

- 3) Elastic Beanstalk (PaaS)
- 4) Lambda (FaaS)
- 5) Amazon Rekognition (SaaS)

EC2 Basics

EC2 - Elastic Compute Cloud (IaaS)

Consists of:

- 1) Renting VMs (EC2)
- 2) Storing data on Virtual drives (EBS)
- 3) Distributing load across machines (ELB)
- 4) Scaling the services using an ASG

Storage space: Network attached (EBS & EFS), Hardware (EC2 instance store)

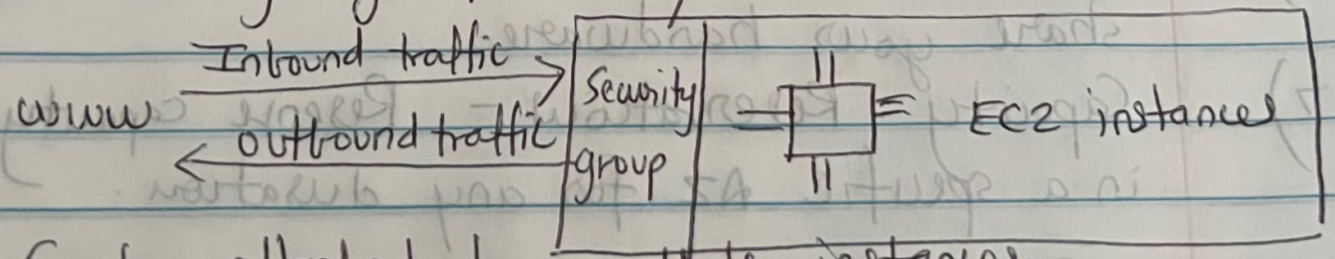
Firewall rules: Security groups

Bootstrap Script - EC2 User data

EC2 Instances types:

- 1) General Purpose
- 2) Compute Optimised
- 3) Memory Optimised
- 4) Accelerated computing
- 5) Storage Optimized
- 6) Instance features
- 7) Measuring Instance performance

Security group: Only contain allow rules



Can be attached to multiple instances.

All inbound traffic is blocked by default.
All outbound traffic is authorized by default.

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Classic ports to know *

- 1) 22 = SSH (Secure Shell)
- 2) 21 = FTP (File Transfer Protocol)
- 3) 22 = SFTP (Secure File Transfer Protocol)
- 4) 80 = HTTP - access unsecured websites
- 5) 443 = HTTPS - access secured websites
- 6) 3389 = RDP (Remote Desktop Protocol)

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EC2 instances purchasing options *

- 1) On-Demand Instances - short workload, predictable pricing, pay by second.
- 2) Reserved (1 & 3 yrs):
 - i) Reserved Instances - long workloads
 - ii) Convertible Reserved Instances - long workloads with flexible instances.
- 3) Savings Plans (1 & 3 yrs) - Commitment to an amount of usage, long workload.
- 4) Spot Instances - short workloads, cheap, can lose instances.
- 5) Dedicated Hosts - Book an entire physical server, control instance placement.
- 6) Dedicated Instances - No other customers will share your hardware.
- 7) Capacity Reservations - Reserve capacity in a specific AZ for any duration.

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Spot fleets *

set of spot instances + (optional) on-demand instances.

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EC2 instance = AMI (OS) + Instance size (CPU + RAM) + Storage + Security Groups + EC2 User data.

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EC2 instance Role - Link to IAM roles