

Lab 08 - Manage Virtual Machines

Student lab manual

Task 5: Deploy zone-resilient Azure virtual machine scale sets by using the Azure portal

Create a virtual machine scale set

Resource group *

(New) az104-08-rg02

Create new

Scale set details

Virtual machine scale set name *

az10408vmss0

Region *

(US) East US

Availability zone

Zones 1, 2, 3

☒ Autoscaling can help you respond to an outage by scaling out new instances in another zone. Turn on Autoscaling in the [Scaling tab](#).

Orchestration

A scale set has a "scale set model" that defines the attributes of virtual machine instances (size, number of data disks, etc). As the number of instances in the scale set changes, new instances are added based on the scale set model. [Learn more about the scale set model](#)

Orchestration mode *

☒ Uniform: optimized for large scale stateless workloads with identical instances

☐ Flexible: achieve high availability at scale with identical or multiple virtual machine types

Security type

Standard

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Give feedback

Create a virtual machine scale set

Basics Spot Disks **Networking** Scaling Management Health Advanced Tags

Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution. [Learn more about VMSS networking](#)

Virtual network configuration

Azure Virtual Network (VNet) enables many types of Azure resources to securely communicate with each other, the on-premises networks. [Learn more about VNets](#)

Virtual network *

(New) az104-08-rg02-vnet (recommended)

Create virtual network

Network interface

A network interface enables an Azure virtual machine to communicate with internet, Azure, and on-premises resources. You can have one or more network interfaces.

+ Create new nic

Delete

| NAME | CREATE PUBL... | SUBNET | NETWORK SECU... | ACCELE... |
|--------------------------|----------------|-----------------------|-----------------|-----------|
| az104-08-rg02-vnet-ni... | No | default (10.0.0.0/20) | Basic | On |

Load balancing

You can place this virtual machine in the backend pool of an existing Azure load balancing solution. [Learn more](#)

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Virtual Network service enables Azure resources to securely communicate with each other in a virtual network which is a logical isolation of the Azure cloud dedicated to your subscription. You can connect virtual networks to other virtual networks, or your on-premises network. [Learn more about virtual networks](#)

Name *

az104-08-rg02-vnet

Resource group *

(New) az104-08-rg02

Create new

Address space

The virtual network's address space specified as one or more address prefixes in CIDR notation (e.g. 10.0.0.0/16).

| Address range | Addresses | Overlap |
|---------------------------------------|---|---------|
| <input type="checkbox"/> 10.82.0.0/20 | 10.82.0.4 - 10.82.15.254 (4091 addresses) | None |
| <input type="checkbox"/> | (0 Addresses) | None |

Subnets

The subnet's address range in CIDR notation (e.g. 10.0.0.0/24). It must be contained by the address space of the virtual network.

| Subnet name | Address range | Addresses |
|----------------------------------|---------------|---|
| <input type="checkbox"/> subnet0 | 10.82.0.0/24 | 10.82.0.4 - 10.82.0.254 (251 addresses) |
| <input type="checkbox"/> | | (0 Addresses) |

OK

Discard

Create network security group

Name *
az10408vmss0-nsg

Inbound rules ⓘ
1000: default-allow-ssh
Any
SSH (TCP/22)
[+ Add an inbound rule](#)

Outbound rules ⓘ
No results
[+ Add an outbound rule](#)

[OK](#)

az10408vmss0-nsg

Service ⓘ
Custom

Destination port ranges * ⓘ
80

Protocol
☐ Any
☒ TCP
☐ UDP
☐ ICMP

Action
☒ Allow
☐ Deny

Priority * ⓘ
1010

Name *
custom-allow-http

Description

[Add](#) [Cancel](#) [Give feedback](#)


Create a virtual machine scale set

[+ Create new nic](#) [Delete](#)

| NAME | CREATE PUBLI... | SUBNET | NETWORK SECU... | ACCELERATED N... |
|--------------------------|-----------------|------------------------|-----------------|------------------|
| az104-08-rg02-vnet-ni... | Yes | subnet0 (10.82.0.0/24) | Advanced | On |

Load balancing
You can place this virtual machine in the backend pool of an existing Azure load balancing solution. [Learn more](#)

Load balancing options ⓘ
☐ None
☒ Azure load balancer
Supports all TCP/UDP network traffic, port-forwarding, and outbound flows.
☐ Application gateway
Web traffic load balancer for HTTP/HTTPS with URL-based routing, SSL termination, session persistence, and web application firewall.

 To allow traffic from your load balancing product, please update the appropriate port configuration on your network security group associated with your network interface.

Select a load balancer * ⓘ
(new) az10408vmss0-lb
[Create a load balancer](#)