

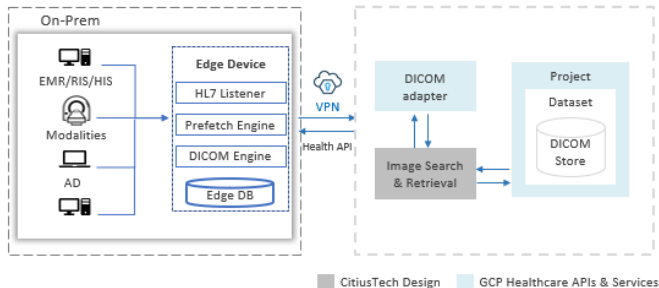
# Case Study: Smart Prefetch for Imaging Studies from Cloud

## Client Requirements

Client is a leading provider of cloud computing and storage services who wanted to demonstrate Cloud capabilities for radiology by developing a smart prefetch system, which would fetch archived images of the visiting patient from VNA using HL7 orders.

The system would also import imaging data from the VNA, reconcile, and transfer to local PACS.

CitiusTech was selected to develop the information management solution given its expertise and proven experience in medical imaging standards and health Cloud.



Solution Schematic

## CitiusTech Services:

- Developed an information management solution on the Google Cloud platform to aggregate and auto-download PACS data, accelerating the fetch process for each patient visit
- Fetched the current patient list from HL7 ORU or RIS MWL queries & parsed patient ID
- Ran custom prefetch algorithms to identify relevant images to retrieve images from VNA using APIs
- Pushed retrieved imaging data in DICOM format to local PACS for fast access
- De-identified and enabled batch upload of new imaging data from PACS to cloud VNA
- The Google Healthcare API-enabled Vendor Neutral Archive (VNA) gateway identified and prefetched imaging data

## Value Delivered:

- Provided a centralized, scalable, and interoperable repository for medical images
- Enabled an On-Cloud single source of truth for all PACS and hospital data
- Provided 24/7 remote access to patient images through multiple devices