

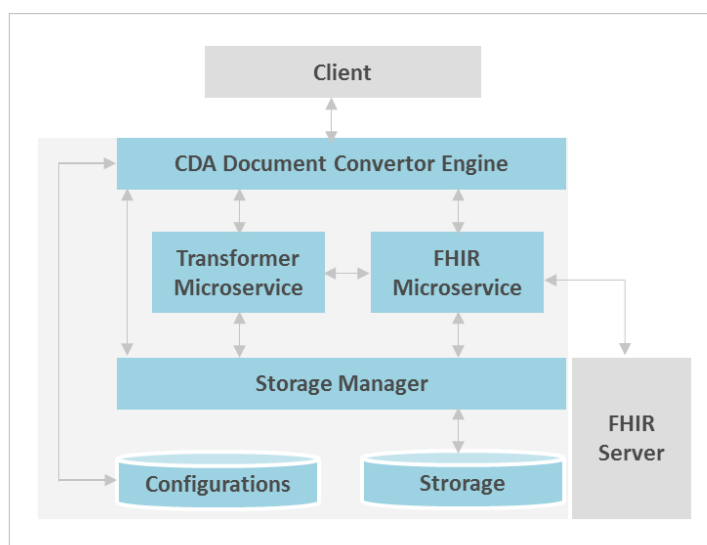
Case Study: FHIR to CDA Converter for EHR and Practice Management System

Client Requirements

Client is a leading healthcare technology solutions provider for imaging, practice management and EHR systems. Client needed to develop an extensible and a scalable FHIR to CDA converter which would ingest the FHIR resources of a patient and generate a CDA document from them. The solution would also provide patient data at runtime using REST-based web API. Given its expertise in healthcare interoperability and industry standards including FHIR and CDA, CitiusTech was selected to develop the solution.

Solution Design and Development

- Designed and developed Java/ Spring-based REST APIs as an interface to query and retrieve patient data from any FHIR resource server.
- Provided support for multi-tenancy, and token-based authentication.
- Used Java REST client to consume FHIR REST service which serves data from EMR for querying/ retrieving FHIR resources.
- Mapped data from FHIR to CDA resources using XSLT transformation.



CitiusTech Solution

Requirement Analysis

Client needed to convert their clinical data from EHR systems to FHIR format and then to CDA v2.1 format. CitiusTech used a microservice-based architecture and developed the solution using XSLT transformations. The solution would invoke FHIR APIs and generate all the FHIR resources for a patient for a specified period. The FHIR resources in XML format would undergo transformation and get converted into CDA XML document.

Value Delivered

By partnering with CitiusTech, the client was able to:

- Leverage CitiusTech's interoperability expertise for CDA standard-based output
- Implement a multi-layer, scalable HIPAA compliant caching and storage
- Build an extensible solution to support future document types.
- Enabled easier, faster and focused access to data.

All product and company names mentioned herein are trademarks of their respective owners

About CitiusTech

CitiusTech is a specialist provider of healthcare technology services and solutions to medical technology companies, providers, payers and life sciences organizations, with over 2,700 professionals worldwide. CitiusTech's services and solutions include healthcare software development, healthcare interoperability, regulatory compliance, BI/analytics, consumer engagement, care coordination and population health management. CitiusTech helps customers accelerate innovation in healthcare through a number of solutions and accelerators for clinical quality reporting, healthcare big data, cloud computing, mobile health and predictive analytics. With cutting-edge technology expertise, world-class service quality and a global resource base, CitiusTech consistently delivers best-in-class solutions and an unmatched cost advantage to healthcare clients worldwide.

Princeton | Rochester | Dallas | Toronto | London | Dubai | Mumbai | Bengaluru | Singapore