TCS MICROSOFT BUSINESS UNIT

Compliant Data Interoperability for Healthcare using Azure Health Data Services (Azure FHIR)

Solution Highlights

Background

The large amount of exponentially growing health data being generated in the healthcare ecosystem, leads to highly disconnected and randomness in the data. Missing data standardization makes interoperability complicated. Interfacing different applications and environments, without interoperability, becomes difficult. With the finalization of ONC's Cures Act Final Rule in March 2020, regularizing of interoperability by providers and payers is being observed.

Azure FHIR built on open standards of FHIR, DICOM, helps bridge the gap by standardizing diverse data from clinical, imaging, device, and unstructured data using FHIR, DICOM, and MedTech services.

TCS Solution Overview

If you are a healthcare organization and planning to leverage FHIR from Microsoft, then this offering (targeted for both Provider and Payer), is for you.

1. Understand Customer Ecosystem
2. Build Use case, prioritize/shortlist these use cases
3. Identify the fit for purpose FHIR configurations available from Microsoft:
   - Azure Health Data Services (PaaS Platform) consisting of FHIR Service, DICOM Service, MedTech Service, Unstructured data (Clinical notes or Health documents)
   - Azure API for FHIR
   - FHIR Server for Azure
4. Proof of Value Development (1 Use Case):
   - Translation of HL7v2, CDA, JSON, or CSV formats to FHIR R4
   - Process Visualization (based on Power Platform)
5. Evangelization and Manifestation of outcome of Proof of Value highlighting the benefits of FHIR to your organization

Use Cases

Provider:
- Clinical Data Exchange
- Provider Data Exchange

Payer:
- Payer Coverage Data Exchange
- New Payer Enrollment

Provider & Payer:
- Patient Access API
- Data Exchange for Quality Measures

Proposed Indicative Plan

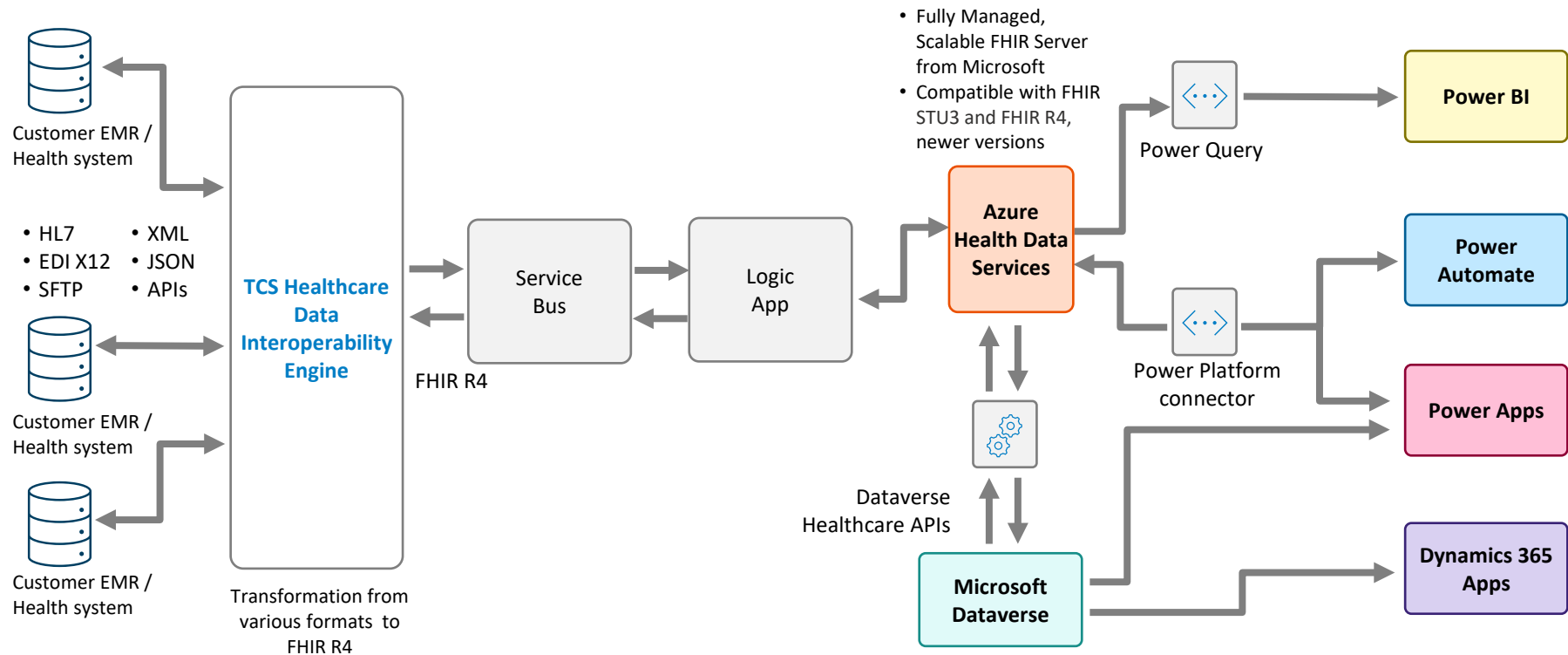| Understanding of customer ecosystem, Use Case Building		Design and Proof of Value development on the shortlisted use case		Review of recommendation of FHIR usage within your organization
3 Weeks	→	**6 Weeks**	→	**1 Week**

Value Proposition

- A reusable framework for easy onboarding onto Healthcare ecosystem
- TCS Reference architectures and templates to quickly setup an environment from scratch
- TCS prebuilt sample transformation logic for HL7, EDI X12, JSON, CSV
- Visibility to actionable insights on stored FHIR data or consumption channels
- Guidance on healthcare data interoperability with respect to FHIR R4 Compliance

Reference Architecture

- Customer EMR / Health system
- HL7
- EDI X12
- SFTP
- XML
- JSON
- APIs

Customer EMR / Health system

Customer EMR / Health system

TCS Healthcare Data Interoperability Engine

Transformation from various formats to FHIR R4

FHIR R4

Service Bus

Logic App

Azure Health Data Services

- Fully Managed, Scalable FHIR Server from Microsoft
- Compatible with FHIR STU3 and FHIR R4, newer versions

Power Query

Power BI

Power Platform connector

Power Automate

Power Apps

Dataverse Healthcare APIs

Microsoft Dataverse

Dynamics 365 Apps

Building on belief

Thank You.