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FHIR for Quality Reporting - Feedback Session

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Background

- **The Health IT industry is rapidly moving towards HL7 Fast Health Interoperability Resources (FHIR®).**
- **Many vendors have implemented the Argonauts/United States (US) Core implementation guide (IG).**
- **Pilots using Application Programming Interfaces (API) for quality reporting (e.g., Quality Payment Program API) have received positive feedback.**
- **MITRE delivered an electronic Clinical Quality Measure (eCQM) strategy report to CMS in 2018 with recommendations on increasing value and reducing burden of quality reporting.**
- **CMS Center for Clinical Quality and Standards (CCSQ) has begun exploring the use of FHIR for quality reporting.**
 - MITRE and ESAC are developing the required standards and technical prototypes to inform CMS decision making in this area.

Current State Feedback

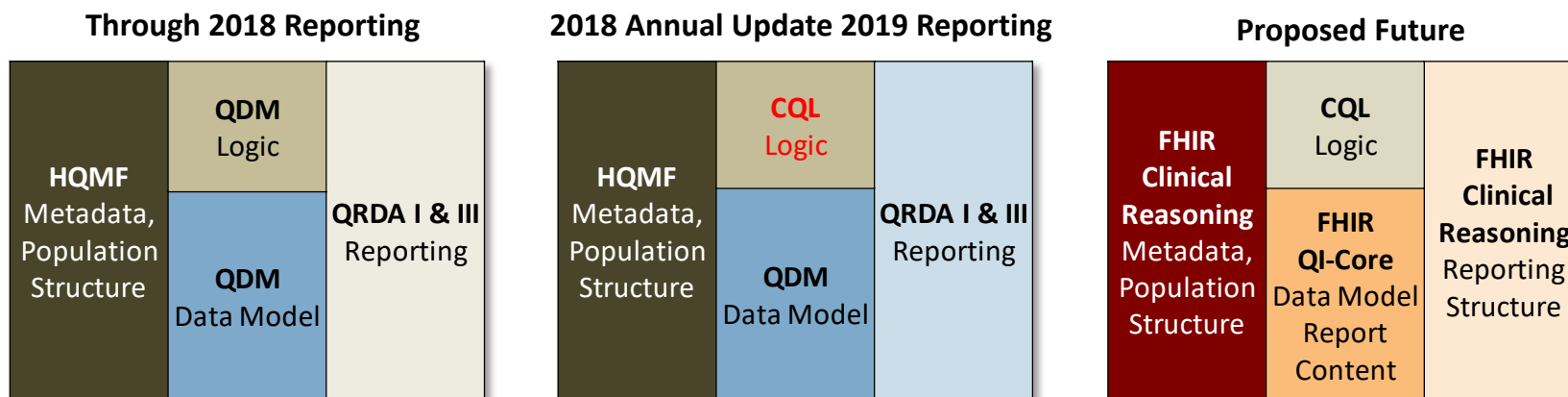
- **Vendors understand Quality Reporting Data Architecture (QRDA) format, but issues remain with generating valid QRDA submission documents.**
- **Implementers request more detailed data mapping guidance to ensure that interfaces and data input fields capture quality data.**
- **Data collection is obtrusive to clinicians' workflow and care of the patient.**
- **Submitters request real-time feedback on quality data submissions.**
- **Submitters suggest exploring alternative data transport standards like data exchange using FHIR.**

Standards

- **FHIR Measure and Measure Report Resources were created in FHIR STU 3**
 - Additional implementation guidance is needed to establish constraints for eCQMs
 - Add Clinical Quality Language (CQL)-Based Health Quality Measure Format (HQMF) Vol I and Vol II constraints to FHIR Measure Resource
 - Work with Da Vinci/HL7 to add QRDA requirements to Data Exchange for Quality Measures (DEQM) implementation Guide
- **FHIR R4 was published 12/27/18**
- **Quality Improvement Core (QI-Core) Standard for Trial Use (STU) 3.0 IG was published containing mapping to the Quality Data Model (QDM)**
 - Mapping has been reviewed by the QDM workgroup and tested at the October HL7 Connectathon
 - Subsequent version planned for Fall 2019 to incorporate FHIR R4
- **DEQM Implementation Guide under development by the Da Vinci Project**
 - Initially developed for medication reconciliation, being adapted for quality measure reporting
 - Developing against STU3 and R4
 - Additional aggregate reporting support to be added in R4

Standards Progression

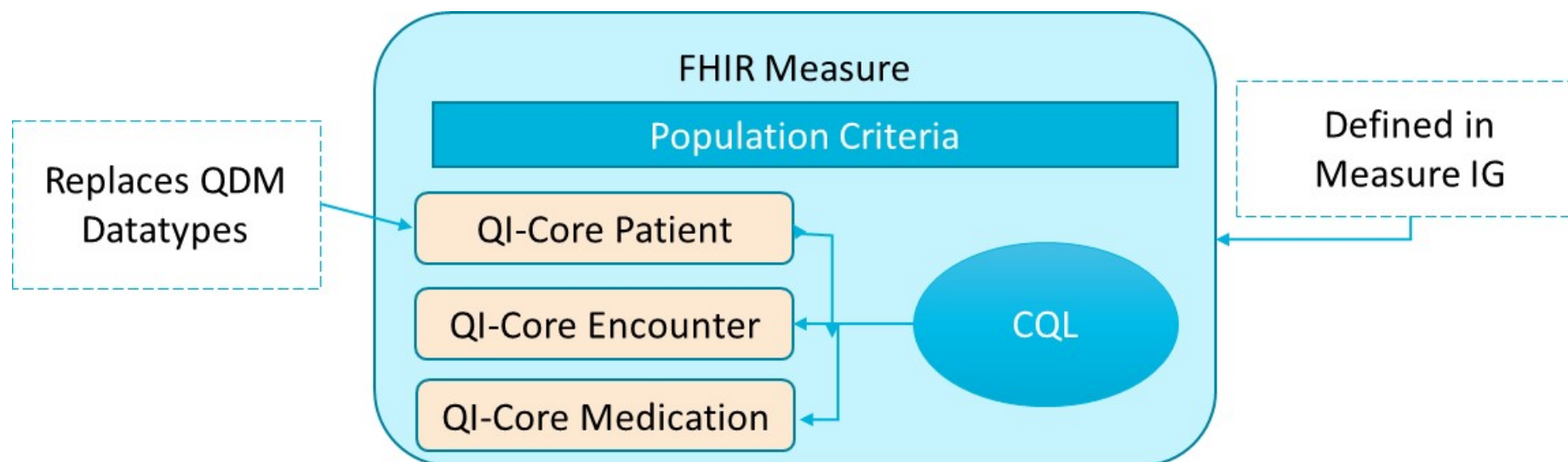
Current State



- **Clinical Quality Language (CQL) was an important first step of long-term strategy.**
- **Clinical Reasoning provides both Measure and Measure Report Resources.**
- **QI-Core is a FHIR Implementation Guide that replaces QDM and aligns content for Quality Measurement. It is a guide to help measure developers understand how to ask for needed information using the FHIR standard.**

Measure Development

- **FHIR Measure replaces HQMF to define measure structure**
- **FHIR QI Core replaces QDM as data model for measure development**



Measure Development Update

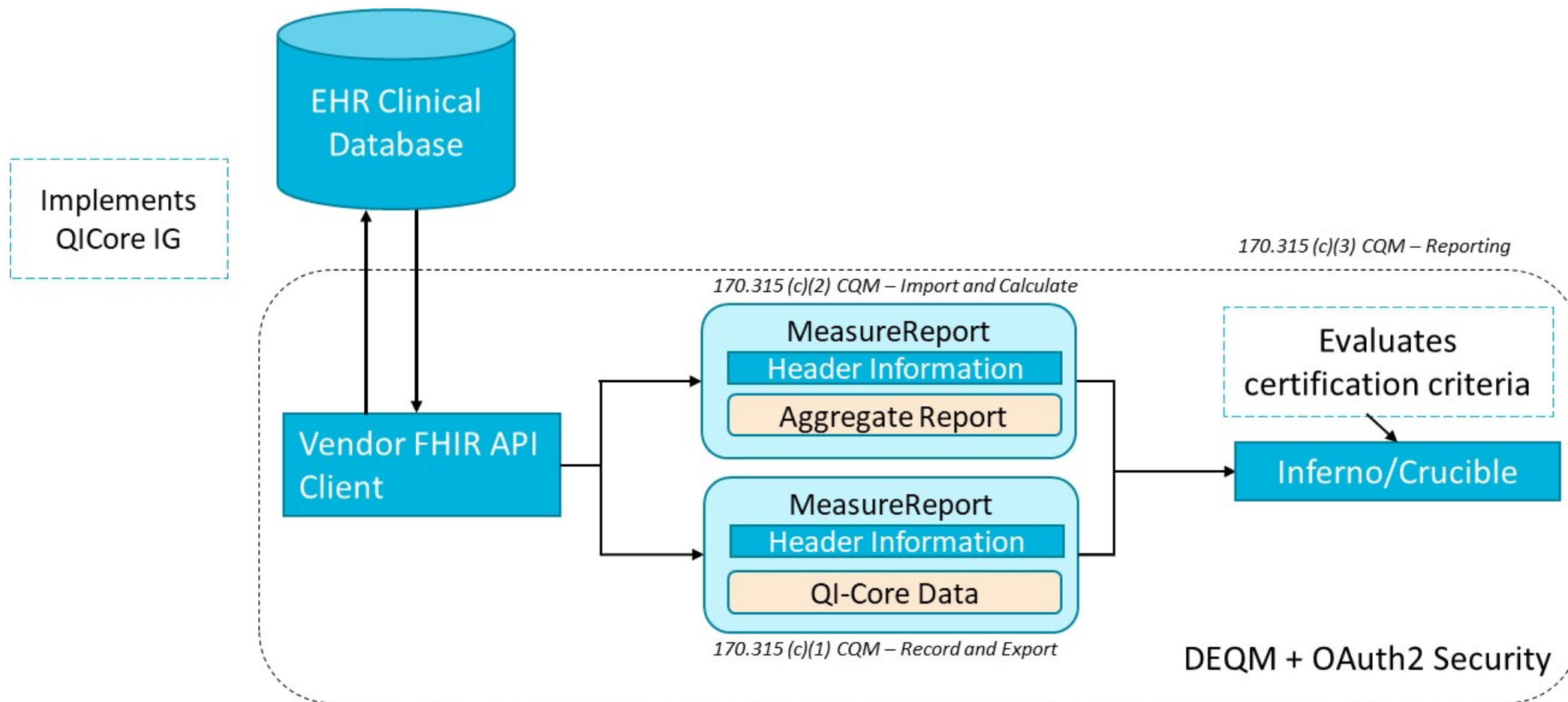
■ Tooling

- FHIR-Based Measure Testing (Bonnie)
 - Planning conversations are in progress
 - Need to provide QI-Core Model Info file and structural guidance
- FHIR Measure Authoring (MAT)
 - Update tool for measure packages and content model
 - Requires education for using QI Core

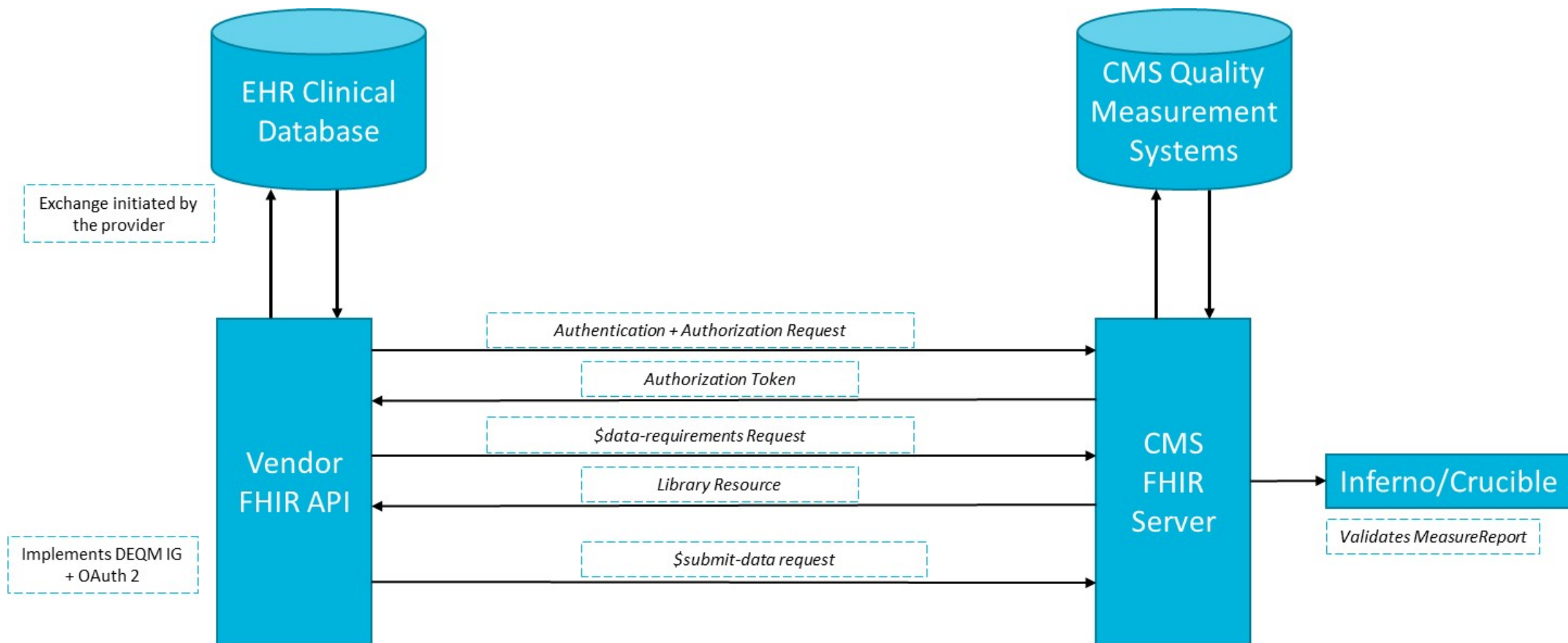
■ Creating Test Measures

- Develop Eligible Hospital (EH) and Eligible Clinician (EC) sample measures for testing
 - Converted 3 measures from QDM to QI-Core
 - Selected 1 EH and 1 EC measure to be considered by Da Vinci quality reporting use case

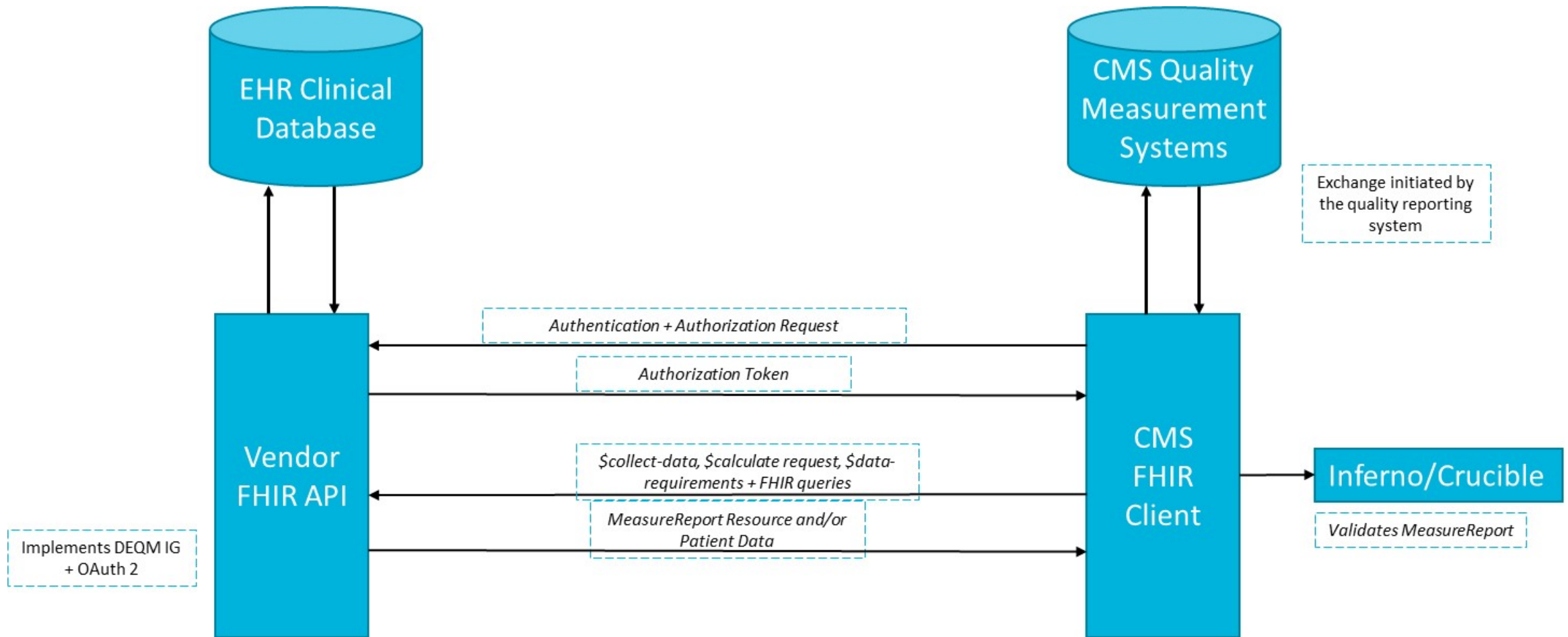
FHIR Testing & Certification



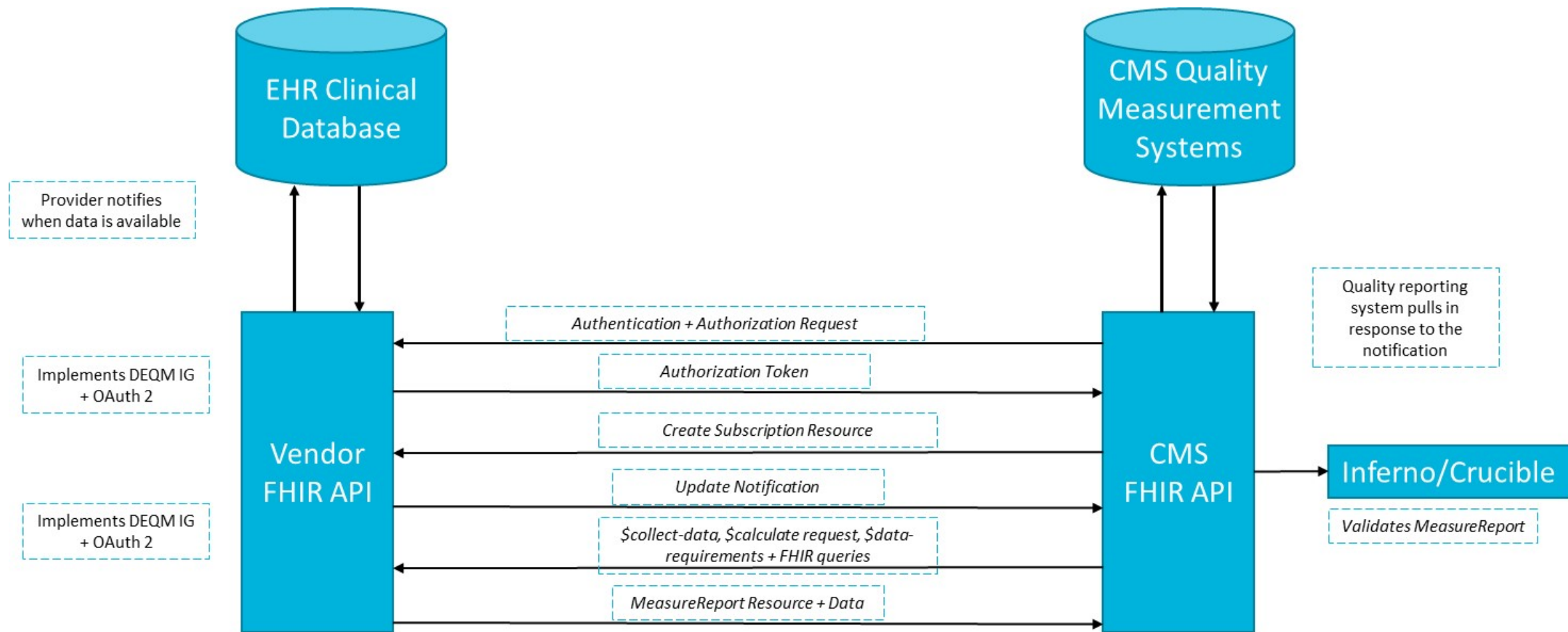
FHIR Quality Reporting - Push



FHIR Quality Reporting - Pull



FHIR Quality Reporting - Subscription



CDS Hooks

- **CDS Hooks enables integration of API into workflow**
 - CDS Hooks balloted STU in May of 2018
 - Final published version in January 2019 (publication in progress as of the creation of this slide)
 - At least one vendor already has support in production, more are expected in 2019
 - Production pilots are expected in 2019

CMS Program Implications and Concerns

- **Timing considerations given the timeframes to update standards, tooling, measure development, and the eCQM annual updates**
- **Statutory and regulatory limitations to consider**
- **What are other outstanding questions about FHIR and how FHIR quality measurement might impact CMS programs?**

Contacts MITRE

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