Advanced Architecting on AWS

Kód kurzu: AWSARCH2

Advanced Architecting on AWS covers how to build complex solutions that incorporate data services, governance, and security on AWS. It introduces specialized AWS services, including AWS Direct Connect and AWS Storage Gateway to support hybrid architectures. The course also covers best practices for designing and building scalable, elastic, secure, and highly available applications on AWS.

Pro koho je kurz určen

Experienced IT professionals who are already familiar with AWS services

Co Vás naučíme

- Apply the AWS Well-Architected Framework
- Manage multiple AWS accounts for your organization
- Connect an on-premises data center to the AWS Cloud
- Move data from an on-premises data center to AWS
- Design large data stores for the AWS Cloud
- Understand different architectural designs for scalability
- Protect your infrastructure from a DDoS attack
- Secure your data on AWS with encryption
- Enhance the performance of your solutions
- Select the most appropriate AWS deployment mechanism

Požadované vstupní znalosti

We recommend that attendees of this course have one of the following prerequisites:

- Attended Architecting on AWS
- Achieved AWS Certified Solutions Architect - Associate
- Experience in designing scalable and elastic applications on the AWS platform

Studijní materiály

Amazon Web Services authorized e-book included.

Osnova kurzu

Note: course outline may vary slightly based on the regional location and/or language in which the class is delivered.

Day 1

Module 1: AWS Account Management

- Multiple accounts
- Multi-account patterns
- License management
- Manage security and costs with multiple accounts
- AWS Organizations
- AWS Directory Service
- Hands-on lab: Multi-VPC connectivity using a VPN

Module 2: Advanced Network Architectures

- Improve VPC network connections
- Enhance performance for HPC workloads
- VPN connections over AWS
- AWS Direct Connect
- AWS Transit Gateway
- Amazon Route 53
- Exercise: Design a hybrid architecture

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Module 3: Deployment Management on AWS

- Application lifecycle management
- Application deployment using containers
- AWS Elastic Beanstalk
- AWS OpsWorks
- AWS CloudFormation

Day 2

Module 4: Data

- Optimize Amazon S3 storage
- Amazon ElastiCache
- AWS Snowball
- AWS Storage Gateway
- AWS DataSync
- Backup and archival considerations
- Database migration
- Designing for big data with Amazon DynamoDB
- Hands-on lab: Build a failover solution with Amazon Route 53 and Amazon RDS

Module 5: Designing for large scale applications

- AWS Auto Scaling
- Migrating over-provisioned resources
- Blue-green deployments on AWS
- Hands-on lab: Blue-green deployment with AWS Elastic Beanstalk

Day 3

Module 6: Building resilient architectures

- DDoS attack overview
- AWS Shield
- AWS WAF
- Amazon GuardDuty
- High availability using Microsoft SQL Server and Microsoft SharePoint on AWS
- High availability using MongoDB on Amazon EC2
- AWS Global Accelerator
- Hands-on lab: CloudFront content delivery and automating AWS WAF rules

Module 7: Encryption and data security

- Encryption primer
- DIY key management in AWS
- AWS Marketplace for encryption products
- AWS Key Management Service (AWS KMS)
- Cloud Hardware Security Module (HSM)
- Comparison of key management options
- Hands-on lab: AWS KMS with envelope encryption

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