

# Shared Respon Model & DDOS

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## What is the Shared Responsibility Model?

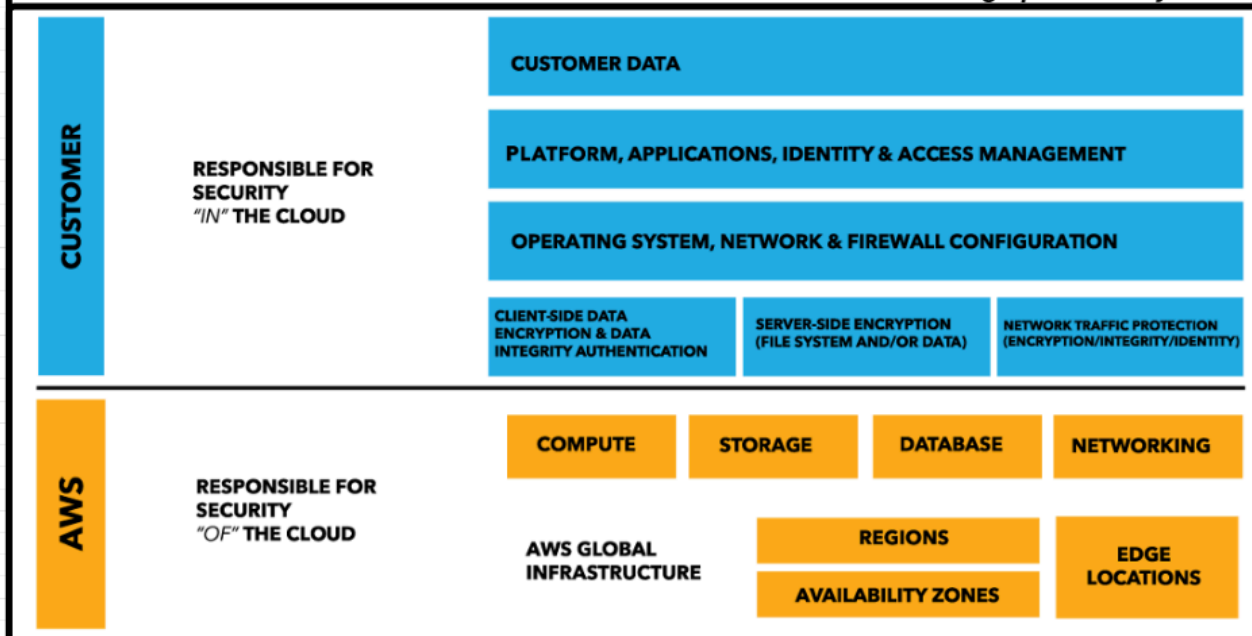
### Simple Definition:

The Shared Responsibility Model defines what you (as an AWS account holder/user) and Amazon Web Services are responsible for when it comes to security and compliance.

### AWS Definition:

**"Security and Compliance is a shared responsibility between AWS and the customer.** This shared model can help relieve customer's operational burden as AWS operates, manages and controls the components from the host operating system and virtualization layer down to the physical security of the facilities in which the service operates. The customer assumes responsibility and management of the guest operating system (including updates and security patches), other associated application software as well as the configuration of the AWS provided security group firewall.

*image provided by AWS*





# Shared Responsibility Model Example:

## Elastic Cloud Compute Shared Responsibility Model:

### **AWS is Responsible for:**

- (1) The setup and maintenance of the physical hardware located at each AWS data center.
- (2) The physical security data centers (locks, keys, security guards, etc).
- (3) The setup and maintenance of the host virtualization software.

### **You are responsible for:**

- (1) Network level security (NACLs, Security Group).
- (2) Operating System patched and updates
- (3) IAM user access management
- (4) Client and server side data encryption

*Note: This is not an all-inclusive list - just the most prominent examples*

**In addition to the Shared Responsibility Model, DDoS Protection is build-in/Mitigated by many core AWS Services. But what if you want to simulate an attack to test your applications security?**

## DDoS and Penetration Testing:



## AWS Services with Built-In DDoS Protection/Mitigation:

- (1) Route 53
- (2) CloudFront
- (3) WAF (web application firewall)
- (4) Elastic Load Balancing
- (5) VPCs and Security Groups

$S3 + CF =$   
 $+ WAF + ELB$   
 $+ VPC$

## Penetration Testing:

Penetration testing is the practice of testing one's own application security for vulnerability by simulating an attack. AWS allows penetration testing, however you must request permission from AWS before doing and penetration testing.

*Penetration testing is allowed on the following AWS resources:*

- (1) EC2
- (2) RDS
- (3) Aurora
- (4) CloudFront
- (5) API Gateway
- (6) Lambda
- (7) Lightsail
- (8) DNS Zone Walking

## CUSTOMER

RESPONSIBILITY FOR  
SECURITY 'IN' THE CLOUD

CUSTOMER DATA

PLATFORM, APPLICATIONS, IDENTITY & ACCESS MANAGEMENT

OPERATING SYSTEM, NETWORK & FIREWALL CONFIGURATION

CLIENT-SIDE DATA  
ENCRYPTION & DATA INTEGRITY

SERVER-SIDE ENCRYPTION  
(FILE SYSTEM AND/OR DATA)

NETWORK  
PROTECTION



AWS

RESPONSIBILITY FOR  
SECURITY 'OF' THE CLOUD

AUTHENTICATION		INTEGRITY	
SOFTWARE			
COMPUTE	STORAGE	DATABASE	
HARDWARE/AWS GLOBAL INFRASTRUCTURE			
REGIONS	AVAILABILITY ZONES	EDGE	

SECURITY, IDENTITY)

NETWORKING

RE

LOCATIONS