



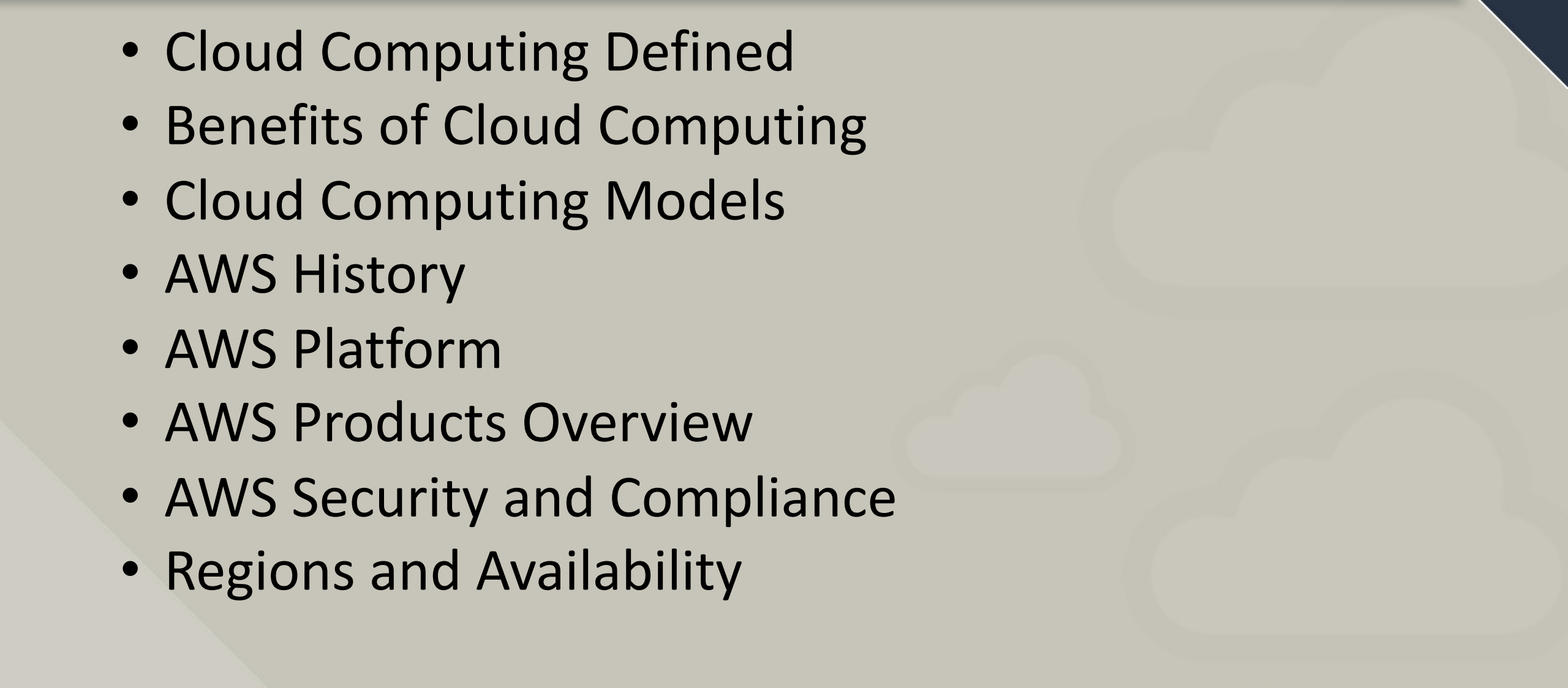
Amazon Cloud Services Overview

CHAPTER 1

Cloud Computing Defined


AWS (Amazon Web Services)



- Cloud Computing Defined
 - Benefits of Cloud Computing
 - Cloud Computing Models
 - AWS History
 - AWS Platform
 - AWS Products Overview
 - AWS Security and Compliance
 - Regions and Availability
- 

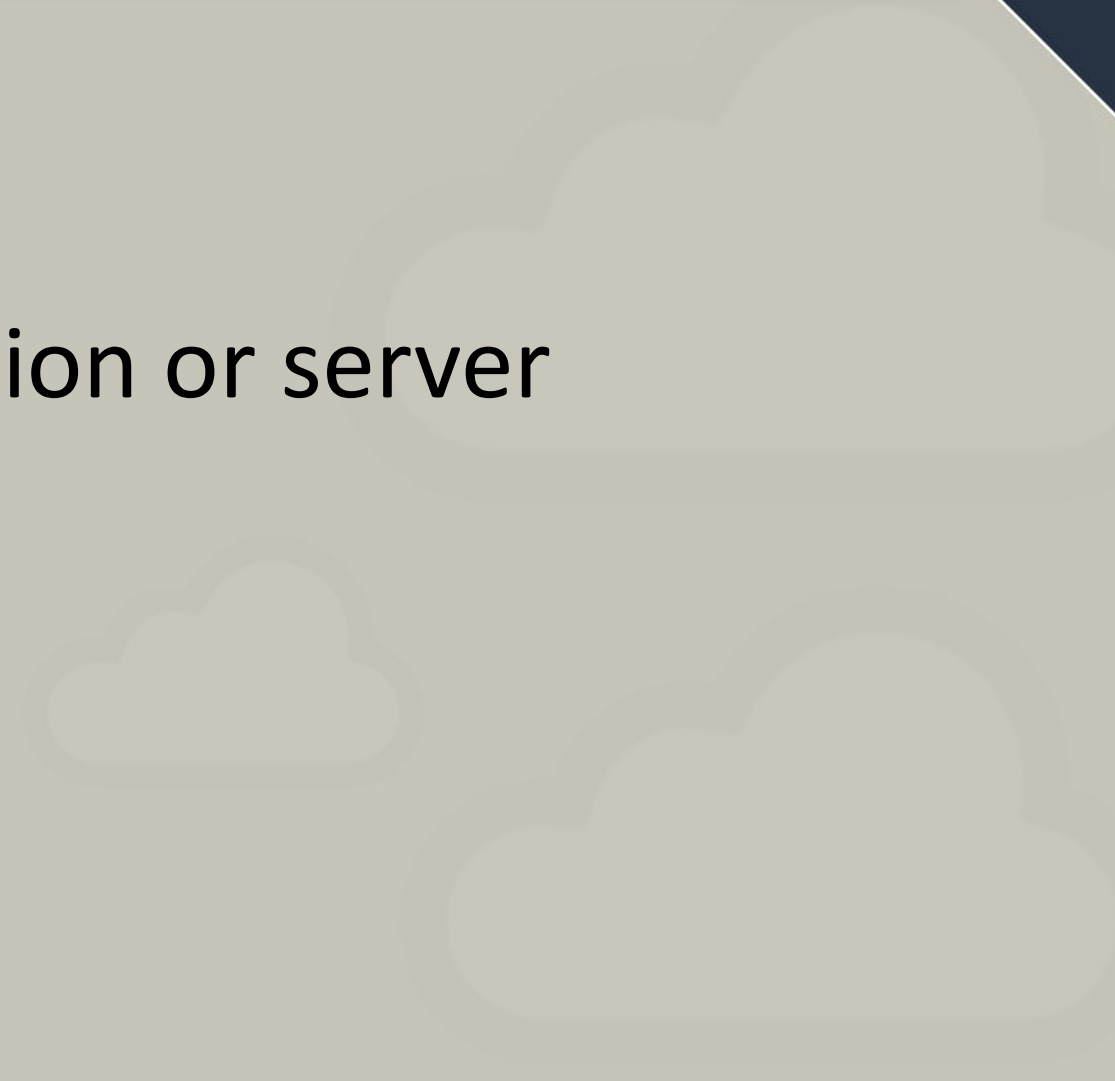
AWS Benefits



- Reduced:
 - Hardware cost
 - Operational cost
 - Deployment cost
 - Increased:
 - Resiliency
 - Performance
 - Capacity
- 


The Cloud



- Internet-based solution
 - Operates on servers
 - Limited knowledge of location or server hardware capabilities
- 

Origins of the Cloud



- Engineers used a cloud icon to represent networks they didn't manage
 - The cloud indicated, "We're connected to it, but we don't manage it or care about the details of how it works."
- 


Cloud Examples

- Dropbox
- Google
- Microsoft Azure
- Amazon Web Services

Benefits of Cloud Computing

AWS Benefits




- Reduced:
 - Hardware cost
 - Operational cost
 - Deployment cost
 - Increased:
 - Resiliency
 - Performance
 - Capacity
- 

Cloud Computing Models

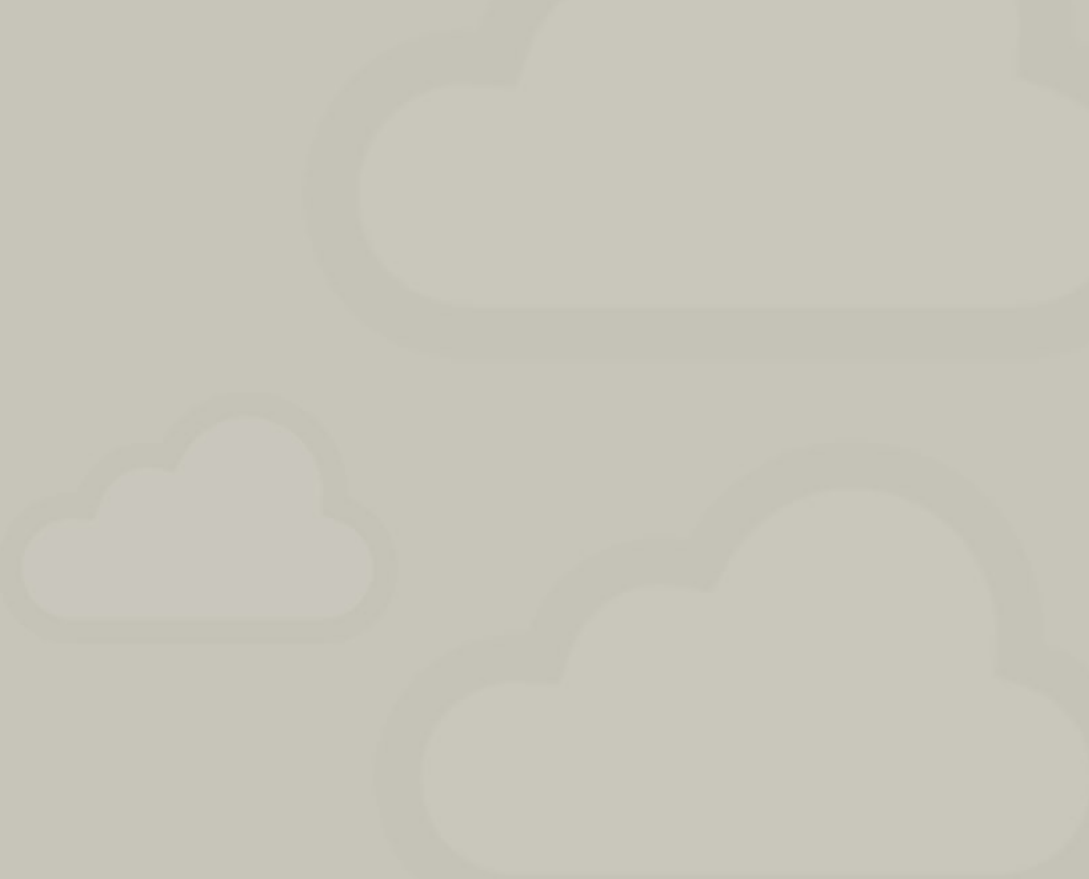
Full Cloud Deployment



- All components in the cloud
 - Database
 - Processing
 - Storage
 - Application logic
 - Nothing on premises
- 

Hybrid Deployment



- Some resources are internal, others are in the cloud
 - Processing
 - Databases
 - Storage
 - Application logic
- 

Cloud Service Models



- Infrastructure as a Service (IaaS)
 - Entire infrastructure in the cloud
 - Platforms and software run on others' infrastructure
 - You must manage it all
- Platform as a Service (PaaS)
 - You don't manage the infrastructure
 - Applications are deployed on platforms
- Software as a Service (SaaS)
 - Someone else develops the software
 - You use it from the cloud

AWS History

AWS History

- Launched in 2006 as we know it today
 - Included three services: S3, SQS and EC2
- SQS launched as a single service in 2004
- Simple DB launched in 2007
- More than 10 new services in 2008 (including Elastic IP)
- 2009 introduced the AWS management console
- 2010 gave us Route 53
- 2011 ElastiCache was introduced
- Dynamo DB was introduced in 2012
- AWS certifications launched in 2013
- 2014 added Redshift (SSD-based storage)
- Amazon QuickSight launched in 2015

AWS Platform

Services, Part 1

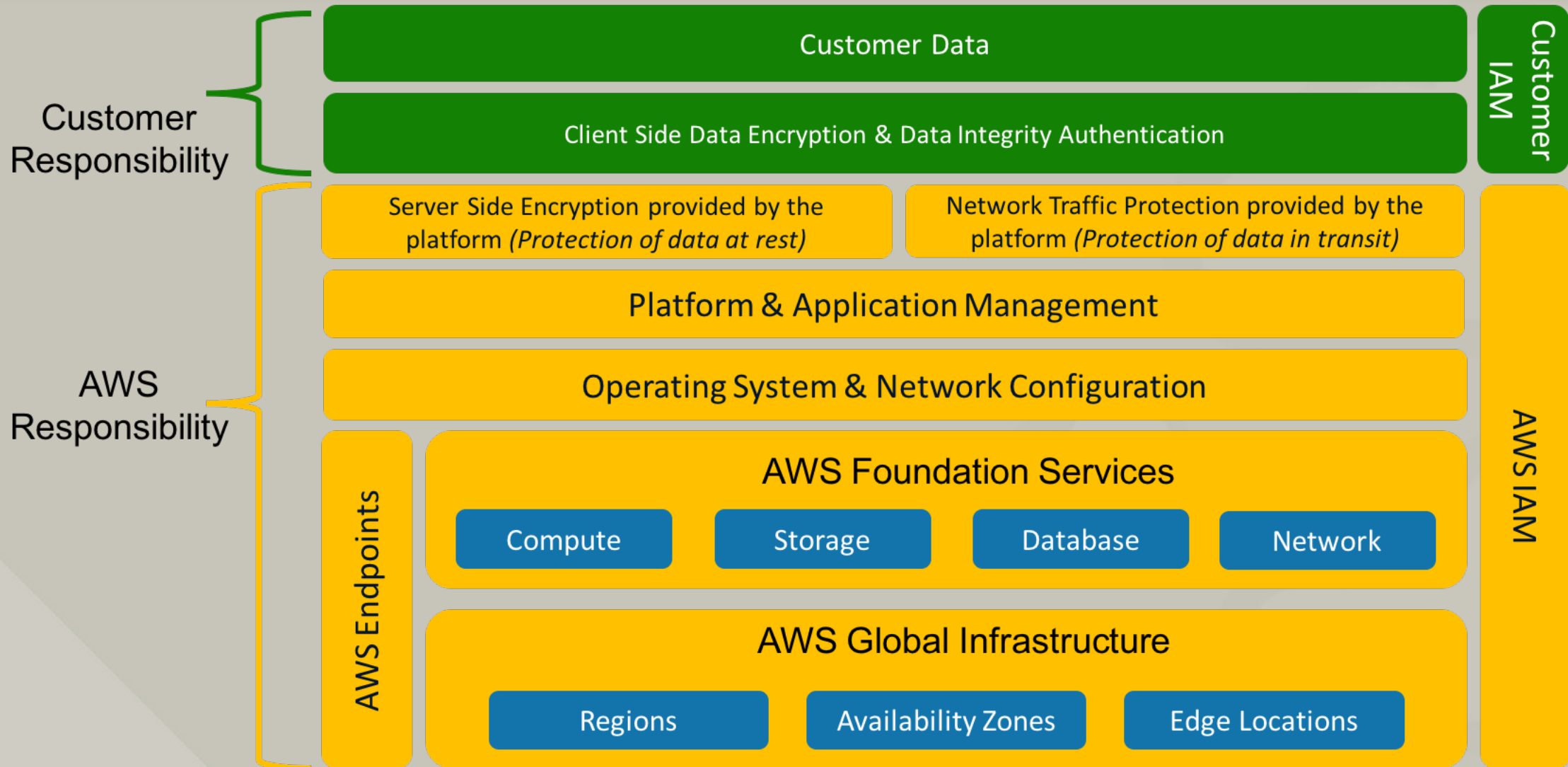
DEMO

- Explain services by browsing through them in AWS

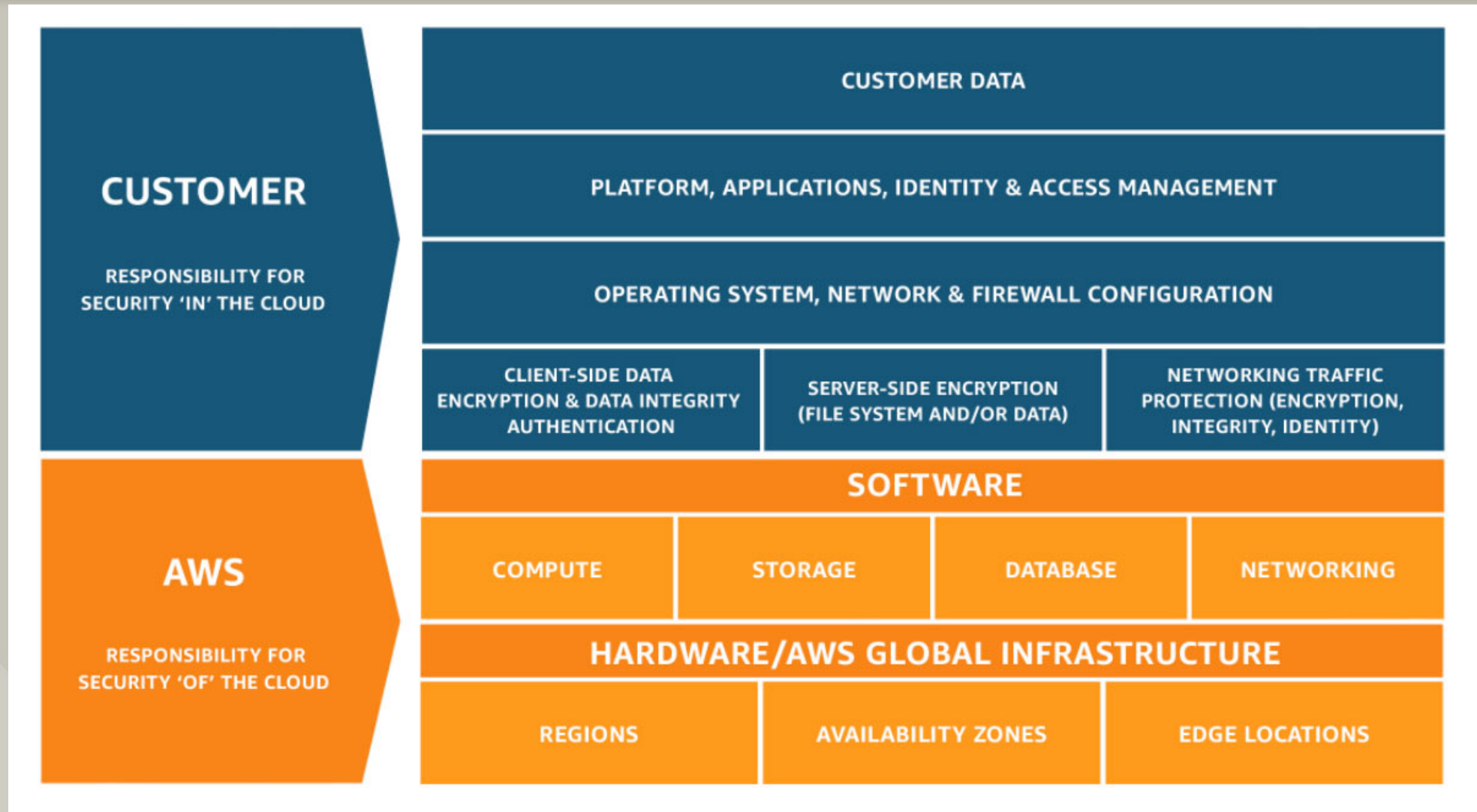
Services, Part 2

AWS Security and Compliance

Security and Compliance



Shared Responsibility Model



Regions and Availability

Regions and Availability Zones



- Region
 - Physical location or boundary with AWS data centers
- Availability Zone
 - 1-6 data centers
 - Redundant power and networking
 - Multiple availability zones are within regions

DEMO

- <https://aws.amazon.com/about-aws/global-infrastructure>