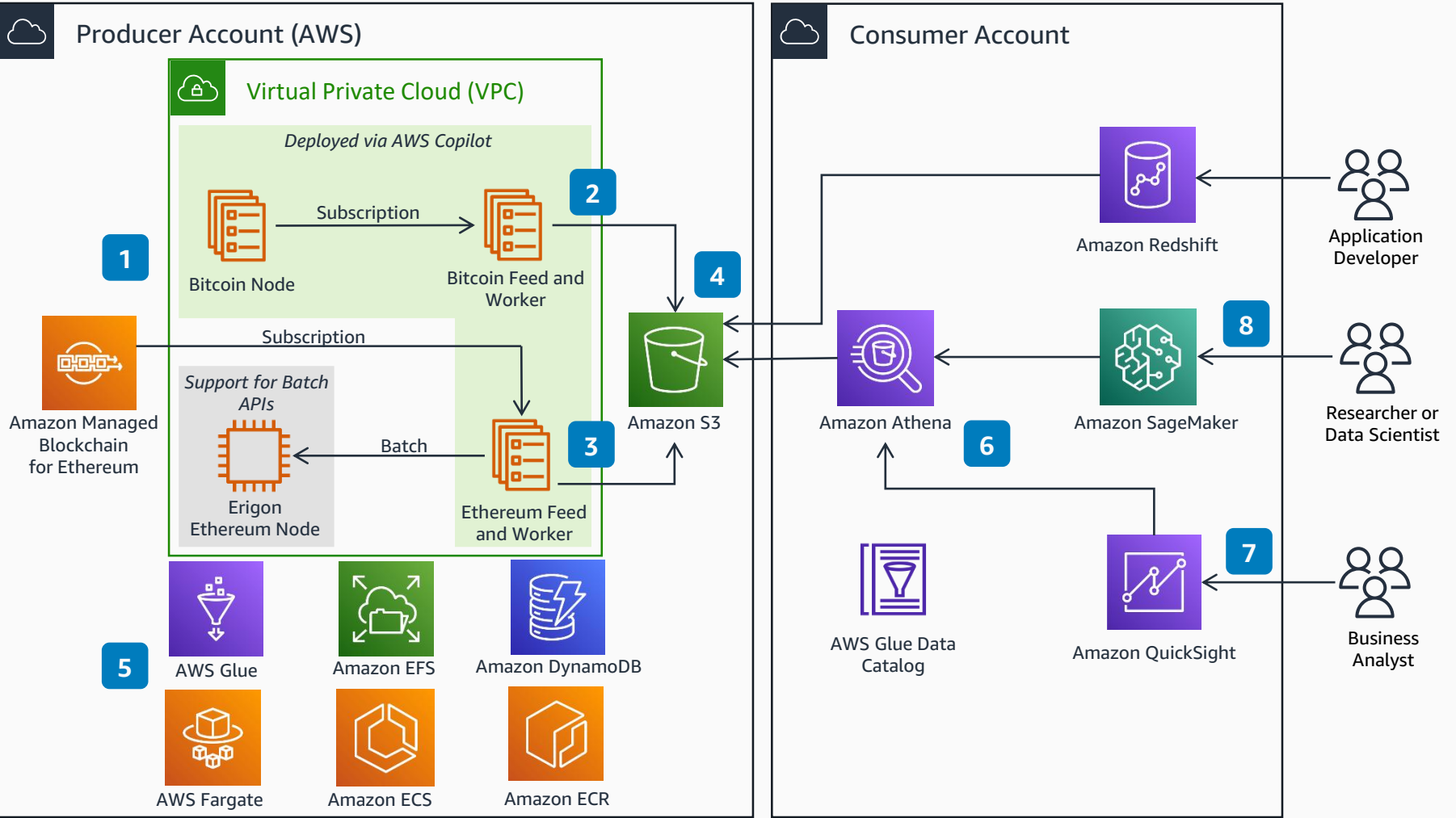


# Guidance for Cross-Chain Analytics using Bitcoin and Ethereum Open Data on AWS

This architecture uses the sample code on GitHub to create historical datasets and live feeds for Bitcoin and Ethereum.



**1** To consume the data for Ethereum and Bitcoin, use **Amazon Managed Blockchain for Ethereum** and self-hosted Bitcoin Core through **Amazon Elastic Container Registry (Amazon ECR)**, **Amazon Elastic File System (Amazon EFS)**, **Amazon DynamoDB**, and Erigon Ethereum nodes.

**2** Deploy the Bitcoin feed and worker services through **AWS Copilot** on **AWS Fargate** and **Amazon Elastic Container Store (Amazon ECS)**, and subscribe to the Bitcoin Core node to fetch historical and live data.

**3** Deploy the Ethereum feed and worker services through **AWS Copilot** on **Fargate** and **Amazon ECS**. Subscribe to the **Managed Blockchain for Ethereum** and Erigon Ethereum node to fetch historical and live data.

**4** **Amazon Simple Storage Service (Amazon S3)** stores data from the feeds as Parquet files. **Amazon S3** ingests new data immediately after the creation of a new block.

**5** **AWS Glue** aggregates everyday and intraday Parquet files.

**6** With catalog data in **AWS Glue Data Catalog**, **Amazon Athena** and **Amazon Redshift** can query historical and live data.

**7** **Amazon QuickSight** visualizes data for business analysts.

**8** Researchers and data scientists use **Amazon SageMaker** to run cross chain analytics in Jupyter Notebooks.