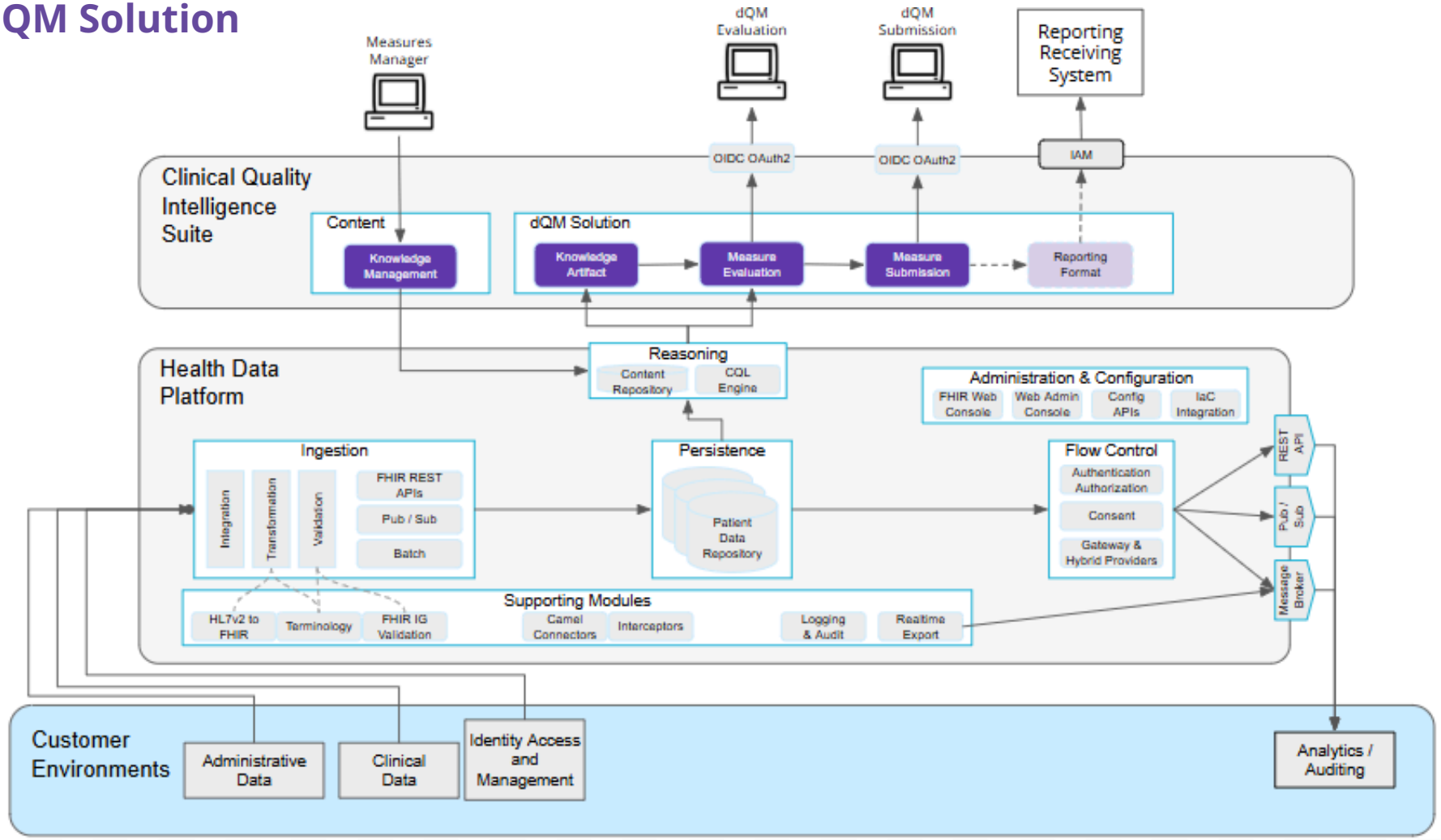
Clinical Quality Intelligence Suite (CQIS): dQM Architecture

Smile's Premium dQM solution is an enterprise-level. scalable component of the Clinical Quality Intelligence Suite (CQIS) that runs proactive quality improvement analytics, while also streamlining internal processes to reduce cost, burden, and delays. Smile dQM converts a weeks-long process for manually generating and submitting measurements into only minutes by leveraging the FHIR and CQL open standards.

dQM Solution



Clinical Quality Intelligence Suite (CQIS): dQM Architecture

Clinical Quality Intelligence Suite (CQIS)* - Generating Insights and Findings

Knowledge Management Content: the broader set of structured information and resources used for defining, implementing, and evaluating clinical quality measures. It includes Clinical Quality Language (CQL) expressions, FHIR resources, value sets, code systems, test cases, and other components that collectively form the basis for evaluating healthcare quality metrics. The focus is on managing and organizing this content to ensure it is accurate, up-to-date, and accessible for use in various healthcare IT applications.

Knowledge Artifact: a specific piece of structured information that encapsulates clinical knowledge. It is a reusable component that can be executed by healthcare IT systems to support clinical decision-making or quality measurement. Examples include CQL expressions or FHIR bundles that have been developed from clinical guidelines or protocols.

Measure Evaluation: the execution and assessment of clinical quality measures using structured data and predefined criteria. This process involves applying Clinical Quality Language (CQL) expressions and FHIR resources to evaluate healthcare quality metrics against a set of standards or guidelines.

1. Data Collection: Gathering relevant patient data from electronic health records (EHRs) or other sources.
2. Application of Measure Logic: Using CQL expressions to apply logical rules and criteria defined in the quality measure.
3. Calculation of Results: Evaluating the collected data against the measure logic to calculate results, such as numerator, denominator, exclusions, etc.

Measure Submission: the process of sending evaluated quality measure results to regulatory bodies or other stakeholders. This step is crucial for reporting compliance, performance assessment, and quality improvement initiatives.

1. Formatting Results: Converting the evaluated measure results into the required format, such as FHIR MeasureReport resources or QPP/JSON format used by CMS.
2. Authentication and Authorization: Ensuring secure transmission of data through appropriate authentication mechanisms, such as OAuth or registry tokens.
3. Submission to Regulatory Bodies: Sending the formatted results to entities like CMS via API endpoints for official reporting and compliance purposes.
4. Tracking and Management: Monitoring submissions for successful delivery and managing any errors or issues that may arise during the process.

Report Formatting: (Optional) converting the evaluated measure results into a structured format that meets the requirements of regulatory bodies or stakeholders. This ensures that the data is presented consistently and can be easily interpreted and processed by receiving systems.

Contact us today to learn how you can lead the digital transformation of quality measurement.

Ready to Elevate Your Data Quality?

Schedule a personalized consultation or request a live demo to see how the CQIS can optimize your organization's performance and regulatory compliance.

* - Smile Premium Solution

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