Professional AWS & Azure Cloud Computing Networks Training Course



16 - 20 Nov 2026

Düsseldorf

5900 € (Per Person)

Ref: #NO5984_52103

Course Introduction / Overview:

This comprehensive training course is designed for IT professionals seeking to master the intricacies of cloud networking on the two leading platforms, Amazon Web Services (AWS) and Microsoft Azure. As organizations increasingly migrate their infrastructure to the cloud, understanding how to design, implement, and manage secure and scalable networks is a critical skill. This course goes beyond a single-provider approach. It provides a comparative analysis of AWS and Azure networking services, enabling you to build robust, multi-cloud, and hybrid cloud network solutions. We will cover key concepts like virtual private clouds (VPCs), network security groups, hybrid connectivity with VPNs and Direct Connect/ExpressRoute, and load balancing. The curriculum is built on foundational network principles and their application in a cloud context. It draws from the expertise of recognized authors in cloud computing and networking, like James F. Kurose and his book "Computer Networking: A Top-Down Approach." This program at BIG BEN Training Center is both theoretical and highly practical, ensuring you gain a deep understanding of cloud networking fundamentals and the skills to apply them effectively. By the end of this training, you will be equipped to manage the network layer of complex cloud deployments, ensuring optimal performance, security, and reliability.

Target Audience / This training course is suitable for:

- Cloud architects and engineers.
- Network administrators.
- IT infrastructure managers.
- DevOps engineers.
- Cybersecurity professionals.
- Solutions architects.
- System administrators.

Target Sectors and Industries:

- Information Technology and software development.
- Cloud service providers.
- Financial services.
- E-commerce.
- Healthcare.
- Government agencies and equivalents.
- Telecommunications.

Target Organizations Departments:

- Cloud and Infrastructure.
- Network Engineering.
- IT Operations.
- DevOps.
- Cybersecurity.
- Application Development.
- Technical Support.

Course Offerings:

By the end of this course, the participants will have able to:

- Design and implement virtual networks in both AWS and Azure.
- Configure network security groups and access control lists.
- Establish secure hybrid cloud connectivity with on-premises networks.
- Set up and manage load balancing and traffic distribution.
- Troubleshoot common cloud networking issues.
- Compare and contrast networking services across AWS and Azure.
- Implement best practices for cost optimization in cloud networking.

Course Methodology:

This training course at BIG BEN Training Center uses a highly practical and comparative methodology. The program combines instructor-led sessions with hands-on labs in both AWS and Azure environments. Participants will work through real-world case studies, such as designing a hybrid cloud network for a corporate application or securing a multi-tiered web application. The course encourages interactive learning, including group discussions and problem-solving exercises where participants can share their experiences and challenges. The instructor provides personalized feedback and guidance, ensuring that every participant gains the skills needed to design and manage complex cloud network infrastructures. This approach allows for a deep understanding of each platform's unique features, while also highlighting the similarities and differences, which are essential for working in today's multi-cloud world.

Course Agenda (Course Units):

Unit One: Cloud Networking Fundamentals

- Introduction to cloud computing and its impact on networks.
- Core concepts of virtual networks in AWS and Azure.
- The shared responsibility model for cloud security.
- The difference between public, private, and hybrid clouds.
- Understanding network services like VPCs and VNets.
- IP addressing in a cloud environment.
- Case study: a simple cloud network setup.

Unit Two: AWS Networking Services

- Creating and configuring a Virtual Private Cloud (VPC).
- Subnets and routing tables.
- Securing your VPC with security groups and network ACLs.
- Setting up an Internet Gateway and NAT Gateway.
- VPC peering for inter-VPC connectivity.
- AWS Direct Connect and VPN solutions.
- Practical lab: building a secure AWS VPC.

Unit Three: Microsoft Azure Networking Services

- Creating and configuring an Azure Virtual Network (VNet).
- Subnets and network security groups (NSGs).
- Azure ExpressRoute and VPN Gateway for hybrid connectivity.
- User-Defined Routes (UDRs).
- Azure DNS and Private Link.
- Service endpoints and private endpoints.
- Practical lab: building a secure Azure VNet.

Unit Four: Advanced Cloud Networking & Security

- Implementing load balancing in AWS and Azure.
- DNS and traffic management.
- Network monitoring and logging.
- Securing cloud networks with firewalls and web application firewalls (WAFs).
- Implementing a zero-trust network model in the cloud.
- Automating network tasks with code.
- Case study: a multi-cloud network design.

Unit Five: Hybrid Networks & Future Trends

- Designing a hybrid cloud network.
- Connecting on-premises networks to AWS and Azure.
- The concept of multi-cloud architecture.
- Network cost optimization in the cloud.
- The future of cloud networking.
- Final project: designing a hybrid cloud network.
- Emerging networking technologies.
- Frequently Asked Questions:

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

With the increasing complexity of multi-cloud and hybrid environments, how can network professionals ensure consistent security policies and operational efficiency across different platforms?

What unique qualities does this course offer compared to other courses?

This course stands out by providing a unique comparative analysis of AWS and Azure networking, rather than focusing on a single platform. This approach is essential for professionals working in today's multi-cloud environments. The curriculum is designed to teach not just the "how" but also the "why," helping participants understand the architectural decisions behind cloud networks. The hands-on labs in both environments provide invaluable experience and allow for direct comparison of services. The program also emphasizes critical topics like hybrid connectivity, security, and cost optimization, which are vital for real-world cloud deployments. It is a highly practical and strategic training that equips participants with the skills to confidently design and manage robust network infrastructures that span multiple cloud providers and on-premises data centers.