

TASK 1: Create Zone-Resilient Virtual Machines

Create a resource group

Basics Tags Review + create

[Automation Link](#)

Basics

Subscription Azure subscription 1
Resource group name az104-rg8
Region West US 2

Tags

None

Microsoft Azure Search resources, services, and docs (Ctrl) Copilot

Home > Compute infrastructure > Virtual machines >

Create a virtual machine [Help me create a low cost VM](#) [Help me create a VM optimized for high availability](#) [Help me choose the right VM size for my workload](#)

Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.

[Help me create a low cost VM](#) [Help me create a VM optimized for high availability](#) [Help me choose the right VM size for my workload](#)

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * Azure subscription 1

Resource group * az104-rg8 [Create new](#)

Instance details

Virtual machine names az104-vm1-1, az104-vm1-2
2 virtual machines will be created with the names shown above. [Edit names](#)

Region (US) Central US
Deploy to an Azure Extended Zone

Availability options Availability zone

Zone options ☒ Self-selected zone
Choose up to 3 availability zones, one VM per zone
☐ Azure-selected zone (Preview)
Let Azure assign the best zone for your needs

[Previous](#) [Next: Disks](#) [Review + create](#)

Estimated monthly costs

Costs indicated here are estimates only. Pricing may vary depending on your Microsoft agreement, date of purchase, subscription type, usage costs, licensing and currency exchange rates. Total costs may include other resource costs, licensing and subscription implications. This feature may have limited or restricted functionality, but is made available on a preview basis for evaluation and feedback.

[Give feedback about your estimate experience](#)

Basics	\$0.00
Virtual machine	\$0.00
2 virtual machines (See breakdown)	
Disks	\$0.00
Networking	\$0.00
Management	\$0.00
Monitoring	\$0.00
Advanced	\$0.00
Estimated monthly cost	\$0.00

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Create a virtual machine

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

Based on the number of availability zones selected, 2 virtual machines will be created. The following settings will be applied to each virtual machine unless specified otherwise.

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

BasicsDisksNetworkingManagementMonitoringAdvancedTagsReview + create

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. [Learn more](#)

VM disk encryption

Azure disk storage encryption automatically encrypts your data stored on Azure managed disks (OS and data disks) at rest by default when persisting it to the cloud.

Encryption at host

Encryption at host is not registered for the selected subscription. [Learn more](#)

OS disk

OS disk sizeImage default (127 GiB)

OS disk typePremium SSD (locally-redundant storage)

Delete with VM

Key managementPlatform-managed key

Enable Ultra Disk compatibility

Data disks for az104-vm1-1

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

LUNNameSize (GiB)Disk typeHost cachingDelete with VM

< PreviousNext: Networking>Review + create

Estimated monthly costs

Costs indicated here are estimates only. Pricing may vary depending on your Microsoft agreement, date of purchase, subscription type, usage costs, licensing and currency exchange rates. Total costs may include other resource costs, licensing and subscription implications. This feature may have limited or restricted functionality, but is made available on a preview basis for evaluation and feedback.

Give feedback about your estimate experience

Basics\$0.00

Disks\$0.00

Could not calculate costs. [Estimate in Pricing Calculator](#)

Networking\$0.00

Management\$0.00

Monitoring\$0.00

Advanced\$0.00

Tags\$0.00

Review + create\$0.00

Shipping Tool

Screenshot copied to clipboard

Automatically saved to screenshots folder.

Mark-up and share

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Create a virtual machine

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

Based on the number of availability zones selected, 2 virtual machines will be created. The following settings will be applied to each virtual machine unless specified otherwise.

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

NIC network security group

None

Basic

Advanced

Public inbound ports

None

Allow selected ports

Select inbound ports

Select one or more ports

All traffic from the internet will be blocked by default. You will be able to change inbound port rules in the VM > Networking page.

Delete public IP and NIC when VM is deleted

Enable accelerated networking

The selected VM size does not support accelerated networking.

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.

< PreviousNext: Management>Review + create

Estimated monthly costs

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Give feedback about your estimate experience

Basics\$0.00

Disks\$0.00

Networking\$7.30

Public IP\$7.30

2 Public IP (See breakdown)

VM outbound data transfer\$0.00

az104-vm1-1-ip: Estimated data transfer (GB)\$0.00

100

VM outbound data transfer\$0.00

az104-vm1-2\$0.00

Estimated monthly cost\$7.30

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Create a virtual machine

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

Validation passed

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

BasicsDisksNetworkingManagementMonitoringAdvancedTagsReview + create

Price

2 X Standard B1s
by Microsoft
Terms of use | Privacy policy

Subscription credits apply
0.0330 USD/hr
Pricing for other VM sizes

TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the Azure Marketplace Terms for additional details.

Associated resources

Virtual machines (new) az104-vm1-1, az104-vm1-2
Public IPs (new) az104-vm1-1-ip, az104-vm1-2-ip


Basics

Subscription Azure subscription 1
Resource group az104-rg8
Region Central US
Availability options Availability zone

< PreviousNext >Create


Download a template for automationGive feedback

Your deployment is complete



Deployment name: CreateVm-MicrosoftWindowsServer.WindowsSe...
Subscription: [Azure subscription 1](#)
Resource group: [az104-rg8](#)

Start time: 12/15/2025, 9:17:05 AM
Correlation ID: c6f239e4-9b06-42ba-974f-085135776a8b



Deployment details

Next steps

- [Setup auto-shutdown](#) Recommended
- [Monitor VM health, performance and network dependencies](#) Recommended
- [Run a script inside the virtual machine](#) Recommended

[Go to resource](#)[Create another VM](#)

Give feedback

 [Tell us about your experience with deployment](#)

Task 2: Scale VM size +
Create/Attach/Detach/Upgrade
disk

az104-vm1-1 | Size

Virtual machine

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Connect

Networking

Network settings

Load balancing

Application security groups

Network manager

Settings

Availability + scale

Size

Availability + scaling

Security

Backup + disaster recovery

Operations

Monitoring

Automation

Help

If the virtual machine is currently running, changing its size will cause it to be restarted. Stopping the virtual machine may reveal additional sizes. →

Search by VM size...

Display cost: MonthlyvCPUs: AllRAM (GiB): AllAdd filter

Showing 391 VM sizes. | Subscription: Azure subscription 1 | Region: Central US | Current size: Standard_D2ds_v4 | [Learn more about VM sizes](#) | Group by series

VM Size	Type	vCPUs	RAM (GiB)	Data disks	Max IOPS	Lowest price
B-Series						
Ideal for workloads that do not need continuous full CPU performance						
B1ms	General purpose	1	2	2	640	
B1s (free services eligible)	General purpose	1	1	2	320	
B2ms	General purpose	2	8	4	1920	
B2s	General purpose	2	4	4	1280	
B4ms	General purpose	4	16	8	2880	
B8ms	General purpose	8	32	16	4320	
D-Series v4						
The 4th generation D family sizes for your general purpose needs						
D2as_v4	General purpose	2	8	4	3200	
D2ds_v4	General purpose	2	8	4	3200	
D4as_v4	General purpose	4	16	8	6400	
D4ds_v4	General purpose	4	16	8	6400	
D8as_v4	General purpose	8	32	16	12800	
D8ds_v4	General purpose	8	32	16	12800	
D-Series v3						
The 3rd generation D family sizes for your general purpose needs						

Resize

Prices presented are estimates in USD that include only Azure infrastructure costs and any discounts for the subscription and location. The prices don't include any applicable software costs. Final charges will appear in your local currency in cost analysis and billing views. [View Azure pricing calculator](#).

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Add or remove favorites by pressing Ctrl+Shift+F

az104-vm1-1 | Disks

Virtual machine

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Connect

Networking

Network settings

Load balancing

Application security groups

Network manager

Settings

Disks

Extensions + applications

Operating system

Configuration

Advisor recommendations

Properties

Locks

Availability + scale

Refresh | Additional settings | Feedback | Troubleshoot

The configuration of this virtual machine and its attached disk(s) may not allow for the disk(s) to utilize their full throughput performance. The current virtual machine size supports 23 MBps. The total for disk(s) attached to virtual machine 'az104-vm1-1' is 160 MBps. You can change the virtual machine size to support additional disk(s) throughput. [Learn more](#)

OS disk

Swap OS disk

Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (...)	Encryption
az104-vm1-1_OsDisk_1_6f00d3742ebb43e	Premium SSD LRS	127	500	100	SSE with PMK

Data disks

Filter by name

Showing 1 of 1 attached data disks

Create and attach a new disk | Attach existing disks

LUN	Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (...)	Encryption
0	vm1-disk1	Standard HDD (...)	32	500	60	Platform-managed

Apply

Discard changes

Add or remove favorites by pressing Ctrl+Shift+F

aziu4-vm1-1 | DISKS

Virtual machine

Updating virtual machine 'az104-vm1-1'...

Search

RefreshAdditional settingsFeedbackTroubleshoot

OverviewActivity logAccess control (IAM)TagsDiagnose and solve problemsResource visualizerConnectNetworkingSettingsDisksExtensions + applicationsOperating systemConfigurationAdvisor recommendationsPropertiesLocksAvailability + scaleSecurityBackup + disaster recovery

OS disk

Swap OS disk

Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (MB/s)	Encryption	Host caching
az104-vm1-1_OsDisk_1_6f00d3742ebb43ace1e8aa554ee402	Premium SSD LRS	127	500	100	SSE with PMK	Read/write

Data disks

Filter by name

Showing 0 of 0 attached data disks

Create and attach a new diskAttach existing disks

LUN	Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (MB/s)	Encryption	Host caching
No data disks attached							

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Home > Storage center | Azure Disks > vm1-disk1

Storage center | Azure Disks

Default Directory (bsmnc2280145@msabest.pk)

Search

SummaryResources

CreateManage view

You are viewing a new version of Browse experience. Click here to access the old experience.

☐ Name

☐ az104-vm1-1_OsDisk_1_6f00d3742

☐ az104-vm1-2_OsDisk_1_7fae9d354

☐ vm1-disk1

OverviewAll storage resourcesObject storageFile storageBlock storageData managementMigrationPartner solutionsManagement servicesHelp

EncryptionNetworkingDisk ExportPropertiesLocksMonitoringAutomationHelp

vm1-disk1 | Size + performance

Explore ways to boost disk performance

Storage type: Standard SSD (locally-redundant storage)

Why are some options disabled?

Size	Disk tier	Provisioned IOPS	Provisioned throughput (MB/s)	Max Shares	Max burst IOPS	Max burst throughput (MB/s)
4 GiB	E1	500	100	3	600	150
8 GiB	E2	500	100	3	600	150
16 GiB	E3	500	100	3	600	150
32 GiB	E4	500	100	3	600	150
64 GiB	E6	500	100	3	600	150
128 GiB	E10	500	100	3	600	150
256 GiB	E15	500	100	3	600	150
512 GiB	E20	500	100	3	600	150
1024 GiB	E30	500	100	5	1000	250
2048 GiB	E40	500	100	5	-	-
4096 GiB	E50	500	100	5	-	-
8192 GiB	E60	2000	400	10	-	-
16384 GiB	E70	4000	600	10	-	-
32767 GiB	E80	6000	750	10	-	-

Custom disk size (GiB)

32

SaveDiscard

Give feedback

Task 3: Create VM Scale Set (VMSS) with VNet, NSG, Public IP, Load Balancer

Create a load balancer



Details such as subscription and resource group will be inherited from the virtual machine that you're creating. A default IP, backend pool, and load balancer rule will be created on your behalf, though certain configurations can be changed if desired.

Load balancer name *

Type * ⓘ



Public

Provides outbound connections for virtual machines inside your virtual network using public load balancers.



Internal

Used to load balance traffic inside a virtual network. A load balancer frontend can be accessed from an on-premises network in a hybrid scenario.

Protocol * ⓘ



TCP



UDP

Rules

Rules



Load balancer rule



Inbound NAT rule

Load balancer rule

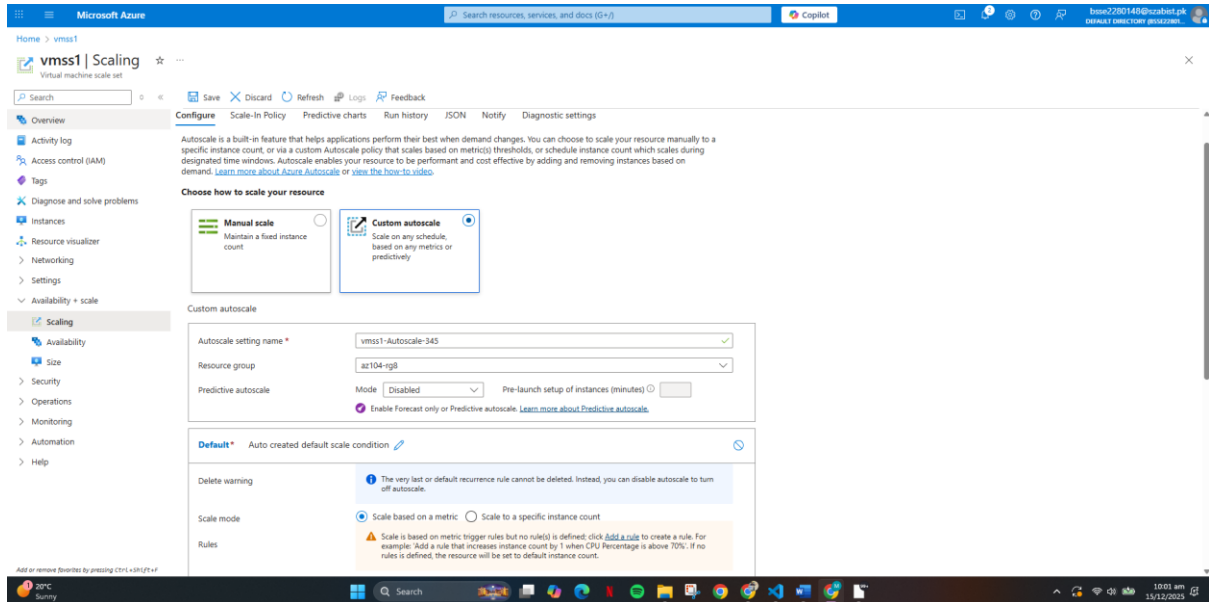
A load balancing rule distributes incoming traffic that is sent to a selected IP address and port combination across a group of backend pool instances. Only backend instances that the health probe considers healthy receive new traffic.

Frontend port * ⓘ

Create

Cancel

Task 4: Configure Autoscale rules for VMSS



The screenshot displays the Microsoft Azure portal interface for configuring Autoscale on a Virtual Machine Scale Set (VMSS). The page title is "vmss1 | Scaling". The left sidebar shows the navigation menu with "Scaling" selected. The main content area is divided into two sections: "Choose how to scale your resource" and "Custom autoscale".

Choose how to scale your resource:

- Manual scale:** Maintain a fixed instance count.
- Custom autoscale:** Scale on any schedule, based on any metrics or predictively. This option is selected.

Custom autoscale configuration:

- Autoscale setting name:** vmss1-Autoscale-345
- Resource group:** act104-rg8
- Predictive autoscale:** Mode is set to "Disabled". Pre-launch setup of instances (minutes) is set to 0.
- Enable Forecast only or Predictive autoscale:** This option is selected.

Default: Auto created default scale condition.

Delete warning: The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale.

Scale mode: Scale based on a metric (selected) or Scale to a specific instance count.

Rules: Scale is based on metric trigger rules but no rule(s) is defined. Click [Add a rule](#) to create a rule. For example: Add a rule that increases instance count by 1 when CPU Percentage is above 70%. If no rules is defined, the resource will be set to default instance count.