

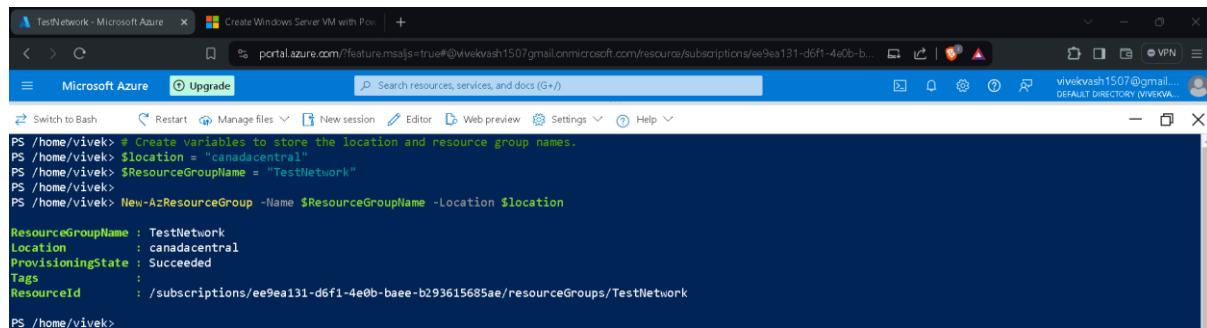
Lab: Azure Security Tools

Student Name: Vivek Vashisht

Student ID: 000907246

Screenshots

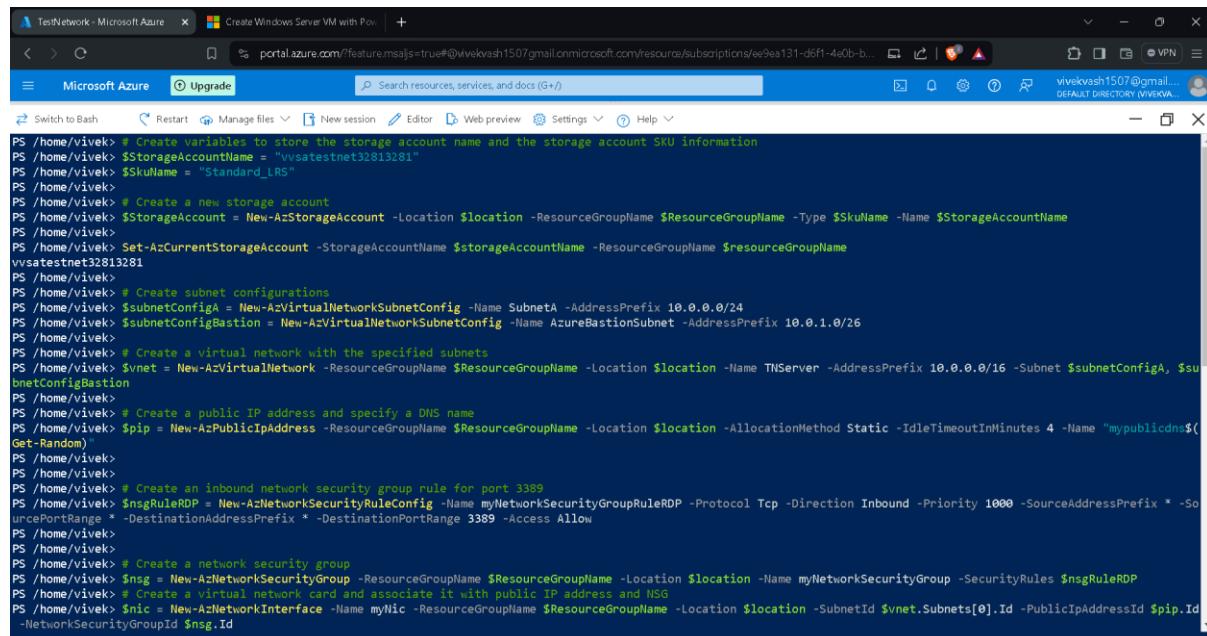
- Bastion Configuration



```
PS /home/vivek> # Create variables to store the location and resource group names.
PS /home/vivek> $location = "canadacentral"
PS /home/vivek> $ResourceGroupName = "TestNetwork"
PS /home/vivek>
PS /home/vivek> New-AzResourceGroup -Name $ResourceGroupName -Location $location

ResourceGroupName : TestNetwork
Location         : canadacentral
ProvisioningState : Succeeded
Tags             :
ResourceId       : /subscriptions/ee9ea131-d6f1-4e0b-bae-b293615685ae/resourceGroups/TestNetwork

PS /home/vivek>
```



```
PS /home/vivek> # Create variables to store the storage account name and the storage account SKU information
PS /home/vivek> $storageAccountName = "vsatestnet32813281"
PS /home/vivek> $skuName = "Standard_LRS"
PS /home/vivek>
PS /home/vivek> # Create a new storage account
PS /home/vivek> $storageAccount = New-AzStorageAccount -Location $location -ResourceGroupName $ResourceGroupName -Type $skuName -Name $storageAccountName
PS /home/vivek>
PS /home/vivek> Set-AzCurrentStorageAccount -StorageAccountName $storageAccountName -ResourceGroupName $resourceGroupName
vsatestnet32813281
PS /home/vivek>
PS /home/vivek> # Create subnet configurations
PS /home/vivek> $subnetConfigA = New-AzVirtualNetworkSubnetConfig -Name SubnetA -AddressPrefix 10.0.0.0/24
PS /home/vivek> $subnetConfigBastion = New-AzVirtualNetworkSubnetConfig -Name AzureBastionSubnet -AddressPrefix 10.0.1.0/26
PS /home/vivek>
PS /home/vivek> # Create a virtual network with the specified subnets
PS /home/vivek> $vnet = New-AzVirtualNetwork -ResourceGroupName $ResourceGroupName -Location $location -Name TNServer -AddressPrefix 10.0.0.0/16 -Subnet $subnetConfigA, $subnetConfigBastion
PS /home/vivek>
PS /home/vivek> # Create a public IP address and specify a DNS name
PS /home/vivek> $ip = New-AzPublicIpAddress -ResourceGroupName $ResourceGroupName -Location $location -AllocationMethod Static -IdleTimeoutInMinutes 4 -Name "mypublicdns$(Get-Random)"
PS /home/vivek>
PS /home/vivek> # Create an inbound network security group rule for port 3389
PS /home/vivek> $nsgRuleRDP = New-AzNetworkSecurityRuleConfig -Name myNetworkSecurityGroupRuleRDP -Protocol Tcp -Direction Inbound -Priority 1000 -SourceAddressPrefix * -SourcePortRange * -DestinationAddressPrefix * -DestinationPortRange 3389 -Access Allow
PS /home/vivek>
PS /home/vivek> # Create a network security group
PS /home/vivek> $nsg = New-AzNetworkSecurityGroup -ResourceGroupName $ResourceGroupName -Location $location -Name myNetworkSecurityGroup -SecurityRules $nsgRuleRDP
PS /home/vivek> # Create a virtual network card and associate it with public IP address and NSG
PS /home/vivek> $nic = New-AzNetworkInterface -Name myNic -ResourceGroupName $ResourceGroupName -Location $location -SubnetId $vnet.Subnets[0].Id -PublicIpAddressId $ip.Id -NetworkSecurityGroupId $nsg.Id
```

```
TestNetwork - Microsoft Azure x Create Windows Server VM with Pow +  
portal.azure.com/?feature_msajs=true@vivekvash1507@gmail.com.microsoft.com/resource/subscriptions/e69ea131-d6f1-4e0b-b...  
Microsoft Azure Upgrade Search resources, services, and docs (G+)  
Switch to Bash Restart Manage files New session Editor Web preview Settings Help  
urcePortRange * -DestinationAddressPrefix * -DestinationPortRange 3389 -Access Allow  
PS /home/vivek>  
PS /home/vivek>  
PS /home/vivek> # Create a network security group  
PS /home/vivek> $nsg = New-AzNetworkSecurityGroup -ResourceGroupName $ResourceGroupName -Location $location -Name myNetworkSecurityGroup -SecurityRules $nsgRuleRDP  
PS /home/vivek> # Create a virtual network card and associate it with public IP address and NSG  
PS /home/vivek> $nic = New-AzNetworkInterface -Name myNic -ResourceGroupName $ResourceGroupName -Location $location -SubnetId $vnet.Subnets[0].Id -PublicIpAddressId $pip.Id  
-NetworkSecurityGroupId $nsg.Id  
PS /home/vivek>  
PS /home/vivek> # Define a credential object to store the username and password for the VM  
PS /home/vivek> $UserName = "vivek.vashishth"  
PS /home/vivek> $Password = $AnK328!#3281 | ConvertTo-SecureString -Force -AsPlainText  
PS /home/vivek> $Credential = New-Object PSCredential($UserName,$Password)  
PS /home/vivek>  
PS /home/vivek> # Create the VM configuration object  
PS /home/vivek> $VmName = "TNServer"  
PS /home/vivek> $VmSize = "Standard_A1"  
PS /home/vivek> $VirtualMachine = New-AzVMConfig -VMName $VmName -VmSize $VmSize  
PS /home/vivek>  
PS /home/vivek> $VirtualMachine = Set-AzVMOperatingSystem -VM $VirtualMachine -Windows -ComputerName "MainComputer" -Credential $Credential -ProvisionVMAgent  
PS /home/vivek>  
PS /home/vivek> $VirtualMachine = Set-AzVMSourceImage -VM $VirtualMachine -PublisherName "MicrosoftWindowsServer" -Offer "WindowsServer" -Skus "2016-Datacenter" -Version "1  
test  
PS /home/vivek>  
PS /home/vivek> # Sets the operating system disk properties on a VM.  
PS /home/vivek> $VirtualMachine = Set-AzVMOSDisk -VM $VirtualMachine -CreateOption FromImage | Set-AzVMBootDiagnostic -ResourceGroupName $ResourceGroupName -StorageAccountName $storageAccountName -Enable | Add-AzVMNetworkInterface -Id $nic.Id  
PS /home/vivek>
```

```
TestNetwork - Microsoft Azure x Create Windows Server VM with Pow +  
portal.azure.com/?feature.msaJs=true@vivekash1507@gmail.com.microsoft.com/resource/subscriptions/e9ea131-d5f1-4e0b-b...  
Microsoft Azure Upgrade Search resources, services, and docs (G+)  
Switch to Bash Restart Manage files New session Editor Web preview Settings Help  
PS /home/vivek> $UserName="vivek.vashish"  
PS /home/vivek> $Password=$AnK328!3281 | ConvertTo-SecureString -Force -AsPlainText  
PS /home/vivek> $Credential=[New-Object PSCredential($UserName,$Password)  
PS /home/vivek>  
PS /home/vivek> # Create the VM configuration object  
PS /home/vivek> $VmName = "T1Server"  
PS /home/vivek> $VmSize = "Standard_Bms"  
PS /home/vivek> $VirtualMachine = New-AzVMConfig -VMName $VmName -VmSize $VmSize  
PS /home/vivek>  
PS /home/vivek> $VirtualMachine = Set-AzVMOperatingSystem -VM $VirtualMachine -Windows -ComputerName "MainComputer" -Credential $Credential -ProvisionVMAgent  
PS /home/vivek>  
PS /home/vivek> $VirtualMachine = Set-AzVMSourceImage -VM $VirtualMachine -PublisherName "MicrosoftWindowsServer" -Offer "WindowsServer" -Skus "2016-Datacenter" -Version "1  
atset"  
PS /home/vivek>  
PS /home/vivek> # Sets the operating system disk properties on a VM.  
PS /home/vivek> $VirtualMachine = Set-AzVMDisk -VM $VirtualMachine -CreateOption FromImage | Set-AzVMBootDiagnostic -ResourceGroupName $ResourceGroupName -StorageAccountName  
$storageAccountName -Enable | Add-AzVMNetworkInterface -Id $nic.Id  
PS /home/vivek>  
PS /home/vivek> # Create the VM.  
PS /home/vivek> New-AzVM -ResourceGroupName $ResourceGroupName -Location $location -VM $VirtualMachine  
Consider upgrading security for your workloads using Azure Trusted Launch VMs. To know more about Trusted launch, please visit https://aka.ms/TrustedLaunch  
  
RequestId IsSuccess StatusCode ReasonPhrase  
-----  
True OK  
  
PS /home/vivek>  
PS /home/vivek>  
PS /home/vivek> Get-AzPublicIpAddress -ResourceGroupName $ResourceGroupName | SelectIpAddress  
  
IpAddress  
-----  
52.237.11.232
```

BastionTest - Microsoft Azure Create Windows Server VM with Pow... +

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

Home > Microsoft.BastionHost-20240603150013 | Overview >

BastionTest Bastion

Search Delete Refresh

Overview

Activity log Access control (IAM) Tags Diagnose and solve problems

Settings Sessions Configuration Properties Locks

Monitoring Metrics Logs Diagnostics settings Connection Troubleshoot

Automation Tasks (preview)

Essentials

Resource group (move) : TestNetwork Location : Canada Central Subscription (move) : Azure subscription 1 Subscription ID : ee9ea131-d6f1-4e0b-baee-b293615685ae

Virtual network/subnet : TNServer/AzureBastionSubnet Public DNS name : bst-82ab5990-f9e4-4914-a05b-b168be32f7c.bastion.azure.com Public IP address : TNServer-ip Tier : Standard Provisioning state : Succeeded Availability zone : None

Tags (edit) : Add tags

Sessions Tutorials

SessionId	StartTime (UTC)	TargetSubscriptionId	ResourceType	TargetHostName	TargetResourceGro...	UserName	TargetIPAddress	Protocol
No results.								

JSON View

This screenshot shows the Microsoft Azure Bastion host overview page for 'BastionTest'. It displays the resource group (TestNetwork), location (Canada Central), and subscription information (Azure subscription 1). The provisioning state is shown as 'Succeeded'. The 'Sessions' tab is selected, showing a table with no results.

TNServer - Microsoft Azure Create Windows Server VM with Pow... +

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

Home > Resource groups > TestNetwork > TNServer

TNServer | Bastion Virtual machine

Using Bastion: BastionTest Provisioning State: **Succeeded**

Please enter username and password to your virtual machine to connect using Bastion.

Connection Settings

Protocol: RDP SSH

Port: 3389

Keyboard Language: English (US)

Authentication Type: VM Password

Username: vivek.vashishth

VM Password: Show

Open in new browser tab

Tell us what you think of the Bastion experience

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Connect Connect Bastion Windows Admin Center

Networking Network settings Load balancing Application security groups Network manager

Settings Disks Extensions + applications

This screenshot shows the Microsoft Azure Bastion host connection configuration page for 'TNServer'. It displays the bastion host used (BastionTest), provisioning state (Succeeded), and connection settings. The protocol is set to RDP, port to 3389, and keyboard language to English (US). Authentication is set to VM Password with the username 'vivek.vashishth' and a masked password. A checkbox for opening the connection in a new browser tab is checked.

The screenshot shows the Microsoft Server Manager interface. On the left, there's a navigation pane with options like Dashboard, Local Server (which is selected), All Servers, and File and Storage Services. The main area has two tabs: 'PROPERTIES' and 'EVENTS'.
PROPERTIES Tab:

Computer name	MainComputer	Last installed updates	Never
Workgroup	WORKGROUP	Windows Update	Install updates automatically using Windows Update
		Last checked for updates	Never
Windows Firewall	Public: On	Windows Defender	Real-Time Protection: On
Remote management	Enabled	Feedback & Diagnostics	Settings
Remote Desktop	Enabled	IE Enhanced Security Configuration	On
NIC Teaming	Disabled	Time zone	(UTC) Coordinated Universal Time
Ethernet	IPv4 address assigned by DHCP. IPv6 enabled	Product ID	00376-40000-00000-AA947 (activated)
Operating system version	Microsoft Windows Server 2016 Datacenter	Processors	Intel(R) Xeon(R) CPU E5-2673 v4 @ 2.30GHz
Hardware information	Microsoft Corporation Virtual Machine	Installed memory (RAM)	8 GB
		Total disk space	142.51 GB

EVENTS Tab:

Server Name	ID	Severity	Source	Log	Date and Time
MainComputer	10016	Error	Microsoft-Windows-DistributedCOM	System	6/3/2024 9:37:08 PM
MainComputer	1534	Warning	Microsoft-Windows-User Profile Service	Application	6/3/2024 9:37:05 PM

- Firewall, route table and rules

The screenshot shows the Azure portal interface. At the top, it says 'TestRt-RG - Microsoft Azure'. The main area is titled 'TestRt-RG' and shows the 'Resource group' overview. On the left, there's a sidebar with sections like 'Resource groups', 'Activity log', 'Access control (IAM)', 'Tags', 'Resource visualizer', 'Events', 'Deployments', 'Security', 'Deployment stacks', 'Policies', 'Properties', 'Locks', 'Cost analysis', 'Cost alerts (preview)', and 'Budgets'.
Overview Tab:
The main content area displays a table of resources:

Name	Type	Location	Actions
TestRt	Virtual network	Canada Central	...
TestRt-Server	Virtual machine	Canada Central	...
TestRt-Server-nsg	Network security group	Canada Central	...
testrt-server366	Network Interface	Canada Central	...
TestRt-Server_disk1_da9da33c56d847<4Bd61179fb9c6805	Disk	Canada Central	...

TestRt - Microsoft Azure

Create Windows Server VM with Pow... | +

portal.azure.com/?feature.msaljs=true#vivekvash1507@gmail.com/resource/subscriptions/e09ea131-d5f1-4e...

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Home > Resource groups > TestRt-RG > TestRt

TestRt | Subnets Virtual network

Subnet Gateway subnet Refresh Manage users Delete

Search subnets

Name ↑↓	IPv4 ↑↓	IPv6 ↑↓	Available IPs ↑↓	Delegated to ↑↓	Security group ↑↓	Route table ↑↓
TestRt-subnet	10.0.0.0/24	-	250	-	-	-
AzureFirewallSubnet	10.0.1.0/26	-	59	-	-	-

Search

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Settings Address space Connected devices Subnets Bastion DDoS protection Firewall Microsoft Defender for Cloud Network manager DNS servers Peerings Service endpoints

Give feedback

Microsoft.AzureFirewall-20240603164856 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Your deployment is complete

Deployment name : Microsoft.AzureFirewall-20240603164856 Start time : 6/3/2024, 4:48:58 PM
Subscription : Azure subscription 1 Correlation ID : 46be0149-82d0-49a2-9cd1-71fa91a5e9d4
Resource group : TestRt-RG

Deployment details

Resource	Type	Status	Operation details
TestRt-Firewall	Firewall	OK	Operation details
TestFirewallPolicy	Firewall Policy	OK	Operation details
TestFirewallIP	Public IP address	OK	Operation details

Next steps

Go to resource

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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TestRt-Firewall - Microsoft Azure | Create Windows Server VM with Pow... | +

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vivekvash1507@gmail...
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Microsoft Azure Upgrade Search resources, services, and docs (G+)

Home > Microsoft.AzureFirewall-20240603164856 | Overview > Firewall

TestRt-Firewall

Search Delete Lock Change SKU

Overview Activity log Access control (IAM) Tags

Settings Public IP configuration Learned SNAT IP Prefixes (preview) Firewall Manager Properties Locks

Monitoring Metrics Diagnostic settings Logs Workbooks

Automation

Resource group (move) : TestRt-RG Location : Canada Central Subscription (move) : Azure subscription 1 Subscription ID : ee9ea131-d6f1-4e0b-baee-b293615685ae Virtual network : TestRt Firewall policy : TestFirewallPolicy Provisioning state : Succeeded

SKU : Standard (change) Subnet : AzureFirewallSubnet Public IP : TestFirewallIP Private IP : 10.0.1.4 Management subnet : - Management public IP : - Private IP Ranges : Managed by Firewall Policy Route Server (preview) : Add

Tags (edit) : Add tags

Firewall policy

Policy : TestFirewallPolicy (change)

Auto-learn IP Prefixes : Disabled

Rules

DNAT rules : 0 rules in 0 collections Network rules : 0 rules in 0 collections

JSON View

TestFirewallIP - Microsoft Azure | Create Windows Server VM with Pow... | +

portal.azure.com/feature/msa.js=true#@vivekvash1507@gmail.com/microsoft.com/resource/subscriptions/ee9ea131-d6f1-4e... | Microsoft Edge

vivekvash1507@gmail...
DEFAULT DIRECTORY

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

Home > Microsoft.AzureFirewall-20240603164856 | Overview > TestRt-Firewall > TestFirewallIP

Public IP address

Associate Dissociate Delete Move Refresh Open in mobile Give feedback

Overview Activity log Access control (IAM) Tags

Settings Configuration Properties Locks

Monitoring Insights Alerts Metrics Diagnostic settings

Automation CLI / PS Tasks (preview) Export template

Resource group (move) : TestRt-RG Location (move) : Canada Central Subscription (move) : Azure subscription 1 Subscription ID : ee9ea131-d6f1-4e0b-baee-b293615685ae

SKU : Standard Tier : Regional IP address : 52.228.79.8 DNS name : - Domain name label scope : - Associated to : TestRt-Firewall Virtual machine : - Routing preference : Microsoft network

Tags (edit) : Add tags

Get Started Properties Tutorials

Use public IP addresses for public connections to Azure resources

Associate and configure public IP addresses to various Azure resources [Learn more](#).

Associate to a resource Associate your public IP address to an Azure resource such as an Azure Load Balancer or a network interface.

Configure a public IP address Configure a DNS (idle time, name, and alias record for your public IP address).

Protect IP address Choose the right DDoS protection level for your IP address.

JSON View

TestFirewallPolicy - Microsoft Azure | Create Windows Server VM with Pow... | +

portal.azure.com/feature/msa.js=true@vivekvash1507@gmail.onmicrosoft.com/resources/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae...

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

Home > Microsoft.AzureFirewall-20240603164856 | Overview >

TestFirewallPolicy

Firewall Policy

Search Delete Lock

Overview

Activity log Access control (IAM) Tags

Settings

- Parent policy
- Rule collections
- DNAT rules
- Network rules
- Application rules
- DNS
- Threat Intelligence
- TLS inspection
- IDPS
- Secured virtual hubs
- Secured virtual networks
- Private IP ranges (SNAT)

Essentials

Resource group (move)	: TestRt-RG	Policy name	: TestFirewallPolicy
Location	: Canada Central	Policy tier	: Standard
Subscription (move)	: Azure subscription 1	TLS inspection (Premium)	: Not supported with standard policy
Subscription ID	: ee9ea131-d6f1-4e0b-baee-b293615685ae	IDPS mode (Premium)	: Not supported with standard policy
Provisioning state	: Succeeded		
Tags (edit)	: Add tags		

JSON View

TestRt-RouteTable - Microsoft Azure | Create Windows Server VM with Pow... | +

portal.azure.com/feature/msa.js=true@vivekvash1507@gmail.onmicrosoft.com/resources/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae...

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Home > Microsoft.RouteTable-20240603165918 | Overview >

TestRt-RouteTable

Route table

Move Delete Refresh Give feedback

Overview

Activity log Access control (IAM) Tags

Diagnose and solve problems

Settings

- Configuration
- Routes
- Subnets
- Properties
- Locks

Monitoring

- Alerts

Automation

- CLI / PS
- Tasks (preview)
- Export template

Essentials

Resource group (move)	: TestRt-RG	Associations	: 1 subnet associations
Location	: Canada Central		
Subscription (move)	: Azure subscription 1		
Subscription ID	: ee9ea131-d6f1-4e0b-baee-b293615685ae		
Tags (edit)	: Add tags		

Routes

Name	Address prefix	Next hop type	Next hop IP address	...
TestRt-RouteToFirewall	0.0.0.0/0	Virtual appliance	10.0.1.4	...

Subnets

Name	Address range	Virtual network	Security group	...
TestRt-subnet	10.0.0.0/24	TestRt	-	...

TestRt-RouteTable - Microsoft A... Create Windows Server VM with Pow... portal.azure.com/?feature.msa.js=true#vivekvash1507@gmail.com/microsoft.com/resource/subscriptions/e69ea131-d6f1-4e... 🔍 | VPN 🌐

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Home > Microsoft.RouteTable-20240603165918 | Overview > TestRt-RouteTable

TestRt-RouteTable | Subnets

Route table

Search Associate

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Subnets

Properties Locks

Monitoring Alerts

Automation CLI / PS Tasks (preview) Export template

Give feedback

Subnets

Name ↑	Address range ↑↓	Virtual network ↑↓	Security group ↑↓
TestRt-subnet	10.0.0.0/24	TestRt	-

TestRt-RouteTable - Microsoft A... Create Windows Server VM with Pow... portal.azure.com/?feature.msa.js=true#vivekvash1507@gmail.com/microsoft.com/resource/subscriptions/e69ea131-d6f1-4e... 🔍 | VPN 🌐

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Home > Microsoft.RouteTable-20240603165918 | Overview > TestRt-RouteTable

TestRt-RouteTable | Routes

Route table

Search Add Refresh Give feedback

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Routes

Subnets Properties Locks

Monitoring Alerts

Automation CLI / PS Tasks (preview) Export template

Give feedback

Routes

Name ↑↓	Address prefix ↑↓	Next hop type ↑↓	Next hop IP address ↑↓
TestRt-RouteToFirewall	0.0.0.0/0	VirtualAppliance	10.0.1.4

Add a rule collection - Microsoft Azure | Create Windows Server VM with Pow... | +

portal.azure.com/?feature.msa.js=true#vivekvash1507@gmail.com/microsoft.com/resources/subscriptions/ee9ea131-d6f1-4e...

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Home > Resource groups > TestRt-RG > TestFirewallPolicy

TestFirewallPolicy | Application rules

Firewall Policy

Search | Add a rule collection | Overview | Activity log | Access control (IAM) | Tags | Settings | Parent policy | Rule collections | DNAT rules | Network rules | Application rules | DNS | Threat Intelligence | TLS inspection | IDPS | Secured virtual hubs | Secured virtual networks | Private IP ranges (SNAT)

Rules are shown in the priority and rule collection.

Priority: 201

Rule collection action: Allow

Rule collection group: DefaultApplicationRuleCollectionGroup

Rules

Name *	Source type	Source	Protocol *	TLS inspection	Destination Type *	Destination *
TestRt-GoogleRule	IP Address	10.0.0.0/24	http:https	<input checked="" type="checkbox"/> TLS inspection	FQDN	www.google.ca
	IP Address	*.192.168.10.1,192...	http:80,https:mssql...	<input type="checkbox"/> TLS inspection	FQDN	*.*.microsoft.com,*a...

mssql: SQL should be enabled in proxy mode. This may require additional configuration. [Learn more](#)

Add

TestFirewallPolicy - Microsoft Azure | Create Windows Server VM with Pow... | +

portal.azure.com/?feature.msa.js=true#vivekvash1507@gmail.com/microsoft.com/resources/subscriptions/ee9ea131-d6f1-4e...

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Home > Resource groups > TestRt-RG > TestFirewallPolicy

TestFirewallPolicy | Application rules

Firewall Policy

Search | Add a rule collection | Add rule | Edit | Delete

Rules are shown in the order of execution below. Network rules take precedence over application rules regardless of priority. Within the same rule collection type, inherited rules take precedence over rule collection group priority and rule collection priority.

Search to filter items...

Rule Collection Priority	Rule collection name	Rule name	Source	Protocol	Destination	Action	Inherited from
201	TestRt-GoogleRuleCollection	TestRt-GoogleRule	10.0.0.0/24	Http:80,Https:443	www.google.ca	Allow	Rule Collection Group: DefaultApplicationRuleCollectionGroup with priority 300.

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Microsoft Azure Upgrade

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Home > Resource groups > TestRt-RG > TestFirewallPolicy

TestFirewallPolicy | Network rules

Firewall Policy

Search

+ Add a rule collection

Rules are shown in the priority and rule collection

Search to filter items

Rule Collection

No network rule collection found

Name * TestRt-DNSRuleCollection

Rule collection type * Network

Priority * 200

Rule collection action Allow

Rule collection group * DefaultNetworkRuleCollectionGroup

Rules

Name *	Source type	Source	Protocol *	Destination Ports *	Destination Type *	Destination *
TestRt-DNSRule	IP Address	10.0.0.0/24	UDP	53	IP Address	8.8.8
	IP Address	*.192.168.10.1, 192...	0 selected	80,8000-9000	IP Address	*10.0.0.1,10.1.0.1...

Add

The screenshot shows the Microsoft Azure portal interface for managing a Firewall Policy. The left sidebar navigation bar includes links for Overview, Activity log, Access control (IAM), Tags, Settings, Parent policy, Rule collections, DNAT rules, Network rules (which is selected and highlighted in grey), Application rules, DNS, Threat Intelligence, TLS inspection, IDPS, Secured virtual hubs, Secured virtual networks, and Private IP ranges (SNAT). The main content area displays the 'TestFirewallPolicy' Firewall Policy under the 'Network rules' section. It shows a single rule collection named 'DefaultNetworkRuleCollectionGroup' with priority 200, containing one rule: 'TestRt-DNSRuleCollector'. The rule details are as follows:

Rule Collection P.	Rule collection n...	Rule name	Source	Port	Protocol	Destination	Action	Inherits
200	TestRt-DNSRuleCollector	TestRt-DNSRule	10.0.0.0/24	53	UDP	8.8.8	Allow	

Below the table, a note states: "Rules are shown in the order of execution below. Network rules take precedence over application rules regardless of priority. Within the same rule collection type, inherited rules take precedence over rule collection group priority and rule collection priority."

Add a rule collection - Microsoft | portal.azure.com | Create Windows Server VM with Pow

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

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Home > Resource groups > TestRt-RG > TestFirewallPolicy

TestFirewallPolicy | DNAT rules

Firewall Policy

Search | Add a rule collect

Overview | Activity log | Access control (IAM) | Tags

Settings

- Parent policy
- Rule collections
- DNAT rules**
- Network rules
- Application rules
- DNS
- Threat Intelligence
- TLS inspection
- IDPS
- Secured virtual hubs
- Secured virtual networks
- Private IP ranges (SNAT)

Rules are shown in the priority and rule collection

Search to filter items

Rule Collection

No DNAT rule collection

Add a rule collection

Name *: TestRt-DNATRule

Rule collection type *: DNAT

Priority *: 150

Rule collection action: Destination Network Address Translation (DNAT)

Rule collection group: DefaultDnatRuleCollectionGroup

Rules

Name *	Source type	Source	Protocol *	Destination Ports *	Destination (Firewall IP address) *	Translated type *
TestRt-DNATRule	IP Address	*	TCP	3389	52.228.79.8	IP Address
	IP Address	*.192.168.10.1, 192...	0 selected	8080	192.168.10.1	IP Address

Add

Add a rule collection - Microsoft | portal.azure.com | Create Windows Server VM with Pow

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

vivekvash1507@gmail... DEFAULT DIRECTORY

Home > Resource groups > TestRt-RG > TestFirewallPolicy

TestFirewallPolicy | DNAT rules

Firewall Policy

Search | Add a rule collect

Overview | Activity log | Access control (IAM) | Tags

Settings

- Parent policy
- Rule collections
- DNAT rules**
- Network rules
- Application rules
- DNS
- Threat Intelligence
- TLS inspection
- IDPS
- Secured virtual hubs
- Secured virtual networks
- Private IP ranges (SNAT)

Rules are shown in the priority and rule collection

Search to filter items

Rule Collection

No DNAT rule collection

Add a rule collection

Name *: TestRt-DNATRule

Rule collection type *: DNAT

Priority *: 150

Rule collection action: Destination Network Address Translation (DNAT)

Rule collection group: DefaultDnatRuleCollectionGroup

Rules

Protocol *	Destination Ports *	Destination (Firewall IP address) *	Translated type *	Translated address or	Translated port *
TCP	3389	52.228.79.8	IP Address	10.0.0.4	3389
0 selected	8080	192.168.10.1	IP Address	192.168.10.0	8080

Add

TestFirewallPolicy - Microsoft Azure

Create Windows Server VM with Pow... +

portal.azure.com/?feature.msa.js=true#vivekvash1507@gmail.com/microsoft/com/resource/subscriptions/ee9ea131-d6f1-4e...

Microsoft Azure Upgrade Search resources, services, and docs (G+) vivekvash1507@gmail.com DEFAULT DIRECTORY

Home > Resource groups > TestRt-RG > TestFirewallPolicy

TestFirewallPolicy | DNAT rules

Firewall Policy

Search Add a rule collection Add rule Edit Delete

Overview Activity log Access control (IAM) Tags

Settings Parent policy Rule collections DNAT rules Network rules Application rules DNS Threat Intelligence TLS inspection IDPS Secured virtual hubs Secured virtual networks Private IP ranges (SNAT)

Rules are shown in the order of execution below. Network rules take precedence over application rules regardless of priority. Within the same rule collection type, inherited rules take precedence over rule collection group priority and rule collection priority.

Rule Collection Group: DefaultDnatRuleCollectionGroup with priority 100.

	Rule Co...	Rule collection...	Rule name	Sou...	Port	Protocol	Destinati...	Translated ...	Tran...	Action	Inherited from
150	TestRt-DNATRule	TestRt-DNATRule	*	3389	TCP	52.228.79.8	10.0.0.4	3389	Dnat		***

TestRt - Microsoft Azure

Create Windows Server VM with Pow... +

portal.azure.com/?feature.msa.js=true#vivekvash1507@gmail.com/microsoft/com/resource/subscriptions/ee9ea131-d6f1-4e...

Microsoft Azure Upgrade Search resources, services, and docs (G+) vivekvash1507@gmail.com DEFAULT DIRECTORY

Home > Resource groups > TestRt-RG > TestRt

TestRt | DNS servers

Virtual network

Search Overview Activity log Access control (IAM) Tags Diagnose and solve problems

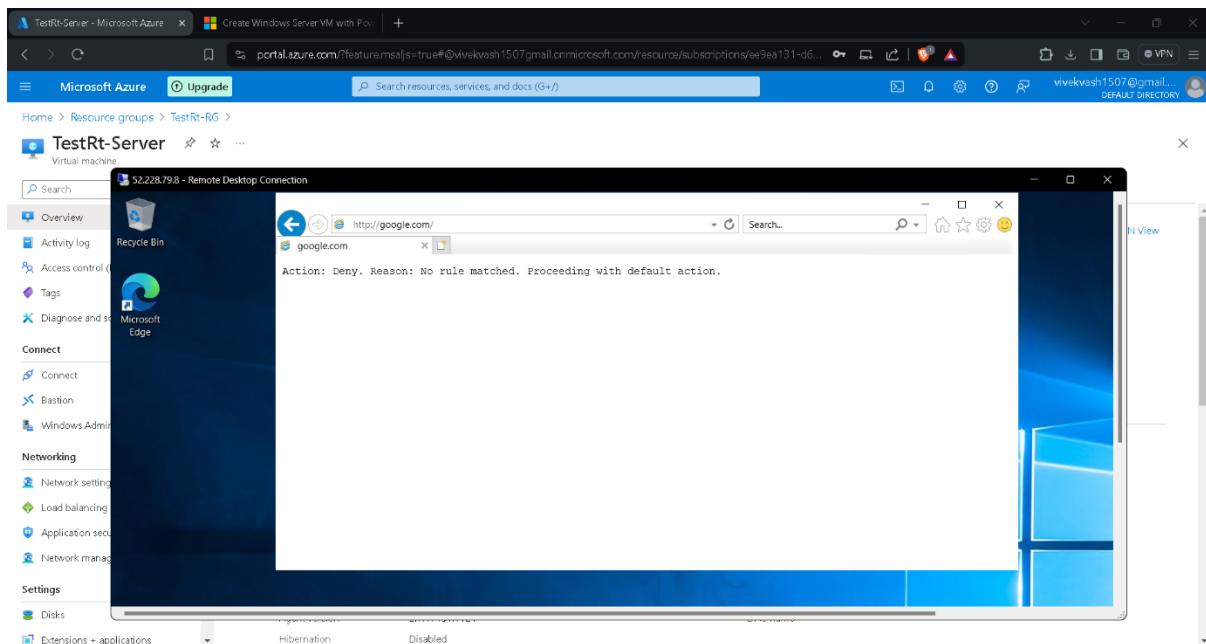
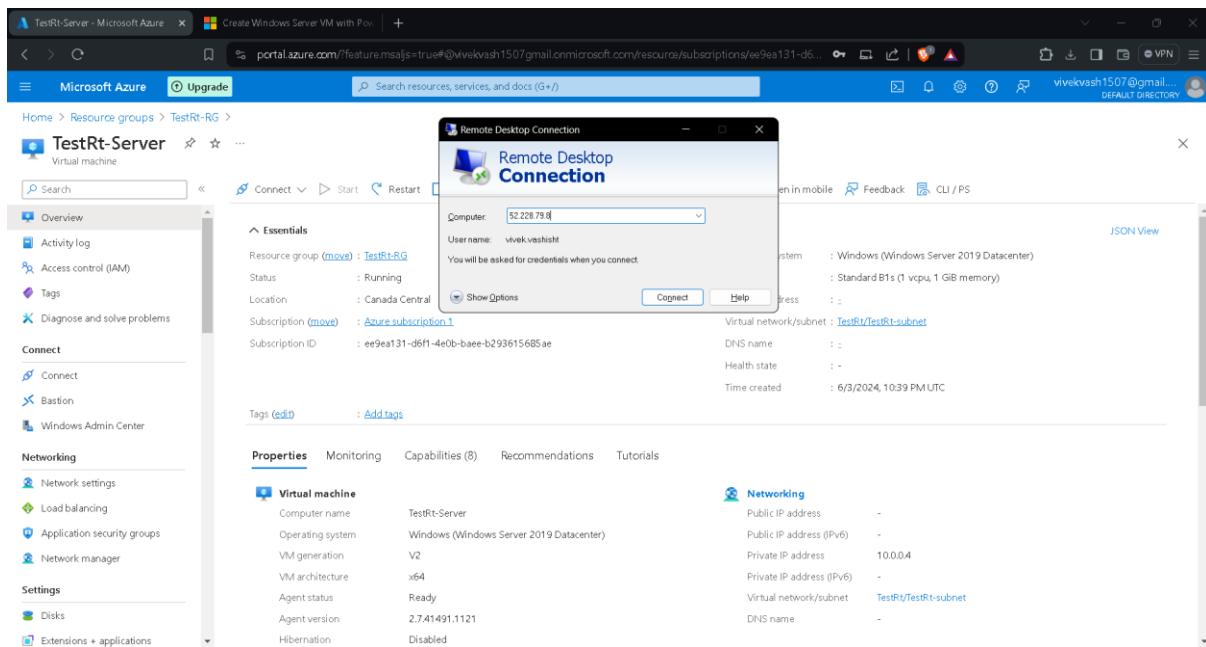
Settings Address space Connected devices Subnets Bastion DDoS protection Firewall Microsoft Defender for Cloud Network manager DNS servers Peering Service endpoints

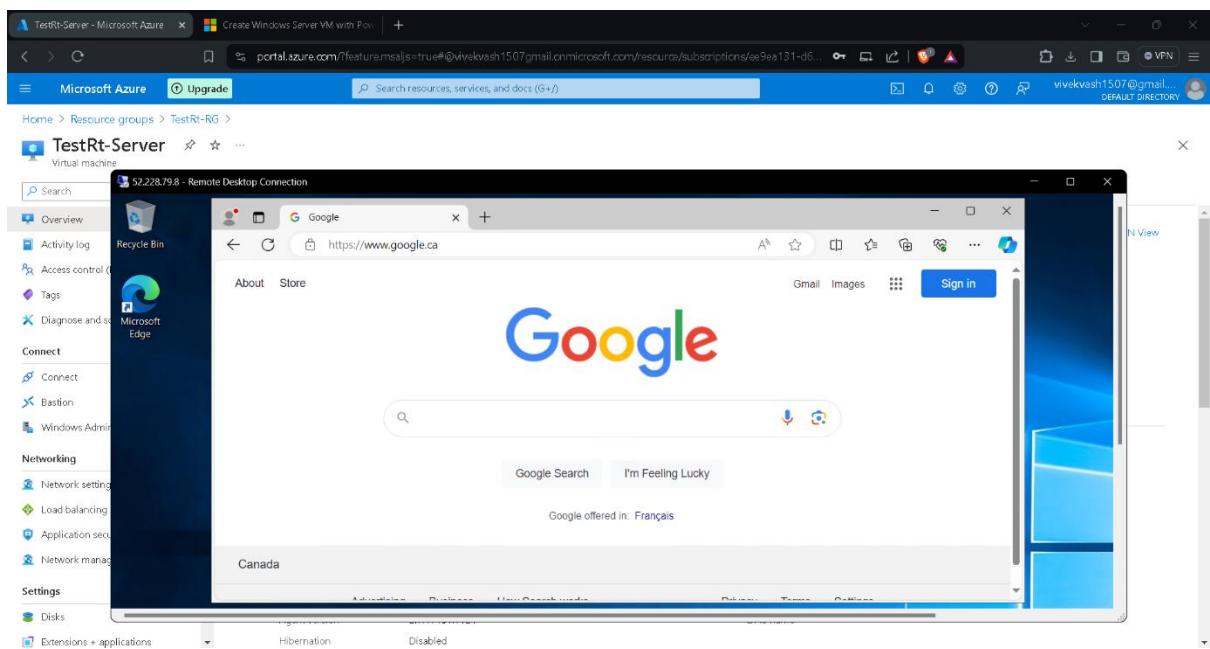
DNS servers

Default (Azure-provided) Custom

IP Address 8.8.8 Add DNS server

Save Cancel Give feedback





- Storage Explorer SAS connection

A screenshot of the Microsoft Azure portal showing the 'Overview' page for a storage account named 'testsa32813281'. The left sidebar includes sections for Overview, Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, Storage browser, and Storage Mover. The main content area shows the storage account's properties: Resource group (move) is 'SAS-RG', Location is 'canadacentral', Subscription (move) is 'Azure subscription 1', Subscription ID is 'e9ea131-d6f1-4e0b-baee-b293615685ae', Disk state is 'Available', and Provisioning state is 'Succeeded'. It also shows the creation date as '6/3/2024, 6:11:14 PM'. The 'Properties' tab is selected, showing detailed settings for Blob service (Hierarchical namespace: Disabled, Default access tier: Hot, Blob anonymous access: Disabled, Blob soft delete: Enabled (7 days), Container soft delete: Enabled (7 days), Versioning: Disabled, Change feed: Disabled, NFS v3: Disabled, Allow cross-tenant replication: Disabled) and Security (Require secure transfer for REST API operations: Enabled, Storage account key access: Enabled, Minimum TLS version: Version 1.2, Infrastructure encryption: Disabled). The 'Networking' tab shows 'Allow access from' set to 'All networks', 'Number of private endpoint connections' at 0, and 'Network routing' set to 'Microsoft network routing'.

test-blob - Microsoft Azure

Microsoft Azure | Upgrade

Home > testsa32813281 | Containers > test-blob

test-blob | Shared access tokens

Container

Search

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Access policy

Properties

Metadata

Signing method

Account key User delegation key

Signing key

Key 1

Stored access policy

None

Permissions

2 selected

Read

Add

Create

Write

Delete

List

Immutable storage

Allowed IP addresses

for example, 168.1.5.65 or 168.1.5.65-168.1...

6:17:46 PM

ne (US & Canada)

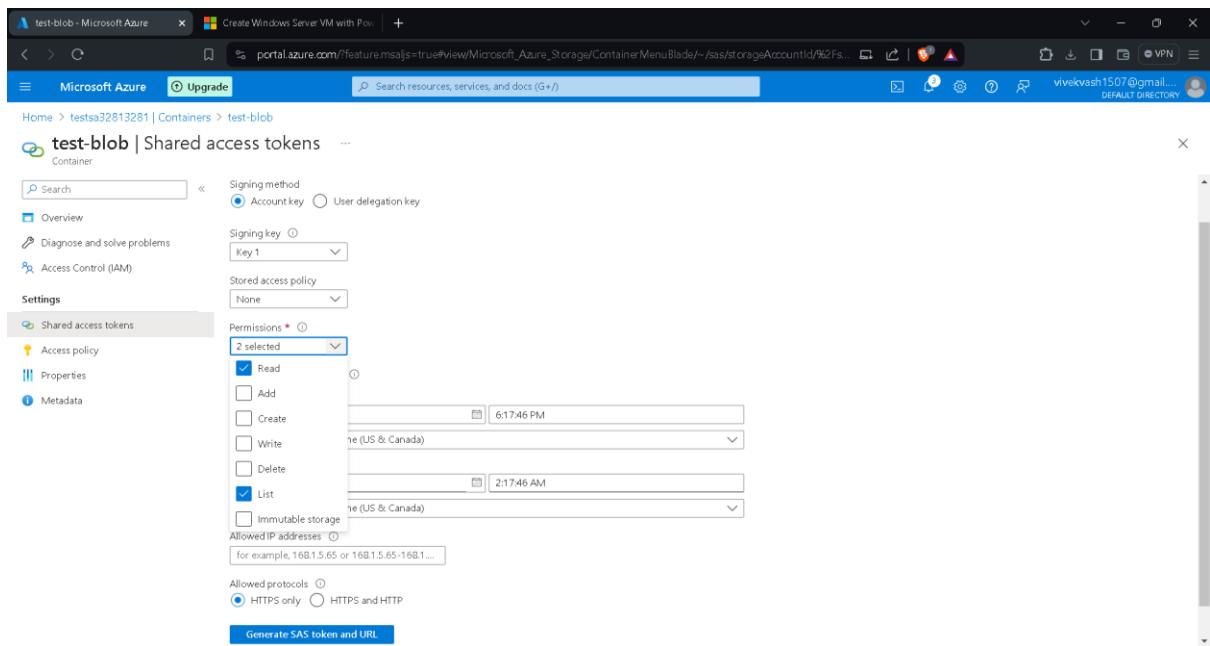
2:17:46 AM

ne (US & Canada)

Allowed protocols

HTTPS only HTTPS and HTTP

Generate SAS token and URL



test-blob - Microsoft Azure

Microsoft Azure | Create Windows Server VM with Pow

portal.azure.com/?feature-msaljs=true#view/Microsoft_Azure_Storage/ContainerMenuBlade~/sas/storageAccountId/%2Fs...

vivekvash1507@gmail... DEFAULT DIRECTORY

File Edit View Help

Microsoft Azure Storage

Connect to Azure Storage

Summary

Select Resource > Select Connection Method > Enter Connection Info > Summary

The following settings will be used to connect to your resource:

Display name: test-blob-1

Resource name: test-blob

Blob endpoint: https://testsa32813281.blob.core.windows.net

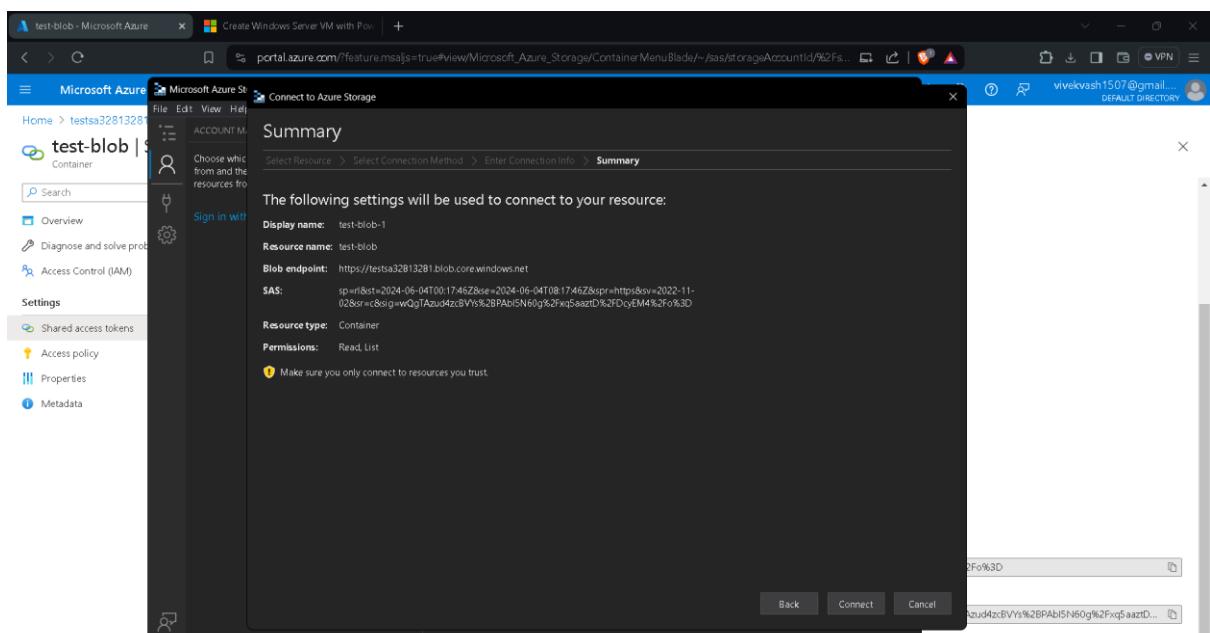
SAS: sp=r&t=2024-06-04T00:17:46Z&e=2024-06-04T08:17:46Z&spr=https&sv=2022-11-02&r=8&g=wQzTAzu04z:BVYs%2BPAblSN60g%2Fkq5aztD%2Fd:cEM4%2Fo%3D

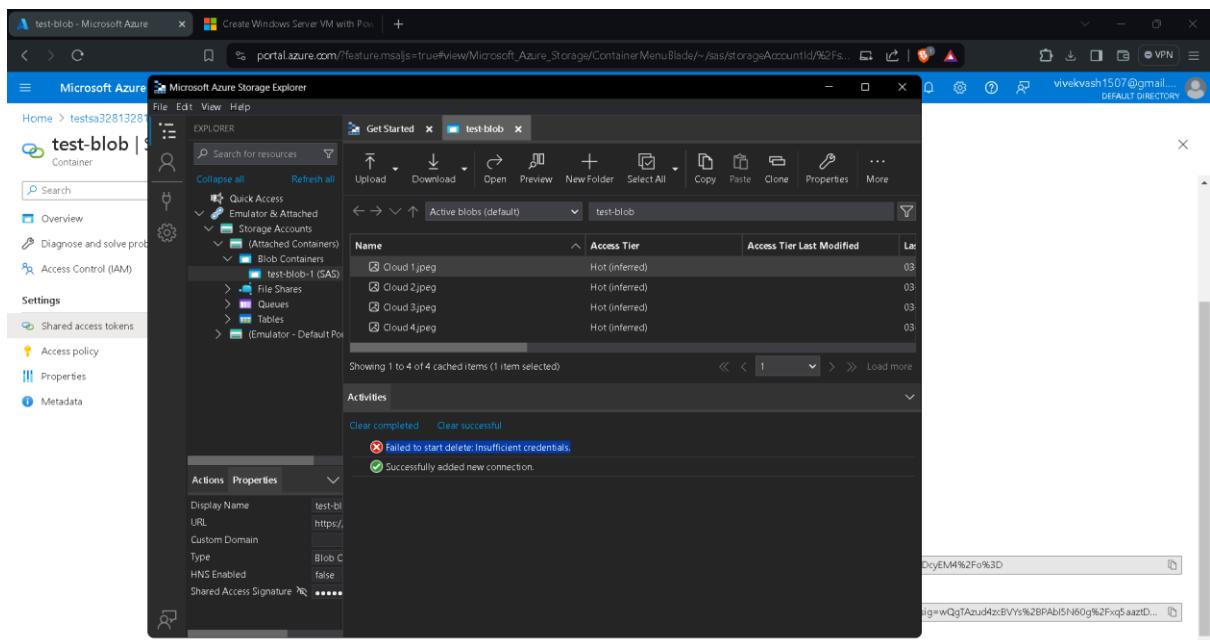
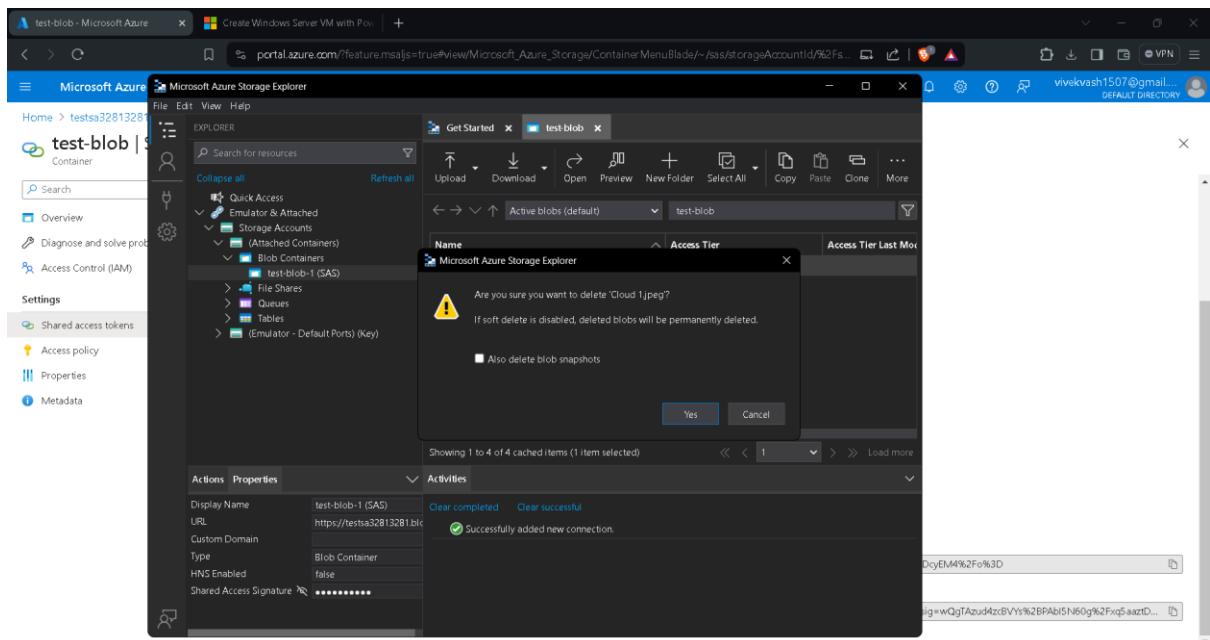
Resource type: Container

Permissions: Read, List

Make sure you only connect to resources you trust.

Back Connect Cancel





- Linux SAS configuration and connection

The screenshot shows the Azure portal interface for a virtual machine named LinuxVM1. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Connect, Network settings, Load balancing, Application security groups, Network manager, Disks, Extensions + applications, and Operating system. The main content area displays the 'Essentials' tab with detailed information about the VM, including its Resource group (TestSASLinux), Status (Running), Location (Canada Central), Subscription (Azure subscription 1), and Subscription ID (ee9ea131-d6f1-4e0b-baebe293615685ae). It also shows the Public IP address (52.233.41.7), Virtual network/subnet (LinuxVM1-vnet/default), and DNS name (Not configured). The 'Properties' tab is selected, showing the Virtual machine and Networking sections. The Virtual machine section lists Computer name (LinuxVM1), Operating system (Linux (Ubuntu 22.04)), VM generation (V2), VM architecture (x64), Agent status (Ready), Agent version (2.11.1.4), and Hibernation (Disabled). The Networking section lists Public IP address (52.233.41.7), Private IP address (IPv6 -), Private IP address (IPv4 10.0.0.4), Virtual network/subnet (LinuxVM1-vnet/default), and DNS name (Configure).

The screenshot shows the 'Add role assignment' dialog in the Azure portal. The top navigation bar includes 'Tutorial: Access Azure Storage using ...', 'Microsoft Azure', 'Upgrade', and a search bar. The main content area is titled 'Add role assignment' and shows the 'Review + assign' tab selected. The 'Role' section is set to 'Storage Account Contributor'. The 'Scope' section shows the resource group '/subscriptions/ee9ea131-d6f1-4e0b-baebe293615685ae/resourceGroups/TestSASLinux'. The 'Members' section lists a single member 'LinuxVM1' with Object ID '47fb01d-76e4-4cf4-a0b0-0a5f1373cd8a' and Type 'Virtual machine'. The 'Description' section has a note 'No description'. At the bottom, there are buttons for 'Review + assign' (highlighted in blue), 'Previous', 'Next', and 'Feedback'.

The screenshot shows the Azure portal interface for connecting to a virtual machine named 'LinuxVM1'. On the left, there's a sidebar with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Connect (selected), and Bastion. The main area displays the connection settings for 'Connecting using Public IP address | 52.233.41.7'. It includes fields for Admin username (vivekvashish), Port (changeable to 22), and Just-in-time policy (Unsupported by plan). Below this, two connection methods are listed: 'SSH using Azure CLI' (Recommended) and 'Native SSH' (Most common). Both methods show a 'Select' button. To the right, a modal window titled 'SSH using Azure CLI' provides instructions and prerequisites. It lists four items: 'Prerequisites configured' (System assigned managed identity, Microsoft Entra ID SSH Login Extension, Virtual machine user or administrator login, Port 22 access), 'Public IP address: 52.233.41.7' (a note about using a public IP for connection), and a 'Connect' button.

The screenshot shows a terminal session on the LinuxVM1 virtual machine. The terminal window displays several lines of text:
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.
vivekvashish@LinuxVM1:~\$

```

Expanded Security Maintenance for Applications is not enabled.

23 updates can be applied immediately.
15 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

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.

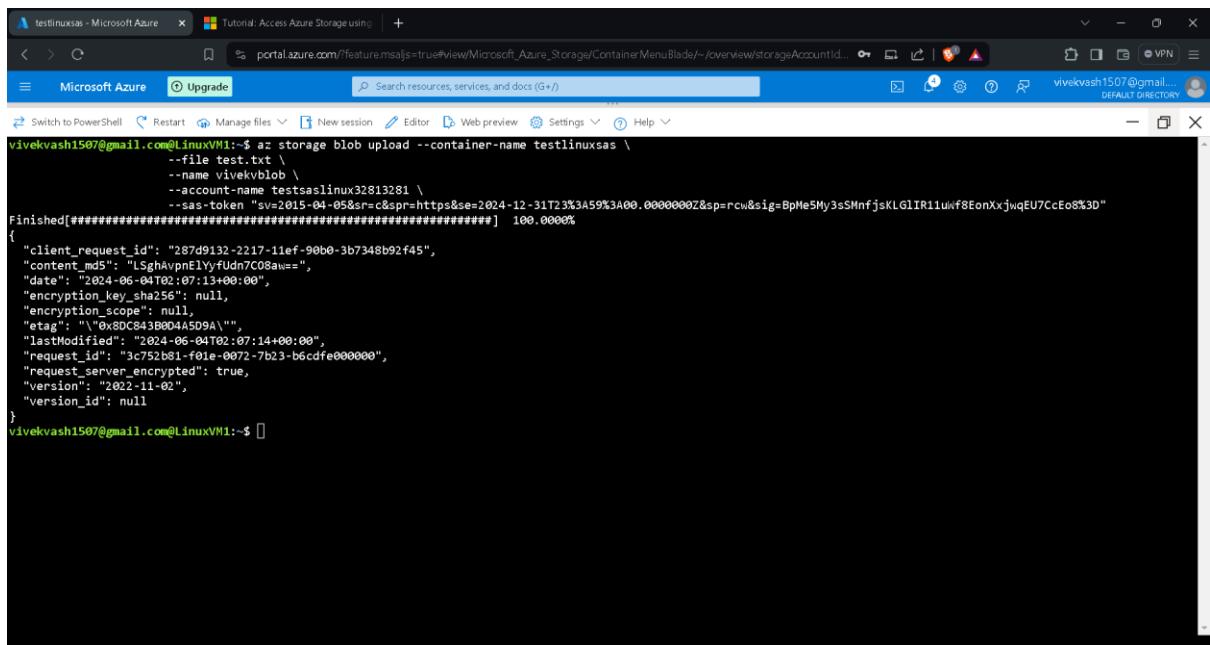
vivekvash1507@gmail.com@LinuxVM1:~$ curl 'http://169.254.169.254/metadata/identity/oauth2/token?api-version=2018-02-01&resource=https%3A%2F%2Fmanagement.azure.com%2F' -H 'Metadata:true'
{"access_token":"eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzIiIngidC16IkwwS2ZRk1fam5YndYzIyeFp4dzFzVUhIMCIImtpZC16IkwwS2ZRk1fam5YndYzIyeFp4dzFzVUhIMC39_eYJhdwQj0iJzdkRwczovL21hbmFnZWlbnQuYxplcmUv29tlytsimzcy161mndMbz01v3Rzldnpbmkv3HubmW0Lze3y2eZnJg3LTM0DmtDU0c85zT11TVKWWyHDmyM0y181lCjpyQ10jE3MTc0Nj1sNT1sIm5iz16MtCxNzQ2MjK1Mw1zxhwIJoxNzE3NTQ5ljUyLCjHawsB0i0jFMk5nUFpkzgwWmxjcjRa95x9TzHmcDt1WnBPS1smfG1kjoi2kDFjzDte0NkN0e0yJBkLFLKfzKmzTNT5Mj5NTQzZm1L1i1yYBwaiRNyIi0iTyIiwiawRwIjoiAhRoChM6Ly9zDHud2luZg93cyzuXQyHTqjHTy20DcttzQmW@00TEtVL1InjuthWQ1y1z1Wmz2DiyuytsimkdhHw1joi1yXBwIiwi21k1joi1DndmWnWQntzINC0C9y2Y0LwEwYjATME1zjeEzNzJ2DhHilwiwcm101iLkf1y0F0MmCRndNMEVfV2avjfj5uNT0Ulrk1mBdXxRkuHwUGF32moyTUJQ0EFBq54ilCjzIdi0i10Nz2ziyjaxzC03Nm0LTrjzjotyTB1MC0yTVmTMM3MwNGE1lCj0aQj0i1xNzNMNjY4Nw0zNDaLTLQUMTA0wU2Ns01zDvJvhjAySmJkMj1lC1dgk0i1Ccm9wCf0t0BVLUEW5Sk0DBhRkBF1i0idmWYj01s4wVt1ieGlzX21pcmk1joi13N1yNjcm1wdG1bvnWzU5zxEKmxEt2DzMS50zTBLL1JhZnUYY15M:YNTY4NwF1l3j1c291cmNz3JvdxBz1r1c3RTQVNMw51ce9wm924wkmnTv1jcmzbz20LkNvbx1dGuvdmlydWhbmlz0xpbnv4Vw0xIiwiEGlzX3RjzH0i0i1xNzE2MzQ20TEt01nfc_zCzRDwE2z4D9uesvYNGJ2sv9NKA78STBznlk1DsUdabjYoAG_6851dtQ_f747Ff0m0ist1odJPd01nxx15m7glz2atsmkaehf60T7B6HvIUrRzZ_hdjb1Gk8PE-eqjouQdQBuXH41txPKzJ0jf1zniYfcq0kbl_wdt62zvJnxBvErPdbjVkJzInJ6NcQ6-RyBz_v6ds_1PHgk10K70a_ABzT0tCmquqxf1N3oIV0zLw9n4ukUkxqGzA_rvKvPcg#H5_cE_v95MSAZESdjoBmGUGlq5jl_wgSP9g7VkgGLmBSPvsEra7eCuZTdehuYUhmQ","client_id":"3fd81cd1-9c7-4b0d-adfb-559239546fb5","expires_in":"86400","expires_on":"1717549652","extExpires_in":"86399","not_before":"1717462952","resource":"https://management.azure.com/","token_type": "Bearer"} 

```

```

vivekvash1507@gmail.com@LinuxVM1:~$ curl https://management.azure.com/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/TestSASLinux/providers/Microsoft.Storage/storageAccounts/testssaslinux32813281/listServiceSas?api-version=2017-06-01 -X POST -d "{\"canonicalizedResource\":\"/blob/testssaslinux32813281/testlinuxsa\", \"signedResource\":\"/c\", \"signedPermission\":\"r\", \"signedProtocol\":\"https\", \"signedExpiry\":\"2024-12-31T23:59:00Z\"} -H \"Authorization: Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzIiIngidC16IkwwS2ZRk1fam5YndYzIyeFp4dzFzVUhIMCIImtpZC16IkwwS2ZRk1fam5YndYzIyeFp4dzFzVUhIMC39_eYJhdwQj0iJzdkRwczovL21hbmFnZWlbnQuYxplcmUv29tlytsimzcy161mndMbz01v3Rzldnpbmkv3HubmW0Lze3y2eZnJg3LTM0DmtDU0c85zT11TVKWWyHDmyM0y181lCjpyQ10jE3MTc0Nj1sNT1sIm5iz16MtCxNzQ2MjK1Mw1zxhwIJoxNzE3NTQ5ljUyLCjHawsB0i0jFMk5nUFpkzgwWmxjcjRa95x9TzHmcDt1WnBPS1smfG1kjoi2kDFjzDte0NkN0e0yJBkLFLKfzKmzTNT5Mj5NTQzZm1L1i1yYBwaiRNyIi0iTyIiwiawRwIjoiAhRoChM6Ly9zDHud2luZg93cyzuXQyHTqjHTy20DcttzQmW@00TEtVL1InjuthWQ1y1z1Wmz2DiyuytsimkdhHw1joi1yXBwIiwi21k1joi1DndmWnWQntzINC0C9y2Y0LwEwYjATME1zjeEzNzJ2DhHilwiwcm101iLkf1y0F0MmCRndNMEVfV2avjfj5uNT0Ulrk1mBdXxRkuHwUGF32moyTUJQ0EFBq54ilCjzIdi0i10Nz2ziyjaxzC03Nm0LTrjzjotyTB1MC0yTVmTMM3MwNGE1lCj0aQj0i1xNzNMNjY4Nw0zNDaLTLQUMTA0wU2Ns01zDvJvhjAySmJkMj1lC1dgk0i1Ccm9wCf0t0BVLUEW5Sk0DBhRkBF1i0idmWYj01s4wVt1ieGlzX21pcmk1joi13N1yNjcm1wdG1bvnWzU5zxEKmxEt2DzMS50zTBLL1JhZnUYY15M:YNTY4NwF1l3j1c291cmNz3JvdxBz1r1c3RTQVNMw51ce9wm924wkmnTv1jcmzbz20LkNvbx1dGuvdmlydWhbmlz0xpbnv4Vw0xIiwiEGlzX3RjzH0i0i1xNzE2MzQ20TEt01nfc_zCzRDwE2z4D9uesvYNGJ2sv9NKA78STBznlk1DsUdabjYoAG_6851dtQ_f747Ff0m0ist1odJPd01nxx15m7glz2atsmkaehf60T7B6HvIUrRzZ_hdjb1Gk8PE-eqjouQdQBuXH41txPKzJ0jf1zniYfcq0kbl_wdt62zvJnxBvErPdbjVkJzInJ6NcQ6-RyBz_v6ds_1PHgk10K70a_ABzT0tCmquqxf1N3oIV0zLw9n4ukUkxqGzA_rvKvPcg#H5_cE_v95MSAZESdjoBmGUGlq5jl_wgSP9g7VkgGLmBSPvsEra7eCuZTdehuYUhmQ","client_id":"3fd81cd1-9c7-4b0d-adfb-559239546fb5","expires_in":"86400","expires_on":"1717549652","resource":"https://management.azure.com/","token_type": "Bearer"} 
vivekvash1507@gmail.com@LinuxVM1:~$ echo "This is a test file." > test.txt
vivekvash1507@gmail.com@LinuxVM1:~$ 

```



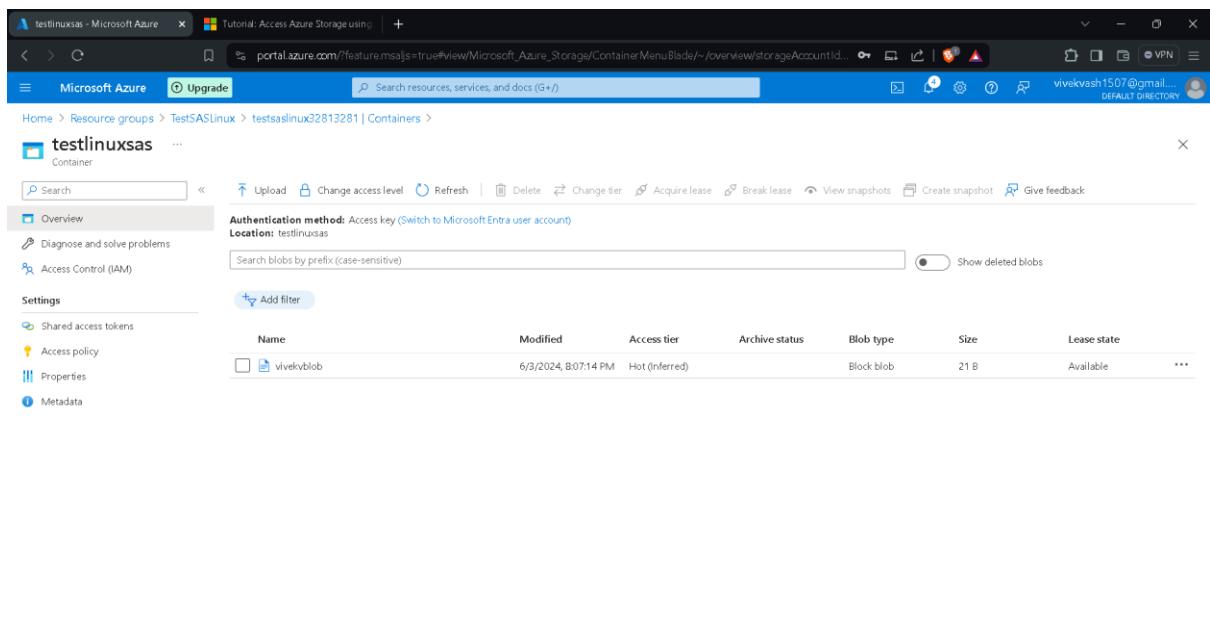
```
vivekvash1507@gmail.com@LinuxVM1:~$ az storage blob upload --container-name testlinuxas \
--file test.txt \
--name vivekvblob \
--account-name testsaaslinux32813281 \
--sas-token "sv=2015-04-05&sr=c&sp=https&se=2024-12-31T23%3A59%3A00.000000Z&sig=BpMe5My3sSMnfjsKLGIIR1luwf8EonXxjwqEU7CcEo8%3D"
Finished[########################################] 100.0000%
```

{

```
"client_request_id": "287d9132-2217-11ef-90b0-3b7348b92f45",
"content_md5": "L5ghAvpnIlyFudn7C08aw==",
"date": "2024-06-04T02:07:13+00:00",
"encryption_key_sha256": null,
"encryption_scope": null,
"etag": "'\\x8DC843B00445D9A\\''",
"lastModified": "2024-06-04T02:07:14+00:00",
"request_id": "3c752b81-f0fe-0072-7b23-b6cdfe000000",
"request_server_encrypted": true,
"version": "2022-11-02",
"version_id": null}
```

}

```
vivekvash1507@gmail.com@LinuxVM1:~$ []
```



Home > Resource groups > TestSASLinux > testsaaslinux32813281 | Containers

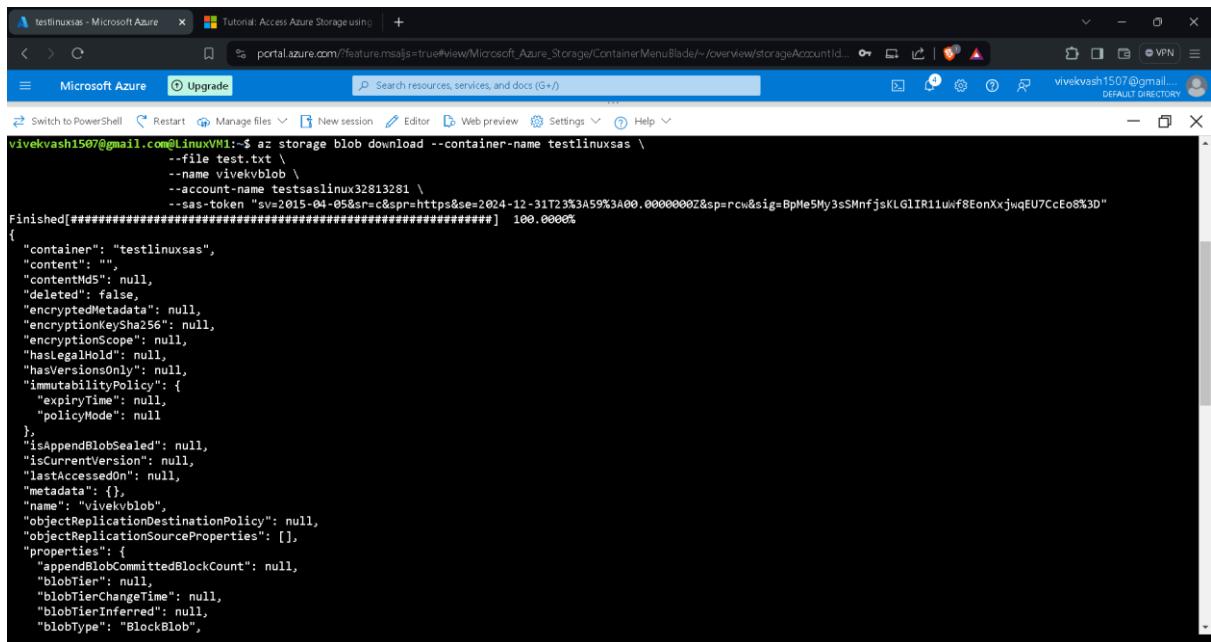
testlinuxas Container

Overview

Authentication method: Access key (Switch to Microsoft Entra user account)
Location: testlinuxas

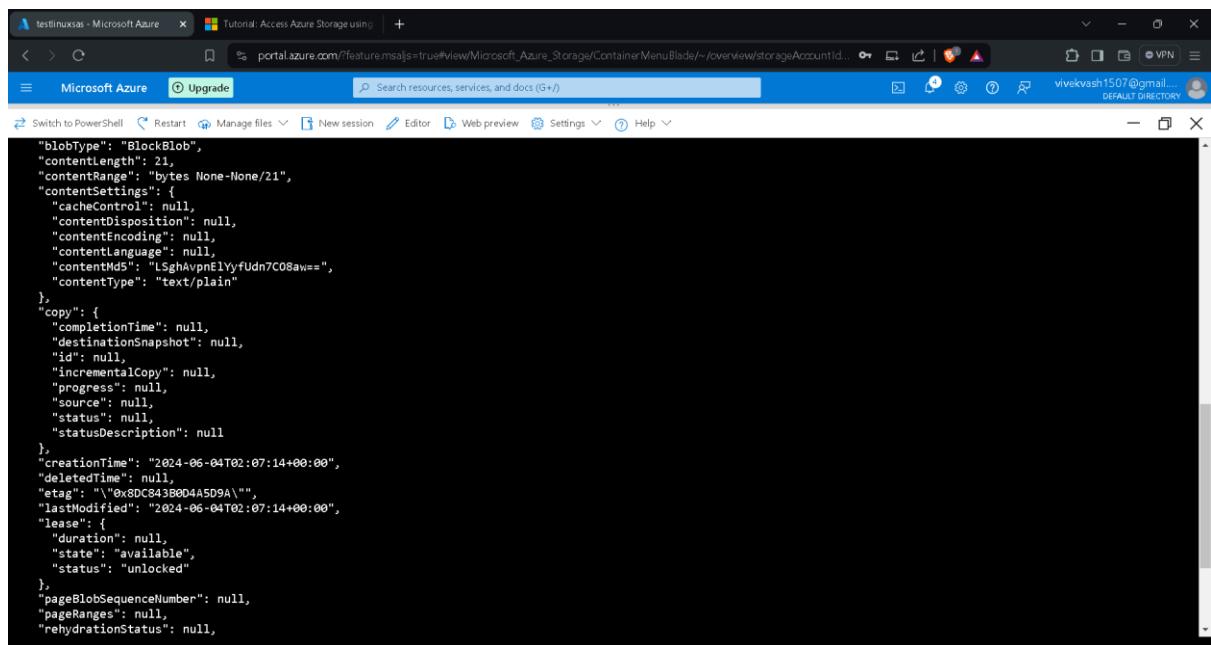
Search blobs by prefix (case-sensitive)

Name	Modified	Access tier	Archive status	Blob type	Size	Lease state
vivekvblob	6/3/2024, 8:07:14 PM	Hot (inferred)	Not yet archived	Block blob	21 B	Available



```
vivekvash1507@gmail.com@linuxVM1:~$ az storage blob download --container-name testlinuxas \
--file test.txt \
--name vivekblob \
--account-name testsaslinux32813281 \
--sas-token "sv=2015-04-05&sr=c&sp=https&se=2024-12-31T23%3A59%3A00.000000Z&sig=BpMe5My3sSMnfjsKLGlR1iuwf8EonXxjwqEU7CcEo8%3D"
Finished[########################################] 100.0000%
```

```
{
  "container": "testlinuxas",
  "content": "",
  "contentId5": null,
  "deleted": false,
  "encryptedMetadata": null,
  "encryptionKeySha256": null,
  "encryptionScope": null,
  "hasLegalHold": null,
  "hasVersionsOnly": null,
  "immutabilityPolicy": {
    "expiryTime": null,
    "policyMode": null
  },
  "isAppendBlobSealed": null,
  "isCurrentVersion": null,
  "lastAccessedOn": null,
  "metadata": {},
  "name": "vivekblob",
  "objectReplicationDestinationPolicy": null,
  "objectReplicationsSourceProperties": [],
  "properties": {
    "appendBlobCommittedBlockCount": null,
    "blobTier": null,
    "blobTierChangeTime": null,
    "blobTierInferred": null,
    "blobType": "BlockBlob",
  }
}
```



```
"blobType": "BlockBlob",
"contentLength": 21,
"contentRange": "bytes None-None/21",
"contentSettings": {
  "cacheControl": null,
  "contentDisposition": null,
  "contentEncoding": null,
  "contentLanguage": null,
  "contentMd5": "L5ghAvpnEllyfUdn7C08aw==",
  "contentType": "text/plain"
},
"copy": {
  "completionTime": null,
  "destinationSnapshot": null,
  "id": null,
  "incrementalCopy": null,
  "progress": null,
  "source": null,
  "status": null,
  "statusDescription": null
},
"creationTime": "2024-06-04T02:07:14+00:00",
"deletedTime": null,
"etag": "\"0x8DC843B8D4A5D9A\"",
"lastModified": "2024-06-04T02:07:14+00:00",
"lease": {
  "duration": null,
  "state": "available",
  "status": "unlocked"
},
"pageBlobSequenceNumber": null,
"pageRanges": null,
"rehydrationStatus": null,
```

```
"copy": {  
    "completionTime": null,  
    "destinationSnapshot": null,  
    "id": null,  
    "incrementalCopy": null,  
    "progress": null,  
    "source": null,  
    "status": null,  
    "statusDescription": null  
},  
"creationTime": "2024-06-04T02:07:14+00:00",  
"deletedTime": null,  
"etag": "'0x8DC843B8D04A5D9A'",  
"lastModified": "2024-06-04T02:07:14+00:00",  
"lease": {  
    "duration": null,  
    "state": "available",  
    "status": "unlocked"  
},  
"pageBlobSequenceNumber": null,  
"pageRanges": null,  
"rehydrationStatus": null,  
"remainingRetentionDays": null,  
"serverEncrypted": true  
},  
"rehydratePriority": null,  
"requestServerEncrypted": true,  
"snapshot": null,  
"tagCount": null,  
"tags": null,  
"versionId": null  
}  
vivekvash1507@gmail.com@LinuxVM1:~$ []
```

- Key in Key Vault

The screenshot shows the 'Create a key vault' wizard in the Azure portal. The current step is 'Review + create'. The 'Review + create' tab is selected, while 'Basics', 'Access configuration', 'Networking', and 'Tags' tabs are visible below it.

Basics

Setting	Value
Subscription	Azure subscription 1
Resource group	KeyVault-RG
Key vault name	KeyV32B1
Region	Canada Central
Pricing tier	Standard
Soft-delete	Enabled
Purge protection during retention period	Disabled
Days to retain deleted vaults	90 days

Access configuration

Setting	Value
Azure Virtual Machines for deployment	Enabled
Azure Resource Manager for template deployment	Enabled
Azure Disk Encryption for volume encryption	Enabled

At the bottom of the screen, there are 'Previous', 'Next', and 'Create' buttons, along with a 'Give feedback' link.

KeyV3281 - Microsoft Azure

Microsoft Azure | Overview

Your deployment is complete

Deployment name : KeyV3281

Subscription : Azure subscription 1

Resource group : KeyVault-RG

Start time : 6/3/2024, 8:20:58 PM

Correlation ID : 04489bab-f58b-488e-a1a8-a0f229199e90

Deployment succeeded

Deployment 'KeyV3281' to resource group 'KeyVault-RG' was successful.

Go to resource | Pin to dashboard

Overview | Inputs | Outputs | Template

Deployment details

Resource	Type	Status	Operation details
KeyV3281	Key vault	OK	Operation details

Next steps

Go to resource

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 >

Microsoft Defender for Cloud

Secure your apps and infrastructure

Go to Microsoft Defender for Cloud >

Free Microsoft tutorials

Start learning today >

Work with an expert

Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.

Find an Azure expert >

This screenshot shows the Azure Deployment blade for a completed deployment named 'KeyV3281'. It displays deployment details such as the start time, correlation ID, and resource group. A success message indicates the deployment was successful. The blade includes sections for 'Deployment details', 'Next steps', and links to various Azure services like Cost management, Microsoft Defender for Cloud, and Free Microsoft tutorials.

KeyV3281 - Microsoft Azure

Microsoft Azure | Key vaults | Keys

The key 'firstkeyvv' has been successfully created.

Generate/Import | Refresh | Restore Backup | Manage deleted keys

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Access policies

Events

Objects

Keys

Secrets

Certificates

Settings

Access configuration

Networking

Microsoft Defender for Cloud

Properties

Locks

Name	Status	Expiration date
firstkeyvv	Enabled	

This screenshot shows the Azure Key Vault blade for the 'KeyV3281' vault. It displays a confirmation message that a key named 'firstkeyvv' has been successfully created. The blade lists the key under the 'Keys' section, showing its status as 'Enabled'. The left sidebar provides navigation links for other vault settings like Access control, Tags, and Properties.

The screenshot shows the Microsoft Azure portal interface for managing keys in a vault. The URL in the address bar is `portal.azure.com/?feature.msa.js=true#@vivekvash1507@gmail.com/microsoft.com/asset/Microsoft_Azure_KeyVault/Key..`. The page title is "7e261083611f4c9286297018d8e309fb - Key Version". The main content area displays the properties of a key named "firstkeyvv". The key type is RSA, with a key size of 2048. It was created and updated on 6/3/2024 at 8:31:25 PM. The key identifier is a URL: `https://key3281.vault.azure.net/keys/firstkeyvv/7e261083611f4c92862...`. Under "Settings", there are options to set activation and expiration dates, both of which are currently disabled. The key is enabled. There are no tags assigned. Under "Permitted operations", both "Encrypt" and "Decrypt" are checked. A "Save" button is visible at the bottom left.

This screenshot shows a "Save As" dialog box overlaid on the Azure Key Vault page. The dialog box has a dark theme. The "File name:" field contains "key3281-firstkeyvv-20240604" and the "Save as type:" dropdown is set to "PEM File". The background of the dialog shows the "Properties" section of the key, which includes fields like "Key type" (RSA), "RSA key size" (2048), and "Permitted operations" (Encrypt, Decrypt). The "Save" and "Cancel" buttons are at the bottom right of the dialog.

