Chilmark Interoperability Monitor

Integration Infrastructure Market Trends Report

Explanation of Technology Ratings Categories

Brian Murphy December 2020





Why is this information important?

- It explains the categories we will use to assign ratings (expressed as Harvey Balls) in our upcoming Integration Infrastructure Market Trends Report (release date in January 2021).
- These categories will establish where a vendor is shown on the Product Capabilities axis (x axis, highlighted) in the Chilmark Bearing.
- Every vendor will also get ratings on the Market Execution axis, described in a separate Monitor.

A A-B+ B-C+ C+ C+



What is Integration Infrastructure?

- > Software or services to enable or support information exchange or application integration across applications and organizations.
- Highly variable range of capabilities:
 - Ingest, clean, normalize, combine, or route data from disparate application and organizational sources for any processing purpose.
 - Integrate data or functionality into existing workflows.



Caveats and Qualifications

17 Technology Categories:

- Data Provisioning and Quality Assurance (4 categories)
- Standards Support (5 categories)
- Functional Support (5 categories)
- > Offering Scope (3 categories)

- - ③ 3 live customers and \$1 million in revenue
- Categories we define in this market may not align exactly with existing vendor offerings.
- > Vendor offerings may combine functionality defined by us as discrete.
- No single vendor participates fully in all functional categories.
- Most vendor's offerings focus on a few functional capabilities.

> Vendor Inclusion Criteria:

Harvey Ball Ratings

- Compared to all other vendors in report and market requirements defined in the broadest sense.
 - Focus on needs of organizations, developers, and integrators.
- Most vendors do not offer functionality in every one of these categories.



- Not applicable
- Meets some market requirements
- Meets most market requirements
- Exceed market requirements
- Market Leader

Integration Infrastructure Technology Ratings Categories



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Data Cleaning

Purpose: Deliver consistent, computable data for any processing purpose. **Description:** For examining data derived from any application or organizational source and identifying and performing transformations that mitigate variations, errors, duplication, and omissions of content, formatting, placement, or sequencing.



Terminology Normalization

Purpose: Deliver uniformly expressed coded data to developers, applications, and users.

Description: For translating any standards-based, external, local, or variant expressions into a single expression for a specific purpose. Also considers the ability to evaluate any given data source to understand the variability of coded data elements.



Data Operations

Purpose: Enable management and control of the process of creating infrastructure and data.

Description: For monitoring and controlling the supply and provisioning diverse data feeds, ensuring that data is received and provisioned at the time and in the quantities anticipated, and that variations and exception conditions are identified and resolved.

Focused on the needs of developers, administrators, and operators to build, test, deploy, optimize, and administer the resulting infrastructure. Includes APIs, development and test tools, sandboxes, configuration aids, containerization and orchestration support, and simulation capabilities.





Record Matching

- > **Purpose:** Link data from disparate organizations and applications based on a common data element.
- > **Description:** The ability to associate or link disparate records based on a common or suspected identifier such as patient, family, episode, condition, clinician, organization, encounter, health plan, cohort, or other specialpurpose identifier, including the elimination of duplicate records.

ASC

Lab



What Standards are Supported?

Category	Description
CDA Support	For building, deploying, and using CDA-based docume
HL7 Support	For building or maintaining applications that involve H documents, or transactions
FHIR Support	For building and maintaining FHIR-based resources, de applications and workflows.
X12 Support	For building EDI-based transactions and documents in
IHE Support	For building and deploying IHE-based flows, profiles, a



ents in applications and workflows.

HL7-based events, messages,

locuments, and transactions in

n application workflows.

and applications.

API Manager

Purpose: Permit programmatic access to data, transactions, and user flows for developers and integrators.

Description: For building and deploying APIs and underlying data or infrastructure for any use case or purpose. Includes considerations of the extent of available functionality and data.



Aggregation

Purpose: Build data stores organized around an identifier from disparate applications and organizational data sources.

Description: Combining diverse data sources in bulk and providing a developer-accessible data model that provides access and supports processing using criteria such as contract, cohort, condition, episode, drug class, or other identifiers and data elements.



User and Organizational Messaging

Purpose: Enable different kinds of messaging to deliver data to individuals and applications.

Description: For transmission, delivery, and incorporation of data in secure or nonsecure messages, notifications, with content payloads among individuals, organizations, and applications, including the ability for senders and receivers to configure and control content, timing, and method.





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Workflow Integration

Purpose: Support blending of diverse user applications and workflows.

Description: For incorporating data and/or functionality into existing applications and workflows.





Documentation, Training, and Support

Purpose: Efficient development of skill, knowledge, and abilities for developers, integrators, operators, and users.

Description: The range of educational and support resources available to developers and others including virtual, on-site, community, and third-party offerings.



Deployment and Hosting

Purpose: Support optimal, cost-effective deployment.

Description: The range of different options available to customers for deployment of infrastructure, including on-premises, remote-hosted, SaaS, public, private, or hybrid cloud.





Depth and Breadth

Purpose: Estimates the current reach of product or services for existing customers

Description: Summarizes the current functional scope of the vendor's offering based on the range of functional capabilities, the variety of potential use cases, and its impact on implementing organizations.



Extensibility

Purpose: To permit implementers to apply the offering in diverse and new use cases and settings.

Description: How readily the offering adapts to evolving needs of existing users and organizations, new clinical or administrative circumstances or programs, and expanding customer requirements.



What's Next?

- > Currently: Interviewing vendors and users
 - Interviews complete by December 30, 2020
- > Publication in January 2021 will include:
 - Ochilmark Bearing for Integration Infrastructure market
 - Vendor Profiles (currently 18 vendors)
 - Market forecast

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for questions or more information



