GSI Global

AWS Certification Accelerator Groups

Cloud Practitioner – Session 1

AWS DXC Partner SA team

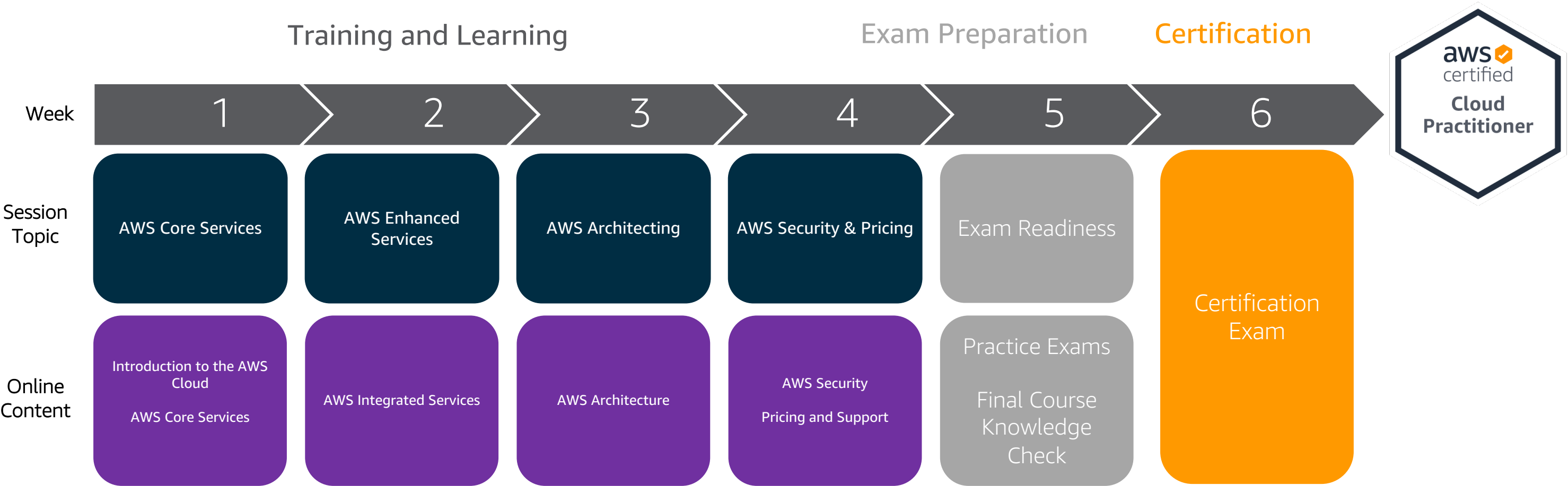# General Housekeeping Notes

- This webinar is confidential to AWS and DXC internally
- Everyone is in <u>listen only mode</u> until the end of the presentation
- Have a question or comment? Please:
  - <u>Technical</u>: type or upvote questions in <u>https://www.upvote.click/#CAG-CP-APAC</u>
  - <u>Administrative</u> questions
    - Registration/voucher information, please work with <u>AWSPartnerTraining@dxc.com</u>
    - LMS portal i.e. AWS Academy portal support, refer to:
      - General: <u>https://www.apn-portal.com/knowledgebase/</u>
      - Login troubleshooting: <u>https://www.apn-portal.com/knowledgebase/articles/FAQ/Your-APN-Partner-Central-Login/?l=en_US&fs=Search&pn=1</u>
      - APN Customer service team: <u>http://www.apn-portal.com/knowledgebase/?cu=1&fs=ContactUs&l=en_US</u>
      - General Support: <u>https://support.aws.amazon.com/#/contacts/aws-training</u>
- Go to Handouts in the session control panel to download a copy of the presentation
- Please complete the brief post-webinar survey at the end of the call
- <u>No E-mail support</u> at this time from SA team for the CAG sessions

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Todays Agenda

- Session 1 – Topic Recap (5 mins)

- Key Concepts (10 mins)

- Practice Questions (15 mins)

- Next Weeks Session (5 mins)

- Discussion (20 mins)

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Session 1 – Topic Overview

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AWS CAG: Cloud Practitioner Course Schedule

Training and Learning   Exam Preparation   Certification

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Cloud Practitioner

Week	1	2	3	4	5	6

Session Topic	AWS Core Services	AWS Enhanced Services	AWS Architecting	AWS Security & Pricing	Exam Readiness	Certification Exam
Online Content	Introduction to the AWS Cloud / AWS Core Services	AWS Integrated Services	AWS Architecture	AWS Security / Pricing and Support	Practice Exams / Final Course Knowledge Check	

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Session 1 - Overview

Session Topic – AWS Core Services

Online Modules:

AWS Core Services

Supplementary Content:

- AWS Whitepaper - https://docs.aws.amazon.com/whitepapers/latest/aws-overview/introduction.html

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Key Concepts

Key Concepts – AWS Cloud Advantages

- Agility
    - Spin-up resources on-demand in short time to nurture fast growth and two-way door experimentation
- Cost Savings
    - Capital expense to variable IT expense
    - AWS's economies of scale lowers variable expense.
- Elasticity
    - No longer required to plan for peak
    - scaling in/out is easy

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Key Concepts – AWS Cloud Advantages

- Innovate
    - Offload undifferentiated heavy lifting
    - Focus on business goals and end customer experience
- Global
    - Global in minutes. Region is cluster of datacenters in physical location around work, and Availability zone is logical grouping of datacenters within region
    - 76 Availability Zones across 24 geographic regions with over 11 regional edge caches, 205 edge locations and we don't plan to stop there.

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Key Concepts – Is the AWS Cloud secure?

- **Yes, and security will always be top priority.** AWS has been architected to be the most flexible and secure cloud computing environment available today to satisfy the security requirements for military, global banks, healthcare, life sciences, medical devices and other high-sensitivity organizations

- Shared responsibility model with the customer; AWS manages and controls the components from the host operating system and virtualization layer down to the physical security of the facilities in which the services operate, and AWS customers are responsible for building secure applications.

- AWS has achieved a number of internationally recognized certifications and accreditations [over 89], demonstrating compliance with 3rd party assurance frameworks, such as ISO 27017 for cloud security, ISO 27018 for cloud privacy, and SOC 1, SOC 2 and SOC 3.

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Key Concepts – AWS Core Services

Compute

      Elastic Compute Cloud or Amazon EC2

Storage

      Elastic Block Store or Amazon EBS

      Simple Storage Service or Amazon S3

Networking

      Virtual Private Cloud or Amazon VPC

      Security Groups

Global Infrastructure

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Key Concepts - Elastic Compute Cloud or Amazon EC2

- Compute or servers. AWS terminology is Instances.

- Increase or decrease capacity within minutes, not hours or days

- Pay as you go (per-second billing options)

- Broad selection of HW/SW. i.e. choice of processor, storage and networking options, operating system, and purchase model

- Over 275 instance types to optimize the cost and performance of workloads.

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Tips to get overview of an AWS service

Learn through questions
- Description
- Security
- Reliability [Durability]
- Scalability and Performance
- Cost

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Key Concepts - Elastic Block Store or Amazon EBS

- Description – Storage unit for EC2 instances
- Security – Easy and transparent Encryption
- Reliability [Durability] – Replicated within same availability zone to provide durability (data persistence) and availability. Snapshots for accidental recovery.
- Scalability and Performance – customizable block storage with choice of hard-disk or SDD types
- Cost - Options range from highly cost-effective dollar per gigabyte volumes to high performance volumes with high IOPS and high throughput designed for mission critical workloads

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Key Concepts - Simple Storage Service or Amazon S3

- Description – Managed object storage service (store and retrieve) with industry leading assurance on all well-architected pillars.
- Security – Security and audit support for data at rest, transit, and access with several regulatory compliance.
- Reliability [Durability] –
  - Amazon S3 is designed for 99.999999999% (11 9's) of data durability because it automatically creates and stores copies of all S3 objects across multiple systems.
  - Highly scalable, available, fast, inexpensive data storage infrastructure with 99.99% availability.
  - Versioning for accidental recovery.
- Scalability and Performance – customizable storage class with ability to store over trillions of objects
- Cost – pay as you go model with pricing varying by storage class, region, and data transfer.

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Key Concepts - Virtual Private Cloud or Amazon VPC

- Description – Managed networking service that lets you create common network setups; so you spend less time setting up/managing, and can focus on building applications.
- Security – You can create isolated sections varying from network level (group of instances) to hardware level (one instance). Also, have advanced security features like network access control, and Security Groups for firewalling/filtering. Further, securely connect on-premises to AWS with out-of-band and inline traffic inspection.
- Reliability/Performance –
  - Spawns across Availability zone, and Regions and helps extend on-premise to AWS for elasticity, and DR with highly performant network options for both hardware (EC2 Nitro) and connections (bandwidth, DXC).
- Cost – pay as you go model with pricing varying by VPC features (VPN, inter-connect/DX, EIP), region, and data transfer.

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Practice Time!

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Which of the following terms refers to the power to scale computing resources up or down easily?

A) Expediency
B) Elasticity
C) Economy
D) Efficiency

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A) ~~Expediency~~

B) Elasticity
C) ~~Economy~~
D) ~~Efficiency~~

Which of the following are advantages of cloud computing? (Choose 4)

a)   Requires large amounts of capital
b)   Elasticity – you need not worry about capacity.
c)   The ability to 'go global' in minutes
d)   Increased speed and agility
e)   Variable expense

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Which of the following are advantages of cloud computing? (Choose 4)

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c) The ability to 'go global' in minutes
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e) Variable expense

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What are the benefits of using Amazon EC2 instances compared to physical servers in your infrastructure? (Select Two.)

A. Automatic automated backups
B. Resizable
C. Pay only for the capacity you use
D. The ability to have different storage requirements
E. The ability to hot-add additional RAM

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What are the benefits of using Amazon EC2 instances compared to physical servers in your infrastructure? (Select Two.)

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Which of the following best describes Availability Zones?

a) Distinct locations from within an AWS region that are engineered to be isolated from failures.
b) Two zones containing compute resources that are designed to automatically maintain synchronized copies of each other's data.
c) Restricted areas designed specifically for the creation of Virtual Private Clouds.
d) A Content Distribution Network used to deliver content to users.

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Which of the following best describes an AWS Region?

a) A collection of data centers that is spread evenly around a specific continent.
b) A distinct location within a geographic area designed to provide high availability to a specific geography.
c) A console that gives you a quick, global picture of your cloud computing environment.
d) A collection of databases that can only be accessed from a specific geographic region.

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Which of the following are steps you should take in securing your AWS account? (Choose 3)

a) Use Groups to assign permissions to IAM users.
b) Create individual IAM users.
c) Create a Root IAM role.
d) Activate Multifactor Authentication (MFA) on your root account.

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Next Week

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Next Week Sessions

Session Topic – AWS Integrated Services

Online Modules:

AWS Cloud Practitioner Essentials (Second Edition): AWS Integrated Services

Supplementary Content:

- AWS Whitepaper - https://docs.aws.amazon.com/whitepapers/latest/aws-overview/introduction.html

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Questions?

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