

**Configure Secure Access to your Workloads using Networking with Azure Virtual Network (AZ-1002)**

**Course Number:** MOC-AZ-1002
**Duration:** 1 day

**Overview**

In this Microsoft Azure training course, Configure Secure Access to your Workloads using Networking with Azure Virtual Network (AZ-1002), attendees learn how to configure secure access to their cloud workloads using Azure networking.

**Prerequisites**

No previous experience is presumed.

**Materials**

All Microsoft Azure training students receive Microsoft official courseware.

For all Microsoft Official Courses taught in their entirety that have a corresponding certification exam, an exam voucher is included for each participant.

**Software Needed on Each Student PC**

Students need an Azure subscription to complete these exercises. If they don't have an Azure subscription, they may create a [free account](https://azure.microsoft.com/free/?azure-portal=true) and add a subscription before the class.

**Objectives**

* Configure virtual networks and subnets, including IP addressing
* Configure an Azure Virtual Network peering connection and address transit and connectivity concerns
* Control Azure virtual network traffic by implementing custom routes
* Create a DNS zone for your domain name
* Create DNS records to map the domain to an IP address and test that the domain name resolves to your web server
* Implement network security groups and ensure network security group rules are correctly applied
* Describe how Azure Firewall protects Azure Virtual Network resources, including Azure Firewall features, rules, deployment options, and administration with Azure Firewall Manager
* Gain hands-on practice configuring secure access to workloads using Azure virtual networking

**Outline**

* Configure virtual networks
	+ Plan virtual networks
	+ Create subnets
	+ Create virtual networks
	+ Plan IP addressing
	+ Create public IP addressing
	+ Associate public IP addresses
	+ Allocate or assign private IP addresses
	+ Interactive lab simulation
* Configure Azure Virtual Network peering
	+ Determine Azure Virtual Network peering uses
	+ Determine gateway transit and connectivity
	+ Create virtual network peering
	+ Extend peering with user-defined routes and service chaining
	+ Interactive lab simulation
* Manage and control traffic flow in your Azure deployment with routes
	+ Identify routing capabilities of an Azure virtual network
	+ Exercise - Create custom routes
	+ What is an NVA?
	+ Exercise - Create an NVA and virtual machines
	+ Exercise - Route traffic through the NVA
* Host your domain on Azure DNS
	+ What is Azure DNS?
	+ Configure Azure DNS to host your domain
	+ Exercise - Create a DNS zone and an A record by using Azure DNS
	+ Dynamically resolve resource name by using alias record
	+ Exercise - Create alias records for Azure DNS
* Configure network security groups
	+ Implement network security groups
	+ Determine network security group rules
	+ Determine network security group effective rules
	+ Create network security group rules
	+ Implement application security groups
	+ Interactive lab simulation
* Introduction to Azure Firewall
	+ What is Azure Firewall?
	+ How Azure Firewall works
	+ When to use Azure Firewall
	+ When to use Azure Firewall Premium
* Guided Project - Configure Secure Access to Workloads with Azure Virtual Networking Services
	+ Exercise - Provide network isolation and segmentation for the web application
	+ Exercise - Control the network traffic to and from the web application
	+ Exercise - Protect the web application from malicious traffic and block unauthorized access
	+ Exercise - Operationalize and enforce policy to filter traffic
	+ Exercise - Record and resolve domain names internally