

Amazon SNS, SQS and Amazon Step Functions:

Event-driven solutions:

Amazon SNS

- Topic, subscriber, message size

Amazon SQS

- Message order, at-least-once delivery, message sample, dead letter queues
- Visibility timeout, Message Retention Period, Receive Message Wait Time
- Long polling, short polling (default)

Features	Amazon SNS	Amazon SQS
Message persistence	Not persisted	Persisted
Delivery mechanism	Push (Passive)	Poll (Active)
Producer/consumer	Publish/subscribe (1 to N)	Send/receive (1 to 1)

AWS Step functions:

Enables you to coordinate the components of distributed applications and microservices using visual workflows.



Build applications quickly.

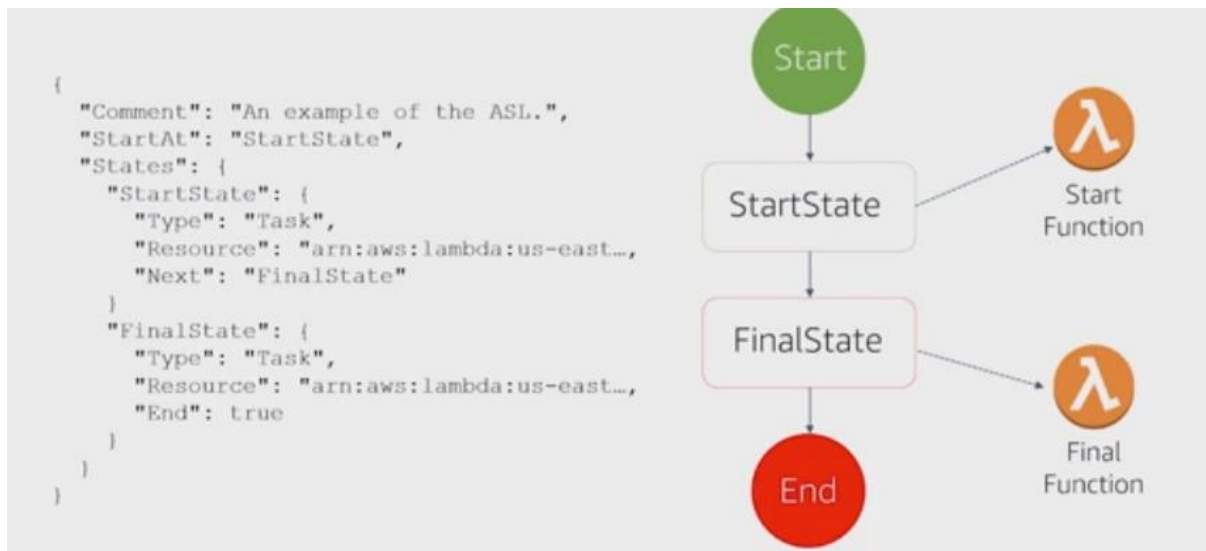


Scale and
recover reliably.

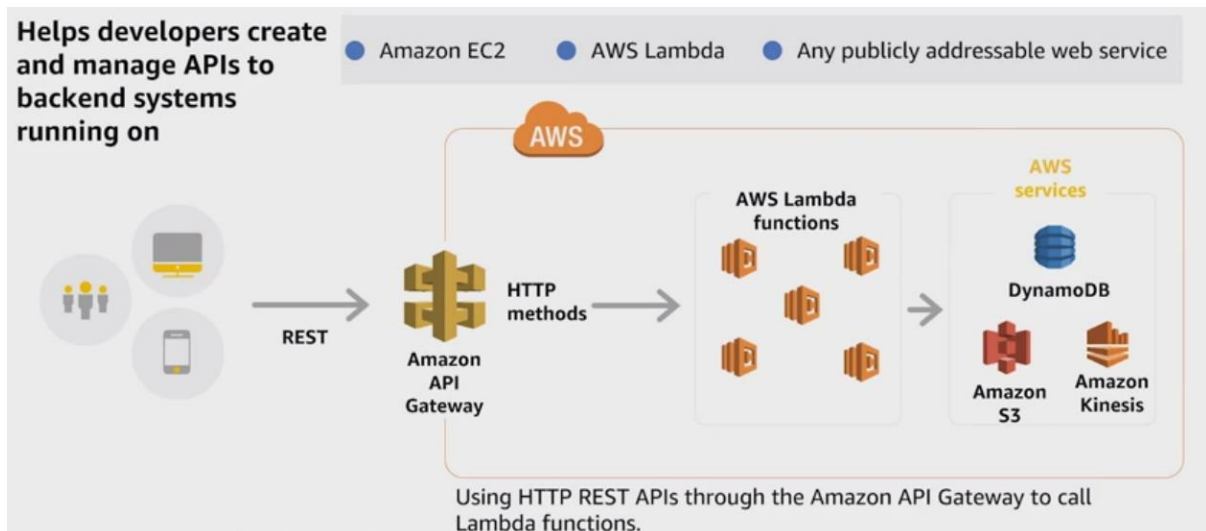


Evolve applications easily.

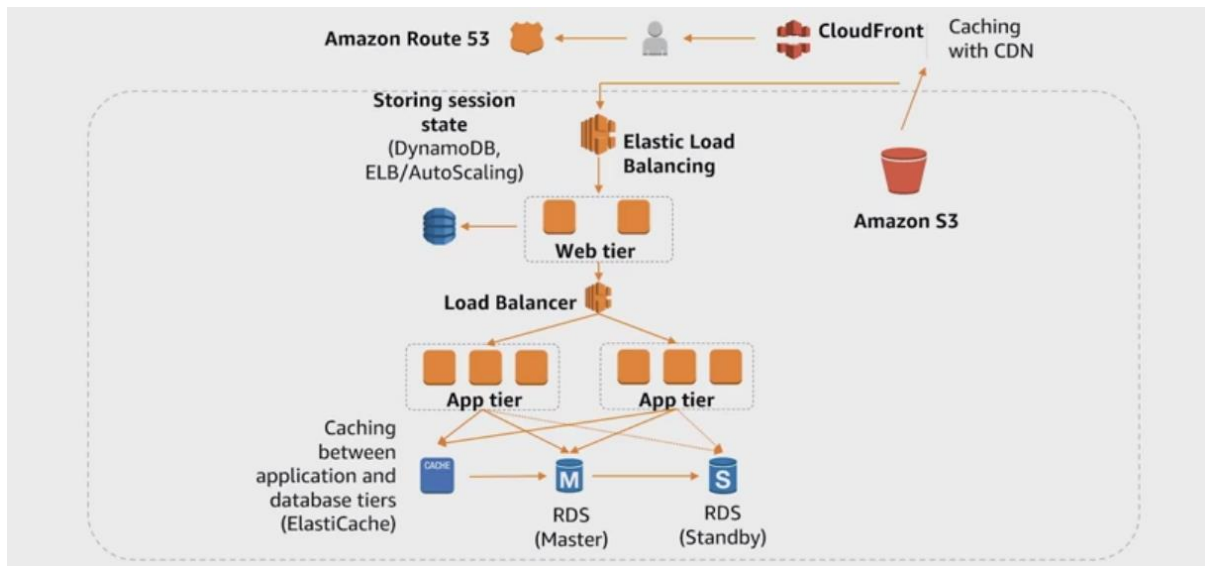
Amazon State language:




Amazon API Gateway:



Scalability – Caching:



Amazon CloudFront Concepts:



Cache behavior

- Path patterns
- Request headers, query strings, cookies


TTL

- Short TTL
- Long TTL

Restricting access

- Using signed URLs or signed cookies
- URLs or cookies are hashed and signed using the private key from a public/private key pair

Amazon ElastiCache concepts:



Cluster

- Logical grouping of one or more nodes

Node

- Smallest building block of ElastiCache deployment
- Runs Memcached or Redis in-memory key-value engine

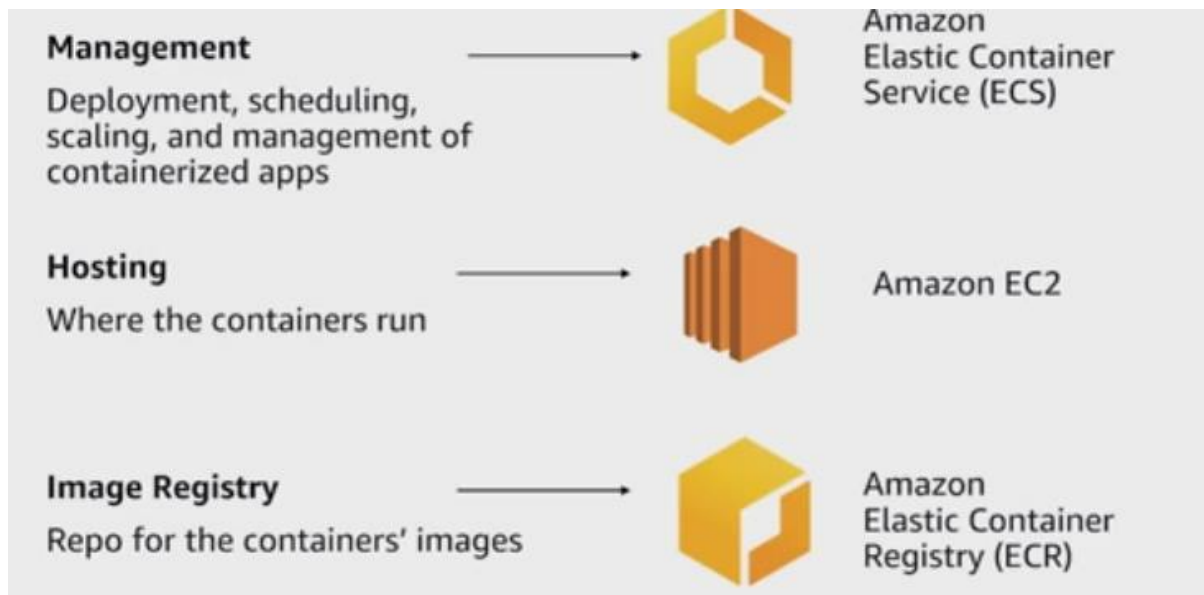
Endpoint

- Unique address to connect to cluster

Replication group

- Collection of Redis clusters

Amazon Container services:



Test axioms:

- Choose Managed Services over unmanaged services.
- Do not directly expose resources or API; use AWS edge services and API Gateway.
- Session state stored on the server is *never* a good architecture.
- Decouple your infrastructure.