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Azure Network Fundamentals

Syllabus

Training Overview

Azure Network Fundamentals is a practical, MSP-focused course designed to demystify Azure networking and hybrid connectivity. Built from real-world professional services experience, this training helps MSPs confidently design, deploy, secure and troubleshoot Azure networks for SMB and mid-market customers.

Rather than focusing on abstract theory, this course covers how Azure networking works, how it differs from on-prem networking, and how MSPs should architect environments to be secure, scalable and supportable.

Participants will gain hands-on exposure to core Azure networking services, hybrid connectivity models, security controls, routing, load balancing and monitoring.

This training is designed for:

- Cloud Engineers
- Helpdesk Tier 1/2 Supporting Azure
- Technical Leaders/Architects

Training Inclusions

- 4-hours of virtual, interactive content taught by an expert instructor with MSP Azure expertise
- Downloadable videos* of the content you can watch on demand at your convenience
- Downloadable slide decks, handouts and resources

Learning Objectives

Partners attending this training will learn how to:

- Design Azure Virtual Networks using best practices for MSPs
- Confidently plan IP address spaces that support future growth
- Understand Azure regions, availability zones and resiliency models
- Connect Azure to on-prem, datacenters and other clouds
- Secure traffic using NSGs, Azure Firewall, NVAs and WAF
- Control ingress and egress traffic using NAT Gateway and Bastion
- Choose the right connectivity option (VPN vs. ExpressRoute)
- Implement private endpoints and service endpoints correctly
- Build hub-and-spoke architectures that scale
- Troubleshoot routing, connectivity and DNS issues
- Monitor Azure networks using Network Watcher

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* Videos will either be recordings from your session or previously recorded material in which partner faces and voices have been removed. It is recommended to attend trainings live to receive the full benefits of interactive Q&A with the instructor and class participants.

Training Topics

Session 1: Azure Network Foundations

- **Azure global network and regions**
- **Availability zones and resiliency**
- **Virtual networks and subnets**
- **Azure DHCP and IP addressing**
- **Static IPs (the Azure way)**
- **VNet peering (regional and global)**
- **Mesh vs. Hub-and-Spoke architecture**
- **Ingress and Egress fundamentals**
- **Public IPs, NAT Gateway, Azure Bastion**

Session 2: Hybrid Connectivity and DNS

- **Site-to-Site and Point-to-Site VPNs**
- **VPN Gateway SKUs and use cases**
- **ExpressRoute overview (when appropriate)**
- **Network Virtual Appliances (familiar firewalls)**
- **Azure DNS fundamentals**
- **VNet-level vs. NIC-level DNS**
- **Public DNS vs. Private DNS**
- **Service endpoints vs. private endpoints**

Session 3: Security, Firewalls and Routing

- **Network Security Groups (NSGs)**
- **Layer 4 vs. Layer 7 security**
- **Azure Firewall (Basic, Standard, Premium)**
- **NVAs vs. Azure Firewall (MSP decision guidance)**
- **Web Application Firewall (WAF)**
- **Azure routing fundamentals**
- **User-Defined Routes (UDRs)**
- **Forcing traffic through firewalls**

Session 4: Load Balancing, Monitoring and Troubleshooting

- **Regional load balancers**
- **Global load balancing concepts**
- **Traffic Manager vs. Front Door**
- **Choosing the right load balancing solution**
- **Azure Network Watcher**
- **Effective routes and IP flow verification**
- **Visualizing network topology**

Meet the Instructor

Chris Kirby

Azure Solutions Engineer

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Testimonial

"Chris is a very good instructor. Content is laid out and covered well. He is great at articulating what is needed to understand the topics without drowning newbies. I especially like his insight from his work/project history. Thank you!"

Anonymous

Testimonial

"Azure can feel overwhelming. As a senior executive in my company, I need to understand a lot about Azure, including the financial elements. This course was a good overview of the specific areas and resources. Lots of real-world examples."

G. Burt, TSG Networks

Testimonial

"It was a well-executed class, and the direction it went from start to finish felt natural and well-prepared. Knowing nothing about Azure Cloud Services before this, it was a lot of information."

M. King, Millennium Communications