Interoperability and Enterprise APIs Solution for Healthcare

Break down data silos, drive secure access on-demand and optimize healthcare outcomes at scale

Welcome to possible

A Mindtree Whitepaper

Introduction

Interoperability is the need of the hour for healthcare organizations as the industry shifts towards value-based care and contracts. Moreover, federal and state regulations such as CMS interoperability and the patient access final rule mandate data interoperability, transparency, and accessibility across the entire patient journey. In addition, the need to reduce healthcare costs, improve care coordination and optimize patient experience and outcomes, necessitates interoperable healthcare records and data with coopetitors and partners. The challenge lies in healthcare data – it is often fragmented, siloed, duplicated and inaccessible hindering a holistic view of the patient. Conquering data silos requires integrating and consolidating diverse data from fragmented systems across various locations while maintaining data standards and normalization. This goal of connected, available and secure data also faces privacy, security, manageability, liability and risk concerns due to the highly sensitive nature of healthcare data.

Mindtree's interoperability solution simplifies and accelerates this transformation for healthcare organizations (HCOs).
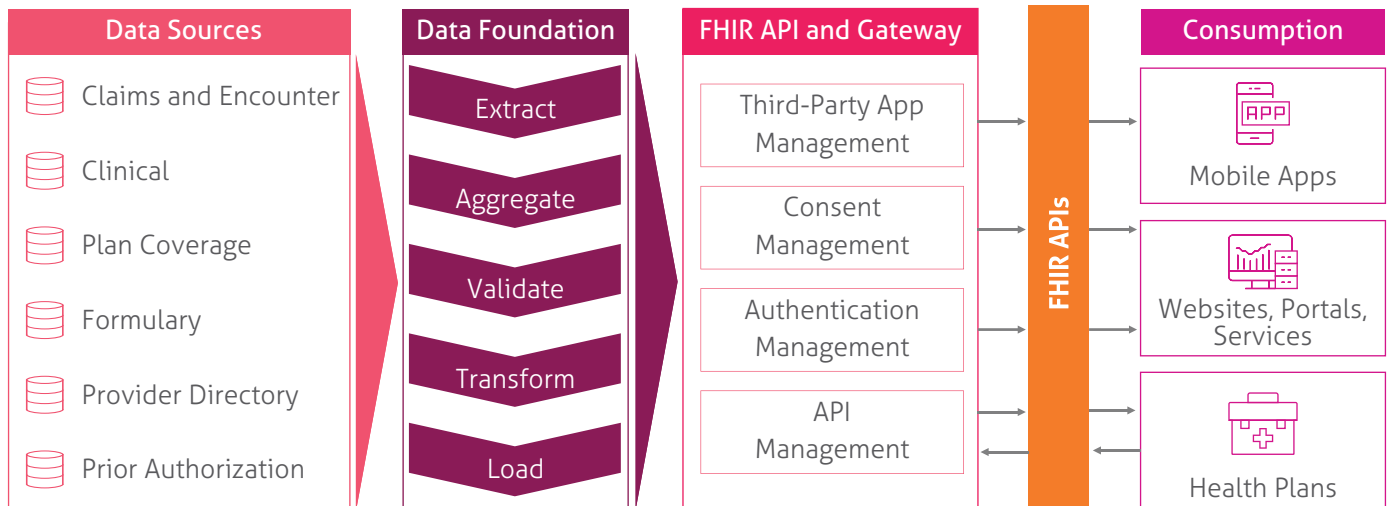
The solution

Our platform seamlessly integrates with HCO's enterprise administrative applications with complex clinical data augmenting the ecosystem and transforming legacy, siloed applications into an interoperable API driven model to meet CMS compliance regulation and enterprise mandates. It facilitates end-to-end transparency, enables FHIR-based interoperability, and supports accelerators such as Da Vinci, CARIN and Gravity to drive Care Coordination, Population health management and new models of value-based care focussing on Patient & Provider experience, quality and outcomes. In addition to compliance, it drives increased revenue with a rise in new customers as well as improved retention and engagement with existing consumers.

Mindtree's Solution is specially focused on AI & ML to address Semantic interoperability through its leading solution 'Mindtree Quality Analyzer'

Interoperability Solution Stack

Data Sources	Data Foundation	FHIR API and Gateway		Consumption
Claims and Encounter	Extract	Third-Party App Management		Mobile Apps
Clinical	Aggregate	Consent Management		Websites, Portals, Services
Plan Coverage	Validate	Authentication Management	FHIR APIs	
Formulary	Transform	API Management		Health Plans
Provider Directory	Load			
Prior Authorization				

> Mindtree brings experience and scalability across all the areas of interop solution such as:
> Data Management (Ingestion, Cleansing, Management), API Dev, Security, Digital Apps and Cloud Infra.

Figure 1: High-level overview encompassing all the layers

Capabilities

Mindtree's investments in the 4 Service Lines of Customer Success, Data and Intelligence, Cloud and Enterprise IT, coupled with Consulting services enabled by Mindtree NxT, positions us to help Health Plans get both support in business and technical domains for Customer success.

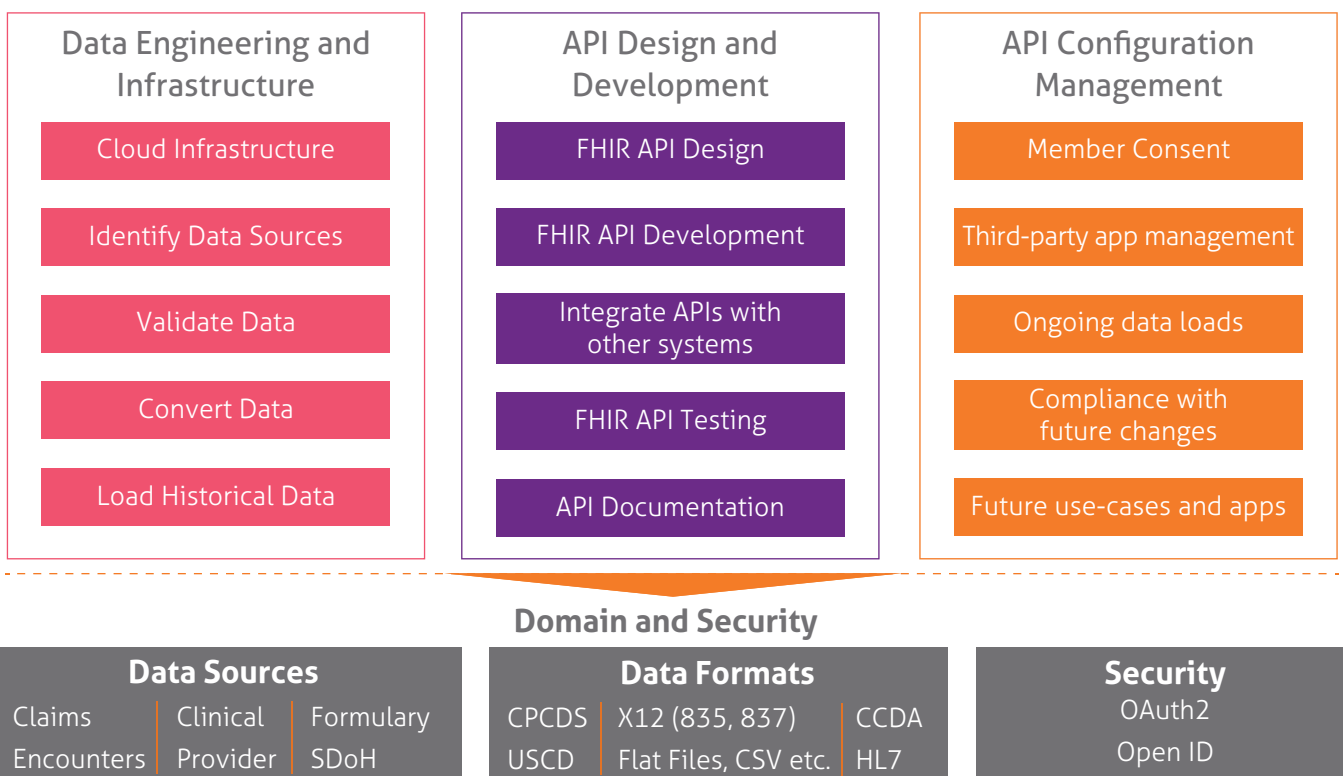## Our capabilities mapped to Interoperability success stack

Data Engineering and Infrastructure	API Design and Development	API Configuration Management
Cloud Infrastructure	FHIR API Design	Member Consent
Identify Data Sources	FHIR API Development	Third-party app management
Validate Data	Integrate APIs with other systems	Ongoing data loads
Convert Data	FHIR API Testing	Compliance with future changes
Load Historical Data	API Documentation	Future use-cases and apps

Domain and Security

Data Sources			Data Formats			Security
Claims	Clinical	Formulary	CPCDS	X12 (835, 837)	CCDA	OAuth2
Encounters	Provider	SDoH	USCD	Flat Files, CSV etc.	HL7	Open ID

Figure 2: Health plans need mastery of both business and technical domains to be successful

Mindtree's expertise

We help clients enable digital business with API strategies for interoperability, collaborating with partners, monetize existing assets and create new ecosystems.

Payer NxT Platforms – Interoperability & API Enablement

Assessment	Integration and API Consulting | Assessment on API strategy & architecture | Product / Platform Selection / Validation | Middleware Rationalization | Data Sources Identification | API Adoption and Performance Management
Identification & Mapping	Current Applications APIs Identification and mapping | Data sources profiling & validation | Data Mapping to FHIR and Enterprise APIs
Implementation Services	FHIR Server / Integration Platform Installation & Configuration | Development of APIs | Low code Integration | Access and Consent configuration | API Management & Governance
Testing Services	End point testing | Search parameters testing | Security and Consent testing | Performance testing
Lights on & Transform	Dev-Sec-Ops : Monitoring, operations & Lights on support | AI-Ops & Automation Platform capacity, reliability & performance | Upgrades & optimization

Our partnerships

MuleSoft   apigee   Microsoft   IBM   TIBCO

redhat   WSO2   ORACLE   ca technologies   DELL Boomi

Key benefits

Reduced cost of care

Improved visibility for payers, providers & pharma

Price transparency

Better patient experience & outcomes

Value-based care

Enhanced care coordination

Clinical trial & scientific discovery outcomes

Success stories

2x increase in new customers – Global cards and payments major

15% growth in sales from an open API initiative – Largest German airline

Accelerated middleware modernization & API initiatives – Leading pharma & medical devices company

Improved **scalability & control** using API-led microservices architecture – Chain of health food shops

Our strengths

700+
Middleware consultants & architects

75+
Active customers

10+
Leading industry partnerships

500+
Certifications

14+
Years of proven success

20+
Frameworks

About Mindtree

Mindtree [NSE: MINDTREE] is a global technology consulting and services company that enables enterprises across industries to drive superior competitive advantage, customer experiences and business outcomes by harnessing digital and cloud technologies. A digital transformation partner to more than 260 of the world's most pioneering enterprises, Mindtree brings extensive domain, technology and consulting expertise to help reimagine business models, accelerate innovation and maximize growth. As a socially and environmentally responsible business, Mindtree is focused on growth as well as sustainability in building long-term stakeholder value. Powered by more than 29,700 talented and entrepreneurial professionals across 24 countries, Mindtree — a Larsen & Toubro Group company — is consistently recognized among the best places to work.