



# Advanced Architecting on AWS

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Through a series of use case scenarios and practical learning, you'll explore AWS services that can be applied to solve architectural problems. You'll find opportunities to combine your new knowledge with critical thinking and problem-solving skills. This course culminates in a final review project to reinforce what you've learned throughout the three days.

### Course Contents

- Module 1: Reviewing Architecting Concepts
- Module 2: Single to Multiple Accounts
- Module 3: Hybrid Connectivity
- Module 4: Specialized Infrastructure
- Module 5: Connecting Networks
- Module 6: Containers
- Module 7: Continuous Integration/Continuous Delivery (CI/CD)
- Module 8: High Availability and DDoS Protection
- Module 9: Securing Data
- Module 10: Large-Scale Data Stores
- Module 11: Large-Scale Applications
- Module 12: Optimizing Cost
- Module 13: Migrating Workloads
- Module 14: Capstone Project

You have access to the labs for another 14 days after the course. This way you can repeat exercises or deepen them individually.

**E-Book** You will receive the original course documentation by Amazon Web Services as an e-book.

### Target Group

- Cloud architects
- Solutions architects
- Anyone who designs solutions for cloud infrastructures

### Prerequisites

- Knowledge and experience with core AWS services from the compute, storage, networking, and AWS Identity and Access Management (IAM) categories
- At least one of the following:
  - Attended the Architecting on AWS classroom training OR
  - Have at least 1 year of experience operating AWS workloads

Practical lab exercises with the AWS environment are part of the training. In order to be able to carry out these successfully, an internet-capable notebook (Windows, Linux, MacOS) is a prerequisite.

**Important:** Therefore, please bring your notebook to the course! If this is not possible, please contact us in advance.

Please note our overview AWS Trainings!

### This Course in the Web



You can find the up-to-date information and options for ordering under the following link:

[www.expertech-training.com/go/AWAA](http://www.expertech-training.com/go/AWAA)

### Reservation

On our Website, you can reserve a course seat for 7 days free of charge and in a non-committal manner. This can also be done by phone under +49 6074/4868-0.

### Guaranteed Course Dates

To ensure reliable planning, we are continuously offering a wide range of guaranteed course dates.

### Your Tailor-Made Course!

We can precisely customize this course to your project and the corresponding requirements.

Training	Prices, excl. of V.A.T.	
Classes in Germany	3 Days	€ 2,095
Online Training	3 Days	€ 2,095
Date/course venue	Course language German	
15/07-17/07/24  Frankfurt	15/07-17/07/24  Online	

Status 03/26/2024



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## Advanced Architecting on AWS

### Module 1: Reviewing Architecting Concepts

Group Exercise: Review Architecting on AWS core best practices

Lab 1: Securing Amazon S3 VPC Endpoint Communications

### Module 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

### Module 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

### Module 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

### Module 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

### Module 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 ECS on

Fargate

### Module 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

### Module 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

### Module 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

### Module 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

