



EC2 – Pricing Model

On-Demand Least Commitment

- low cost and flexible
- only pay per hour
- short-term, spiky, unpredictable workloads
- cannot be interrupted
- For first time apps

Spot upto 90% Biggest Savings

- request spare computing capacity
- flexible start and end times
- Can handle interruptions (server randomly stopping and starting)
- For non-critical background jobs

Reserved upto 75% off Best Long-term

- steady state or predictable usage
- commit to EC2 over a 1 or 3 year term
- Can resell unused reserved instances

Dedicated Most Expensive

- Dedicated servers
- Can be on-demand or reserved (upto 70% off)
- When you need a guarantee of isolate hardware (enterprise requirements)



EC2 - On-Demand Instances

Least Commitment

When you launch an EC2 instance it is by default using **On-Demand** Pricing
On-demand has **no up-front payment** and **no long-term commitment**

Launch Instance



You are charged by the **hour** or by the **minute** (varies based on EC2 Instance Types)

On-Demand is for applications where the workload is for **short-term, spiky** or **unpredictable**.
When you have a **new app** for development or you want to run experiment.





EC2 - Reserved Instances (RI)

Best Long-term

Designed for applications that have a **steady-state, predictable usage**, or require **reserved capacity**.

Reduced Pricing is based on **Term x Class Offering x Payment Option**

Platform	Linux/UNIX	Tenancy	Default	Offering Class	Standard					
Instance Type	t2.micro	Term	12 months - ...	Payment Option	Partial Upfront					
Seller	Term	Effective Rate	Upfront Price	Hourly Rate	Payment Option	Offering Class	Quantity Available	Desired Quantity	Normalized units per hour	
AWS	36 months	\$0.005	\$66.00	\$0.002	Partial Upfront	standard	Unlimited	1	0.5	Add to Cart

Standard Up to **75%** reduced pricing compared to on-demand.
Cannot change RI Attributes.

Terms

You commit to a **1 Year** or **3 Year** contract.
The longer the term the greater savings.

Convertible Up to **54%** reduced pricing compared to on-demand.
Allows you to change RI Attributes if greater or equal in value.

Payment Options

All Upfront, **Partial Upfront**, and **No Upfront**
The greater upfront the greater the savings

Scheduled You reserve instances for specific time periods eg. once a week for a few hours. Savings vary

RIs can be shared between multiple accounts within an org

Unused RIs can be sold in the **Reserved Instance Marketplace**





EC2 - Spot Instances

Biggest Savings

AWS has **unused compute capacity** that they want to maximize the utility of their idle servers. It's like when a hotel offers discounts for to fill vacant suites or planes offer discount to fill vacant seats.

Spot Instances provide a discount of **90%** compared to On-Demand Pricing
Spot Instances can be terminated if the computing capacity is needed by on-demand customers.

Designed for applications that have flexible start and end times or applications that are only feasible at **very low** compute costs.

Tell us your application or task need

To help us identify the most appropriate compute capacity for your job, select the closest match for your application or task need.

Load balancing workloads
Launch instances of the same size, in any Availability Zone. Good for running web services.

Flexible workloads
Launch instances of any size, in any Availability Zone. Good for running batch and CI/CD jobs.

Big data workloads
Launch instances of any size, in a single Availability Zone. Good for MapReduce jobs.

Defined duration workloads
Launch instances into a Spot block for 1 to 6 hours.



AWS Batch is an easy and convenient way to use Spot Pricing

Termination Conditions

Instances can be terminated by AWS **at anytime**

If your instance is **terminated by AWS**, **you don't get charged** for a partial hour of usage.

If **you terminate** an instance **you will still be charged** for any hour that it ran.



EC2 – Dedicated Host Instances

Most Expensive

Designed to meet regulatory requirements. When you have strict **server-bound licensing** that won't support multi-tenancy or cloud deployments.

Multi-Tenant vs Single Tenant

When multiple customers are running workloads on the same hardware. **Virtual Isolation** is what separate customers. (think apartment)



Multi-Tenant

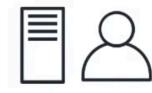
When a single customer has dedicated hardware. **Physical Isolation** is what separates customers (think house)



Single-Tenant



Single-Tenant



Single-Tenant

Offered in both **On-demand** and **Reserved** (70% off on-demand pricing)



Enterprises and **Large Organizations** may have security concerns or obligations about against sharing the same hardware with other AWS Customers.



SUBSCRIBE



EC2 Pricing - *CheatSheet*

- EC2 has four pricing models **On-Demand**, **Spot**, **Reserved Instances (RI)** and **Dedicated**
- **On-Demand** (least commitment)
 - low cost and flexible
 - only pay per hour
 - **Use case:** short-term, spiky, unpredictable workloads, first time apps
 - Ideal when your workloads cannot be interrupted
- **Reserved Instances** up to 75% off (Best long-term value)
 - **Use case:** steady state or predictable usage
 - Can resell unused reserved instances (Reserved Instance Marketplace)
 - Reduced Pricing is based on **Term x Class Offering x Payment Option**
 - **Payment Terms:** 1 year or 3 year
 - **Payment Options:** All Upfront, Partial Upfront, and No Upfront
 - **Class Offerings**
 - **Standard** Up to 75% reduced pricing compared to on-demand. Cannot change RI Attributes.
 - **Convertible** Up to 54% reduced pricing compared to on-demand. Allows you to change RI Attributes if greater or equal in value.
 - **Scheduled** You reserve instances for specific time periods eg. once a week for a few hours. Savings vary



EC2 Pricing - *CheatSheet*

- **Spot Pricing** upto 90% off (Biggest Savings)
 - request spare computing capacity
 - flexible start and end times
 - **Use case:** Can handle interruptions (server randomly stopping and starting)
 - **Use case:** For non-critical background jobs
 - Instances can be terminated by AWS **at anytime**
 - If your instance is **terminated by AWS, you don't get charged** for a partial hour of usage.
 - If you **terminate** an instance **you will still be charged** for any hour that it ran.
- **Dedicated Hosting** (Most Expensive)
 - Dedicated servers
 - Can be on-demand or reserved (upto 70% off)
 - **Use case:** When you need a guarantee of isolate hardware (enterprise requirements)