Client Requirements

Client is a leading provider of medical imaging and diagnostic services to healthcare organizations. Client required a standards-based interoperable solution to allow its partners to access/ update data in its EHR systems and practice management solutions. The solution needed to support functions such as get, search, create and update for most commonly used practice management data including patient registration, related person registration, appointment scheduling, insurance information, clinical and non-clinical documents. Given its expertise in healthcare interoperability, including next generation HL7 standard - Fast Healthcare Interoperability Resources (FHIR), CitiusTech was selected to design and develop the solution.

- Implementing FHIR APIs using FHIR HAPI server framework, developed by James Agnew of the University Health Network in Canada, that enabled easy creation of FHIR servers.
- Implementing APIs by defining FHIR profiles for client's products, followed by mapping content in those profiles to database schemas.
- Using HAPI FHIR 1.6 APIs for querying/ retrieving client's data from EHRs and practice management system as FHIR resources.
- Retrieving patient, schedule, slot, appointment, documents reference, related person, binary resources in XML and JSON formats.
- Providing granular level access to data on any device, reducing cycle time and associated bandwidth for data access.
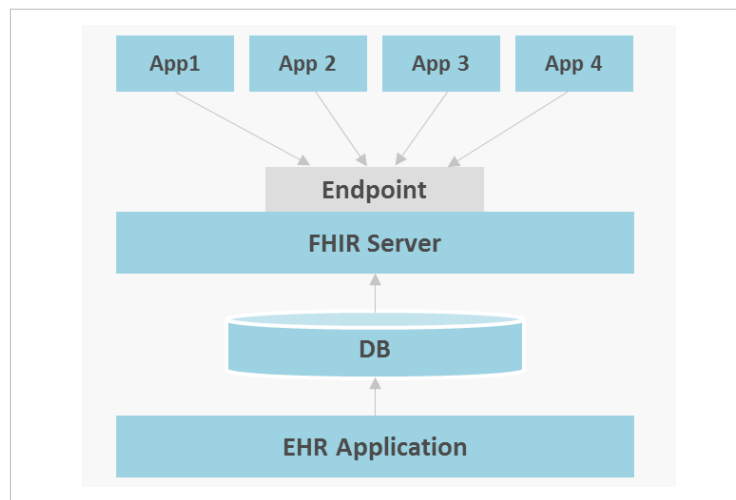
CitiusTech Solution

Solution Design and Development

CitiusTech leveraged FHIR, based on RESTful protocols, to enable interoperability for the client, provide faster access to the data and build a HIPAA complaint solution. The administrative and clinical data in client's EHR systems were converted into FHIR resources. Authorised partners were allowed to access and update these FHIR resources using FHIR APIs. The solution design included:

Value Delivered

By partnering with CitiusTech, the client was able to:
- Leverage CitiusTech's expertise in interoperability to provide a HIPAA compliant, scalable solution.
- Interface with FHIR specifications, leveraging FHIR capabilities for easier, faster and focused access to data that saves both bandwidth and time.
- Reduce number of interfaces, resulting in minimal development and operating costs.

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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.

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