

Lesson 8 - Available Tools

Lesson 9 of 12

Advantages of Updating Instance Types

When Sofia and John were talking to Arnav, he told them that updating to new instances would provide a cost savings and a performance improvement. John finds this concept fascinating, He wants to look more closely at how getting the newest instance can save him money while providing better performance. Why would AWS lower the cost while increasing performance?

Lower pricing

AWS constantly improves the services that it offers. New EC2 instance types are continually added to take advantage of improvements in hardware technology. A new instance type provides better performance than the last iteration because it's running on new technology. When something new comes out for example, the latest model year for a car, or the newest game console), it is typically more expensive than the previous year's version. With AWS, regular price cuts on AWS services are a standard way for AWS to pass on the benefits of and economic efficiencies gained from the scales of AWS.

Faster performance

New EC2 instances are released using the newest generation of processor for that family type.

With these new instance types, which use faster CPU, additional memory, and better network
throughput, your workloads can run faster and require less compute time. In general, the newest
instance type offers a better price-performance ratio, making the total cost of ownership (TCO)
smaller when moving to the new instances.

When planning to use Amazon EC2, part of the plan should include instance testing and planning to continuously upcycle your instances as they become available. Of course, some workflows and some use cases are more straightforward than others, so upfront planning for your applications and testing of new instances is a good best practice.

To review a list of the most recent instance generation, see <u>Available instance types</u>.

Benefits of the new generation

Besides the cost value of using new instance types when they release, there are additional benefits to continuous monitoring and reviewing of your Amazon EC2 workloads.

As discussed in the pricing section of this course, the faster the task runs, the lower your costs become. But what happens if you've sized your workload and the workload changed? Perhaps the best instance for you is a smaller version of the newest instance? Or perhaps your workload was more memory intensive and an upgrade to that application has made the workload both CPU and memory intensive or just CPU intensive.

Here are some reasons to change to a new instance, or a different instance:

- The workload has changed because of application or business needs.
- There was a change in resource requirements for the workload.
- There's a newer instance in my instance family
- New instance type can be optimized for a specific workload, such as analytics or HPC.

John needs to have a plan in place that he can use to move to a newer instance if the new instance improves his performance, cost, or is optimized to handle a specific type of workload. He's been so busy that he's not sure if he'd even have the time to learn about any new instance types. He's concerned that his busy hours will keep him from remembering to look for updates. He mentioned this to Sofia, and she suggested he sign up for What's New in AWS?

What's New in AWS?

AWS is constantly adding new capabilities so you can use the latest technologies to experiment and innovate more quickly, if you want to be notified of the latest and greatest release or update, you can sign up to the What's New in AWS7 posts. These What's New in AWS7 posts provide a brief overview of all AWS service, feature, and Region expansion announcements as they are released. You can sign up to receive this information or you can go to the What's New in AWS7 site and search for a technology.

To sign up for notifications, see What's New in AWS.

AWS Health Dashboard

Another option that Sofia suggested is the AWS Health Dashboard. This is one place to learn about the availability and operations of your AWS services. You can view the overall status of AWS services, and you can sign in to view personalized communications about your particular AWS account or organization. Your account view provides deeper visibility into resource issues, upcoming changes, and important notifications.

When viewing the AWS Health Dashboard, you can use the Open and recent issues tab to view all ongoing events from the past 7 days that might affect your account.

When you choose an event from the dashboard, the Details pane appears with information about the event and a list of affected resources.

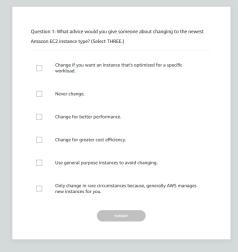
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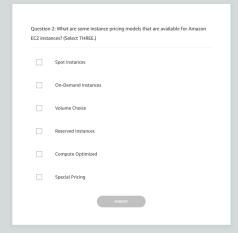


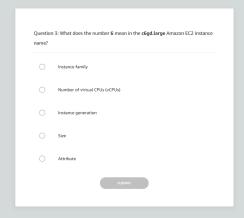


Knowledge check

Before John goes home for the day, Sofia and Arnav have some questions for him to see what he's learned. Answer each of the questions that Sofia asks John.







Sofia is happy that John is so engaged and enthusiastic about learning Amazon EC2. She wants to summarize today's learning and discuss the next steps on John's learning journey.