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Advancing CDC's Vision with PublicHealth 360: Data Modernization for Enhanced Surveillance

Unlocking the potential of integrated, standardized, and rapid data access to transform public health outcomes

What We Know?

The increasing influx of varied public health data sources, coupled with the urgency to monitor and respond to health trends and outbreaks efficiently.
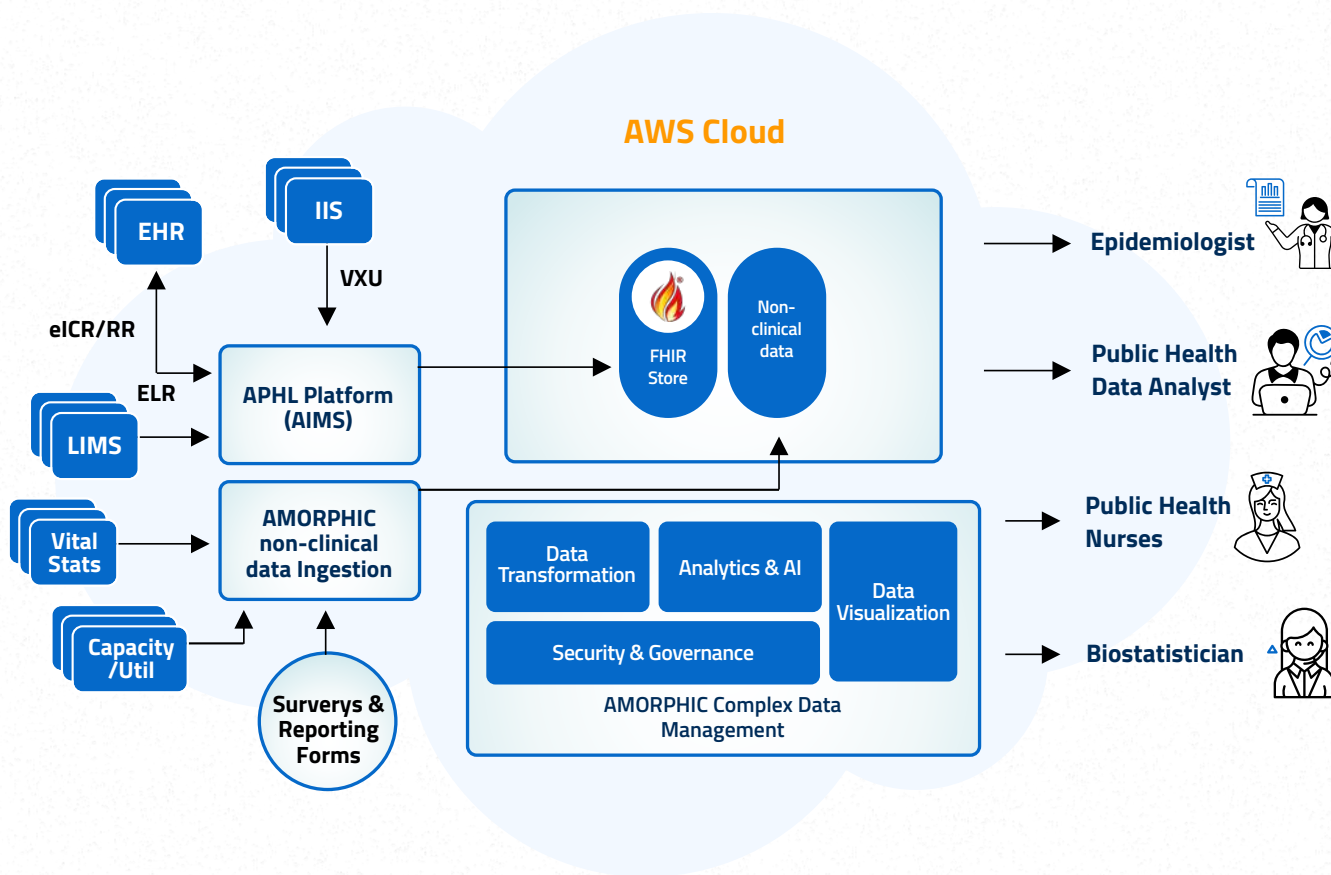
What We Face?

The technological challenge of consolidating disparate public health datasets (from outbreak reports, vaccination records, laboratory data) while ensuring data privacy, security, and regulatory adherence.

What Lies Ahead?

As we navigate the complexities of diverse public health data, how can integrated solutions lead us to a new era of enhanced surveillance? Discover our approach with the **Public Health 360 Data & AI Solution**, where data becomes actionable intelligence.
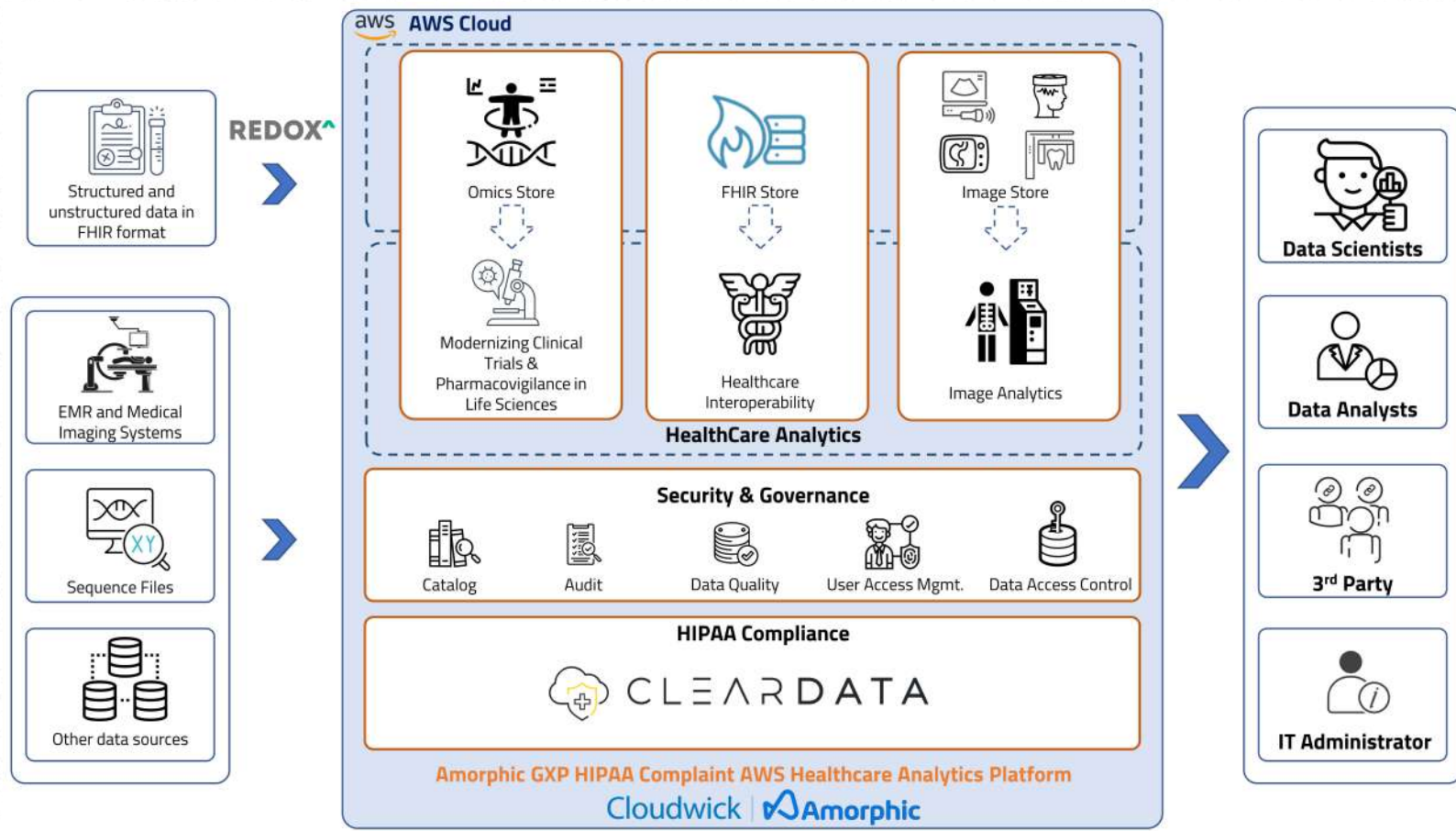
Public Health 360 Data & AI Solution

Solution Highlights

- **Unified Data Lake:** Consolidate varied public health data, including eCR, ELR, and VXU messages, into a secure cloud-based repository

- **Automated Data Integration:** Automatically retrieve health data from sources such as electronic case reports (eCR), laboratory results (ELR), and vaccination updates (VXU) from healthcare providers, laboratories, and immunization registries

- **Data Validation and Cleaning:** Apply rules to identify gaps or inconsistencies

- **Transformation and Standardization:** Harmonize diverse public health terminologies

- **Automated Workflows:** Streamline the process from ingesting vaccination data to its storage

- **Quality Checks and Dashboards:** Leverage analytics tools

- **Collaboration Features:** Enable epidemiologists to annotate specific events, ensuring synchronized efforts during outbreak responses and mass campaigns.
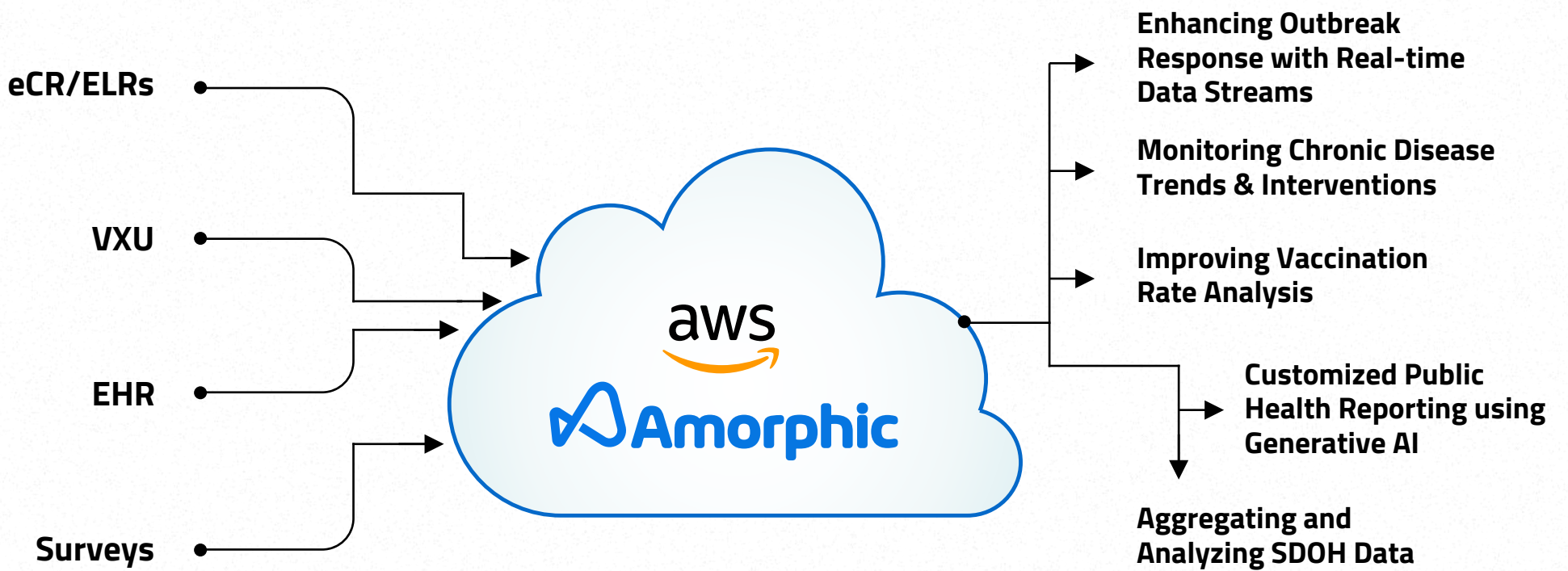
Key Benefits

- Enhanced Epidemic Preparedness
- Real-time Public Health Decision-making
- Improved Health Communication & Policy Making
- Efficient public health Campaigns
- Collaborative & Coordinated Responses.

Solution Architecture

Public Health Data Modernization Use Cases

eCR/ELRs

VXU

EHR

Surveys

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Enhancing Outbreak Response with Real-time Data Streams

Monitoring Chronic Disease Trends & Interventions

Improving Vaccination Rate Analysis

Customized Public Health Reporting using Generative AI

Aggregating and Analyzing SDOH Data

How do we engage?

At Cloudwick, we take a top down approach to start with identification of current business initiatives that require analytical capabilities with their desired operational/business outcomes. Further, a mapping of key data and analytics use cases that align with the initiatives are shortlisted. A brief flow of engagement is shown below with outcomes at every stage.

Assessment/Workshop
Prioritised list of use-cases

Production
Implementing use cases at scale

Managed Operations
Ongoing operational support for use-cases in production