Roles and Responsibilities to Support Modern Public Health Data Architectures

It's all about the people

As you embark on your data modernization journey, it's helpful to understand the skills and functions needed to build, operate, and use a modern data architecture. This infographic illustrates the teams, roles, and skills needed to support a modern public health data infrastructure.

	Epidemiologists and informaticians	Data lake engineers	Core cloud engineers
WHO they are	Epidemiologists and informaticians	Data lake engineers	Core cloud engineers
WHAT they do	Understand, prepare, query, and analyze data	Consume data, operate data infrastructure	Operate cloud infrastructure

WHEN to engage

- Defining data processes and ownership
- Documenting data practices
- Mapping impact of data collection and use
- Data transformation and normalization
- Data governance
- Infrastructure security
- Adapting to policy or technological changes

Epidemiologists and informaticians

Typical responsibilities

Artificial intelligence/machine learning
Data analysis
Data architecture and modeling
Data governance
Data preparation
Data product development
Data understanding
Domain expertise
Report creation
Security *in* the data lake

Skills

Data architecture
Data engineering
Data governance
Data modeling
Data query languages
Data science
Programming

Functional team alignment: Public health program staff

Data lake engineers

Typical responsibilities

Availability and reliability
Cloud service
Compliance controls
Data storage and transport
Disaster recovery
Feature development
Inputs and outputs
Security *of* the data lake
System monitoring

Skills

Cloud architecture
Cloud engineering
Database administration
DevOps engineering
Networking
Product management
Security engineering
Software engineering

Functional team alignment: Local IT

Core cloud engineers

Typical responsibilities

Account structures
Billing
Identity access management
Networking
Quotas and service management
Security and compliance
Service policy

Skills

Cloud architecture and engineering
Compliance
Infrastructure
Information technology
Networking
Policy authoring and enforcement
Security
Software development

Functional team alignment: Central IT

Want to learn more about a modern data architecture for your public health activities? Contact the AWS public health vertical team at AWSPublicHealthTraining@amazon.com.

> A modern data architecture is about giving the right people the right access to the right data, at the right time. Empower the users of the data while ensuring security, privacy, and compliance.

Davis Aites
Senior Solutions Architect Manager
AWS Worldwide Public Sector
State & Local Government Health & Human Services