machine learning to detect pneumonia in X-ray images. In just 10 days, the team integrated the solution with clinic workflows to provide critical information at the point of care in a secure cloud environment. Within six months, the model processed over 65,000 x-rays – each within 3-4 minutes.

aidoc

Aidoc ›

Aidoc creates image-recognition tools that augment radiologists' expertise in analyzing medical imaging to improve the diagnostic process. Aidoc relies on AWS technology to train its ML models and execute inference processes across computed tomography (CT) images, X-rays, and MRI scans. As a result, they can release new algorithms quarterly and stay at the cutting edge of medical insights.

Radboudumc university medical center

Radboud UMC ›

Radboud University Medical Center, a public research institution in the Netherlands, runs the Grand Challenge, an online platform for end-to-end development of machine learning solutions in biomedical imaging. As the Grand Challenge platform's user base expanded, Radboud worked with AWS to migrate to the cloud in two months. Using AWS machine learning services, Radbound was able to connect over 40,000 researchers to build CT-based COVID-19 detection models.

Modernize your radiology services with AWS for Health

Learn more ›