

Identify Optimal EC2 Instance Type Using AWS Compute Optimizer

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Agenda

Overview of EC2 Instance Portfolio

Overview of AWS Compute Optimizer

Demo

Considerations During Migration

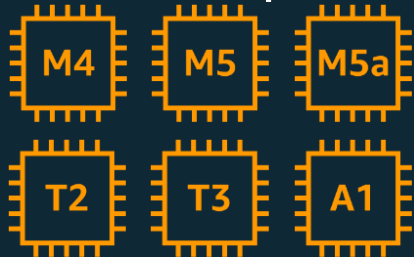
Q&A

Overview of EC2 Instance Portfolio

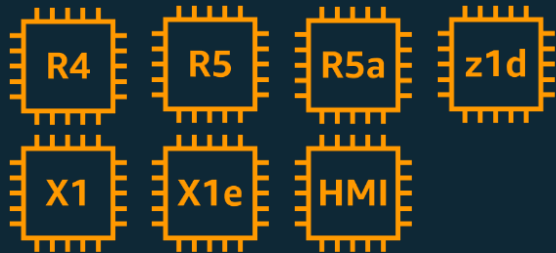


Overview of EC2 Instance Portfolio

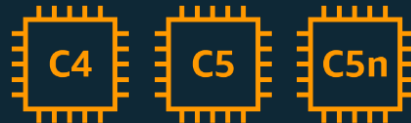
General Purpose



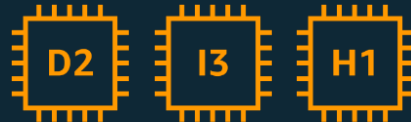
Memory Optimized



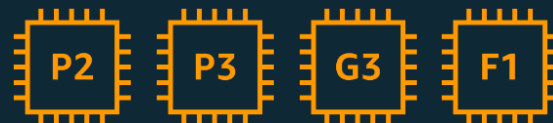
Compute Optimized



Storage Optimized



Accelerated Computing



Overview of EC2 Instance Portfolio

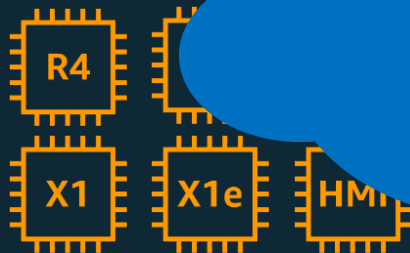
General Purpose



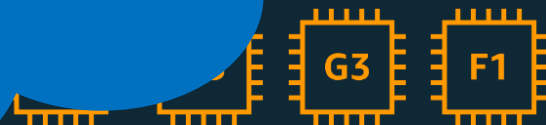
Compute Optimized



Memory

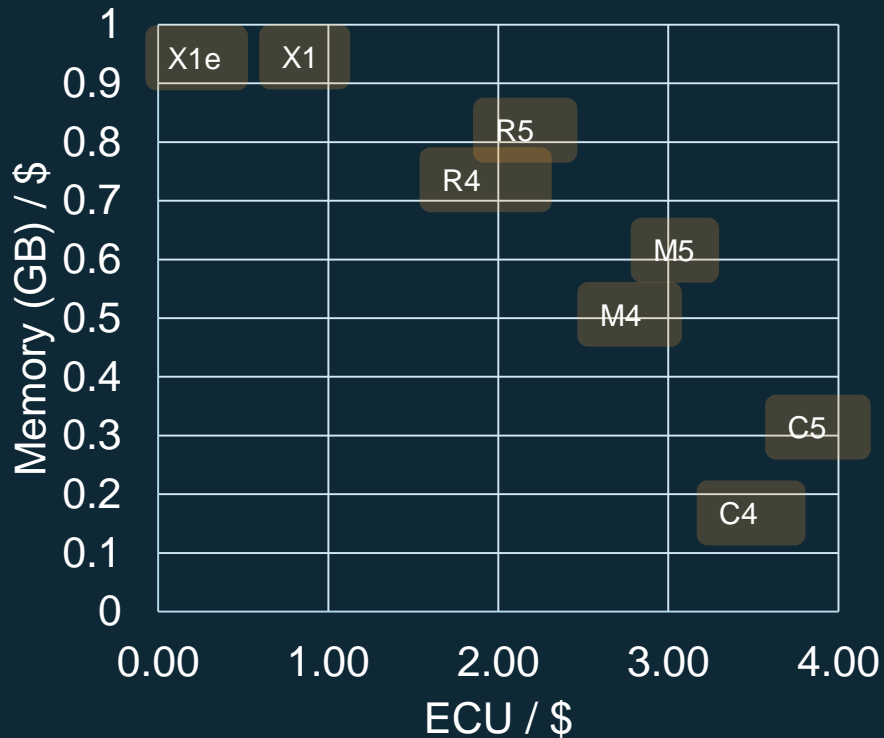
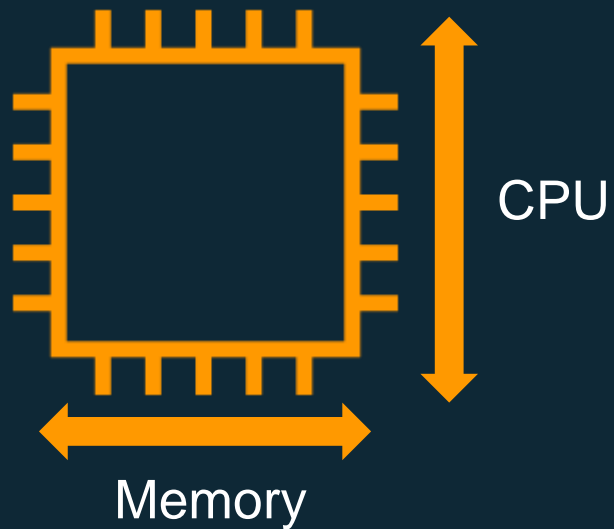


GPU Computing

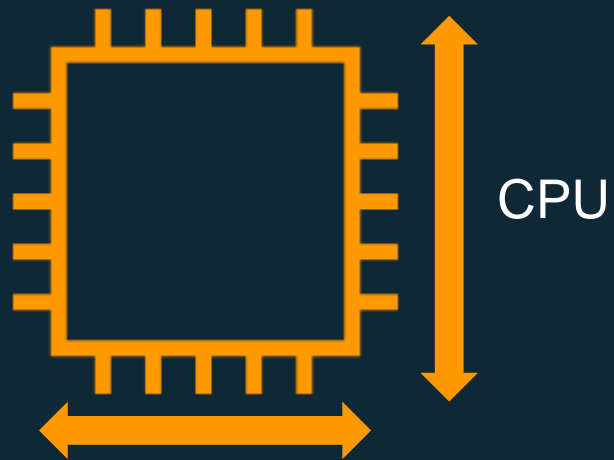


How do I make sure I am using Amazon EC2 optimally?

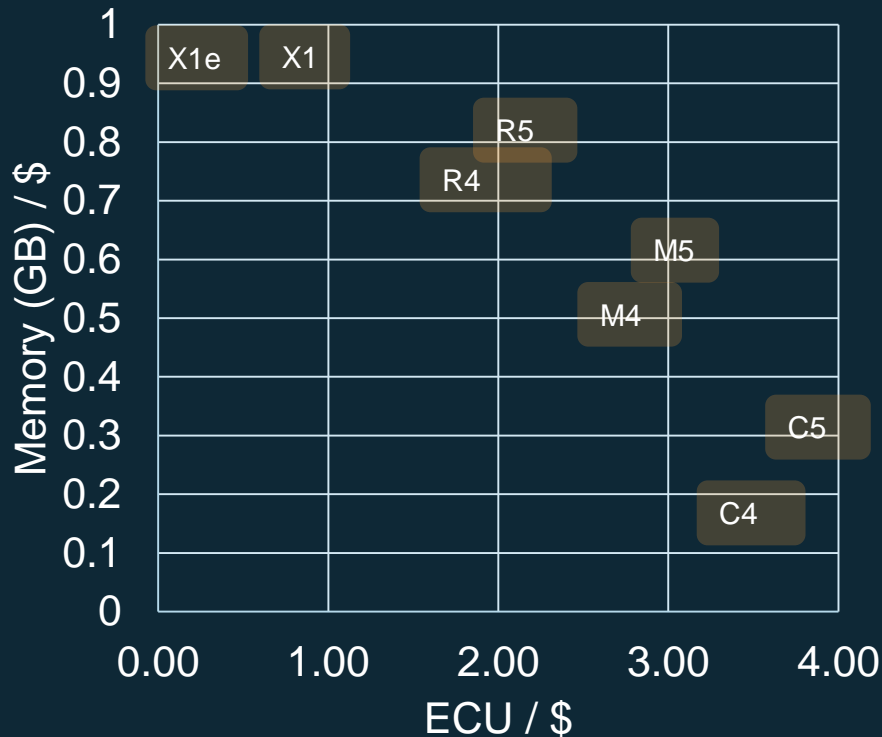
Dimensions of EC2 Instances



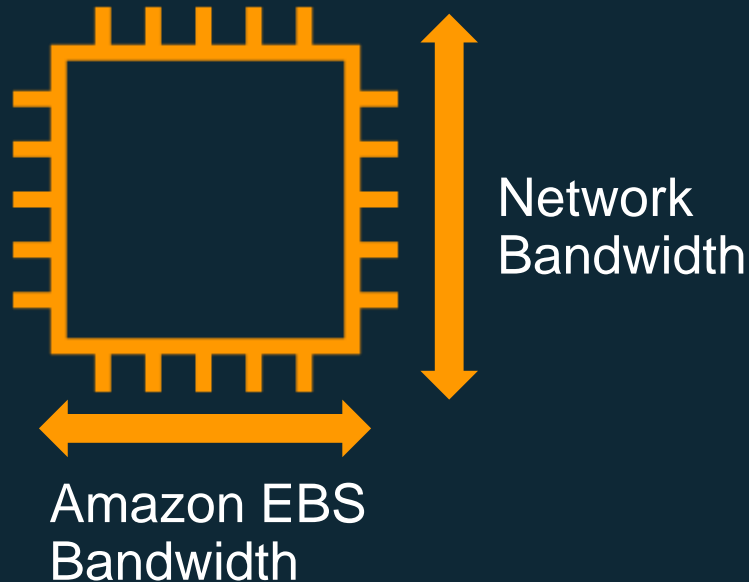
Dimensions of EC2 Instances



Use Amazon CloudWatch Agent to collect memory metrics



Dimensions of EC2 Instances



Instances have different:

- Bandwidth allocation
- Packets per second capability
- Enhanced networking options
- Amazon EBS bandwidth
- EBS Optimized

AWS Compute Optimizer



EC2 Instance Optimization



AWS Trusted Advisor

High Utilization Amazon EC2 Instances Check

Low Utilization Amazon EC2 Instances Check



AWS Cost Explorer

Rightsizing recommendations

Downsizing within the same
EC2 instance family to save cost



AWS Compute Optimizer

EC2 instance type recommendations for

Standalone EC2 instances and
Auto Scaling groups

AWS Compute Optimizer

Recommends optimal instances for EC2 and EC2 Auto Scaling groups from 140+ instances from M, C, R, T, and X families



Lower **costs** and improve workload **performance**

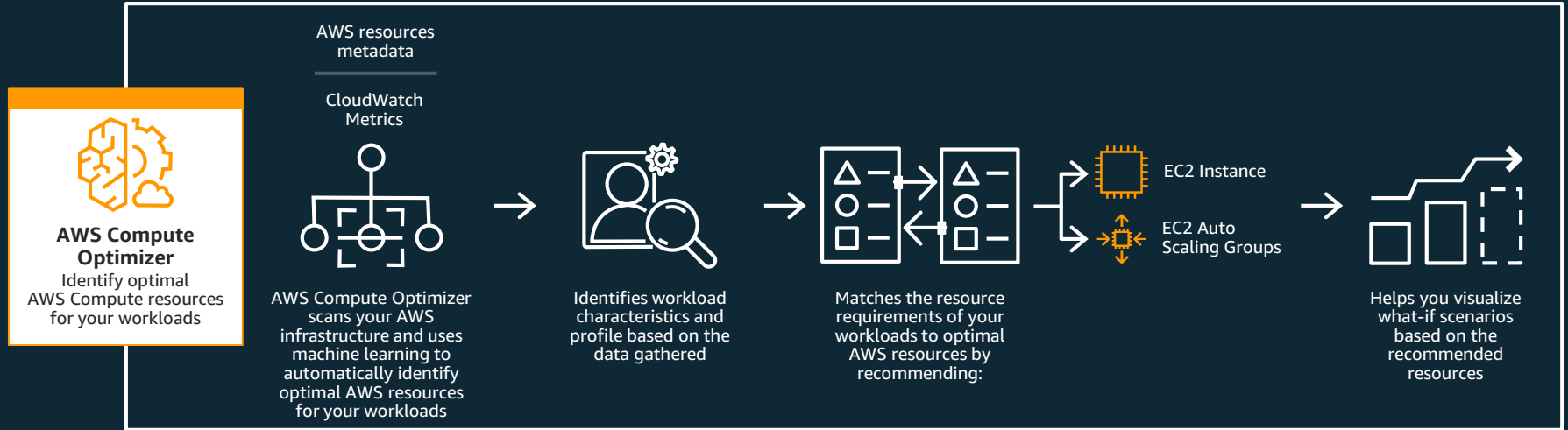


Applies insights from **millions of workloads** to make recommendations



Saves time comparing and selecting optimal resources for your workload

Simplifying compute optimization



Service Demo



Service Feedback?

aws-compute-optimizer-feedback@amazon.com



Considerations During Migration



Differences in Virtualization Technology

Why is my Linux instance not booting after I changed its type to C5 or M5?

<https://aws.amazon.com/premiumsupport/knowledge-center/boot-error-linux-m5-c5/>

Make sure enaSupport instance attribute is enabled

```
aws ec2 describe-instances --instance-ids instance_id --query  
"Reservations[].Instances[].EnaSupport"
```

Make sure both ENA and NVMe modules are installed

```
modinfo ena  
lsinitrd /boot/initramfs-$(uname -r).img|grep nvme
```

Mount EBS volumes using UUID/Label instead of device name

- /dev/sda1 -> UUID="ca774df7-756d-4261-a3f1-76038323e572"

Q&A



Thank You!

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Learn more: <https://aws.amazon.com/compute-optimizer/>