

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

The screenshot shows the Microsoft Azure 'Create a virtual machine' wizard. The 'Basics' tab is selected. The configuration includes:

- Subscription: Azure subscription 1
- Resource group name: az104-rg8
- Region: West US 2
- Tags: None

On the right, there is a sidebar titled 'Estimated monthly costs' which provides a breakdown of estimated costs for different services. The total estimated cost is \$0.00.

Category	Cost
Virtual machine	\$0.00
Disks	\$0.00
Networking	\$0.00
Management	\$0.00
Monitoring	\$0.00
Advanced	\$0.00
Estimated monthly cost	\$0.00

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

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 VM Help me create a VM optimized for high availability Help 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.

Estimated monthly costs

Give feedback about your estimate experience

	\$0.00
Basics	\$0.00
Disks	\$0.00
Networking	\$7.30
Public IP	\$7.30
2 Public IP (See breakdown)	\$7.30
VM outbound data transfer	\$0.00
az104-vm1-1-ip: Estimated data transfer (GB)	\$0.00
<input type="text" value="100"/>	\$0.00
VM outbound data transfer	\$0.00
az104-vm1-2	\$0.00
Estimated monthly cost	\$7.30

Give feedback

Microsoft Azure

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

Validation passed

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

Price
2 X Standard B1s by Microsoft Terms of use | Privacy policy 0.0330 USD/hr Pricing for other VM sizes

TERMS
By clicking "Create", I (a) agree to the legal terms and privacy statements 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

< Previous Next > Create

Estimated monthly costs

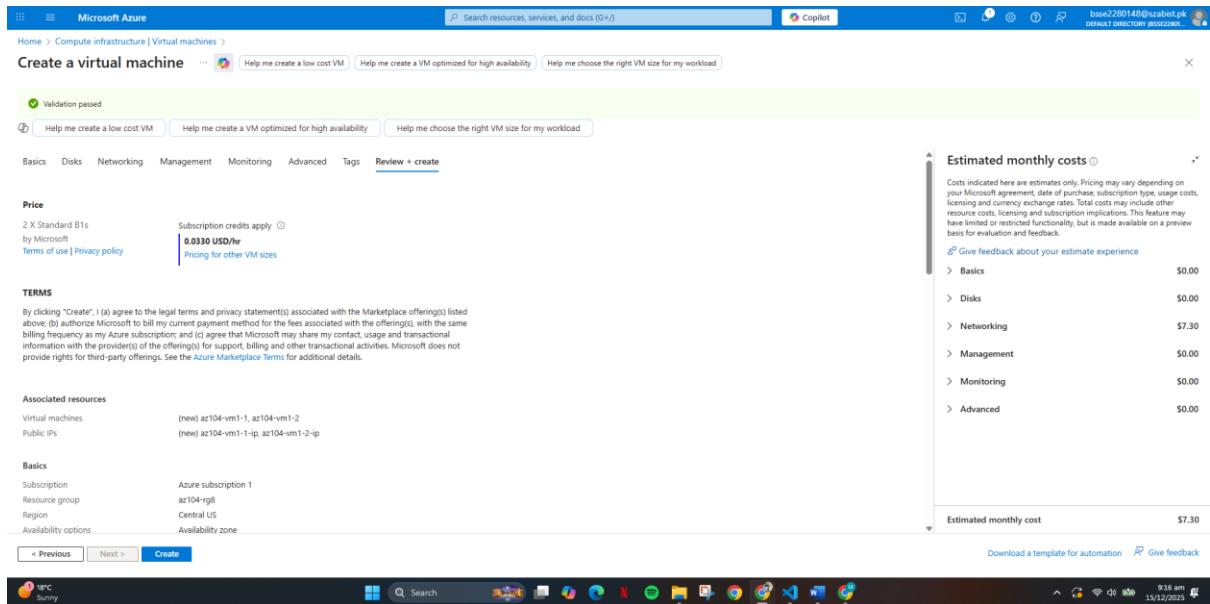
Cots indicated here are estimates only. Pricing may vary depending on your Microsoft agreement, date of purchase, subscription type, usage costs, licensing and currency exchange rates. Total costs may include other resource costs, licensing and subscription implications. This feature may have limited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

Give feedback about your estimate experience

	\$0.00
Basics	\$0.00
Disks	\$0.00
Networking	\$7.30
Management	\$0.00
Monitoring	\$0.00
Advanced	\$0.00

Estimated monthly cost \$7.30

Download a template for automation Give feedback



✓ Your deployment is complete

Deployment name: CreateVm-MicrosoftWindowsServer.WindowsSe... Start time: 12/15/2025, 9:17:05 AM
Subscription: Azure subscription 1 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/Upgrad
e disk

az104-vm1-1 | Size

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

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 **Size** **Availability + scaling** **Security** **Backup + disaster recovery** **Operations** **Monitoring** **Automation** **Help**

Search **Search by VM size...** **Display cost : Monthly** **vCPUs : All** **RAM (GiB) : All** **Add 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 ↑	Loc
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						

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.](#) ↗

Resize [Give feedback](#)

az104-vm1-1 | Disks

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](#) ↗ [Ask Copilot](#)

OS disk

Swap OS disk

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

Data disks

Create and attach a new disk **Attach existing disks**

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

Apply **Discard changes**

az104-vm1-1 | DISKS

Virtual machine

OS disk

Swap OS disk

Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (MiB/s)	Encryption	Host caching
az104-vm1-1_OsDisk_1_6f00d3742eb43ec8eba554ee40	Premium SSD LRS	127	500	100	SSE with PMK	Read/write

Data disks

Filter by name

No data disks attached

Create and attach a new disk

Attach existing disks

Microsoft Azure

Home > Storage center | Azure Disks > vm1-disk1

Storage center | Azure Disks

Default Directory (base220149@cahost.pk)

Search resources, services, and docs (Q+)

Copilot

Storage type: Standard SSD (locally-redundant storage)

Why are some options disabled?

Size Disk tier Provisioned IOPS Provisioned throughput Max Shares Max burst IOPS Max burst throughput

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

Save Discard Give feedback

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

Create a load balancer

X

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 *

vmss-lb

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 * ⓘ

80

Create

Cancel

Microsoft Azure

Home > Compute infrastructure | Virtual Machine Scale Set (VMSS) >

Create a Virtual Machine Scale Set (VMSS)

Validation passed

Basics

Subscription	Azure subscription 1
Resource group	az104-rg8
Virtual machine scale set name	vms1
Region	Central US
Orchestration mode	Uniform
Availability zone	1,2,3
Image	Windows Server 2019 Datacenter - Gen2
Size	Standard B1s (1 vcpu, 1 GiB memory)
Scaling mode	Manually update the capacity
Instance count	2
Security type	Standard
Enable hibernation	No
Username	localadmin

Spot

Azure Spot	No
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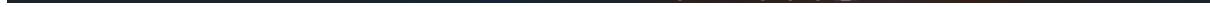
Disks

OS disk size	Image default
OS disk type	Premium SSD LRS
Use managed disks	Yes
Ephemeral OS disk	No

Networking

Virtual network	(New) vms1-vnet (az104-rg8)
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Task 4: Configure Autoscale rules for VMSS

The screenshot shows the Azure portal interface for configuring an Auto Scaling rule for a VMSS named 'vmss1'. The 'Custom autoscale' section is active, displaying the following details:

- Autoscale setting name:** vmss1-Autoscale-S45
- Resource group:** az104-rg8
- Mode:** Disabled
- Predictive autoscale:** Mode is set to Disabled.

In the 'Default' section, there is a warning message: "The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale." Below this, there are two options for 'Scale mode':

- Scale based on a metric:** This option is selected.
- Scale to a specific instance count:** This option is also available.

Below the scale mode options, there is a note: "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."