

Image Ingestion for AWS Health Imaging

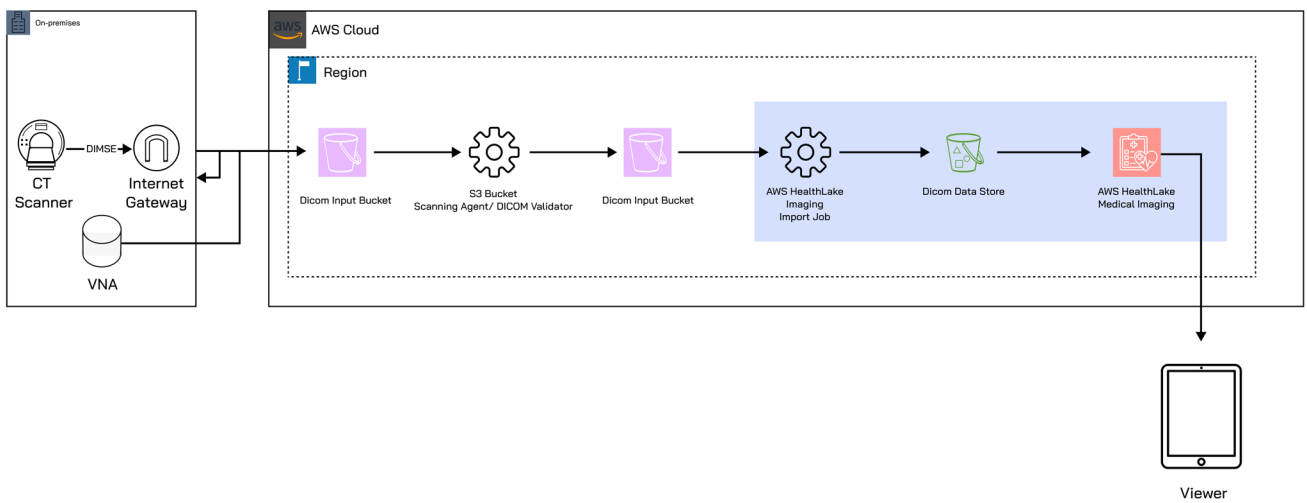
Business Challenges

- Client is one of the leading providers of the Imaging diagnostics services across US/CA/UK geography
- Client's requirement was to build a DICOM ingestion pipeline on AWS HealthLake Medical Imaging. The pipeline should scan uploaded images for virus/malware and validate if they are valid images before ingestion
- Ensure the pipeline's scalability, security, and performance while handling concurrent image uploads. Implement asynchronous processing, error handling, logging, and monitoring functionalities to optimize efficiency and user experience

CITIUSTECH SOLUTIONS

- CitiusTech designed a highly scalable ingestion pipeline using AWS Services such as Amazon S3 Bucket, ASG, EC2, Lambda, SQS, SNS, API Gateway and CloudFront.
- The pipeline provides virus/malware scanning and DICOM image validation capabilities, ensuring that only clean and valid images are ingested into AWS HealthLake Medical Imaging.
- Built-in monitoring functionality enables real-time tracking of image ingestion progress at each stage, ensuring efficiency and identifying potential issues promptly.

SOLUTION SCHEMATIC



VALUE DELIVERED



Scalability & Performance:

The pipeline efficiently handles varying workloads with AWS Auto Scaling and asynchronous processing, ensuring optimal performance and reduced processing time.



Security & Data Integrity:

Virus scanning and image validation guarantee that only clean, valid images are ingested, safeguarding data integrity and protecting against security threats.



Real-time Monitoring:

The built-in monitoring system tracks ingestion progress, enabling proactive issue resolution and ensuring a reliable and efficient process.



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