AWS EC2 Purchasing Options and When to Use Them

A wise man weighs his options right

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AWS EC2 is one of the most commonly used cloud services out there, however, when not used right it could be downright expensive. So, here are a few tips for you to use EC2 effectively so that you don't burn a hole in your pocket.

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EC2 options

The most famous instance option in EC2 is their On-Demand instances. But AWS EC2 has many other purchasing options such as,

1. On-Demand Instances

2. Reserved Instances

3. Spot Instances

4. Dedicated Instances

5. Dedicated Hosts

Each of these instance options has its own pros and cons and it can be used based on the need. Let's first analyze each of these instance types.

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1. On-Demand Instances

EC2 On-Demand instance is the commonly used instance option, you set up an instance based on your need and you pay based on the usage. This isn't the most expensive option. When you consider Linux machines, you will have to pay per second and all other kinds of instances are billed per hour. On-Demand instances are ideal for uninterrupted and short-term workloads.

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2. Reserved Instances

Amazon EC2 Reserved Instances(RIs) are generally more discounted than that of the on-demand instance. RIs provide you with a significant discount (up to 72%) compared to On-Demand instance pricing. In Reserved instances, you reserve your resources for a particular period of time. For example, AWS provides 2 reservation periods, 1 year and 3 years.

There are two reserved instance options -

1. Convertible

2. Scheduled

If you need flexible instances for long workloads, Convertible reserved instances can be used. In the Convertible reserved instance, you can change the EC2 instance type. Scheduled reserved instances work best for instances that need to run for a specific period, say daily or weekly.

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3. Spot Instances

As quoted in the documentation "*An AWS EC2 Spot Instance is an unused EC2 instance which is available for less than the On-Demand price.*" The spot instances are way cheaper than the on-demand instances, which greatly helps your usage price very less. In spot instances, the cost is calculated based on the hourly usage, which is called the "**Spot Price**". This price is based on the availability of the EC2 instances in each zone and the demand for such spot instances. According to Amazon, Spot Instance prices are typically more than 75% lower than On-Demand prices.

Spot instance easily has a lot of benefits :

1. Scalability

2. Cost-efficient

3. Supports multiple other AWS services

4. Helps to automate

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4. Dedicated Instances & Hosts

Physical servers with EC2 instances that can be reserved for oneself are Dedicated hosts. These are best suited to address compliance requirements and can be allocated for a period of 3 years.

Dedicated instances are pretty similar to dedicated hosts but it does not give one control over the instance placement.

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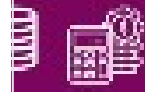
Price comparison for EC2 instances — Reference

To understand the price comparison please refer to this detailed article that gives information about all the cost comparisons -

How to Reduce AWS Cost with Spot Instances

AWS EC2 Purchasing Options and When to Use Them

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Conclusion

From clear comparison Spot instances seem to be the most cost-efficient AWS EC2 instance option. But, it is not best suited for all the cases so remember this is very subjective and every instance is designed to solve its own purpose and it must be chosen based on the need.

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