

Security Engineering on AWS (AWSSO)

ID AWSSO **Price** CHF 2,390.—(excl. VAT) **Duration** 3 days

Who should attend

This course is intended for security engineers, security architects, and information security professionals.

This course is part of the following Certifications

AWS Certified Security – Specialty (ACSS)

Prerequisites

We recommend that attendees of this course have:

- Working knowledge of IT security practices and infrastructure concepts
- Familiarity with cloud computing concepts
- Completed [AWS Security Essentials \(SEC-ESS\)](#) and [Architecting on AWS \(AWSA\)](#) instructor-led courses

Course Objectives

In this course, you will:

- Identify security benefits and responsibilities of using the AWS Cloud
- Build secure application infrastructures
- Protect applications and data from common security threats
- Perform and automate security checks
- Configure authentication and permissions for applications and resources
- Monitor AWS resources and respond to incidents
- Capture and process logs
- Create and configure automated and repeatable deployments with tools such as AMIs and AWS CloudFormation

Course Content

Day 1

Module 1: Security on AWS

- Security in the AWS cloud

- AWS Shared Responsibility Model
- Incident response overview
- DevOps with Security Engineering

Module 2: Identifying Entry Points on AWS

- Identify the different ways to access the AWS platform
- Understanding IAM policies
- IAM Permissions Boundary
- IAM Access Analyzer
- Multi-factor authentication
- AWS CloudTrail
- Lab 01: Cross-account access

Module 3: Security Considerations: Web Application Environments

- Threats in a three-tier architecture
- Common threats: user access
- Common threats: data access
- AWS Trusted Advisor

Module 4: Application Security

- Amazon Machine Images
- Amazon Inspector
- AWS Systems Manager
- Lab 02: Using AWS Systems Manager and Amazon Inspector

Module 5: Data Security

- Data protection strategies
- Encryption on AWS
- Protecting data at rest with Amazon S3, Amazon RDS, Amazon DynamoDB
- Protecting archived data with Amazon S3 Glacier
- Amazon S3 Access Analyzer
- Amazon S3 Access Points

Day 2

Module 6: Securing Network Communications

- Amazon VPC security considerations
- Amazon VPC Traffic Mirroring

- Responding to compromised instances
- Elastic Load Balancing
- AWS Certificate Manager

Module 7: Monitoring and Collecting Logs on AWS

- Amazon CloudWatch and CloudWatch Logs
- AWS Config
- Amazon Macie
- Amazon VPC Flow Logs
- Amazon S3 Server Access Logs
- ELB Access Logs
- Lab 03: Monitor and Respond with AWS Config

Module 8: Processing Logs on AWS

- Amazon Kinesis
- Amazon Athena
- Lab 04: Web Server Log Analysis

Module 9: Security Considerations: Hybrid Environments

- AWS Site-to-Site and Client VPN connections
- AWS Direct Connect
- AWS Transit Gateway

Module 10: Out-Of-Region Protection

- Amazon Route 53
- AWS WAF
- Amazon CloudFront
- AWS Shield
- AWS Firewall Manager
- DDoS mitigation on AWS

Day 3

Module 11: Security Considerations: Serverless Environments

- Amazon Cognito
- Amazon API Gateway
- AWS Lambda

Module 12: Threat Detection and Investigation

- Amazon GuardDuty
- AWS Security Hub
- Amazon Detective

Module 13: Secrets Management on AWS

- AWS KMS
- AWS CloudHSM
- AWS Secrets Manager

- Lab 05: Using AWS KMS

Module 14: Automation and Security by Design

- AWS CloudFormation
- AWS Service Catalog
- Lab 06: Security automation on AWS with AWS Service Catalog

Module 15: Account Management and Provisioning on AWS

- AWS Organizations
- AWS Control Tower
- AWS SSO
- AWS Directory Service
- Lab 07: Federated Access with ADFS

Training Centres worldwide



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