

# Server — Virtual Machine

With Apache and Azure Virtual Machine (Ubuntu 20.04 Server)

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# Creating Virtual Machine

portal.azure.com/#home

Microsoft Azure Search resources, services, and docs (G+/)

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## Azure services

Create a resource Virtual machines

## Resources

Recent Favorite

Name Last Viewed

core-base-resource 2 hours ago

Azure Pass - Sponsorship 11 hours ago

See all

## Navigate

Subscriptions

## Tools

### Virtual machines

+ Create View

**Description**

Create a virtual machine that runs Linux or Windows. Select an image from the marketplace or use your own customized image.

**Free training from Microsoft**

[Introduction to Azure virtual machines](#) 8 units · 1 hr 7 min

[Create a Windows virtual machine in Azure](#) 9 units · 51 min

[Create a Linux virtual machine in Azure](#) 7 units · 1 hr 26 min

**Useful links**

[Overview](#)

Cognitive Services Cost Management ... Quickstart Center App Services More services

All resources Dashboard

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## Azure services

Create a resource Virtual machines

## Resources

Recent Favorite

Name

core-base-resource	
Azure Pass - Sponsorship	

See all

## Navigate

Subscriptions

## Tools

### Virtual machines

+ Create ▾ View

- Azure virtual machine**  
Create a virtual machine hosted by Azure
- Azure virtual machine with preset configuration**  
Create a virtual machine with presets based on your workloads
- Azure Arc virtual machine**  
Create a new Azure Arc virtual machine in one of your non-Azure environments
- Azure VMware Solution virtual machine**  
Create a VMware virtual machine hosted by Azure

7 units · 1 hr 26 min

Useful links  
Overview ↗

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Last Viewed

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All resources Dashboard

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Microsoft Azure

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Home >

Create a virtual machine

BasicsDisksNetworkingManagementMonitoringAdvancedTagsReview + 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 Pass - Sponsorship

Resource group \* ⓘ

(New) Resource group

[Create new](#)

Instance details

Virtual machine name \* ⓘ

Region \* ⓘ

(US) East US

Availability options ⓘ

No infrastructure redundancy required

Review + create

< Previous

Next : Disks >

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# Creating Virtual Machine (Conti.)

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Subscription \*

Azure Pass - Sponsorship

Resource group \*

core-base-resource

[Create new](#)

Instance details

Virtual machine name \*

sample-server

Region \*

(US) East US

Availability options

No infrastructure redundancy required

Review + create

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Home >

## Create a virtual machine

Create new

### Instance details

Virtual machine name \* ⓘ

Region \* ⓘ

Availability options ⓘ

Security type ⓘ

Image \* ⓘ

[See all images](#) | [Configure VM generation](#)

VM architecture ⓘ ☐ Arm64 ☒ x64

Run with Azure Spot discount ⓘ ☐

Size \* ⓘ

[See all sizes](#)

### Administrator account

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## Create a virtual machine

Run with Azure Spot discount ☐

Size \*  [See all sizes](#)

**Administrator account**

Authentication type ☐ SSH public key ☒ Password

Username \*  ✓

Password \*  ✓

Confirm password \*  ✓

**Inbound port rules**

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports \* ☐ None ☒ Allow selected ports

[Review + create](#) [< Previous](#) [Next : Disks >](#) [Give feedback](#)



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Microsoft Azure

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Home >

Create a virtual machine ...

✕

Username \* ⓘ

sample-server ✓

Password \* ⓘ

..... ✓

Confirm password \* ⓘ

..... ✓

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports \* ⓘ

☐ None

☒ Allow selected ports

Select inbound ports \*

HTTP (80), HTTPS (443), SSH (22) ▼

⚠️ This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

Review + create

< Previous

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Next : Disks >

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# Creating Virtual Machine (Conti.)

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Create a virtual machine ...

Basics Disks Networking Management Monitoring Advanced Tags Review + 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 about enabling this feature](#)

OS disk

OS disk type \*

The selected VM size supports premium disks. We recommend Premium SSD for high IOPS workloads. Virtual machines with Premium SSD disks qualify for the 99.9% connectivity SLA.

Delete with VM ☒

Review + create

Review + create us

Next : Networking >

🗨️

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## Create a virtual machine

Validation passed

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Cost given below is an estimate and not the final price. Please use [Pricing calculator](#) for all your pricing needs.

### PRODUCT DETAILS

1 X Standard B1ls  
by Microsoft  
[Terms of use](#) | [Privacy policy](#)

Subscription credits apply ⓘ  
**0.3746 INR/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

Create Create

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Home >

## CreateVm-canonical.0001-com-ubuntu-server-focal-2-20221201215601 | Overview

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

### Deployment is in progress

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-f... Start time: 12/1/2022, 10:16:02 PM  
Subscription: [Azure Pass - Sponsorship](#) Correlation ID: 07c3a335-78c7-4f4e-8be1-7d5d99  
Resource group: [core-base-resource](#)

#### Deployment details

Resource	Type	Status	Operation details
✓ sample-server184	Microsoft.Network/networ...	Created	<a href="#">Operation details</a>
✓ core-base-resource-vnet	Microsoft.Network/virtual...	OK	<a href="#">Operation details</a>
✓ sample-server-nsg	Microsoft.Network/networ...	OK	<a href="#">Operation details</a>
✓ sample-server-ip	Microsoft.Network/publicl...	OK	<a href="#">Operation details</a>

Give feedback

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



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CreateVm-canonical.0001-com-ubuntu-server-focal-2-20221201215601 | Overview

Deployment

Search

Overview

Inputs

Outputs

Template

Delete Cancel Redeploy Download Refresh

✓ Your deployment is complete

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-f... Start time: 12/1/2022, 10:16:02 PM  
Subscription: Azure Pass - Sponsorship Correlation ID: 07c3a335-78c7-4f4e-8be1-7d5d  
Resource group: core-base-resource

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

Cost Management

Get notified to stay within your budget and prevent unexpected charges on your bill.  
Set up cost alerts >

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portal.azure.com/#@playcocarcgmail.onmicrosoft.com/resource/subscriptions/d8aba4cd-2d68-48a2-b2a2-94886199bbcc/resourcegroups/core-base-res...

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Home > CreateVm-canonical.0001-com-ubuntu-server-focal-2-20221201215601 | Overview >

## sample-server

Virtual machine

Search

Connect Start Restart Stop Capture Delete Refresh Open in mobile CLI / PS Feedback

### Essentials

Resource group (move) : [core-base-resource](#)

Status : Running

Location : East US

Subscription (move) : [Azure Pass - Sponsorship](#)

Subscription ID : d8aba4cd-2d68-48a2-b2a2-94886199bbcc

Tags (edit) : [Click here to add tags](#)

Operating system : Linux (ubuntu 20.04)

Size : Standard B1ls (1 vcpu, 0.5 GiB memory)

Public IP address : [20.228.188.237](#)

Virtual network/subnet : [core-base-resource-vnet/default](#)

DNS name : [Not configured](#)

[JSON View](#)

### Properties

Virtual machine	
Computer name	sample-server
Health state	-
Operating system	Linux (ubuntu 20.04)
Publisher	canonical
Offer	0001-com-ubuntu-server-focal
Plan	20_04-lts-gen2
VM generation	V2

### Networking

Public IP address	<a href="#">20.228.188.237</a>
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	<a href="#">core-base-resource-vnet/default</a>
DNS name	<a href="#">Configure</a>

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Settings
  - Networking
  - Connect
  - Disks
  - Size
  - Microsoft Defender for Cloud
  - Advisor recommendations
  - Extensions + applications
  - Continuous delivery
  - Availability + scaling

# Connecting to Virtual Machine (SSH)

Activities Termius Dec 1 22:25 73 %

Type "ssh user@hostname -p port" to connect... CONNECT

ADD ^ LOCAL SERIAL

Grid Tags Arrange by: Date

New Host  
New Group  
Import  
AWS Integration  
DigitalOcean Integration

Choose your way to get started  
Save your time by adding your connection strings to connect with one click

Add your first host

IP or Hostname  
Create host

Sync your cloud

Setup integrations

Import from other tools

SecureCRT  
PuTTY  
MobaXterm  
CSV  
~/.ssh/config  
Import...

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Using termius (<https://termius.com/>) or putty (<https://www.putty.org/>).



# Connecting to Virtual Machine (SSH) (Conti.)

Activities Termius Dec 1 22:32 80 %

Type "ssh user@hostname -p port" to connect... CONNECT

ADD LOCAL SERIAL Grid Tags Arrange by: Date

Hosts

Enter IP or Hostname... ssh

New Host

Label

Address \*

Parent group Groups

Add a Tag

Backspace as Ctrl+H

SSH

Port 22 (Default)

Username

Password

Set a Key Set an Identity

SSH Agent Forwarding

Startup Snippet Snippets

Host Chaining Edit Chain

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# Connecting to Virtual Machine (SSH) (Conti.)

Activities Termius Dec 1 22:37 84 %

Find a host or ssh user@hostname... CONNECT

ADD LOCAL SERIAL Grid Tags Arrange by: Date

Hosts

sample-server  
ssh, sample-server

Operating system : Linux (ubuntu 20.04)  
Size : Standard (16 GiB memory)  
Public IP address : [20.228.188.237](#)  
Virtual network/subnet : [core-base-resource-vnet/default](#)  
DNS name : [Not configured](#)

Copy to clipboard

sample-server  
Address \*  
20.228.188.237

Parent group Groups

Add a Tag

Backspace as Ctrl+H

SSH

Port  
22 (Default)

Username  
sample-server

Password

Set a Key Set an Identity

SSH Agent Forwarding

Startup Snippet Snippets

Host Chaining Edit Chain

Using termius (<https://termius.com/>) or putty (<https://www.putty.org/>).

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# Connecting to Virtual Machine (SSH) (Conti.)

Activities   Termius   Dec 1 22:41   88 %

Find a host or ssh user@hostname... CONNECT

ADD LOCAL SERIAL Grid Tags Arrange by: Date

**Hosts**

- sample-server  
ssh, sample-server

- Quick Connect DOUBLE CLICK or ↵
- Connect >
- Edit SPACE
- Duplicate
- Copy Link i
- Remove

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# Connecting to Virtual Machine (SSH) (Conti.)

Activities

Terminus

Dec 1 22:42

90 %

sample-server

SSH 20.228.188.237:22

Show logs

Are you sure you want to connect?

The authenticity of 20.228.188.237 can not be established.

RSA fingerprint is:

22:3e:8e:f5:f4:e9:3b:57:25:c9:be:5d:28:b4:4f:3e

Do you want to add it to the list of known hosts?

Close

Continue

Add and continue

sample-server

History

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# Connected to Virtual Machine (SSH)

Activities

Terminus

Dec 1 22:44

91 %

Share session

Settings

Hosts

SFTP

Port Forwarding

Snippets

>\_ sample-ser...

History

Welcome to Ubuntu 20.04.5 LTS (GNU/Linux 5.15.0-1023-azure x86\_64)

\* Documentation: <https://help.ubuntu.com>

\* Management: <https://landscape.canonical.com>

\* Support: <https://ubuntu.com/advantage>

System information as of Thu Dec 1 17:12:57 UTC 2022

System load: 0.02

Processes: 100

Usage of /: 5.0% of 28.89GB

Users logged in: 0

Memory usage: 54%

IPv4 address for eth0: 10.0.0.4

Swap usage: 0%

0 updates can be applied immediately.

The list of available updates is more than a week old.  
To check for new updates run: `sudo apt update`

The programs included with the Ubuntu system are free software;  
the exact distribution terms for each program are described in the  
individual files in `/usr/share/doc/*/copyright`.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by  
applicable law.

To run a command as administrator (user "root"), use "`sudo <command>`".  
See "`man sudo_root`" for details.

sample-server@sample-server:~\$

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# References

- <https://learn.microsoft.com/en-us/training/modules/describe-cloud-compute/>
- [https://en.wikipedia.org/wiki/Server\\_\(computing\)](https://en.wikipedia.org/wiki/Server_(computing))
- <https://learn.microsoft.com/en-us/training/modules/describe-benefits-use-cloud-services/>
- Install termius for windows - <https://termius.com/windows>
- Install termius for ubuntu - <https://termius.com/linux>
- Install termius for MacOS - <https://termius.com/mac-os>
- <https://ubuntu.com/tutorials/install-and-configure-apache#3-creating-your-own-website>
- <https://www.wikihow.com/Create-a-Simple-Web-Page-with-HTML>