



Advancing Public Health Data Interoperability with Integration Accelerators

Avneet Bakshi

avneet.bakshi@salesforce.com

Sarah Linden

slinden@salesforce.com





Avneet Bakshi

Principal SE, MuleSoft from Salesforce



Sarah Linden

Account Director, Salesforce

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 MuleSoft
from  Salesforce

What to Expect From Today's Session



Understand the **challenges** facing public health data exchange

Demystify the ease by which interoperability can be achieved

Learn how you can use **MuleSoft** to **accelerate common agreement**

We Have Critical Data Sharing Challenges

“

Data is siloed

“

**Spreadsheets are
the tool of choice**

“

**Legacy infrastructure limits
exchange easily**

“

**Public health participation is
low**

“

**Sharing is
made too complex**

“

**Workforce is
under prepared**



Solving for These is Easier Said Than Done



Public Health Partners

Epic



Immunization
Information

Cerner



Labs



Birth/Death
Registries



Surveillance

Challenges

Siloed Processes

Multiple Data Formats

Proprietary Systems

Lack of IT Resources

Legacy Tech

Multiple Ways to share



HHS & CDC

IMZ Gateway

DCIPHER

NBS, EIP,
Others

HHS Protect

Why Interoperability Matters

Foundation for achieving data modernization



MuleSoft's Advantage

Modern APIs as secure, reusable building blocks



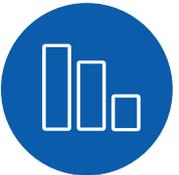
Fast and agile by design

Pluggable, reusable building blocks supporting hybrid deployment



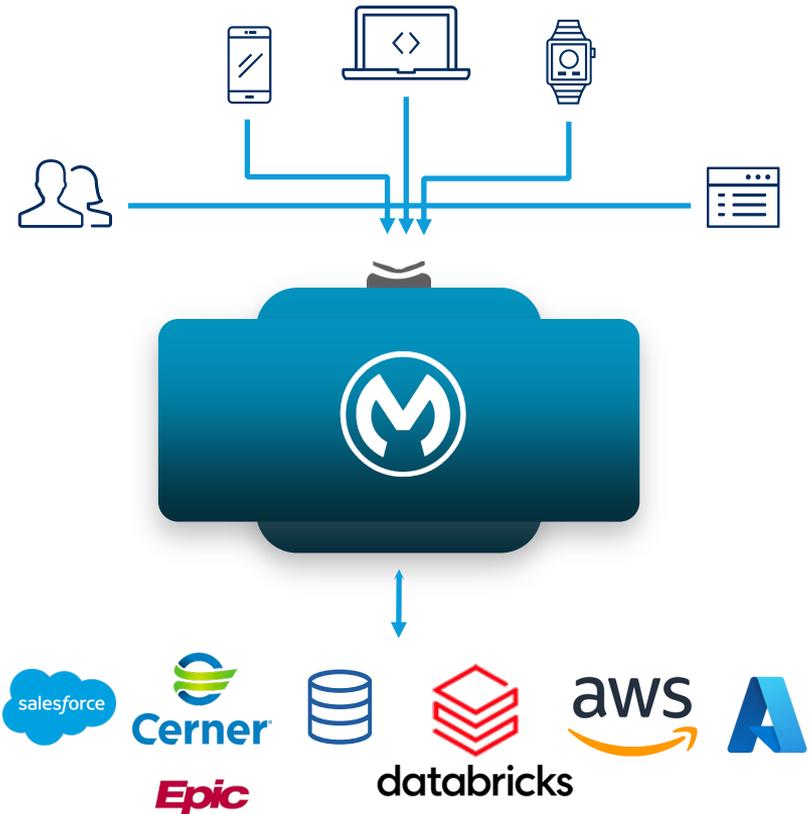
Secure across endpoints

Built-in security and governance at every node



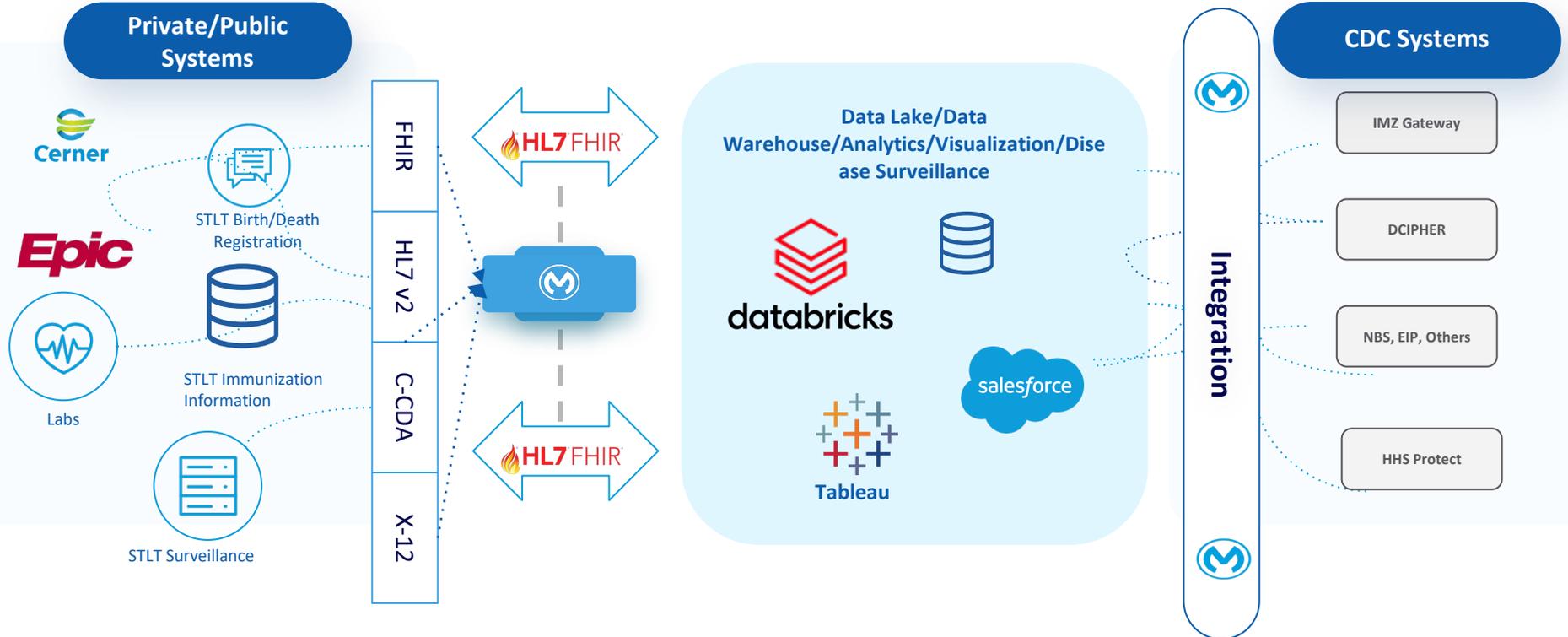
Dramatically lower costs

Lower development costs through reuse and self-service



Realized in your North Star Architecture

Breaking down public health data silos



MuleSoft Anypoint Platform

World's #1 integration and API platform for public health agencies



Unlock and unify data anywhere

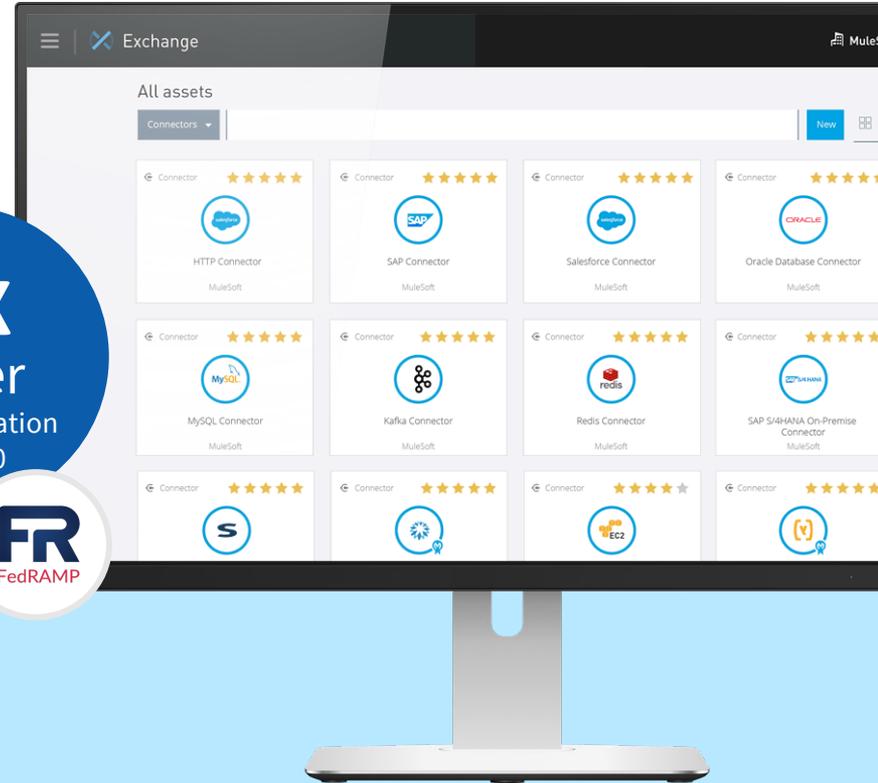
Integrate systems wherever they reside — on-premises, cloud, or hybrid

Securely empower your organization with APIs

Allow API discovery and reuse with centralized management and governance

Enable public health interoperability, *faster*

Easily apply proven assets and best practices from an API and integration marketplace. Accelerate delivery with no code/low code and 200+ connectors, templates, and examples.



2x
faster

Implementation
of C360



MuleSoft Accelerator for Healthcare

Deliver connected healthcare experiences, faster



Included in
MuleSoft
Subscription

Enable data interoperability

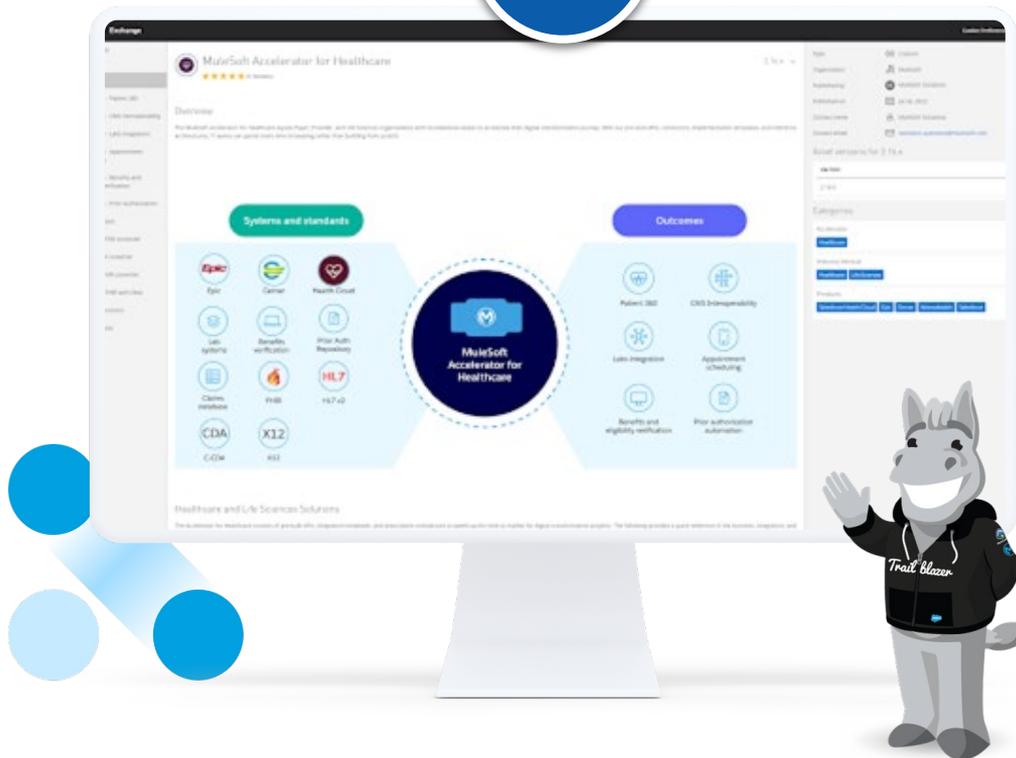
Unlock and extend data across various stakeholders and support adoption of industry standards including USCDI, FHIR, HL7v2, X12, and C-CDA

Power Citizen 360 and population health initiatives

Expose critical EHR data using pre-built assets to patient engagement platforms including Salesforce Health Cloud as well as data lake/house systems like Databricks, Snowflake

Establish a future-proof foundation

Benefit from our proven, API-led approach that allows for flexibility, agility, and reuse for related future use cases on the horizon



Comprehensive FHIR R4 support

Includes all 145 FHIR R4 resources and other assets to support developing FHIR APIs



FHIR R4 Resources: Asset list

API specifications, data types, and libraries built to meet compliance with FHIR R4 standards.

Category	Library	API Specification
Foundation - Conformance	CapabilityStatement [N] StructureDefinition [N] ImplementationGuide SearchParameter OperationDefinition [N] CompartmentDefinition MessageDefinition StructureMap GraphDefinition ExampleScenario	CapabilityStatement [N] StructureDefinition [N] ImplementationGuide SearchParameter OperationDefinition [N] CompartmentDefinition MessageDefinition StructureMap GraphDefinition ExampleScenario
Foundation - Terminology	CodeSystem [N] ValueSet [N] ConceptMap NamingSystem TerminologiesCapabilities	CodeSystem [N] ValueSet [N] ConceptMap NamingSystem TerminologiesCapabilities
Foundation - Security	Provenance AuditEvent Consent	Provenance AuditEvent Consent

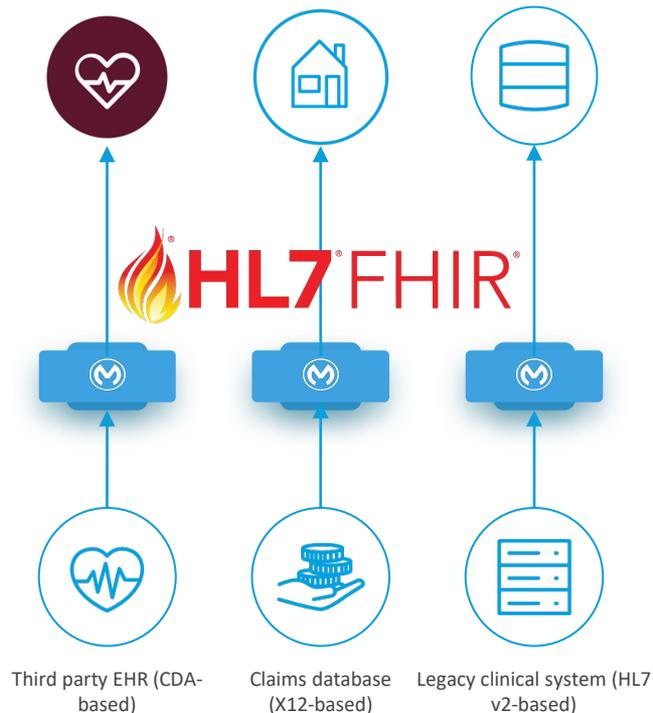
R4 assets include:

- **USCDI library**
- **Full list of FHIR R4 resources**
- **FHIR error API Policy:** Captures error responses and formats them in an FHIR OperationOutcome-compliant format



Accelerator for Healthcare FHIR Converters

Transform legacy healthcare standards using MuleSoft



Capabilities and benefits

- Follows industry **best practices** prescribed by HL7 and X12
- Remove **manual work** associated with conversion
- Solution supports **most frequently** used document / event types across HL7 v2, C-CDA and X12
- Easily **modified and extended** for customer-specific requirements

Convert Healthcare Data From HL7v2 to FHIR



HL7 v2 to FHIR Converter

- Remove manual work associated with HL7 v2 and FHIR conversion
- Solution supports ADT A01 and OML O21, the most commonly used HL7 v2 messages
- HL7 connector is preconfigured for this use case to easily read HL7 v2 messages

Follow best practices prescribed by HL7

- Mappings follow implementation guidelines provided by HL7

Let's Break Down the Details

Alignment of Mulesoft with Common Agreement



Current challenges

Data necessary to meet interoperability rules is in a variety of different repositories

Data is multiple data formats (e.g. HL7, FHIR, CSV)

Making services accessible and discoverable is complex especially to CDC and public health partners at state, tribal, local and territorial levels

Integrations are point-to-point, tightly coupled, and built from scratch for most new use cases

Proprietary disease systems are a black box, not open or flexible



How Mulesoft solves for these

Data is orchestrated and composed to meet new interface requirements

Data transformation from raw format to FHIR R4

Required APIs are secure, easily discoverable, and consumable by stakeholders

Composability and reuse to accelerate interoperability and innovation

Openness and extensibility to meet the complexity and evolving needs of the healthcare



Large City Public Health Department



Pre-built FHIR integration assets accelerate access to critical population health data

Created a more complete patient view by quickly and securely converting legacy C-CDA format files from the Centers for Disease Control and regional hospitals into modern FHIR standard

Utilized pre-built implementation templates provided by the MuleSoft Accelerator for Healthcare to save over 300 hours of development time

Unified FHIR-formatted data in Microsoft Azure to provide visibility and access for analytics and data science teams to develop models and reports, informing their strategic population initiatives

1000s Of patient records processed

300+ Development hours saved



INTEGRATION



ACCELERATOR
FOR HEALTHCARE

Why agencies choose MuleSoft

Accelerate innovation with integration, API management, & automation



Accelerated delivery

Fast to start,
faster over time



Resilient operations

Built-in reliability,
scalability and visibility



Automated security

Security and governance
by default



Future-proof foundation

Flexible and built
for change

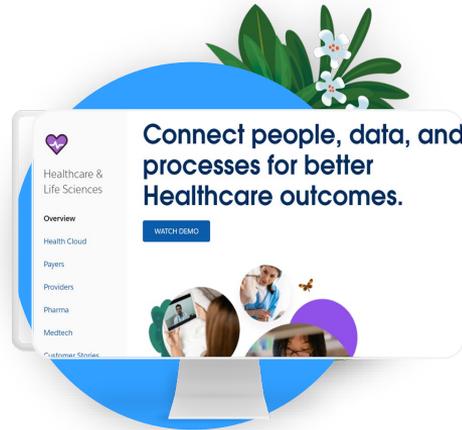


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Salesforce Booth!**

For a live demo of
Healthcare Accelerator



Learn more online

Learn more about the
Healthcare Accelerator at
MuleSoft.com/exchange



Scan QR Code

Thank You

