FHIR® Adoption Framework for Payers

With the healthcare industry moving towards value-based care and government bodies enforcing multiple regulatory mandates, FHIR® can be a catalyst to transform the payer landscape and achieving regulatory compliance.

CitiusTech's FHIR® adoption framework will help payers analyze their FHIR® readiness as they grow and accomplish their interoperability goals.
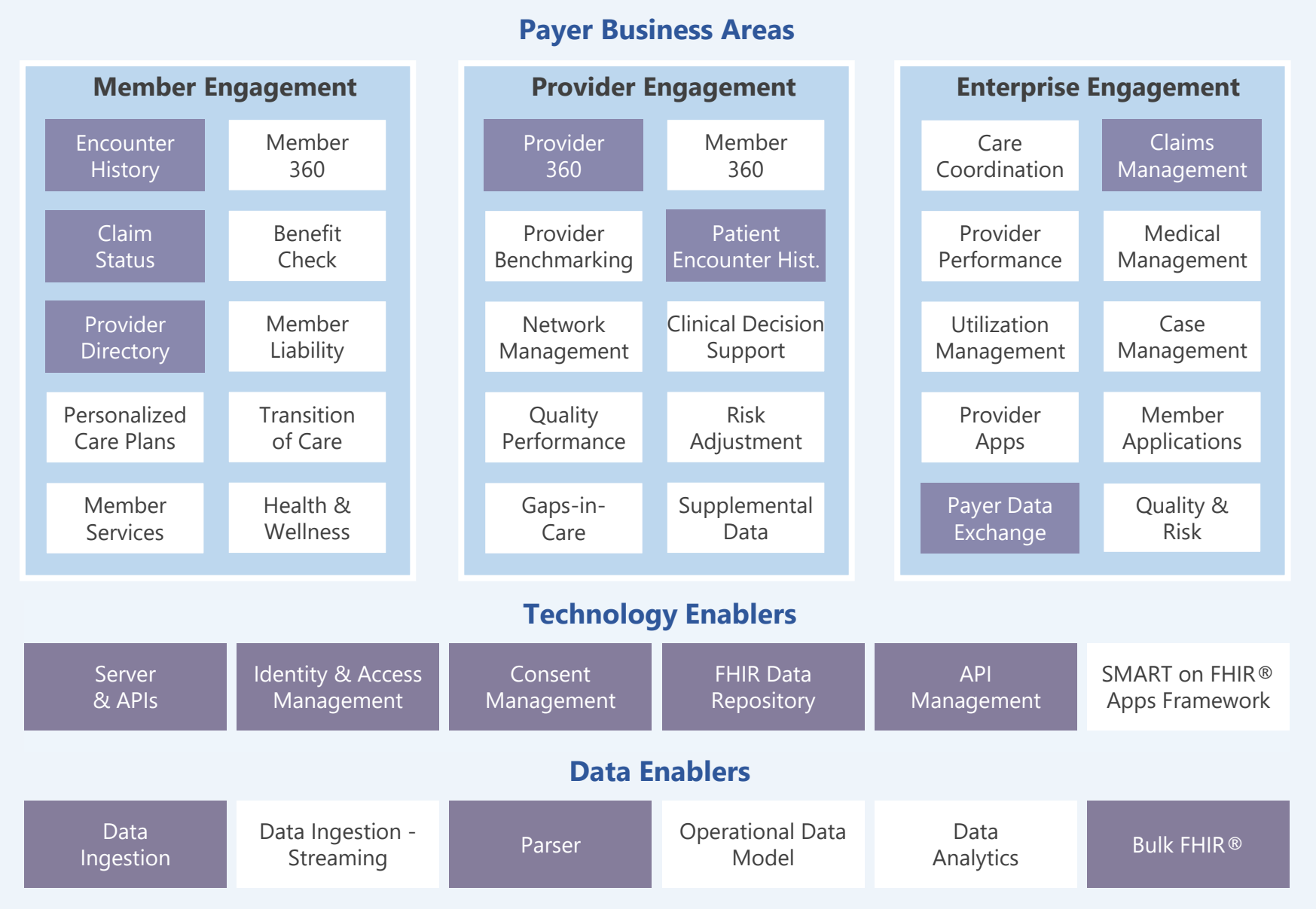
Payer Ecosystem

To comply with CMS' Rule, payer organizations should:

- Posses a FHIR® enabled consumer-centric payer ecosystem across its business areas

- Achieve and modernize use cases across business areas – member engagement, provider engagement and enterprise with FHIR®

- Own **technology** and **data enablers** necessary for better FHIR® adoption

CitiusTech's FHIR® Adoption Framework

Payer Business Areas

Member Engagement		Provider Engagement		Enterprise Engagement	
Encounter History	Member 360	Provider 360	Member 360	Care Coordination	Claims Management
Claim Status	Benefit Check	Provider Benchmarking	Patient Encounter Hist.	Provider Performance	Medical Management
Provider Directory	Member Liability	Network Management	Clinical Decision Support	Utilization Management	Case Management
Personalized Care Plans	Transition of Care	Quality Performance	Risk Adjustment	Provider Apps	Member Applications
Member Services	Health & Wellness	Gaps-in-Care	Supplemental Data	Payer Data Exchange	Quality & Risk

Technology Enablers

Server & APIs	Identity & Access Management	Consent Management	FHIR Data Repository	API Management	SMART on FHIR® Apps Framework

Data Enablers

Data Ingestion	Data Ingestion - Streaming	Parser	Operational Data Model	Data Analytics	Bulk FHIR®

■ For CMS Interoperability & Patient Access Rule Compliance
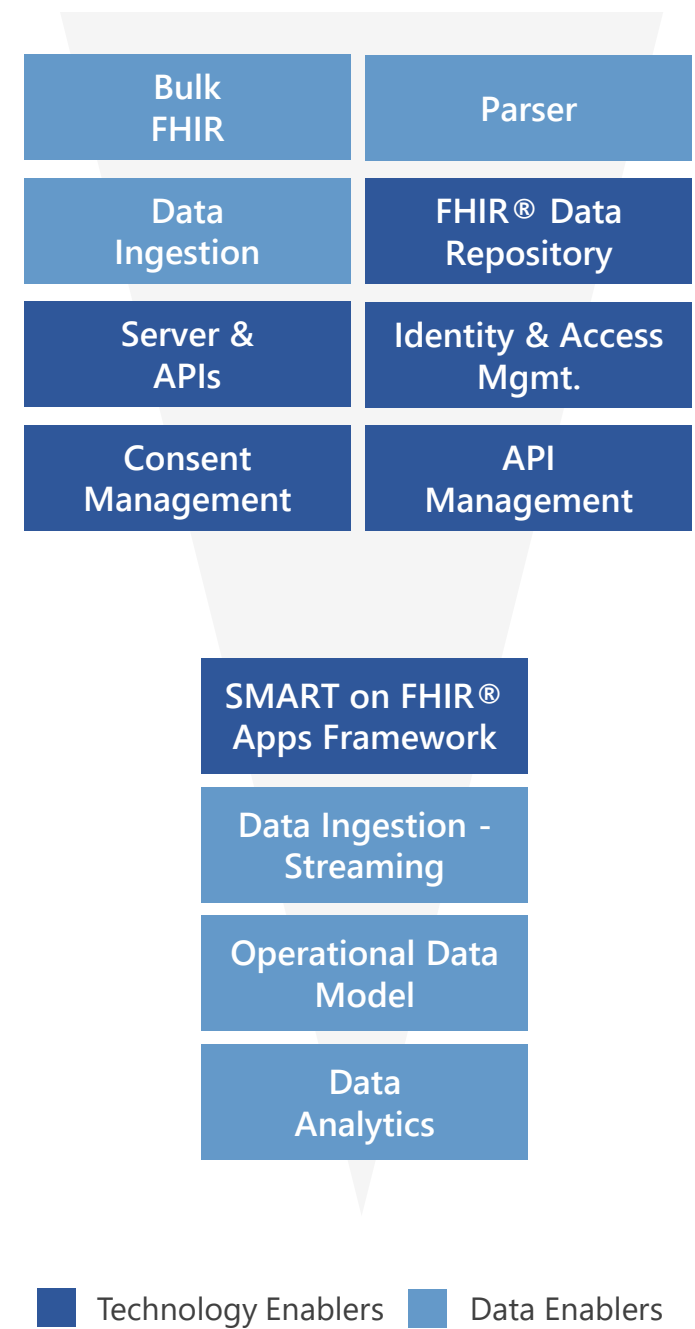
FHIR® Readiness Stages

- Payers need to be aware of their state of preparedness to advance interoperability in their organization

- This will enable payers to set realistic and achievable goals around their FHIR® initiatives

- CitiusTech has identified two stages of FHIR® readiness:
  - Foundational
  - Transformational

Stage 1
Foundational

To comply with CMS' Interoperability and Patient Access Rule, payers need to ensure their FHIR® adoption journey consists of essential technology and data enablers. This will allow relevant and seamless exchange of data between payers and relevant stakeholders in the payer's ecosystem.

Stage 2
Transformational

To align organization interoperability strategy and member and provider experience, data model designing and FHIR®-based real-time data ingestion pipeline automation practices are pivotal.

Bulk FHIR	Parser
Data Ingestion	FHIR® Data Repository
Server & APIs	Identity & Access Mgmt.
Consent Management	API Management

SMART on FHIR® Apps Framework

Data Ingestion - Streaming

Operational Data Model

Data Analytics

■ Technology Enablers   ■ Data Enablers

FHIR® Implementation Approach

CitiusTech engages with payers to offer data and technology enablers and accelerators for:

- Preparing payer organization for an accelerated FHIR® adoption journey
- Ensuring seamless real-time data transfer between healthcare entities
- Providing end-to-end integration of payer ecosystem
- Enhancing member and provider engagement

Foundational

Activities

- Data mapping
- FHIR® server set-up
- FHIR® APIs configuration and development
- Authentication and authorization services
- Onboarding API consumers
- FHIR® data ingestion and parsing
- API management
- Bulk FHIR® Implementation

Deliverables

- FHIR® REST APIs
- FHIR® facade server
- OAuth authentication
- Consent management
- FHIR® profiles
- Data mappers
- FHIR® implementation guide
- User management and access control

Transformational

Activities

- Design patterns
- Mobile development of SMART on FHIR® Apps
- Storage / database for FHIR® resources
- Custom resources / extensions
- Support for cloud infrastructure
- Audit and lineage
- Analytics and reporting

Deliverables

- Built in FHIR® terminologies / value sets
- SMART on FHIR® Apps
- Ability to extend or load custom terminologies / value sets
- FHIR® data model and governance
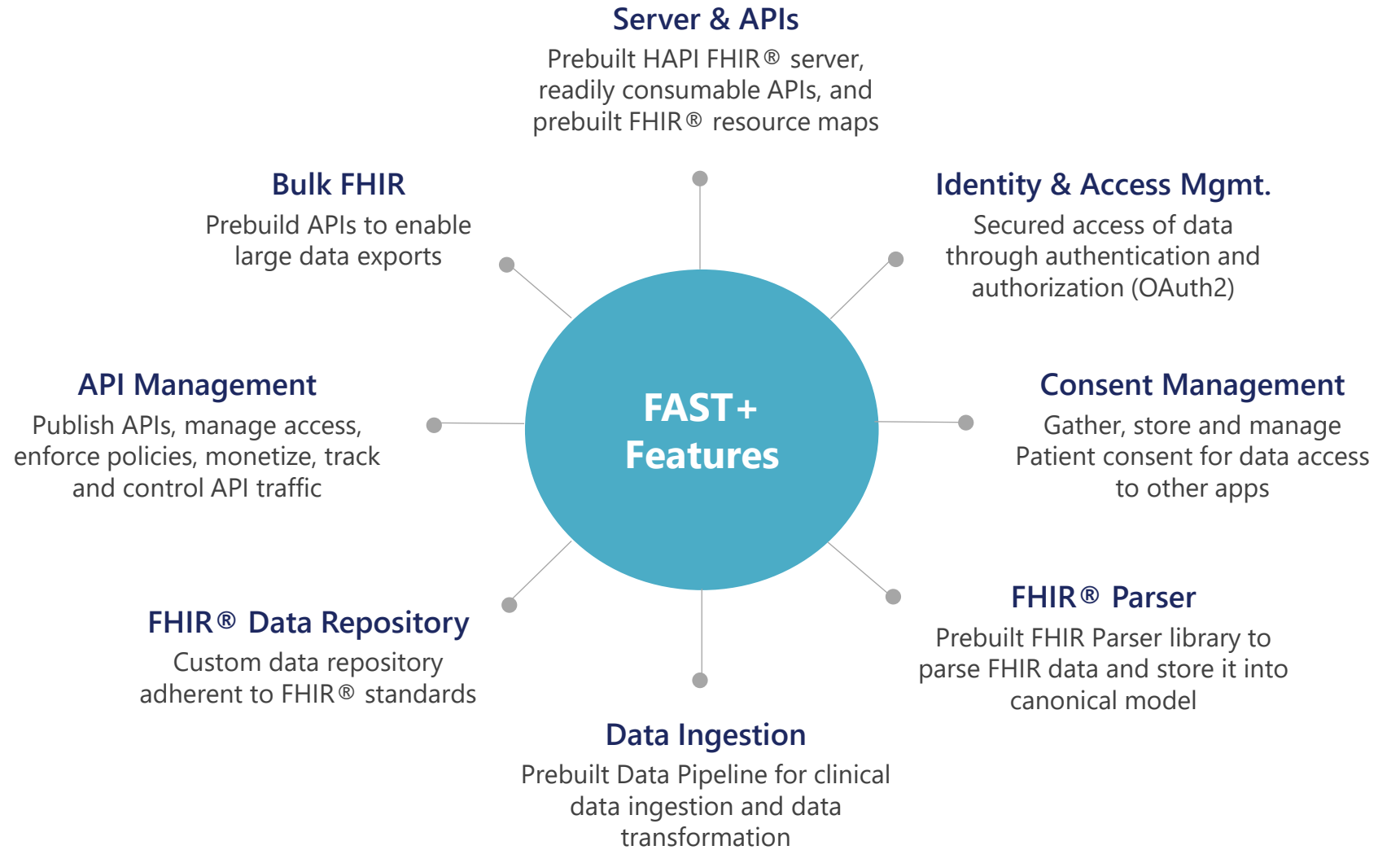- Analytics and reporting
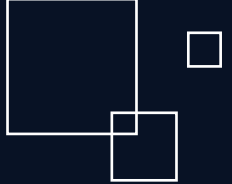
CitiusTech's FAST+ Solution

HIPAA COMPLIANT ✓

CitiusTech's FAST+ solution enables payers to lay a foundation by complying to CMS' new interoperability rule and supporting them to achieve transformational change in their FHIR® adoption journey

Features include:

- Servers and APIs
- Identity & Access Management
- Consent Management
- FHIR® Parser
- Data Ingestion
- FHIR® Data Repository
- API Management
- Bulk FHIR®

FAST+ Features

Server & APIs
Prebuilt HAPI FHIR® server, readily consumable APIs, and prebuilt FHIR® resource maps

Bulk FHIR
Prebuild APIs to enable large data exports

Identity & Access Mgmt.
Secured access of data through authentication and authorization (OAuth2)

API Management
Publish APIs, manage access, enforce policies, monetize, track and control API traffic

Consent Management
Gather, store and manage Patient consent for data access to other apps

FHIR® Data Repository
Custom data repository adherent to FHIR® standards

FHIR® Parser
Prebuilt FHIR Parser library to parse FHIR data and store it into canonical model

Data Ingestion
Prebuilt Data Pipeline for clinical data ingestion and data transformation

About CitiusTech

With over 4,000 professionals worldwide, CitiusTech enables healthcare organizations to drive clinical value chain excellence, across integration & interoperability, data management (EDW, Big Data), performance management (BI / analytics), data science (predictive analytics, Machine Learning, AI) and digital engagement (mobile, IoT).

CitiusTech helps customers accelerate innovation in healthcare through specialized solutions, healthcare technology platforms, proficiencies and accelerators. 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 organizations worldwide.

Worldwide Offices

- **US:** Princeton, Dallas, Rochester, Boston, New York, Philadelphia
- **India:** Mumbai, Airoli, Bangalore, Chennai
- **Rest of the world:** Dubai, Singapore, London

$205+ Mn
in revenue

4,000+
healthcare IT professionals

40 Mn+
lives touched

69
NPS - highest in the industry!

110+
healthcare customers