

**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