

Seamless Cloud Integration for Digital Pathology Imaging

Business Challenge

Client is one of the leading community-based healthcare system providing accessible expert healthcare services which includes comprehensive range of pathology and laboratory services.

Client required a solution to facilitate the storage and accessibility of digital pathology images on scalable cloud storage. The goal was to upload DICOM images from on-premises scanner servers to the cloud for streamlined access, case sign-off, and sharing with AI engines for advanced image analysis.

This capability would support diagnostic and research applications by making the images available across a range of platforms.



CASE STUDY

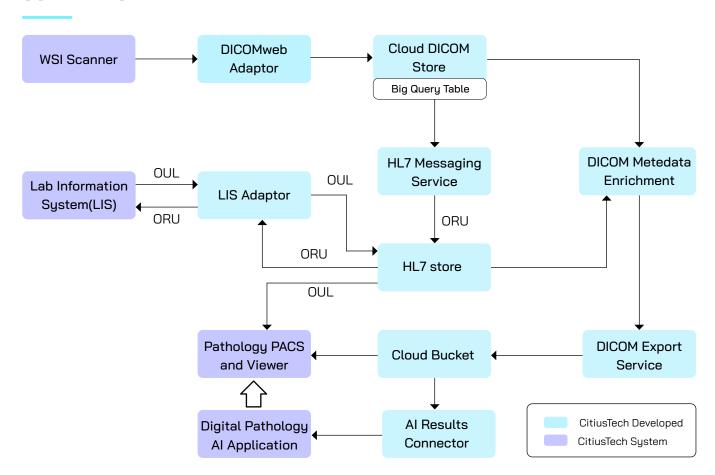
CITIUSTECH SOLUTIONS

CitiusTech developed a custom DIMSE to DICOMweb adaptor, integrating it with Cloud Healthcare API services.

This solution included the following components:

- DIMSE to DICOMweb Adaptor: The on-premises scanner sent C-STORE requests to the adaptor, which converted these into STOW-RS requests, enabling efficient upload to the cloud DICOM store.
- Metadata Storage in BigQuery: The metadata from the DICOM images was concurrently stored in a BigQuery table, preparing the images for future enrichment with additional case-specific metadata.
- Cloud-based Sharing and Access: Once stored in the cloud DICOM store, the images were easily accessible for viewing, case sign-off, and sharing with other applications, including AI engines for both diagnostic and research analysis.

SOLUTION SCHEMATIC





VALUE DELIVERED



Scalable Cloud Storage: The solution enabled Health system to store digital pathology images in a secure and scalable cloud environment, accommodating the growing data volume without compromising accessibility or performance



Improved Accessibility for Diagnostics and Research:

With cloud storage, authorized users and AI engines could easily access the images for viewing, case sign-off, and advanced analysis, streamlining workflows in diagnostic and research settings





Shaping Healthcare Possibilities

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