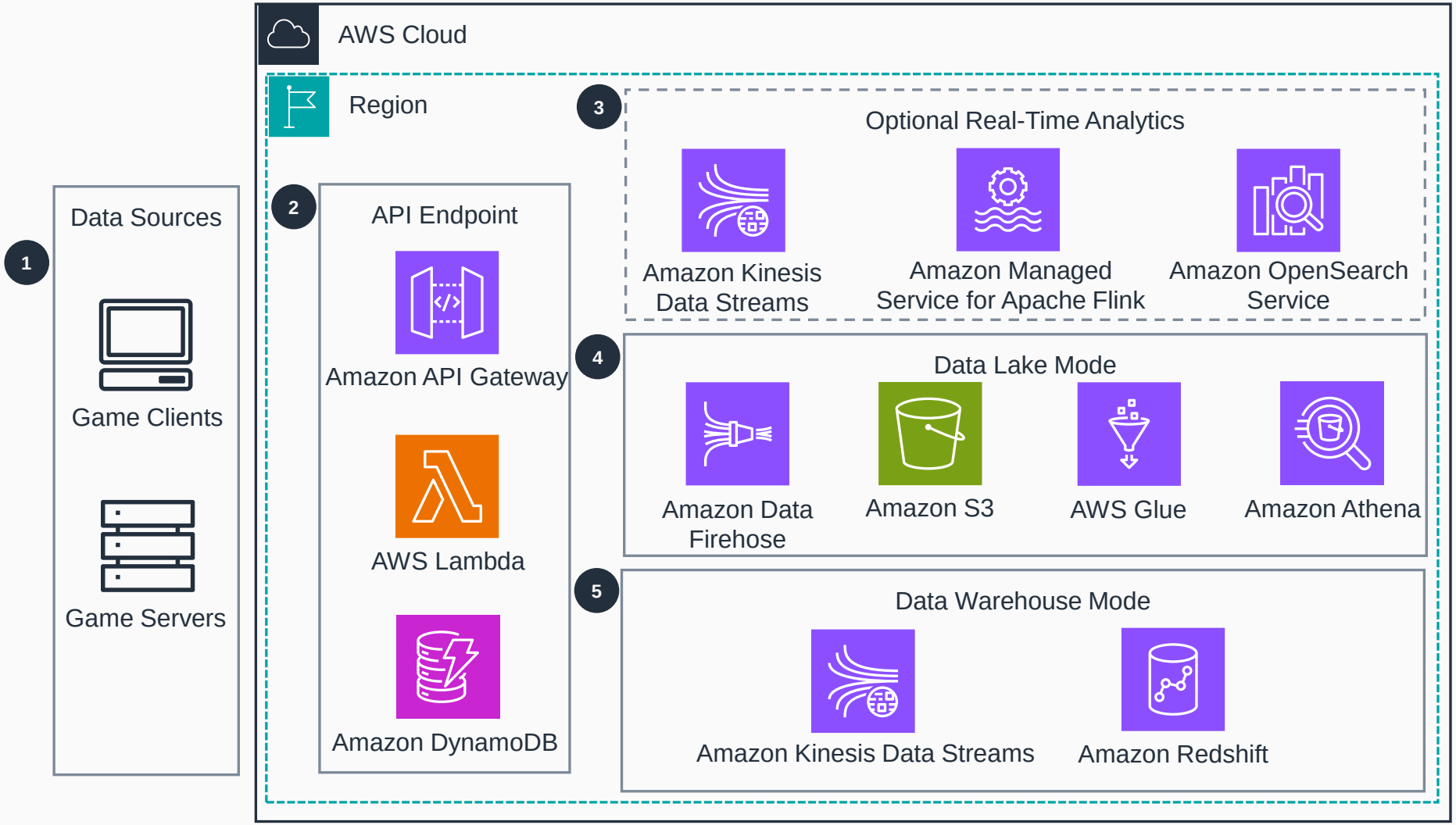
Guidance for Game Analytics Pipeline on AWS

This architecture diagram demonstrates a serverless analytics pipeline that ingests game telemetry data to provide developers with real-time insights through flexible storage and analysis options.



1. The Game Analytics Pipeline Guidance can accept data from any HTTP/HTTPS REST based sources, such as Game Clients, Game Servers, or Backend services.

2. A serverless, managed API backend infrastructure using **Amazon API Gateway**, **AWS Lambda**, and **Amazon DynamoDB** authenticates and either sends events or performs administrative tasks.

3. An optional real-time analytics option using **Amazon Kinesis Data Streams**, **Amazon Managed Service for Apache Flink**, and **Amazon OpenSearch Service** deploys real-time ingest, processing, and dashboards.

4. Deploy the guidance using a Data Lake to batch events using **Amazon Data Firehose**, store in Parquet format in **Amazon Simple Storage Service (Amazon S3)** with Hive or Iceberg tables, process data with **AWS Glue**, and query the data with **Amazon Athena**.

5. When deploying the guidance using a Data Warehouse, ingest events from **Amazon Kinesis Data Streams** into **Amazon Redshift** in a serverless configuration. **Amazon Redshift** will include processing and querying capabilities for the data.

Reviewed for technical accuracy August 8, 2025

AWS Reference Architecture