AWS Certified Solutions Architect — Associate (SAA-C01)

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Module 9

Security & IAM

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Agenda

- Security on AWS
- IAM
- Policy Creation & Customization
- Encryption
- Labs

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Shared Responsibility

– Let AWS do the heavy lifting
– Focus on what's most valuable to your business

AWS

- Facility operations
- Physical Security
- Physical Infrastructure
- Network Infrastructure
- Virtualisation Infrastructure
- Hardware lifecycle management

CUSTOMER

- Choice of Guest OS
- Application Configuration Options
- Account Management flexibility
- Security Groups
- ACLs
- Identity Management

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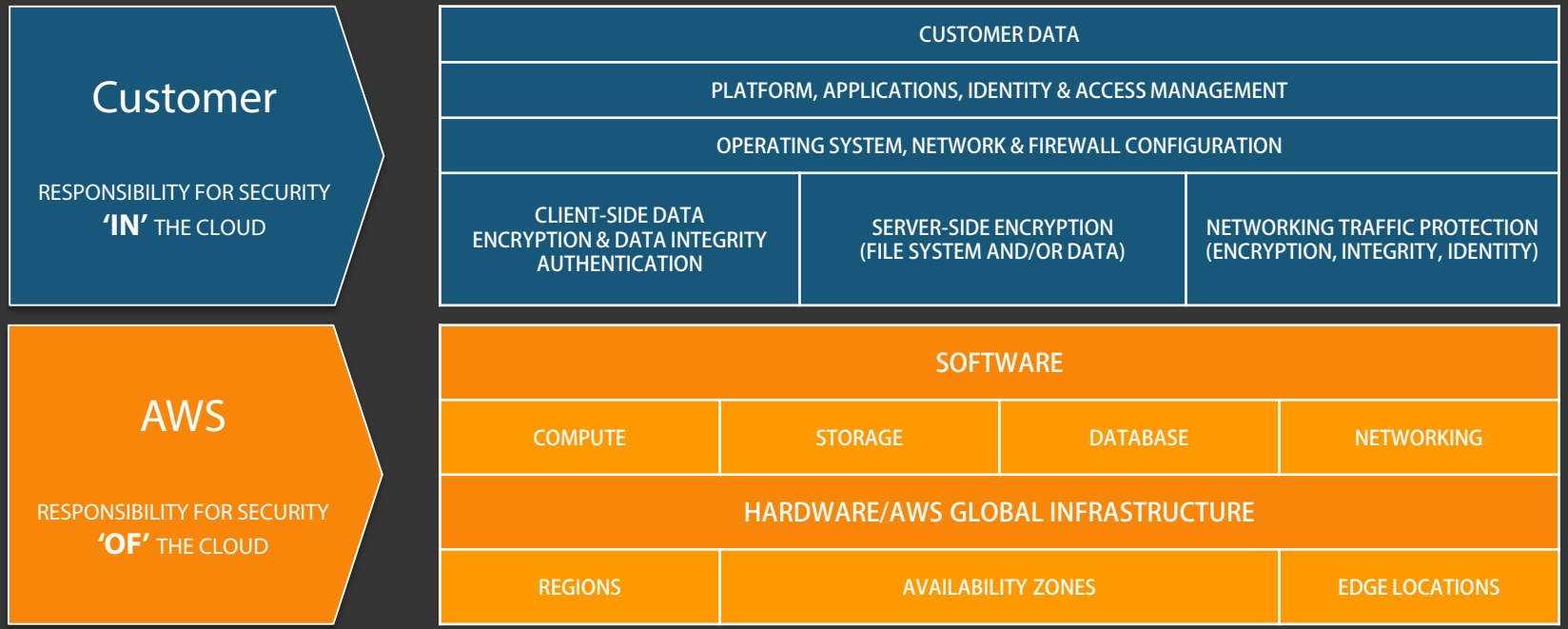
AWS Shared Responsibility Model



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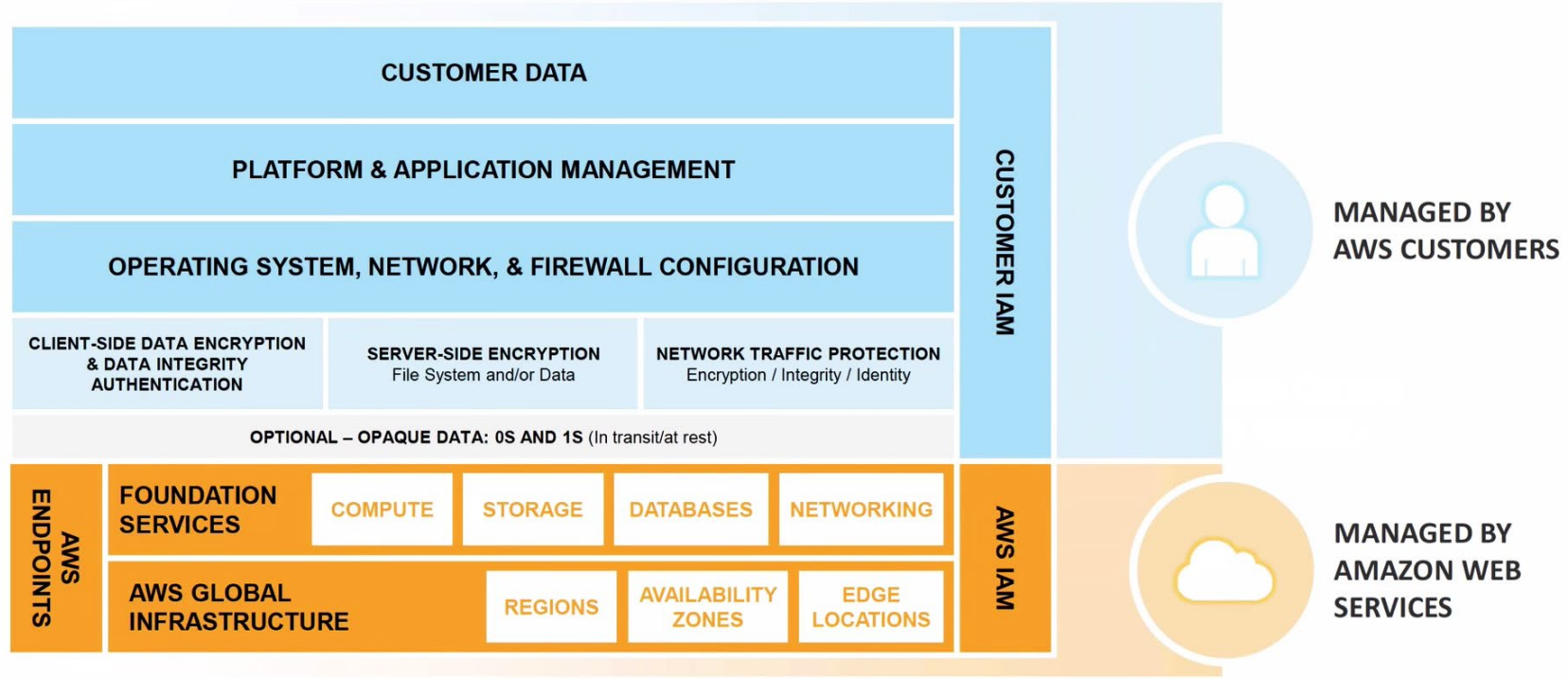
Shared Security Model: Infrastructure Services

Such as Amazon EC2, Amazon EBS, and Amazon VPC



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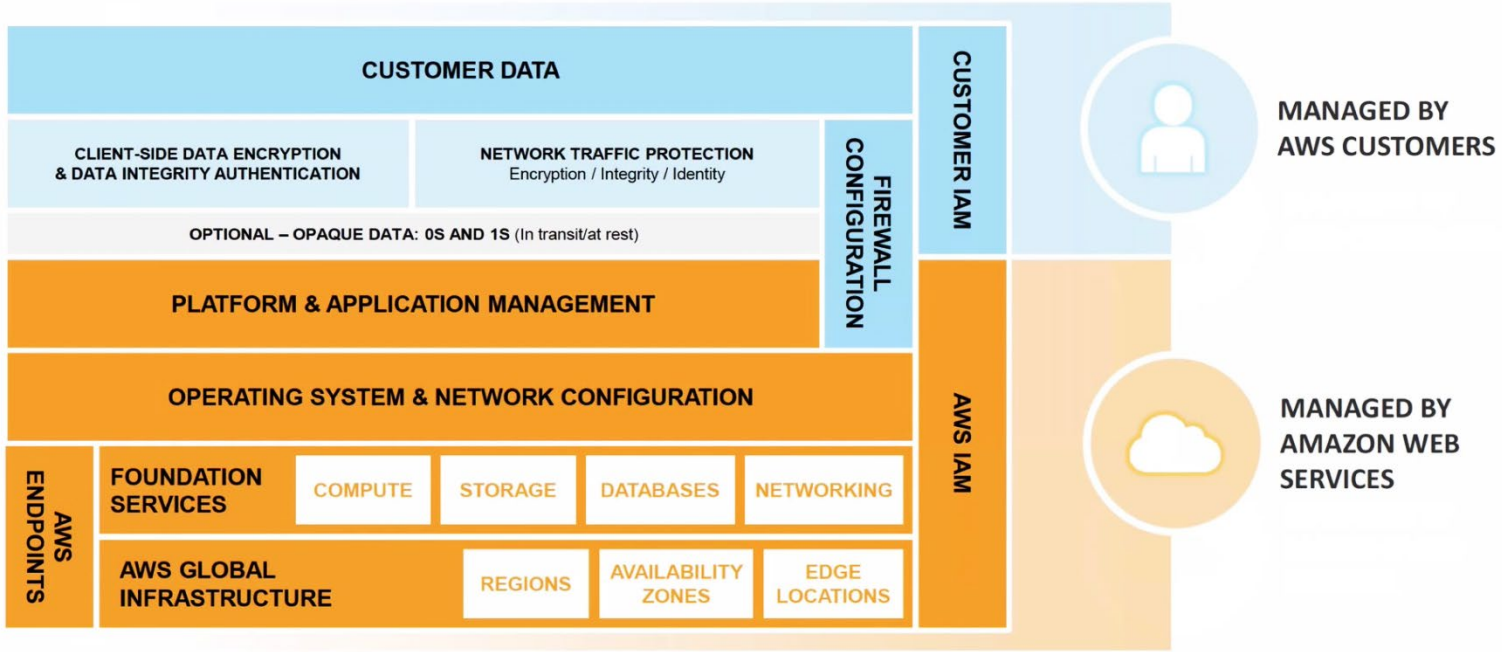
Shared Security Model: Container Services

Such as Amazon RDS and Amazon EMR



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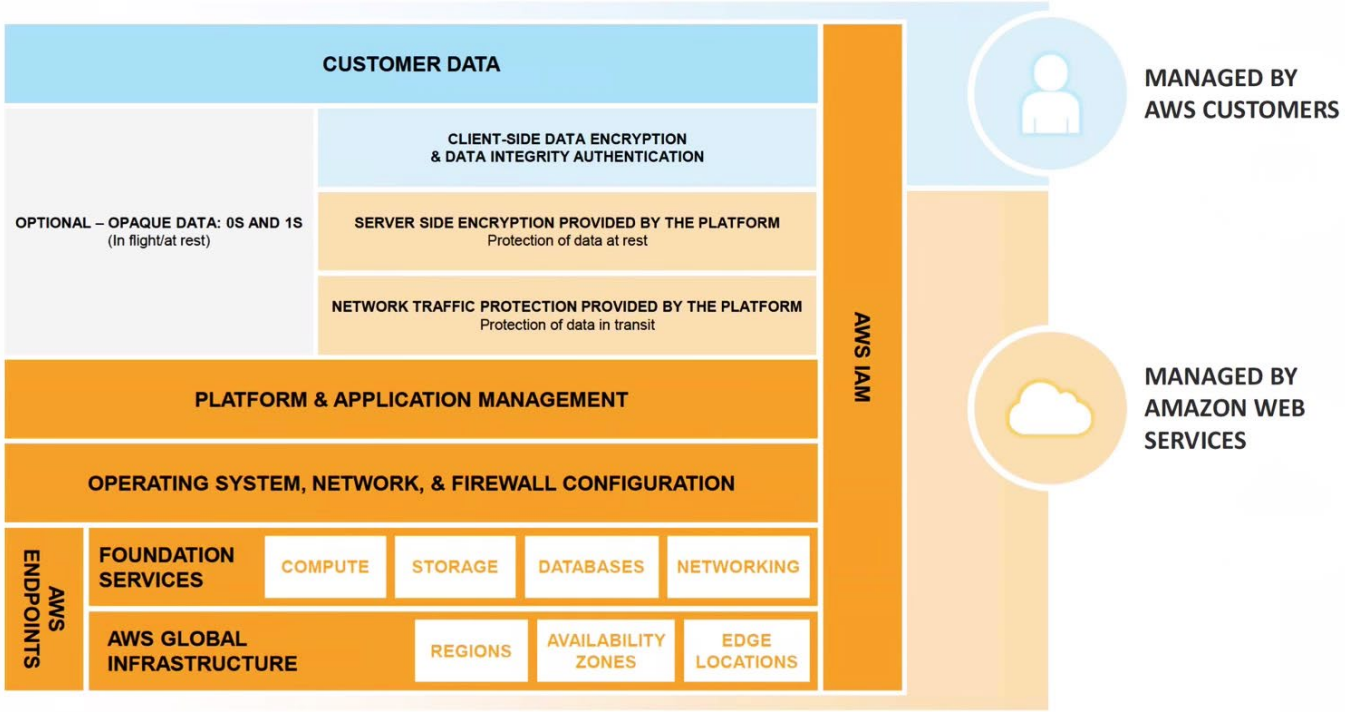
Shared Security Model: Abstracted Services

Such as Amazon S3 and Amazon DynamoDB



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IAM
(Identity & Access Management)

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IAM Basics

- Create users, groups, and roles to allow access to AWS
- Can be federated with other systems
- Cross Account Access
- Granular control of permissions
- MFA (Multi Factor Authentication)

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IAM Components

Users

Group

Roles

Policy

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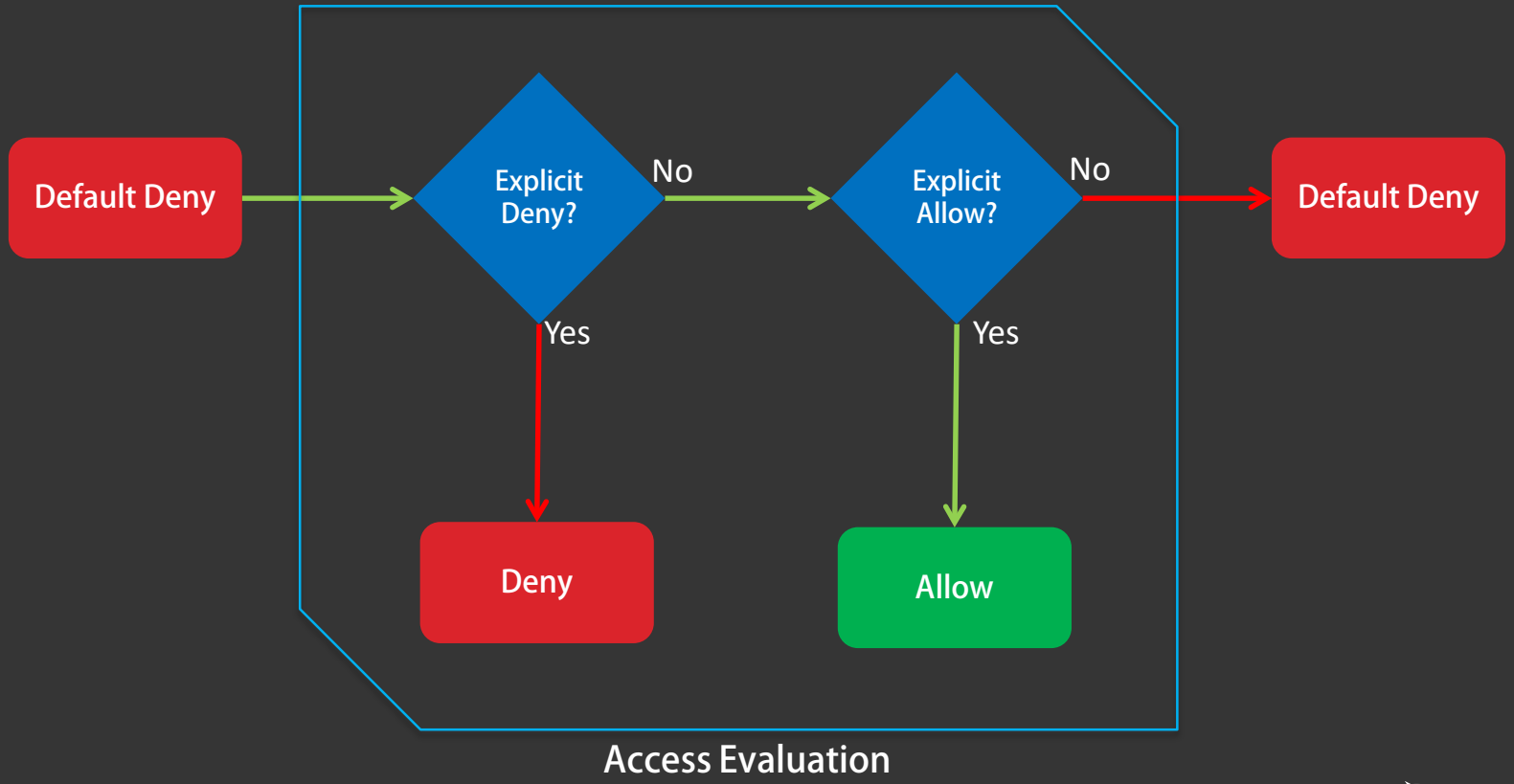
Policy Flow



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IAM Best Practices

- Root - Lock away & enable MFA your Root Account
- Users - Create individual users
- Password - Create a strong password policy
- Rotate - Rotate the credentials regularly
- MFA - Enable MFA for privileged users
- Groups - Manage permission with groups
- Permissions - Grant least privilege
- Sharing - Use IAM roles to share access
- Roles - Use IAM roles for EC2 Instances
- Auditing - Enable AWS CloudTrail

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Labs

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