OHDSI on AWS

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Objective

To provide a well-architected implementation of popular OHDSI tools that can easily be deployed by anyone.

Features

• A complete OHDSI environment including a data warehouse with sample data
• Deployed in an isolated, three-tiered Virtual Private Cloud
• Uses data at rest and in flight encryption for HIPAA eligibility
• Uses managed services: OS, middleware, and database patching and maintenance is largely automatic
• Automated backups for operational and disaster recovery
• The entire environment is built automatically in a little over an hour
• Reasonable monthly cost.
OHDSI on AWS
High-Level Architecture

Researchers

Application Load Balancer

AWS Elastic Beanstalk

ATLAS WebAPI

Amazon Relational Database Service (Amazon RDS)
Aurora PostgreSQL

Amazon Redshift Cluster

OMOP CDM
Clinical Data
Vocabulary
Results

ATHENA
ACHILLES

AWS CloudFormation

AWS
Useful Reference Links

• AWS big data blog post
• Loading data into Redshift
• Restoring a Redshift Cluster from a snapshot
• Tuning Redshift query performance
• Controlling access to Redshift
• Updating your Elastic Beanstalk environments platform version