

AWS Cloud Infrastructure PoC Workshop (Cloud Ingress Traffic & Hybrid Monitoring)

Course description

This course is not for exam purpose. Instead you will build a Proof of Concept environment for all future workloads alongside your internal security & compliance. On top of the secure network framework, we will work in-depth with different kind of load balancing to handle ingress traffic with PCluster, which could be used to process and store your Big Data.

Next, we will build a hybrid /multi cloud monitoring platform. Next, we will discuss how to build a hybrid /multi cloud monitoring platform. This platform is not only useful for optimizing the performance of your workload, but also to reduce the unneeded expenditure.

Level	Delivery method	Duration
Intermediate-advance	Instructor-led technical workshops	12 hours

Course objectives

This course is designed to teach you how to:

- Master different kind of Load Balancing for ingress traffic in AWS
- Work with flexible PCluster for processing and storing your Big Data
- Understand the performance of your workloads and database in your hybrid-cloud environment
- Reduce costs of your Cloud deployment

Intended audience

This course is intended for:

- Solutions Architects
- Solution Design Engineers
- Cloud System Administrators, Database Administrators, Network Administrators and Operators

Prerequisites

We recommend that attendees of this course have:

- Taken the *AWS Cloud Practitioner Essentials* classroom or digital training
- Taken the *AWS technical Essentials* classroom training
- Fundamental knowledge on virtualization
- Familiarity with general networking and cloud computing concepts

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Course outline

Part One

- Elastic Load Balancing Deep Dive with Parallel Cluster
 - Build a flexible Parallel Cluster easily through CloudFormation
 - Application Load Balancing (ALB) Deep Dive, and integrate with your DNS
 - Work with SLURM for job scheduling and resource monitoring
 - Store your processed data in high performance EFS
 - Configure NLB for TCP traffic and compare NLB with ALB
 - SSL Offload with AWS Certificate Manager (ACM)
 - Move Big Data across countries efficiently

Part Two

- Create a monitoring platform for your hybrid cloud to improve performance and reduce cost
 - Create a cost-effective Dashboard for your hybrid -cloud environment
 - Work with Cloudwatch built-in monitoring for your EC2 machines, network traffic and databases
 - Configure custom monitoring with your Linux, Windows, applications and services
 - Configure multi-cloud monitoring and on-premise monitoring
 - Schedule your Windows service monitoring with Powershell
 - Configure alarms for abnormal behavior or loading
 - Analyze your Dashboard and make performance and cost improvement

Remarks:

Since the workshop is NOT based on a lab environment; students are required to use their own AWS account to build the infrastructure. Each student will get FREE AWS credits valued at USD25. It is highly recommended that they create a New AWS account and use Hong Kong Region.

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