



Shaping Healthcare Possibilities

Success Story

# Comprehensive GCP FHIR Validation for a leading Healthcare Provider

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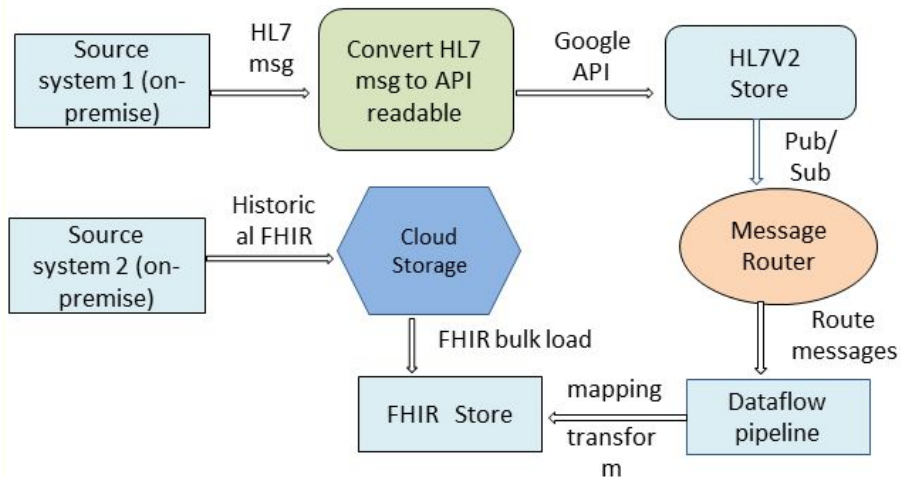
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## The Challenge

- Verify the accuracy of the data transferred on Google cloud platform from on-premise systems
- Ensure the on-prem data in the form of HL7V2.x are moved, mapped, transformed to FHIR R4 on the FHIR store on Google cloud platform
- Ensure the accuracy of large volume of HL7V2.x messages in the HL7V2 store on Google Cloud Platform against the source systems, invoking the API
- Verify the FHIR R4 resources in the FHIR store on Google Cloud Platform against HL7V2 mapping specification for its mapping & transformation correctness

## Solution Schematic



## The Solution

- CitiusTech deployed a 2 member team onsite to build the automation solution
- Team identified Postman with Newman as the tool for automation
- Leveraged Synthea tool for Synthetic message generation
- Use of API endpoints to hit the datastores on Google Cloud Platform which included endpoint to hit HL7V2 store and to trigger FHIR store

### **Built the capable framework to -**

- Validate the HL7V2.x to FHIR R4 mapping transformations on Google cloud environment
- Validate the correctness of the parsed segments in the HL7V2 messages on the HL7V2 store created on cloud
- Verify FHIR resources are generated for the corresponding HL7 messages and sent to the FHIR store on cloud
- Verify the fields of FHIR resources are mapped correctly as defined in the mapping specification



## The Outcome

- Save the time on HL7->FHIR mapping validation
- Accuracy of data validation
- Automation scripts can run on large datasets
- Integrated with CI/CD pipeline in Azure DevOps for scheduled daily run



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# Thank You

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