



Curso Advanced Architecting on AWS



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Dirigido a:

- Arquitectos de nube.
- Arquitectos de soluciones.
- Personas que diseñan soluciones para infraestructuras de nube.

Objetivos:

- Conocer cómo proteger las conexiones del punto de enlace de la red virtual privada (VPC) de Amazon Simple Storage Service (Amazon S3) en un entorno de laboratorio.
- Conocer las mejores prácticas para decidir qué servicios utilizar y cómo implementar la administración de permisos.
- Crear diseños híbridos de AWS destinados a atender los aumentos de tráfico y optimizar el trabajo remoto para garantizar la conformidad de los niveles 2 o 3 de seguridad FIPS 140-2.
- Aprender sobre soluciones y productos disponibles para diseñar una infraestructura híbrida.

Requisitos:

- Haber obtenido la certificación AWS Certified Solutions Architect Associate o haber completado el curso Architecting on AWS.
- Conocimientos y experiencia en los principales servicios de AWS, a partir de las categorías informática, almacenamiento, redes y AWS Identity and Access Management (IAM).

Material del curso:

Documentación oficial del curso Advanced Architecting on AWS.

Perfil del docente:

- Formador certificado por AWS.
- Más de 5 años de experiencia profesional.
- Más de 4 años de experiencia docente.
- Profesional activo en empresas del sector IT.



Metodología:

- “Learning by doing” se centra en un contexto real y concreto, buscando un aprendizaje en equipo para la resolución de problemas en el sector empresarial.
- Aulas con grupos reducidos para que el profesional adquiera la mejor atención por parte de nuestros instructores profesionales.
- El programa de estudios como partners oficiales es confeccionado por nuestro equipo de formación y revisado por las marcas de referencia en el sector.
- La impartición de las clases podrá ser realizada tanto en modalidad Presencial como Virtual.

Examen y Certificación:

Preparación para el examen de certificación: [Examen AWS Certified Solutions Architect Professional](#)



Contenidos:

Módulo 1: Reviewing Architecting Concepts

- Group Exercise: Review Architecting on AWS core best practices
- Lab 1: Securing Amazon S3 VPC Endpoint Communications

Módulo 2: Single to Multiple Accounts

- AWS Organizations for multi-account access and permissions
- AWS SSO to simplify access and authentication across AWS accounts and third-party services
- AWS Control Tower
- Permissions, access, and authentication

Módulo 3: Hybrid Connectivity

- AWS Client VPN authentication and control
- AWS Site-to-Site VPN
- AWS Direct Connect for hybrid public and private connections
- Increasing bandwidth and reducing cost
- Basic, high, and maximum resiliency
- Amazon Route 53 Resolver DNS resolution

Módulo 4: Specialized Infrastructure

- AWS Storage Gateway solutions
- On-demand VMware Cloud on AWS
- Extending cloud infrastructure services with AWS Outposts
- AWS Local Zones for latency-sensitive workloads
- Your 5G network with and without AWS Wavelength

Módulo 5: Connecting Networks

- Simplifying private subnet connections
- VPC isolation with a shared services VPC
- Transit Gateway Network Manager and VPC Reachability Analyzer
- AWS Resource Access Manager
- AWS PrivateLink and endpoint services
- Lab 2: Configuring Transit Gateways

Módulo 6: Containers

- Container solutions compared to virtual machines
- Docker benefits, components, solutions architecture, and versioning
- Container hosting on AWS to reduce cost
- Managed container services: Amazon Elastic Container Service (Amazon ECS) and Amazon Elastic Kubernetes Service (Amazon EKS)
- AWS Fargate
- Lab 3: Deploying an Application with Amazon EKS on Fargate

Módulo 7: Continuous Integration/Continuous Delivery (CI/CD)

- CI/CD solutions and impact
- CI/CD automation with AWS CodePipeline
- Deployment models
- AWS CloudFormation StackSets to improve deployment management

Módulo 8: High Availability and DDoS Protection



- Common DDoS attacks layers
- AWS WAF
- AWS WAF web access control lists (ACLs), real-time metrics, logs, and security automation
- AWS Shield Advanced services and AWS DDoS Response Team (DRT) services
- AWS Network Firewall and AWS Firewall Manager to protect accounts at scale

Módulo 9: Securing Data

- What cryptography is, why you would use it, and how to use it
- AWS KMS
- AWS CloudHSM architecture
- FIPS 140-2 Level 2 and Level 3 encryption
- Secrets Manager

Módulo 10: Large-Scale Data Stores

- Amazon S3 data storage management including storage class, inventory, metrics, and policies
- Data lake vs. data warehouse: Differences, benefits, and examples
- AWS Lake Formation solutions, security, and control
- Lab 4: Setting Up a Data Lake with Lake Formation

Módulo 11: Large-Scale Applications

- What edge services are and why you would use them
- Improve performance and mitigate risk with Amazon CloudFront
- Lambda@Edge
- AWS Global Accelerator: IP addresses, intelligent traffic distribution, and health checks
- Lab 5: Migrating an On-Premises NFS Share Using AWS DataSync and Storage Gateway

Módulo 12: Optimizing Cost

- On-premises and cloud acquisition/deprecation cycles
- Cloud cost management tools including reporting, control, and tagging
- Examples and analysis of the five pillars of cost optimization

Módulo 13: Migrating Workloads

- Business drivers and the process for migration
- Successful customer practices
- The 7 Rs to migrate and modernize
- Migration tools and services from AWS
- Migrating databases and large data stores
- AWS Schema Conversion Tool (AWS SCT)

Módulo 14: Capstone Project

- Use the Online Course Supplement (OCS) to review use cases, investigate data, and answer architecting design questions about Transit Gateway, hybrid connectivity, migration, and cost optimization



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