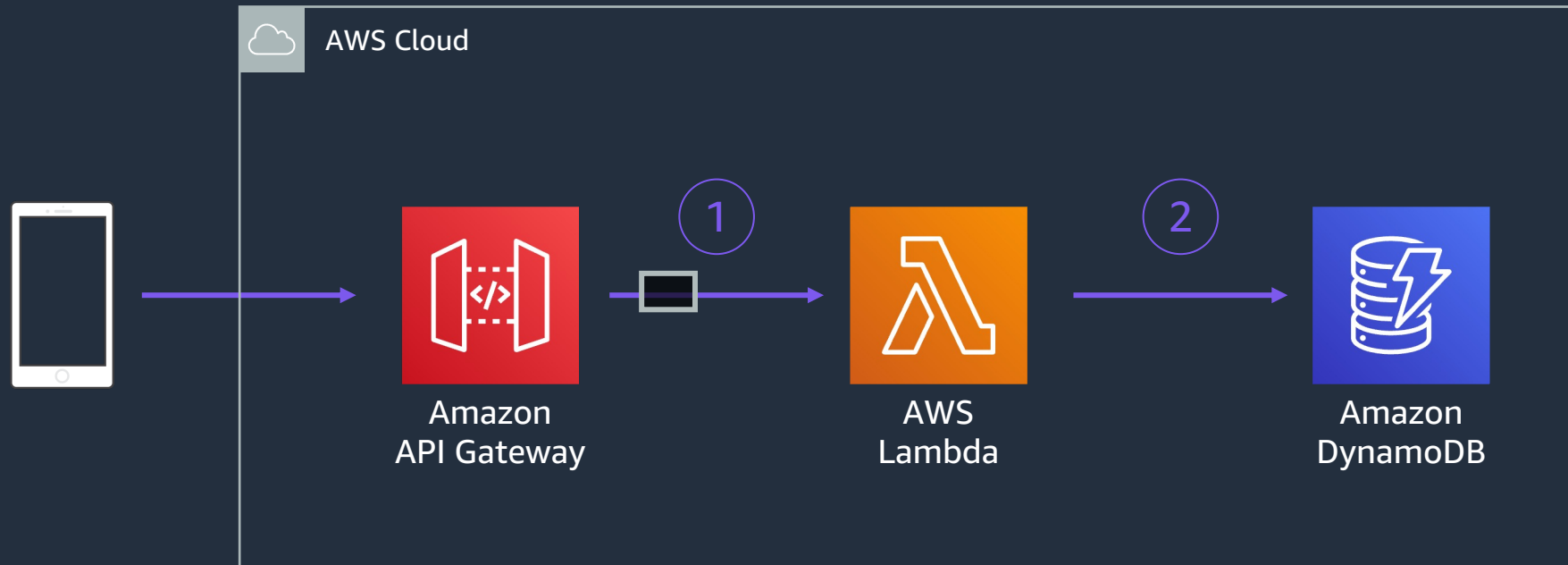# RESTful Microservices
Highly-scalable microservices
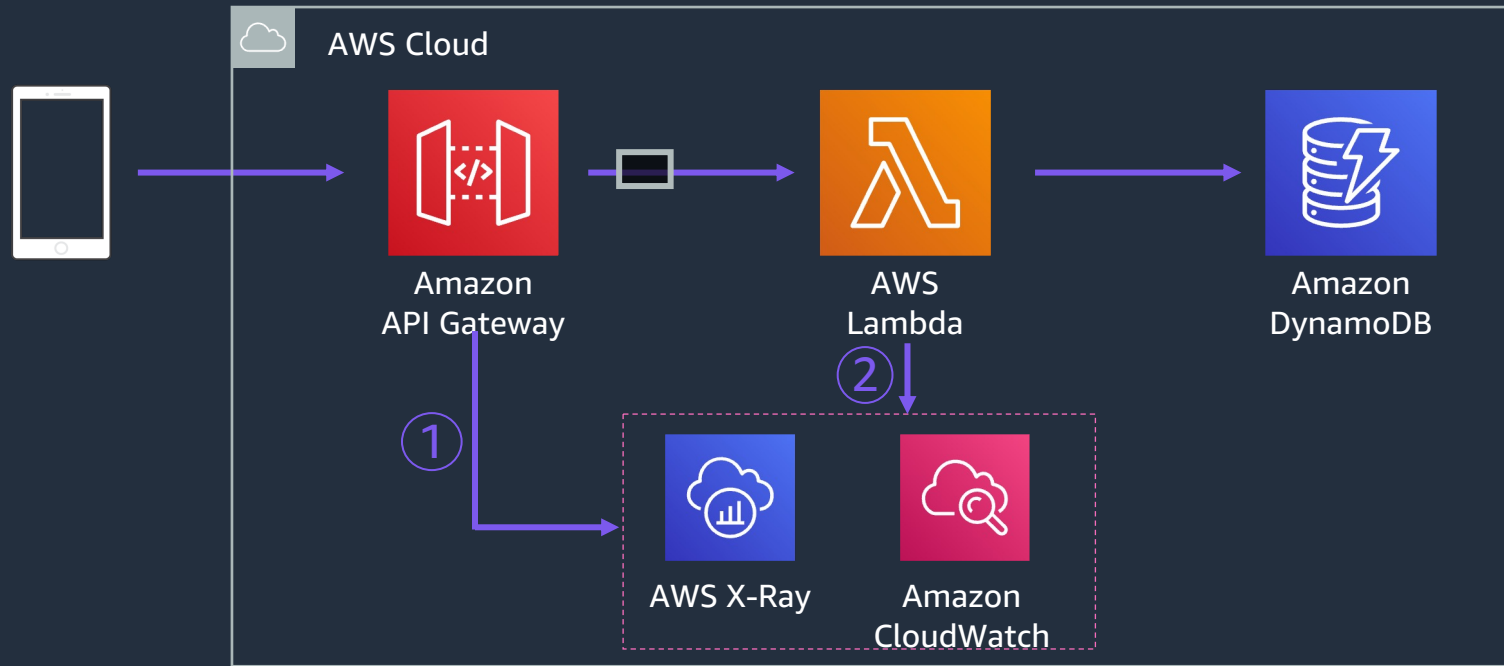

1. API Gateway "translates" incoming HTTP request to event payload

2. Lambda reads / writes data from data store

RESTful Microservices with enhanced observability

Enable access logs, structured logging, and instrument code

AWS Cloud

Amazon
API Gateway

AWS
Lambda
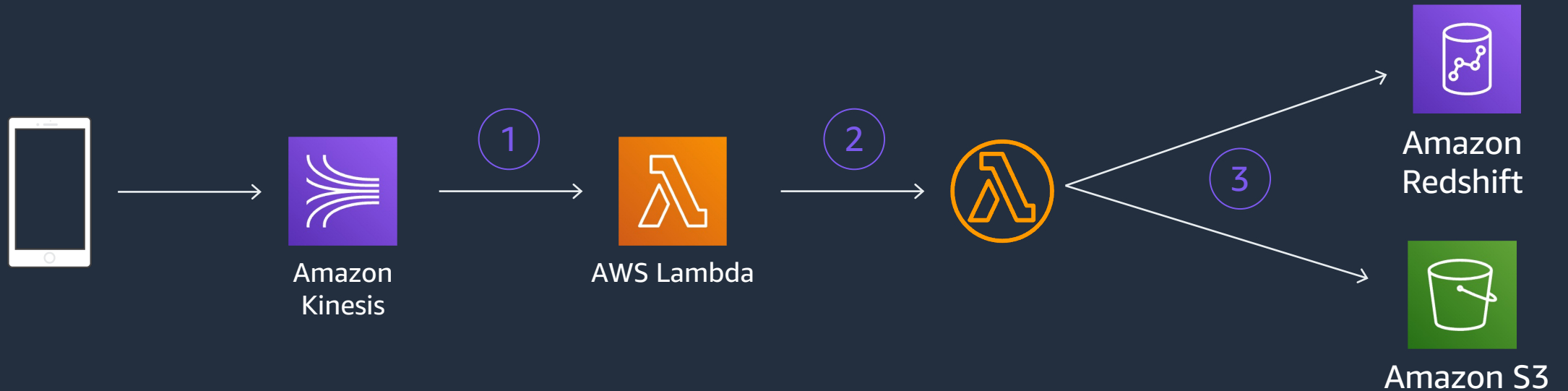
Amazon
DynamoDB

① ②

AWS X-Ray

Amazon
CloudWatch

1. Enable access logs and tracing

2. Instrument code and create metrics asynchronously with CloudWatch Embedded Metric Format

Streaming data ingestion and storage
Consume, process, and store data

1. Lambda service polls Kinesis Data Stream for messages

2. Function is synchronously invoked with batches of messages

3. Function processes and/or pushes data to downstream data stores

3

Large scale data processing with AWS Step Functions
Dynamically process large arrays of data with distributed map state

- Coordinate large-scale parallel workloads in Step Functions

- Iterate over millions of S3 objects such as JSON or CSV files

- Up to 10,000 parallel executions

- Invoke Lambda or ECS/Fargate for large scale on demand serverless compute