



Module 5:

AWS pricing, support and architecting

Fundamentals of pricing



How do you pay for AWS?

Pay as you go



Save when
you reserve



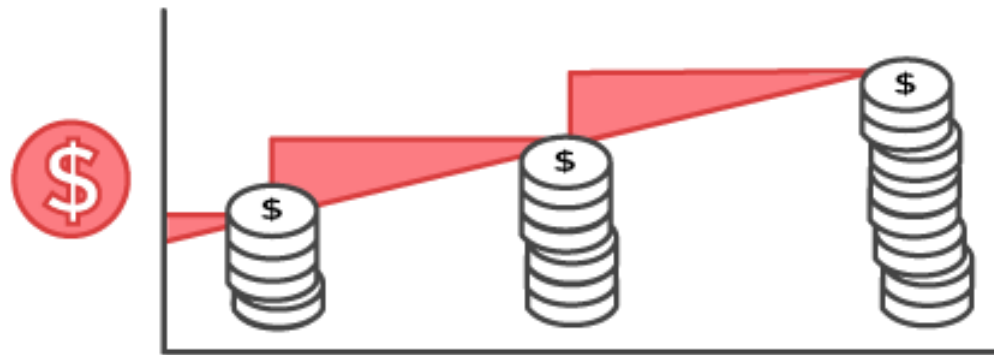
Pay less by
using more



Pay as you go

Only pay for what you use

On premises/co-location

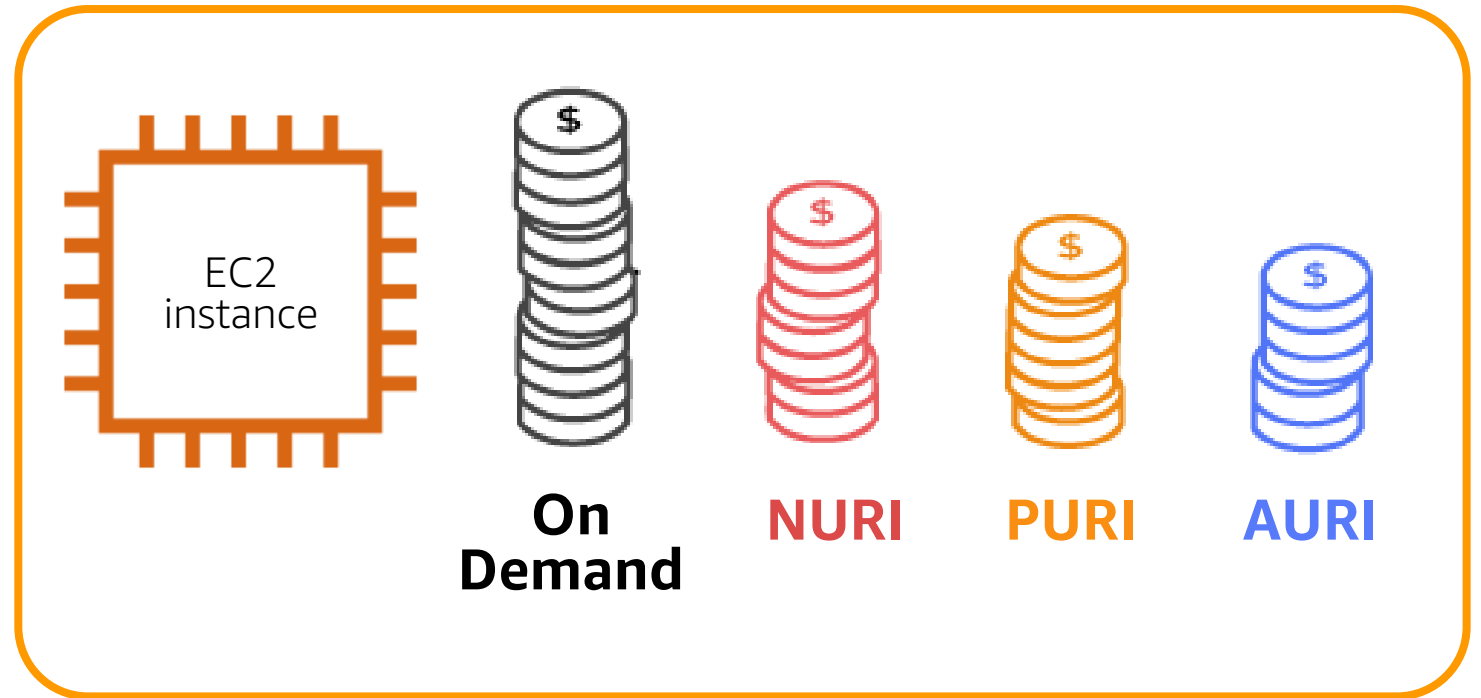


AWS



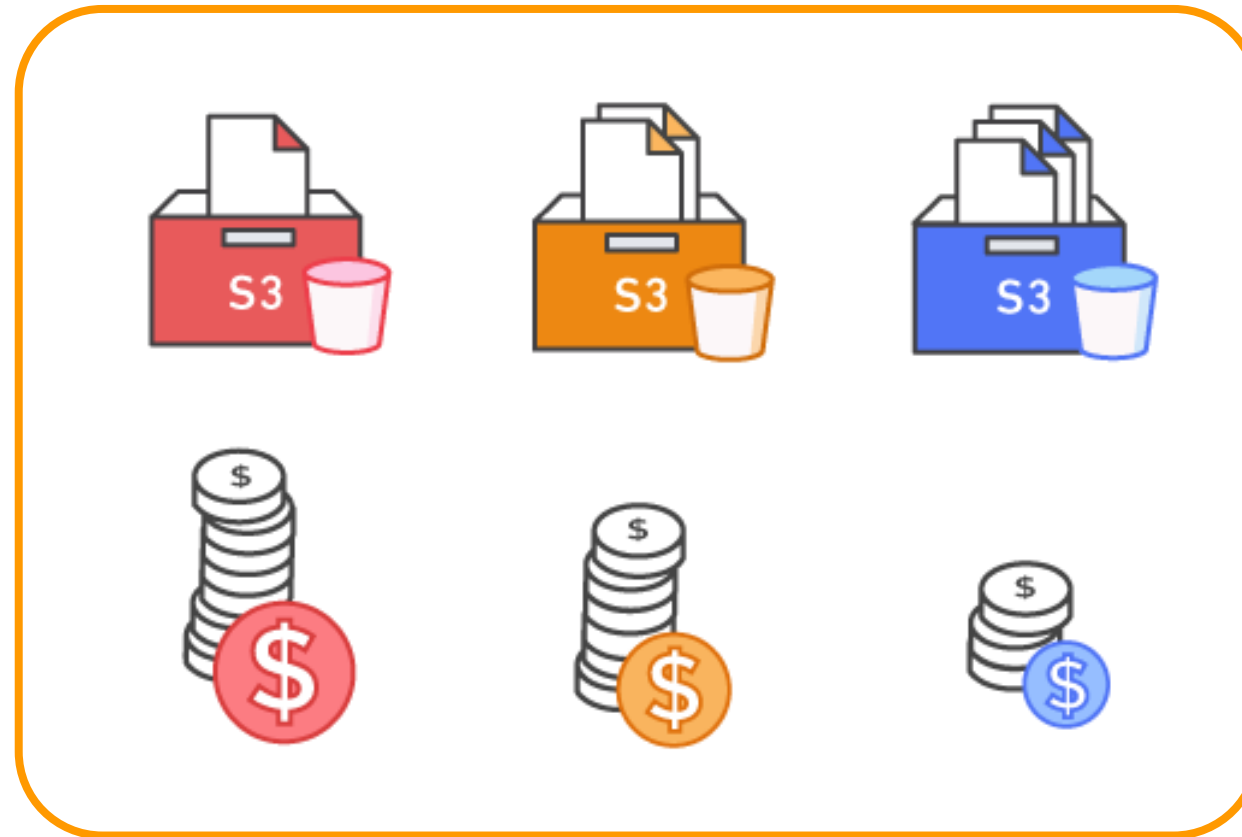
Save when you reserve: Reserved Instances

- Save up to 75 percent over equivalent on-demand capacity
- Choose
 - No upfront payments (NURI)
 - Partial up-front (PURI)
 - All up-front (AURI)



Use more, pay less

Automatic volume-based discounts



Pricing concepts

Compute

- Charged per hour/second*
- Varies by instance type

*Linux only

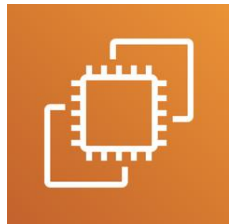
Storage

- Charged typically per GB

Data transfer

- Outbound is aggregated and charged
- Inbound has no charge (with some exceptions)
- Charged typically per GB

Different services are priced differently



Amazon
EC2



Amazon
EBS



Amazon
S3



AWS
CloudFormation

Amazon EC2: Four purchase types

On-Demand instances

- Charged per hour/second*
- Short-term
- Unpredictable workloads

Dedicated hosts

- Physical server dedicated to you
- Applications with specific compliance requirements

Reserved instances

- Discount for 1 to 3 year commitments
- Applications with steady state usage

Spot instances

- Spare AWS capacity for up to 90% discount
- Applications with flexible start and end times
- Urgent computing needs for large amounts of capacity

Demo



Amazon EBS pricing model

Volumes

- Charged by GB provisioned/month
- Varies by volume type

Snapshots

- Charged by space consumed in Amazon S3
- Charged for volume copied across regions

Data transfer

- Inbound data transfer is free
- Outbound data transfer charges are tiered

Amazon S3 pricing model

Amount of storage used

■ Region ■ Storage class

Number and type of requests
(GET, PUT, COPY)

Amount of data transferred
out of the region

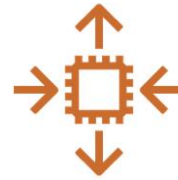
AWS services with no additional charge



Amazon
VPC



Elastic
Beanstalk



Auto
scaling



AWS
CloudFormation



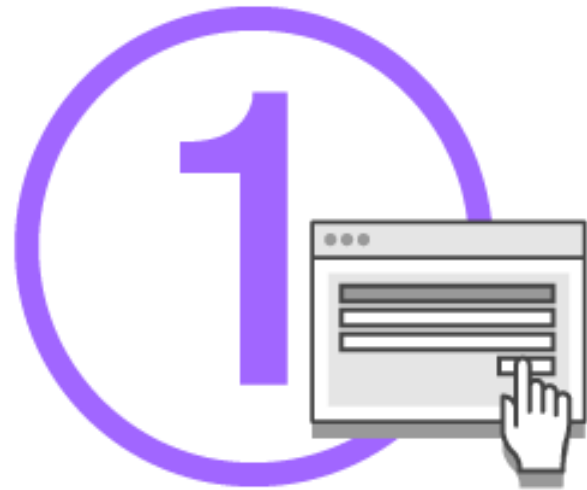
AWS Identity
and Access
management (IAM)

Cost estimating tools



AWS free tier

Enables you to gain free hands-on experience with the AWS platform, products, and services.



Sign up for an
AWS account



Learn with
10-minute tutorials



Start building
with AWS

AWS simple monthly calculator



- Estimate your monthly bill
- Per-service cost breakdown
- Aggregate monthly estimate
- Provides common customer examples

Analyzing with AWS cost explorer



Get started
quickly



Set custom
intervals



Filter/group
data



Forecast cost
and usage



Save
progress



Access data
programmatically

What is Trusted Advisor?

A service providing guidance to help you reduce cost, increase performance, and improve security

Cost optimization



0  9  0 

\$7,516.87

Potential monthly savings

Performance



3  7  0 

Security



2  4  11 

Fault tolerance



0  15  5 

Service limits



37  0  1 

AWS support



Support plan overview

Basic

Customer service

Support forums

Service health checks

Documentation, whitepapers, and best-practice guides

Developer

Best-practice guidance

Client-side diagnostic tools

Building-block architecture support

Business

Use-case guidance

IAM for controlling individuals' access to AWS Support

Full AWS trusted advisor

An API for interacting with support center and Trusted Advisor

Third-party software support

Enterprise

Application architecture guidance

Infrastructure event management

Technical Account Manager (TAM)

White-glove case routing

Management business reviews

The AWS well-architected framework



What is the well-architected framework?

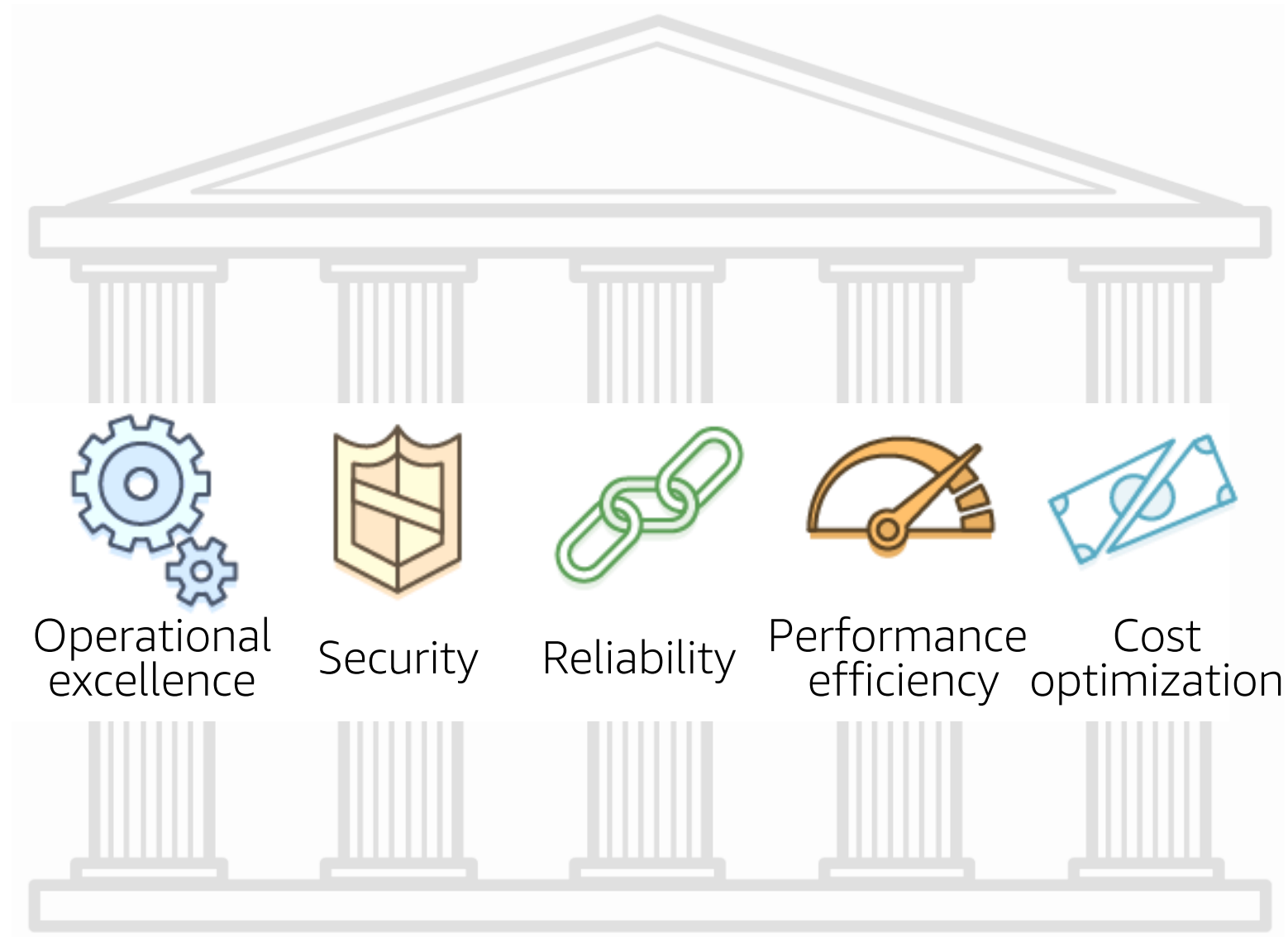
A guide for designing infrastructures that are:

- Secure
- High-performing
- Resilient
- Efficient

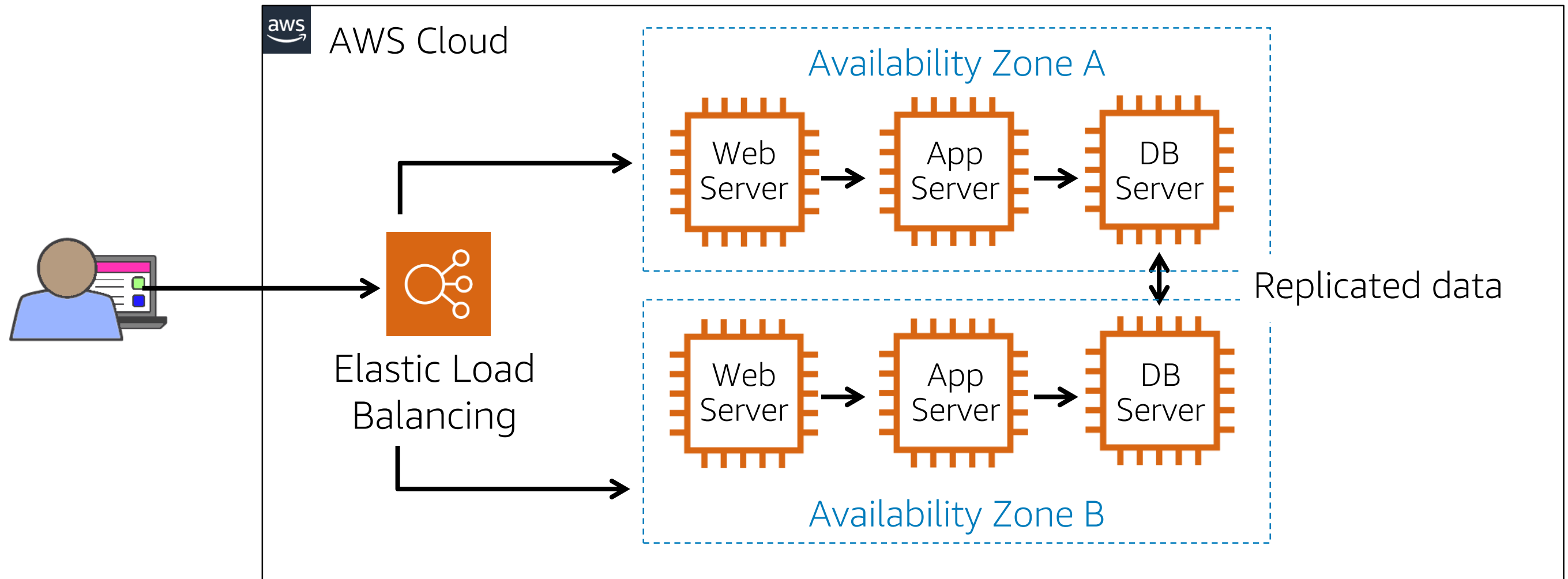
A systematic approach to evaluating and implementing architectures

Established best practices developed through lessons learned by working with customers

Five pillars of the framework



Example: Improving availability with Elastic Load



Example: Web application hosting

