AWS EC2 Cheat Sheet
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Types of Instances

General Purpose	T2, M3, M4
Compute Optimized	C3, C4, C5
Memory Optimized	X1, R3, R4
Accelerated Computing	P2, P3, G3, F1
Storage Optimized	I3, D2

Instances Main Characteristics

vCPU	Virtual CPU
Memory	GiB

Storage
- Instance store, EBS SSD & HDD

Enhanced Networking
- Get higher PPS (packet per second)
- Lower jitter & latency
- Must install driver and supported AMI
- Not available on all instance types

EBS Optimized
- Dedicated throughput/bandwidth from 425 Mbps to 14 000 Mbps.
- Minimize contention between EBS I/O and other traffic from the instance.

Default is 20 instances per account.

Instance AMIs

AWS: Linux, Redhat, Suse Ubuntu & Windows

Market Place: Purchasable AMIs

Custom: Your own AMIs

Community: Shared and free AMIs

Other supported OS: Fedora, Debian, CentOS, Gentoo Linux, Oracle Linux & FreeBSD

Security Groups

Virtual firewall that controls traffic.

ALLOW rules only

Associated with a Network Interface.

Stateful outbound and INBOUND.

Default for custom SG is to ALLOW all outbound and DENY all inbound.

SG per VPC (per region)	500
Rules per SG	50
SG per Network Interface	5

Has its own Cheat Sheet

Auto Scaling

Elastic Load Balancing

Instances Pricing Model

On-demand*	No contract
Reserved*	No, partial or full upfront
	Can be applied to an AZ or a region, capacity reservation only if applied to AZ.
	Modyfing, exchanging an instance is only available on certain OS.
- Standard	1 or 3 year contract
	Can exchange within same instance family using a normalisation factor.
- Convertible	1 or 3 year contract
	Can change instance family.
	Can only be exchanged to same or higher payment option.
	Can exchange for 1 or many instances as long as the price is equal or higher.
SPOT*	Bid on spare capacity at Market Price.
Dedicated Instance	Hourly usage fee + per region fee
	Dedicated physical server/host
	Per instance billing
	You can have dedicated SPOT instances.
Dedicated Host	Per host billing, per hour

- Visibility of the number of sockets and physical cores.
- Visibility and control over how instances are placed.
- Ideal for server-bound software and compliance & regulatory requirements.
- Per family type

Scheduled	Pay for scheduled slots
	1 year contract

* Pay per second on Linux instances.

Other

EIP	Static IPv4 address (5 per region)
	Associated to a Network Interface
	Hourly charge if not used or more than one per instance.
	Can remap from one instance to another.
ENI	Default is the Primary Network Interface (eth0) and cannot be detached.
	Can attach/detach other ENI from one instance to another.
	Limit varies on instance type.

Placement Group

Logical grouping of instances in a single AZ for better network performance.

Better to launch all instances at once and use the same type.