

Week 3 - Agenda

- 1. Technical Track (45 Min)
 - Compute in Cloud
- 2. Networking Track (40 Min)
 - Hold the door NACL & Security Group
- 3. Hands On (30 Min)
 - Create and connect to your instance

AWS Services Stack



Platform Services

Databases

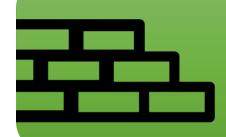
Deployment

Analytics

Mgmt.

App Services

Many More...



Foundation Services

Compute

Networking

Storage



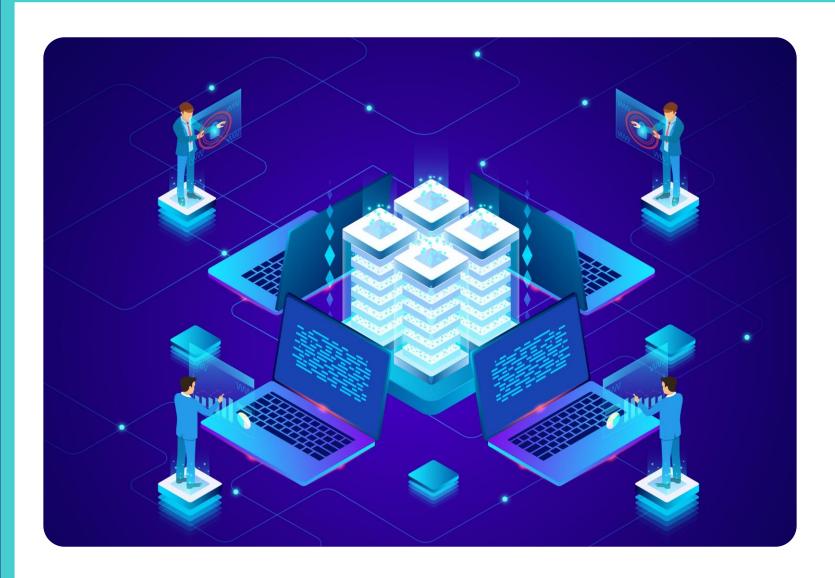
Global Infrastructure

Regions

Availability Zones

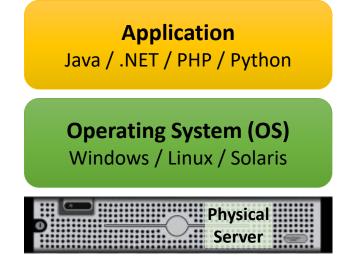
Edge Locations

What is compute?



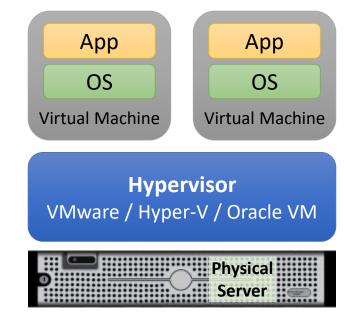
- Compute is a generic term used to reference processing power, memory, networking, storage, and other resources required for the computational success of any program.
- These resources can be physical or virtual.

Physical Server vs. Virtual Machine



Traditional Approach

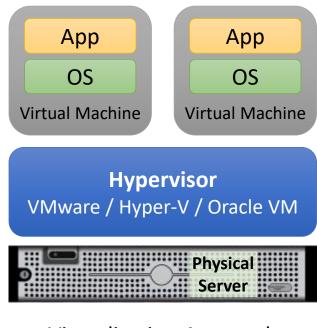
Average Server Utilization ~ 5/10 %



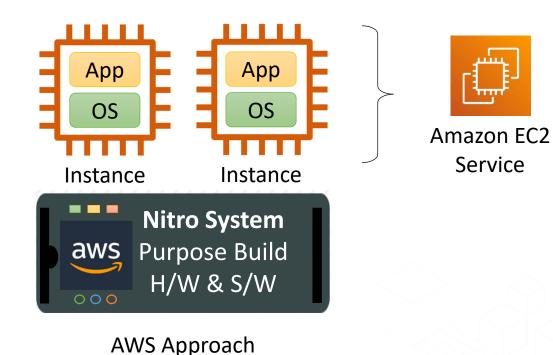
Virtualization Approach
Average Server Utilization ~ 70/80 %

- Virtual machine is digital version of a physical computer.
- A virtual machine can perform all the same functions as a physical computer, including running applications and operating systems.
- They may also require maintenance such as updates and system monitoring.

Amazon Elastic Compute Cloud (EC2) – Virtual Server in Cloud



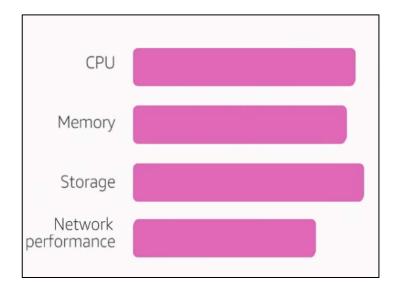
Virtualization Approach

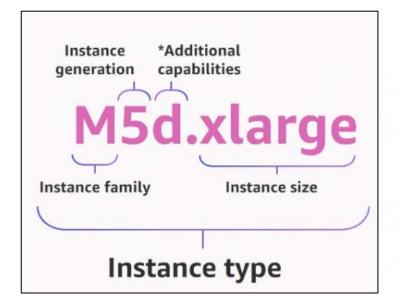


Provisioning an EC2 Instance

- AMI Amazon Machine Image
 - Template of common OS images
 - Quick Start
 - My AMI
 - Marketplace
 - Community

- Instance Type
 - Performance Characteristics
 - Optimized for different workloads
 - Elastic Can be changed later
 - Region Specific





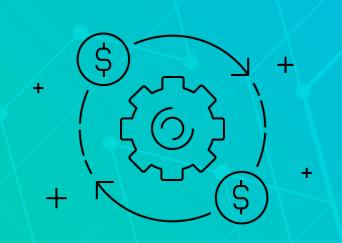


User Data

Customize your instance at launch

```
#!/bin/bash
yum update -y
yum install httpd -y
echo "<html><body><center><h1>Welcome to AWS. Here is my web page!
</h1></center></body></html>" > /var/www/html/index.html
systemctl start httpd
systemctl enable httpd
```





EC2 Instance Pricing

EC2 Purchase Options

